A COMPANION TO ANCIENT EGYPT

VOLUME I

Edited by

Alan B. Lloyd

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Ben Haring studied Egyptology in Leiden and Heidelberg. Since 1996 he has been a Lecturer in Egyptology at Leiden University, teaching Egyptian language and history courses. Two postdoctoral fellowships from the Netherlands Organization for Scientific Research (NWO) held between 1997 and 2004 were devoted to research on the non-literary texts from the Ramesside community of necropolis workmen in Western Thebes, resulting in *The Deir el-Medina Database*. Topics of current research include the ostraca and papyri from Deir el-Medina and related sites, administration and economy, orality and literacy, non-textual marking systems, and hieroglyphic palaeography.

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Harco Willems studied Egyptology at Leiden University and graduated with the publication of a Middle Kingdom coffin at Groningen University. He is currently full professor in Egyptology at Leuven University. He has participated in archaeological work in the Dakhla Oasis, has directed the mission to the Roman temple of Shanhur, and is currently responsible for the Belgian Mission to Deir el-Bersha and Sheikh Saïd.

Penelope Wilson studied Egyptology at Liverpool University, and her PhD was devoted to a study of the Ptolemaic Texts in Edfu Temple (Wilson, 1997). She has worked in the Department of Antiquities in the Fitzwilliam Museum, Cambridge, and is now Lecturer in Egyptian Archaeology at Durham University. She has excavated in Egypt for some twenty-five years at sites including the Temple of Abydos and Zawiyet Umm el-Rakham and is currently Field Director of the Egypt Exploration Society/Durham University Mission at Sais (Sa el-Hagar).

Preface

The current *Companion to Ancient Egypt* is designed to fit into Blackwell's highly successful Companion series, several volumes of which have already appeared. However, since the time-scale of Egyptian civilization is so long, it has been decided that it would be appropriate for this publication to appear in two volumes rather than the standard one so that full scope can be given for the discussion of a civilization whose development lasted well over three and a half millennia and was certainly one of the most successful that the world has ever seen.

The purpose of the *Companion* is to provide up-to-date, readable, and, where apposite, well-illustrated accounts of the major aspects of Egypt's ancient history and culture as currently perceived. Since chapters are relatively long, it does not duplicate such compendia as the *Oxford Encyclopedia* but is intended to function as the next port-of-call. The coverage is also much broader than that of survey volumes like the *Oxford History of Ancient Egypt*. The target readership is academics, students, and the sophisticated amateur. For all these constituencies the chapters will provide as full a coverage of major topics as can be accommodated in the space permitted, but the level at which the chapters have been pitched is such that even professional Egyptologists will be able to find many chapters of value in areas where they do not have a major expertise.

In addition to meeting the agenda just described I have tried a little more – and something unusual. It is often a matter of comment that Egyptologists and students of Graeco-Roman Egypt do not talk to each other, despite the obvious fact that each has clearly much to learn from the other. I decided, therefore, that, wherever possible, coverage of particular topics should consist of linked Pharaonic and Graeco-Roman chapters which would certainly recognize differences but would also emphasize the continuities of Pharaonic Egyptian civilization and its extraordinary capacity to evolve and respond effectively to the many different stimuli and challenges with which it was confronted in its millennial historical career. This strategy, it is hoped, will provide valuable perspectives and data both to Egyptologists and Graeco-Roman specialists in their efforts to come to terms with historical phenomena within their specialist subject areas and encourage a closer synergy between the two constituencies. This

inevitably means that there is, at times, an element of repetition, but I have not edited this out on the basis that each chapter should, as far as possible, be a self-contained entity. In the same inclusive spirit it seemed highly apposite, particularly in the light of current foci of research, to investigate the reception of this enormously varied culture not only within European contexts, ancient and modern, but also in the Islamic world in all of which very different cultures have responded to their vision of Ancient Egypt and processed it for their own distinctive purposes. The final part of the book has, therefore, been devoted to chapters by specialists in this field.

Whilst it must be conceded that all aspects of cultures interpenetrate each other in complex ways in order to serve the needs of their adherents, it is essential for the purposes of exposition to break down their activities into categories such as physical context, history, economic and social mechanisms, language, literature, and the visual arts. This I have done, and, generally speaking, such analytical categories have proved relatively unproblematic. Though many might find the fact surprising, the biggest problem has been presented by the historically orientated chapters. In this context authors have been encouraged not to provide bare reign-by-reign accounts of a string of dynasties or Hellenistic and Roman rulers but have been asked to try to present answers to the simple question: "What do I want people to know about this period of history?" This means that they have been encouraged to lay more emphasis on thematic issues than deliver plain narratives. Given the inadequacy of the evidence for many periods of Egyptian history this is often, in any case, the most effective approach, but such a process brings with it an orientation problem for those who are not familiar with Egyptian history, and I have, therefore, provided at the beginning of the first volume a chronological table fleshed out with some historical comment so that readers can locate each historical chapter in its overall context. However, the production of any chronological table for Egypt is fraught with peril since the evidence for allocating absolute dates to many periods is problematic. The reader should, therefore, treat the table as a framework only and should not be in the least disturbed if alternative dates appear either in the text of the *Companion* or in other publications. I have made no attempt to create consistency on this matter since consistency would not reflect the differing scholarly views, sometimes fiercely held, which characterize this area of Egyptian studies.

The inadequacies of our database present us with yet another problem. In all forms of historical enquiry differences of perception and opinion abound, and no definitive view can be presented, but, in the case of a culture as distant as that of Pharaonic Egypt, the problems can be acute. In addition, the unequal temporal distribution of material creates major problems, and difficulties in determining the precise meaning and significance of data are recurrent. All this means that differences of opinion abound, and I have made no attempt to conceal that fact by airbrushing such differences out of the picture to create a specious sense of consensus where I know perfectly well none exists or can exist. It is important for the reader to be aware that scholarly opinion is divided on many issues, frequently issues of great importance, and, if two or even three different interpretations appear in this *Companion*, I have left them that way; it is the nature of the beast!

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Professor Alan B. Lloyd
Swansea
26 May 2009

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Acknowledgments

Abbreviations

Abbreviations for papyrological material are too numerous to be listed here. An excellent key entitled ''Checklist of Editions of Greek, Latin, Demotic and Coptic papyri, ostraca and tablets,'' which is regularly updated, can be conveniently accessed via the website of the American Society of Papyrologists: http://scriptorium.lib.duke.edu/papyrus/texts/clist.html.

ÄA	*Ägyptologische Abhandlungen*
AAASH	*Acta Archaeologica Academiae Scientiarum Hungaricae*
ÄAT	Ägypten und altes Testament
ACE	Australian Centre for Egyptology
AcOr	*Acta Orientalia*
Acta AArtHist	Acta ad archaeologiam et artium historiam pertinentia
ADAIK	Abhandlungen des Deutschen Archäologischen Instituts. Abteilung Kairo
AE	*L'Année épigrahique*
Aeg Leod	Aegyptiaca Leodiensia
ÄF	*Ägyptologische Forschungen*
AH	Aegyptiaca Helvetica
AIA	Archaeological Institute of America
AIPMA	Association international pour la peinture murale antique
AJA	*American Journal of Archaeology*
AJSL	*American Journal of Semitic Languages and Literatures*

Ä&L	*Ägypten und Levante*
AM	Ashmolean Museum (Oxford)
ÄM	Ägyptisches Museum (Berlin)
Ann.	*Annales* (Tacitus)
ANRW	Augstieg und Niedergang der römischen Welt
ANSE	Associazione Napolitana di Studi Egittologici
Ant.	*Antonius* (Plutarch)
AOF	Altorientalische Forschungen
AOS	American Oriental Series
APAW	Abhandlungen der Preussischen Akademie der Wissenschaften
APF	Archiv für Papyrusforschung und verwandte Gebiete
ARCE	American Research Center in Egypt
ARG	*Archiv für Religionsgeschichte*
ASAE	*Annales du Service des antiquités de l'Égypte*
ASE	Archaeological Survey of Egypt
ASP	American Studies in Papyrology
AV	Archäologische Veröffenlichungen des Deutschen Archäologischen Instituts, Abteilung Kairo
BACE	*Bulletin of the Australian Centre for Egyptology*
BAe	Bibliotheca Aegyptiaca
BAR	British Archaeological Reports
BASOR	*Bulletin of the American Schools of Oriental Research*
BASP	*Bulletin of the American Society of Papyrologists*
BCH	*Bulletin de correspondance hellénique*
BdE	*Bibliothèque d'études, Institut français d'archéologie orientale, Kairo*
BEHE	Bibliothèque de l'École pratique des hautes études (Paris)
Bell.Civ.	*Bella Civilia* (Appian)
Berl.Inschr.	*Aegyptische Inschriften aus den Königlichen Museen zu Berlin*. Hrsg. Von der Generalverwaltung. 2 vols. Leipzig 1913–24.
BHAC	Bonner Historia-Augusta Colloquium

BIE	*Bulletin de l'Institut d'Égypte*
BIFAO	*Bulletin de l'Institut français d'archéologie orientale*
BiOr	*Bibliotheca Orientalis*
BJ	*Bellum Judaicum* (Josephus)
BM	British Museum
BMMA	*Bulletin of the Metropolitan Museum of Art*
BMRAH	*Bulletin des Musées royaux d'art et d'histoire* (Brussels)
BSAC	*Bulletin de la Société d'archéologie copte*
BSAE	British School of Archaeology in Egypt
BSAK	Studien zur altägyptischen Kultur. Beihefte
BSEG	*Bulletin de la Société d'égyptologie de Genève*
BSFE	*Bulletin de l'Institut français d'égyptologie*
CAA	Corpus Antiquitatum Aegyptiacarum
CAJ	*Cambridge Archaeological Journal*
C.Ap.	*Contra Apionem* (Josephus)
CCE	*Cahiers de la céramique égyptienne*
CCGG	*Cahiers du Centre G.Glotz*
CdE	*Chronique d'Égypte*
CG	Catalogue générale des antiquités égyptiennes du Musée du Caire
CIL	*Corpus Inscriptionum Latinarum*. Belin. 1863–
CNI	Carsten Niebuhr Instituttet
CNRS	Centre national de la recherche scientifique
CNWS	Centre of Non-Western Studies
CQ	*Classical Quarterly*
CRAIBL	*Comptes rendus de l'Académie des inscriptions et belles-lettres*
CRIPEL	*Cahiers de Recherches de l'Institut de papyrologie et d'égyptologie de Lille*
DE	*Discussion in Egyptology*
De Alex. Fort.	*De fortuna Alexandri* (Plutarch)

DFIFAO	Documents de fouilles de l'Institut français de archéologie orientale du Caire
Dieg.	*Diegeseis* (M. Norsa and G. Vitelli. Διηγήσεις *di poemi di Callimaco in uno papiro di Tebtunis.* Florence. 1934)
DOP	Dakhleh Oasis Project
EA	Egyptian Antiquities (British Museum)
EA	*Egyptian Archaeology*
EEF	Egypt Exploration Fund
EES	Egypt Exploration Society
Ep.	*Epistulae* (Pliny)
EPM	Egyptian Prehistory Monographs
EPRO	Études préliminaries aux religions orientales dans l'empire romain
ERA	Egyptian Research Account
ET	*Études et Travaux* (Warsaw)
EVO	*Egitto e Vicino Oriente*
FIFAO	Fouilles de l'Institut français d'archéologie orientale
Flacc.	*In Flaccum* (Philo Judaeus)
GGH	*Göttingische Gelehrte Anzeigen*
GHP	Golden House Publications (London)
GIS	Geographic Information System
GM	*Göttinger Miszellen*
GOF	Göttinger Orientforschungen
GRM	Graeco-Roman Museum (Alexandria)
HA	*Historia Animalium* (Aristotle)
HÄB	Hildesheimer Ägyptologische Beiträge
HdO	Handbuch der Orientalistik
Hist.	*Historiae* (Tacitus)
Hist.Eccl.	*Historia Ecclesiastiaca* (Eusebius)
Hist.Eccl.	*Historia Ecclesiastiaca* (Socrates)
I.Akoris	*Inscriptions grecques et latines d'Akoris.* E. Bernand. Cairo. C.1988.

I.Fay.	*Recueil des inscriptions grecques du Fayoum.* E. Bernand. Leiden. 1975–81.
I.Métriques	*Inscriptions métriques de l'Égypte gréco-romaine.* E. Bernand. Paris. 1969.
I.Philae	*Les Inscriptions grecques et latines de Philae.* E. and A. Bernand. Paris. 1969
I.Portes	*Les Portes du desert.* A. Bernand. Besançon. 1984
I. Thèbes Syène	*De Thèbes à Syène.* A Bernand. Paris. 1989.
Id.	*Idylls* (Theokritos)
IFAO	Institut français d'archéologie orientale
Il.	*Iliad*
ILS	*Inscriptiones Latinae Selectae.* H.Dessau. Berlin. 1892–1916
Isthm.	*Isthmian Odes* (Pindar)
JAOS	*Journal of the American Oriental Society*
JARCE	*Journal of the American Research Center in Egypt*
JDAI	*Jahrbuch des Deutschen Archäologischen Instituts* (Berlin)
JE	Journal d'entrée (du Musée du Caire)
JEA	*Journal of Egyptian Archaeology*
JEH	*Journal of Egyptian History*
JEOL	*Jaarbericht van het Vooraziatisch-egyptisch Genootschap Ex Oriente Lux*
JESHO	*Journal of the Economic and Social History of the Orient*
JHS	*Journal of Hellenic Studies*
JJP	*Journal of Juristic Papyrology*
JNES	*Journal of Near Eastern Studies*
Joann.Antioch.	Joannes Antiochus
JRA	*Journal of Roman Archaeology*
JRS	*Journal of Roman Studies*
JSSEA	*Journal of the Society for the Study of Egyptian Antiquities*
KÄT	Kleine Ägyptische Texte
KMT	*KMT: A Modern Journal of Ancient Egypt*

KRI	K.A. Kitchen, *Ramesside Inscriptions*. 8 vols. Oxford. 1975–90.
KV	Kings' Valley
LÄ	*Lexikon der Ägyptologie*. W. Helck, E. Otto, and W. Westendorf (eds.). 7 vols. Wiesbaden, 1972–92.
LCL	Loeb Classical Library
LingAeg	*Lingua Aegyptia*
MÄ	Ägyptisches Museum (Leipzig)
MÄS	Münchner ägyptologische Studien
MDAIK	*Mitteilungen des Deutschen Archäologischen Instituts Kairo*
MDOG	*Mitteilungen der Deutschen Orient-Gesellschaft*
MFA	Museum of Fine Arts (Boston)
MIFAO	*Mémoires publiés par les members de l'Institut français d'archéologie orientale*
MittSAG	*Mitteilungen der Sudanarchäologischen Gesellschaft*
MMA	Metropolitan Museum of Arts
MMJ	*Metropolitan Museum Journal*
MRE	Monographies Reines Elisabeth
MVEOL	*Mededelingen en Verhandelingen Ex Oriente Lux*
ND + Or.	*Notitia Dignitatum (Orientis)*
Nem.	*Nemean Odes* (Pindar)
NH	*Naturalis Historia* (Pliny)
ÖAW	Österreichische Akademie der Wissenschaften
OBO	*Orbis Biblicus et Orientalis*
Od.	*Odyssey*
OGIS	*Orientis Graecae Inscriptiones Selectae*
Ol.	*Olympian Odes* (Pindar)
OLA	Orientalia Lovaniensia Analecta
OLP	Orientalia Lovaniensia Periodica
OLZ	*Orientalistische Literaturzeitung*
OMRO	*Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheiden*

Or	*Orientalia*
P.Sall.	Papyrus Sallier
PÄ	Probleme der Ägyptologie
PAM	*Polish Archaeology in the Mediterranean*
PBA	Proceedings of the British Academy
PBSR	*Papers of the British School at Rome*
PEG	*Poetarum Epicorum Graecorum Testimonia et Fragmenta.* A. Bernabé. Stuttgart. 1996–2007
Praef.	*Praefatio* (Vitruvius)
PTA	Papyrologische Texte und Abhandlungen
PWRE	*Real-Encyclopädie der classischen Altertumswissenschaft* (A.F. Pauly and G. Wissowa (eds.))
Pyth.	*Pythian Odes* (Pindar)
QV	Queens' Valley
RA	*Revue d'assyriologie et d'archéologie orientale*
RAPH	Recherches d'archéologie, de philology et d'histoire (IFAO)
RdE	*Revue d'Égyptologie*
RMD	*Roman Military Diplomas*. M. Roxan (with P. Holder). 4 vols. 1954–2003
RPM	Roemer- und Pelizaeus-Museum (Hildesheim)
RSM	Royal Scottish Museum
RSO	*Rivista degli studi orientali*
SAGA	Studien zur Archäologie und Geschichte Altägyptens
SAK	*Studien zur altägyptischen Kultur*
SAOC	Studies in Ancient Oriental Civilisation
SBL	Society of Biblical Literature
SCA	Supreme Council of Antiquities
SDAIK	*Sonderschriften des Deutschen Archäologischen Instituts Kairo*
SHA + M.Ant. + Avid.Cass.	*Scriptores Historiae Augustae* (Marcus Aurelius Antoninus [Caracalla], Avidius Cassius)
SSEA	*The Society for the Study of Egyptian Antiquities*

SSEAP	The Society for the Study of Egyptian Antiquities Publications
StMisc	*Studi Miscellanei*
Stud.Hell.	Studia Hellenistica
Stud.Pal.	Studien zur Palaeographie und Papyruskunde
Suppl.Hell.	*Supplementum Hellenisticum.* H. Lloyd-Jones and P. Parsons (eds). Berlin and New York. 1983.
TMP	Theban Mapping Project
TT	Theban Tomb
TUAT	Texte aus der Umwelt des Alten Testaments
UC	University College (London, The Petrie Museum of Egyptian Archaeology)
UGAÄ	Untersuchungen zur Geschichte und Altertumskunde Ägyptens
Urk.	*Urkunden des ägyptischen Altertums.* 2nd edn. Ed. G. Steindorff. Leipzig. 1927-.
VA	*Varia Aegyptiaca*
Vit.	*Vita* (Josephus)
VT	*Vetus Testamentum*
WdO	*Welt des Orients*
WSA	Wahrnehmungen und Spuren Altägyptens
WVDOG	*Wissenschaftliche Veröffentlichungen der Deutschen Orientgesellschaft*
ZÄS	*Zeitschrift für ägyptische Sprache und Altertumskunde*
ZAW	*Zeitschrift für die Alttestamenliche Wissenschaft*
ZDMG	*Zeitschrift der Deutschen Morgenländischen Gesellschaft*
ZPE	*Zeitschrift für Papyrologie und Epigraphik*

Chronology

The following chronological table is intended to provide a means of orientation for the non-expert, and no attempt has been made to create an illusion of certainty where none exists. No dates should be treated as exact before 664 BC because the means to establish such precision are not available. As a result, Egyptologists have long preferred to date Egyptian history using a system of dynasties which has been preserved to us in the remains of the *Aigyptiaka*, (*Egyptian History*) produced by the Egyptian priest Manetho in the third century BC. He divided Egypt's past into thirty dynasties which were regarded as following each other in a lineal sequence, and a thirty-first dynasty was subsequently added by another hand. This system has many faults, but its convenience has guaranteed its survival and its universal use in modern scholarship. Therefore, it features prominently in all Egyptological literature, including the current volumes, and it is the basis of the chronological scheme presented here. In modern literature these dynasties have been combined into larger periods mainly based on perceptions of changes in political structure. The three major periods of centralized control under one king are known in the English-speaking world as Kingdoms, and these alternate with three Intermediate periods where political control was decentralized, and several independent polities existed in the country, though such fragmentation should not be equated with weak local administration or radical cultural decline. After the Third Intermediate Period subdivisions are based either on pure chronological location (Late period) or on the ethnic origins of foreign rulers (Persian period).

The dates provided in this table for the period before 664 should be treated as tentative only, and for all periods two dates are given to reinforce the point (G = Grimal, 1992, and S = Shaw 2000), though, if any reader were to consult other discussions of Egyptian history, further differences would certainly emerge. They represent the generally current view of where the dates ought approximately to lie, though it will emerge that the views of some authors of chapters in these volumes differ significantly. Where such divergences exist and form an organic part of an author's argument, I have not edited them out because they reflect expert views on the subject which may yet prove correct. In the case of individual rulers of the

Pharaonic period I have usually added Shaw's dates for the reader's convenience with the exception of the Early Dynastic period for which I regard the data as being too defective to justify such insertions.

The Early Dynastic/Thinite/Archaic Period

(G.3150–2700; S. c.3000–2686 BC)

In this period the basic principles of Egyptian historical development, government, and artistic expression were consolidated on the basis of achievements of the late Pre-Dynastic period.

First Dynasty   G.c.3150–2926; S.3000–2890
Aha
Djer
Djet
Den
Merneith (Queen)
Anedjib
Qaa

Second Dynasty   G.c.2925–2700; S.2890–2686
Hotepsekhemwy
Raneb
Nynetjer
Weneg
Senedj
Peribsen
Khasekhem/Khasekhemwy

The Old Kingdom

(G.2700–2190; S. c.2686–2125 BC)

The first full flowering of classic Egyptian civilization. The consolidation of the concept of divine kingship and the concentration of wealth and power which came with it made possible spectacular developments in art and architecture typified by the pyramid complexes in major sites such as Saqqara, Meidum, Dahshur, and Giza. The Egyptians were also active abroad in Libya, Asia, and Nubia, sometimes for peaceful purposes, but military expeditions also took place.

Third Dynasty   G.2700–2625; S.c.2686–2125
Nebka   c.2686–2667
Djoser   c.2667–2648

Sekhemkhet	c.2648–2640
Khaba	c.2640–2637
Neferkare?	?
Sanakht?	?
Huni	c.2637–2613

Fourth Dynasty	G.2625–2510; S.c.2613–2494
Snefru	c.2613–2589
Khufu (Cheops)	c.2589–2566
Djedefre/Redjedef	c.2566–2558
Khafre (Chephren)	c.2558–2532
Menkaure (Mykerinos)	c.2532–2503
Shepseskaf	c.2503–2498

Fifth Dynasty	G.2510–2460; S.c.2494–2345
Userkaf	c.2494–2487
Sahure	c.2487–2475
Neferirkare Kakai	c.2475–2455
Shepseskare	c.2455–2448
Neferefre (Reneferef)	c.2448–2445
Niuserre	c.2445–2421
Menkauhor	c.2421–2414
Djedkare Isesi	c.2414–2375
Unis	c.2375–2345

Sixth Dynasty	G.2460–2200; S.2345–2181
Teti	c.2345–2323
Userkare	?
Pepi I	c.2321–2287
Mernere	c.2287–2278
Pepi II	c.2278–2184 (traditional reign length but certainly too high)
Merenre II	c.2184

Queen Neithaqrit (Gk. Nitokris), inserted here in older literature, is now regarded as the product of an ancient error.

The First Intermediate Period

(G. 2200–2040; S. 2160–2055 BC)

A period of disintegrating central authority followed by the establishment of two major power-blocks: the Herakleopolitan Kingdom in the north (the Ninth and Tenth Dynasties, in reality only one and erroneously duplicated by Manetho) and the Theban (Eleventh Dynasty) to the south with the border roughly in the Abydos

area. The period ends with the unification of the country under Mentuhotep II in the middle of the Eleventh Dynasty.

The Middle Kingdom

(G. 2040–1674; S. 2055–1650 BC)

One of the greatest periods in Egyptian history which became the classic age in terms of language and literature. Provincial governors were important figures for much of the period and created major local cemeteries at sites such as el-Bersha and Beni Hasan. Nubia was conquered completely as far as the Second Cataract and incorporated into the Egyptian state. There was much activity in Asia, some of it aggressive, but no permanent imperial presence was established there.

Eleventh Dynasty	G.2040–1991; S.2055–1985
Mentuhotep II	c.2055–2004
Mentuhotep III	c.2004–1992
Mentuhotep IV	c.1992–1985
Twelfth Dynasty	G.1991–1785; S.1985–1773
Amenemhet I	c.1985–1956
Senwosret I	c.1956–1911
Amenemhet II	c.1911–1877
Senwosret II	c.1877–1870
Senwosret III	c.1870–1831
Amenemhet III	c.1831–1786
Amenemhet IV	c.1786–1777
Sobeknofru (Queen)	c.1777–1773

Thirteenth Dynasty   G.1785–1633; S.1773-after 1650

This dynasty is now normally included in the Middle Kingdom on grounds of political and cultural continuity with the Twelfth Dynasty, but it is characterized by progressive administrative weakness and a paucity of historical evidence.

The Second Intermediate Period

(G.1674–1553; S. 1650–1550 BC)

A period of administrative fragmentation consisting of the minor Fourteenth Dynasty based at Chois in the Delta, the Fifteenth (Hyksos) Dynasty which eventually achieved control of the whole of Egypt as far as Cusae, and the Sixteenth/Seventeenth Dynasties based on Thebes in the southernmost part of the country. Despite later Egyptian derogatory comments, the Asiatic Hyksos hegemony was one of the

most productive events in Egyptian history, in particular providing the Egyptians with the psychological impetus and military expertise to create an Asiatic empire and also opening up Egypt as never before to cultural and technological innovations from the north-east.

The New Kingdom

(G.1552–1069; S.1550–1069 BC)

Arguably the greatest period in Egyptian history. It began with the expulsion of the Hyksos from Egypt by Ahmose I and the destruction of their residual power base in southern Palestine. This inaugurated a period of unparalleled wealth, military success, and splendor which saw the Egyptian Empire at its greatest extent stretching from the Euphrates in Asia to beyond the Fourth Cataract in Nubia. The resources accruing made possible a massive programme of temple building throughout the country with particular attention to the great centre of Thebes where Karnak and Luxor were developed on the East Bank and the great mortuary complexes on the West Bank including the Ramesseum and Medinet Habu. Large and splendid royal tombs were built in the Valley of the Kings and the Valley of the Queens as well as elaborate and beautifully decorated tombs for the elite in the western mountain. The apogee was reached in the reign of Amenhotep III after which there was a gradual but slowly accelerating recession caused by pressures in Asia from the Hittites and the Sea Peoples, the loss of Nubia and its economic resources, dynastic instability, and the rise of the political power of the Theban priesthood which was able to establish Thebes as a *de facto* priestly fiefdom largely independent of the royal authority based in the north.

Eighteenth Dynasty	G.1552–1295; S.1550–1295
	Where reign overlaps occur, they arise from coregencies.
Ahmose I	c.1550–1525
Amenhotep I	c.1525–1504
Thutmose I	c.1504–1492
Thutmose II	c.1492–1479
Thutmose III	c.1479–1425
Hatshepsut (Queen)	c.1473–1458
Amenhotep II	c.1427–1400
Thutmose IV	c.1400–1390
Amenhotep III	c.1390–1352
Akhenaten	
(Amenhotep IV)	c.1352–1336
Neferneferuaten	
(Nefertiti) (?)	Short reign of unknown duration
Smenkhkare (?)	Short reign of unknown duration
Tutankhaten/	
Tutankhamun	c.1336–1327
Ay	c.1327–1323

Horemheb (also Horonemheb)	c.1323–1295
Nineteenth Dynasty	G.1295–1188; 1295–1186
Ramesses I	c.1295–1294
Sety I	c.1294–1279
Ramesses II	c.1279–1213
Merneptah	c.1213–1203
Amenmesse	c.1203–1200
Sety II	c.1200–1194
Siptah	c.1194–1188
Twosret (Queen)	c.1188–1186
Twentieth Dynasty	G.1188–1069; S.1186–1069
Sethnakht	c.1186–1184
Ramesses III	c.1184–1153
Ramesses IV	c.1153–1147
Ramesses V	c.1147–1143
Ramesses VI	c.1143–1136
Ramesses VII	c.1136–1129
Ramesses VIII	c.1129–1126
Ramesses IX	c.1126–1108
Ramesses X	c.1108–1099
Ramesses XI	c.1099–1069

The Third Intermediate Period

(G. 1069–702; S. 1069–664 BC)

This period, covered by the Manethonian Twenty-first to Twenty-fifth Dynasties, is marked by the dissolution of the country into separate and shifting power blocks generated by the rise of the Theban priesthood as the *de facto* rulers of Upper Egypt and the appearance of Libyan dynasts who assumed to a greater or lesser degree the traditional trappings of Egyptian kingship. Though the Libyan period started on a high note with Shoshenq I (Biblical Shishak) attempting to resuscitate ancient glories in Asia, the kingdom gradually dissolved into a veritable mosaic of Libyan-dominated fiefdoms in the central and northern parts of the country. Towards the end of the period the Nubian Twenty-fifth Dynasty (747–664 BC) established intermittent control over much of Egypt, though this was catastrophically curtailed towards its end by Assyrian invasions in 667/6 and 664/3. None of this impaired the capacity of the Egyptians to produce high-quality artistic work during these centuries. (Dates courtesy of C. Naunton, author of ch. 7.)

Twenty-first Dynasty	c.1068–945
Smendes	c.1068–1043

Amenemnisu	c.1043–1039
Psusennes I	c.1039–993
Amenemope	c.993–984
Osorkon "the Elder"	c.984–978
Siamun	c.978–959
Psusennes II	c.959–945

Twenty-second Dynasty		c.945–739
Shoshenq I		c.945–924
Osorkon I		c.924–889
Shoshenq IIa	? Ephemeral, very	
Shoshenq IIb	little is known of	c.889–887
Shoshenq IIc	these kings	
Takeloth I		c.887–874
Osorkon II		c.874–835
Shoshenq III		c.835–797
Shoshenq IIIa		c.797–783
Pimay		c.783–776
Shoshenq V		c.776–739

The Twenty-third and Twenty-fourth Dynasties consisted of petty kings with very limited power based in various parts of the country the most famous of whom was Bakenrenef who achieved great fame in Classical tradition as Bocchoris.

Twenty-fifth Dynasty	?–664
Alara	?
Kashta	?–751
Piyi	c.751–720
Shabaqa	c.720–706
Shebitqu	c.706–690
Taharqa	c.690–664
Tanutamun	664–656

The Late Period

(664–332 BC; dates can now be accepted with confidence)

This stage of Egyptian history begins with Saite Twenty-sixth Dynasty, the last great native dynasty of Pharaonic history which saw the reunification of the country under Psamtik (Psammetichus) I, the resurgence of Egyptian military activities in Nubia and Asia, and the creation of artistic work of high quality at all levels. Egyptian military activities throughout the period were conducted with the help of Greek, Carian, and Asian mercenaries or allies both inside and outside the country. The threat from the Babylonian Empire was kept at bay, but Egypt fell to the Persians in 525, despite a network of carefully constructed alliances with other threatened states such as

Babylonia, Lydia, and Sparta, and remained under their control until 404, despite vigorous attempts at rebellion. This independence was maintained with Greek support until the reconquest by the Persians in 343. Neither foreign occupation nor subsequent political and military vicissitudes arrested cultural achievement, and the Late Period continued and developed ancient traditions with great success.

Twenty-sixth Dynasty	664–525
Psamtik (Psammetichus) I	664–610
Necho II	610–595
Psamtik (Psammetichus) II	595–589
Apries	589–570
Amasis	570–526
Psamtik (Psammetichus) III	526–525
Twenty-seventh Dynasty (First Persian Period)	525–404
Cambyses	525–522
Darius I	522–486
Xerxes	486–465
Artaxerxes I	465–424
Darius II	424–405
Artaxerxes II	405–404
Twenty-eighth Dynasty	404–399
Amyrtaios	404–399
Twenty-ninth Dynasty	399–380
Nepherites I	399–393
Psammuthis	393
Hakoris (Achoris)	393–380
Nepherites II	c.380
Thirtieth Dynasty	380–343
Nektanebo I	380–362
Teos (Tachos)	362–360
Nektanebo II	360–343
Thirty-first Dynasty (Second Persian Period)	343–332
Artaxerxes III Ochus	343–338
Arses	338–336
Darius III Codomannus	336–332

At some point during this period Khababash led a short-lived rebellion against the Persians and established control over part of the country.

The Graeco-Roman Period

(332 BC–AD 642)

This period begins with the conquest of the country by Alexander the Great in the second half of November 332 BC and ends with the conquest of Egypt by the Arabs in AD 642. It breaks down into a number of sub-periods:

The Macedonian Dynasty   332–305 (dates after Hölb 2001)
On his conquest of Egypt Alexander became Pharaoh and established an administrative and military structure based mainly on traditional practice and founded the city of Alexandria which was soon to become the capital. He then left Egypt never to return. Technically the Macedonian dynasty remained in power until 305 BC since Egyptians continued to date by regnal years of Macedonian kings up to that point, despite the fact that Alexander's son Alexander II (of Egypt, Alexander IV of Macedon) had been murdered in 309.

Alexander the Great	332–323 BC
Philip Arrhidaios	323–317
Alexander II	
(IV of Macedon)	316–305

The Ptolemaic Period   323–30 BC (dates after Hölbl 2001)
On Alexander's death in 323 Egypt was allocated to his general Ptolemy, son of Lagos, who administered the country as satrap ("governor") until he declared himself king in 306/5. Alexandria swiftly became the capital of the kingdom, and the Ptolemaic agenda clearly defined: it was dominated by rivalry for prestige and power with the other two great Successor kingdoms of Macedonia and the Seleucid Near East which required the expenditure of enormous resources both on armaments and conspicuous display, particularly in turning Alexandria itself into the most splendid city in the Mediterranean world. The financial basis for this was the economy of Egypt which was exploited vigorously and effectively. The first three reigns were successful in the pursuit of Ptolemaic ambitions, but the turning point came with the reign of Ptolemy IV, which, despite military success against his Syrian rivals, saw the beginnings of a decline which was progressively fuelled by a series of military setbacks, rebellions within Egypt itself, and recurrent dynastic instability arising particularly from the ambitions of unscrupulous and powerful queens of whom Kleopatra VII is only the most famous. With the spread of Roman power in the Eastern Mediterranean it was only a matter of time before the kingdom was absorbed into the Empire, and that came to pass with the conquest of the country by Octavian's forces in 30 BC.

Ptolemy I Soter	305–282 BC
Ptolemy II Philadelphos	282–246
Ptolemy III Euergetes I	246–221
Ptolemy IV Philopator	221–204

Ptolemy V Epiphanes	204–180
Ptolemy VI Philometor	180–145
Ptolemy VII Neos Philopator	(never reigned)
Ptolemy VIII Euergetes II (Physkon)	170–163, 145–116
Ptolemy IX Soter II (Lathyros)	116–107
Ptolemy X Alexander I	107–88
Ptolemy IX Soter II (restored)	88–81
Ptolemy XI Alexander II	80
Ptolemy XII Neos Dionysos (Auletes)	80–58
Kleopatra VI Tryphaina and Berenike IV Epiphaneia	58–55
Ptolemy XII Neos Dionysos (restored)	55–51
Kleopatra VII Philopator ruled jointly with	51–30
Ptolemy XIII and	51–47
Ptolemy XIV and	47–44
Ptolemy XV Caesarion	44–30

The Roman Period

(30 BC–AD 323)

The conquest of Egypt by Octavian in 30 BC brought Egypt into the Roman Empire, and it remained a Roman province, apart from brief Palmyrene (269–74) and Sassanid Persian (619–28) interludes until the Arab conquest in AD 642. The main imperial concerns were to ensure that no-one was able to repeat Mark Antony's use of the country as a power base and to guarantee the effective economic exploitation of the country which was required to provide Rome with a third of its corn supplies and also to guarantee access to elite goods derived from the flourishing trade down the Red Sea with India and Ceylon, the riches of the incense and spice coming through the Nabataeans of Arabia, the exploitation of high-quality stone resources available from the Eastern Desert (Mons Porphyrites, Mons Claudianus), and the profitable trade route running through the oases of the Western Desert. Road and military installations were maintained wherever appropriate to safeguard these activities, but the Roman army in Egypt also had to carry out policing operations within the country as well as defensive campaigns to deal with threats on the southern frontier and nomads in the deserts. Internally the main cultural trends were (1) the widespread development of urbanization along a Graeco-Roman pattern which, amongst other things, encouraged Egyptian elites to adopt a Graeco-Roman lifestyle and (2) the advent of Christianity which was widely current by the fourth century. These two factors between them were responsible for the erosion of traditional Egyptian culture so that Egypt in the Late Antique period lost its purchase on Pharaonic civilization and became yet another example of the provincial culture of the late Roman Empire.

Roman Emperors (linked names indicate joint rulers: based on Parson 2007)

Augustus/Octavian	30 BC–AD 14
Tiberius	14–37
Caligula	37–41
Claudius	41–54
Nero	54–68
Galba	68–9
Otho	69
Vitellius	69
Vespasian	69–79
Titus	79–81
Domitian	81–96
Nerva	96–8
Trajan	98–117
Hadrian	117–38
Antoninus Pius	138–61
Marcus Aurelius	161–180 ⎫
Lucius Verus	161–169 ⎭
Avidius Cassius	*175 (claimant recognized in Egypt)*
Commodus	180–192
Pertinax	192–3
Didius Julianus	193
Septimius Severus	193–211
Pescennius Niger	*193–4 (claimant recognized in Egypt)*
Caracalla	211–217 ⎫
Geta	211 ⎭
Macrinus	217–218
Elagabalus	218–22
Alexander Severus	222–235
Maximin	222–35
Gordian I and II	238
Pupienus	238 ⎫
Balbinus	238 ⎭
Gordian III	238–244
Philip	244–249
Decius	249–251
Gallus	251–253
Aemilian	253
Valerian	253–260 ⎫
Gallienus	253–268 ⎭
Macrianus	*260–261* ⎫ (Claimants recognized in Egypt)
Quietus	*260–261* ⎭
Claudius II	268–70

Palmyrene occupation of Egypt 269–274

Quintillus	270
Aurelian	270–275
Vaballathus	270–2
Tacitus	275–6
Florianus	276
Probus	276–282
Carus	282–3
Carinus	283–5 ⎫
Numerian	283–4 ⎬
Diocletian	284–305 ⎫
Maximian	285–310 ⎪
Galerius	293–311 ⎬
Constantius I	293–306 ⎭
L. Domitius	
Domitianus	*?296–7 (claimant recognized in Egypt)*
Aurelius Achilleus	*?297–8 (claimant recognized in Egypt)*
Maximin	305–13 ⎫
Severus II	305–7 ⎪
Maxentius	306–12 ⎬
Licinius	308–24 ⎪
Constantine I	306–37 ⎭

*The Byzantine Period (*AD *324–642)*

The period is best begun in 324 when Constantine I became sole emperor. This event was speedily followed by the establishment of Constantinople as the capital of the empire (AD 330). For our purposes three emperors are particularly important:

Constantine I	AD 324–37
Theodosius	379–395
Justinian	527–565
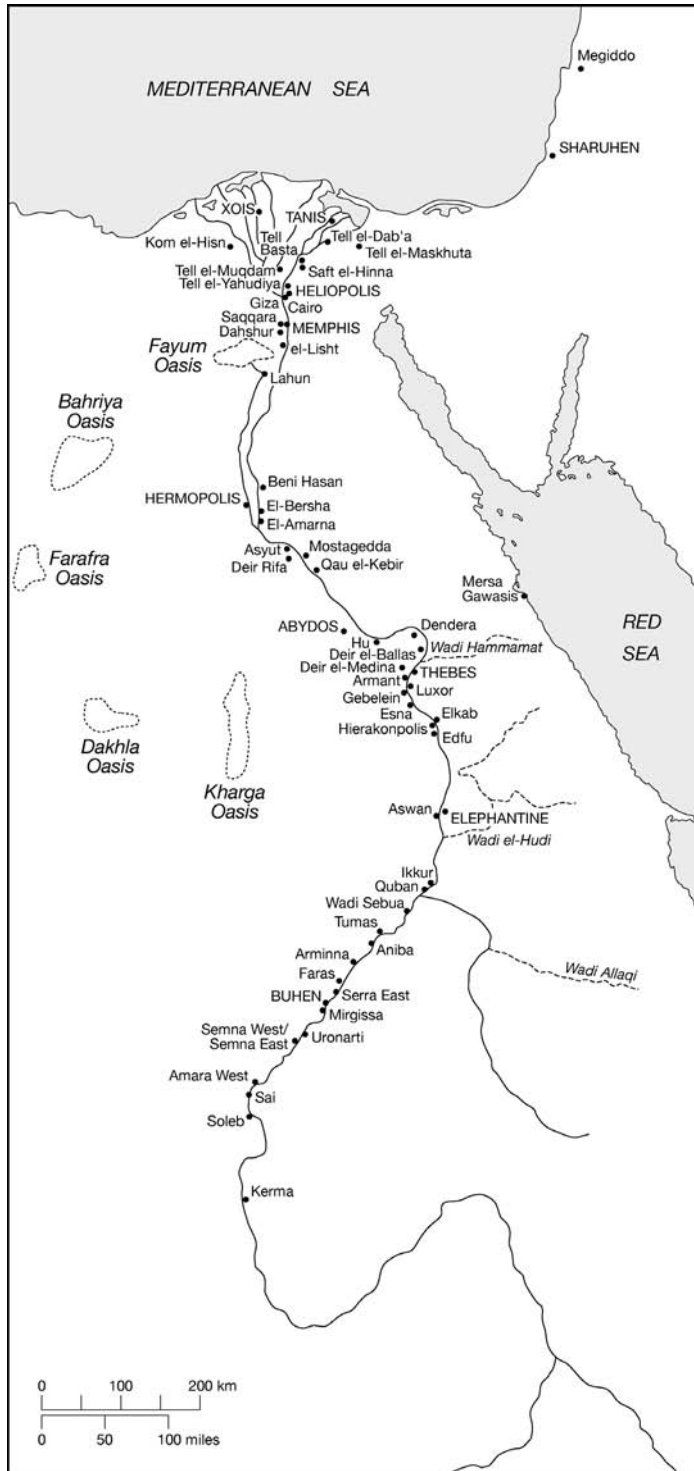
Map 1   Egypt and Nubia in the Pharaonic period

Bolbitine Mouth
Canopic Mouth
Sebennytic Mouth
Phatnitic Mouth
Mendesian Mouth
Tanitic Mouth
Pelusic Mouth

Kanopos/Canopus
Alexandria
L.Mareotis
Marea
Naukratis
Buto
Xois
Sais
Busiris
Sebennytos
Thmuis
Tanis
Pelousion/
Pelusium
Rhinokoloura/
Rhinocolura

Taposiris

Delta

Wadi Natrun
Terenuthis
Bubastis
Athribis

Letopolis
Heliopolis
Babylon
Memphis
Klysma

FAYUM
Soknopaiou
Nesos
Bakchias
Philadelphia
L.Moeris
Dionysias
Euhemeria
Theadelphia
Karanis
Arsinoe (Krokodilopolis)
Kerkeosiris
Tebtunis
Herakleopolis Magna

HEPTANOMIA

Oxyrhynchos
Kynopolis

Bahriya Oasis
Akoris

Bahr Yusuf
Antaiopolis

Hermopolis Magna

Lykopolis

Myos Hormos
Mons Porphyrites

Apollinopolis Heptakomias
Antaeopolis
Aphrodite
Panopolis
Atripe (White Monastery)
Ptolemais

Mons Claudianus

RED SEA

Abydos
Nag Hammadi
Diospolis Parva

Tentyra/
Dendera
Coptos
Apollinopolis Parva

Leukos
Limen

THEBAID
Hermonthis
Diospolis Magna
(Thebes)
Pathyris (Krokodilopolis)
Latopolis

Dakhla
Oasis
Kharga
Oasis
Hierakonpolis
Apollinopolis Magna

Ombos

Elephantine
Syene
First Cataract
Philae

BLEMMYES

Berenike

DODEKASCHOINOS
Talmis

Pselchis
Hierasykaminos

Primis

0   50   100   150   200 km
0   50   100 miles

NUBIA/ETHIOPIA

Map 2 Graeco-Roman Egypt

PART I

The Land of Egypt

The Physical Context of Ancient Egypt

Sarah Parcak

1   Introduction

Nothing formed ancient Egyptian culture and religion more than its landscapes. From the Nile River to the harsh Eastern and Western deserts, the swampy Delta, and the fertile Nile Valley, the varied landscapes within and surrounding Egypt influenced ancient Egyptian thought in every way possible. Deities represented specific aspects of landscapes, while creation myths reflected an annual environmental cycle. Pharaonic Egypt was, and continues to be, an oasis in the Sahara Desert. Seeing Egyptian landscapes as an integrated whole, however, is something that has only recently begun to capture the interest of Egyptologists and archaeologists in contrast to the longer trajectory of Egyptology. Ancient Egyptian landscapes cannot and should not be considered unto themselves; they need to be evaluated through landscape use, development, and modernization, the latter of which is devastating ancient Egyptian landscapes more than any other single issue.

   This chapter examines ancient Egyptian landscapes through a broad scope, focusing on specific case studies per region rather than attempting to discuss every facet of ancient Egyptian landscapes chronologically. Each case study covers a sub-period (c.3000 BC–800 AD) and will be based on an archaeological site or region in the Delta, Nile Valley, Fayum, Luxor, Sinai, and Western/Eastern deserts. A number of modern issues, including urbanization and looting, will be discussed in terms of their effects on sites throughout Egypt.

   Why is Egyptology not as well-known for the study of its ancient landscapes, like other regions of the ancient Near East? For example, McAdams' survey work in the 1960s laid the groundwork for the entire field of ancient Near Eastern Landscape Archaeology (McAdams 1981). Other Mediterranean landscape studies either ignore Egypt or only mention it in passing (Alcock and Cherry 2004: 3–9; Wilkinson 2003a). This is changing, with the inclusion of Egyptian landscape studies in forthcoming Egyptology books, conference volumes, and in university courses. Egypt's landscapes, ironically, were the very thing that discouraged their detailed study. Initial

voyages of discovery discussed Egyptian landscapes in great detail, yet focused primarily on tombs, temples, and related monuments. Monumental remains attracted people to excavate in Egypt, but the beauty of her modern landscape invited archaeologists to return each season. It would take roughly 170 years for archaeologists to start conceptualizing ancient Egypt sites in their broader contexts.

2   A History of Ancient Landscape Exploration in Egyptology

Early explorers to Egypt formed the basis for the field of landscape archaeology in Egyptology. Herodotus provided the earliest written description of ancient Egyptian landscapes (Herodotus 2003 (reprint)). Although his writings were not entirely accurate, this encouraged future archaeologists to explore further. Lavish illustrations of ancient monuments of landscapes also encouraged the practice of landscape archaeology in Egypt. Landscape archaeology is, at its core, examining ancient human remains in their broader geographical contexts, and the images created by early explorers like Richard Pococke and Frederick Norden allowed this contextualization to take place (Pococke 1743; Norden 1757).

   No group had a greater impact on landscape archaeology in Egyptology (and for future studies on the physical context of ancient Egypt) than the Napoleonic expedition of 1798–1801. Napoleon's broader intent of invading Egypt brought naturalists, artists, architects, engineers, and historians to explore, measure, and draw every aspect of the country. This exploration of ancient Egypt remains one of the first true archaeological surveys in the broader field of archaeology. Given the general and brief description of a number of archaeological sites in the *Description de l'Egypte*, the Napoleonic survey team did not spend large amounts of time at each place but, nevertheless, provide information that has long since been obscured by modern building or site removal. The richly painted tombs and temples of Luxor and the pyramid fields further north merited far greater attention to detail. Maps from the *Atlas Géographique* volume in the *Description de l'Egypte* remain of great use to landscape archaeologists today (Jomard 1820). Correcting the Napoleonic maps with satellite imagery reveals a high level of accuracy. Another early contribution to Egyptology was the Lepsius expedition, sent by the Prussian government in the 1840s. Maps from this expedition cover a wider area than the *Description de l'Egypte* maps (from Egypt to Ethiopia) (Lepsius 1849).

   Exploration and documentation by John Gardner Wilkinson and Giovanni Belzoni (to name a few) (Wilkinson 1841; Belzoni 1822) furthered both the field of Egyptology and landscape archaeology by allowing specific locations of archaeological sites to be mapped. Auguste Mariette used Strabo to help him locate the potential location of the Serapeum, which he subsequently excavated. Nevertheless, this was one of the first major uses of ancient texts to relocate ancient sites in Egypt, another hallmark of landscape archaeology (Wortham 1971: 83). Another source for early Egyptian cartography is the map of Egypt compiled by Mahmoud Bey using geometrical measurements, noted for its high degree of accuracy (Bey 1872).
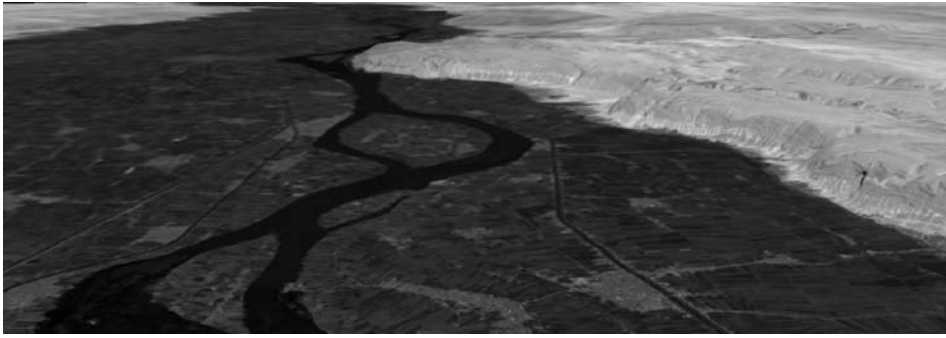
Figure 1.1 Quickbird satellite image showing the Nile in relation to broader agricultural fields. Image courtesy of Google Earth Pro.

Archaeological investigations recording the locations of many sites occurred in higher frequency towards the turn of the nineteenth century, especially with survey-oriented work taking place in the Delta (in part influenced by the Delta research of the Egypt Exploration Fund) (Chaban 1906; Edgar 1907; Daressy 1912). Investigations at specific sites allowed for more in-depth research into their general environments, such as Caton-Thompson's work in the Fayum that discovered preserved grains in buried baskets and allowed a reconstruction of ancient planting patterns (Caton-Thompson and Gardner 1934).

The 1970s brought with it a renewed focus on settlement archaeology, especially with the work of Manfried Bietak, Barry Kemp, David O'Connor, and Mark Lehner at Tell ed-Daba (Bietak 1975), el-Amarna (Kemp and Garfi 1993), Abydos (O'Connor 2009), and Giza (Lehner 1997) respectively. These archaeologists revolutionized the study of ancient Egyptian landscapes with advanced archaeological excavation methods and the use of archaeological science to study ancient faunal remains, and general environments. Comparisons could take place between highly idealized tomb paintings of landscapes and what the environment may have looked like in specific time periods. More studies were now taking place focusing on broader ancient Egyptian landscapes, specifically the work of the Egypt Exploration Society in the Delta (from the 1980s onwards), the work of John and Debbie Darnell in the Western Desert (Darnell 2002), the work of Salima Ikram and Corinna Rossi in Kharga Oasis (Ikram and Rossi 2002), and Sarah Parcak's work in the Delta and Middle Egypt (Parcak 2003; 2004a; 2007; 2008; 2009a; 2009b). To gain a real understanding of ancient Egyptian landscapes one must start with one of its central features: the Nile.

3 The Nile

Each year the Nile deposited rich silts along its banks, allowing the people of ancient Egypt (in good flood years) to gather sufficient crops to feed their families and livestock to the extent that the elite could focus their efforts on art, music,

architecture, and foreign expeditions. Unlike the Nile further south in Nubia, there were no cataracts to impede travel up or down the Nile, making it ideal for transportation of goods and ideas. The Nile allowed for excellent fishing, as well as hunting (especially in prehistoric to early time periods in its marshes), and grazing for livestock. Good flood levels were so important to the ancient Egyptians that they connected annual floods with the religious myth of the wandering eye of the sun, which told the story of the goddess Hathor bringing annual inundation waters from the south (Darnell 1995).

The Nile River is 6670 km long, originating at Lake Tana in the Ethiopian plateau, (at 1830 m elevation) and Lake Victoria in East Africa (at 1134 m elevation). Annual monsoon rainfalls filled these Sub-Saharan lakes and fed the Blue and White Nile and main Nile river before the construction of the Aswan High Dam (in the early 1900s and 1960s) (Said 1988: 1–7). Most of the water reaching Aswan comes from precipitation directly related to the Indian Monsoon rainfall, so lower monsoon rainfalls could have disastrous effects on the Nile flooding levels.

Many studies exist describing the long-term geology of the Nile (Said 1990), which is outside the scope of this study. It is more important to explore what effect the Nile had on the overall development of ancient Egyptian landscapes, specifically, just how much the annual Nile inundations caused ancient landscapes to change. To assess this change, one must begin by asking how much the Nile moved over time, both horizontally and vertically. A river so famed for its unpredictable annual flooding levels would, like so many other great rivers today, have meandered from East to West and West to East over time.

Recent work by Egyptologists and archaeologists using satellite remote sensing, coring, and survey, has determined that the Nile was anything but stable in antiquity, and that much of our knowledge regarding ancient Egyptian landscapes and Nile location needs reassessment. Archaeological exploration work in Luxor using a combination of deep cores and Shuttle Radar Topography Mission (SRTM) data has suggested the full Pharaonic period extent of the Nile's eastward migration patterns. Based on the scientific data, we find that the early-to-predynastic Nile flowed past Medamud to the SE of modern Luxor, migrating at a rate of 2–3 km every 1000 years (Hillier et al. 2007: 1011–15) During Pharaonic times, the Nile migrated from the East to West near Karnak Temple, and in the Middle Kingdom times, the temple was probably located on an island that filled in as the Nile moved west (Bunbury and Graham 2005: 17–19).

The Nile River, its movements, and annual silt depositions over time must be evaluated from a larger ancient landscape perspective, as has been done in examining the great Nile bend at Qena with RADAR imagery (Stern and Abdel Salaam, 1996, 1696–8). Consider the overall landscape surrounding el-Amarna, as well as the associated modern development issues. As one embarks from the ferry at the modern town of et-Till, the landscape slants upwards towards the east, flattening out to a plain where spoil heaps from 150 years of excavation often cover known houses and additional features. Each year encroaching agriculture cuts into more and more of the site, especially a large agricultural area slightly to the south of the Central City. This development affects the choices of present day archaeologists, led by Barry Kemp (Kemp 1982–95). The work of the Amarna team balances the need to excavate

Figure 1.2 Coring work in the modern fields to the west of el-Amarna. Courtesy the author.

new architectural features with cataloguing past excavated remains. Much of Amarna's landscape has already been lost to agricultural expansion, with 90 ha lost since the 1980s, as demonstrated by old maps, aerial photographs and satellite imagery.

The total landscape of Amarna is only beginning to be understood in terms of its longer-term environmental changes. A coring study, initiated by the author, taking place along the floodplain edge to the west of the city, suggests significant landscape alterations over the past 1600 years. The study retrieved 30 cores at a range of 1 m–7 m in depth, from the surface of the cultivated area to the desert surface. The coring revealed some Amarna period material in the cultivation to the west of the central city. All other datable material culture (pottery) from the cores matched Late Roman period (c.400–800 AD) wares.

Coring results show that the Nile deposited an average of c.5 mm of silt per year in Middle Egypt, five times the silting rate found in the Delta (Butzer 1976: 23). This 1 mm per year Nile silt deposition is most often cited by Egyptologists, yet is from the area of ancient Egypt that would have traditionally had the lowest silt deposition rates: The Nile would have had more silt to discharge upriver and would have spread its silt over a far greater area further north. Higher silting rates would be expected further south where the average Above Sea Level measurements are higher than the Delta.

Combining the coring results with the survey results suggest that Nile has shifted between 0.6 and 1.2 km to the east over the past 1200 years in Middle Egypt, cutting into and likely washing away part of el-Amarna's Central City area (and thus answering the question of why few crop-marks can be seen in the modern fields). We cannot

say with any certainty exactly where the Nile flowed during the Amarna period. Two 7 m deep cores taken to the south of et-Till and just outside Hagg Kandil reveal likely locations for canals, based on deep clay and silt deposits (Parcak 2005; 2007b). Whether or not these canals date to the Amarna period will require further work, but they show how past landscape changes in ancient Egypt cannot be viewed through any single archaeological lens.

4 Landscapes and Climate Change in Ancient Egypt

Ancient Egyptian landscapes must also be viewed through the lens of climate change. This affected ancient Egyptian landscapes far more broadly than the Nile, although the changes are far less easy to view. At what time and where should one begin? One might associate climate change with only the start of ancient Egyptian civilization, c.3000 BC, but determining exactly how the civilization started means going back even further in time. Earliest remains (from the Neolithic Period) are buried beneath many metres of silt in the Nile Valley, while many other settlements remain to be discovered (Parcak 2007a; 2008; 2009a; 2009b).

In early parts of the Paleolithic Period (c.500,000–12,000 years ago) the Nile as a whole was much smaller in size, composed of smaller channels. Early groups living at both Bir Tarfawi and Bir Sahara East lived in savannah and wooded savannah areas, with animals such as hartebeest and gazelles. During the Middle Paleolithic (c.175,000–45,000 years ago) people lived along the Nile at sites such as Wadi Halfa, where archaeologists have noted higher rainfall levels. Conditions became too arid in the desert c.70,000 years ago for inhabitation, and the Nile changed course c.45,000 years ago. Archaeologists have noted no remains in the Sahara in the Upper Late Paleolithic period (c.45,000–12,000 years ago) (Wendorf and Close 1999, 6–14; Wendorf and Schild 1980). Additional rainfall between 14,000–12,000 years ago in Eastern and Central Africa caused the White Nile to flow much more strongly, which, in turn, contributed to much stronger annual Nile flooding. Around 12,500 years ago this additional rainfall caused the Nile to flow in the single channel it has today (Hassan 1980, 421–50; Hassan 1999a, 15–16).

A cooling period of 9 degrees C has been noted across East Africa and South-east Asia c.9000 BC, with many sand dunes advancing south. Populations would have moved into the Nile Valley owing to the increasing aridity of the Sahara, which would have caused lakes or streams next to seasonal campsites to dry out. This is noted, in particular, in the Fayum, where archaeologists have discovered hundreds of campsites dating to c.9000–6000 BC (Caton-Thompson and Gardner 1934). Domesticated sheep and barley have been noted around 8,000 years ago, during the Epipaleolithic period. The climate shift caused a cultural response, with changes noted in stone tools and pottery. During the Neolithic Period, people living along the Nile Valley culti-vated wheat and barley, as well as tending to their flocks of domesticated cattle and sheep. For the first time, farmers altered their landscapes with building dykes and irrigation ditches. It is not known if the cultivated crops came from Southeast Asia via trade or via immigration (Wenke 1999: 17–22).

During the Predynastic period climatic conditions allowed Egyptian civilization to develop. The ancient city of Hierakonpolis provides a good case study. It represented an ideal habitat owing to good Nile flood levels, fertile soil, nearby raw materials in the Eastern Desert, the proximity of a (now defunct) Nile channel, and an easily established irrigation system. The environment apparently remained stable during this time, allowing economic growth (Hoffman et al. 1986: 175–87). A similar situation existed in the eastern Delta, which lay along the trade routes without desert access to metals and mineral resources but had good agricultural lands allowing settlements to take hold and grow. The influx of state organization and local officials overseeing irrigation systems throughout Egypt coincided with an increasing need for crops and the material required to farm new lands.

A stable climate led to broad growth in all aspects of Old Kingdom society and culture, which led to a search for raw materials and products abroad. This shows the overall need to obtain the produce from more agricultural lands to support the increasingly expansive state, cult, and royal projects (Eyre 1987b: 5–47). Even with Old Kingdom trade shifting to the royal Memphite court, the state would have needed increasing and large amounts of agricultural produce and livestock to support the construction and maintenance of pyramids, temples, state projects, and royal cults. The royal court would have benefited from large numbers of agricultural settlements whose produce (and related landscape alterations) could feed workforces and craftsmen numbering in the tens of thousands (Lehner 1997: 224–5).

Why the Old Kingdom, a period of tremendous prosperity, "collapsed" is debated by Egyptologists. They have suggested economic, political, and environmental factors, or some combination thereof (Seidlmayer 2000: 118–47). Hydraulic agriculture, and, thus, landscapes in ancient Egypt were an integral part of the economy. Having an organized system of dykes and canals allowed the development of new land for agriculture and created a reliance on increased resources. This, in turn, increased the potential for disaster if floods were low. It seems that this is precisely what happened. Culminating around 2200 BC, it appears an occurrence known as the "4200 KA BP Event" (Weiss and Bradley 2001: 609–10) took place. This "event" encompasses the changes in patterns of monsoon rainfall and Mediterranean westerlies which led to droughts and cooling periods in Africa and Asia. Egypt most likely experienced a drought during this time, which is evidenced by coring done in the Delta that detected iron hydroxides (dating to c.4200–4050 BP) in the soil (a signature for drought) (Stanley et al. 2002a: 395–402). The base flow from the White Nile was also low at this time (Stanley et al. 2002b: 71–4). Upper Egypt would not have faced as many disastrous effects from a likely drought as the Delta at the end of the Old Kingdom, because of a reliance on the principal branch of the Nile that held more water than the Nile's subdivided Delta channels. Although much more work is needed to understand what exactly took place at the end of the Old Kingdom, this recent research shows how important it is to consider environmental perspectives in addition to other archaeological and historical data.

Higher Nile floods were noted during the Middle Kingdom by late Twelfth Dynasty inscriptions, with higher Fayum lake levels recorded multiple times (Butzer 1976: 52). Throughout Egyptian history Nilometers recorded years of high and low floods, especially at places such as Elephantine. A period of high floods did not

automatically mean a prosperous year: They could, in fact spell disaster if the waters did not recede in time for planting. Key factors, such as long-term fluctuations in precipitation, flood levels and river courses, could affect dramatically the fortunes of individual settlements, resulting in the decline and abandonment of some sites and the foundation and flourishing of new riverine sites, especially within marginal regions. Egypt's annual flood levels varied (for example, good flood levels were recorded during the Late Period), but did not play as significant a role in periods of decline as socio-political factors.

5   What did Ancient Egyptian Landscapes Look Like?

The archaeological record shows that parts of ancient Egypt looked radically different from Egypt today. To what extent would an ancient Egyptian feel out of place in modern Egypt? Aside from modern conventions such as roads, cars, and cities, an ancient Egyptian would not feel at home throughout most of modern Egypt. With changing Nile flood levels, landscape changes, and population increases there is much more of occupied Egypt today. A modern Egyptian would feel equally out of place in ancient Egypt. Only very elderly Egyptians can remember what Egypt looked like during periods of partial inundation (Kemp, 1989, 11). In the summer, much of Egypt's floodplain would have been transformed into a series of islands. Outside inundated areas the Delta would have appeared as a number of swamps connected to lagoon and lake systems. The deserts and mountainous areas in Sinai, and the Eastern and Western Deserts (as well as deserts/mountains of Nubia) would probably be the only entire landscapes recognizable by the ancient Egyptians. To learn what ancient Egypt landscapes looked like (i.e. floral and faunal remains), archaeologists rely largely on highly idealized tomb scenes as well as archaeological data.

Early Egyptian fauna was diverse, and included elephants, lions, gazelle, hartebeest, leopards, ibex, oryx, and wild cattle. Human activity caused the extinction of certain animal species in Egypt, such as hippopotami (Osborn and Osbornova 1998: 144). Donkeys could be found throughout Egyptian history, with the earliest evidence coming from Maadi c.3600 BC. It is not known exactly when cats were domesticated in ancient Egypt, while dogs are known from the Predynastic period onwards (Houlihan 1996: 74–91). Geese are known from the Fifth Dynasty onwards, while domestic fowl were not known until c.1500 (with a rooster found on a potsherd in the Valley of the Kings) (Gautier 1996: 305). Longhorn cattle are known from the Predynastic period onwards, while hornless cattle are known from the Eighteenth Dynasty onwards. Short-horned cattle are present but not common during the Old Kingdom and become more widespread over time, (as seen in tomb scenes) (Houlihan 1996: 10–21). Sheep can be found in the archaeological record from the Neolithic period onwards. Wool sheep replace hair sheep during the Middle Kingdom via trade with Asia, which is also the period when goats decline. Fat-tailed sheep, quite common in Egypt today, were likely introduced at a much later period of time (Osborn and Osbornova 1998: 186–93). Pigs and horses can be found from the Second Intermediate Period, with mules used as pack animals during the New

Kingdom (Houlihan 1996: 33–9.) Camels, also quite common in Egypt today, could not be seen in Egypt until the first millennium BC (Osborn and Osbornova 1998: 155–6). Exotic animals could be brought back to Egypt for palace zoos, such as the famous botanical garden of Thutmose III at Karnak (Houlihan 1996: 200–1).

What did the physical landscape of Ancient Egypt look like? In general, one would see papyrus, reeds, rushes, and lotus flowers along the Nile and its channels. Studies on charcoal (Gerisch 2004) have shown flora species prevalence, which included a number of common ancient Egyptian plants such as acacia, tamarisk, date and dom palm, persea trees (use for crafts and for its fruit), the sidder tree (used for dowels), sycamore, and willow. Mudbrick houses could be seen atop gently sloping mounds, covered in palm branches and supported by palm log rafters (Bard 1999: 558–61). While the floodplain/desert margins have greatly altered over the past 2000 years, the change from desert to floodplain would have been just as abrupt in antiquity.

6   The Delta and Sinai

No landscapes of Egypt have changed more dramatically than the Delta and the North Sinai coastlines. Many projects have studied these regions, using coring, systematic survey, and satellite imagery analysis to reconstruct past landscape changes. For example, Jean Phillipe-Stanley's coring work in the Delta has revealed a great deal about both past landscape evolution and related climate changes (Stanley and Warne 1993: 628–34). Broad landscape changes through time can be viewed not just with the subsurface soil data, but with the changing locations of ancient settlements, which would have thrived or failed in line with the evolution of nearby river channels. Much less of a picture is available for Upper Egypt, as it is has not yet been systematically cored from north to south and east to west.

In Pharaonic times seven Nile Delta branches existed: the Canopic, Bolbinitic (Rosetta), Saitic, Sebennytic, Mendesian, Tanitic, and Pelusiac branches. Each branch had smaller channels or tributaries. Five Nile branches degenerated with silting due to tilting in the early Holocene (Gamilli and Shaalan 1988: 223–43), while the Nile branches shifted westward. Although the Nile and its branches changed course many times over the centuries, only two branches remain in the eastern Delta: the Pelusiac branch (the Bahr Faqus today) and the Tanitic branch (the Bahr Mamis), which flowed by Tanis (Bakr 1988: 41–62). The silted-over branches are still partly visible, and, using ground-based remote-sensing techniques, an Egyptian team found buried Nile channels near the old Sebennytic branch (Gamilli and Shallan 1988: 223–43). Another team used SIR-C RADAR imagery to locate former branches of the Nile connected to Alexandria during the Roman period (Stanley and Jorstad 2006: 503–14).

The Delta in antiquity looked very little like the Delta of today. It was a series of swamps and lagoons, and changed shape and size dramatically over thousands of years due to the Nile's sediment discharge, sediment removal by oceans, and the fact that the Delta as a whole was a sediment trap (Stanley 2002c: 98–117). A number of survey

projects have already aided in past landscape reconstruction, especially the work of Manfred Bietak, The Egypt Exploration Society Delta Survey, and ongoing work by the author (Parcak 2003; 2004a; 2004b). This work has detected 44 previously unknown archaeological sites and has incorporated survey data with data on 119 known archaeological sites in the East Delta to suggest locations for past river channels. The proposed model suggests an approach from the bottom up, using survey data to glean information about site placement, function, and changes through time. Site placement also allows us to examine environmental trends. Using site dates over time, it is possible for researchers to suggest possible previous Nile river channels that can later be confirmed through coring. For instance, prior to the formation of the Menzala lagoon, beginning in the fourth century AD, the Mendesian branch of the Nile flowed past Mendes and its satellite maritime port at Tell Tebilla. As early as the Old Kingdom Tell Tebilla provided an ideal location for the formation of a town, being well located to exploit both riverine and maritime transportation routes (i.e. trade) and regional floral and faunal resources (e.g. hunting, fishing, cultivation, animal husbandry). Using old maps and satellite images, the team working at Tell Tebilla showed how the site decreased in size, from 1000 m × 1000 m in the 1800s to 360 m × 360 m today (Parcak 2007a). Even so, using landscape topography, the archaeological team has hypothesized the potential location of Tell Tebilla's harbor. Tell Tebilla's ancient name was *R-nfr*, or "Beautiful Mouth," showing how the name of a place could reflect its larger role in the broader Egyptian landscape (Lloyd 2002; Mumford 2004).

Sites are not only hidden by modern settlements: Silting over of sites has left countless numbers of ancient villages and cities of all sizes, as well as landscapes, many metres below the current ground level. How much information is "missing" beneath the ground in Egypt that cannot be detected? Even using Google Earth, a free online imagery visualization program, can aid in detecting buried features. To the west of the site of Tanis there are significant numbers of cropmarks, revealing that the city could have been twice as large in antiquity. At Tell ed-Daba, additional cropmarks show buried features in the entire area surrounding the extant surface site remains (Parcak 2009b).

Similar approaches have helped archaeologists reconstruct ancient landscapes of the North Sinai and West Sinai coastlines. At the site of Tell el-Borg in North-east Sinai archaeologists have used a combination of satellite photographs, coring, and sediment studies to locate a paleolagoon system. This area was important in the New Kingdom as Tell el-Borg was located along the "Ways of Horus," a series of fortresses located along the North Sinai coast. Archaeological research has shown how important a role the palaeolagoon system played in general fort defence (Moshier and El-Khalani 2008: 450–73). Another fortress site, Tell el-Markha, located in the el-Markha Plain (130 km south of Suez), played a crucial role in Old Kingdom mining expeditions to Wadi Maghara. The fortress, measuring 44 m in diameter, is located 210 m from the coastline today. Geological investigations have revealed that the coastline was located no more than 150 m away an antiquity. The expeditions would probably have coincided with the seasonal appearance of water running in small springs flowing slightly to the north of the site (Mumford and Parcak 2002; 2003).
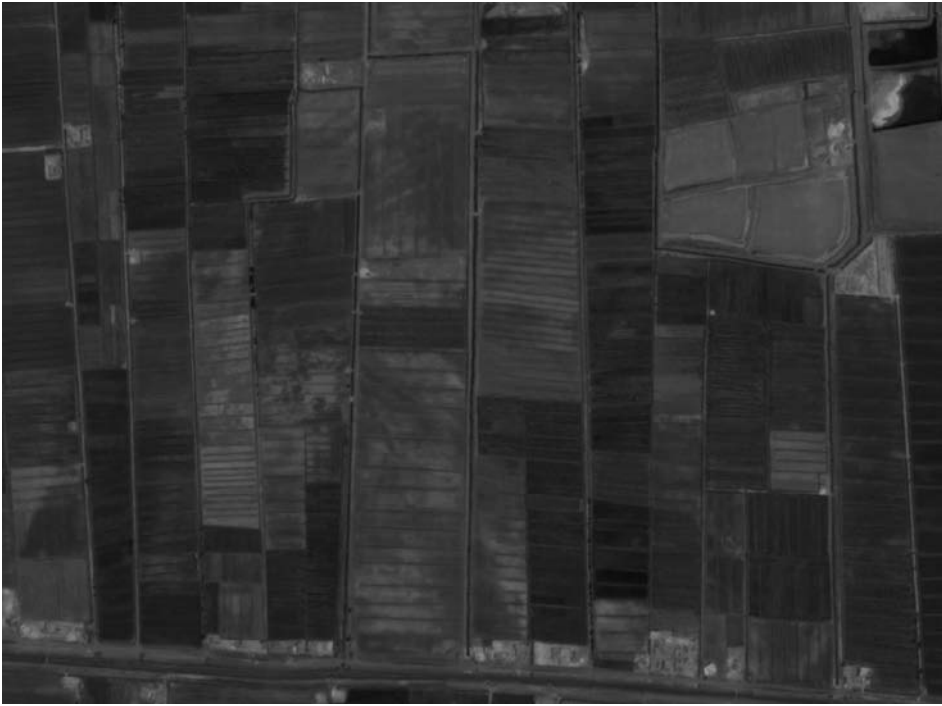
Figure 1.3 Quickbird satellite image revealing cropmarks to the west of Tanis. Image courtesy of Google Earth Pro.

7   Ancient and Modern Landscape Changes

It is essential to think about the dynamic nature of Egypt's past landscapes. Many settlements first appeared on *geziras*, or "turtlebacks," before 3000 BC, often located along river edges. Flood-plain dwellers based their settlements on *gezirahs* to remain safe on high ground, above the annual Nile floods. Over time, these towns expanded. The ancient Egyptians built over their predecessors' houses, and periods of economic decline or destruction contrasted with periods of prosperity. These different periods have created different archaeological horizons and settlement patterns. Silts from high floods, household collapse debris (mud brick), and related material culture created fill layers within and between the shells of houses. As many towns lay enclosed within large walls and were restricted to finite mounds and *gezirahs*, they could only expand upwards. This building pattern formed archaeological *tell* sites with complex stratigraphies, as well as organic structures (Kemp 1972: 657–80), which occur throughout the ancient Near East. The whole town could be abandoned altogether in one phase while major rebuilding activity could occur in a following period. The reconstructed urban and demographic patterns are infinite.

Actual physical changes to ancient landscapes are an additional factor to consider. Each year the Nile's floodwaters left silt deposits (Butzer 1976: 23), which caused the landscape surrounding archaeological sites to rise. Abandoned sites and portions of sites in

Figure 1.4   Quickbird satellite image draped over Shuttle Radar Topography Image at the site of Mendes. Image Courtesy of Google Earth Pro.

low-lying areas would eventually be covered over by Nile silts, with some occupation located above a sterile silt layer. Large-scale silting stopped after the construction of the Aswan High Dam, but Egypt's massive population growth in the past seventy years is altering the landscape in more diverse ways than the former annual Nile flooding.

Changes in archaeological sites are closely entwined with these landscape and social changes and may influence how and why people chose to settle somewhere in the first place. This, in turn, affects how we might identify those sites and associated landscapes. Desert outposts, farming communities, and pyramid towns may all represent settlements containing people, but their primary purpose and functions differed widely. These factors affected their layout and growth. How and why ancient people chose to settle in various regions are just as important to our understanding of settlements as our knowledge of the landscapes surrounding them. Archaeological survey designs should take all these factors into account, in particular, satellite remote-sensing and subsequent ground survey. Specific satellite remote-sensing analysis methods work better in different areas. Some methods deal well with vegetation and landscape changes, while other methods help in highlighting key features within a landscape. All satellite types have limitations in floodplain environments and are best suited primarily for evaluating surface features. Having clear project goals assists in choosing which methods to use for the overall ancient-landscape analyses, in particular, if one is interested in studying either broad-scale or more localized environmental trends.

Today, Egypt's landscape is equally dynamic, with rapidly expanding towns and agricultural development on desert regions (e.g. North Sinai irrigation and agriculture program) (Lenney et al. 1996: 8–20). When comparing satellite images of Egyptian towns and fields from 2002 with the same towns and fields on maps from

the 1920s, one realizes immediately how much settlements have grown, while agricultural lands have expanded into the desert. These factors and the need for *sebakh*, or fertilizer, have caused the levelling or covering over of innumerable archaeological sites. In many cases, modern settlements covering ancient sites have preserved the earliest levels from destruction (below and between modern foundations) but are not free for detailed excavation. Archaeological site looting (prevalent across the globe), urbanization, population increases, and pollution are all affecting modern archaeological landscape exploration (El-Gamily et al. 2001: 2999–3014). Egyptologists need to strategize and plan carefully to help preserve past landscapes for future work. This can be done in part through the use of satellite remote sensing.

8   Finding Egypt's Ancient Landscapes from Space

How can Egypt's ancient landscapes be approached, since there are innumerable modern and ancient processes affecting the way sites appear today? All these modern and ancient processes must be considered during project research design. Results need to be checked against what is already known in the area and then verified on the ground. Any type of survey, excavation or coring, will be biased; ancient and modern processes "select" the archaeological evidence that remains, while modern surveying and excavation techniques allow the selection of specific areas for detailed examination. Many techniques (e.g. coring, resistivity and artefact density) are employed to make sure the best areas are chosen for excavation, with satellite remote sensing analysis used to detect past and buried landscapes.

The very nature of ancient site and landscape formation processes in Egypt lends itself to detection from remotely sensed satellite images. Archaeologists have stressed the bias of Egyptian archaeology towards monumental and funerary sites and away from ancient settlements in the Nile Valley and the Delta. In addition, how Egyptologists conduct landscape surveys (to the extent they have been conducted in the past) has been at odds with other regional archaeologists working in the Ancient Near East (Jeffreys 2003: 1–3). Regional survey work in Egyptology had been largely neglected due to this bias and has consequently missed thousands of ancient settlement sites and related landscapes in favor of tombs and temples in places like Luxor. This is now changing (Bietak 1979: 156–60).

Geospatial studies on ancient Egyptian landscapes are beginning to revolutionize our understanding of ancient Egyptian human-environment interactions. They started when RAF pilots took the first aerial photographs of Egypt during the 1920s and 1930s (Rees 1929: 389–406), specifically focusing on large monumental sites in Luxor and Giza. During the Nubian salvage campaign archaeologists employed aerial photography to document landscapes for mapping purposes. (Vercoutter 1976: 2; Zurawski 1993: 243–56.)

Remote sensing has been invaluable for several projects working in Egypt's desert regions. With the development of remote-sensing monitors such as Landsat and RADAR Missions (SIR-A/B), Wendorf and his team conducted a major archaeological investigation using a SIR-A RADAR image. Through their analysis they

detected "radar rivers," or ancient river channels (some up to fifteen km in width), beneath the sands of the Bir Safsaf in the Western Desert. They carried out survey work in the region, discovering hundreds of new Paleolithic and Neolithic sites along the paleodrainage systems (McHugh et al. 1989: 320–36; McHugh et al.1988a: 1–40; McHugh et al. 1988b: 361–79; Wendorf et al. 1987: 43–63). Another study from Egypt's western desert used ASTER data to create Digital Elevation Models in determining the Holocene land use potential of the region. Analysis found that site placement matched the potential water catchment areas (Bubenzer and Bolten 2003: 2). At the site of Widan el-Faras in the northern Fayum, a Corona image was used to map work in a basalt quarry (Bloxam and Storemeyr 2002: 23–36).

Other recent work includes a Japanese team identifying areas for reconnaissance around pyramid sites using a variety of satellite images. Identifying the spectral signatures of limestone monuments and other methods of analysis gave the team thirty-eight possible sites buried beneath the sand. Ground-truthing revealed that four of the sites contained such remains. Subsequent excavations led to the discovery of a late-Eighteenth or early-Nineteenth Dynasty tomb measuring 47 m in length (Yoshimura et al. 1997: 3–24). The South Sinai Survey and Excavation Project incorporated both surface survey work and the application of multiple analytical techniques to Landsat satellite images to detect new and already identified archaeological sites in el-Markha Plain along the west Sinai coast. The satellite image clarified regions with dense vegetation clusters and showed that modern vegetation beside known archaeological sites reflected ancient water sources (Mumford and Parcak 2002). A Czech team has incorporated Quickbird imagery and subsurface survey to gain a better overall understanding of the pyramid fields at Abusir in creating a GIS for the region (Barta and Bruna 2005: 3–7). Work at el-Amarna (Parcak 2005) has shown how features beneath the desert can be recorded on Quickbird imagery (which has a resolution of 0.6 m).

The author's satellite archaeology work in diverse parts of Egypt has revealed the complexity of attempting to locate last landscapes hidden beneath and within modern ones. Although ancient Egypt contains many significant historical and archaeological areas, such as national, provincial, and cultic centres, smaller areas need to be chosen as study models for remote sensing analysis and ground survey. The author chose two main study areas in the Delta and Middle Egypt for initial satellite archaeology work. There is a total of 33,000 km^2 of fertile land in Nile Valley and Delta, with the Delta covering 22,000 km^2 and 160 km $\times$ 250 km in area. The East Delta survey area measured 40 km $\times$ 50 km, representing 11% of the entire Delta, while the Middle Egypt area measured 15 km $\times$ 30 km, representing 3% of the Nile Valley landscape.

The regions chosen in Middle Egypt (near el-Amarna) and the Delta (in the landscape surrounding Tell Tebilla) have much in common topographically but differ in their historical and archaeological significance. Both areas encompass relatively flat floodplains. In contrast, mountains and undulating landscapes can often obscure archaeological sites and are often trickier regions for satellite remote-sensing work. Flood plains facilitate locating new and known archaeological sites as many stand metres above the surrounding landscapes (Parcak 2009b: 128–30).

In Middle Egypt, there is potential for long-term continuous site occupation along a more stable river course, unlike the Delta where more dramatic river course changes

have caused greater settlement shifts. Furthermore, destruction from looting and modern development has obliterated more archaeological sites in the Delta, while relatively less intensive site destruction in Middle Egypt allows more sites to be located and safeguarded. The studies used previous satellite archaeology work across the globe for comparison, as no large-scale satellite archaeology work had yet been conducted in Egypt's floodplains. Satellite imagery used for the study included Corona imagery, Landsat, ASTER, and Quickbird satellite images, and Shuttle RADAR Topography Mission data. One of the principal issues was using the multi-spectral capabilities of the satellite imagery to differentiate between ancient settlements and the modern towns covering them. This was achieved by running algorithms to detect the ancient soil, which had higher moisture content than the modern soil due to a higher concentration of organic debris. The study detected
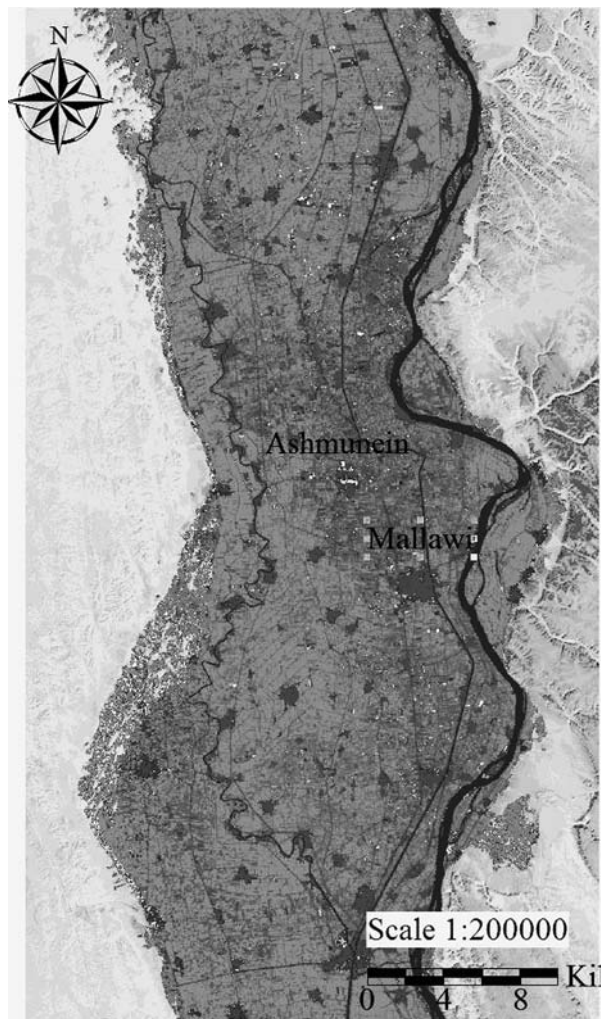
Figure 1.5 Landsat satellite image showing a large area in Middle Egypt. The darker pixels indicate areas of archaeological interest. Image Courtesy of NASA.

44 previously unknown ancient sites in the Delta, and 43 in Middle Egypt. These were ground truthed during surveys and follow up archaeological work from 2003 to 2007.

The study revealed that thousands of ancient settlements and associated landscapes remained to be discovered in both the Delta and Nile Valley floodplains. Modern and ancient processes have combined to make detection of these past landscapes difficult but not impossible. The diversity of landscapes (desert, agricultural/floodplain) and associated settlement types in Egypt mean archaeologists should employ as many ancient landscape detection techniques as possible.

9   Mapping Ancient Egyptian Landscapes

Without good maps, plotting changes in ancient Egyptian landscapes would not be possible. Town names have changed over the course of time and are added, renewed, or abandoned without being checked by cartographers. Prior to survey work, Egyptologists consult Porter and Moss's *Topographical Bibliography* (Porter and Moss 1960–99) and Gardiner's *Ancient Egyptian Onomastica* (Gardiner 1947) to study specific place names, while specific studies of past landscapes have largely relied on foot survey (Kessler 1981).

The 1940 U.S Army Survey of Egypt maps have a high degree of detail. The maps, at a scale of 1:50,000, provide topographic contour and detailed maps of towns and land features, especially archaeological sites. The Egyptian General Survey Authority maps, at a scale of 1:50,000, gives town outlines but very little general detail and no contour maps. Compiled from aerial photographs of Egypt, the map series has a great deal of distortion around its edges. The 1942 British Survey maps, at a scale of 1:100,000, do not have road details, but have excellent topographic contour lines. The Egyptian Map Authority cadastral series, at a 1:2500 scale, is good for general use but must be obtained locally from agricultural authorities. At the present time Geographic Information Systems and satellite remote sensing allow the creation of highly detailed and accurate maps. They are very useful in that maps can be created in 3D by draping high-resolution satellite data over global topography data.

10   How to find Ancient Egyptian Landscapes

Many of Egypt's ancient landscapes are buried, either beneath modern fields, towns, desert sands, or layers of ancient settlements. How those layers can be retrieved depends on local archaeological conditions. It is important to consider exactly what tools might be used by Egyptologists to locate past settlements and associated landscapes. These techniques include resistivity, magnetometry (Dolphin et al. 1977; Giddy and Jeffreys 1992: 1–11; Kemp 1985; 1989; 1995) and ground-penetrating radar (GPR) surveys as well as dousing, which was successfully attempted at the site of el-Amarna (B. Kemp, personal communication). Along with coring and
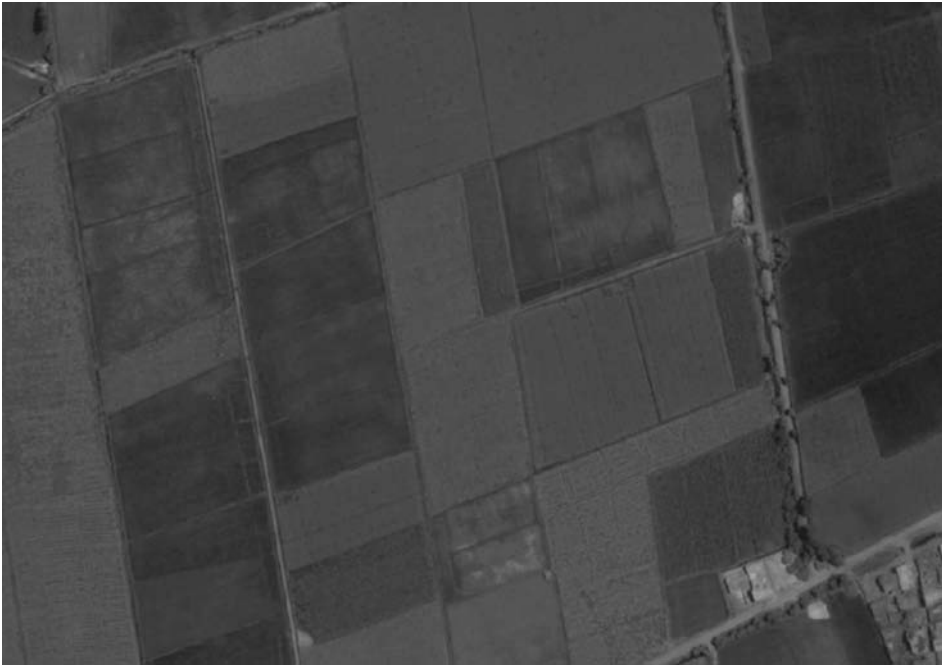
Figure 1.6 Quickbird satellite image revealing cropmarks in the vicinity of Piramesse. These show large numbers of buried structures which have been detected by magnetometry. Image courtesy of Google Earth Pro.

excavation these are the main tools Egyptologists have used to detect subsurface remains, which include a full range of feature types (houses, walls, and tombs) as well as entire cities. It is easy to misinterpret this technical data, which is why having a specialist on site is crucial.

The Delta has had the majority of subsurface landscape and feature detection work done when compared to the rest of Egypt. Work at Pi-Ramesse has taken place on a large scale, and has shown palaces, houses, and related structures now all buried under modern fields. The excavation director, Manfred Bietak, actually rents the land to be surveyed from modern farmers (Becker and Fassbinder 1999: 146–50). At the archaeological site of Tell Tebilla, magnetometer work helped archaeologists to pinpoint a large complex for excavation, which was revealed to be a large tomb preserved to 7 m (Pavlish 2004). Extensive subsurface survey work has taken place at Saqqara, which has shown a number of buried complexes as well as an ancient road (Mathieson 2000: 27–39). Additional work at Abydos has also revealed significant subsurface remains, including potential early dynastic tombs (Herbich 2003: 13–56). Ground penetrating radar, which has been used with great success in other regions of the world, (Meats and Tite 1995: 229–36; Meats 1996: 59–381), may not yet have been applied to locate past Egyptian landscapes and sites, but holds much promise for future work.

What are the relative advantages and disadvantages of using these technologies in Egypt? Their resolution is excellent, yet the cost of bringing in specialists to Egypt means that it may not be possible for all excavations and surveys. Purchasing the

equipment is often not feasible, as it can cost tens of thousands of dollars. Without trained specialists a great deal of error can be introduced into collected data. Time may be another constraint; if one has 100 sites to survey in a short period of time, there will only be time to use subsurface detection techniques on select sites. When, then, should Egyptologists employ subsurface detection techniques? If excavation is not possible (because of time or funding constraints), the archaeologists can use them to gain a sense of general site layout. By locating specific architectural features, archaeologists can surmise dates (in conjunction with surface pottery) associated with possible landscape changes, including sites beneath modern fields (Becker and Fassbinder 1999: 146–50).

Coring remains the best way to reconstruct past landscapes (von der Way, 1997), given that silt deposition over the past 5,000 years has obscured the majority of ancient Egypt's floodplain landscapes. Wide-scale and systematic deep coring would take a significant amount of time, yet there are currently no methods of on-ground detection of deeply buried surfaces other than using coring. Using a machine to core beyond the 7–10 m depths currently reached by Egyptologists would aid immeasurably, especially understanding broader settlement shifts in relationship to changing Nile flow patterns. In addition, the coring may aid in locating deeply buried ancient settlements from much earlier periods of time. Looking at this broader picture would aid Egyptologists in gaining a better understanding of past human-environment interactions.

Such a project would undoubtedly reveal numerous buried archaeological sites and would be invaluable for landscape evolution studies. Owing to current cost and time constraints for such a coring survey, perhaps a smaller series of random cores should be placed between known surface sites until more efficient technology exists to perform subsurface landscape scans. Hyperspectral satellite images such as ASTER can detect far more subtle landscape changes than SPOT or Landsat satellite images and may aid in revealing potential subsurface sites. Landscape modelling may, in future, take place with LIDAR (for LIght Detection And Ranging) sensors, which can record subtle detail variations such as cropmarks (Roughley 2001).

What, then, defines an ancient Egyptian archaeological site, and to what extent can it be differentiated from an ancient Egyptian landscape? Under conventional archaeological terminology even a single potsherd found in an agricultural field would be considered a site. We do not, however, know what this sherd represents without additional survey. Perhaps it is a single discarded sherd from a larger site nearby, or perhaps wind or water moved it from where it was discarded originally. All areas where archaeological sites, features, and material culture are found should be important, regardless of their overall size. Archaeological sites are a lesser (but integral) part of a landscape whole; water sources, ecosystems, and habitats all make up ancient landscapes, and all need to be considered. We will likely never know the full extent of specific ancient Egyptian landscapes, as too many modern and ancient processes have combined to obscure them. Archaeologists can generalize based on ancient texts and attempt to be more specific by using a range of scientific tools. It is most important to recognize the past and present processes that have caused entire landscapes to evolve and to understand how past peoples might have reacted to these broad landscape changes.

Figure 1.7 Quickbird satellite image draped over Shuttle Radar Topography Image at the quarry of Wadi Maghara. Image courtesy of Google Earth Pro.

Creating a catalogue of ancient Egyptian landscape types is essential to the field of Egyptology and would certainly assist in establishing what tools might be best to locate the past landscapes. Determining which landscapes would fit into such a catalogue would not be as straightforward as one might assume. Would one create landscape types for each of the Egyptian nomes, or would one have broader categories such as "floodplain (Delta)" and "floodplain (Middle Egypt)"? Would each landscape type need to be restricted to something ever more specific? For example, would a quarry landscape be enough, or would archaeologists need to subdivide into specific quarry types? There are hundreds of categories to consider. The element of time is another factor. Landscapes shift and change depending on local conditions and global weather patterns. What may have been a grape farm may shift to a desert outpost area in times of drought. Time and change in relationship to landscapes are two factors only beginning to be considered in Egyptian archaeology and will have an impact on how the field advances in the next twenty-five years or so.

11 The Future of Landscape Archaeology in Egypt

Given the advances in archaeological practice, where should Egyptologists focus their efforts for detecting past landscapes? Ancient Egypt's landscapes are palimpsets, and ancient Egypt needs to be reconceptualized as through a more "layered" history. First, Ancient Egypt's landscapes need to be better defined, and archaeological sites

must be though of in much broader contexts. No archaeological site ever existed unto itself, as past peoples have relied on numerous natural resources to survive and flourish. Using advanced scientific approaches (e.g. residue analyses, mass spectrometry, soil micromorphology), archaeologists will be able to ask questions regarding more subtle landscape changes. Using these and other findings, archaeologists may be able to take the past architectural and landscape renderings of ancient Egyptian landscapes and turn them into a more digital-based reality. There are countless ancient sites, river channels, field boundaries, and other landscape features to locate, dating to all of ancient Egypt's time periods. The subfield of landscape archaeology within Egyptian Archaeology is only beginning but holds much promise for future research.

FURTHER READING

A good starting point for reading about landscapes in ancient Egypt is Butzer 1976. For reading about the Nile and general geology, Said 1988 and 1990 provide good overviews. No single book has yet been written on the landscapes of ancient Egypt, but many good articles exist that discuss environmental change on a local level. This includes articles by Manfred Bietak, Barry Kemp, and Fekri Hassan (listed in the bibliography). For a general overview for how one might approach past landscapes see Parcak 2009b which contains a number of Egypt-based case studies.

PART II

Historical Narratives

CHAPTER 2

Prehistory

E. Christiana Koehler

The prehistory of Egypt is a wide area of study that covers hundreds of thousands of years from the Palaeolithic (c.500,000–10,000 BC) to the end of the Chalcolithic period (c.4000–3300 BC) (see table 2.1). It witnessed the emergence of early humans in the Nile Valley, the first villages and towns, the introduction of agriculture and animal husbandry, craft-specialization, social complexity, early religion and funerary beliefs as well as a wide spectrum of aspects of a material culture that together laid the foundations for Pharaonic civilization. This chapter will focus particularly on the Neolithic and Chalcolithic periods in the lower Nile Valley in order to identify the roots and origins of Egyptian culture and society.

1   The Palaeolithic

The climate during the periods under discussion, especially during the Pleistocene and early Holocene periods, varied significantly between hyper-arid and very humid with torrential rains and "Wild Niles." The latter resulted in a high degree of erosion and sedimentation that shaped the physical appearance of the Nile Valley today, and that affected the archaeological preservation and accessibility of sites (Butzer 1976; 1998). This is probably the reason why much of the archaeological evidence of the earliest human occupation is found not in the Nile Valley proper, but in the areas directly adjacent, for example, on preserved Nile terraces along the edges of the high desert plateau, and in particular the surrounding deserts and their oases.

The first evidence for human activity in the Nile Valley is provided by various and highly prolific lithic industries that derive from the Lower Palaeolithic Acheulean tradition (c.500,000 BP). The early assemblages are not associated with any evidence of human or structural remains until much later and well into the Upper (c.70,000–25,000 BP) and Late Palaeolithic (c.24,000–10,000 BP), which is when

Table 2.1   Chronological table of prehistoric cultures in the Nile Valley

Absolute date in years BC		General culture-historical phase	Relative chronology
2700		Early Dynastic	Naqada IIIC–D
3100	Early Bronze		
	Age	Proto-Dynastic	Naqada IIIA–B
3300			
3600		Late Chalcolithic	Naqada IIC/D–IIIA
3900		Early Chalcolithic	Naqada IB/C–IIB
4500		Late Neolithic	Naqada IA/B
			Badarian el-Omari
			Merimde Benisalame
5100		Early Neolithic	Fayum A
7000		Epi-Palaeolithic	
10,000		Palaeolithic	
500,000			

there is the first, albeit scarce, evidence for human burial from the sites of Taramsa, Nazlet Khater, and Wadi Kubbaniya (Vermeersh 1983; Wendorf and Schild 1986). An important Late Palaeolithic site is Wadi Kubbaniya that includes several contexts with evidence for seasonal occupation and a subsistence which suggests that humans took advantage of the seasonally changing availability of food plants, wild animals and aquatic resources. These late Pleistocene hunter-gatherers were organized in small, mobile groups and were highly adapted to their environment (Wendorf and Schild 1980; Wetterstrom 1993).

2   The Neolithic

The transition from the Palaeolithic to the Neolithic period during the early Holocene, when the occupants of the Nile Valley eventually became fully dependent on food producing strategies, i.e. agriculture and animal domestication, is still ill-understood. This can in part be explained by the lack of chronologically appropriate sites with sufficient relevant evidence. Although there is some indication of a change in the mode of subsistence and habitation at a number of sites in the Western Desert of Egypt, such as at Bir Kiseiba, Nabta Playa, and the Dakhla Oasis, with limited evidence for pastoralism of cattle accompanied with pottery production during the seventh and sixth millennium BC, these sites cannot as yet be clearly related to the somewhat later and fully developed early Neolithic of the Nile Valley. The evidence in the Western Desert also cannot be compared with those processes in the Levant, Anatolia, and northern Mesopotamia that traditionally illustrate the transition from a mobile hunting and food-gathering to a food- producing subsistence with permanent settlements, that is usually followed by pottery manufacture. Although an independent and possibly multi-linear development of a Neolithic way of life, including the cultivation of food plants and domestication of animals, cannot be excluded for

Egypt, it appears as if external influence may be responsible for the neolithization of the Nile Valley. Select evidence from the Epi-Palaeolithic period as well as some of the specifics of the earliest traces of Neolithic culture may provide substantiation of this point.

Collections of surface finds from the desert region in the north-east of Egypt and especially near the modern city of Helwan gathered around the turn of the twentieth century (De Morgan 1896; Debono 1979) produced an interesting sample of Epi-Palaeolithic stone tools that show close affinities to the Levantine Epi-Palaeolithic and Pre-Pottery Neolithic (PPN) of the ninth to seventh millennium BC. These included typical tanged projectile points made in a peculiar bipolar blade technique with lateral notches, which were later called Helwan points (Gopher 1998; Hikade 2001). Although there are no contemporary structural remains or any traces of ecofacts preserved from Helwan, and, although the assemblage is otherwise quite distinct from the PPN in the Levant, a connection cannot be excluded. This may be further corroborated by a single Helwan point from the earliest level at Merimde Benisalame (Eiwanger 1984: pl. 57), dating around 5000 BC, that also produced ceramics decorated with an incised herringbone design which has parallels in the Yarmukian culture in the southern Levant of the sixth millennium BC (figure 2.4D; Eiwanger 1984: 62). Similar links to assemblages in Palestine, Jordan, and Israel have also been discussed in relation to ceramic technology and morphology at el-Omari (Debono & Mortensen 1990: 40). These earliest fully developed Neolithic sites display many traits that are characteristic of the Levantine Neolithic, including the cultivation of cereals such as emmer wheat and barley and the domestication of sheep and goat, which have no wild ancestors in northern Africa. In combination with other finds, such as Red Sea shells found in early Neolithic sites of the Nile Valley, these traits would suggest that Neolithic subsistence was introduced from Western Asia at a time when that region appears to have experienced a phase of decline. On the other hand, there is also evidence for interaction between the Nile Valley and the desert regions further south throughout the prehistoric era, and it is important to consider the early cultures of the Nile Valley as essentially north-east African in nature.

The earliest fully developed Neolithic sites in the Egyptian Nile Valley are located in the north and date between c.5100–4500 BC, with Fayum A and Merimde Benisalame being the older ones. Although el-Omari has strong affinities with both sites in its material spectrum, it appears to be slightly later and displays a number of new features that one can also find in the late Neolithic complex of the Badarian culture in the south. All three sites have in common that their inhabitants largely relied on a subsistence economy that combined cultivated cereal crops (mainly emmer wheat and barley), domesticated animals (cattle, sheep/goat, and pig), a number of wild food plants, such as fruit and tubers, as well as fish, turtles and a range of other wild animals, like gazelle and water fowl, thus suggesting a well-adapted subsistence economy that changed with the seasons (Wetterstrom 1993). Although the three areas defined as el-Omari may be considered seasonal settlements that probably shifted with the flow of the creek in Wadi Hof, early Neolithic society can be described as sedentary, egalitarian village communities. The size of the settlements would have been small, consisting of a number of semi-subterranean, round or oval huts of organic wattle-and-daub construction organized in groups that sometimes

formed rows of houses along narrow paths (figure 2.1F–G). Between them were often found a number of pits and basket-lined grain silos up to 1.5 m in diameter which are a shared feature among the three early Neolithic sites in the north.

A small number of burials has been identified in those areas of the sites that had been previously abandoned, but there is no evidence to suggest that the early Neolithic farmers deliberately buried their dead within the settlement. The graves are simple, round or ovoid pits that normally contain a single burial as well as a very small number of grave goods, such as pottery vessels. Area A at el-Omari produced two graves that display an unusual feature, namely, rows of posts set up on the surface and around the grave, possibly forming a fence or a tent. One of these, the burial of an adult male (figure 2.2F; A35, cf. Debono and Mortensen 1990: 67), also contained a wooden staff that was placed near his hands and that may be interpreted as a sign of social distinction.

A consistent element of the early Neolithic material culture is its pottery. It can be characterized by hand-made vessels of coarsely tempered silts that often have a polished surface and were fired in relatively basic firing conditions. The morphological spectrum is simple and displays only a small number of distinct shapes such as deep hole-mouthed jars and bowls. Where there is evidence of decoration, it is in the form of raised relief knobs or simple incised designs, such as circles, strokes or herringbone patterns (figures 2.3 and 2.4; Eiwanger 1992: 36–41). The lithic industries are dominated by fine bifacially retouched core tools, such as sickle stones and knifes with serrated cutting edges and concave-base arrowheads. Also common are polished axes of hard stones as well as pear shaped mace heads (figure 2.5B–C). Apart from these main artifact categories, early Neolithic sites also produced bone tools and a limited number of clay figurines. Of particular importance is a small human clay head from Merimde Benisalame, layer V, which appears to have been deliberately buried as fragments (figure 2.7A; Eiwanger 1992). Although its facial features are basic, the area around the face and at the back of the head shows punctures of varying depth, which may suggest that hair and a beard were indicated by real hair or other organic materials. Its shape suggests that it may have been placed on a staff for display.

Some aspects of the lithic tools, especially the concave-base arrowheads, bifacial sickles, as well as a distinct new form of blade knife first in evidence at el-Omari (figure 2.5C; Debono & Mortensen 1990, pl. 19: 7–13; Holmes 1988, 1989), provide a link in time and space with the later, but clearly Neolithic, southern Badari culture. Its precise chronological position, development, and geographical distribution have been intensively reviewed over the past decades. More recent radiocarbon dates appear to cluster between 4400–4000 BC (Hendrickx 1999). Today its distribution is considered well beyond the region of Badari in Middle Egypt extending as far south as Hierakonpolis. The spectrum of domestic pottery is still very much dominated by coarse and rough-faced wares, but fine, well-made polished wares appear to have become increasingly popular. Two new aspects allow us to observe how Badarian potters have succeeded in mastering the medium of clay. One is a peculiar technique that results in a conspicuously rippled vessel surface, and the other is the introduction of bi-chrome wares, in particular the so-called Black Topped Brown and Red wares (Brunton and Caton-Thompson 1928). Badarian rippled pottery is probably achieved by the desire to create very thin vessel walls and by

removing excess clay with a serrated tool. Once this process has been completed, the vessel surface is smoothed over, often coated with a red slip, and carefully polished, thus creating a subtle ripple effect. Bi-chrome wares frequently display this particular technique as well as very fine and well-made vessel shapes, often with a characteristic carination or keel towards the base of the vessel (figure 2.3C). The fact that the vessel rims of Black Topped ceramics were deliberately fired black also suggests that the potters well understood the effects of manipulating the fuel and firing atmosphere in the kilns. The lithic industry is now dominated by a flake and blade technique which produces a range of tools such as scrapers, burins, perforators, and very fine blade knives, but the early Neolithic bifacial core tradition, in particular for sickle stones and arrowheads, is still part of the assemblage (Holmes 1988, 1989).

The material culture of the Badarian complex suggests a gradual process of social segmentation and overall technical advancement. For example, decorative adorn-ments play an increasingly important part of Badarian personal identity, especially in the sphere of the funerary remains. The graves sometimes contain items of jewelry, cosmetic utensils such as rectangular stone palettes, delicately carved ivory spoons, combs and vessels, as well as figurines (figures 2.6A and 2.7B). Metal objects, such as copper pins and beads, made from cold-hammered native copper have been recorded in very small numbers. It appears as though there is a degree of specialization occurring at a very basic level, in particular in areas of activities such as flint knapping, pottery manufacture, jewelry making or basketry. However, at this stage they are probably not subsistence activities. On the basis of the graves, some scholars have suggested that there is also evidence for unequal distribution of wealth as an indicator of social inequality. This is measured by the contrast between a small number of graves that display greater material wealth than shown by the vast majority (Anderson 1992). This distinction may be indicative of an early form of social differentiation and possibly of a ranked society, where rank was assigned through different age or sex grade associations. Although there is evidence that certain individuals, such as village elders, may have enjoyed greater social esteem, social differentiation, however, was still largely horizontal and based on kinship affiliations within the villages.

Due to the limited quantity of modern data, many aspects of the Badarian complex, for example, the significance of material that had previously been assigned to the so-called Tasian culture, or the chronological and geographical relation between the Badarian and the Naqada complex, are still awaiting clarification. It appears as though the Badarian and the early stages of Naqada I are, in part, contemporary and, in part, consecutive, cultural developments. There is also reason to suggest that the material culture of the late fifth millennium BC on the one hand drew from a common Neolithic tradition, but was also subject to differential regional developments influ-enced by interregional commodity exchange with adjacent areas, such as Nubia in the south, the Eastern Desert and Red Sea in the east, the oases in the west and the Levant in the north. This element of regionalism becomes increasingly obvious as the archaeological data gain greater density and wider geographical coverage, especially as time progresses towards the 4th millennium BC. A hindering aspect has been, however, that there is no consistent chronological, geographical, and material representation throughout the Nile Valley. For example, the early Neolithic of the north has no direct southern counterparts, and the late Neolithic of the south is

hardly represented in the north. Also, with more than 15,000 graves the south is vastly overrepresented with respect to its mortuary data. This situation cannot be matched by the north where only about 600–700 graves are known (Hendrickx and Van den Brink 2002). In contrast, the north produced much more information concerning the domestic sphere. This unequal representation of data has caused a significant imbalance and is, in part, responsible for a number of misinterpretations and disagreements. What some scholars consider as evidence for regional differentiation has been interpreted by others as evidence for cultural distinction. Consequently, the latter group has afforded much attention to the possible division, definition and interaction of contemporary cultures in the north and south of Egypt. This has especially complicated the explanation of cultural and socio-political change towards the end of the prehistoric era, and of the process of state formation leading to the start of the historical era in Egypt. Modern scholarship, however, has been gradually moving away from this notion and is now considering a strong element of regional diversity and interregional exchange as a possible avenue to further our understanding of these crucial processes (Holmes 1989; Friedman 1994; Köhler 1995, 1998, 2002, 2008; Buchez and Midant-Reynes 2007).

3   The Chalcolithic

It appears as though the transition from the fifth to the fourth millennium BC also saw a significant change in the subsistence, economy and social organization of Prehistoric Egypt that had far-reaching consequences. There is increasing evidence that a range of craft industries, such as pottery and stone vessel manufacture, textile production, flint knapping as well as metal working, now became subsistence activities that were operated by specialized full-time craft workers (Takamiya 2004).

For example, the Black Topped pottery wares that first appear in the late Neolithic continue to be in use throughout the remainder of the prehistoric period, but take on a more standardized morphological spectrum and quality initially comprising relatively simple restricted and open vessel shapes. In the south of Egypt the ceramic fabric usually consists of a fine alluvial Nile silt groundmass with very little or no temper, and tends to be relatively hard and well-fired. The distribution of this pottery ware is wide; while it is very frequent near its production centers, such as Naqada and Hierakonpolis, it occurs at a lower frequency in the periphery, but it is traded as far north as Maadi. This distribution pattern, technological consistency, and the degree of morphological standardization, strongly suggest that the producers of this kind of pottery were craft specialists who operated an economically viable industry (Friedman 1994).

A similar contemporary case can be made with vessels that are manufactured from hard stones, such as basalt. Due to the sole geological occurrence of basalt near the Fayum oasis, basalt vessels in Egypt are a trait of the north. They may have been produced at or near the site of Maadi, where they have been found in large quantities together with ceramic shapes that match their stone counterparts (figure 2.6B; Seeher 1990). The standardized shapes of these vessels, the technical requirements

resulting from the fact that basalt is a material that is very hard to work as well as their wide distribution extending as far south as Naqada and Hierakonpolis, where they are popular grave goods, again support the conclusion that these also were manufactured as part of a highly specialized industry.

Finally, Maadi has also produced material evidence for a new craft industry that appears to have been introduced from the east, i.e. copper metallurgy. Although artifacts of native, cold-hammered copper are known from the late Neolithic, the evidence from Maadi suggests a completely different and far more complex manufacturing process that for the first time justifies the term "metallurgy." The copper involved here is smelted from copper ore, which requires furnace technologies that produce temperatures of more than 1200 degrees Celsius to separate the metal from unwanted minerals. Lumps of copper ore that had been mined in the Wadi Araba–Feinan region of the southern Levant have been found at Maadi as well as cast copper ingots of more than 800 grams and copper tools such as cast axes (figure 2.5A; Seeher 1990). Metallurgy is such a complex technology that it requires a high degree of skill and expertise and a steady supply of high quality fuel to operate the furnaces and to cast objects of the desired shape, thus practically necessitating a high degree of specialization.

In most parts of the ancient Near East, evidence for metallurgy, together with other specialized craft industries, often result in the application of the term Chalcolithic, which in modern archaeological terms means more than the "Copper and Stone Age." The concept of a Chalcolithic culture also signals important changes to the social organization of the societies that engage in these industries. The presence of full-time craft workers, who operate their industry as a subsistence activity, usually indicates significant social differentiation that is no longer decided by age or sex grade associations but by ability and professional skill as well as differential access to resources. We are, therefore, in the position to label prehistoric Egyptian society at the relative archaeological stage of late Naqada I and thereafter (c.3800–3300 BC) as Chalcolithic, which itself can be divided into an early and later stage. A number of other terms are frequently used for the later part of the prehistoric era, such as Predynastic, Naqada or Buto-Maadi Culture, but we prefer the more neutral term Chalcolithic here as it can be applied more easily to all of Egypt, and has fewer cultural or geographical associations.

At the beginning of the fourth millennium BC, a number of significant socio-economic changes can be observed that announce the start of a new era in many other respects. At this stage the specialized craft industries of certain ceramics, stone vessels, and metallurgy tend to be located close to the river and at the intersection of trade routes. Here the resources are easily accessible, and the craftsmen find the infrastructure as well as the demand to engage in regular commercial exchange at places such as Maadi, Naqada, and Hierakonpolis. It is in these early commercial centers where the population grows, where more industries can be found, and where society becomes increasingly diverse as time progresses. The site of Maadi, for example, not only accommodates specialized industries but also appears to have been engaged in interregional trade with Upper Egypt as well as with the southern Levant, from where a number of commodities such as ceramics and copper ore are imported. Maadi is a relatively large settlement that provides evidence for both simple

domestic architecture comprising round and rectilinear houses of wattle-and-daub construction (figure 2.1C) as well as, on a more limited scale, semi-subterranean mud-brick and subterranean stone construction. Of the latter a large stone-built structure of about 10 m length, 5 m width and with walls of more than 1 m thickness has been found (figure 2.1D). It appears to have served the function of specialized, central storage and has strong affinities with contemporary Levantine architecture (Hartung et al. 2003). The Levantine influence at Maadi is so consistent that scholars have frequently suggested that it may even have been inhabited by non-Egyptian merchants who operated the interregional trade with the north-east. Evidence of a similar nature has been identified at the site of Buto, which was located on a western Nile branch near the Mediterranean coast. Its earliest occupation level produced a significant quantity of locally manufactured ceramics, in particular V-shaped bowls, churns, and large dishes with "pie crust" rims. These show the necessary morphological and technological hallmarks of Ghassul-Beersheva style pottery and hence appear to have been made by non-Egyptian potters who possibly came with the traders (Köhler 1996b).

The archaeological evidence currently suggests that the Levantine merchants only initially, i.e. during the early Chalcolithic, had a presence in Egypt and that their trade was subsequently taken over by locals as the commercial centres along the Nile became increasingly successful. Along with the growth in population size and social differentiation came the emergence of leaders who engaged in control over resources and peer competition with neighboring polities to enhance their strategic access to resources, and economic or political leverage. Chalcolithic society in Egypt can be described as a ranked or chiefdom society that provides clear evidence for both horizontal and vertical differentiation. The emerging ruling elites who were based at the numerous commercial centres across Egypt provide the opportunity to study the origins of the ideology of kingship and of Pharaonic political economy. The society in their polities also displays complex cognitive and ideological concepts, such as elaborate funerary beliefs and religious rituals. They are expressed through a rich material culture, art, and a variety of archaeological remains in the different regions of Egypt.

Because of the thousands of Chalcolithic graves from Upper Egypt, the funerary culture in this region is particularly well understood. It is important to consider the graves of the wealthy elites of this period separately from those of the commoners as they display a varying degree of grave goods and mortuary diversity. The majority of graves of the early Chalcolithic are still relatively small and simple burials containing a tightly contracted skeleton that is wrapped in reed mats or animal skin. On average there is a small quantity of grave goods such as pottery vessels for food and drink, personal adornments, and occasionally tools and weapons (figure 2.2D–E). A number of sites provide increasing evidence for mortuary variability relevant to social distinction and differential access to resources. Of interest here are those graves that are comparatively wealthier than others, in particular, the richly furnished graves of young children, which indicate inherited or ascribed status. The elite graves of the late Chalcolithic can be very large in size, for example 3–4 m long, 1–2 m wide and deep, and are often rectangular, encased with plastered mud-brick walls and sometimes divided into two or three chambers (figure 2.2A–B). They also appear to be located in

separate cemeteries at a distance from those of the commoners in their polity. This is evident at sites such as Hierakonpolis, Abydos, and Naqada and is a clear indication of deliberate social distinction. Often they feature a rich spectrum of artifacts, ranging from large quantities of local and imported pottery, fine jewelry of gold, silver, and copper beads, as well as beads and pendants of shell and semi-precious stones such as carnelian, amethyst, lapis lazuli, turquoise, delicate stone vessels of different hard stones, and very fine lithic tools, such as exquisitely retouched fish-tail or ripple-flake flint knives (figure 2.5D). The elite graves of Upper Egypt document well the level of control and patronage that the local leaders exerted over their industries and the interregional trade. The almost immodest and conspicuous display of wealth which is evident in Upper Egyptian elite graves of this period is a phenomenon that is only matched by the monumental elite tombs of the Early Dynastic Period at Saqqara or the Old Kingdom tombs of the highest officials in the Memphite residential cemeteries and should be evaluated against this background. In the past, scholars have relied heavily on these late prehistoric elite graves to characterize Upper Egyptian burial customs and to contrast these with Lower Egypt, where such wealthy burials or such conspicuous display of wealth have not been observed. This lack of evidence in the North has, in the past, been interpreted as an indication of a society that is less complex or more egalitarian than that of the south, that adhered longer to the "Neolithic way of life" (Seeher 1991; 1992; Hendrickx and van den Brink 2002: 347) and that on the whole represented a different culture. It must be remembered, though, that the evidence from the settlement of Maadi, for example, suggests otherwise, and that the north was clearly not lagging behind in terms of socioeconomic development. Furthermore, the southern graves only appear to have broader application because there are 25 times more graves excavated in the south than in the north. The lack of an equally representative sample of mortuary data in the north does not mean that there were fewer graves, i.e. a smaller population, and it is not necessarily indicative of northern funerary archaeology. The answer is most likely to be sought in the circumstances of deposition of the cemeteries within the alluvial floodplain, in contrast to the usual southern low desert location, and in the fact that most of the prehistoric northern sites are probably still buried under thick deposits of alluvial sediments. Although a large number of graves have been located on the higher level of *geziras* or "turtle backs" in the north-east, many others are often embedded underneath or above settlement strata, which may suggest that suitable space for cemeteries was limited, thus forcing the people to bury their dead in archaeologically less favorable locations. Therefore, the mortuary data of both regions need to be treated with great caution. Nevertheless, it is still possible that Upper Egyptians placed more material emphasis on their funerary culture than did the others. It may also have been more practicable because they had easier access to resources compared with the Nile Delta. In the Delta, natural resources, other than agricultural produce, are scarce and their acquisition required more expenditure of effort than in the south, which may have been an inhibiting factor in the development of a comparable funerary culture.

The burial customs that are in evidence, however, are highly varied and complex, and they suggest an increasing emphasis on funerary religion as well as differentiation of society. An interesting new development has recently come to the fore of scholarly

discussion that may assist in understanding the early development of the treatment of the human corpse prior to burial. Recent excavations at Hierakonpolis and Adaima in the south of Egypt have produced new evidence for dismemberment and the subsequent use of resin-soaked fabric for the wrapping and padding of certain parts of the body. In particular, it appears as if the area of the neck and the hands received this kind of special treatment. Such evidence had also been noticed by earlier excavators but had been largely dismissed due to the early date of the work and lack of scientific control of excavation. The evidence, as it currently presents itself, is scarce but may indicate that later Pharaonic funerary rituals, including dismemberment and artificial mummification, may have been explored already during the prehistoric periods and may go back even as far as the late Neolithic period (Jones 2007). It is possible that, as in many ancient or modern cultures, such unusual mortuary rituals reflect concepts of a rite of passage that the dead were thought to undergo and that could be a facet of complex religious beliefs, including the notion of an afterlife, and do not reflect practical considerations. On the one hand, it is possible that grave goods, such as jewelry, were deposited in a burial because the deceased was attached to them, and with this person's demise they lost their purpose or were considered polluted. Some customs, such as the conspicuous display of wealth, may be related to rites of separation and, therefore, may reflect more on the living who buried the dead and organized the funeral than on the deceased. The treatment of the corpse described above could be associated with the concept of liminality and may have been practiced in order to prepare the deceased physically for a corporal and spiritual transition or journey into another form of existence or the afterlife. This notion could also be reflected in the contracted or fetal position of prehistoric burials that may symbolize re-birth in another world (Köhler 2003). Grave goods and the differential display of wealth may also allow the deceased to enter the afterlife according to the social status they held in life. Finally, the provision of sustenance in the form of food and drink, supplied in appropriate containers such as pottery and stone vessels, pouches, and baskets, could indicate that the existence in the afterlife was not thought to be in an entirely spiritual form but also had a physical dimension and thus required nourishment. Interestingly, on occasion, such edible grave goods have been recorded in the form of non-edible substitutes made of painted mud, such as bread, fish, garlic, or eggs, that only in shape represent food and that obviously had a symbolic significance only appreciated by the deceased.

Although most of our information about the prehistoric era in Egypt derives from the cemeteries, the settlements also hold valuable additional data that further our understanding and that are at times comparable to, but at times also distinct from, mortuary data. For example, it has been observed that the material culture, in particular the ceramics, of Upper Egyptian graves is quite distinct from that of the contemporary settlements and that the choice of grave goods was so deliberate that certain manufacturing industries specifically catered for funerary consumption. Domestic pottery, on the other hand, was largely produced at the household level and private households only acquired a limited amount of vessels from the more specialized workshops, such as containers of specific and high-value processed goods such as oil. This is particularly evident during the Chalcolithic period when the funerary industries of the south are supported by the high demand for grave goods required

for the funerals of members of the elites and their kin in the well-populated centres. It is during this period that a number of specialized ceramic workshops start to appear that eventually not only cater for the regional markets but also have the economic viability to expand their distribution even beyond the Nile Valley. For example, vessels of the Upper Egyptian Decorated and Wavy-Handled classes of the late Chalcolithic have been found as far north as Taur Ikhbeina in the Levant (Oren and Yekutiely 1992) and as far south as Qustul in Nubia (Williams 1986). Although these vessel categories also occur in the settlements, the domestic pottery tends to be drawn from a different spectrum of forms and fabrics that primarily served the function of food preparation and storage and fulfilled specific domestic needs. It is, therefore, very interesting to observe that, while there is also a strong element of regionalism, the ceramic assemblages from Chalcolithic settlements of the north and south are far more homogenous than those of the cemeteries. This is especially significant in view of the fact that the households either produced their own pottery in a primary household production or acquired it from a local household industry, but rarely imported domestic pottery from further afield. The homogeneity of the domestic pottery of the Chalcolithic is, therefore, an indication for cultural cohesion, rather than distinction of north and south.

As noted above, Neolithic settlements provide the earliest extant evidence for structural remains and domestic architecture in Egypt. The domiciles were simple oval or rounded huts of wattle-and-daub construction, arranged in small clusters or villages and sometimes along narrow paths. The hearths can be found in and outside the houses and frequently storage pits accompany the area used by a household (figure 2.1F–G). There has been discussion about the significance of so-called hut circles that had been excavated by Caton-Thompson at the village of Hemamiya early in the twentieth century and re-investigated in recent times by Diane Holmes and Renée Friedman. These features appear to date to the latest Neolithic and early Chalcolithic phase at the site (Caton-Thompson 1928: 88; Friedman 1994: 343; Holmes 1993; Holmes and Friedman 1994). Nine such circles were excavated and described in more detail; they are made of mud and range between 1 and just over 2 m in diameter and reach up to 1 m in height. Some bear evidence of external enforcement with vertical organic reed stalks. Caton-Thompson had already questioned if they all served as houses and not rather as storage facilities (Caton-Thompson 1928: 83) as many of them are clearly too small to accommodate a household comfortably. It is possible that they were primarily storage bins of different functions, for example, to store fuel or to confine young animals. Interestingly, apart from hearths and a mud wall of about 9 m length, Caton-Thompson did not identify any other structural remains of this prehistoric settlement and described the deposits as homogenous dark muddy midden layers with ashy lenses. What is striking about this observation is that, just as with Caton-Thompson's early Neolithic settlements sites of Kom K and W in the Fayum, there is no mention of postholes which, in comparison with other prehistoric settlements in Egypt, is most unusual. Also, although Old Kingdom coffins and other later features were noted to have significantly disturbed the site, penetrating deep into the lower strata of the settlement, the archaeological stratification, as published, appears oddly horizontally layered and "intact." It is, therefore, possible that the deposits were either too disturbed or Caton-Thompson

did not perhaps recognize the traces of wattle-and-daub post construction, which is an otherwise typical feature of prehistoric settlements.

Early Chalcolithic settlements appear to have utilized organic materials such as wooden vertical posts, tree branches, and twigs for wall screens which were subsequently covered with mud plaster. Also, condensed mud was employed for the vertical walls of circular and rectilinear houses (figure 2.1A, C). Early Chalcolithic mud brick or slab construction has been identified at sites such as Maadi and Hierakonpolis (figure 2.1E), but, similar to tomb construction at the time, they do not play a significant role yet (Köhler 2008; Zdzieblowski 2008). It is only in the late Chalcolithic Period that mud brick is employed on a more consistent scale in both tomb and house construction. This is especially evident as the settlement system becomes more complex and the commercial centres experience a growth in population and industrial activities; however, post construction is not entirely abandoned. For example, the recent excavations at Hierakonpolis have been uncovering the remains of Chalcolithic sites, known as HK 23, HK29A + B and HK25, that display construction with a combination of mud-brick walls and especially posts (figure 2.8). It appears as though numerous, very tall, wooden posts were employed for the construction of a hall of significant size, thus suggesting a special function for this complex, be it sacral, communal or official (Friedman 2008).

Another fascinating settlement has recently come to light at Tell el-Farkha in the eastern Nile Delta. An industrial centre for beer production and large-scale mud architecture have been uncovered, which suggest that Tell el-Farkha probably had some socio-economic significance during the Chalcolithic period (figure 2.1A). The recent discovery of two most unusual prehistoric statuettes made of relatively thick gold sheet and lapis lazuli inlays, both depicting anthropomorphic males with erect phalluses or, more likely, phallus sheaths in style very similar to contemporary ivory figurines, raise this site to the level of high significance in the Nile Delta. The Polish excavators recently also found an offering deposit of a large quantity of Proto-Dynastic and Early Dynastic ivory figurines similar to those found in the early sanctuaries at Abydos, Hierakonpolis and Elephantine, that, together with the gold statuettes, suggest that this site had religious significance. Although the two statuettes were found in a secondary context, they may indicate the existence of a late Chalcolithic sanctuary where an anthropomorphic deity, divine ruler, or ancestor was worshipped (Ciałowicz and Jucha 2003; Ciałowicz 2004; 2006; 2008; Chlodnicki and Ciałowicz 2006).

The elites of the late Chalcolithic chiefdom societies throughout Egypt became increasingly successful at controlling the exploitation of local resources, interregional trade, and the overall political economy of their polities. The more powerful polities in the south were probably located at Hierakonpolis, Naqada, and Abydos, where elite cemeteries and significant proto-urban architecture (figure 2.1B) have been uncovered suggesting a high degree of centralization. In the north, there is evidence to suggest that similar centres were located in the Girza-Tarkhan area and within the Delta at sites such as Buto and Tell el-Farkha. There are also other important sites such as Manshiyet Ezzat, Tell Ibrahim Awad, Kafr Hassan Dawoud, and Minshat Abu Omar, but their socio-political and regional significance is yet to be established. Nevertheless, the political landscape of late Chalcolithic Egypt can be reconstructed as a series of polities along the river and its branches in the north that appear to have

competed with each other for access to resources, control of the trade routes, and eventually for regional authority.

The ideology behind this peer-polity competition is probably well illustrated in a variety of artistic representations that emphasize the figure of the leader, subjugation of enemies, and the interaction of the symbolic forces of nature. One of the best examples where all these iconographic elements can be found united is the wall painting found in the late Chalcolithic Tomb 100 at Hierakonpolis which was probably the burial of a local ruler. The painting is applied in red, black, and white colors on to the plastered mud-brick walls that encase the large tomb pit. The painting shows a series of boats as they travel along the river and numerous smaller scenes involving animals and people, such as dancing women and fighting men. Of particular interest here are two scenes that are close to each other; one shows a tall human figure brandishing a mace-like weapon with one hand and with the other restraining three kneeling smaller figures (figure 2.7G). This iconography of subjugation has its antecedents in earlier white-painted vessel designs on White Cross Line pottery (figure 2.7F) and continues well into the Pharaonic era, where it is one of the most popular and powerful symbols for the supreme power of the king. The other scene in the mural shows a human figure restraining with his hands two large animals that can be interpreted as lions, based on the more detailed parallel on the ivory handle of the contemporary Gebel el-Arak knife (figure 2.7H). This imagery clearly serves to illustrate the ruler's supernatural powers and assists in the ideological legitimation of the ruler's authority over his subjects. It appears as though this iconography is somehow related to representations where pairs of wild animals, such as giraffes, crocodiles, wild dogs or even mythical creatures face each other very peacefully and are restrained or hunted by humans (figure 2.7I–K). Such representations can be found in isolation but also in many combinations and on different media, such as painted pottery, cosmetic stone palettes and ivory knife handles. It is interesting to note that these motives, i.e. the subjugation of enemies, the hunting of wild animals, the taming of the forces of nature and warfare are all found combined in the wall painting of Tomb 100. They still echo in the imagery of Proto- and Early Dynastic ceremonial palettes, glyptic, or rock art, and are always closely associated with the figure of the ruler. Thus, they indicate that some of the principles of later royal symbolic imagery, which centres around the contrast of chaos and order, were long established by the time that kingship emerged, and that they had their origins in a wide variety of ideological concepts arising from the prehistoric past which were later incorporated into the new notion of the ideology of the Egyptian state (Kemp 1989; Köhler 2002; Köhler in press).

One of the most important sites in this context is Abydos, where over the past twenty years the German excavations have been uncovering significant material which illustrates the growth of a southern chiefdom polity and its development into one of the earliest regional kingdoms of Egypt. The main part of the prehistoric evidence derives from Cemetery U which is located on a low desert plain where more than 600 graves have been identified which cover a time span of several hundred years between the late Neolithic and the beginning of the historical period. This cemetery continues well into the dynastic era and spatially develops into Egypt's first royal necropolis where a majority of the kings of Dynasties 0, 1 and 2 are buried.

The late Neolithic graves in Cemetery U are small, modest burials which only contain a small number of grave goods, such as one or two beakers of the bi-chrome Black Topped class. The contracted corpse is usually oriented with the head to the south facing west and is often wrapped into a reed mat (figure 2.2E). As time progresses, some of the graves appear larger in size, e.g. 2.4 × 1.5 × 1.7 m. (figure 2.2D), and also tend to be furnished with more grave goods, such as cosmetic palettes, decorated combs of bone, jewelry of ivory, gold, faience and semiprecious stones, clay and ivory figurines, very fine flint tools and, particularly, pottery vessels of different kinds that are also more elaborate in character. Especially interesting are red polished ceramic vessels of fine alluvial silt that are painted with white figural designs representing wild animals, a hippopotamus hunt or the subjugation of captives. These are motifs that obviously relate to the symbolic imagery of the power of the leader and the taming of the chaotic forces of nature. It appears as if these early Chalcolithic graves belong to members of a wealthy elite who have access to a wide range of resources acquired from within and without their polity, and who proudly display their status in their graves. The elites continued to bury their dead in Cemetery U which appears to evolve gradually into a space reserved solely for elite burials towards the end of the Chalcolithic. Many of the late Chalcolithic graves, although encountered in a highly disturbed state of preservation, are not only very large in size, e.g. 3.7 × 2.2 × 1.8 m, and often enforced with mud brick walls (figure 2.2B), but they are also accompanied by a large number of exquisite grave goods, including dozens of pottery and hard stone vessels from within and outside the region of Abydos and the Nile Valley., How well connected these Abydene elites were emerges, for example, from the ever growing number of imported commodities, especially pottery vessels from the Levant. This evidence for interregional trade culminates in the multi-chambered Tomb U-j of Naqada IIIA date which contained several hundred imported wine jars of Syro-Palestinian origin as well as an exquisitely carved bowl of imported obsidian, ivory objects and local Egyptian pottery vessels (Dreyer 1998b; Hartung 2001). The owner of this tomb is probably one of the earliest rulers of a southern regional proto-kingdom who commanded a healthy regional economy and interregional trade as well as a local administration which, for the first time, explored avenues of written communication, including the use of cylinder seals and commodity labels which would eventually develop into the hieroglyphic writing system of Pharaonic Egypt. These elite tombs at Abydos demonstrate the local development of complex society and of an early regional state that comprised a far more complex social hierarchy than its chiefdom predecessor, including the ruler and his extended family, specialists such as scribes and administrators, highly skilled full-time craft workers, and the large body of farmers and laborers. This Abydene proto-kingdom appears to have been in contact with other regions in the south and north of Egypt, which may have been in the form of peaceful as well as competitive interaction. The former is possibly indicated by commodities of northern origin that ended up in Tomb U-j and that are identified by small bone labels upon which place names such as Buto or Bubastis are inscribed. It is also possible that Abydos engaged in peer-polity competition with its southern counterparts at Naqada and Hierakonpolis and that these three southern proto-kingdoms eventually competed for regional authority

that may have ultimately resulted in a single Upper Egyptian polity (Campagno 2002; 2004; Hendrickx and Friedman 2003).

At the time when these proto-kingdoms competed for dominion in the south, there is evidence to suggest that, in addition to the flourishing polities of the Nile Delta proper, a new regional centre at the apex of the Delta had emerged. The area appears to have experienced a significant growth in population at the very end of the prehistoric era, indicated by an increase in cemetery sites and social complexity (Mortensen 1991). This development marks the beginning of such important sites as Helwan, which represents the main necropolis of Early Dynastic Memphis and from where late prehistoric and proto-dynastic archaeological evidence is known that also suggests the presence of elite tombs (Köhler 2004). The area of Memphis eventually became incorporated into the early Egyptian territorial state and consolidated as the primary centre and political capital of the early historical era.

4   Conclusion

Although there is indeed a significant amount of data informing us about the prehistoric era in Egypt, much fieldwork and active research are still required to produce more primary evidence. This is especially necessary in relation to the archaeology of the Neolithic in the Nile Valley, of Chalcolithic settlements in the south, and cemeteries in the north. This may eventually result in wider and denser geographical coverage and scientifically representative data that would allow for a more comprehensive modern re-evaluation and interpretation of existing evidence. Another area of research priority lies in the definition and precise chronology of the various material cultures in the regions of Egypt and in the elucidation of how a number of significant socio-economic and cognitive processes pertaining to cultural change throughout the prehistoric era can be explained. Nevertheless, the evidence currently available strongly suggests a gradual and continuous development of culture and society in Egypt that witnessed the independent formation of complex society and political economy and of the world's first territorial state system.
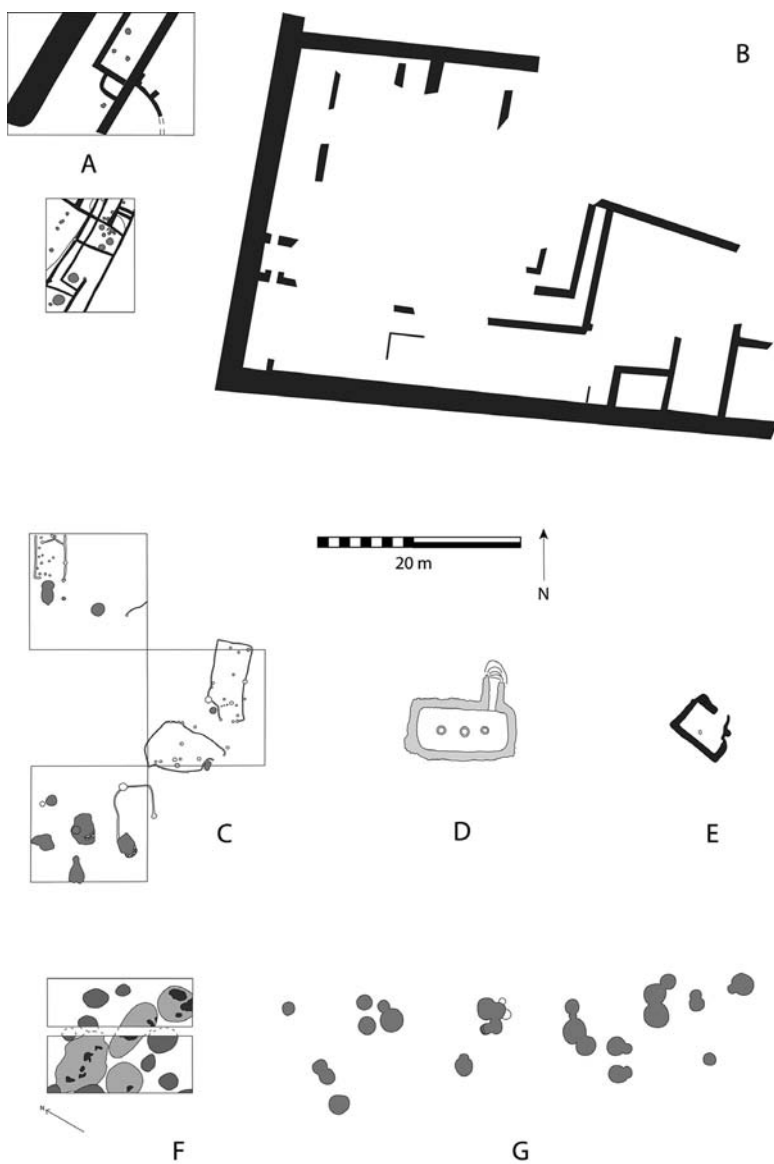
Figure 2.1 Prehistoric settlements (A = Tell el-Farkha; B = Naqada; C, D = Maadi; E = Hierakonpolis; F = Nabta Playa: G = el-Omari).
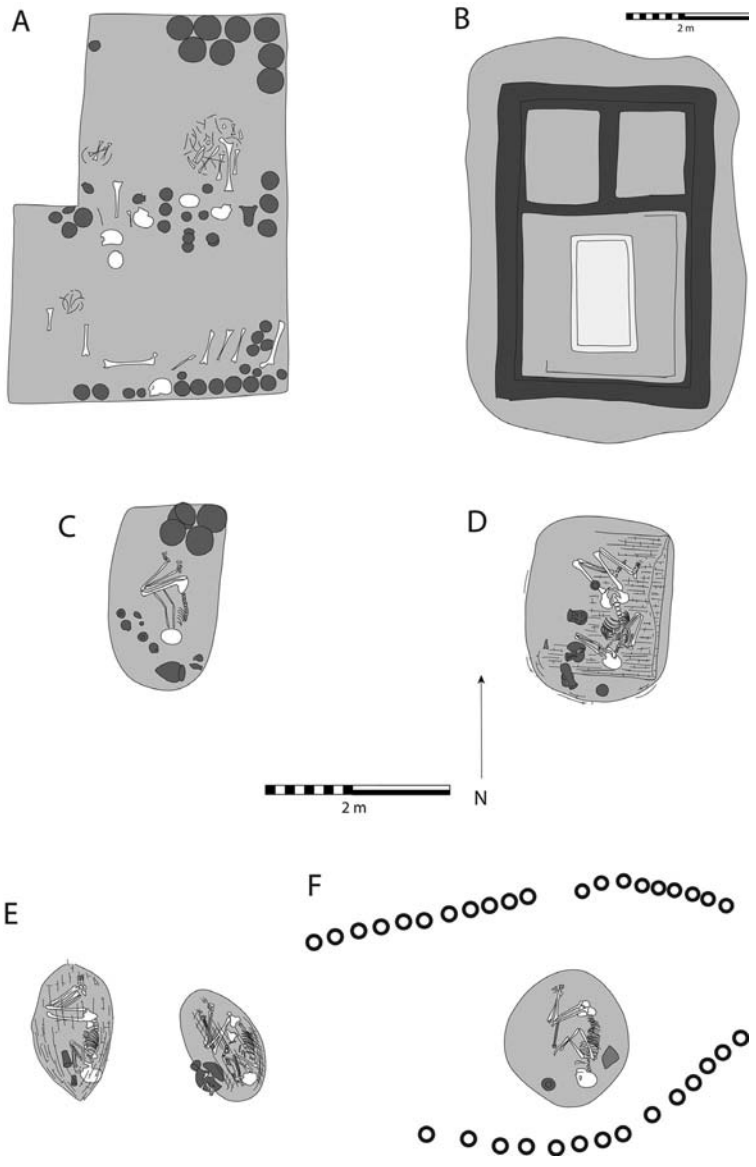
Figure 2.2 Prehistoric graves (A = Naqada; B, D, E = Abydos; C = el-Girza; F = el-Omari).
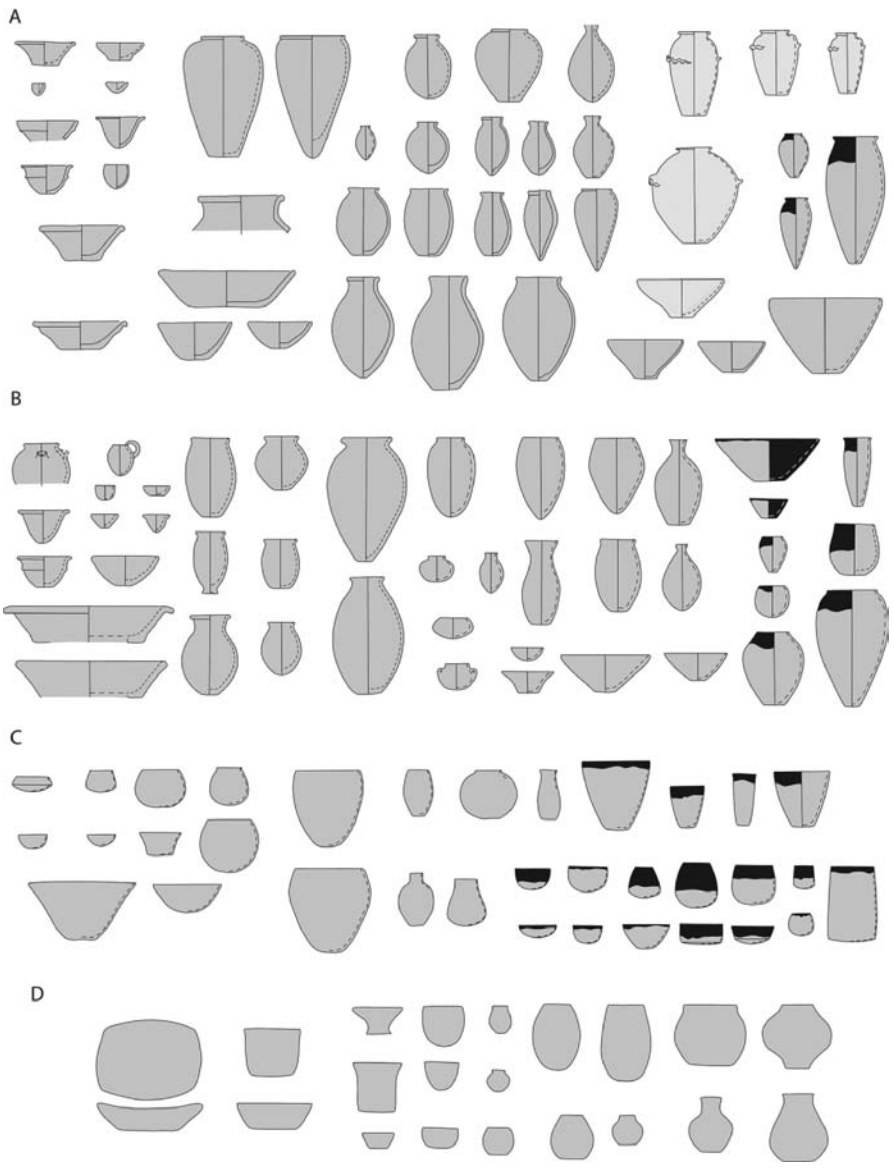
Figure 2.3 Prehistoric pottery shapes (A = late Chalcolithic; B = early Chalcolithic; C = late Neolithic; D = early Neolithic).
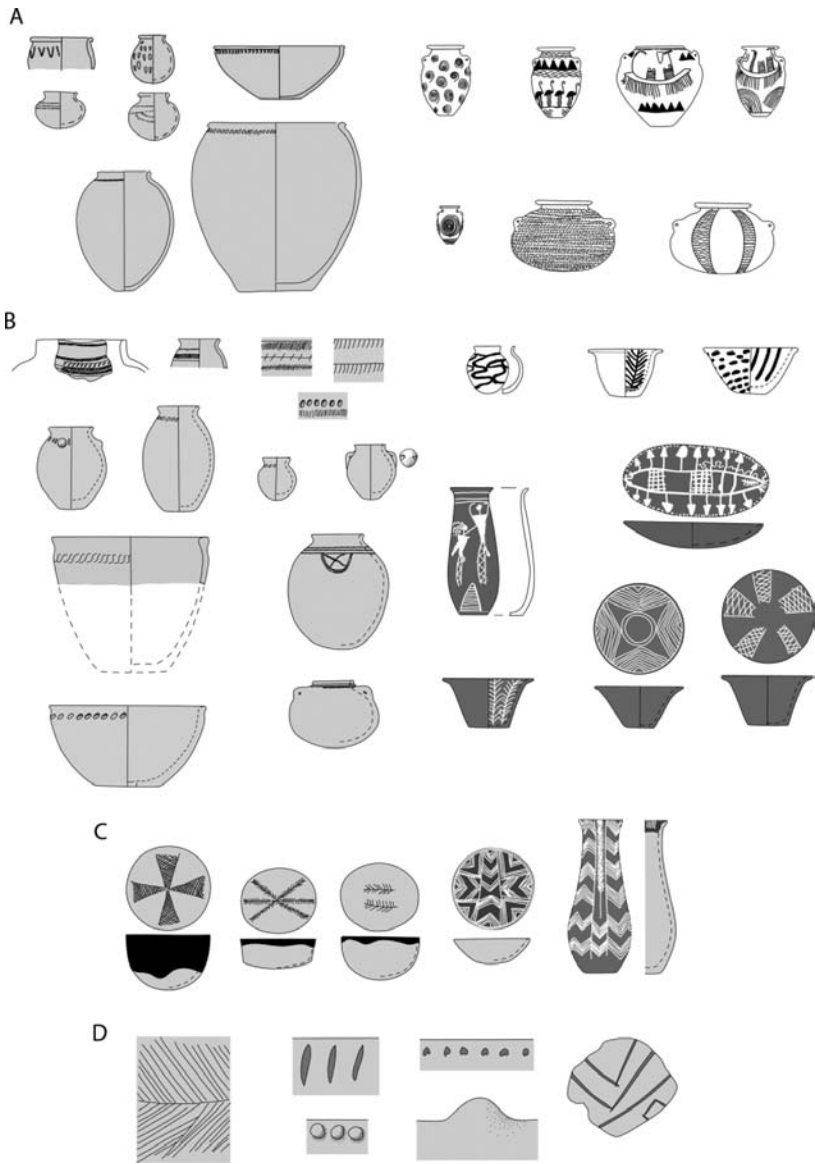
Figure 2.4 Prehistoric pottery decorations (A = late Chalcolithic; B = early Chalcolithic; C = late Neolithic; D = early Neolithic).
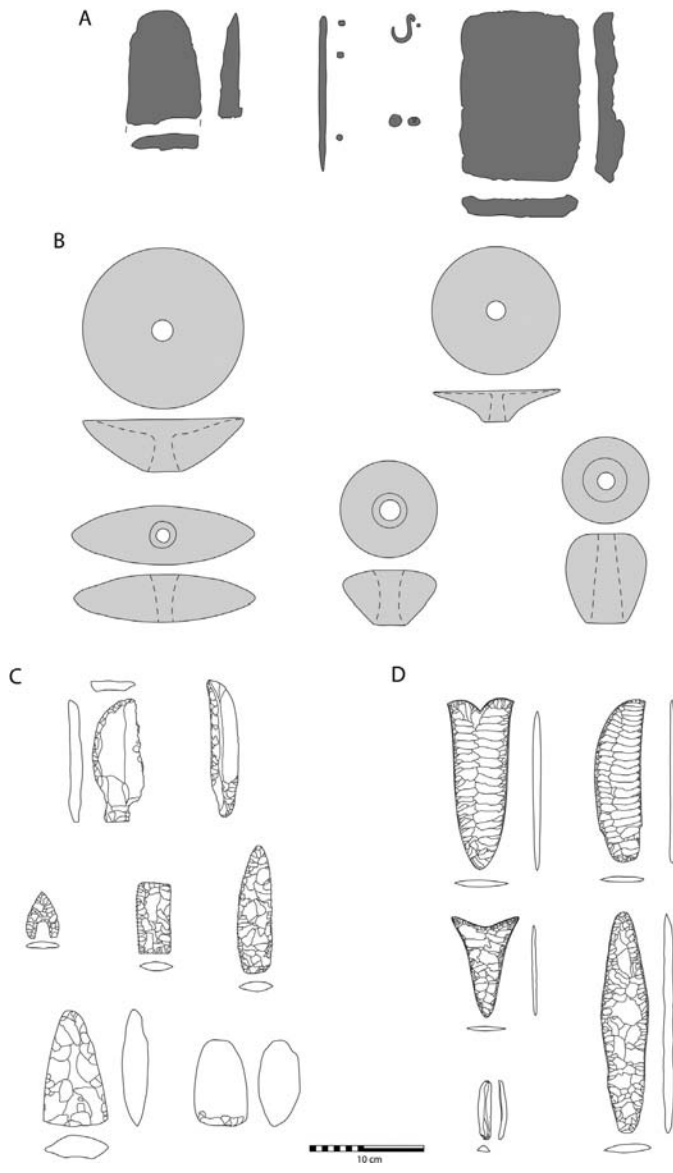
Figure 2.5 Prehistoric tools and weapons (A = copper objects from Maadi; B = stone mace heads; C = Neolithic stone tools; D = Chalcolithic stone tools).
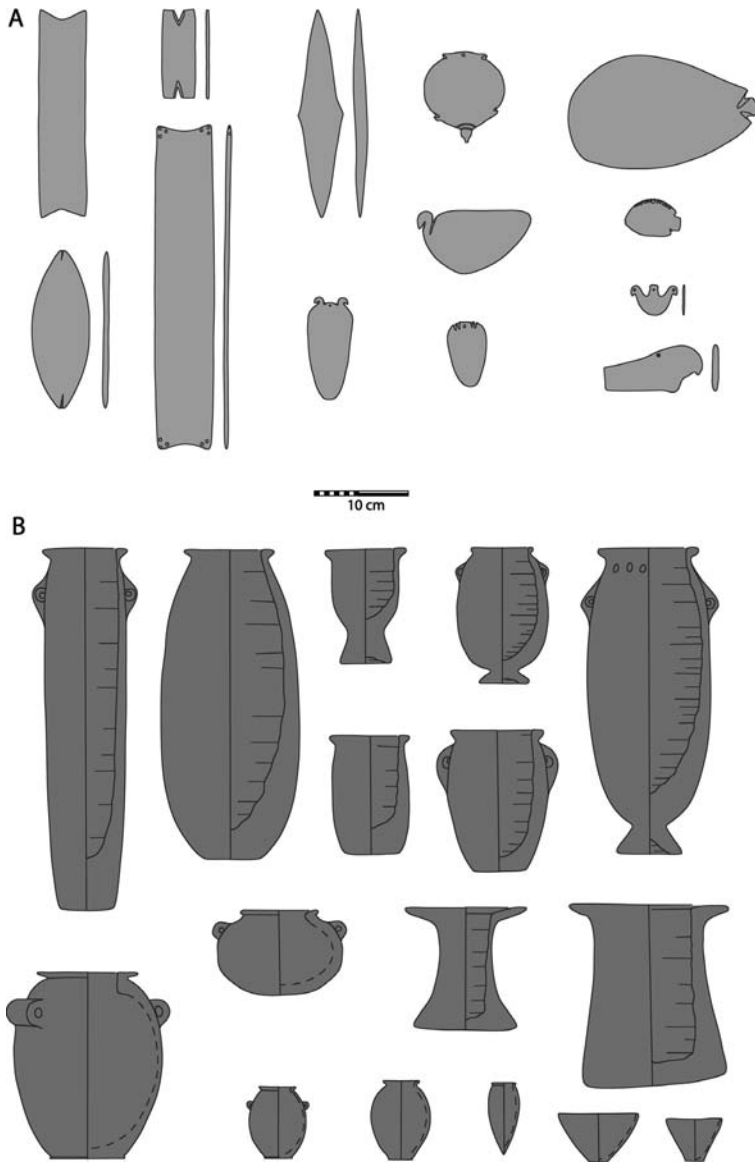
Figure 2.6 Prehistoric stone objects (A = siltstone cosmetic palettes; B = vessels made from hard stones).
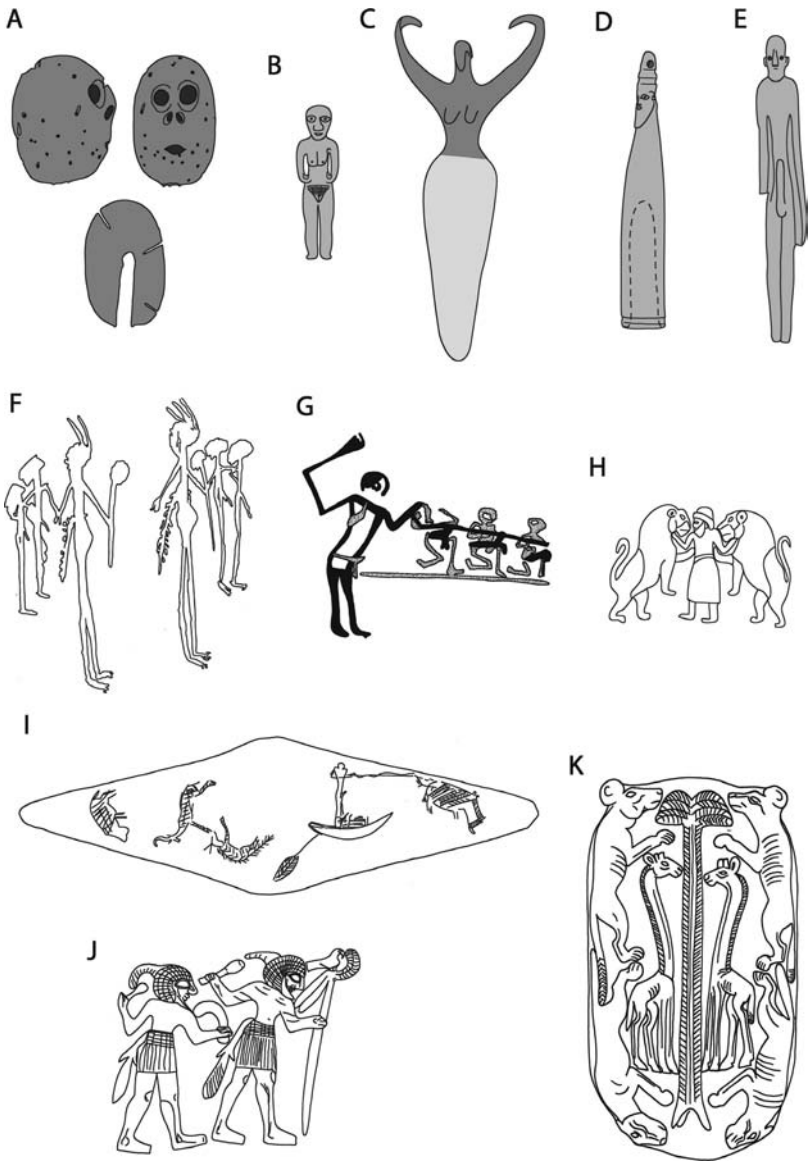
Figure 2.7 Prehistoric art (A = clay head from Merimde; B = ivory figurine from Badari; C = fired clay figurine from Ma'mariya; D, E = ivory figurines; F = painted design on a ceramic vessel from Abydos; G = painted design from Hierakonpolis, tomb 100; H = carved design on Gebel el-Araq ivory handle; I = carved design on Stockholm Palette; J = carved design on Lions Palette; K = carved design on Four Dogs Palette).

Figure 2.8 Hierakonpolis HK 25 from the north. Courtesy of T. Hikade, University of British Columbia, Vancouver.

FURTHER READING

Prehistoric Egypt is an area of highly active and on-going research, both in terms of fieldwork as well as interpretation and synthesis. Apart from numerous recent studies specially dedicated to the early periods, such as Midant-Reynes 2000 and 2003 or Wengrow 2006, we particularly recommend the proceedings of the international *Origins* colloquia series, which have so far taken place in Krakow (2002), Toulouse (2005), and London (2008), for updates on more recent results and current discussions. See Hendrickx and others (2004) and Midant-Reynes and Tristant (2008). Many of the studies listed for ch. 3 (Wilkinson) also cover the Prehistoric era and are therefore equally recommended.

The Early Dynastic Period

Toby Wilkinson

1   Introduction and Definition

The Early Dynastic Period is a relatively recent designation in the history of Egyptology. Just four decades ago, Egypt's formative phase languished in scholarly obscurity, little known, little studied, and barely acknowledged. Alan Gardiner, for instance, in his otherwise magisterial history *Egypt of the Pharaohs* (Gardiner 1961), included the period as something of an afterthought, appended to the main text as an epilogue for the sake of completeness but clearly not thought fit to occupy pole position at the beginning of the great dynastic story. Writing at the same time, even the most devoted archaeologist of early Egypt, Bryan Emery, labeled the period – somewhat dismissively and with more than a hint of embarrassment – ''Archaic Egypt'' (Emery 1961). For Gardiner, Emery, and other Egyptologists of their generation, ancient Egypt proper, in all its majesty and glory, began with the pyramids. What came before could be skipped over as a dark age, meagerly attested in the archaeological and textual records and of no great consequence.

  If, today, Egypt before the pyramids is studied as an important subject in its own right – as an era which saw the cornerstones of pharaonic civilization crafted, perfected, and firmly embedded – it is due to the fieldwork and scholarship of a new generation of Egyptologists who, from the late 1960s onwards, set about uncovering Egypt's early civilization. Through the survey and excavation of new sites (notably Elephantine at the First Cataract, Buto in the Delta, and a clutch of sites in modern Israel), the re-examination of areas previously dug (especially Abydos and Hierakonpolis in Upper Egypt, Saqqara and Helwan in the Memphite area), and the re-assessment of existing data, Early Dynastic Egypt – as it has been appropriately re-designated (Wilkinson 1999) – has emerged from the shadows and into the spotlight of Egyptological enquiry. It now enjoys, if not equal significance with such great cultural milestones as the Old Kingdom or Eighteenth Dynasty, then at least parity of esteem in scholarly circles. It is recognized as a key period during which the mechanisms of rule, the ideology of divine kingship, and the artistic and architectural

canons of court culture were successfully formulated and promulgated, laying the foundations for the succeeding two and a half thousand years of pharaonic civilization. Early Dynastic Egypt is the subject of specialist journals (notably *Archéo-Nil*) and the focus of specialist international conferences (e.g. Hendrickx et al. (eds.) 2004). Moreover, archaeologists schooled in anthropological approaches to material culture, where a lack of inscriptions is no bar to analysis, have transformed the study of early Egypt (e.g. Wengrow 2006) and, thereby, of pharaonic civilization as a whole. In a very real sense, the study of Early Dynastic Egypt, the johnny-come-lately of Egyptology, is making its presence felt in the discipline at large.

Yet the period itself still defies precise demarcation. It is conventional to define the Early Dynastic Period as the era between the unification of Egypt and the beginning of the Pyramid Age. The difficulty is that neither phenomenon can be pinned down precisely to the satisfaction and agreement of all scholars. Some Egyptologists take a traditional view, dating political unification and the emergence of Egypt as the world's first nation-state to the beginning of the First Dynasty (be that the reign of Narmer or his successor, another long-running debate). Others interpret the archaeological evidence from places like Abydos and Hierakonpolis as indicating that Egypt was unified and governed as a single country several centuries before the traditional starting-point of the dynastic sequence. Recently discovered impressions of necropolis seals from the Early Dynastic royal cemetery at Abydos (Wilkinson 1999: 62 and fig. 3.1) suggest that, while the process of political unification certainly began before the First Dynasty (Wilkinson 2000a), the early Egyptians themselves regarded Narmer as something of a founder figure. Hence it is more than a scholarly convenience to regard him as the first king of the Early Dynastic sequence.

Similar difficulties attend the end of the Early Dynastic Period. It is true that the stepped monument of Netjerikhet-Djoser (the first king of the Third Dynasty) marks the beginning of the pyramid-building tradition and the final abandonment of the ancestral royal cemetery at Abydos in favor of the Memphite necropolis. Yet, at the same time, the Step Pyramid perhaps has more in common with its First and Second Dynasty predecessors than with the true pyramids of the Fourth Dynasty. In cultural and political terms, the transition from the Third to the Fourth Dynasty certainly represents a major break, whereas there is considerable continuity between the Second and Third Dynasties – even if Manetho was correct in asserting that the first two dynasties hailed from This while the Third had its roots in the Memphite region. For this reason, many scholars place the Third Dynasty within the Early Dynastic Period, while others restrict discussion to the first two dynasties. Of course, such debates are entirely academic. While neat chronological divisions may be useful for historians, they mean nothing – or very little, at most – when studying a civilization at the human level.

2   Historical Questions

The basic historical outline of the Early Dynastic Period is much more soundly established than even a generation ago (Wilkinson 1999: 60–105), yet major difficulties and gaps in our knowledge remain. Ironically, the First Dynasty – the most

remote period of ancient Egyptian history – is better known than the Second and Third Dynasties, but even its parameters are open to debate. One of the most contentious areas of disagreement has been the identity of Egypt's first ruler, known to posterity as Menes (Emery 1961: 32–7; Wilkinson 1999: 68). Some scholars equate Menes with Narmer, some with Aha, while others see Menes as a mythical conflation of several early rulers. Such disagreements arise, principally, because of the difficulty in correlating the names preserved in later king lists and in the Manethonian tradition (usually the *nebty* or *nesu-bity* names) with the Horus names attested on contemporary Early Dynastic monuments. Some pairings, especially in the latter half of the First Dynasty, are generally accepted, but for the earliest rulers the evidence is either capable of differing interpretation or entirely lacking.

The excavation of eight kingly tombs in the First Dynasty royal necropolis at Abydos (plus one queenly burial, belonging to the king's mother Meri(t)-neith) seems to confirm the king-list tradition of a line of eight rulers beginning with Menes; equating the names attested archaeologically (Narmer, Aha, Djer, Djet, Den, Adjib, Semerkhet, and Qaa) with this historic First Dynasty thus seems relatively certain, despite the protestations of a few scholars (e.g. Dreyer 1987: 39; 1990: 67–71). Yet, even this fundamental building block of Early Dynastic history may be shakier than supposed. Fragmentary inscriptions from the Early Dynastic necropolis at North Saqqara name a king Sneferka who is otherwise unattested in the archaeological record (Ryholt 2008). Epigraphic and contextual evidence points to Sneferka having reigned close in time to Qaa, traditionally regarded as the last ruler of the First Dynasty, although a date for Sneferka in the Second Dynasty cannot be ruled out. The recent discovery of a large mastaba at North Saqqara with, it is reported, inscriptions naming Sneferka (Hawass n.d.) may force Egyptologists to reconsider the extent and composition of the First Dynasty, previously thought to be fairly secure.

The challenges are even greater for the Second Dynasty, perhaps the most poorly known period of ancient Egyptian history. Indeed, most of the Second Dynasty royal tombs have yet to be fully excavated (Munro 1993b; Dodson 1996; van Wetering 2004). The numerous Second Dynasty elite tombs excavated by Emery during his later seasons at North Saqqara remain entirely unpublished. Without securely dated monuments, the Second Dynasty is a serious lacuna in our knowledge of Early Dynastic history and culture. The absence of an agreed pottery corpus for the period – although the re-analysis of the Early Dynastic necropolis at Helwan, with restoration of original tomb groups, holds much promise in this area (Köhler *et al.* 2005) – combines with an extreme paucity of inscriptions to produce almost total ignorance about economic, political, and social trends during this key phase of Egypt's early development. While the order of the first three rulers (Hotepsekhemwy, Nebre, Ninetjer) is established with reasonable certainty, many of the remaining kings conventionally allocated to the Second Dynasty – Ba, Nubnefer, Weneg, and Senedj – are little more than names, some known only from secondary contexts (Wilkinson 1999: 82, 87–9).

As a substitute for contemporary accounts, the Palermo Stone, a compilation of royal annals inscribed centuries after the Early Dynastic Period, is used to flesh out the history of the Second Dynasty, but there must be doubts about the reliability of such an approach (Wilkinson 2000). Apparent indications of unrest during the reign

of Ninetjer are often adduced to provide a backdrop for the sequence of (seemingly) ephemeral kings that followed his reign, but, in reality, all such reconstructions are highly speculative. The sobering fact is that the evidence is simply too meagre to allow firm conclusions to be drawn. It is scarcely surprising, perhaps, that different generations of Egyptologists have seen in the royal names Sekhemib and Peribsen, from the latter part of the Second Dynasty, either two separate kings or one ruler with two radically different titularies (Wilkinson 1999: 89–91); the same holds true of Khasekhem and Khasekhemwy from the very end of the dynasty, although here the evidence is rather weightier and seems to point to a single ruler. Throughout Egyptian history, the choice of royal name was loaded with political and religious significance, and we assume the same to have been the case in the Early Dynastic Period; yet we are at a complete loss to explain why the kings of the late Second Dynasty practiced such strange habits of nomenclature.

The fog begins to clear with the reign of Khasekhem(wy), if for no other reason than that he left behind an unprecedented number of monuments (cf. Hoffman 1984: chapter 21). His "Fort" at Hierakonpolis and equally imposing Shunet ez-Zebib at Abydos are the two oldest mud-brick structures in the world, but why a king should have built two massive funerary enclosures in Upper Egypt remains a mystery (plate 1). The answer may (or may not) be connected with his change of name. If the even larger, stone-built, enclosure at Saqqara, the Gisr el-Mudir (Mathieson and Tavares 1993; Bettles *et al.* 1995; Tavares 1998: 1136–7), is to be attributed to Khasekhem(wy) as well – future excavation should be able to provide a definitive answer to this question, at least – then the puzzle becomes even more complex. To paraphrase Winston Churchill, the history of the Second Dynasty is "a riddle wrapped in a mystery inside an enigma."

Frustrated by the lack of textual data, Egyptologists studying the Early Dynastic Period have, perhaps understandably, concentrated on questions of social change and the dynamics of culture (Kemp 2006: chapter 3), conveniently ignoring the glaring gaps in the underlying chronological framework (although Helck 1987b is a notable exception). It is surely time that these basic historical questions were addressed before firm and lasting progress can be made on other fronts.

3 The Exercise of Power

For all that the political history of the Early Dynastic Period remains sketchy, it is clear that the first three dynasties were a period of great innovation and creativity, not least in the spheres of monarchical authority and national administration. Arguably the most significant achievement of Egypt's early rulers was to establish a model of government so well attuned to the Egyptian environment and world-view that it would remain unchallenged until the very end of pharaonic history.

From the very start, the king stood at the apex of Egyptian society, head of government as well as head of state. Both the institution of monarchy and the ideology of divine kingship pre-date the foundation of the Egyptian state, their roots stretching back into the Predynastic Period (Baines 1995b; Wilkinson 1999:

36–41, 183; Goebs 2007). The challenge for Narmer and his successors was to adjust these ancient models to the new and unprecedented task of governing an entire country, moreover one that was geographically extensive and, perhaps, culturally diverse (cf. Friedman 1994; Köhler 1995). Clues about the nature of early kingship are provided by royal names and titles. The most ancient and pre-eminent title associated the king with the falcon-god Horus and proclaimed the ruler as the deity's earthly incarnation. The Horus-names of the first two kings, Narmer (the reading is conventional but almost certainly erroneous) and Aha, emphasize the coercive power of kingship and may suggest a monarchy that had achieved political hegemony by force (Wilkinson 2000b). Once firmly entrenched, the royal government was able to change the philosophical basis for its authority from military might to divine sanction, reflected in the Horus-names of the mid-First Dynasty and later (Wilkinson 1999: 201–03).

A similar trend may be observed in the form of the royal burial at Abydos (Wilkinson 1999: 230–46). The tombs of the early First Dynasty kings, especially Aha, Djer and Djet, were accompanied by numerous graves of retainers; analysis of the skeletons points to these most loyal of servants having been sacrificed (willingly or unwillingly) at the time of their master's death, so that they might accompany him into the afterlife (plate 2). Hence the king's power of life and death was given very visible expression in the royal mortuary complex. Later in the First Dynasty, by contrast, the number of subsidiary burials was sharply reduced – although the practice of retainer sacrifice did not die out entirely until the beginning of the Second Dynasty – and the cosmic, rather than temporal, aspects of the king's power and ultimate destiny were given greater emphasis. Whereas royal tombs from the very beginning of history suggest an essentially earthly pattern for the king's afterlife – in one case, the tomb was equipped with a wine cellar and modeled on the royal palace (Dreyer 1998b; Hartung 2001), in another the king was interred with his pet lions alongside him (Dreyer 1990: 67, 86–7) – burials of kings in the mature First Dynasty made provision for a transcendent afterlife (Wilkinson 2004). From the reign of Den onwards, one part of the royal tomb (containing a chamber for the king's *ka*) was oriented towards a cleft in the cliffs, believed to be an entrance to the underworld, while the main staircase giving access to the burial chamber itself pointed northwards, towards the circumpolar stars. At least one Early Dynastic king went one stage further, and had a fleet of boats interred next to his funerary enclosure to ferry him to the next world (O'Connor 1991a, 2003).

Egypt's early kings recognized the inherent tension at the heart of monarchy – particularly acute in matters of mortuary provision – between privacy and publicity, between security and display. They solved the problem by dividing the royal funerary complex into two discrete elements: a tomb in the ancestral royal necropolis, removed from the world of the living; and a huge cult enclosure, modeled on the royal palace compound, situated within full view of the local town. The former offered protection for the king's body and sustenance for all eternity through the provision of copious quantities of food, drink, and other commodities; the latter provided a public arena for the celebration of the king's posthumous cult and a very visible monument to the institution of kingship itself. Architecture, like art, offered a powerful medium for royal propaganda, and Egypt's early kings exploited the potential of both to the full.

Statuary and relief carving were harnessed to project an omnipotent and omniscient image of kingship; royal iconography made full use of the symbolic resonance of regalia, with various crowns, sceptres, and other accoutrements deployed to convey the monarch's divine authority (Wilkinson 1999: 186–99).

Interestingly, the quintessential emblems of kingship, the shepherd's crook and the flail or goad, both derive from the sphere of animal husbandry and seem to hark back to a prehistoric, semi-nomadic way of life, not altogether forgotten in the ceremonial of the early royal court (cf. Wilkinson 2003). These distant echoes are heard, too, in the temporary buildings erected inside the cult enclosures at Abydos: the same reed-and-matting structures that were later rendered in stone in Netjerikhet-Djoser's Step Pyramid complex (which thus recombined burial-place and cult enclosure in a single edifice). Long after the adoption of a settled lifestyle in the Nile Valley, the ruler continued to live a peripatetic existence. As in Tudor England, so in ancient Egypt the king did not reside permanently in the capital but traveled regularly and extensively throughout his realm, moving from palace to palace; the First Dynasty royal compound partially excavated at Hierakonpolis (Weeks 1972; Kemp 2006: fig. 26) and the Second Dynasty ceremonial building recently uncovered at Buto (von der Way 1996) were probably two such provincial residences. The sovereign also took part in a regular, biennial royal progress called "the Following of Horus." Such visits allowed the king and his court to see, and be seen by, people throughout the country. They also served, no doubt, to reinforce central authority over distant provinces and put down any signs of discontent or dissent at an early stage.

The king's entourage, which accompanied him on his "Followings" and at all public appearances, included the leading members of the administration. In the Early Dynastic Period, power was the exclusive preserve of a circle of royal kinsmen, the *pat*, who formed an inner circle at court. Although certain offices of state were already clearly defined, notably that of Chancellor at the head of the royal treasury, it seems that other responsibilities were shared out among the members of the *pat* based upon their closeness to the king. There was little or no tradition of career specialization. A high official might thus hold a combination of courtly, civil, judicial, and religious offices (Wilkinson 1999: 144–9). In practice, day-to-day responsibility must have been exercised through proxies further down the hierarchy. The men at the head of government derived their status and power from their close relationship with the sovereign, and the monarchy's overriding influence was displayed in the elite tombs at North Saqqara (Emery 1949–58). Overlooking the Early Dynastic capital city of Memphis, each tomb had a massive mud brick superstructure designed to resemble the wall of the royal compound. Visible from afar, it proclaimed the owner's royal connections and powerfully reinforced the dominance of royal authority. Officials and king were part of the same, self-interested system of government; the populace, by contrast (*rekhyt* in Egyptian terminology), were subjects in every sense of the word, their lives and livelihoods controlled by a small, distant coterie. Nowhere is this despotic mode of rule more eloquently expressed than on the ceremonial mace head (itself a symbol of coercive power) of King "Scorpion," a ruler from the period of state formation: while the king performs an elaborate ritual, attended by his officials, the lapwings which symbolize the *rekhyt* hang pathetically from royal standards, ropes around their necks.
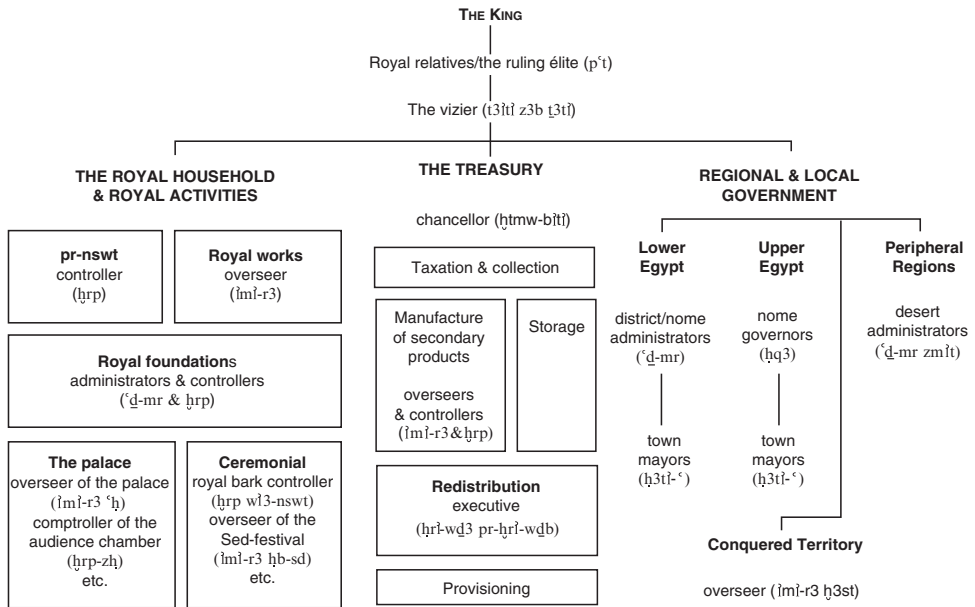
Figure 3.1   The structure of Early Dynastic administration © Toby Wilkinson.

The top-down autocratic system of government developed in the Early Dynastic Period set the pattern for successive dynasties. It institutionalized a concentration of power at the center which subsequently projected itself in the pyramid-building of the Third Dynasty and Old Kingdom. But royal building projects on so massive a scale required more than ideological justification and political dominance: they also demanded control of the economy and the colossal mobilization of resources. These were equally important achievements of the Early Dynastic state. As in Mesopotamia, so in Egypt writing seems to have been developed for utilitarian purposes, as an aid to accounting and economic management (Postgate *et al.* 1995). The earliest hieroglyphic inscriptions yet discovered, which pre-date the First Dynasty by a century or more, record the provenance, ownership, and contents of commodities that entered the royal treasury (Dreyer 1998b; Wilkinson 2007).

The central role played by this department of state is reflected in the titles of First Dynasty officials, the prevalence of inscriptions concerned with tax collection, and the fact that the most prominent government offices are all connected in some way with production, storage, processing, or distribution. The Treasury not only collected taxes in the form of agricultural produce but also manufactured secondary products for trade and to supply the court, stored surplus grain as buffer stocks against lean harvests, and redistributed grain to state employees (Wilkinson 1999: 125–33). If the Palermo Stone is to be believed, from early in the First Dynasty the court diligently recorded the height of the annual inundation in order to calculate the likely agricultural yield and hence the appropriate level of taxation. The main concern of the royal court seems thus to have been its own material aggrandisement. Royal estates were established throughout the country (Wilkinson 1999: 117–24; 2004) but especially in the Delta (which not only had extensive tracts of irrigated land but may also have been seen by the Upper

Egyptian kings of the First Dynasty as ''conquered'' territory, ripe for appropriation as their personal property). The fields themselves, their livestock, and human populations were all transferred to royal owership, providing the court and the kings' mortuary endowments with a regular and substantial income in the form of agricultural and secondary products. The prosperity enjoyed by the ruling class is reflected in the opulence and sophistication of grave goods from royal and elite tombs of the Early Dynastic Period: intricately carved stone vessels from the Abydos tomb of Den (Amélineau 1899: 200–15, pl. XLIII), an inlaid wooden box and decorated stone gaming discs from the Saqqara burial of his Chancellor Hemaka (Emery 1938), gold ornaments from contemporary burials at Abu Rawash in the north of the Memphite necropolis (Klasens 1961: 128).

Beyond the management of the economy, the state's main concerns were the running of the court itself, with its emphasis on protocol, royal ceremonial, and cult activity, and the government of the provinces, through a system of district administrators, rulers of nomes, and town mayors (Wilkinson 1999: fig. 4.6). During the course of the Early Dynastic Period, the system of provincial government became both more formalized and more complex, probably in response to the logistical and economic demands of state building projects. The origins of the nome system may be seen in this context (Wilkinson 1999: 141–2), each nome or province being based upon a natural flood basin along the Nile Valley (Jeffreys 2007), and hence reflecting the underlying economic imperative behind a more developed provincial administration.

4   The Center and the Provinces

The complex and evolving relationship between the center and the provinces is a key theme in the study of the Early Dynastic Period. Archaeological evidence from the period of state formation indicates a series of competing territorial units in Upper Egypt, based around the early urban centers of This (near Abydos), Naqada, and Hierakonpolis, together with a more diffuse pattern of prominent trading centers in Lower Egypt, including Buto, Mendes, and Minshat Abu Omar, plus sites as yet unexcavated such as Sais and Chois (Wilkinson 1999: 36–41; 2000a; Kemp 2006: fig. 22). After the political unification of Egypt, the victorious kings, probably from This, had to find ways of keeping their disparate realm together. This was no easy task: the periodic fragmentation of Egypt along regional lines during the Intermediate Periods demonstrates the deep-seated nature of local identities and the precariousness of centralized authority, whatever the artistic and written records might suggest. To assert and sustain their supra-regional authority Egypt's early rulers used a variety of means, psychological as well as physical, symbolic as well as economic.

First, there was a naked display of power. The early Egyptian state seems to have erected imposing architectural symbols of its supreme authority the length and breadth of the country, akin to the Norman castles in England. In many places these monuments took the form of impressive mud-brick tombs for new, centrally appointed governors. They were decorated in the palace-façade style that was both exotic and inextricably associated with royal power (Wilkinson 1999: 224–9). We can

imagine the impact on the local population, at places like Armant and Gebelein in Upper Egypt and Tarkhan near the apex of the Delta, of seeing such strange and looming edifices built in their traditional burial-grounds. In any settled community the local cemetery links the current inhabitants with their ancestors and hence underpins the population's territorial claim. For a new regime to appropriate such sensitive and symbolically laden pieces of ground must have delivered a powerful message. A new authority in the land had not only taken charge of peoples' lives and livelihoods but also, it must have seemed, of their very identities.

At Buto in the Delta and Hierakonpolis in Upper Egypt – not coincidentally two of the most important and prosperous communities from Predynastic times, and flourishing centers of political and economic activity that were symbolic of the two halves of the newly united realm – the state erected colossal palace compounds to serve the king on his frequent travels, but also, just as importantly, to announce his subjugation of the Two Lands. To the same end, the theologians of the royal court set about forging a national ideology, centered on kingship and the person of the ruler, that absorbed diverse local cults and religious emblems (especially those connected with places that were important politically, economically, or symbolically). Hence Horus of Hierakonpolis became the god of kingship *par excellence*, while the goddesses Nekhbet of Elkab and Wadjet of Buto became guardians of the king and symbols of his authority over Upper and Lower Egypt respectively. Min of Coptos was adopted as the patron deity of virile and fecund kingship, while Neith of Sais seems to have been given the role of protectress of royal women, to judge from the frequency of First Dynasty theophorous names compounded with Neith (Neithhotep was the mother of Aha, Herneith the wife of Djer, and Meri(t)neith the mother of Den). The red crown, associated in Predynastic times with Naqada, and the white crown, whose origins lay in deepest Upper Egypt or even Lower Nubia, were appropriated to stand for the two halves of the king's new territory, the Delta and the Nile Valley, respectively (Wilkinson 1999: 192–5). In such a way, the populations of Egypt's most influential towns and cities could feel themselves integral parts of the new national power-structure; each community could bask in the reflected glory of kingship, proud that its patron deity or ancient symbol of rule enjoyed a special relationship with the monarchy. It was a quite brilliant display of psychological conquest, the equal of any military victory that may have brought the First Dynasty to power in the first place.

However, not all communities shared in this royal embrace. A broad stretch of the Nile Valley in Middle Egypt, which had always been somewhat distant from the centers of political and economic power, remained relatively impoverished and largely immune from state interference (Wilkinson 1999: 356–7). By contrast, the island of Elephantine on Egypt's southern border felt the rougher side of central control. Here, the government's principal concern was economic: the regulation and control of goods and people across the border with Nubia. To that end, one of the first actions of the state, shortly after unification, was to order the construction of a massive fortress on the eastern side of Elephantine, overlooking the main shipping channel (Ziermann 1993; Seidlmayer 1996a). Later in the Early Dynastic Period the curtain wall of the fortress was further enlarged and strengthened, to make this symbol of royal power impregnable. The fact that these extensions effectively barred access to the local village shrine does not seem to have concerned

the national authorities; their mastery of the economy was apparently more important than local sensibilities.

In any case, the religion of ordinary provincial communities had little, if anything, in common with the cult of kingship being promulgated by the state. The small, informal shrines at Elephantine, Abydos, and Tell Ibrahim Awad reflect a very different set of beliefs and practices (Kemp 2006: 112–35), focused on fertility, childbirth, and protection from harmful forces, the stuff of everyday concerns far removed from the cosmic ambitions of the king. One of the towering achievements of the Early Dynastic state was to raise the artificial construct of state religion to a position of pre-eminence, while local religious traditions gradually faded away through lack of support (or deliberate neglect). The complete absence of state-sponsored temples to local cults (except those closely associated with kingship) is a notable feature of Early Dynastic society. The only "temples" worthy of the name built during the first three dynasties were monuments to kingship. In many ways the king *was* god. Ancient Egyptian religion, as we know and recognize it today, with its emphasis on a divine monarchy, was the brilliant and lasting creation of Egypt's early rulers and their willing priests.

Yet, in case we should think of the Early Dynastic Period as the epitome of authoritatian rule and centralized control, there are indications that the state did not have things all its own way. The very fact that the king and his entourage felt it necessary to travel the country on the biennial Followings of Horus suggests that national cohesion could not be taken for granted. The appearance of palace-façade monuments in key provincial cemeteries demonstrates the continued importance of those same communities, and it is noticeable that many of the traditional burial-grounds remained in use from Predynastic to Early Dynastic times (Bard 1994; Wilkinson 1996). Naga ed-Deir and Mahasna in northern Upper Egypt, Matmar in Middle Egypt, Tura and Helwan at the apex of the Delta, Kafr Hassan Dawood and Minshat Abu Omar in Lower Egypt: all display considerable continuity in use and burial practices during the period of state formation and into the Early Dynastic Period. Material culture did not change markedly following political unification, even if the country as a whole grew more prosperous and society became increasingly polarized between rich and poor. The location of Neithhotep's tomb at Naqada and an even more impressive mud brick tomb at Beit Khallaf (perhaps belonging to Netjerikhet-Djoser's mother, Nimaathap (Wilkinson 1999: 97)) may suggest continuing royal connections with the provinces throughout the Early Dynastic Period. It is possible that strong local families merely cemented their influence by marrying into the main royal line, and that the monarchy was dependent upon the backing of local dynasts to keep it in power. This was certainly the pattern of domestic politics in later periods of Egyptian history, and it may just be possible to glimpse it in the meagre archaeological evidence surviving from the earliest dynasties.

5   Egypt and the Outside World

An equally enduring mode of rule was devised by Egypt's first kings, and finds expression on that most iconic of all Early Dynastic artefacts, the Narmer Palette (Quibell 1898; for the subsequent, extensive literature, see, e.g., Goldwasser 1992;

Shaw 2004: *passim*). Here the victorious king is shown grasping the head of a defeated enemy while holding a mace in his upraised arm, poised ready to smite his pathetic captive. By the time Narmer commissioned his palette this motif was already a centuries-old icon of royal power (Wilkinson 1999: 31–4); it would remain the quintessential symbol of kingship until the very end of the institution itself (Hall 1986). Narmer's adversary is identified by the rebus behind him as a Lower Egyptian ruler, perhaps a real opponent in the prolonged struggle for unification, perhaps a symbol of the Eastern Delta that the First Dynasty kings regarded as a "foreign land" to be conquered and subdued (Köhler 2002). The palette's other imagery certainly emphasizes the "containment of unrule" (Kemp 2006: figs. 31–2), the defeat of chaos (represented by Egypt's enemies) by the forces of order (represented by the king).

During the course of the Early Dynastic Period, the fundamental, unending struggle between the opposing forces of order and chaos (*maat* and *isfet* in Egyptian terminology) was identified as the principal duty and the defining activity of kingship. In so doing the propagandists of the Early Dynastic court achieved two aims simultaneously. First, they elevated the king beyond mere head of state to guardian and defender of creation. This made any opposition to the king's rule or the institution of kingship not merely unwise but unthinkable, not just treasonable but blasphemous and nihilistic. In such an atmosphere any lingering opposition to First Dynasty rule could be ruthlessly suppressed as a danger both to Egypt and to the cosmos. Second, the characterization of Egypt's neighbors as the forces of chaos, combined with an emphasis on the king's duty to subdue them, served to generate a strong sense of national identity where none had existed before. The Egyptian "collective self" was defined by its opposition to a "collective other" (Köhler 2002). Despots throughout history have recognized and manipulated the raw power of xenophobia to unite a people. Perhaps the earliest manifestation of this particular psychological tactic can be attributed to the court of Narmer. Other artefacts from his reign besides his famous palette show similar scenes of foreign domination with various foes: on an ivory cylinder, the hieroglyphs that write the king's name take a big stick to lines of Libyan captives (Köhler 2002: fig. 31.3), and on a small ivory label, a Palestinian chieftain, olive branch in hand, is shown stooping in abject homage before the Egyptian king (Wilkinson 2002: fig. 32.1).

The ideology and iconography of xenophobia are constant themes in the court culture of the Early Dynastic Period, and they retained a place at the heart of Egyptian state religion until the very end of pharaonic history: another example of the longevity of Early Dynastic cultural innovations. Yet the outward show of hostility towards Egypt's neighbors masked a more complex, underlying reality (Wilkinson 2002). As we have seen, the government of the early dynasties was primarily concerned with economic questions, and these included foreign trade in exotic, high-value items. Preserving national unity and security might be served by belittling foreigners, but the court badly needed the fruits of foreign trade to maintain its wealth and prestige. Behind the propaganda practical politics demanded a different set of relationships between Egypt and its neighbors.

Even before the political unification of the country, Egyptian rulers had engaged in long-distance trade and launched expeditions beyond Egypt's traditional borders to

seek exotic materials or win control over trade routes. There is growing evidence for Predynastic activity in the Eastern (e.g. Wilkinson 2003) and Western Deserts (Darnell 2002), along ancient track-ways and at important mining sites. Likewise Egypt enjoyed close relations with the Levant from at least the early fourth millennium BC (Hartung 2001). In Nubia, towards the end of the Predynastic period, the extirpation of the indigenous A-Group – culturally as sophisticated as its Upper Egyptian counterparts, and an active trading partner with the area around Hierakonpolis (Takamiya 2004b) – can be attributed to Egyptian foreign policy, specifically a series of military campaigns to protect Egypt's commercial interests. Two Predynastic inscriptions at Gebel Sheikh Suleiman probably record Egyptian conquests in the Second Cataract region (Wilkinson 1999: fig. 5.3, nos. 1 and 2). Actions such as these seem to have brought to an end the kingdoms of Qustul (Williams 1986) and Seyala (O'Connor 1993: 23) which must have threatened Upper Egyptian control over the lucrative sub-Saharan trade routes. Although evidence for a permanent Egyptian presence in Lower Nubia is extremely slight – mud bricks from the lowest courses of the town at Buhen, again in the Second Cataract region, were dated by their excavator to the Second Dynasty (Emery 1963: 117) and may therefore indicate at least a token garrison at this period – the great increase in wealth of the Egyptian ruling elite during the early dynasties may well be attributable, in part, to the abundant gold reserves of conquered Nubia. The loss of archaeological sites throughout Lower Nubia under the waters of Lake Nasser may make it impossible ever to augment our scant knowledge of Egypt's early relations with the lands to the south (cf. Wilkinson 1999: 176–82).

The nature of contacts between early Egypt and Libya is likewise obscured by an extreme paucity of evidence (Wilkinson 1999: 162). There are hints of conflict, such as the aforementioned ivory cylinder of Narmer and the "Cities Palette" from the period of state formation, but these may reflect nothing more than ritualized aggression against foreigners. Here, the potential for future archaeological discoveries is far greater.

The one arena of early Egyptian foreign relations that *is* relatively well attested, and increasingly so, is the Levant, especially southern Palestine (van den Brink and Levy (eds.) 2002). From the very beginning of the First Dynasty, the Egyptian state projected its power beyond Egypt's north-eastern border, establishing trading posts and even "colonies" along the northern Sinai coastal route and throughout the fertile lands of southern Palestine. Its interest in the area was access to the high-value commodities lacking in Egypt itself, notably copper, olive oil, wine, precious gums and resins, and perhaps materials such as lapis lazuli, silver, and timber brought from further afield and traded by middlemen. At the fresh water springs of En Besor near modern Gaza, which lay along the main coastal route between Egypt and southern Palestine, the Egyptian state built a government outpost atop a natural hill. The rectilinear building, carefully aligned to the points of the compass (the Egyptian state liked to assert its mastery of the natural world, even beyond its own borders), yielded numerous sherds from bread-moulds and beer-jars, together with clay sealings naming First Dynasty kings (Kaplony 2002). The material assemblage shows that the purpose of the En Besor building was to re-supply and re-victual Egyptian trade caravans as they traveled to and from the Delta (Gophna and Gazit 1985; Gophna 1990, 1992).

At the site of Nahal Tillah, inside modern Israel, hieroglyphic sealings and a jar fragment stamped with the serekh of Narmer show the functioning of the Egyptian administration far from home (Levy *et al.* 1995; Kansa and Levy 2002). Not only has the site yielded imported, Egyptian-made pottery, brought from the Nile Valley by traders, but also locally made wares in an Egyptian style. This suggests that there was a more-or-less permanent Egyptian population at Nahal Tillah which maintained Egyptian cultural traditions using the materials available locally.

Sites throughout southern Palestine, such as Tell Arad (Amiran 1974, 1976), Tell Erani (Weinstein 1984) and el-Lod (van den Brink 2002), tell a similar story. The Egyptian presence in the Levant was evidently significant and widespread (Brandl 1992; Hartung 1994, 2001). Some of the fruits of this intensive trading activity can be found in the royal and elite tombs of the First Dynasty, in the cemeteries of Abydos and Memphis respectively. In addition to large quantities of copper objects, numerous vessels of Syro-Palestinian pottery (probably used as containers for valuable oils) have been found among the grave goods of kings and their high officials (Wilkinson 1999: 158–9).

For reasons that remain unclear but which are likely to have included social and political changes within the Levant, the focus of Egyptian trading activity with the Near East shifted during the course of the Second Dynasty to Byblos on the Lebanese coast. (The paucity of securely dated archaeological evidence from the Levant and Egypt during the century or so of the Second Dynasty makes it extremely difficult to trace the course of this shift.) By the reign of Khasekhem(wy), there is epigraphic evidence for Egyptian involvement in the local temple at Byblos and for active ship-building using Lebanese cedar. Archaeologically the timber trade is attested by the fleet of boats ''moored'' next to the cult enclosure of Khasekhemwy at Abydos while the king's nearby tomb yielded the earliest known bronze vessels from Egypt, testifying to the introduction of tin into the Nile Valley, probably from sources in Anatolia. All the main commodities that the Egyptian state wished to procure – timber, tin, coniferous resins, and olive oil – were either available within the immediate hinterland of Byblos or could be obtained from further afield via the long-distance maritime trade routes in which Byblos was a crucial node. It is therefore not surprising that Early Dynastic Egypt developed a close relationship with Byblos, nor that the port continued to be Egypt's main toe-hold on the Levantine coast for many centuries (Wilkinson 1999: 160–2). The abundant supplies of timber in the Lebanese mountains, together with the Byblites' skills in ship-building, facilitated maritime trade with Egypt and boosted its intensity. A single ship's cargo could transport as much as dozens of donkey caravans, and the growth of Egyptian contacts with Byblos may have been both cause and effect of the decline of the overland routes with southern Palestine.

From the Eastern and Western Deserts to the mountains of the Sinai, from Nubia to the coast of Lebanon, the early Egyptian state's principal and motivating interest in foreign relations was always economic. It was concerned, above all, with identifying and securing sources of exotic materials and commodities for the royal court. Indeed, it is possible to see economic interests as the prime mover behind many of the major developments of Early Dynastic civilization: domestic and international policy, the origins of writing, the evolution of the nome system, and the ideology of divine kingship.

6   Summary

In the early twenty-first century the study of the Early Dynastic Period is one of the most vibrant and rewarding branches of Egyptology. Our knowledge of the first half-millennium of ancient Egyptian civilization has been transformed over the last four decades, and much more remains to be discovered. Far from being a primitive and uneventful prelude to the glories of the Old Kingdom, it is clear that the first three dynasties were a dynamic and pivotal phase of pharaonic history, a period which transformed the Nile Valley and Delta from a disparate collection of competing territories into a strong and centralized nation-state and, in the process, laid the foundations for the majesty and longevity of ancient Egyptian civilization. The pyramids of Giza are simply the ultimate expression of a social order laid down in the Early Dynastic Period.

In material culture, local Predynastic traditions, enhanced and enriched by borrowings from foreign cultures, were moulded into something distinctively and quint-essentially Egyptian. What we recognize as ''ancient Egyptian civilization'' was undeniably the product of the Early Dynastic court. Under royal patronage, the powerful visual vocabularies of art and architecture were employed and directed in the service of the state to bolster and promote the institution of monarchy and secure its place at the apex of Egyptian society. Perhaps most remarkable of all, the rapid development and relentless promulgation of an ideology of divine kingship set Egypt apart from every other civilization of the ancient world and determined the future pattern of Egyptian society. Thanks to Narmer and his successors, kingship was to become the sole political philosophy and the only acceptable form of government in the Nile Valley for the next three thousand years, a stupendous achievement.

Yet, aside from its cultural and political significance, the Early Dynastic Period is important in another crucial respect. In the absence of extensive texts (inscriptions being both a blessing and a curse for later periods of Egyptian history) and with only a few major standing monuments, Early Dynastic Egypt forces us to engage even more closely with the archaeological evidence. In the process, it shows us the fabric of pharaonic society laid bare. The practical reality of Egypt's foreign relations emerges from behind the barrage of official xenophobia. The self-interest of the ruling class shines through the propaganda. The role of economic management at the heart of policy-making becomes glaringly apparent. The Early Dynastic Period is a window on ancient Egypt as it really was, not as the Pharaohs wished it to be seen.

FURTHER READING

The specialist literature on the Early Dynastic Period is now extensive. The best starting-point is Wilkinson 1999 which combines original research with a digest of over forty years of international scholarship, arranged under thematic headings. Other useful introductions for a more general readership are Spencer 1993b and Brewer 2005. Kemp 2006 contains some of the most original scholarship on the Early Dynastic Period. Equally provocative is

Wengrow 2006 which follows a theoretical approach. The results of the German excavations at Elephantine, Abydos, and Buto are published in interim form in *MDAIK*, and as final excavation reports by von Zabern in the *AVDAIK* series. Important volumes of conference proceedings focusing on Predynastic and Early Dynastic Egypt include Spencer 1993b; Hendrickx et al. (eds.) 2004; and van den Brink and Levy (eds.) 2002. An invaluable tool for the scholar of early Egypt is Hendrickx 1995 with annual supplements in the journal *Archéo-Nil*.

CHAPTER 4

The Old Kingdom

Michel Baud

The Old Kingdom is a period of almost five centuries extending from 2650 to about 2200/2150 BC and comprising the Third to the Sixth dynasties. Netjerikhet, the ''Djoser'' of later texts, is the first sovereign; it is for him that the first pyramid in Egyptian history was built. He came to the throne without any break in lineage with the previous dynasty since his father, Khasekhemwy, already a great builder with complexes at Abydos and Hieraconpolis, was the last ruler of what is known as the Thinite Period (Wilkinson 1999: 95–6). The Old Kingdom ends with Pepi II, a king of exceptional longevity whom tradition has made in no small extent responsible for the misfortunes which plunged the country into an era of troubles known as the First Intermediate Period (Posener 1957). Between these two rulers we find other emblematic figures including Snefru, the founder of the Fourth Dynasty, and his son Khufu, the first traditionally regarded as the epitome of the model sovereign, the second, on the other hand, vilified for his excesses (Wildung 1969: 105–92; Baud 1998).

1 The Old Kingdom Monarch: An Intimate of the Gods

The Old Kingdom was a period when a strong monarchic power, paternalistic and divine in essence, reigned over a territory whose resources were utilized for the maintenance of the palace, the development of an administration which was endlessly expanded and reorganized, and for the execution of ambitious architectural projects. Society, however, remained fundamentally rural, controlled only loosely by Memphite power except when a firmer hand was required for the fulfilment of the crown's major projects (Moreno Garcia 2004: 41–75). During this era the monarch was certainly regarded as a god-king, a conceptualization of royal power which is demonstrated by the increasing gigantism of pyramid construction, the royal titulary,
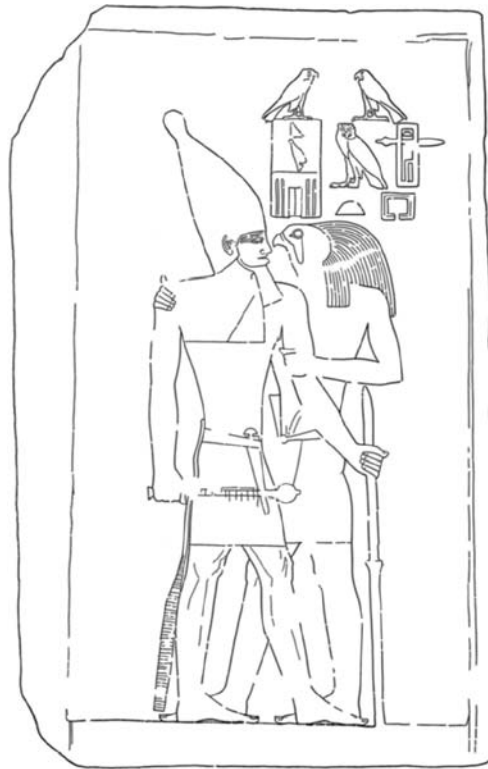
Figure 4.1 The stele of Qahedjet. Courtesy the Louvre Museum.

the phraseology used for the king (Gundlach 1998), and the iconographic programme of royal funerary complexes (Hawass 1995: 249–53; Stockfisch 2003), although it must be conceded that, depending upon their location and their degree of ritualization, one encounters an entire spectrum of perceptions ranging from the divine to the human (Baines 1990a; 1995: 125–31, 143–52; 1997: 9–19; see also Moreno Garcia 2004: 163–66 and Kemp 2006: 78–110). The epithets "great god" and "perfect god" are frequently applied to the king from the Fourth Dynasty onwards; the first is an epithet shared with Horus of Behdet/Edfu, patron of the monarchy. Intimacy with the gods is specifically shown by scenes of divinities embracing or suckling the king in funerary complexes (Stockfisch 2003: 242–49, 386; Landgràfovà 2006: 19–20). The first theme appears from the Third Dynasty, with the stele of Qahedjet showing the embrace of the king and Horus of Heliopolis, god-patron of the monarchy of whom the ruler is a double. The face of the king is turned towards that of the falcon, whose beak brushes the monarch's nose: this intimacy has no equivalent in the representations of private individuals of the Old Kingdom, except between spouses, brothers, or parents and children, and it is precisely the same membership of the close family, in this case divine, that the Louvre monument certainly celebrates. A relief from the funerary temple of Pepi II, at the end of the Old Kingdom, picks up the same iconography. Another theme, this time with a female dimension, shows the king being suckled by a mother-goddess, e.g. Niuserre and the

lioness Sekhmet in his funerary temple. The divine filiations of the monarch are also proclaimed by inscriptions. Djedefre, third king of the Fourth Dynasty, is described as "son of Re," an epithet which was not yet prominent but would soon become an integral part of the royal titulary and later one of its two major elements, used to introduce the king's personal name. Khafre, his successor, called himself "son of Wadjet," the protective goddess of Lower Egypt, as well as "son of Ptah," the Memphite creator-god (Dobrev 1993) whilst Teti, the founder of the Sixth Dynasty, described himself on his sarcophagus as "son of Nut," the mother-goddess of the sky, a filiation intended to guarantee his celestial future. The Pyramid Texts, the first great corpus of funerary texts of Egypt, mainly drafted in the Fifth Dynasty and inscribed on the walls of royal burial chambers from the reign of Unis onwards, also proclaim these filiations and insist on an identification with the gods which goes as far as to describe the king as "Re himself," the creator-god *par excellence*. Monumental pyramids, the pre-eminent Old Kingdom symbols of monarchy, were built exclusively for these rulers, absorbing human resources, materials, and financial assets in a national enterprise culminating in the giants of Giza (Lehner 1997; Hawass 2003).

2 Dynasty, Lineage, and Continuity of Kingship

The very term "dynasty" is misleading, since in Ancient Egypt it refers less to blood lines than to power groups. Therefore, the Old Kingdom could already use the definition that will become known later, i.e. that of "a house" (*per*) sharing a Residence, a tutelary god, and common focus. Ancestry will, therefore, not be a pertinent criterion, unlike our own concept of "dynasty," where the concept is inseparably linked to lineage; it is closer to the Greek notion of a *dynasteia*, the word adopted by Manetho in a clever translation of the Egyptian *per*; for the Greek term designates a power group founded by a dynast, and the Latin translation *potestas* used by Christian chronographers conveys the same idea.

The lack of congruity between family and dynasty is seen clearly, for example, in the accession to the throne of Netjerikhet Djoser, founder of the Third Dynasty, who is known to have been the son and successor of Khasekhemwy, last king of the previous dynasty – a transition which was apparently carried out without conflict, to judge from the quantity of offerings placed by the new sovereign in the tomb of his father at Abydos, sealed with his own name (Dreyer 1998a; Wilkinson 1999: 95–6). At the end of the Old Kingdom, on the other hand, the successors of Pepi II themselves seem to subscribe to the familial continuity of the 6th Dynasty, the numerous queens of this exceptionally long-lived sovereign (more than 60 years in power) having given him a vast number of descendants. The name Neferkare, which is the coronation name of Pepi II, will often be borne by later sovereigns, whether related to him or not (von Beckerath 1999: 66–9; Ryholt 2000), and one of them had an unusual fate in historiography: the famous "Pharaoh"-queen Nitocris who, according to Manetho, ended the Sixth Dynasty, and who may be recognized as the Neithiqerty of a fragment of the Royal Canon of Turin. Put in its correct place, this fragment actually

fits into the list of kings of the Eighth Dynasty and yields the name of an enigmatic king Neferkare Saptah Neithiqerty (Ryholt 2000: 92–3).

Although the line of demarcation between dynasties seems to have been permeable as far as blood lines were concerned, nevertheless the breaks between the 4th, 5th and 6th Dynasties could well have been linked to the accession of new families or branches of families to power. The mothers of Snefru, Userkaf, and Teti were in no case actually queens/king's wives (Roth 2001: 67–9, 90–4, 113–27), although these kings initiated real lineages. The fact that the mother of Snefru, Meresankh I, is mentioned only as "royal mother" (though the sources are limited) would give credence to Manetho's assertion that the Fourth Dynasty was "issue of another line" (*ex alia regia familia* in the Latin version). For the Fifth Dynasty, the thesis that Userkaf, its first king, was a descendant of Djedefre, son of Khufu, has no basis: the change of dynasty seems to revolve around a key person, the double royal mother Khentkawes I, who did not bear the title of queen either. The importance of this lady, of unknown descent, can be measured by her tomb at Giza, half pyramid (square base), half mastaba (with a roof in the form of a sarcophagus), and from a retouched iconography in which a beard and a uraeus have been added to a female face (Verner 1995: 166–75; 2002: 89–109; Roth S. 2001: 310–11). It is probably she whom the Westcar Papyrus, from the Seventeenth/early Eighteenth Dynasty, calls Redjedet, presented as the mother of the three first kings of the Fifth Dynasty, born from the activities of Re himself. Finally, for the Sixth Dynasty, the accession of Teti, whose mother Zeshzeshet was certainly not the wife of Unis, his predecessor, would constitute another case of familial discontinuity (Stadelmann 1994). However, it is interesting to note that the first wife of Teti, Iput I, acquired the title "Daughter of the King of Upper and Lower Egypt" when her son Pepi I ascended the throne (a variant of the usual "God's Daughter"), i.e. when she gained the status of royal mother, and her mastaba was converted into a pyramid (Labrousse 1994; Hawass 2000). It is possible that this king had hoped to register, through his mother, a more ancient royal lineage, a phenomenon that theoretically affected every monarch, Pharaonic ideology claiming that he was *de facto*, as Horus, the son of Osiris, his predecessor and father. This monarchic continuity is, moreover, engraved in the stone of the annals, where the kings, placed one after the other, have their mother mentioned as sole parent, the predecessor being treated, rightly or wrongly, as father of the new sovereign (Stadelmann 1994: 335 and 2000: 531–2; Baud 1999: 360–2).

The importance of parentage in monarchy (and Egyptian society in general), based on the Heliopolitan model of father-son succession, thus appears clearly in the sources, despite the very sparse genealogical data. A number of kings of the Old Kingdom are thus related to their predecessor who is father or brother. For the Fourth Dynasty, Snefru leaves the throne to his son Khufu, then he to his own sons Djedefre and Khafre. Menkaure is the son of the latter, and Shepseskaf the son of Menkaure. In the Fifth Dynasty Userkaf is father of his successor Sahure (Labrousse 1997; el-Awady 2006a; 2006b: 41–2), who was the father, in his turn, of Neferirkare, himself the father of Neferefre and Niuserre, both born to queen Khentkawes II (el-Awady 2006a; Verner 2006: 102–3). She ended by gaining the same exceptional status as "mother of two kings" which her namesake at Giza had already held (Verner 1995, 1999). The parentage of the ephemeral Shepseskare, who is curiously inserted

between Neferefre and Niuserre, remains unknown, but he could be an older member of the royal family who filled a power vacuum between the unexpected death of a young king, Neferefre (which an anthropological analysis of his remains proves), and the probable immaturity of his younger brother Niuserre; moreover, the interlude was brief (Verner 2006: 102–3). Whilst parentage is unknown for the remainder of the dynasty (Menkauhor to Unis), filiation remains a permanent feature of the Sixth Dynasty: Teti was the father of Pepi I, who was himself the father of Merenre and Pepi II by two different queens, Ankhnespepi I and II, who were sisters, and Merenre II was a son of Pepi II (Vercoutter 1992: 315–26; Roth S. 2001: 138–69; Dodson & Hilton 2004: 70–8). As in the Fourth Dynasty, a strong principle of endogamy prevailed in the royal family: thus Ankhnespepi II married successively Pepi I and Merenre (Labrousse 2000), and her namesake Ankhnespepi III, daughter of Merenre, married Pepi II.

3   The Memphite Royal Necropoleis

The relationship between dynastic affinity and a royal necropolis, and the connection of the latter with a possible change of residence are a complex subject. Whilst the Third Dynasty, with its founder Djoser, marks the end for Abydos as a royal necropolis, the use of Saqqara North is neither new (the ditch dug by Djoser blocks the entrances to the galleries of Hetepsekhemwy and of Ninetjer, sovereigns of the Second Dynasty), nor would it remain a dynastic constant. While his successor Sekhemkhet also located his complex at Saqqara, king Khaba chose a new site further to the north at Zawiyet el-Aryan. The tombs of the two other kings of the dynasty, Sanakht Nebka and Kahedjet Huni, have not been located. There is no compelling argument to connect the pyramid at Meidum with the latter king who brings the Third Dynasty to an end, while there are indicators to suggest a burial at Dahshur, in particular, the presence of an alabaster sarcophagus near the pyramid of Senwosret III (Arnold 2002: 107–8). A large anonymous enclosure at Saqqara West, the Gisr el-Mudir, could belong to this period, but its funerary purpose is not established (Mathieson & Tavares 1997).

The first half of the Fourth Dynasty shows a systematic taste for migration, each monarch having chosen a different pyramid site and moving in a northerly progression (Valloggia 1994): Snefru, founder of the Fourth Dynasty, built his three (!) pyramids at Meidum and Dahshur (the ''Bent'' Pyramid of Dahshur South and the ''Red'' Pyramid of Dahshur North); Khufu installed himself at Giza, then Djedefre at Abu Rawash. Another, poorly known, king, who must have reigned before or after Djedefre and the reading of whose name remains uncertain (Nebkare ? Bikka ? – probably the Bicheris of tradition) returned to the site of Zawiyet el-Aryan; his pyramid, left unfinished, is known to Egyptologists under the name ''The Great Excavation.'' Thus the policy from the middle of the Third Dynasty to the middle of the Fourth of systematically building on a new site contrasts markedly with the Thinite practice of oscillating between Abydos and Saqqara. However, with Khafre, son and second successor of Khufu, then Menkaure and the queen-mother Khentkawes I,

Giza acquires the status of a quasi-dynastic necropolis. Moreover, the tombs of private people from these various reigns are assembled around the pyramid of Khufu, in three vast groups (East Field, South Field and, above all, the West Field), articulating the importance of this sovereign through the scale of the site (Jánosi 2005) (plate 3). In the same way, after a highly symbolic pyramid location by the first king of the Fifth Dynasty, Userkaf, between the dry moat and the enclosure wall of the complex of Djoser at Saqqara North, his successors Sahure, Neferirkare, Neferefre, Niuserre, and probably the shadowy Shepseskare, developed a dedicated dynastic royal cemetery just to the north at Abusir, this site being separated from Saqqara only by a large valley (Barta 2006). Whilst Unis at the end of the Fifth Dynasty and Teti at the beginning of the Sixth Dynasty elected for proximity to the complex of Djoser, which remained a reference point throughout the Old Kingdom, the other kings of the Sixth Dynasty, Pepi I, Merenre, and Pepi II built in Saqqara South. We can see, therefore, that, while the sites of Saqqara North, Giza, Abusir, and Saqqara South are each in turn emblematic of the four dynasties of the Old Kingdom, the reasons behind the location of their pyramids are generally complex with, at certain periods, a systematic migration of the royal necropolis.

4   Permanence of the Royal Funerary Cult v. Dynastic Ethos

In addition to the choice of site for the royal cemetery, the maintenance of the funerary cult can also be used to establish the existence of genuine "dynastic" affinities. In theory, each new sovereign should look after the burial of his predecessor, finish his tomb and his cultic installations, if necessary, and endow his cult with land, personnel, and priests. It is clear that these arrangements were determined by a ruler while he was still alive. The tomb construction site was inaugurated at the beginning of a reign, as the annals attest: the choice of site for the complex from year 1 for Shepseskaf; the endowment of the complex in their first years for Userkaf and Sahure, including foreign prisoners (Wilkinson 2000: 150–1, 164–5, 217–18; Altenmüller 1995; Baud & Dobrev 1995: 32–3). The date marks found in the pyramids also show this, for example, the first census for Neferefre and the year after the first census for Djedefre (in the descending passage of the pyramid). The cult itself was set up during the lifetime of the monarch, at least in the palace and doubtless in provisional structures on the pyramid site. It was left to the successor to finalize these arrangements not only in order to legitimize the change of sovereign, but also to guarantee the proper functioning of the world itself. That is doubtless the spirit of the decree (very fragmentary) which Shepseskaf issued for Menkaure containing arrangements made at the beginning of his reign for food offerings to the dead monarch; the same king also completed his predecessor's complex (Goedicke 1976: 16–20; Strudwick 2005: 97–8). A king in the position of Niuserre had to bear a particularly heavy burden in this respect: he had to build almost the entire mortuary temple of his elder brother Neferefre, who died prematurely at the age of about 20, after reigning for one or two years; his pyramid, however, remained essentially as it was at his death, its height greatly reduced and converted into

a mastaba. Niuserre also laid out the complex of his mother Khentkawes II, where, this time, he completed the pyramid construction, building having been interrupted by the death of the royal spouse Neferirkare (Verner 1995: 45; 2006: 101–6).

The obligations of the reigning king extended, therefore, to the maintenance of the cult of earlier monarchs, but this, given the frailty of human memory, was destined to live on at a much reduced level. It must be conceded that the fully "Pharaonic" arrangements made by each king to ensure his survival in the hereafter swallowed up astronomical quantities of bread, beer, various foods, and thousands of head of cattle to fulfil the complete liturgical calendar and to maintain the substantial staff of the pyramid complex (Helck 1977; Strudwick 2005: 86–91), and this could not be replicated at the same high level without ruining the country – the dynastic gods in the great temples also enjoyed similar lavish provision. The papyrus archives of Abusir, which relate to the maintenance of the cults of Neferirkare, Neferefre, and the royal mother Khentkawes II by their various successors from Niuserre to Unis (Posener-Kriéger 1976; Posener-Kriéger in Verner 1995: 133–42; Verner, Vymazalovà & Posener-Kriéger 2006), bear witness to the fulfilment of these royal obligations, as is confirmed by the numerous clay sealings bearing the names of these monarchs which provide evidence of provisioning and inspections in these temples. More rarely, this preoccupation also manifests itself in the unusual addition of effigies of provider-kings installed in a predecessor's space, as with two statues, one of Khafre (in gneiss: unpublished) and the other of Menkaure (possibly in diorite: Dobrev 1997), set up in the temple of Djedefre at Abu Rawash. The titles of private individuals also demonstrate this concern with cultic permanence: titles like "priest (*hem-netjer*) of king *x*" are still attested for centuries after the demise of the revered sovereign (e.g. Snefru or Unis, Wilding 1969; Altenmüller 1973; Málek 2000). This phenomenon is seen again, for example, among the ordinary *khentiu-she* servants of the cult, organized into a veritable community which lasted for generations in the environs of a funerary complex (Roth A.M. 1995: 40–3).

By triangulating this varied body of evidence it becomes possible to establish the basic trends in this context, and these trends confirm the ancient perception of dynastic divisions. Whilst the cult of the "kings of Giza" (Fourth Dynasty) seems to have been vigorously maintained for the whole of the Old Kingdom, this was not the case for that of Djedefre at Abu Rawash (Marchand & Baud 1996), or for that of Snefru at Meidum and perhaps Dahshur, where the necropoleis show little activity in the Fifth Dynasty (Alexanian & Seidlmayer 2000: 296–8; Alexanian *et al.* 2006, necropolis DAM8; el-Ghandour & Alexanian 2006). The fate of the "monarchs of Abusir" (a large part of the Fifth Dynasty) was badly affected by the advent of the Sixth Dynasty with the cults markedly declining from the time of Unis and practically ceasing under Teti. The cult of the royal mother Khentkawes II and that of her son Neferefre provide a good illustration of this: from Djedkare to Teti, we can detect on site the occupation of ancient cultic space by polluting workshops or priests' homes, then the closure of progressively more numerous chambers and finally the cessation of activities (Verner 1995: 130–1; Verner, Vymazalovà & Posener-Kriéger 2006: 330–5). On the other hand, at the same time, the kings of the Sixth Dynasty are unstinting in pious acts on behalf of the sovereigns of the Fourth: immunity decrees by Pepi I for the two complexes of Snefru at Dahshur, by Merenre (?) and by Pepi II for Menkaure at Giza

(Goedicke 1976: 55–80, 148–54; Strudwick 2005: 103–7); the construction of a funerary chapel in the ruins of an enclosure adjacent to the temple of Djedefre at Abu Rawash (dated by pottery to this period, Valloggia 2001: 238); the renewed appointment of priests for the cult of these kings, in particular Snefru, whose posthumous glory was destined even to run through the First Intermediate Period (Wildung 1969: 105–51; Malek 2000). *Mutatis mutandis* the same story emerges from the remarkable discovery of two statues in the rock-cut sanctuary of the Saqqara West hill which strikingly reinforce this special relationship between the Sixth and the Fourth Dynasties: a great lion-goddess is shown framed by two sovereigns represented as children, Khufu on one side and Pepi I on the other, the latter having had his image added to the original work (Yoshimura, Kawai & Kashiwagi 2005: 392–4). The symmetry created thereby ensures that Pepi I acquired the status of a child-king protected by a mother shared with Khufu. This remodelling of statues, like the insertion of a chapel at Abu Rawash and the royal decrees mentioned above, bear witness, well before the great enterprise of restoration in the Memphite necropoleis by Khaemwaset under Ramesses II, to works carried out by the Sixth Dynasty in the funerary complexes of the kings of the Fourth and other cultic structures. It, therefore, seems that the kings of the Sixth Dynasty, as well as their high elite (Baud 1999: 328–9), already looked back with nostalgia at the past grandeur of Snefru and his lineage, turning their backs on their immediate predecessors of the Fifth Dynasty. The reasons for this escape us, but they were still theoretically obliged to maintain their cult. The upshot of all this is that, while kingship continues to show its constants, dynasties succeed each other but do not resemble each other, and this phenomenon imparts to each a unique character which we can attempt to make out by combining the data of political, social, and cultural history.

5   The Difficulties of Writing Old Kingdom Political and Military History

It is important to bear in mind that, despite the importance of the Old Kingdom, the quality of the sources does not permit the writing of a consecutive political, military, and social history which could provide a full context for the rich achievement of the Old Kingdom in civilization and monumental architecture. ''Factual'' history, therefore, amounts of necessity to a gap-ridden framework of royal names, reign-lengths, genealogies, and information on royal achievements amounting, in essence, to pyramid and temple construction sites, gifts to the same temples (offerings, land, personnel), and military campaigns or economic expeditions (Baines 1995b: 129–30; Strudwick 2005). We should always remember that such data are not evenly spread from reign to reign, and that they have been far from easy to establish. The list and the order of monarchs still contains uncertainties even in the Third Dynasty, a period which also leaves us in the dark with regard to the reign-lengths: the life span of Djoser, for example, remains unknown, and the duration of the dynasty itself is uncertain. For the remainder of the Old Kingdom, although the chronological sources are more numerous, even the system of dating employed by the monarchy, that of the cattle counts, is problematic: it is of uncertain periodicity (in theory

biennial, but this is doubtful for some reigns) and does not evolve into an annual accounting system until the Eighth Dynasty, a situation which makes it impossible to establish the exact reign lengths of kings (Hornung, Krauss & Warburton 2006: 116–58, contributions by Seidlmayer, Baud, and Verner). Whether a ruler was ephemeral or of long duration is decided by modern scholars on the basis of often faulty traditional sources (the Turin Royal Canon from the New Kingdom and the excerptors of Manetho), census dates of the Old Kingdom provided by the chance conservation of documents, the number of known monuments of a king, the number of references to him in private tombs, the royal cartouches which form part of personal names ("Snefru is good"), mortuary installations ("The Mound of Niuserre") or titles ("Chief of Priests of the Pyramid of Pepi"). All this means that, since relative dates (reign lengths), and absolute chronology ("Before Christ") supplied in survey works only give a very rough idea, any lengthy elaborations based on them are by definition doomed to failure, though this should not forestall debate amongst Egyptologists who are aware of the problem. *As far as we know*, the five kings of the Third Dynasty covered barely more than 50 years; the Fourth Dynasty consisted of seven kings from Snefru to Shepseskaf (omitting, for lack of sources, the Thamphthis traditionally reputed to end the dynasty), with a duration of a century, and three long reigns of 25 years and more stand out, those of Snefru, Khufu, and Khafre; the Fifth Dynasty lasted about 130 years and had nine sovereigns from Userkaf to Unis many of whom reigned for less than 10 years, and some are very elusive (Neferefre, Shepseskare), while Niuserre (20?) and Djedkare (40?) enjoyed reigns of some length. Finally, the Sixth Dynasty consisted of six kings running from Teti to Merenre II; its long duration of nearly a century and a half is explained by the longevity of two of them: Pepi I (probably 50 years) and Pepi II (probably 60 years), against which the short reigns of two others, Userkare and Merenre II, stand in sharp contrast.

6   A Monarchy of Bronze: the Third Dynasty

If there is a portrait in the monarchic propaganda of the Third Dynasty which best translates the new ambitions of royalty in the Old Kingdom, it is the seated statue of Djoser discovered in the *serdab* of his pyramid and now in the Cairo Museum. His bony face, with its thick jaw and strong lines, gives an impression of strength and toughness, a combination which contemporary portraits of other figures show, e.g. that those of the scribe Hesyre or the priest Khabausokar, who appear as implacable agents of power (Eaton-Krauss 1997: 18; Baud 2002: 74–5, 246–7).

The measure of this political will is reflected in the ambitious new architecture of the kings, which places them well above the world of ordinary mortals. In addition to a decorated temple dedicated to the royal jubilees at Heliopolis, city of the creator sun-god (Morenz 2002), of which only a few fragments of decoration remain, Egypt of the Third Dynasty can be seen to be a kingdom of superlatives above all from the great complex of Djoser (Lauer 1936–9; Lehner 1997: 84–93; Baud 2002: 95–115, 136–67). Its dressed stone enclosure wall includes 211 bastions; it is more than 10 m high, 545 m long and 277 m wide; it is surrounded by a dry ditch (Swelim 1988),

40 m wide and 25 m deep (to judge from the small portion recovered). This complex, covering an area of 15 ha, is dominated by a pyramid 61 m high, when it was complete, and by an associated mastaba (housing a false tomb) 88 m long; a great variety of buildings surround it above ground, including 25 jubilee court chapels, whilst below ground we find an immense network of galleries running to more than 6 km in length and reached by shafts 35 m deep. The more modest complexes of his successors also contain major pyramids with projected heights of probably 70 m for Sekhemkhet and 45 m for Khaba, though both were unfinished. All these pyramids are "layer pyramids," a structure characteristic of the period, as is the stepped exterior form of these monuments (Lehner 1997: 218–19). For such construction the mobilization of the workforce was without precedent, even if it is impossible to quantify: an army of quarrymen, stone cutters, and labourers was indispensable, as well as scribes to manage the material and human resources required by the operation. The need for copper for tools soared, necessitating the opening of new mines: Djoser, Sekhemkhet, and Sanakht provided themselves with fresh supplies from the Wadi Maghara in western Sinai, where rock-cut reliefs left by successive expeditions celebrate their power in the face of local enemies, shown beaten down with maces (Baud 2002: 260–9). The new requirements in timber for the construction of the pyramids (scaffolding) or ships (transportation of blocks and other expeditions) were, met thanks to new relations formed with Byblos (attested at the end of Second Dynasty, and then in the 4th), a city-state that assured the supply of pine and cedar from the Lebanon by sea, as well as other products (wine, oil, bitumen, etc. Redford 1992: 37–48).

The end of the dynasty (Huni, then Snefru for the Fourth) saw the construction of another type of step pyramid which was small size (10–16 m high) and without a funerary function (Dreyer & Kaiser 1980; Seidlmayer 1996a). Seven have been discovered ranging from Elephantine to the Fayum (Seila) on the outskirts of important towns of great antiquity, which had doubtless recently acquired the status of nome capital, the pivot of the administrative network put in place by the monarchy. The pyramids certainly aimed to proclaim royal power in regions where local elites of long standing might be tempted to resist Memphite tutelage. This was reinforced by royal residences in which the governor, at the head of a complex administration (e.g. at Elephantine: Seidlmayer 1996a), supervised the collection, processing, and redistribution of commodities levied from the region; even the workings of the monarch's limited interest in local temples (Elephantine, Thebes, Tell Ibrahim Awad), some of which played an important role in royal festivals, followed the same principles (Moreno Garcia 2004: 199–206; Kemp 2006: 112–35, map of the Old Kingdom). The degree of cooperation of the local elite remains unknown, but the setting up of the network of pyramids shows the royal will to advertise the king's appropriation of the areas in question. The disappearance, shortly after the Third Dynasty, of large local tombs (as at Beit Khallaf or el-Kab), as well as the interment of the elite in the capital, shows that there was no more building of monumental tombs outside the Memphite area. It is a different proposition in Lower Egypt, except for a handful of ancient centres. Vast unoccupied spaces, steppes bordering the deserts and marshes in the north, gave the monarchy an important reservoir of agricultural and cattle-rearing resources. A policy of active colonization, conducted by virtue of a network of royal foundations, would lay the basis for the administrative organization of the Delta (Moreno Garcia 1999: 234–5).

7   Family State, Builder State: The Fourth Dynasty

The colossal projects of this dynasty, which required the cooperation of a whole population of workers and suppliers of commodities, benefited from the creation of this new administrative network. The monarch no longer needed to build pyramids in the provinces: from the time of Snefru (and probably his predecessor Huni) the contribution of the nomes was henceforth symbolized in the iconographic programme of the funerary temple through a procession of estates which expressed in a ritual context the seizure by central power of the agricultural resources of the country. This should be treated as a specifically Memphite feature rather than simple elitism, i.e. from the Fourth Dynasty onwards the elite class also became exclusively Memphite at the highest level, if one takes a decorated stone tomb with inscriptions as a decisive indication of ''elite'' status.

At the political level Fourth Dynasty society saw very important developments and changes (Roth 1993a). The extent of royal necropoleis bears witness to this quantitatively and the variety of titles does likewise in qualitative terms. The king, whose divinity was proclaimed in inscriptions, was the father figure in a society dominated by the royal family. The descendants of the monarch were numerous, as can be seen from the number of tombs of queens and sons and daughters of the king who intermarry. The model of the relationship is such that the title ''Royal Son'' could be granted to any deserving functionary from whom the commitment of a son was expected (Baud 1999: 373–9). The highest offices were held by these ''King's Sons,'' mostly real but sometimes fictitious: it was standard practice that the vizierate, which controlled the entire administration, was held by princes (Strudwick 1985: 300–35) certain of whom, like Kawab, a son of Khufu, would gain great renown in Egyptian tradition. There can be little doubt that other sons of Khufu, known only from later documents, like Hardjedef or Baufre, also held this high office.

It is unsurprising in a monarchy where the erection of gigantic funerary complexes had become a priority that the Department of Royal Works assumed a crucial importance, and it became an essential area of activity for the royal sons. These vast works became sources of permanent employment, in some cases because of the multiplicity of ventures (Snefru and his three pyramids of 92, 105, and 105 m height), and in others because of the colossal dimensions of the pyramid (146 m for Khufu, 143 for Khafre) and the attendant monuments, causeways in particular, without counting the numerous mastabas of the palace elite and the cult servants. The Khufu project on the Giza plateau is in the fullest sense Pharaonic in scale (Lehner 1985; Haase 2004; Hawass 2005); its enormous western necropolis (West Field) is a vast planned field of mastabas built to a chequer-board design, a true new town where not all of the ''houses'' were ever occupied since the cemetery constructed greatly exceeded requirements (Jánosi 2005: 132–42 for Cemetery G4000; Jánosi 2006 for the Echelon Cemetery). These vast works considerably revitalized the economy and society, with unprecedented use of raw materials coming from the margins of the Valley (white limestone from Tura, basalt from the North Fayum, alabaster from Hatnub, granodiorite from Aswan), from the bordering deserts (greywacke from Wadi Hammamat), or from regions further afield, such as the copper

minerals and malachite from Sinai (Wadi Maghara area), probably travelling via Ayn Sokhna (Abd el-Raziq, Castel & Tallet 2006; 2007a; 2007b; Tallet 2006), the red hematite ochre from Abu Ballas in the distant western desert (Negro, de Michele & Piacenza 2005; Kuhlmann 2005) or gneiss from Gebel el-Asr/Toshka in Lower Nubia (Shaw & Bloxam 1999), all of which necessitated the setting up of appropriate expeditions and adequate logistics, particularly for the provision of water. These works also employed a large labour force, which is difficult to quantify. Amongst it a specialized elite toiled in the workshops (*wabet*) where they produced, in particular, numerous statues for the royal cult such as we find in the vast collections of Djedefre (quartzite), Khafre (mainly gneiss), and Menkaure. The dimensions of the pyramid town of the latter, recently excavated at Giza, with its immense dormitory-workshops gives a measure of the increment in scale (Lehner 2002).

8   The Sun-king in His Palace: The Fifth Dynasty

More than the diminishing size of the pyramids (50 m or so) and their funerary temples, it is the sun temples that symbolize the new dynasty, from Userkaf, its founder, to Menkauhor (Verner 2002: 67–86; Nuzzolo 2007). Texts show that all these kings possessed a monument of this sort, although only those of Userkaf and Niuserre have been found, to the north of the zone of the royal complexes at Abusir. Traces of that of Neferefre, hardly begun because of the brevity of his reign, are perhaps to be identified in the unfired-brick structures discovered at the site of the sun temple of Niuserre (Verner 1987); it is, however, doubtful whether the first three sovereigns of the dynasty utilized one and the same monument, i.e. that of Userkaf (Nuzzolo 2007: 233–4, vs. Stadelmann 2000). The architecture, decorative programme, titles of the cult functionaries, papyrus archives from Abusir, and royal annals still present a very coherent picture of these structures and of the importance assumed by the solar cult during this dynasty (Wildung 1984; Quirke 2001: 126–8). Dominated by a huge dressed stone obelisk placed on a truncated conical base, they celebrate Re and his creation in the form of representations of the cycle of the seasons on the walls of the temple, and a great barque made of mud-brick recalled the diurnal and nocturnal voyage of the sun in the temple of Niuserre. It is towards these sun temples that commodities converged, destined, ultimately, for the royal cult; for the consumption of offerings by the monarch followed an initial presentation before Re (Posener-Kriéger 1976: 519–26; Verner 2006: 381–9). The annals show traces of the extent of the donations of land for the functioning of the cult, foremost among which are the sanctuaries of Heliopolis, the city of the solar creator (in the form of Re or Atum), which took the lion's share (Helck 1984; Wilkinson 2000c). At the end of the dynasty various changes presage the end of this solar pre-eminence, which one can detect on royal onomastica ("Menkau-*Hor*" celebrates Horus, "Unis" mentions no god), the abandonment of the construction of sun temples, or even from the insertion into royal tombs from the time of Unis of the Pyramid Texts which, far from being exclusively solar, brought together the solar, stellar, and Osirian *post-mortem* future of the monarch (Barta 1981; Mathieu 1997). It is undoubtedly
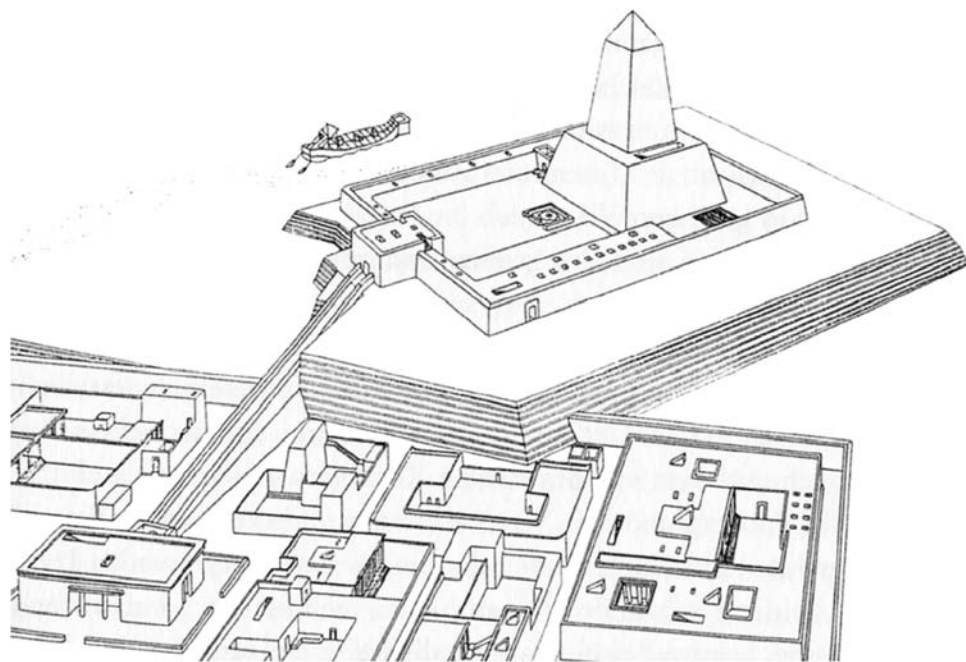
Figure 4.2 The solar temple of Niuserre at Abusir after Borchardt.

symptomatic that the necropolis of Abusir was deserted by the successors of Niuserre to the benefit of Saqqara South (Djedkare) and North (Unis), and the royal cults the "Abusir" kings almost ceased at the accession of Teti.

The "sun" kings of Abusir promoted a new system of relations with the elite, which became a meritocracy (Baines 1999) and broke with the model of relationships applied by the preceding dynasty, which already had changed from the reign of Khafre or Menkaure (Baud 1999: 315–23). First, except for a few members of the royal family, the key elements in society were no longer buried beside the pyramids but at Saqqara. The two sites are neighbours but are separated by a large dry valley. This is not a first; for Snefru at Dahshur, Djedefre at Abu Rawash, or Shepseskaf at Saqqara South had already held their elite at a certain distance (Baud et al. 2003: 39–40). Another sign of distancing, this time in terminology, was a new usage in the nomenclature of royal priesthoods, where the name of the pyramid was progressively substituted for that of the king; this system, possibly starting with Unis (Munro 1993: 87–8), would be extended to the royal female line with the creation of the titles "Daughter, Wife or Mother 'of the Royal Complex *x*'," rather than of the king himself (Baud 1999: 343–5). Next, the royal sons no longer exercised the top administrative functions, which are entrusted to specialists and reformed in a more rational way, first under Neferirkare, as is attested by the reorganization of the officials' titles (Strudwick 1985: 337–9). Finally, functions related to the royal person took on a crucial importance (Speidel 1990: 91–4; Eyre 1994a: 108; Baud 2000), as in biographical narratives which place His Majesty centre stage (Baines 1997: 136–40). This importance of palace officials is seen, for example, in the exceptional

size of their tombs (Barta 2005), in particular those of the "Director of the *ah*-palace" chamberlains, like Rawer at Giza or Akhethotep at Saqqara ("Louvre mastaba," Ziegler 2007), who carry out the responsibilities which earlier devolved upon the royal sons. The necessary physical proximity to the monarch, which brought with it serious implications because of the king's divinity and the magical power of the regalia in the chamberlain's charge, is echoed in the intimate connotations of the ranking title "Beloved Sole Companion," which replaced that of "Sole Companion of his Father" given to the royal sons of the Fourth Dynasty (Baud 1999: 64–5). Magicians who eliminate illness, manicurists (like the two brothers Nyankhkhnum and Khnumhotep of Saqqara), hairdressers-wigmakers (like Rawer of Giza, Speidel 1990: 15–19, 152–60; or Ptahshepses of Abusir, Verner 2002: 153–75) constituted this new elite, such that bearing a title of this type became essential for high administrators, for example the famous Ti of Saqqara North, who was not the simple hairdresser that he has often been claimed to be. These changes are also visible in the crown's matrimonial policy: from now on it is functionaries attached to the royal person who married the kings' daughters, like the chamberlain Wepemnofret and the magician-protector Seankh-wiptah, and not senior administrators who managed royal works or other administrative departments (Baud 1999: 368–71). A number of biographies, a genre developed at this time, have the royal palace as their theatre and revolve around the king alone, who is an object of adulation by his court (Baines 1999; Kloth 2002: 239–43). The solar world of the Fifth Dynasty was a universe of courtiers entitled "Sole Companions" in which the monarch, in his Memphite Versailles, kept in closest proximity to himself a large political society fixated on his splendour and dedicated to his person. This monarchy spread itself far beyond the frontiers of Egypt, maintaining its domination over Lower Nubia (to the Second Cataract at Buhen) and a privileged partnership with Byblos, while promoting contact with farther off lands, Kerma in Upper Nubia, Punt on the Red Sea (el-Awady 2006b), and the islands of the Aegean Sea, without the practical details of these contacts always being well established (Vercoutter 1992: 288–314; Moreno Garcia 2004: 245–60).

9   A "Decentralized" Monarchy: The Sixth Dynasty

The abandonment of the cults of the "kings of Abusir" did not involve a renunciation of solar ideology, which remained important under the Sixth Dynasty (Quirke 2001: 84–5), as indicated, amongst others things, by references to royal donations to the Heliopolitan gods in royal annals, the erection of obelisks (the solar symbols *par excellence*) in the same city by Teti (a recovered example), Pepi I (fragments in a temple subsequently removed to Bubastis, Morenz 1999), and probably Pepi II (a pair cited in the biography of Sabni of Elephantine). Moreover, an important necropolis of high priests of the Heliopolitan creator-god was begun at the southeast angle of the future Ramesside *temenos* wall, and reused fragments of mastabas have been found in the sacred area (Raue 1999: 483–4, nos. 3–5 and W); small obelisks appear there, as at Saqqara, showing the importance of the solar cult in the conceptions of the hereafter for private individuals as well as their superiors.

The most marked element of the Sixth Dynasty is the new royal interest in the provinces the exploitation of which is rationalized (Moreno Garcia 1999: 204–66). Temples in the nome capitals (Kemp 2006: 112–35) which, until now, escaped the requirements of Memphite decorum, were endowed with a royal statue (Dendera), inscribed doors (Bubastis), *naoi* (Elephantine, possibly housing a statue of the king rather than a god: Bussmann 2007) and protected by immunity decrees which exempted the temple from taxes and its personnel from royal corvées (Abydos, Coptos). This policy, which had its beginnings in the Fifth Dynasty, was reinforced in the Sixth by the construction of royal chapels, ''*ka* sanctuaries'' (*hut-ka*) in the sacred enclosure of the local divinity examples of which have been found at Bubastis and Abydos, and other examples are known from epigraphic sources at el-Kab, Akhmim, Meir, and elsewhere. At the same time, provincial administration was reformed with the creation of the post of ''Overseer of Upper Egypt'' under Djedkare, a doubling (or even tripling) of the vizierate which acquired a titulary specifically referring to control of the South, and an increased personnel for the administration of the nomes (Kanawati 1981).

The high-ranking functionaries installed in the residence no longer chose to be buried in the capital but in their place of residence. The necropoleis of Upper and Middle Egypt, therefore, saw a marked increase in popularity (e.g. at Qubbet el-Hawa (Elephantine), Edfu, Abydos, Deir el-Gabrawi, Akhmim or Meir) in mastabas or hypogea whose dimensions and decoration are every bit as good as those of their Memphite contemporaries. This phenomenon was probably replicated in the Delta, as the necropolis of Mendes shows.

We may assume that this interest in the provinces was not only economic but political – perhaps the monarchy was reacting to the court intrigues and palace conspiracies which seem to punctuate the period (Moreno Garcia 2004: 169–82). This phenomenon might have appeared at the end of the Fifth Dynasty, as suggested by the curious reuse of blocks of a monument of Djedkare in the pyramid of Unis; a dismantled monument of the royal mother Zeshzeshet, mother of Teti, has also been integrated into the construction of the pyramid of Pepi I. Under Teti, who, according to Manetho, was assassinated by his bodyguard, and under Pepi I, we know that a significant number of officials buried in the necropoleis of Unis and Teti at Saqqara had their names, and sometimes their images, erased or mutilated, or their tomb reallocated (Kanawati 2003). The biography of Weni even mentions, under Pepi I, an exceptional judicial procedure implicating a queen and the dismissal of officials. ''Harim'' conspiracies were certainly common coin at this period, a phenomenon exacerbated by the plurality of queens under Pepi I (Inenek, Nubunet, Ankhnespepi I and II . . . : Leclant & Labrousse 2001; Labrousse 2005; Labrousse & Leclant 2006) and Pepi II (Neit, Iput II, Wadjebten) who feature in pyramid complexes grouped around the royal pyramid in addition to more mundane tombs of lesser queens: competitors for the throne must have been numerous, but this situation was certainly not new, although previously it was brought under control or brought to a halt. Regencies, like that of Ankhsenpepi II (Roth 2001: 312–14), which blow their trumpet in several inscriptions to the detriment of her son-king Pepi II, did not ameliorate this situation and were a focus of intrigue during the royal minority.

The period, then, had its troubles at the palace, against which the introduction of a body of provincial officials loyal to the king might be a counter-weight. The king

associated himself with viziers and other high administrators originating from the nomes such as Mehu from Mendes, Izi from Edfu, or the line of Bawis of Akhmim (Moreno Garcia 2006b, 2006c). The links woven with Abydos are remarkable in this respect: Pepi I married the two sisters Ankhnespepi, daughters of the Abydene Khui, whose wife would even be favoured with the title of "vizier" like two of her sons, Djau and Idi. Another Abydene, already mentioned, Weni, who may well have been related to the same family, had a remarkable career in Memphis, where, on the basis of his position in the king's bodyguard, he led important military campaigns to the Near East (Eyre 1994c); son of a vizier, he himself became a vizier and Overseer of Upper Egypt, and, as a sign of his success, he had a large mastaba of an unusual square plan built for himself on top of a hill which was visible from all parts of the surrounding area (Richards 2004).

10   The End of the Old Kingdom: Disfunctionality, Intrigue, and Revolution?

This policy of promoting the local elite to high office, carried out in the provinces as well as in the capital, contained within itself the seeds of the dissolution of central power (Müller-Wollermann 1986), even though the king tried to maintain his control by ensuring that the education of the youth of elite families was carried out in the palace itself. During the First Intermediate Period this inherent danger generated major figures supported by wide-ranging powers of patronage who were able to take over from the enfeebled monarch and present themselves as a refuge in the face of current troubles. Moreover, it is not impossible that these troubles had been provoked by an impoverishment of the population created by strong pressures exerted at the same time by the monarchy and wealthy local potentates (Moreno Garcia 1999: 268–9; 2005). An index of their new power is provided by the fact that families kept control of a nome and its temple for several generations, the latter being a key element in the rural economy and source of significant revenue (Moreno Garcia 2006a, 2006b), e.g. at Akhmim (the temple of Min, the lineage of Kheti/Tjeti), Coptos (the temple of Min again), and Elkab (the temple of Nekhbet, for eight generations). Private sanctuaries, on the model of the royal *hut-ka*, are known at Balat, capital of the Dakhla Oasis, around the governors' palace of the Sixth Dynasty, where each potentate had his own chapel constructed (Soukiassian, Wuttmann & Pantalacci 2002), or around the temple, as at Coptos (Shemai, Eighth Dynasty): the governors are, therefore, promoting under royal authority a veritable ancestor cult, celebrating the antiquity of their own lineage (Moreno Garcia 2005b). Certain of these nomarchs even acquired at the end of the Sixth Dynasty, the status of "saints," e.g. Pepinakht Heqaib at Elephantine, first deified at the governors' palace built to the southwest of the (future) temple of Khnum (Dorn 2005), then in a specific sanctuary, further to the north, which was constantly enlarged from the Middle Kingdom onwards (Franke 1994). Other governors, like Izi at Edfu (career from Djedkare to Teti), only enjoyed a posthumous cult much later (during the Second Intermediate Period in his case: Böwe 2004; Moeller 2005b: 36–41), which does not

in any way call into question the importance they had acquired during their lives. The phenomenon is also known in the capital during the First Intermediate Period with the deification of many viziers, like Kagemni and Bia, a phenomenon that also affects kings, e.g. Unis and Pepi I, cases which have their origins in private rather than royal initiatives (Málek 2000).

In addition to political and social phenomena, the horizons of the Sixth Dynasty were also darkened in terms of external relations where Egypt had to confront a more hostile environment (Redford 1992: 56–69; Miroschedji 1998: 30–1; Moreno Garcia 2004: 260–9). That did not prevent the dispatch of commercial expeditions to traditional destinations, such as the land of Punt on the Red Sea, the opening up of long distance routes to the Dakhla Oasis (Kuhlmann 2005) or the maintenance of diplomatic relations with the powers of the Levant, such as the city of Ebla in Syria (attested by a vase of Pepi I, if one can rely on the presence of such an easily portable object). The coastal city-states of the Levant became an important theatre of operations, even though this has its earlier precedents, as in the scenes of the capture of towns in the mastabas of the Fifth Dynasty. The arrival of semi-nomadic Amorite pastoral groups destabilized the region and provoked a succession of Egyptian military expeditions against the "Amu" six of which are related by Weni and one by Heqaib; such repetition of military action does not suggest that these activities were particularly effective (Redford 1992: 48–55). This menace even affected Sinai, control of which had been guaranteed since the Third Dynasty without the need for any specifically military installations (Parcak 2004), but the presence of a circular stone fort, 44 m in diameter, recently discovered at Tell Ras Budran in South Sinai, bears witness to this marked change in conditions (Mumford 2006). The end of the Old Kingdom would open the gateways of the north coast of Sinai and of the eastern Delta to the Amorites, who would colonize them during the First Intermediate Period (Oren and Yekutieli 1990).

On the Nubian front, the monarchy kept control of Lower Nubia, periodically asking for the submission of the chiefs of the regions of Medja, Irtjet, and Wawat (in the annals of Pepi I, precise toponyms lost; Merenre from inscriptions at the First Cataract). Expeditions intended to bring back exotic products or timber for naval construction were repeatedly carried out by the princes of Elephantine, but from the middle of the Sixth Dynasty they took on a warlike appearance with raids, massacres of the chiefs' families and processions of prisoners taken to Memphis (Vercoutter 1992: 333–42): cf. the biographies of Harkhuf (Obsomer 2007) and of Pepinakht Heqaib (Strudwick 2005: 327–40), or the decree of Pepi I for Snefru and the royal annals for the endowment of prisoners (Baud & Dobrev 1995: 32–3). They bear witness to a reaction by the Pharaonic monarchy to a growing hostility which was indubitably generated by the resurgence of Nubian power under the C-Group people who repopulated Lower Nubia and Kerma in Upper Nubia (Edwards 2004: 17–18). This phenomenon would lead Egypt in the Middle Kingdom to build powerful forts to control the region.

The end of the Old Kingdom as a period and the "kingdom" as a territorial entity with the loss of control of the fringes, appears, then, as the product of the interaction of various forces consisting of an amalgam of social and political change (monarchic crisis, relations between capital and province, competition between local elites,

networks of patronage) and significant geopolitical upheavals. An aggravating factor, whose effects were only felt in the long term, was the desiccation that affected the area in the last centuries of the third millennium and which certainly weighed heavily on Egyptian society which remained fundamentally rural, and whose agricultural practices and population patterns had to be modified to adapt to the new environment (Moeller 2005a). To all these long term destabilizing factors we can certainly add more localized but serious troubles at the Memphite court. Beyond doubt the long reign of Pepi II precipitated things. Two conflagrations occurring during his reign could suggest a climate of great tension, if not of real revolution. One is the sack of the governors' palace at Balat, in the distant Dakhla Oasis, where the building was pillaged and then set on fire at its key points (Soukiassian, Wuttmann & Pantalacci 2002: 10, 522–3); the other is the fire around the temple of the ram-god at Mendes in the Delta, where about thirty bodies have been discovered scattered about in the rubble (Redford 2001b: 2; 2005: 8).

FURTHER READING

The best synthesis on the history and society of the Old Kingdom is in Spanish: Moreno Garcia 2004; a still valuable introduction is Malek 1986 and Kemp in Trigger, Kemp, O'Connor, and Lloyd, 1983: 71–182; see also now the papers of Verner, Kahl, Stadelmann, and Altenmüller in Redford, (ed.) 2001: 585–605. Updated chronologies will be found in Hornung, Krauss, and Warburton (eds.) 2006. On kingship see in O'Connor and Silverman (eds.) 1995, and on royal action as reflected in the annalistic record consult Wilkinson 2000, though needing supplementing from Baud and Dobrev 1995. For royal families, elite and administration, see Baud 1999, Roth 2001, and Strudwick 1985. For the artistic achievements of the period, see the catalogue *Egyptian Art in the Age of the Pyramids*, The Metropolitan Museum of Art, New York, 1999. On pyramids see Lehner 1997. The main necropoleis of (in north–south order) Abou Rawash, Giza, Abusir, and Saqqara are studied in Valloggia 2001, Jánosi 2005, Verner 2002, and Lauer 1977. For an urban site, see Soukiassian, Wuttmann, and Pantalacci 2002. The most important texts of the Old Kingdom are translated in Faulkner 1986, Roccati 1982, and Strudwick 2005. For the Abusir papyrus archives see Posener-Kriéger 1976, and now Verner, Vymazalová, and Posener-Kriéger 2006.

CHAPTER 5

The First Intermediate Period and the Middle Kingdom

Harco Willems

1 Chronology

The relative chronology of the Middle Kingdom is fairly clear. All Eleventh and Twelfth Dynasty kings are probably known, and there is little dispute about their sequence. Contemporary sources and the king lists of Manetho and the Turin Canon afford information on their approximate reign lengths, allowing us to estimate roughly the duration of the period by simple dead-reckoning. Unfortunately the Thirteenth Dynasty and the Second Intermediate Period are far less well known, so that the Middle Kingdom block cannot be easily linked to the New Kingdom. Fixing the absolute chronology of the Middle Kingdom requires other information, but this is not easily found. Dendrochronological analysis of Egyptian material is still in its infancy (Cichocki 2003). Likewise, under the constraints of Egyptian antiquities regulations, only few radiocarbon analyses have been carried out. Although radiocarbon dates of the Pharaonic Period usually match "historical" dating well (Manning 2006), there are indications that, for the Middle Kingdom and Second Intermediate Period, something may be wrong with the calibration methods currently in use (Bietak, Höflmayer 2007: 14–15). The most widely used sources of information are the lunar and Sothic dates in the Illahun papyri. While some believe these astronomical datings offer a very accurate absolute chronology, there is much debate about the correct interpretation, leading to Krauss' low and Luft's high chronology. It now seems that the low chronology must be abandoned, but also that the high chronology is only applicable with a broad margin of error (Schneider 2008). The brutal truth is that there is no reliable anchor point for Egyptian history before the New Kingdom. The dates used in this chapter are, therefore, not intended as accurate absolute dates, but as a means of orientation on the relative chronology of the Middle Kingdom. For the preceding First Intermediate Period matters are still worse because contemporary historical inscriptions are almost wholly absent.

2   The First Intermediate Period

In political terms, the First Intermediate Period covers the Ninth, the Tenth, and the first half of the Eleventh Dynasty. According to Manetho, the former two originated in Herakleopolis, while the Eleventh Dynasty was a competing line of rulers from Thebes. The latter were initially not kings, but merely nomarchs responsible for the 4th Upper Egyptian nome, who gradually managed to take hold of southern Upper Egypt as far north as the 10th nome. By this time they had begun to adopt the pharaonic style, thus posing as a second royal line within Egypt. This situation endured for almost a century: during the reigns of the Theban kings Antef I, Antef II, Antef III, and the early years of Mentuhotep II, their Herakleopolitan opponents remained in power in central and northern Egypt.

The definition of the First Intermediate Period has long been based on negative criteria. The term itself suggests it was little more than an interlude between the Old Kingdom and the Middle Kingdom. Its characteristics are often said to include phenomena such as social disruption, economic distress, environmental catastrophes like low Niles, famines, artistic decline, administrative chaos, declining royal power, and so on, but many of the alleged catastrophic elements lack any proof. The environmental explanation first ventured by Bell, popularized by Butzer, and still defended by Hasan, is undermined by recent archaeological research suggesting that Nile flood levels did *not* dramatically decrease in the late Old Kingdom (Moeller 2005a). Also, it now seems that, at least in parts of Egypt, the First Intermediate Period was not just an era of economic decline but perhaps rather one of a different distribution of wealth among the population (Seidlmayer 1987). It is, however, certain that, from the perspective of the central government, there *was* a crisis. The degree to which it had a grip on provincial areas clearly decreased markedly (Müller-Wollerman 1986: 72–98). In the absence of strong royal involvement in local administration the importance of regional chiefs increased. Some of them were simply nomarchs such as had already been in charge before the First Intermediate Period (see above, p. 76ff), but other options were also possible. Some "supernomarchs" might, for instance, assume responsibility for groups of nomes, while other local chiefs only led smaller entities within what had formerly been a nome. The most impressive account of this state of affairs occurs in the early First Intermediate Period tomb autobiography of Ankhtify at Moalla. A scene in the tomb contains a label mentioning a king Neferkare, but it is uncertain whether he was a First Intermediate Period king. Ankhtify was the nomarch of the 3rd Upper Egyptian nome, but he claims also to have assumed the rulership of the 1st and 2nd nomes. Moreover, he points out that the 4th and 5th nomes (Thebes and Koptos) had developed a similar form of political unity or, at least, a military alliance which waged war against him. The same texts also describe a development in the opposite direction; for the "general of Armant," a city of the Theban nome with which Ankhtify was at war, is described as a more or less independent ruler opposing the Thebans. Clearly a part of the 4th nome had split itself off. Contemporary texts illustrate that the phenomenon was not confined to the area referred to by Ankhtify (Willems 2008: 36–41).

The Ankhtify texts also mention low Nile floods leading to catastrophic famines. In these conditions he intervened energetically, feeding not only the starving population of his own town but also that of neighbouring settlements. Other texts describe a similar state of affairs. This has given rise to the idea that wars, famines, political fragmentation, and the occasional growth of larger polities were a general feature of the period, but, at least to some extent, the descriptions may offer literary *topoi* rather than historical facts. For instance, while Ankhtify states that he had fed many towns in an extensive region, his contemporary Iti claims to have kept alive Ankhtify's capital Hefat (stela Cairo CG 20001). It is unlikely that both texts accurately reflect the truth. Rather, they may have aimed at profiling the local ruler as a patron caring for his social environment (Franke 2006). New architectural models developed in tomb architecture, facilitating the burial of regional chiefs surrounded by their retinue, must reflect similar patron-client relationships (Seidlmayer 1990: 398–412). The fragmentation of the Old Kingdom state is, therefore, not so much symptomatic of social disintegration but rather of the emergence of a new type of society, which was as hierarchical as the Old Kingdom had been, but with the difference that the focus of attention was now the regional elite rather than the royal court. It stands to reason that this new societal model must somehow relate to the decreased penetration of central state authority in the provinces.

The new interpretation of First Intermediate Period tomb autobiographies as writings bolstering the prestige of rural elites has added a new dimension to the way these "historical" documents are read. However, I believe that the sudden occurrence of themes like economic disaster, civil war, and famine is unlikely to be *only* a matter of literary *topoi*. The scale of the conditions described suggests that they cannot have been entirely fictitious (cf. Morenz 1998). Moreover, the fact that these events happened predominantly in southern Upper Egypt suggests that the situation there may have been more serious than elsewhere. This explains a number of facts that would otherwise be hard to account for (see below).

It is hardly possible to write a history of the First Intermediate Period. There are no administrative documents, hardly any letters, and very few royal historical inscriptions (only Theban). Perhaps to compensate for this dearth of evidence, two literary texts have been taken as key sources: the *Admonitions of Ipuwer* and the *Instruction for King Merikare*. The former is the most important representative of the Lamentation literary genre. In this text a man called Ipuwer complains in vivid terms that Egypt has been plunged into chaos. It has long been assumed that it reflects the situation in the First Intermediate Period, but recent scholarship agrees on a far more recent composition date not before the late Twelfth Dynasty. Also, there is no compelling reason to believe it had the intention of drawing a picture of the First Intermediate Period (Burkard, Thissen 2003: 119–31; Enmarch 2005). As regards the *Instruction for Merikare*, no uncertainty exists about the historical period it purports to reflect. Merikare was one of the last Herakleopolitan kings, if not the last. The text alleges that it was written by Merikare's father who gives advice to his son on the policy to be followed with respect to the Theban kings, to Egypt's north-eastern border where foreign nomad groups were apparently infiltrating, and to the Egyptian population. There can be no doubt that many passages contain at least kernels of historical truth, although this is no longer generally taken for granted. Quack even suggests that it was

written under Senwosret I, and that it reflects political sensitivities of that time rather than the realities of the First Intermediate Period (Quack 1992), but he only offers circumstantial evidence to this effect, and others prefer to take the historical information it provides as realistic (e.g. Darnell 1997: 107; cf, in general, Burkard, Thissen 2003: 98–103).

Apart from these literary texts our written sources mainly consist of tomb inscriptions (for which see Schenkel 1965; 1976; Gabra 1976; Mostafa 1985; 1987), but the biased nature of these hardly needs to be stressed. Moreover, most are only brief, and more often than not it is impossible to reconstruct longer chains of events from them. The problem is most acute in the area ruled by the Herakleopolitans. The only significant group of texts referring to them derives from Tombs II, III, and IV at Assiut. These long inscriptions show the close ties which the nomarchs Kheti I, It-ib, and Kheti II maintained with the Herakleopolitan court. They also describe military encounters with the troops of the Theban Eleventh Dynasty, the advance of which, for a time, seems to have been stopped by these nomarchs (Kahl 2007; Zitman 2010).

Textual evidence from the Theban realm is far more extensive (for the major sources and source groups see Clère, Vandier 1948; Fischer 1964 and 1968; Vandier 1950; Fischer 1961 and Kubisch 2000; Schenkel 1976; for other sources see Schenkel 1965). Close reading of this material, coupled with the interpretation of temple reliefs from Dendera, Gebelein, and the Deir el-Bahri temple of Mentuhotep II, offers a fairly clear picture of how early First Intermediate Period Theban nomarchs first began to expand their territory northwards (5th Nome), how these conditions led to military conflict with Ankhtify of Moalla, and how the Thebans finally took the reins in what had been Ankhtify's realm (nomes 1–3) and, in a separate move, the 6th Upper Egyptian nome. Shortly after, the Theban nomarch Antef assumed the royal style (Antef I Sehertawy). Textual evidence from the time of his successor Antef II Wahankh, who reigned 51 years, shows that the Theban kingdom gradually advanced further north as far as the 10th Upper Egyptian nome. After the brief reign of Antef III followed the 51 year rule of Mentuhotep II, who finally reunited Egypt (Gestermann 1987; Postel 2004).

The late Old Kingdom kings had transformed provincial rule (see above, p. 76ff) by creating a new class of regional administrators, i.e. the nomarchs (*ḥry-tp ꜥꜣ n spꜣt /* NAME OF NOME). Although these functionaries are not attested everywhere, they existed in most Upper Egyptian provinces and continue to appear throughout Upper Egypt in early First Intermediate Period documents. However, in the areas conquered by the Theban rulers in the early First Intermediate the evidence for their existence gradually stops. No such development is observed in the Herakleopolitan realm, where the nomarch title continues to appear on tomb walls in provincial cemeteries. Gestermann is doubtless right that this reflects a dramatic change in administrative policy by the Thebans.

It is not hard to see what may have motivated this step. As we have seen, early First Intermediate Period texts from southern Egypt frequently refer to warlike encounters between neighbouring nomes. By curbing the power of local chiefs in the newly conquered areas the fledgling Theban state created a centralized administrative system, a process which is still reflected in the huge royal cemetery at el-Tarif in northern Thebes. The kings built here gigantic *saff*-tombs for themselves which

consisted of a façade made up of a row (Arabic *saff*) of pillars with a large courtyard in front. These complexes include dozens of tombs of courtiers besides that of the king. In this manner, the *saff*-tombs are the typically Theban version of the First Intermediate Period hierarchical tombs mentioned above (see p. 83). Surrounding the royal tombs there are many smaller, but still monumental, *saff*-tombs that belonged to important state officials (Petrie 1909; Arnold 1976a). Conversely, elite cemeteries elsewhere in southern Egypt seem almost to disappear. This suggests that the elite lost its regional roots, being concentrated in Thebes, probably in order to bring strife between regional chiefs to a halt (Willems 2008: 36–65).

Textual evidence allows us to draw some of the broad historical outlines of the First Intermediate Period, but it is clear that the picture is both incomplete and misleading. It is, therefore, vital that archaeological sources are analysed in conjunction with the texts. However, archaeological finds are often used merely to underpin impressions already gained from the texts, e.g. the emergence of a large amount of vast First Intermediate Period cemeteries has been related to the conflicts so frequently mentioned in the texts (O'Connor 1972; 1974, but see Seidlmayer 1987). Of course, this is methodologically ill-founded. If the people had not died as a result of warfare, they would have died of natural causes somewhat later, and the time-lag cannot, in view of their low life expectancy, have been long enough to be visible in the archaeological record. Likewise, weaponry found in tombs of men is often explained against the background of the warlike conditions that would have prevailed, but it is more realistic to assume that the tomb assemblages reflect living conditions in far more indirect ways. Several tomb scenes depicting burial rituals show how funerary equipment was brought to the tomb (Willems 1988: 200–6). The selection of objects clearly follows a ritual paradigm rather than directly reflecting the occupational activities of the deceased. In poor tombs, the ritual was simplified, no doubt for economic reasons, but the selection of objects still seems to have been paradigmatic and not to have directly reflected the life of the deceased. Men usually received weapons, women cosmetic items. According to Seidlmayer this prescribed selection corresponds to the way owners of First Intermediate Period elite tombs are usually depicted: men are portrayed through their weaponry as persons of authority, the women by their luxury dress and cosmetic equipment as ladies (2001b: 231–40). These are the social roles the deceased aspired to play in the hereafter.

Archaeological remains also suggest that we should not overrate our knowledge of First Intermediate Period history. For instance, at Dara, 20 km north of Assiut, there is a mysterious cemetery whose main structures date to the early First Intermediate (Weill 1958). The huge superstructure M there is of truly "royal" size, and it occupies a commanding position overlooking the entire floodplain in this part of Egypt. This building must have belonged to a person of great authority, but we have no idea where to locate him in the political spectrum of his time. An inscription mentioning a king Khui was purportedly found at the site, and he has been argued to be the owner of tomb M, but the evidence is flimsy. The fact that even some political main actors elude us should warn against placing too much confidence in our historical reconstructions. Dara lies in the heartland of the Herakleopolitan kingdom, and this raises questions about the extent to which the Herakleoplitans had a firm grip even on Middle Egypt in the early First Intermediate.

Figure 5.1 Stela of the general Djari, from the Eleventh Dynasty cemetery of el-Tarif at Thebes. The stela illustrates the southern Egyptian relief style of the First Intermediate Period. The autobiographical text speaks of a war waged by the Theban king Antef II against the Herakleopolitans. After W. M. F. Petrie, *Qurneh* (BSE 16: London, 1909), pl. II.

**Figure 5.2** Superstructure ''M'' at Dara (photograph H. Willems).

3   The Middle Kingdom

It is generally accepted that the Middle Kingdom began when Mentuhotep II reunited Egypt after it had been split up into a Theban and a Heracleopolitan half. It is less easy to define the end of the period. Some scholars consider only the latter

part of the Eleventh Dynasty and the Twelfth as the Middle Kingdom, ranging the Thirteenth Dynasty with the Second Intermediate Period (e.g. Ryholt 1997), but it is more common to include the Thirteenth Dynasty in the Middle Kingdom, the abandonment of the capital at Itj-tawy being taken as the defining moment for the beginning of the Second Intermediate (Bourriau 2000: 185).

The Late Eleventh Dynasty

It is certain that Mentuhotep II reunited Egypt, but when and how he achieved this aim are matters of controversy. The Turin Canon attributes 51 years to this king, a realistic figure, as contemporary texts attest his 46th year at least. In the course of his reign he changed his royal protocol twice, and it has been argued that the names should be regarded as political manifestos. His third Horus name *smȝ tȝwy*, "Unifier of the Two Lands," would reflect a policy of reintegrating the two parts of Egypt. The name occurs for perhaps the first time in a graffito in the Wadi Shatt el-Rigal, where it is accompanied by a date in year 39. The Unification must have taken place before this, but the question of when exactly has given rise to much debate. Since a certain lapse of time must be allowed for the period when the first two royal protocols
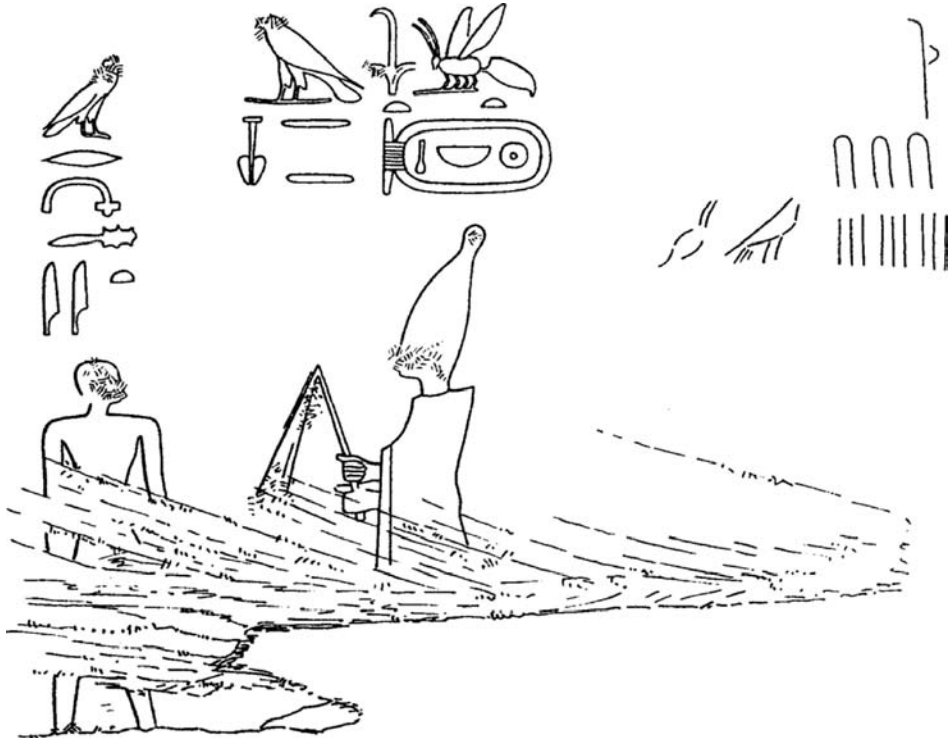
Figure 5.3 Graffito in the Wadi Shatt el-Rigal, displaying king Mentuhotep II with the crown of Upper Egypt and wearing the Heb-sed robe. The king is accompanied by his third Horus name Sma-tawy, "Unifier of the Two Lands," and the date "Regnal Year 39." There is a debate as to whether the date is contemporary with the scene. After H. E. Winlock 1947, pl. 37.

were in use, it remains likely that a point somewhere between, say, years 10 and 40 should be envisaged (Franke 1988: 133; Darnell 2004: 34. Gestermann 1987: 35–47; Quack 1992: 106; Seidlmayer 1997: 81; Gestermann, 2008).

Texts from the Theban area providing details on the unification process are rare. Some temple scenes show Mentuhotep as a warrior, and sometimes he is shown fighting other Egyptians. Although the unification process is thus pictured as a military affair, we should not lose sight of the highly symbolic nature of these images. Egyptian iconography, by its very nature, presents the king as a victor. The historical reality behind these images is, therefore, difficult to determine (Gestermann 1987: 43–7).

Three tomb autobiographies from Assiut contain allusions to the Theban advance. The biography of Khety I (Tomb V) is still describing peaceful conditions in the later First Intermediate Period. His successor Itib, the owner of Tomb III, relates how he supported the Herakleopolitan kings against an attack from the south from which he emerged the victor. Finally, Khety II's autobiography in Tomb IV, dated to the time of the Herakleopolitan king Merikare, states that Assiut was temporarily conquered by the advancing Thebans but that Khety threw them out again. After that he must still have remained in power long enough to have his tomb decorated with this long inscription (published by Griffith 1889 and Brunner 1937). It is generally assumed that it must have been written a short time before the Thebans took over power in the north, and clearly their advance as far north as Assiut was of a military nature.

A number of graffiti in the Hatnub quarries left by Nehri I, a nomarch of the Hare nome, also describe warlike conditions in Middle Egypt and were long believed to refer to these events (Graffiti 14–30, Anthes 1928). However, these texts are nowadays dated on palaeographic and archaeological grounds to the late Eleventh or early Twelfth Dynasty (Willems 1984: 80–102; 2007: 84–8). Therefore, the conflict to which they allude can no longer be identified with the Unification war, and this means that there is no longer any evidence that the Unification was the outcome of a military victory. Of course, that remains a distinct possibility, but it cannot be ruled out that Theban pressure on the Herakleopolitan kingdom became so strong that the nomarchs of Middle Egypt simply changed allegiance. If this happened, the Theban takeover may have been a coup rather than a conquest, and this model may explain why nomarchs remained in power in Middle Egypt, whereas the Thebans had hitherto adopted a policy of abandoning the nomarch system in newly conquered areas (Willems 1989: 598–601; 2008: 36–64).

Even before the Unification, Mentuhotep was a prolific temple builder, for instance, in Elephantine, Gebelein, Tod, Medamud, and Dendera (Habachi 1963; Fiore Marochetti 2005; Postel 2004: 133–4). Pride of place goes to the terrace temple at Deir el-Bahri (Arnold 1974a–b; 1979a; 1981). Since it has a causeway oriented towards Karnak, where the Amun temple certainly already existed (Le Saout, El-H. Maarouf, Zimmer 1987: 294–7), a connection between the two must have existed, a link which may have been used even at this period for a processional festival, an early form, perhaps, of the Festival of the Valley, which would later become one of the most significant events in the Theban religious calendar (Cabrol 2001: 543–50). Although the early Middle Kingdom scenario of these festivities eludes us, the entire landscape thus created must have served to link the cult of the king (who was buried in Deir el-Bahri) with that of Amun of Karnak and Hathor of Deir el-Bahri. This

landscape set the stage for the funerary culture of the royal family and the national elite; for, whereas the Theban elite burial ground had hitherto been at el-Tarif, it was now moved to the processional road (Arnold 1971). Here in Deir el-Bahri we also find early evidence for the Coffin Texts on the coffin of one of Mentuhotep's "wives" (Willems 1988: 109–10; 1996b: 53–4 and pl. 46–51). Although these Lower Egyptian texts were perhaps already known in southern Egypt, they were still most exceptional, but their appearance may well reflect an integration of Lower and Upper Egyptian trends (Gestermann 2004; Willems 2007: 104; 2008: 183–4). Parallel tendencies can be observed in the realm of art where the Theban style gradually gave way to a more classical style, probably as a result of a transfer of Herakleopolitan artisans to Thebes (Jaroš-Deckert 1984).

On the whole it seems as though Mentuhotep II followed a conciliatory policy, his aim being as much to suppress antagonism between two formerly hostile regions as to adopt the style of traditional, northern Egyptian royalty. Far less is known about his successors Mentuhotep III and IV. Inscriptions datable to the former reign only derive from Thebes and other towns in southern Egypt, where Mentuhotep III continued the temple-building policy of his predecessor (Postel 2004: 245–264). A fair amount of evidence exists for the highest officials of the country in this period (Schenkel 1965: 250–71). As in the First Intermediate Period, no nomarchs existed in southern Egypt, but they are likely to have remained in office at least in the former Herakleopolitan realm at el-Bersha, Beni Hasan, and Assiut (Willems 2008: 36–65).

A mass of elite tombs around the Asasif and Deir el-Bahri testify to the fact that the national government remained stationed in Thebes. Their date has been much discussed recently, in the wake of a study of an enigmatic royal monument in western Thebes (TT281). This unfinished building is located in a valley to the south of Deir el-Bahri. It was probably intended as a terraced mortuary temple like that of Mentuhotep II and had a long causeway ending near the edge of the cultivation. The excavator, Winlock, attributed it to the successor of Mentuhotep II (1921: 29–34), a hypothesis that has long been universally accepted. On this basis a series of officials, whose tombs exist nearby, were dated to the same period. However, in a reassessment of the evidence Dorothea Arnold has argued that the owner of TT281 was not Mentuhotep III but Amenemhet I. This has had a great impact on the way the early Middle Kingdom administration of Egypt is currently perceived, many officials being attributed nowadays to the early Twelfth Dynasty rather than the late 11th (Dorothea Arnold 1991: 21–32; Allen 2002: 127–41; Allen 2003), but the matter is far from resolved and the dating remains an open question.

The events which led to the end of the Eleventh Dynasty are shrouded in mystery. Mentuhotep IV is known only from quarry inscriptions dated to his first two years (Postel 2004: 265–78). These years may, or may not, have to be subsumed in the seven "missing" (*wsf*) years mentioned after Mentuhotep III in the Turin Canon (which omits Mentuhotep IV) (Ryholt 1997: 10; 2004: 147–8). Nor is it clear how long the king remained in office after his highest attested date. A record of year 2 occurs in quarry inscription 113 in the Wadi Hammamat, where Mentuhotep IV sent an expedition directed by the vizier Ameny. It has been argued that this Ameny was the later king Amenemhet I who used his high position to usurp the throne, but, as yet, there is no proof of this.

The Twelfth Dynasty

Amenemhet I and Senwosret I

While there is no proof that the transfer of power to Amenemhet I was itself violent, some evidence suggests that Egypt was in trouble at this time. The Nehri graffiti at Hatnub (see above) describe civil-war conditions prevailing in Middle Egypt in the last years of the Eleventh Dynasty or the early Twelfth. They frequently refer to a "period of fear of the royal palace," a suggestive formulation whose precise significance unfortunately escapes us. According to Gestermann's new interpretation of the regnal years in these texts, the events in question took place in the first eight years of Amenemhet's reign (Gestermann 2008). Likewise, at an uncertain date in this reign, an inscription at Beni Hasan records internal warfare, and sieges of towns are depicted in contemporary tomb scenes. The fact that Amenemhet I seems to have changed his royal protocol at least once may also point to political instability, and his first Horus name, *Sḥtp-ib-tȝwy* "He who calms the Heart of the Two Lands," suggests that all was not well with Egypt. Probably from at least his seventh year he adopted the Horus name "Repeater of Births" (Abd el-Raziq, Castel, Tallet, Ghica 2002: 42), a participial formation from the Egyptian expression *wḥm mswt*, which refers to inaugurating a "renaissance era," i.e. a period of return to the glorious days of the past (Willems 1984: 95–101; Postel 2004: 279–86).

Two obscure kings attested in inscriptions found in Nubia are sometimes interpreted against this background: they might have made unsuccessful, or at least short-lived, attempts to establish a dynasty of their own, either late in the Twelfth Dynasty or shortly after (Postel 2004: 379–84). To this can be added an unpublished source mentioning the otherwise unknown king "the Horus 'Who brings to life the Heart of the Two Lands," the King of Upper and Lower Egypt "Who brings to life the Heart of Re'" (*ḥr sꜥnḫ-ib-tȝwy nsw-bity Sꜥnḫ-ib-Rꜥ*) (cf. Simpson 2001b: 9–10). The text may indicate that this monarch had power at least in Heliopolis, perhaps presenting an early protocol of Amenemhet I or of some other contemporary claimant of the throne.

The fine detail of Amenemhet's reign cannot be established, but two major issues stand out. The first is the creation of the new capital Itj-tawy near modern Lisht which was far more centrally located than Thebes – close, in fact, to the ancient capital at Memphis. The date of foundation is uncertain. Current scholarship holds that Amenemhet resided in Thebes for a long period in the early part of his reign, and that it was then that he instigated the construction of the mortuary temple TT281 (see p. 89), but the arguments for this are not compelling. In favor of the hypothesis it is sometimes argued that the construction of Amenemhet's pyramid only began late in his reign, but we have seen that his early years were probably dominated by internal strife. Also, the construction of a new capital at Itj-tawy must have absorbed considerable building capacity. At all events, the move was clearly successful, as the capital remained there until the end of the Middle Kingdom.

The creation of this town must have involved important administrative changes, as the entire government left Thebes with the king. As noted before, the Eleventh Dynasty had suppressed the nomarch system in southern Egypt, substituting a highly

centralized administration based in Thebes (see above p. 84). With the establishment of the new court at Itj-tawy, an elite cemetery emerged at Lisht, while tombs of high administrators seem to disappear at Thebes. Although from a management perspective this seems awkward, it looks as though the court, now residing far away in the north, remained responsible for affairs in the Theban region.

The second major historical problem of the reign of Amenemhet I is the question of his coregency with Senwosret I. The text on stela Cairo CG 20516, which seems to correlate year 30 of Amenemhat I with year 10 of Senwosret I, has long been taken as proof of a ten-year period of joint rule, and other circumstantial evidence has been cited in support. However, since the 1980s alternative explanations have been advanced for all these points, and more weight is now given to statements in literary texts which are hard to explain on the assumption of a coregency. Although opinions remain divided, those arguing against a coregency have a stronger case (Obsomer 1995).

The conditions in which Senwosret I came to power are suggestive of strong inner tensions, and it has been argued that two major literary texts, the *Story of Sinuhe* and the *Instruction of Amenemhet I*, are pieces of political propaganda stressing both the legitimacy of the new king and the benefits of his rule (cf. Posener 1956: 61–115 whose views on these texts as propaganda are preferable to those of Parkinson 2002, who treats them entirely as works of fiction, denying historical relevance even to the very specific descriptions of political conditions in the country). Less widely known compositions are equally propagandistic, for instance, Senwosret's inscription in the Satet temple at Elephantine (Schenkel 1999: 68–74), his restoration inscription in the Montu temple at Tod (Barbotin, Clère 1991) and the text on the Berlin Leather Roll (de Buck 1938). They present the king as a pious temple builder, earning Egypt the gratitude of the gods. No other Middle Kingdom Pharaoh has left behind such an extensive written praise of his rule, and this alone suggests that conditions in Egypt may have been difficult. Although remaining monuments are so numerous that it is tempting to consider this reign as one of the most glorious ones of the Middle Kingdom, there is mounting evidence of grave troubles also: some inscriptions imply that in his year 18 opposition in Nubia had to be quelled, and that, some years later, there was a period of low Niles causing famine (Simpson 2001a); the Tod inscription just referred to hints at political disturbance in the Theban region; in Louvre stela C1 the general Nesumontu describes a military encounter near Thebes; and a tomb at Deir el-Bahri where the bodies of sixty "slain soldiers" were found may date back to this event (Obsomer 1995: 54–80; Vogel 2003).

Evidence of an altogether different kind is provided by the *Execration Texts*. These documents, written either on enemy figurines or red pottery bowls, describe Egypt's foreign enemies but occasionally also rebellious Egyptians. After being inscribed the objects were ritually buried (in the case of the statuettes) or destroyed (in the case of the pots), thus symbolically rendering the insurgents harmless. Execration Texts from the time of Senwosret mention several Egyptians among the enemies, including the vizier Antefoker (Posener 1988). This leaves no room for doubt that opposition to the king must have occurred at the highest political levels. From this perspective, it may be significant that Senwosret I built a pyramid complex that was an almost exact copy of the complexes of the kings of the late Old Kingdom (Arnold 1988: 17).

Like the literary compositions already discussed, this may have been an architectural statement asserting the king's legitimate royal roots.

To end this section a word must be said about international relations in the early Middle Kingdom. Mentuhotep II is known to have ventured into Nubia where, amongst other things, he mobilized troops whom he deployed during a raid into the Syro-Palestinian region (Darnell 2004; Jaroš-Deckert 1984: pl.17). Slightly later propagandistic literary texts suggest that this region did pose a threat to Egypt. In order to prevent "Asiatics" passing the border, Amenemhet I is said in the *Prophecy of Neferti*, 66, and the *Story of Sinuhe*, B17, to have built "the Walls of the Ruler" (*inbw ḥḳȝ*). The hero of the latter tale describes how he crossed the border into the land of Retjenu, an area which clearly had its own unEgyptian culture and was politically independent of Egypt. These texts suggest that the *inbw ḥḳȝ* stood in the Suez isthmus, and it seems significant that the earliest pharaonic occupation of the eastern Nile Delta goes back to the same period. A large temple built under Senwosret III near Tell el-Daba may have replaced an older structure by Amenemhet I (Bietak and Dorner 1998; cf. Eigner 2000), and in the same area a large workmen's settlement has emerged the rigidity of whose layout suggests strong state involvement in the region (Czerny 1999).

Texts dated to the reigns of Amenemhet I (Newberry 1893: pl.25, 36–7; Sethe 1935: 12, 3; Žaba 1974 [RILN4 and 10A]) and Senwosret I also suggest military activity in Nubia. A text dated to year 43 of Senwosret I mentions an attack on "the four foreigners," evidently enemies living south of Egypt. In this period we also see the start of the colonization of Lower Nubia, marked by the construction of a network of military outposts there (Obsomer 1995: 237–306; Kemp 2006: 231–44). This move must have been meant as much as a way to control the economic potential of the region (including gold), as to keep in check ethnic groups which might pose a threat to Egypt's economic interests. In the course of time, the Nubian kingdom of Kerma would, in fact, develop into a force to be reckoned with.

These initiatives in Nubia needed to be monitored, and it seems that the responsibility came to rest on the shoulders of the administrators of Elephantine. Senwosret I promoted one of them, Sarenput I, to the rank of nomarch (*ḥry-tp ȝ*), probably the first administrator ever to bear such a title in this region. An eruption of architectural activity (both on Sarenput's tomb and on the local shrine of Heqayib) was clearly carried out under the auspices of the king (Franke 1994: Willems 2008: 56–7, 119–27).

The Mid-Twelfth Dynasty: Amenemhet II, Senwosret II, and Senwosret III

Although many texts date to these reigns, few are historically specific about the achievements of the two earlier monarchs (but see Farag 1980). There are, however, many stelae from cenotaphs and tombs in Abydos dated particularly to the earliest reign which afford glimpses into the lives of some officials of this king. One of these texts, Stela Leiden V4, is topped by the names of Senwosret I and Amenemhet II, and the edges left and right of the cavetto cornice mention their years 44 and 2. This has led to the view that the kings ruled together from year 43 to 45 of Senwosret I. However, other interpretations are also possible, and this coregency is very doubtful (Obsomer 1995: 137–45). The first Middle Kingdom coregency that can be considered certain is that of Amenemhet II and Senwosret II because the stela of Hepu at Konosso states unequivocally that it "was made in regnal year 3" of Senwosret II,

"corresponding to regnal year 35" of Amenemhet II. This indicates a coregency in the last three years of the reign of Amenemhet II.

Determining the reign lengths of Senwosret II and III is beset with problems. The information contained in the Turin Canon is hard to assess because the part devoted to the Twelfth Dynasty breaks off after Senwosret I. It is generally assumed that a small fragment, known as "fragment 67," once formed part of the list of his successors, but unfortunately the names of the kings have broken off, and their dates are nowhere complete. It gives successive minimal reign lengths of 1 + x (but not more than 10), 13 + x (probably 19), 30 + x, and 20 + x or 40 + x years. It has often been assumed that these reign lengths cover Amenemhet II, Senwosret II, Senwosret III, and Amenemhet III respectively because this would result in the best possible match with Manetho's king list and contemporary evidence. The reign lengths attributed to Senwosret II and III were, on this assumption, taken to be 19 and 36 years respectively. However, in the 1970s and 1980s this idea received strong criticism because the highest attested date for the former king is year 8 or 9, and 19 for the latter. The last ten years or so of Senwosret II, and the last 17 of Senwosret III would somehow have produced no surviving dated monuments. This aroused the suspicion that the year 19 mentioned in the Turin Canon is, in fact, that of Senwosret III and that Senwosret II should be accorded less than ten years (e.g. Simpson 1972: 50–4; Franke 1988: 117–8; Ryholt 1997: 14–15; von Beckerath 1997: 189 and *passim*). Just when the problem seemed solved to general satisfaction, a control note dated year 39 was found in the funerary monument of Senwosret III at Abydos. Wegner's idea (1996a) that this date pertains to Senwosret III has convinced some scholars. He explains the total lack of other texts dated between years 19–39 by assuming that this entire period was taken up by a coregency with Amenemhet III, and that dates in this period only refer to this junior partner. Cogent arguments can be mustered against this hypothesis. Probably there was no coregency, and the control note may refer to Amenemhet III, who may have added pious structures to his father's monument (Tallet 2005: 28–9).

The royal pyramids and associated cemeteries of this period were located in Dahshur (Amenemhet II and Senwosret III) and Illahun (Senwosret II) (Arnold 1979b; Stadelmann 1991: 229–48). It is remarkable that the inspiration for the layout of the pyramid complexes was no longer exclusively the classical late Old Kingdom model which had been followed so closely by Senwosret I. Although elements of that model (the valley temple, the causeway, the pyramid temple) were retained, the Djoser complex increasingly formed the source of inspiration. The trend reached its apogee in the pyramid complex of Senwosret III. Like its distant ancestor, this pyramid was enclosed by a long, rectangular surrounding wall with recessed paneling, an entrance in the south-east, and other elements that seem to reflect the Djoser complex (Arnold 2002: 121–2). Another feature of note is that Senwosret III possessed a second tomb in Abydos. It has always been regarded as a cenotaph, but Wegner now interprets it as the royal tomb, a proposal which would turn the pyramid into a cenotaph (Wegner 1996b: 388–401; 2007a; 2007b: 392–3; Tallet 2005: 240–6). However, this hypothesis needs far more supporting evidence before it can be accepted.

As in the Old Kingdom, large towns seem to have been associated with these funerary complexes. The most famous is the settlement of Illahun (often wrongly

called Kahun), but a similar site was recently found at Abydos (Wegner 1998; 2001; 2007b: 15–31). These pyramid towns were built according to a strictly orthogonal plan. Moreover, within the site houses were grouped together by size and type. This proves that the settlements were designed and built as a whole, undoubtedly by the state, and that the dwellings were only subsequently placed at the disposal of the occupants (Kemp 2006: 211–21). However, other towns, like Elephantine, continued to grow organically (von Pilgrim 1996). Planned settlements are much better known archaeologically than those which grew organically, but this can hardly reflect the everyday realities in Middle Kingdom Egypt. It is more likely that most towns evolved spontaneously and were inhabited by Egyptians living an independent existence. The planned settlements must be rooted in specific, state-organized initiatives: some may have had the purpose of facilitating large-scale projects, the workmen's settlement near Tell ed-Daba being a good example of this (see p. 92), but they could also serve to shelter a more elite population such as the example at Illahun, which must ultimately have been designed to serve the cult of the royal pyramid.

Kemp (2006: 216–21) has shown that the spacing of larger and smaller houses at Illahun must reflect clearly defined social stratification, and the same differentiation is reflected in the burial grounds of the town: a cemetery consisting exclusively of very large and well-built tombs was clustered around the king's pyramid (Petrie, Brunton, Murray 1923), and a far larger one with much simpler tombs was located near Haraga (Engelbach 1923), even though these tombs were comparatively rich. The inhabitants of Illahun were clearly well off.

In Illahun detailed information exists on urban life, royal cult, funerary culture, temple religion, and the burial customs of the inhabitants, but such a multi-faceted window on society is not available for most other parts of Egypt. Archaeologists have mostly selected sites with decorated elite tombs for investigation, and this has biased scholarly attention to nomarch cemeteries such as those at Beni Hasan, Deir el-Bersha, or Assiut. Studies on Middle Kingdom funerary customs often take such sites as paradigmatic for Egypt as a whole, but this is patently unjustified. It was recently shown, for instance, that even the small tombs at Beni Hasan, far from reflecting the overall population, represent a regional elite (Seidlmayer 2007), and the same is becoming increasingly clear at Deir el-Bersha. Moreover, the nomarch cemeteries not only seem to have served a regional elite but also differ in significant ways from the elite cemeteries at, for instance, Illahun. In Middle Egypt, funerary customs rooted in the First Intermediate Period (like the placement in tombs of funerary models) continued long after they had disappeared in the royal cemeteries. Also, the tradition of the use of Coffin Texts remains strong in the tombs of the high elite in provincial cemeteries, whereas it is exceptional in the rich tombs near the residence (Willems 2008: 149–84). Thus, the funerary evidence seems to offer a window on the dynamics of culture that has been hardly explored. Far less even is known about the way such differences manifested themselves in the settlements themselves. One element of the pageantry of the provincial elite can, however, be isolated: the *ka*-chapels constructed in the nome capitals. These chapels dedicated to the personal cult of local chiefs seem often to have become operational even when their beneficiaries were still alive. The climax of the celebrations was reached during

festive processions departing from the *ka*-chapel, passing through the streets of the towns, and thence to the local cemeteries. Indeed, it has been argued that the Coffin Texts applied to elite coffins reflect the religious texts used in the cult of the local ruler (Willems 2008: 220–8). This elaboration of nomarch cults seems to have culminated in the mid-Twelfth Dynasty, when the statue-cults for Djehutihotep at Deir el-Bersha and Djefaihap at Assiut and the elaboration of the Heqayib-chapel at Elephantine reached their apogee.

Particularly under Senwosret III, Egypt pursued a vigorous foreign policy. The most visible manifestation of this was the expansion in Nubia. Already existing fortresses were expanded, and new ones were built in many places. The border between Egypt and the realm of the Kerma Culture was established at the Second Cataract, between Semna and Kumma (Kemp 2006: 231–44; Tallet 2005: 40–75), but Senwosret also directed his attention to Syro-Palestine. For a long time, the most significant source in this regard was the stela of Sobekkhu now in Manchester. It contains an account of a military campaign against *Skmm*, a toponym usually thought to refer to Shekhem in modern Israel (Tallet 2005: 172–7). Recently, however, exciting new evidence of Egypt's Levantine policy has emerged during the excavation of the tomb of a certain Khnumhotep III at Dahshur. Fragments of a tomb inscription already excavated there in the late nineteenth century suggest that he was the son of Khnumhotep II, a provincial ruler well known from his tomb at Beni Hasan. Franke (1991) argued that Khnumhotep III was originally based at Beni Hasan also but later received a post in the residence. This explains why he was buried at Dahshur and not in Middle Egypt. Recent excavations in this tomb have brought to light more fragments of the Khnumhotep text, and the broad lines of its contents can now be reconstructed. According to Allen, this was a literary text describing the exploits of Khnumhotep in a period of political crisis in Byblos. It suggests that the king of Byblos wrote a letter to Senwosret III in connection with a war against the neighboring Levantine town of Ullaza. It seems that an Egyptian contingent had become trapped between the combatants. On being informed of this, Senwosret III sent troops to Byblos, who apparently brought the conflict to an end. Moreover, Allen has shown that Egyptian influence in Byblos remained strong after these events, e.g. the rulers of Byblos are no longer referred to in later texts as "king" (*mlk*), but as "chief" (*ḥȝty-ꜥ*). This suggests that Egyptian involvement in the conflict led to a situation where this part of the Levant was fully integrated in the Egyptian administrative system (lecture by Allen during the Tenth International Congress of Egyptologists at Rhodes 3 May 2008).

Although only few details are as yet known of the Egyptian involvement in the Levant, the texts just reviewed probably describe mere episodes in international contacts of great intensity and probably of longer duration than just a few military raids. An indirect indication to this effect is provided by the fact that administrative documents of the late Twelfth Dynasty often refer to foreigners engaged as household staff in Egypt (Schneider 2003a). Apparently, current conditions brought about large-scale population movements from the Levant to Egypt. Some Levantines may have come as prisoners of war whilst others may have availed themselves of the new opportunities afforded by the political bonds developed between Egypt and Byblos.
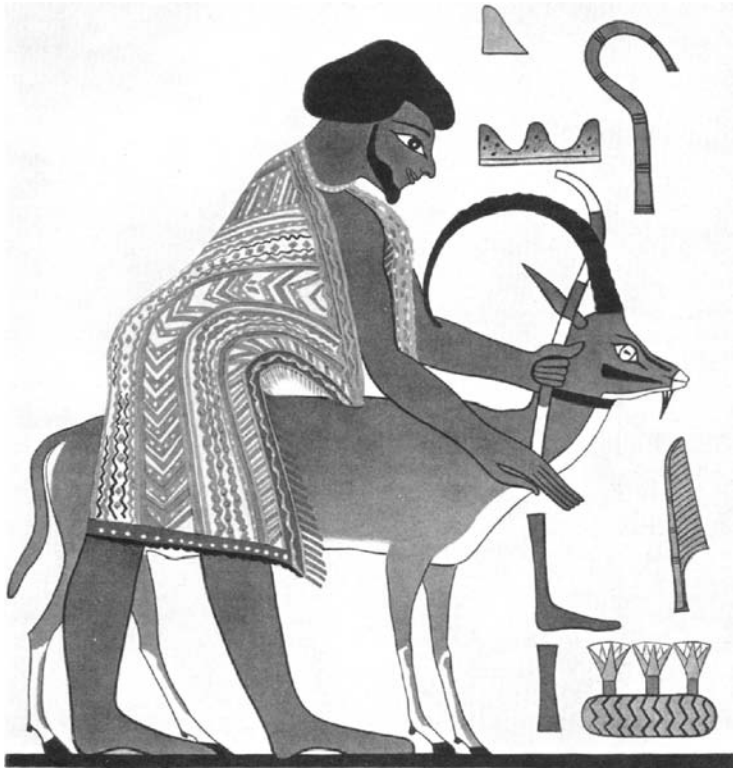
Figure 5.4 Scene from the tomb of Khnumhotep II at Beni Hasan, showing the arrival of Amu beduin at the nomarchal court of the Sixteenth Upper Egyptian nome. This scene, inscriptionally dated to Year 6 of Senwosret II, may be an early illustration of the way people from the Syro‑Palestinian region penetrated into Egypt in increasing numbers in the latter part of the Twelfth Dynasty. Note that one of the bedouin, named Absha, bears the title *ḥk3 ḫ3st*, "chief of a foreign land." This is the earliest known example of the term that would later be used to designate the Hyksos kings: P.E. Newberry et al., *Beni Hasan* I. Archaeological Survey of Egypt. Egypt Exploration Fund (now Society). London. 1893. Pl. XXVIII.

The End of the Twelfth Dynasty: Amenemhet III, Amenemhet IV, and Sobknofru

We have seen above that arguments against a coregency between Senwosret III and Amenemhet III are perhaps stronger than those in favor. This suggests that Amenemhet's long reign, lasting at least into his year 46 (Franke 1988: 125), was almost entirely spent as a sole ruler. There may, however, have been a brief coregency with Amenemhet IV (Murnane 1977: 13–20; Franke 1988; 120; Grajetzki 2006: 61). After the nine‑year reign of Amenemhet IV the female pharaoh Sobknofru ascended the throne whose highest attested date is year 3 but to whom the Turin Canon attributes five years (Franke 1988: 121; for the end of the dynasty see also Matzker 1986).

The reign of Amenemhet III constitutes a period of cultural change, in many ways heralding the Thirteenth Dynasty. According to traditions transmitted by the Classical historians, he undertook large‑scale irrigation works in the Fayum. Although no explicit indications to this effect exist in contemporary sources, some facts

are suggestive. One is that the king undertook building activity in the Sobek temple of Shedet (the ancient name of modern Medinet el-Fayum) (Arnold 1992a: 185–6). This temple may have been linked to Lake Fayum by a road at the end of which stood two colossal seated statues of the king whose pedestals can still be seen near the village of Biahmu (Habachi 1940). Another temple was built by Amenemhet III and IV at Medinet Madi. North of the Fayum, a late Twelfth Dynasty temple exists at Qasr el-Sagha (Arnold 1979c). All of this clearly reflects a hitherto unparalleled interest in the region, and the fact that Amenemhet III built a pyramid at Hawara, near the entrance to the Fayum, cannot be fortuitous either. In this connection it is also worth mentioning a series of exceptionally high Nile flood records at the Nubian fortresses of Semna and Kumma which span a period of about ninety years starting early in the reign of Amenemhet III and which may mean that this ruler had to cope with repeated catastrophically high Nile floods (other interpretations have, however, also been advanced for the high Nile flood records: Seidlmayer 2001a: 73–80).

If our suspicion of economic difficulty is correct, it is conceivable that they played a part in the momentous administrative innovations of the period. We have seen that, already under Senwosret III, a leading member of the nomarch family of Beni Hasan was promoted away to the residence, and around this time nomarch tombs at the site ceased to be made. The same phenomenon can be observed elsewhere, though some provincial tombs of nomarchal grandeur were still built under Amenemhet III, the most notable instances being the huge ones at Qaw el-Kebir. In the course of the reign, however, the nomarchy finally came to an end here as well (Willems 2008: 184–9). Instead, a new system was developed in which official bureaux dependent on the royal palace were charged with state affairs. The workings of the new system are unfortunately hard to fathom. A disproportionate amount of our sources derive from the town of Illahun – an important town, no doubt, but not more than one representative of one class of settlements artificially created by the crown, i.e. a pyramid town. In addition there are a few late Middle Kingdom papyri dealing with the management of the royal palace or of the so-called "Enclosure of the Great One" (*ḫnrt wr*), a kind of work camp for corvée laborers in the Theban region (Quirke 1990). Some of these sources already postdate the Twelfth Dynasty, but they reflect the same administrative system as the Illahun papyri. Unfortunately, the interrelationships between the royal palace, the various "bureaux," and local administration remain hazy. On the local level power seems to have been in the hands of people often combining titles like *ḥȝty-ꜥ imy-r ḥmw-nṯr*. This combination already occurred in "nomarch" circles long before, but the disappearance of the nomarch cemeteries with their huge tombs suggests that their status had changed. Although designations of nomes continue to exist, it is not clear whether any official was in charge of nomes as a whole. There were, however, larger territorial subdivisions like *tp rsy*, "the Head of the South," a designation for a cluster of nomes in the southern part of Egypt concentrated around Thebes. As a result of this development Thebes evolved into a sort of southern counterpart of Itj-tawy. Dozens of new titles emerged, and there is a strong increase of scarabs in the archaeological record, suggesting a growing importance of administrative control over economic transactions (Quirke 2004).

The eclipse of the nomarchs went hand-in-hand with great changes in funerary culture, at least in large parts of Middle Egypt. In the mid-Twelfth Dynasty, Coffin Texts and tomb assemblages ultimately rooted in burial customs of the First Intermediate

Period remained current for the highest strata of society. With the disappearance of the nomarchs, these paraphernalia suddenly disappeared almost entirely. The dominant trend is now to simplify funerary equipment. There is, moreover, a much reduced emphasis on purely symbolic items rooted in mythological conceptions of the divine world. Instead, new objects appear, like the well-known, charming depictions in faience of animals and vegetable models (Bourriau 1991: 11–16). Theological explanations for this phenomenon are hardly likely to be correct, and it is, perhaps, rather more likely that the dead occasionally took with them cherished luxury objects which they had been surrounded with during life. This may also explain the presence of gaming boards and beautifully ornamented cosmetic items, and of objects like magical ivories that seem to have been used in household magic rituals concerned with birth and child care.

The change in religious outlook is also evident in the funerary stelae placed in cenotaphs and funerary chapels surrounding the processional road in Abydos, a custom which goes back at least to the early Middle Kingdom. Before Amenemhet III their decoration had focused on the presentation of offerings to the deceased and his relatives and on their participation in Osirian processions. In addition, many stelae contained autobiographical texts. The cult of the gods is taken for granted but is not of central concern to the discourse of the stelae. Under Amenemhet III the offering theme remains, but, instead of biographies, we more often find cultic hymns to Osiris. Osiris and other deities are now, for the first time, also depicted in the lunette of the stela, so that they visually dominate the scene. Divine cult is thus moved to the forefront, the cultic benefits for the deceased and his family ranking second. This phenomenon seems to herald the situation in New Kingdom tombs, where the deceased are pictured increasingly strongly as being subordinate to the gods (Assmann 1983b).

A final development of note occurs in the royal pyramids. Amenemhet III built one at Dahshur (which may have become unstable even during the building stage: Arnold 1987), and a second at Hawara (Petrie 1890; 1899; Petrie, Wainwright, Mackay 1912). Both pyramids develop a custom already emergent under Senwosret II: the entrance was built at unexpected places, undoubtedly a device to confuse robbers, and the subterranean ground plan is also increasingly complex and contains cunning systems for leading unwelcome visitors astray and for closing the burial chamber.

The Thirteenth Dynasty

Since very few monuments of Thirteenth Dynasty kings exist, chronological reconstructions have to rely almost entirely on the Turin Canon which lists dozens of kings, implying that one monarch followed another in rapid succession. Where reign lengths are recorded, these are usually very brief. Although much has been written about how the text should be interpreted, the first account to take into consideration the fibres of the papyrus only appeared in 1997. It showed that some fragments had hitherto been misplaced, rendering much theory-building of earlier date obsolete (Ryholt 1997: 19–33, 69–93). However, there is agreement on some points: that the high speed with which one king succeeded another contrasts sharply with the situation in the preceding centuries; that many inscriptions make clear that several kings were of non-royal descent; and that the administrative model established under Senwosret III and Amenemhet III continued to flourish in the 13th Dynasty. Thus, while the

paucity of royal monuments and the rapid royal succession might suggest political problems, the sources at the same time seem to reflect administrative stability (for possible explanations of this paradox see Hayes 1955: 144–9; Quirke 1991: 123–39).

The Thirteenth Dynasty went through three successive phases. During the first 50 years or so, the country was ruled by some 25 kings (Ryholt 1997: 296). Unfortunately, informative texts are few and far between, only providing us with "snapshots" (see Helck 1983) so that writing the history of the period is well-nigh impossible. Matters are slightly more favorable for the next five kings (Sobkhotep III [according to Ryholt's numbering], Neferhotep I, Sahathor, Sobkhotep IV and V) who have left behind a comparatively impressive monumental record, but, even for them, the sources are too limited to yield an overall historical picture (Ryholt 1997: 297–298). For the last thirty rulers the record is worse still, and even their names are mostly unknown. Egyptologists nowadays assume that the end of the dynasty coincided with the moment the royal court in Itjtawy was abandoned and removed once more to Thebes.

The considerations which must have led to this momentous decision are not clear, but increasing pressure exerted by non-Egyptian rulers living in the Eastern Nile Delta is likely to have played a major part. We have already seen that, as of the late Twelfth Dynasty, increasing numbers of foreigners from the Levant began to settle in Egypt (see p. 95). In the eastern Nile Delta, closest to the Levant, the impact was particularly strong. The archaeological record shows that large settlements emerged there with a predominantly un-Egyptian (although partly Egyptianized) population the largest of which, at Tell ed-Daba, was to develop during the Second Intermediate Period into the Hyksos capital of Avaris (see below, p. 94). It is clear that these Levantines gradually became politically the dominant factor in northern Egypt, posing grave threats to the Thirteenth Dynasty court at Itj-tawy, but when and how they began to assert their independence has given rise to much debate.

The chronological position of the Fourteenth Dynasty, which according to Manetho originated in the Delta town of Chois, has been a key problem in this discussion. Unfortunately Manetho does not mention any Fourteenth Dynasty king by name. The corresponding part of the Turin Canon mentions a large number of kings separating the Thirteenth Dynasty from the Hyksos, but of these, only king Nehsy is known from contemporary sources. Scarab seals and a few more monumental remains have, however, produced royal names of Semitic origin, and some of these seem also to antedate the Hyksos.

Ryholt has argued for a very long Fourteenth Dynasty, which would have begun as early as the late Twelfth Dynasty. The royal succession after the demise of Amenemhet III would have given rise to political instability, enabling the foreign settlers in the eastern Nile Delta to assert their independence. Apart from infringing on Egypt's territorial inegrity, this would also have blocked trade links with the Levant. This in its turn led to economic decline, explaining the political instability of the Thirteenth Dynasty (Ryholt 1997: 293–99). For this reason, he ranges this dynasty with the Second Intermediate Period rather than the Middle Kingdom.

The evidence is unfortunately desperately inadequate. Ryholt's evidence effectively boils down to royal names on seal impressions from two archaeological contexts in Shiqmona and Uronarti, and his archaeological interpretations of these are very controversial (Ben-Tor, Allen, Allen 1999: 47–74). On current evidence it seems

wisest to assume that the Fourteenth Dynasty did not emerge prior to the late Thirteenth Dynasty, and that this development, heralding the advent of the Hyksos, caused the end of the Middle Kingdom.

FURTHER READING

For discussions of the absolute chronology of the Middle Kingdom consult Krauss in Hornung, Krauss, Warburton 2006: 395–431 and Schneider 2008. For a compilation of (translated) autobiographical and other "historical" texts of the First Intermediate Period see Schenkel 1965. The basic study on the archaeological chronology of the First Intermediate Period (up to the early Twelfth Dynasty) is Seidlmayer 1990. On the basis mainly of the long typological pottery sequence of the region of Qaw-Matmar he argues for a "long" First Intermediate Period lasting almost two centuries, as opposed to the "short" First Intermediate Period (suggested by Schenkel 1962). Conclusive evidence for either of the two is lacking. For the political history of the First Intermediate Period and the early Middle Kingdom see the important studies by Gestermann 1987; 2008: 1–15; and Willems 2008. The latter volume also offers a broad perspective on the cultural history, religion, and provincial administration in the First Intermediate Period and Middle Kingdom. There are numerous monographs on the reigns of individual Pharaohs. The most important of these are Obsomer 1995 and Tallet 2005. Apart from giving historical overviews of single reigns, these books address wider issues like the institution of the coregency. A recent general overview of the Middle Kingdom is provided by Grajetzki 2006. For the administration of the late Middle Kingdom see Quirke 2004. The best general overviews of the late Middle Kingdom can be found in Ryholt 1997.

The Second Intermediate Period and the New Kingdom

Ludwig D. Morenz and Lutz Popko

1 A Socio-Cultural Sketch of the Historical Framework

For a period that began more than 4,000 years ago the political history of the New Kingdom is astonishingly well known. This is due not only to the historically orientated inscriptions of the kings, but also to those of the social elites. Moreover, in the case of the New Kingdom, we can also observe an intensification of historical discourse (Vernus, 1995; Popko 2006). Nonetheless, many fields of human hopes, love, and suffering remain un-illuminated, and we can hardly do more than speculate about certain elementary facts of human history, such as population, life-expectancy, and so on. The world of flowers and fragrances that is presented by fascinating grave paintings of festive banquets reflects only the culture of the elites and feast days, next to which stood another world of sickness, stink, and hard work that was daily life for the majority of the population.

We know only a little about mentalities and bodily histories, such as pain perception. According to the evidence of mummies, members of the elite and even rulers (like Amenhotep III and Ramesses II) sometimes suffered from serious pain, and yet they would have carried out sophisticated court ceremonies, as under the absolutist Louis XIV. The significance of court ceremony in the life of society was so great that it was kept up even during the difficult conditions of military campaigns.

Traditionally, the area from the Delta to Elephantine is understood as part of the territory of the Egyptian national state. In the New Kingdom, Levantine city states were under Egyptian sovereignty but were not organized as an Egyptian province. In fact, a special form of administration with Egyptian suzerainty was devised. The Egyptians had certain centers to ensure trade and to act as protective zones, in particular Bethshan (Morris 2005), but the essentially practical motivation underpinning the administration is demonstrated by the significant absence of Egyptian temples in Palestine (Wimmer 1990; 1998). The situation in the Nile valley south

of Elephantine is quite different; for under Amenhotep III and Ramesses II, in particular, we find an impressive temple-building programme which can be read as an intentional cultural Egyptianization of the Nubian landscape.

For the national Egyptian discourse, the symbolic value of the residence (*ẖnw*) as center of religion, power, and culture, can hardly be overestimated. Thus, certain historical developments of the second millennium BC are reflected in the changing of the capital cities. In the Middle Kingdom, the residence founded by Amenemhet I, called ''Amenemhet, who grasps Both Countries,'' functioned as a residence, while in the Thirteenth Dynasty stronger local power centers gradually formed. These included a small kingdom in the East Delta, in which we may see a precursor of the Hyksos ''state'' (Ryholt 1997). It was the origin of the later Hyksos residence *ḥwt wʿrt*, ''Avaris.'' The later seventeenth and early sixteenth centuries are characterized by a dualism of two power centers: Avaris, as the capital of the Hyksos in the north (Bietak 1996), and the up-and-coming city of Thebes in the south (and, from the Seventeenth Dynasty, the adjacent residence of Deir el-Ballas with its imitation of the Hyksos palace, Lacovara 1990). During the first half of the Eighteenth Dynasty Thebes functioned as the undisputed center of religion and power. With a clear intention to rival Thebes, Akhenaten, as part of his cultural revolution based on the Aten religion, placed his residence, programmatically named Akhetaten, ''The Light-place of Aten,'' in what had until then been a culturally untouched region in which the physical structure of the countryside had a special symbolic significance (Morenz, 2008b: 252–7). With the end of this very individualistic religious and cultural set-up, the residence was returned to its traditional location in Thebes. In the politics of the Nineteenth Dynasty the Delta became more important. This was, in part, due to intense Asiatic contacts but was also a result of the ancestry of the Ramesses family itself. For this reason the old Hyksos capital Avaris was rebuilt as the new ''Ramesses-City'' (*Pr-rʿ-ms-s(w)*).

2   Chronological Considerations

The Egyptological concept of Intermediate Periods, which was developed in the conceptual context of Imperial Germany, is a terminological misnomer which blurs the different periods of Egyptian history and often paints a false picture (Schneider 1998; 2003b). Instead of a ''Second Intermediate Period'' it would be better to speak of the Hyksos period and the Era of the Second Theban Petty State, which led into the New Kingdom with the victory of the national Egyptian Thebans.

The New Kingdom (c.1539–1071/70 BC) falls in the Late Bronze Age. Egyptian chronology (Hornung, Krauss, Warburton 2006) provides the framework of dates for the chronology of the entire Ancient Near East. Unfortunately, the Egyptian method of counting years can seldom be translated into absolute modern dates. Known conformities with the dating systems of other peoples (synchronisms) only help very slightly, as the calculation from them into modern dates depends on Egyptian dates.

The identification of Egyptian dates in relation to known natural events is only possible in a few instances for the period of the New Kingdom. Eclipses or sightings

of comets are not recorded. The eruption of the volcano of Thera/Santorini in the Aegean, which is sometimes connected to the Storm Stela of Ahmose, cannot be accurately dated. According to the most recent research the tephra layers in Greenland's ice, which indicate a volcanic eruption around 1645 B.C. ($\pm$ 4 years) and were originally attributed to the Thera eruption, are actually from the eruption of Mount Anjakshak in Alaska (Pearce et al. 2007). Pumice from the Thera Eruption is detectable in Avaris, but in Thutmosid layers over a century later. The Sothis date on the back of the Ebers Papyrus, which notes the early rise of Sirius, provides a dating of the reign of Ahmose, but, even here, due to a number of unknown factors no exact conversion of the dates is possible. Only the dates of new moons which are known from Egypt can be safely exploited for chronological purposes. Thanks to them, it is possible to date the accession to the throne of Thutmose III to the year 1479.

Due to the king lists of the New Kingdom (Redford 1986b) it is possible to establish a sequence of the sovereigns of this period, Manetho's information concerning this era being fragmentary. The Ramesside king lists of Saqqara and Abydos served a cult function in which the reigning sovereigns placed themselves within a long series of legitimate ancestors. Given this function, they neither pass on the exact duration of reigns nor do they include rulers who were considered as illegitimate in the period of the Ramessides. The deliberate ignoring of the Amarna period later on has also resulted in another chronological uncertainty, namely the length of the reign of Horemheb, which was counted as including the entire Amarna period. Until the exact length of the Amarna period is determined, the real length of the reign of Horemheb cannot be calculated. The discussion of this point, which was recently rekindled by van Dijk, forms the basis of the "long" or "short" chronologies of the New Kingdom (Aström 1989; van Dijk 2008).

The Turin Canon of Kings (Ryholt 2004) from the early Ramesside Period served other purposes than the monumental Ramesside lists and for this reason is a useful complement to them. Possibly made for archival purposes, the papyrus lists regnal years beside the names of kings and also names the rulers of the Hyksos period, so that the Egyptians could use it in legal disputes (one might call to mind the Stele of Mes, Gardiner 1964). On the other hand, the grouping of ruling houses and the inclusion of the sums of ruling periods may, in fact, have been motivated by historiographic consideration. Only the high degree of damage to the papyrus, which causes large uncertainties about the order of individual rulers and the lengths of "dynasties," reduces the usefulness of the papyrus as a basis for establishing a chronology. However, in spite of these hotly disputed issues, the overall chronology rests on a relatively stable base, with uncertainties of only a few decades.

3   The Hyksos Period

The term "Hyksos," misunderstood in later tradition as "Shepherd Kings," is based on the Egyptian title *ḥḳꜣ-ḫꜣs(w)t*, "ruler of foreign lands." The interpretation as "Shepherd Kings" is known to us from Josephus (*Contra Apionem* 1.14), but we

can trace the change in meaning back to a hypothetical Egyptian confusion arising from a later pronunciation of ḥḳ3-ḫ3s(w)t as *ḥḳ3-š3sw which was then misinterpreted as "Lord of the Shepherds." The title "Lord of Foreign Lands" implies a culturally foreign entity. It is documented not only on scarabs but also on one of the few surviving monumental inscriptions of the Hyksos period. In the lintel inscription of Sikri-haddu (Schneider 1998: 40–3) it is used as an equivalent to the Egyptian s3-Rᶜ title – a sign of intercultural adaptation, and, at the same time, a sign of alienation. The non-Egyptian origin of the Hyksos is evident in their personal names, such as Chay(r)an. At the same time, we can observe an increasing cultural Egyptianization.

The Hyksos period (Oren 1997a; Schneider 1998, 2003; Ryholt 1997) can be seen as the first period of foreign rule in the Nile Valley, and for this reason we can expect a corresponding struggle for legitimacy. Thus in the royal records of the "Great Hyksos" (Fifteenth Dynasty) a strong tendency to Egyptianization can be observed. This is seen in the adoption of the traditional Egyptian royal titles s3 Rᶜ and nṯr nfr. In the effort to create an Egyptian culture some Egyptian handbooks were written in the later Hyksos period, such as the Rhind Mathematical Papyrus. Admittedly, we must take into account not only the usual vicissitudes of transmission but also an intentional distortion of that transmission, since the pro-Hyksos tradition was attacked by the Thebans in the New Kingdom. To re-capture elements of the perspectives of the Hyksos period we must, above all, employ a methodological approach in which contemporary objects are used to conduct problem-orientated case studies. Through this approach we may hope to obtain glimpses into the historical processes which formed events and mentalities.

Two nearly identical scarabs from the Middle Bronze Age (Keel 1996) represent a special iconographic tradition which represents examples of the visual projection of the Hyksos rulers. The ruler is clearly represented in the scene as an Egyptian king. This is demonstrated by the culturally typical elements of his dress. At the same time, the iconography of this ruler can also be compared to that of the Levantine weather god, who is often represented with a club raised in one hand and a twig or branch in the other. These elements show two central aspects of the king's function: as a force against enemies and as an assurance of fertility. From the close overlap of the motifs we can assume that this scarab type was produced in series to portray the "Hyksos" as a god-like ruler. If these scarabs were given to followers of the "Hyksos," then a form of social bonding was transferred along with them in which their recipients were visual and ideological co-players in the ruling system. One scarab offered a further refinement, representing the king with a red crown and describing him in its inscription as the "ruler of the Delta" (Giveon 1978: 81–4, pl. 38).

The foreign personal names of the Hyksos are not easily compatible with the traditional Egyptian writing system. That is why they are mostly written with uniliteral signs. In this way, foreign names written in the Egyptian writing system were expressed phonetically; thus we read the name ḫ-j-j-3-n, probably Chayran = "The Chosen One, the Best" (Schneider 1998: 39ff.). On the other hand, the Egyptian names used in the Hyksos royal records were written with signs, in which the iconographic nature of the characters played a stronger role. Next to the
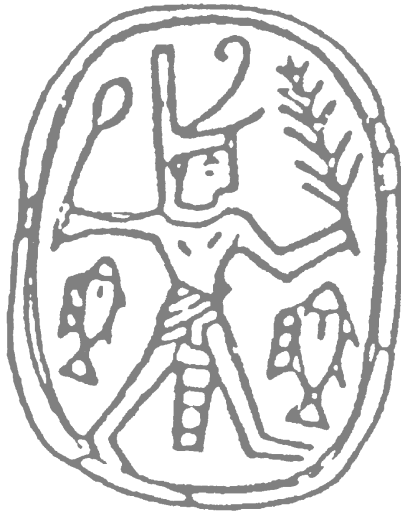
Figure 6.1 A Hyksos scarab after Keel 1996: pl. 135, fig. 24a.

same Chayran in his throne name, *swsr n R^c*, two distinctly iconogaphically stronger hieroglyphs were used: ⌐ or alternatively ⋀ and ⊙. These two characters were also used in one of the throne names of Apophis – *ꜥꜣ-wsr-R^c*. A reference to the sun god Re can be recognized in the sun-disc while the *wsr*-symbol (⋀) has the iconographically striking form of running legs with a jackal's or – reinterpreted – Seth's head which can probably be deconstructed as "(Seth-)Ba^cal has come." In the texts of the two most Egyptianized Hyksos an attempt is made at a subtle equation of the Egyptian Re and the Semitic (Seth)Ba^cal, even at the level of the writing of the names. This was a form of political propaganda and religious acculturization of these foreign rulers in Egypt.

In older scholarship a vast empire of the Hyksos was imagined, since finds with the names of rulers, especially Apophis and Chayran, were known from such far-flung areas as Knossos, Boghazkoi, and Baghdad. Later this distribution was explained as exported art or as war booty. In reality it seems the Hyksos rulers used a special gift culture to retain loyalty through a sort of indoctrination of the elite. This practice is attested by the bronze dagger of Nakhman, the writing palette of Atja (Morenz 1996: 167–70), and various perfume containers. These gifts sometimes bore highly poetic glorifications of the king. On one perfume bottle (Padró and Molina, 1986; Redford, 1997: 7) we find a text concerning Apophis in grammatically correct and literature-conscious Egyptian, which nonetheless at the same time seems idiomatically foreign: "His power reaches the *borders of victorious deeds.* There is no land which must not serve him." This text contains a distinctive monarchical rhetoric, seemingly part of a heroic poem, and it presumably functioned via a *pars pro toto* mechanism. We can also assume that this gift culture was not restricted to the elite of the Hyksos but was also used as a means of conducting international diplomacy. The finds from disparate places are not the result of an empire but rather of wide diplomatic relationships.

4   Soldier Kings, Royal Acclamation, and a New Goddess: On the Beginning of the Second Theban City State in the Seventeenth Century BC

The late Middle Kingdom and the so-called Second Intermediate Period were periods of great change in the socio-economic, political, and ideological fields. Shifts in the function of the kingship also formed part of these changes and entailed modifications in royal ideology. On closer inspection we find a network of complex interactions between socio-economic practice and ideology. Though the programmatic performance of kingship in this period of innovation followed certain older patterns, we can nonetheless observe innovations throughout in the seventeenth century in what was otherwise a conservative matter. One aspect was the growing role of royal performance in the army in the Thirteenth to Seventeenth Dynasties, which in some cases allows us to speak of soldier kings. Unlike the Roman barracks emperors, however, our only sources are short inscriptions. In the framework of this interpretation, Eduard Meyer's proposal of an elected kingship should be revisited. So far, no specific evidence for a royal election has been found. The very concept is certainly unusual in Egyptian monarchical ideology. This shortage of evidence explains the scepticism of the most recent research about this concept for the eighteenth and seventeenth centuries BC, but the stela Cairo CG 20533 of Dedumose Djedneferre from Gebelein may well provide support for the proposal of royal election by acclamation (Morenz, in press):

> Good god, beloved of Thebes:
> The one chosen (*stp*) by HORUS;
> Who increases his arm[y?],
> Who has appeared like the lighting of the sun.
> Who is acclaimed (⬚) to the kingship of both lands,
> The one who belongs to shouting.

The war-like confrontations of this period led to closer connections between the rulers and the kingdom, as the royal epithet *mry mšꜥ.f*, "beloved of his army" (Ryholt, 1997: 305 and footnote 1063) used by the Pharaohs of the Sixteenth and Seventeenth Dynasties demonstrates. In this sense, Neferhotep III, residing in Thebes, was praised as "He who raised his city (Thebes) up when it was sunk low in battle with the foreigners" (Stela Cairo, JE 59635, Z. 6; Vernus 1982: 131 and 133ff.) For the later first half of the second millennium BC one can also see a closer connection between the Theban kingdom and the military.

The king Dedumose reigned at approximately the same time as the first of the Hyksos rulers in the north. If we allow ourselves a simplification of complex historical processes, we can consider this ruler as marking the beginning of the Theban city-state. Sitting between the Hyksos kingdom in the north and the kingdom of Kerma in the south (Davies 2003), the Theban city-state moved forward to achieve complete control of Egypt and became the kernel of the later New Kingdom. With the separation of the Sixteenth and Seventeenth Dynasties, both situated in Thebes, it seems historiographically reasonable to view Dedumose as the founder of the Theban

Figure 6.2 Cairo Stela CG20533 of Dedumose Djedneferre from Gebelein. After CG.

city-state. The form of his rule can be regarded as an exploitation of royal charisma, though there was a clear effort to conduct business along dynastically stable, national, and state lines. Instead of the usual description as "*beloved of a particular god*," Dedumose was described as "Beloved of Thebes" (*W3st*), providing a strong local identification. Despite the royal ideological fiction Lower Egypt did not belong to the territory of Dedumose in political reality. His power was probably limited to the area surrounding Thebes. In the theo-political royal programme of action of the Sixteenth Dynasty a female deity was developed by extrapolating an older tradition of "*mighty Thebes*." This figure is represented in iconography with weapons. She is first depicted on the stela of Sekhemsankhtauyre Neferhotep from Karnak (Cairo JE 59635). The figure of the goddess corresponds to the assertion in the fifth line of the stela, which describes the ruler as "leader of mighty Thebes." In contrast, on the stela of Dedumose *W3st* is still determined with the area-hieroglyph indicating a geographical term. On the other hand, its position in the *mry*-formula shows a clear personification in linguistic use. Thus we can assume that the goddess Waset(-nakht) was conceived as a theo-political personification of Thebes under the successors of Dedumose, and as a reinforcement of the sacro-political identity of the Theban power center. The hymn-like glorification of victorious Thebes, as seen on the stele of Mentuhotep (lines 4–6, Vernus 1989) is also an example of this.

Figure 6.3 Stela of Sekhemsankhtawyre Neferhotep from Karnak (Cairo JE 59635). After Vernus 1982: pl.1.

The establishment of the Theban city state created a significant need for legitimization, for which the traditional patterns and figures of royal ideology could only partly be employed. The conception of the Theban goddess Waset, who personified strength and power, presents us with a trace of the theo-political discourse at the moment when it was developed in a struggle for legitimacy. At the same time citations from the literature of the Middle Kingdom in royal texts demonstrate the concern of these rulers to assert continuity of tradition (Morenz 1996: 183ff.).

5   The New Kingdom

Perspectives on the early New Kingdom

In the seventeenth century the Hyksos kingdom in the north, the national Egyptian Theban city state in the south, and the kingdom of Kerma as a third power all stood side by side (Davies 2003). The Thebans imitated the Hyksos both in the formation of names (Beckerath 1965: 129ff.) and in their architecture (e.g. the palace of Deir el-Ballas). The triumph of Thebes is known to us almost exclusively from epigraphic evidence that presents the Theban perspective. As a result, it is difficult to extract

dates for the history of events from these sources. The literary history of P. Sallier I, with its history of the conflict between Apophis and Seqenenre is problematic. In the first decades after the events described in the text the oral historical memory may have been altered, but the fictionalization and literary format, using the motif of a riddle contest between the two rulers, are clear. The same is true of more historiographic texts, such as the Speos-Artemidos inscription of Hatshepsut. For contemporary sources some texts and images of Kings Kamose and Ahmose are available, (such as the Kamose Stela or the decorated axe of Ahmose) but also the self-presentations of the Theban elites who were near to the court. So Ahmose, son of Ebana reports in his tomb-inscription about his successful participation in the conquest of Avaris (*Urk.* IV 1,1–11,2, Popko 2006: 187–206) while Emhab's memorial stone offers a remarkable text reflecting "the big picture" from the perspective of a participant (Morenz 2006). A perspective closer to that of the Hyksos can be found in the form of a secondary mytho-historical note written on the Rhind Mathematical Papyrus (Morenz 1996: 187–90).

In spite of their Egyptianizing tendencies the Hyksos were characterized as foreign kings by the Upper Egyptian royal houses of the Seventeenth Dynasty in Thebes and Deir el-Ballas. Kamose called the Hyksos king Apophis "Prince of Retjenu" and the first Kamose stela complains that he was obliged to share his power with a Nubian and an Asiatic. The war that had been started by his predecessor Seqenenre and continued by him contained elements of a war of liberation: "I desire to free Egypt, which is oppressed by the Asiatics" (Carnarvon Tablet, l. 4–5, Helck, 1983: 84). This picture became so ingrained that Hatshepsut presented the Hyksos as illegitimate and destructive rulers. The clockmaker Amenemhet rationalized the campaign of Thutmose I against the Mitannian kingdom on the Euphrates as "retaliation for the evil" (columns 2–3, Helck 1983: 110). Even Thutmose III sometimes justified his campaigns as revenge against the attacks of *ḥḳꜣw-ḫꜣswt* (cf. *Urk.* IV 1229,5; Redford 1970: 34). It is significant that the Egyptian-occupied Levant was primarily formed as a protective zone rather than as a province conquered for imperialistic reasons (Panagiotopoulos 2000).

Kamose, however, did not live to see the end of the war. He was able to besiege the Hyksos capital Avaris, but its conquest was only achieved by his successor Ahmose. The campaign led Ahmose as far as Sharuhen in southern Palestine where he finally defeated the Hyksos rulers in an interminable battle. With Ahmose the New Kingdom truly began. The perception that this marked a new epoch is not a modern construction but is genuinely Egyptian: Manetho begins the Eighteenth Dynasty with Ahmose. Furthermore the Min-festival relief in the Ramesseum already makes a clear break with Ahmose's rule (Redford 1986: 34–6). Some sources, such as the stela of Ahhotep, suggest internal political unrest which had to be resolved so that Ahmose could turn his efforts to reform of the administration. In this way he left a kingdom to his successors that was secure both internally and externally.

The Hyksos war, regardless of what events actually took place, generated a change of mentalities in relation to historical memory. To a previously unknown extent the Amun-temple of Karnak was now used as a show-case for war booty and power, just as the Parthenon was following the Persian War. This was achieved through architecture and reliefs, but also through the use of prestige objects and estates.

The prominence of Thebes can also be seen on a purely ideological level in the Horus-names of the kings of the Eighteenth Dynasty – a tradition that can be traced back to Dedumose in the seventeenth century BC.

Queen Hatshepsut

In the year 1479 BC, following the death of Thutmose II, his son of the same name came to power. Born as the son of a royal concubine, he was only a few years old when he assumed control of the government. For this reason his stepmother Hatshepsut was named regent. From the first regnal year of her step-son, Hatshepsut became the most important decision-maker in the court, since Thutmose was still far too young to lead the decision-making process (Dorman 2006: 53). Around the seventh year of "his" reign Hatshepsut crowned herself king (on the chronology see Dorman 2006). It is unclear what compelled her to take this radical step, and various attempts at a psychological explanation remain nothing more than conjectures. According to the *opinio communis*, from this moment Hatshepsut eclipsed her young co-regent. The main iconographical argument for this thesis, namely that Thutmose is depicted *behind* Hatshepsut in ritual acts, is by no means conclusive. Not a single figurative representation of a co-regency is known from the Middle Kingdom in which both rulers appear together acting in one scene. Thus there was no appropriate convention available at the beginning of the New Kingdom (cf. Murnane 1977: 200). It must be remembered that Thutmose both in dress, titles, and proportions appears as an equal beside Hatshepsut.

With her accession to the throne Hatshepsut lost her authority as the widow of Thutmose II and as the God's Wife. To award herself the status of a legitimately crowned ruler, she could invoke two principles: legitimacy as a ruler chosen by a god or parentage by a king. Hatshepsut employed and updated both options. In the temple of Deir el-Bahri she propagated the notion of her divine parentage and employed an older legend, which is known to us in literary form in P.Westcar. In her version she was declared a daughter of the state god Amun-Re. Selection by Amun-Re features in the myth of her birth, and the god again identifies her as king when she is an adult by means of an oracle. An element of legitimacy through inheritance was also added to this. Another text from Deir el-Bahri reports how Hatshepsut was raised to the throne by her father (*Urk.* IV 241, 10–265,5), a claim in which she may have re-used a model taken from the Middle Kingdom (*Berl. Inscr.* I 138 and 268).

An explanation for Hatshepsut's need for legitimization (apart from the fact that Thutmose was already the legitimate ruler) may have been her gender. In the Egyptian world order only men could be kings. In the early years of her rule Hatshepsut attempted to find a compromise between male and female dress, between the dress of the wife of a god and that of a contemporary king. Later on she abandoned this mode of representation and appeared simply as a king. In texts, on the other hand, she continued to be described as a woman, and she was referred to with female pronouns. Her titulary also reflected her gender. Thus one must ask if the "male" iconography should not simply be understood as normal royal iconography. Hatshepsut is an interesting case of gender-crossing in the context of a clash between

biological body and what society requires that body to be in terms of gender. Hatshepsut is famous for her expedition to the land of Punt from which she imported incense and myrrh as well as other exotica that were necessary for the Egyptian cult. She attempted to grow some incense trees in her mortuary temple, where a report of the Punt expedition was also inscribed, but it seems that the trees could not tolerate the Egyptian climate and dried up within a short time.

Just as speculative as the reason for Hatshepsut's assumption of the throne is the relationship between her and Thutmose III. The young king does not seem to have been pushed into the background, and even before the death of Hatshepsut he appears as a general, and large architectural projects were conducted in the names of both rulers. Moreover, Thutmose took part in religious ceremonies. Differences between the two are not detectable. The apparent hatred that was supposed to have motivated the destruction Hatshepsut's monuments after her death is a modern fiction and rests on Sethe's long outdated reconstruction of the history of this period (Sethe 1896). The persecution of her memory began towards the end of the reign of Thutmose III and remains a matter of debate. Labouri (1998: 483–512; 2006: 265f.) explains it as a means of promoting the legitimacy of the late-born Amenhotep II as the successor to the throne by discrediting Hatshepsut and her offspring, but, since he is unable to name any offspring of Hatshepsut, this explanation remains a matter of speculation.

The Conqueror Thutmose III

With the start of Thutmose III's sole rule an extremely active phase of military, religious, political, and cultural activities began. His first campaign was also his most successful and was constantly used by him in royal inscriptions (e.g. *Urk.* IV 647, 1–667,16; 767,1–16; 1234,5–1236,15). A coalition of Levantine princes, led by the prince of Kadesh, assembled on the plain of Jezreel and awaited Thutmose at the south pass around the Carmel mountains. Thutmose, however, marched through the pass of Aruna and, having left the pass unmolested, drew up his army on the plain, thus determining both the time and the place of the battle. The few Syrians who survived the battle fled to Megiddo. The Egyptian laughter must have been loud, as the city's door was already closed, and the princes were pulled up its walls by their clothes, a motif which belongs in the realm of anecdotal history and literary decoration (*Urk.* IV 658, 4–12). This setback placed Megiddo in a dangerous situation, and, had the Egyptian troops not preferred to collect booty, they could have taken the city in a short space of time. The truly remarkable part of this narrative is that Thutmose conceded this loss of control (*Urk.* IV 658, 8–1). As a result, the city had to be besieged and was only taken seven months later.

In at least thirteen further campaigns in the Levant Thutmose III succeeded in making Egypt the mightiest state of the Near East and in acquiring enormous prestige. In his 33rd Year, during the eighth campaign, he managed to penetrate further to the north-east than any other Egyptian, with the possible exception of his grandfather Thutmose I. Thutmose and his wars became part of the culture of national memory and a motif in literary tales such as the history of the conquest of Joppa or the Papyrus Turin 1940 + 1941.

Amenhotep II

The successor of Thutmose III concentrated mainly on military activities, but for this reason he is one of the most misunderstood figures of Egyptian history. Gardiner (1961: 199) and Helck (1987: 27) characterized him as a braggart and a barbarian. His apparent reputation for cruelty is based on his execution of seven enemy princes and the display of their bodies in Thebes and Napata, but the princes seem to have been rebels, and for this reason their punishment was entirely normal by ancient standards. We know of similar actions by Thutmose I following a Nubian rebellion. In this respect Amenhotep does not seem to have been more "barbaric" than his predecessors. Nor is he alone in his emphasis on his physical prowess. His father, for example, claimed to have killed an entire herd of elephants in Niy in Syria, though we know from his follower Amenemheb that he was obliged to rescue the king on this occasion (*Urk.* IV 893,16–894,3)! This kind of interplay between sources of court history and the more personal history of the elites is rare in the New Kingdom.

Amenhotep's campaigns are mostly considered to have been minor affairs which he tried to magnify by recording unbelievably large lists of booty, but Amenhotep never denied that some of the places he had plundered were nothing more than villages. The lists of booty after each individual location are mostly within credible limits. The problem of the high totals at the end of the booty lists is not as straightforward as it first seems, and they may well stem from simple scribal errors (Helck 1977: 251).

Amenhotep III

With the accession of Amenhotep III the Eighteenth Dynasty reached a new period of prosperity. The conquests of his predecessors had brought peace (by way of the Kuruštama-Treaty, Groddek 2008), and left Egypt the leading power of this period. The Amarna letters provide interesting insights into the diplomatic relations of this period (Moran 1992), though one must be forewarned not to consider Amenhotep as a diplomatic anomaly (on Amenhotep as a master diplomat see Bermann 1992, 59), since the sources may simply be lost for other periods. Unusually, even at the beginning of this reign, solar symbolism was employed. The connection of royal announcements to the suns god's manifestation as Khepri in the form of commemorative scarabs is no coincidence. Amenhotep appears as "beloved of Khepri," on the unique monumental scarab from Karnak, which must have stood originally in Western Thebes, probably in his temple at Kom el-Heitan (Barguet 1962b: 17). Towards the end of his reign solar symbolism took on a more powerful dimension. Alongside his sponsoring of a relatively new deity, the sun disc Aten, we see evidence for his own deification which follows no past model. In a temple at Soleb King Amenhotep is depicted sacrificing to the god Amenhotep (Schiff-Giorgini 1998: pl. 193). A statue now on display in the museum at Luxor identifies him with the sun god Atum, and the timeless young features of his face on his later statues put him in the realm of the self-regenerating sun god (Johnson, 1990: 43, Myśliwiec 2005). The reality behind this ideology was quite different. Towards the end of his life Amenhotep was seriously ill, and the creation of hundreds of statues of Sekhmet, the lady of sickness demons,

was meant to obtain alleviation of his suffering, as were two Ishtar statues which he allowed to be sent from the King of Mitanni (cf. Gnirs 2004: 42).

A cultural revolution motivated by religion

Few periods in Egyptian history have seen as much research as the reign of Akhenaten, and the scholarly literature has become almost unmanageable. The judgement of this period has changed significantly over the course of the history of Egyptology. In the beginning, a happy, light-filled, and cosmopolitan society was envisaged – a true make-love-not-war generation, but in the last few decades Akhenaten has been seen as a despot who imposed his ideas by force. He has been described as an aesthete and a maniac, a dreaming poet and theologian, and as a mad tyrant. Practically no comprehensive study of this period comes without some sort of psychological paradigm.

The cultural revolution manifests itself in various contexts: (1) religion with proto-monotheism, (2) art with a curious new style, (3) literature, (4) the selection of a new capital, (5) the use of daily language as the written language (Late Egyptian), (6) the erasure of inscriptions with the name of the god Amun. Of these the question of monotheism is the most interesting from a modern perspective (Assmann 2000). The more worldly issues, by comparison, often remain untouched by scholarship. The Restoration Stela of Tutankhamun (*Urk*. IV. 2025, 1–2032, 15) offers a glimpse into the practical consequences of this period, even if it has not yet been explained whether the stela represents the truth or only propaganda designed to distinguish the present government from its predecessor. According to this text the sacred areas were in a critical condition, and the temple of Amun in Karnak had been completely destroyed. Later, Horemheb (*Urk*. IV 2120, 3ff.; cf. Leprohon, 1985: 99) even reported that the entire ground and floor (*b3k3yt*) had collapsed. The industrial and administrative buildings that belonged to the temple were probably affected as well. Even the cult images seem to have been involved, and barely any of the surviving cult images are datable prior to the Amarna period. Such was the fanaticism of the followers of Akhenaten, though it seems they acted in this way mostly in Thebes, and there, above all, against the cult of Amun-Re. Light and air deities got away relatively lightly. Outside Thebes other deities were spared, such as Montu in el-Tod or Khnum at Elephantine (Brand, 1999: 123; Krauss, 2000, on Osiris at Abydos and Ptah in Memphis; cf also Bickel and Jaritz, 1997: 92–3; Gabolde, 1998: 24–30). Whether or not temples remained open is an interesting question, as they were junction points between the administration and the economy. To close them would have had far-reaching consequences for the economy of the country, which would have been exacerbated by the foundation of a new capital Akhetaten between Thebes and Memphis. Since all resources now had to go through Akhetaten, the other regions were almost totally neglected (Leprohon 1985: 96; Gnirs 1989: 91 with n. 45), but we cannot establish the extent to which the economy of the country was influenced by the reforms of Akhenaten and the subsequent temple closures. Leprohon has suggested that the centralization of politics at Akhetaten resulted in a loss of control over local authorities and increased corruption (Leprohon 1991: 72). The army was given various powers, largely for the purpose of tax collecting, with which it

terrorized the country. This was not to be stopped until the reign of Horemheb (Leprohon 1985: 101).

The effect of the Amarna period on foreign politics is just as disputed as its effect on internal affairs. From the Amarna letters we learn of various conflicts in the area of Syria. The disputes between Ribaddi, the prince of Byblos, and Abdiashirta (and later his son, Aziru) of Amurru have been connected to an assumed loss of Egyptian control in the Levant. Ribaddi requested help from the Egyptian court several times but apparently never received any. The Khabiru problems dealt with in the letters are interesting in terms of the history of Israel (the Hebrews), the letters suggesting that this group consisted of the *outlaws* of the Late Bronze Age Canaanite cities (Donner 2008). It is an interesting point of cultural history that the Egyptians used the Akkadian language and script as a *lingua franca* for international diplomatic contacts (Rainey 1996). On the basis of their names it would seem that at least some of the scribes and readers on the Egyptian side were Canaanites working in the Egyptian administration. Thus the correspondence was generally conducted between speakers of Semitic languages on both sides, who in Egypt functioned as linguistic intermediaries.

The encroachment of the Hittites on Egyptian territory was a further cause for Egyptian loss of control. The exact chronology of the Hittite Amqu campaign is debated; it is sometimes placed in the reign of Akhenaten, or else during that of Tutankhamun. Publishing a new reading of the letter KUB 19.15 + KBo 50.24, Miller (2007) argued that the entire war took place in the time of Akhenaten and his general Horemheb. The Restoration Stela of Tutankhamun mentions campaigns against Syria under his predecessors, which were more likely to have been those of Akhenaten than the ephemeral Neferneferuaten. Apparently, Egyptian possessions in the Levant were reduced at the beginning of the Nineteenth Dynasty as a result of Hittite incursions. In the light of the recent research of Panagiotopoulos (2000) one must ask if the Egyptian empire of the early Eighteenth Dynasty really extended as far north as most modern maps suggest. In any case, the Egyptians lost some of their prestige. Amenhotep III could still proudly claim to the king of Babylon that no Egyptian princes had ever been married to a foreigner (EA 4), but, in fact, at the end of the Armana period something far more spectacular happened. The widow of an Egyptian king, unfortunately known only from her title as Dakhamunzu, *tꜣ-ḥmt-nsw*, "the King's wife," had asked for the hand of a Hittite prince. After some initial scepticism the Hittite king Suppiluliumas sent his son Zannanza, but he never mounted the throne, being murdered on the way. Ay and, after his death, the general Horemheb took over the government. The latter, no longer related to any members of the Eighteenth Dynasty, named his vizier Piramessu as his successor, who ushered in the period of the Ramessides as Ramesses I.

Ramesses II as an international politician

The relationship between Egypt and Hatti at the time of the Hittite Amqu-campaign and the Dakhamunzu affair was tense, and tensions were only heightened by the Syrian campaigns of Sety I. At the start of Ramesses II's reign it seemed that the time for the decisive battle had arrived. The Egyptian sources report an enemy contingent

of more than a dozen allies, which then, as now, must have been an organizational masterstroke. Apparently, 37,000 infantry and 3,500 chariots were sent to Syria. The strength of the Egyptian force is unknown, but they are estimated to have been not more than c.20,000. When two Bedouin informed Ramesses that the Hittites were to be found near Aleppo, he crossed the Orontes and marched north with the division of his army named after the god Amun. Three further divisions (Pre, Ptah and Seth) followed him at a distance of half a day's march. On the evening of May 12, 1274 BC he had made camp to the west of Kadesh. Two Hittite prisoners provided the true location of the enemy, which was not, as expected, to the north, but on the other side of the city. Ramesses had hardly sent for the rest of his troops, when the Hittite chariots broke through the lines of the still marching Pre-division and immediately attacked the Amun-division with Ramesses. The ensuing fight is described in epic terms by the so-called Poem of Pentawer, known from almost a dozen Hieroglyphic and Hieratic versions (von der Way 1984). Ramesses prepared for battle, but his soldiers failed and fled. According to this myth-riddled Egyptian account Ramesses stood completely alone against the first Hittite wave of 2,500 chariots and made a quick prayer to heaven, which Amun heard. With the god's help the king drove the enemy back into the river, but the Hittite king did not want to give up and sent the remaining 1,000 chariots into the battle. Ramesses beat these off as well and called out to rebuke his fleeing army. A second battle on the next day ended finally with the Hittite king sending a request for peace, which was approved by the Egyptian officers (on the battle, Kitchen 1997: 50–64).

The problems of the reconstruction of the events arise from the availability of parallel accounts which for once are available. Along with the Poem, we have the Bulletin and finally the battle reliefs with their captions, which contradict the version of the Poem and supplement its account with further details. For example, according to the reliefs Ramesses was not completely alone, as the Poem purports. Just as the battle was at a high point, the Ne'arin arrived. They were perhaps an Egyptian advanced unit, which had been in the area already for some time. It is possible that their appearance on the battlefield caused the deployment of the second wave of the troops of Muwattalis.

Despite the claims of the Egyptian sources, Ramesses does not seem to have achieved a victory. Kadesh was not conquered, and northern Syria remained Hittite. The highly idealized Egyptian representations of the battle of Kadesh on the temple reliefs contain an iconographic anomaly, which is in striking contrast to the highly exaggerated rhetoric of the textual accounts. The victory scene of the Levantine town of Dapur shows complete submission with two specific iconographic characteristics: (a) Semites burning incense and (b) torn Hittite standards. The representation of the battle at Kadesh, on the other hand, lacks these two iconographic elements. Their absence can be explained as a reflection of the historical situation. In a certain sense this representation pays tribute to the historical truth, but it is likely that the average Egyptian observer would not have noticed this detail and would not have recognized the depiction of the battle scene of Kadesh as more than a simple representation of victory.

The campaign was followed by a nearly unique series of diplomatic letters between the two royal houses, the goal of which was to ensure peace between the two states.

A
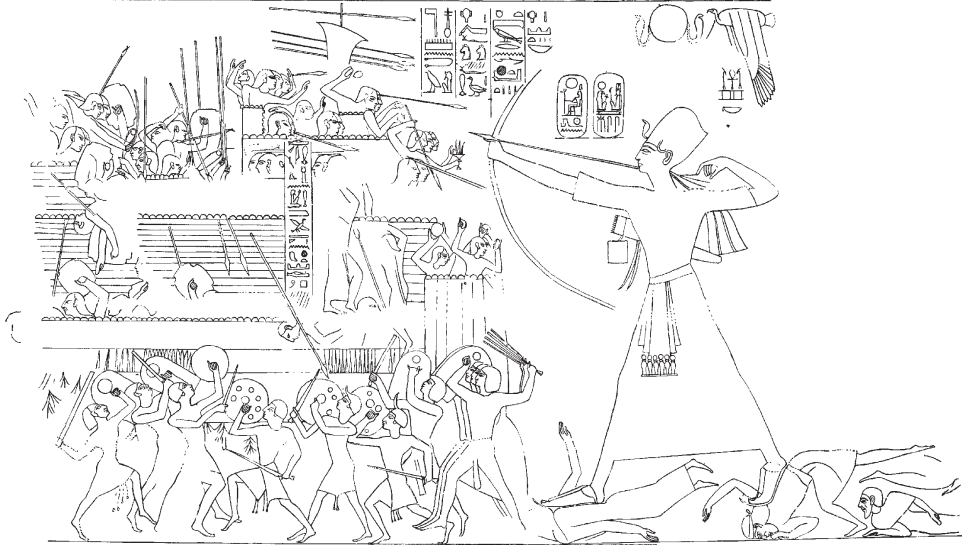
B
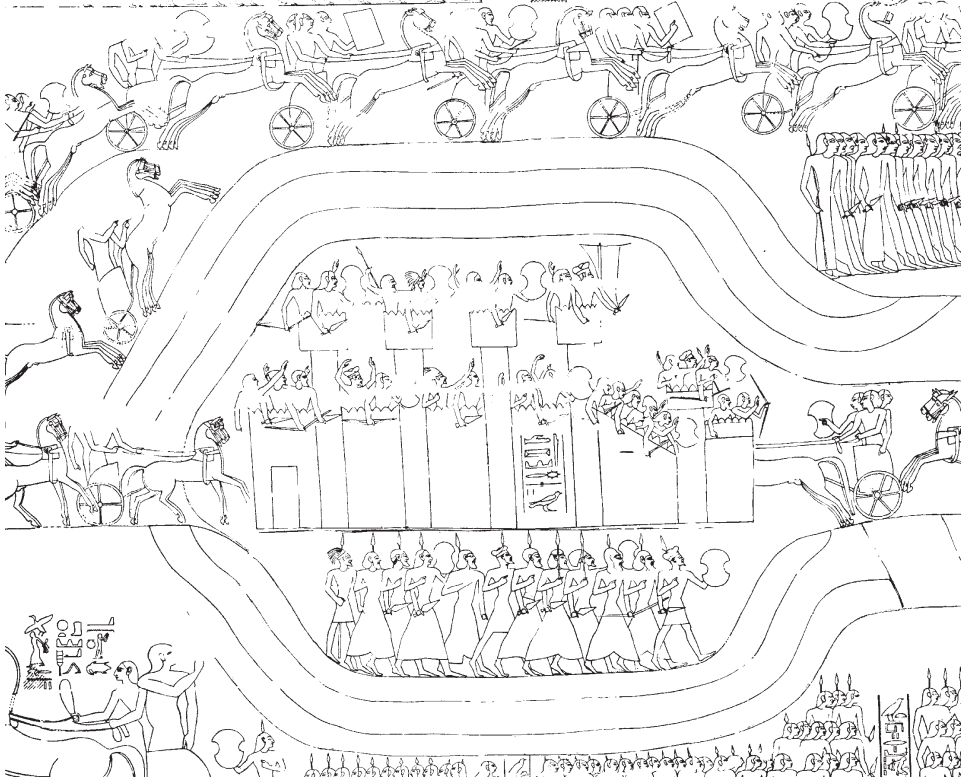
Figure 6.4a and 6.4b   A. Dapur surrenders; B. Kadesh survives. After Wreszinski 1923–38.

The high point of this effort occurred in the 11th Year of Ramesses II's reign, when both states agreed to a peace treaty (Edel 1997). In structure and form it was quite unlike earlier Hittite treaties, and it is worth emphasizing that it was the first peace treaty in the history of the world that was formulated on the basis of parity. That is to say, it was made between two equal states. The originals, which were engraved on silver tables, are no longer preserved, but we have copies of the Egyptian version (in a Hittite copy) and the Hittite version (used in the west external wall of the *court de la cachette* at Karnak). The most important aspect of the treaty was concerned with the treatment of prisoners of war and the return of those who had deserted to the other side. It does not deal with questions about the frontier between the two powers. The contract was sealed by a diplomatic wedding between Ramesses and a daughter of Hattusili III, the Hittite king, but the marriage requested by Hattusili for himself to an Egyptian princess did not take place. According to Assmann (1983a) the diplomatic efforts described above were also aided by the Poem; in his effort for peace Ramesses the only obstacle was the influence of the military, so he defamed them in order to reduce their influence. Fecht (1984: especially 49), however, has opposed this interpretation on the grounds that it would have been suicide, in terms of foreign politics, to emphasize the cowardice of the military. The function of the Poem, in which the Egyptian army can hardly be seen as covering itself in glory, is still under discussion.

In the light of the new relationship with the Hittites Ramesses' other efforts in the realm of foreign affairs seem pale indeed, at least in the eyes of later judgements. Moreover, during his reign problems which should have heralded the end of the Bronze Age simply faded away. As a result of the increased maritime trade relations of the New Kingdom the Egyptians had been obliged to deal with a hitherto unknown phenomenon at the latest by the pre-Amarna period: piracy. Amenhotep, son of Hapu, the building master of Amenhotep III, tells us that he secured the Delta against intruders (*Urk.* IV, 1821,13–14). Ramesses II defeated a group of these pirates, the Sherden, and integrated some of them into the Egyptian army as his bodyguard. However, the respite was short-lived. His son and successor Merneptah had to face the threat of the Sherden again, as well as other groups, the Lukka, Tursha, Shekelesh and Aqaiwasha, who had allied themselves with Libyan tribes and threatened Egypt once again. The era of the invasions by Sea Peoples had begun.

The last phase of the reign of Ramesses II is largely marked by building activity and a lack of military campaigns. During his remarkably long reign of 67 years he outlived 12 of his sons who were placed in a collective grave (KV 5) in the Valley of the Kings. His successor was the thirteenth in line to the throne, Merneptah.

The rise and fall of Bay: conflicts of interest amongst the elite

In the succession of Merneptah we can observe two rival lineages competing for power. In this context, an official with the foreign name Bay, who was a common "scribe" and "Cup-bearer of the King" under Sety II, rose to become the "Great seal Keeper of the Entire Country." This powerful man, close to the royal court, was executed in the fifth year of Siptah. Testimony for this execution is provided by an ostrakon from Deir el-Medina:

> Year 5, the third month of the season of shomu, the 27th day.
> On this day a scribe of the grave of Paser came to announce:
> "Pharaoh (Life, Prosperity, Health) has executed (*sm3*) the *great enemy* Bay."

The use of the Middle Egyptian word *sm3* could suggest a sacred dimension (Müller-Wollermann 2004: 196). The reason for the execution is not exactly clear to us, but one might suspect some kind of conflict of interest between factions, interest groups, and other powers. This corresponds to the fact that Bay was given the epithet *ir-sw* ("the man who made himself" = social climber) on Papyrus Harris I, 75, 4. His rise in social status ended in an abrupt execution, which was a matter of public interest that was announced in the settlement of workers at Deir el-Medina.

Ramesses III and the Sea Peoples

After Merneptah had beaten off an initial wave of Sea Peoples, it was followed almost half a century later in the reign of Ramesses III by a second wave that was to have enormous implications. The reliefs from Medinet Habu report that in the 8th Year there was a "league on their islands" consisting of Sherden, Shekelesh, Tjeker, Weshesh, Tursha, Danuna, Peleset and more besides. Coming from the north, it seems to have been more of a migration of peoples, quite unlike the campaigns that had occurred under Merneptah. The kingdoms of Arzawa, Hatti, Qedi, Karkemish, and Alashja (Cyprus) were destroyed, and destruction layers have been found from Hattusas in the north through Ugarit down to south Canaan. For the most part the Egyptian hold on the Levant was broken. The Sea Peoples were first stopped at the gateway to Egypt, where they were beaten in a land battle and in a sea battle at the mouth of the Nile in the East Delta. Ramesses III, following the example of his role-model Ramesses II, integrated some of the Sea Peoples into his army and settled others in the Levant. The best known of these are certainly the Peleset ("Philistines") after whom the Romans named the province of Palestine.

The origins of the Sea People are still debated. The Danuna and Aqaiwasha seem to be Danaans and Achaeans – that is, Mycenean Greeks, but the identification of other groups is more difficult. Are the Sherden from Sardinia, or was Sardinia their destination? Are the Tursha the same as the Tyrsenoi of later Greek texts, and thus the same as the Etruscans? According to ancient sources the Etruscans came from Asia Minor (Herodotos 1.94) which so far has yet to be proved. A Cretan origin is often assigned to the Philistines, mainly because of the Hebrew Bible, which describes them as an alliance of "Kreti and Pleti" (e.g. 2 Sam 8.18). Connected to this question of their origin is the issue of the cause of their wanderings. In the Migration Period which ended the Western Roman Empire, the invasion of Germanic tribes into the Roman-controlled Mediterranean was caused by the invasion of the Huns from the central Asian steppes. Pushing the Germans in front of them like a blister, the Huns played a major role in the destruction of the Ancient World. However, a similar scenario cannot be proved for the Late Bronze Age. This may be due to missing sources, but, without knowing the exact origins of the individual tribes of the Sea Peoples, it is impossible to give a reason for their migration. Were they themselves fleeing from other migrating peoples? Did they leave their places of residence because

of natural catastrophes, droughts or wars? Were they even complete tribes, or just parts of them? Only the migrations from the Aegean allow some basis for speculation, where the occurrence of earthquakes can be demonstrated at the end of the Bronze Age. It was probably these earthquakes, amongst other things, that dealt the death blow to the Mycenaean world, which had already been weakened by still unexplained factors.

The end of the Ramesside Period

The end of the Ramesside period was marked for the most part by short reigns as well as internal and external political unrest. In the 29th Year of Ramesses III's reign, a few years before his death, the workers of Deir el-Medina went on strike. Missing deliveries of supplies led the workers at the royal necropolis to down tools. Along with demonstrations with torches the workers also conducted sitting strikes near the *Houses of Millions of Years* in Western Thebes, where they hoped to obtain both an advocate and grain from the temple inventory (Vernus 1993: 82–99; Müller 2004). Further strikes occurred in the last years of this king, and in the first years of the next. Under Ramesses IX, in addition to economic and political problems of this sort, there was a phase of plundering the royal graves. A second phase of this occurred again under the final king of the dynasty, Ramesses XI. Under his rule, the Thebaid saw a civil-war situation develop between the viceroy of Kush, Panehsy, and the High Priest of Amun Amenhotep. Panehsy seems to have appropriated the responsibilities of the High Priest, and, because the priests were unwilling to accept him, he besieged them in the temple fortress of Medinet Habu. Ramesses XI granted a request for help from Amenhotep and sent his general Piankhy to Thebes, who succeeded in driving Panehsy into Nubia. After this the power of the Ramessides over Upper Egypt was broken, since Piankhy and his successor Herihor became the effective rulers of the area and even took over the office of High Priest. Their access to military and religious power allowed these new rulers to become the lords of the entire south of the country from which the theocratic state of Amun was formed. In Lower Egypt the power of the Ramessides was also dwindling. Libyan immigrants, who, since the Libyan wars of Ramesses III had often been deported to Egypt and settled in the Nile Delta, increasingly appear in the upper ranks of the Egyptian hierarchy. In the end, they succeeded in obtaining power over northern Egypt. The first ruler of this foreign dynasty was Smendes, who is described in the *Story of Wenamun* as the most powerful man in Lower Egypt, but, with the unity of Upper and Lower Egypt broken once more, Egypt entered a new phase of its history – the so-called Third Intermediate period.

FURTHER READING

On the Second Intermediate Period Ryholt 1997 is essential reading. The Eighteenth Dynasty continues to be a major focus of research. For Hatshepsut and the Thutmosid succession see Ratié 1979. Thutmose III has been studied by Redford 2003 and Cline and O'Connor 2006. On Ramesses II see Kitchen 1997 and on Ramesses III P. Grandet, *Ramsès III. Histoire d'un règne*, Paris 1993. For Egyptian imperial activities in Asia see Redford 1995 and Morris 2004.

CHAPTER 7

Libyans and Nubians

Christopher Naunton

1 Introduction

The period covered by this chapter is often called the "Third Intermediate Period," a label which only came into use in the 1960s (Morkot 2005: 76). Chronologically it is defined by the supposed peaks of Egyptian civilization which preceded and followed it: the New Kingdom and Twenty-sixth Dynasty (or "Saite period") respectively. However, the term "Intermediate" is unfairly negative and fails either to describe the characteristics of the times or to explain them. The features of the period should not be understood in terms of decline but of political and cultural changes which can be attributed to the influence of non-Egyptians, specifically various groups of settlers from the west of Egypt, in modern Libya, and invaders from Nubia to the south.

The period corresponds to the Twenty-first to Twenty-fifth Dynasties and ends with the establishment of the kings of the Twenty-sixth Dynasty as rulers of Egypt. The basic framework by which we understand Egyptian history was inherited from Manetho, an Egyptian priest and scholar of the third century BC, who used the system of dynasties as the basis for his history of Egypt (Waddell 1940: vii). The system implies that the country was ruled by a single Pharaoh at all times throughout its history, and that each was succeeded by the next at his death. It does not allow for the co-regencies which existed from time to time and assumes that the kings and dynasties were contiguous, each being succeeded directly by the next with no gaps or overlap. For much of Egyptian history this structure is appropriate, but for the era under study here Manetho's system is unsuitable and potentially misleading. While it is possible to date inscriptions, objects, and events to the reigns of specific kings, it is not possible with any certainty to assign to a particular dynasty all the kings of this period whose existence is attested by the monumental inscriptional evidence, and indeed some of the kings involved seem not to have been known to Manetho at all. The situation is complicated by the frequent repetition of certain royal names, particularly the (Libyan) birth names Shoshenq, Osorkon, and Takelot, a practice

which has caused much confusion as scholars have attempted to distinguish one Pharaoh from another and to relate them to the individuals in Manetho's lists.

2 Historical Outline

The end of the new Kingdom

At the end of the Twentieth Dynasty a series of factors combined to bring about significant changes in Egypt, signalling the end of the New Kingdom and the beginning of a new era. These factors included corruption within the ruling administration and rivalry between various members of the royal family (Grimal 1992: 276, 288), economic downturn brought about by unfavorable environmental conditions (Redford 2004b: 101), but most importantly the migration of various groups of people from the areas to the west of Egypt.

During the last years of the Twentieth Dynasty the power of the priests of Karnak had increased, while the influence of the distant Pharaohs in the Delta city of Pi-Ramesse had dwindled. Ramesses X was the last king of the New Kingdom to be attested in Nubia, at Aniba (Kitchen 1984: 125), which by this time was the last territory outside Egypt over which Pharaoh had any influence. After some years of fighting amongst various factions in Thebes, perhaps exacerbated by famine, there emerged, in the nineteenth year of Ramesses X's successor, Ramesses XI, a new High Priest of Amun named Herihor. At this point a new era called *wehem mesut* ("Repeating of Births") was inaugurated. This formula was commonly used to signify the beginning of a new dynasty (Niwinski 1996: 5) and would be used to date events in Thebes. The influence of the High Priest had grown in the years leading up to this point, and Herihor's predecessor, the High Priest Amenhotep, had had himself depicted in a relief at Karnak on the same scale as the king, showing his disregard for Pharaoh and suggesting a degree of equality between the two (Grimal 1992: 291). Herihor went a step further by enclosing his name in a cartouche and by year six of *wehem mesut* he held the most important religious and secular offices, represented by a formidable set of titles including "commander of the armies," "vizier," and "viceroy of Kush," in addition to that of High Priest of Amun (Kitchen 1986: 248). During this time, another key figure was to emerge, i.e. a Delta official named Smendes (Egyptian "Nesbanebdjed") (Dodson 2001: 389). The *Tale of Wenamun* relates to events of this period and tells us that the protagonist was dispatched to Byblos in Phoenicia in the fifth year of *wehem mesut*. Smendes and his wife Tentamun are referred to in this text as "the founders to whom Amun has given the north of his lands" (Jansen-Winkeln 2001: 156), and indeed it seems that Smendes had been handed executive control of the north, equivalent to that of Herihor in the south (Kitchen 1986: 250). The influence of the Twentieth Dynasty kings disappeared completely with the death of Ramesses XI in his twenty-ninth year (1069 BC), at which point Smendes inaugurated a new line of kings based at Tanis, which was now expanding rapidly. Thus, Egypt was now divided between the Pharaoh – of the new Twenty-first Dynasty line – in the north, and the High Priest of Amun in the south.

The Twenty-first Dynasty

Smendes seems quickly to have come to an agreement with his successive southern counterparts Herihor, Piankh, and the latter's son Pinudjem (I). The relationship appears to have been based on each party's need for the other's endorsement: the High Priest, on behalf of Amun, provided recognition of the legitimacy of the northern Pharaoh, who in turn would confirm the High Priest in charge of the Amun clergy and the armies of Upper Egypt (Kitchen 1986: 256). This concordat would characterize the balance of power in Egypt throughout the Twenty-first Dynasty.

By the period of *wehem mesut* it was no longer the Pharaoh who was the ruler of Egypt but Amun himself (Jansen-Winkeln 2001: 154). Amun was praised as such in hymns and eulogies of the period, and the *Tale of Wenamun* tells us that by this time messages from Egypt were despatched not by the king but by Amun himself. The will of the god was communicated to his subjects through oracles, the use of which had increased through the New Kingdom and reached a new peak during the Twenty-first Dynasty (Jansen-Winkeln 2001: 158–9, 175). Furthermore, the name of Smendes' successor as Pharaoh, Amenemnisu, means, literally, "Amun as (the) king." In recognition of Amun's importance to the kings of the north a new cult center devoted to his worship was established at Tanis. The concordat between north and south was strengthened by marriage alliances, and each line derived legitimacy from its ancestors. Smendes probably married a daughter of Ramesses XI, his southern counterpart, Pinudjem, was a son of Piankh, and married Henttawy (A), who was a daughter of Smendes and Tentamun, and thus probably a granddaughter of Ramesses XI.

In the 15 Year of Smendes, the High Priest Pinudjem, began to adopt the style and status of a king and passed the office of High Priest to his son, Masaharta. When the latter predeceased his father, the office passed to another of Pinudjem's sons, Menkheperre. Smendes died not long into the Menkheperre's tenure as High Priest and was succeeded briefly by Amenemnisu, who reigned only for four years. He was, in turn, succeeded by a third son of Pinudjem: Psusennes (I). At this point therefore, both halves of the country were controlled by the sons of Pinudjem I, and this would remain the situation until Psusennes' death in his 49th year in approximately 994 BC (Kitchen 1986: 271). Cordial relations between the northern and southern rulers appear to have been maintained and were perhaps strengthened by family relations between the main players, although this cannot be demonstrated as the ancestry of the successors of Psusennes I as Pharaoh (Amenemhet, Osochor (also known as Osorkon "the Elder"), Siamun and Psusennes II) is unclear. Menkheperre was succeeded as High Priest by his sons Smendes (II) and Pinudjem (II). They, in turn, were succeeded by another Psusennes during the reign of Siamun. After the end of the reign of Siamun he too was succeeded by an individual named Psusennes, a fact which suggests that the High Priest and the Pharaoh of this name were one and the same individual, although this cannot, as yet, be proved. In any case, very little is known of the High Priest, and that lends weight to the theory that he left Thebes after his first decade at Karnak to succeed the throne in Tanis. Pharaoh Psusennes II appears to have reigned for approximately fourteen years and left no male heir.

With no claimant from his own line and none forthcoming from Thebes, the throne passed to a new line, and thus the Twenty-second Dynasty was inaugurated, in the person of Shoshenq I.

The Twenty-second Dynasty

Shoshenq, a Libyan "Great Chief of the Meshwesh," had gained considerable influence during the reign of his predecessor; a stela describing the events surrounding the establishment of a memorial to his father Nimlot tells us that Shoshenq spoke directly to Amun to ask him to protect his father's memorial, and that the "great god assented very plainly," and also that he was accompanied not only by his adherents but by an army (Blackman 1941: 84), indicating that there was a military dimension to Shoshenq's authority. His family had settled at Bubastis, another eastern Delta city, midway between Memphis and Tanis, over the course of several generations: the "Pasenhor stela" of the reign of Shoshenq V reveals that Shoshenq's father Nimlot (A) had been preceded as Great Chief of the Meshwesh by five lineal ancestors, beginning with "the Libyan" Buyuwawa, who must have been at least partly contemporary with the reign of Ramesses XI and the era of *wehem mesut* (Kitchen 1986: 285, n. 244).

Shoshenq's lineage and the retention of his Libyan name and title are clear indications of his ethnic background. An inscription at Karnak is dated to the second year of the Great Chief of the Meshwesh Shoshenq indicating that the Thebans acknowledged that his "reign" had begun but were nonetheless reluctant to accept him as Pharaoh. Furthermore his name is followed by a throw-stick determinative signifying that he was perceived as a foreigner (Kitchen 1986: 288). Shoshenq's accession to the throne has for these reasons been seen as the beginning of the Libyan "domination" of Egypt. However, this change may not have been as momentous as this suggests. That the transition to the rule of Shoshenk's line seems to have been quite smooth confirms that the Libyan presence in Egypt, and, more significantly, in the upper echelons of society, had been established over a considerable period of time. The legitimacy of the new line was nonetheless strengthened by the marriage of Psusennes II's daughter, Maatkare B, to Shoshenq's son, the future Osorkon I (Kitchen 1986: 286). The model of a divided country with Thebes and the south under the jurisdiction of an individual as High Priest and commander of the armies was retained, but Shoshenq ensured overall control by installing his son Iuput to the preeminent position in Thebes. Furthermore, another son, Djedptahefankh, was installed in the role of Third Prophet of Amun and another ally, Nesy, was made Fourth Prophet (Grimal 1992: 322). Osorkon I continued his father's policy for controlling the south and may even have moved his brother Iuput aside to install his own son Shoshenq (C) as High Priest.

Thebes gains independence

The northern kings' control of the south was short-lived. Hedjkheperre Setepenre Takelot (II) was, until recently, thought to have been a king of the Twenty-second Dynasty (Kitchen 1986: 107), but his existence is not attested outside Upper Egypt,

and it has now been convincingly argued that he was an independent Upper Egyptian ruler, his accession having fallen in the last years of Osorkon II (Aston 1989: 139–53). Although there is no record of his accession, various sources allow us to connect his reign chronologically with those of the northern Pharaohs. The *Chronicle of Prince Osorkon* provides an account of events which took place over a thirty-year period in Upper Egypt, beginning in Takelot's eleventh year, when his son, the High Priest of Amun Osorkon (B), made a ceremonial visit to Karnak (Caminos 1958: 17). The text, supplemented by other sources, provides a detailed account of the struggle for supremacy in Thebes between two rival factions, each headed by a "king" and their chosen High Priest of Amun. The upper hand seems to have passed back and forth between the two factions on several occasions, but ultimately it was Takelot II's line which that would emerge triumphant, and it seems that Prince Osorkon's final victory led shortly to his accession as Pharaoh Osorkon III (Jansen-Winkeln 2006: 242–3). He and his successors would reign as Upper Egyptian kings for the next half century.

The coming of the Kushites

In the final years of the Libyan Period it seems the Twenty-second Dynasty was succeeded directly, at Tanis and Bubastis, by the kings of Manetho's Twenty-third Dynasty, of whom a Petubastis and Osorkon (IV) can be identified in the Egyptian record. At this time Egypt, and particularly the Delta, had undergone considerable fragmentation, and Sais, in the western Delta, had become an important center, populated by Libu/Libyans. Its ruler, Tefnakht, had established himself in charge of a series of principalities in the western Delta, and, having also taken charge of Memphis, he began to expand his territory into Upper Egypt, besieging the town of Herakleo-polis and subduing those further south towards Hermopolis. Hermopolis itself had been brought under Kushite control to this point, and it was the submission of this town to Tefnakht's forces that prompted the Nubian king Piyi/Piankhi to respond. He first sent troops, but they were only able to halt Tefnakhte's progress, not defeat him, and so the king himself journeyed north to join the battle. Hermopolis was reclaimed, and the Kushites then continued north conquering a series of towns in the Nile Valley, and ultimately, after a bloody battle, Memphis itself. From here Piyi proceeded to the Delta where he received the submission of various rulers and finally Tefnakht himself.

The centuries after the withdrawal of Egypt from Nubia – the lands south of Aswan – at the end of the New Kingdom represent something of a dark age in our under-standing of the cultures to the south of Egypt. The old kingdom of Kush, with its capital at Kerma, had been defeated during the early part of the Eighteenth Dynasty by Tuthmose I, inaugurating a period of almost five centuries of Egyptian rule in Nubia. The southern frontier of Egyptian territory was established upstream of the Fourth Cataract at Hagar el-Merwa during the same campaign (Valbelle 2004: 94). Egypt's control of the region was secured by the construction (or rebuilding) of a series of fortified settlements at sites such as Sai and Dokki Gel (Valbelle 2004: 96). From the beginning of the New Kingdom the administration of Nubia had been placed in the hands of a viceroy (called "king's son" in Egyptian), and the territory was divided between two deputies, the first with responsibility for the area between the First and Second Cataracts which the Egyptians called Wawat, while the second had charge of the territory further south, the land of Kush.

Evidence for activity in Nubia after Egypt's control of the region had waned by the end the Twentieth Dynasty is scarce, but its influence persisted, and the society that gave rise to the Twenty-fifth Dynasty kings was highly "Egyptianized," its people having adopted their conquerors' language and script, the royal insignia, and the worship of their traditional gods. The state seems already to have been established at Napata, downstream from the Fourth Cataract, by the eighth century BC (Edwards 2004: 112): the cemetery site of el-Kurru, close to Napata, contains not only the burials of named rulers of the Twenty-fifth Dynasty but a series of "tumulus" burials, thought to contain the remains of their ancestors, stretching back to the ninth century or even further, although some doubt has now been cast on this (Edwards 2004: 118). The earliest known ruler in the Twenty-fifth Dynasty sequence is Alara, whose name is mentioned in texts of later periods, once as the father of Tabiry, a wife of Piyi (Eide et al. 1994: 41). His name was written in a cartouche, and he was given the epithet "the son of (the sun-god) Re," indicating that his successors regarded him as having had the status of an Egyptian king, although there is no evidence that his influence was felt in Egypt itself. The presence of his successor Kashta at Elephantine is, however, confirmed by a fragmentary dedication stela naming him as the "King of Upper and Lower Egypt" and "Lord of the Two Lands." Furthermore, circumstantial evidence suggests that Thebes may have been brought under Kushite control during his reign. In continuation of the tradition of establishing family members in prominent positions, Osorkon III had established his daughter Shepenwepet (I) as "God's Wife of Amun" a position which took on new significance at this point. The subsequent establishment of Kashta's daughter Amenirdis (I) as the heiress to Shepenwepet can only have occurred after the Kushites had taken control of Thebes and may even have marked the moment of the transfer of authority, as it certainly did almost a century later when Nitocris, the daughter of Psammetichus I, was adopted as heiress to the God's Wife, signalling the transfer of Theban allegiance to the Twenty-sixth Dynasty kings. On the basis that in every other recorded instance the heiress to the God's Wife was installed by her father (Morkot 1999: 195–6) it seems most likely that this occurred during Kashta's reign.

Very little is known of the situation in Upper Egypt in the first two decades of Piyi's reign prior to his military campaign. It seems likely that the remnants of Osorkon III's line were moved north to Herakleopolis: Peftjauwaybast, king of that city at the time of Piyi's conquest, was the son-in-law of Amenrud, another Upper Egyptian king and brother of Takelot III (Jansen-Winkeln 2006: 255). Piya returned to his homeland after his victory and may not have returned again to Egypt. The stela which records his triumph was set up at the temple of Amun at Napata, which Piyi now set about enlarging. After perhaps a further decade of rule he was succeeded by Shabaqa.

The establishment of the Twenty-fifth Dynasty

Despite the apparent finality of Piyi's triumph and the return to centralized rule which it implied, it seems not to have been long before Tefnakht of Sais returned to power. The same individual appears in the archaeological record as a king with full titulary and regnal dates which he perhaps only adopted after Piyi's invasion – he had been labeled the "Chief of the West" at the time of Piyi's invasion (Lichtheim 1980: 70). Furthermore, a successor of Tefnakht's, the king Bakenrenef, is also attested.

The latter has been equated with the ''Bocchoris'' of the Twenty-fourth Dynasty who Manetho tells us was taken captive by Shabaqa and burned alive (Waddell 1940: 166–9). Serapeum records suggest that Bakenrenef was recognized as Pharaoh in Memphis until his sixth year. If Shabaqa was responsible for Bakenrenef's downfall, this decisive act of aggression presumably happened early in the new Kushite king's reign, as his rule was recognized in Buto, part of Bakenrenef's territory, in his fourth year (Eide et al. 1994: 41). There is no record of Shabaqa's campaign that is illuminating as that of Piyi's triumph, but hereafter Shabaqa, ruling from Memphis, was recognized throughout Egypt (Morkot 2000: 208), and thus established his line in charge of the country.

Shabaqa's reign saw the beginning of the revival in monumental construction in Thebes. The southern city furnishes us with more evidence of the period than any other site, perhaps in part due to certain biases in preservation and the relative lack of archaeological work elsewhere. Nonetheless it was of greater importance at this time than it had been during the preceding centuries. It was strategically signifi-cant as a staging post on the way from Napata to Memphis and the Delta, and its role as the cult center of Amun had particular resonance for the Kushites. The Kushites maintained control of the city and region by securing alliances with established local families and individuals. Piyi had been assisted in his campaign by the chief lector priest, Padiamunnebnesuttawy (Grimal 1981: 170), whose descendants were allied to the Kushites by marriage and would remain among the most prominent individuals in the region into the Twenty-sixth Dynasty (Vittmann 1978: 66–95). Indeed, many of the most powerful Thebans survive throughout this period, a fact which suggests that the Kushites had left much of the administration of the region in place. Notably, the evidence suggests that very few Kushites, other than royal family members, occupied prominent positions within the Theban administration.

The Kushite princess Shepenwepet (II) had been installed in the harim of the god's wife of Amun, presumably during the reign of her father Piyi. It was perhaps due to the impracticality of appointing yet another Kushite princess as heiress to the God's Wife that Shabaqa revived a Libyan tradition by installing his son Haremakhet as High Priest of Amun, the post having been vacant since the last years of Libyan rule in Thebes. Resources were focused on the renovation of existing monuments dedicated to Amun and the addition of new structures, many built in the name of the God's Wife of Amun. This investment brought renewed prestige to the city and ensured the loyalty of the local individuals who were appointed to govern it and oversee such projects.

The coming of the Assyrians

The stable conditions which allowed such construction were maintained until the 670s, during the second decade of the reign of Taharqa. However, his final years witnessed repeated attacks by the armies of the Assyrian empire. Egypt had played a less active role on the international stage since losing its empire at the end of the New Kingdom. At the beginning of the Twenty-second Dynasty, Shoshenq I had led a successful campaign into Syria-Palestine to assert Egypt's suzerainty over the various cities of the region (Grimal 1992: 323), but this situation was not maintained

for very long. By the reign of Osorkon II, the Assyrian empire, under Ashurnasirpal and his successor Shalmaneser III, had expanded westwards from its capital at Nimrud. Egypt's foreign policy from this time onwards was based on the provision of support for the polities of Syria-Palestine in their struggle against the Assyrians (Grimal 1992: 326). Despite periods of some internal turmoil, the Assyrian Empire would remain the dominant presence in the near and middle east for the next century. By the time the Kushite Pharaohs had asserted themselves as rulers of Egypt they were able to do little more than to aid the insurgencies led by various governors in the region. According to Assyrian records Egyptian forces were defeated in battle at Raphiah in 720, shortly after Shabaqa's conquest (Kahn 2006: 251), but the latter's reign was otherwise a time of peace between Egypt and the Assyrians (Kitchen 1986: 380). His successor, Shabtaqa, was more active and attempted to take advantage of a revolt in the Assyrian empire brought about by the death of the great emperor, Sargon II in 705 (Kahn 2006: 251). by entering into an alliance with the kingdoms of Palestine and, with their help, engaged the Assyrians in battle at Eltekeh in 701. The Assyrians emerged triumphant but were later forced into retreat, their armies having divided in an attempt to capture further territory. The Egyptians then withdrew and would not engage the enemy again until the reign of Taharqa (Kahn 2006: 251). By 677/6, however, the Assyrians, now under Esarhaddon, had quelled a revolt in Phoenicia and established a firm grip over the Levant (Kahn 2006: 252). Esarhaddon regarded Egypt as the cause of agitation at his south-western frontier and sought to eliminate the threat by invading Egypt to drive Taharqa's forces as far south as possible. The first invasion took place in 673 and was defeated (Kahn 2004: 111), but a second in 671 was successful: Esarhaddon's forces advanced as far as Memphis which was sacked; Taharqa was wounded and his son and brothers taken captive (Kahn 2004: 112). More significantly, the Assyrians imposed a yearly tribute and appointed new administrators in the conquered Delta towns, which were renamed.

Taharqa seems to have regained control of Memphis after 671. However, shortly afterwards he was again defeated by an Assyrian expedition brought also about the submission of the Delta and Upper Egyptian rulers. Taharqa died not long after this and was succeeded by a son of Shabaqa, Tanutamun, who quickly took it upon himself to re-establish Kushite rule in Egypt. He was able to recapture Memphis and to occupy the Delta briefly, but Assyrian forces were soon despatched, and this time not only defeated the Kushite king, but marched as far south as Thebes, which was sacked (Kitchen 1986: 394). Egypt was left in the charge of the Assyrians' approved local rulers, one of whom, Psamtik (I) of Sais, would establish himself shortly thereafter as the new ruler of a united Egypt, the first of Manetho's Twenty-sixth dynasty to assume such a role.

3   Discussion

Sites and monuments

The monumental evidence for the period in question is markedly different from that of earlier periods. From the reign of Ramesses III onwards very little in Thebes was built on the same scale as the monuments of earlier Pharaohs, Sety I and Ramesses II
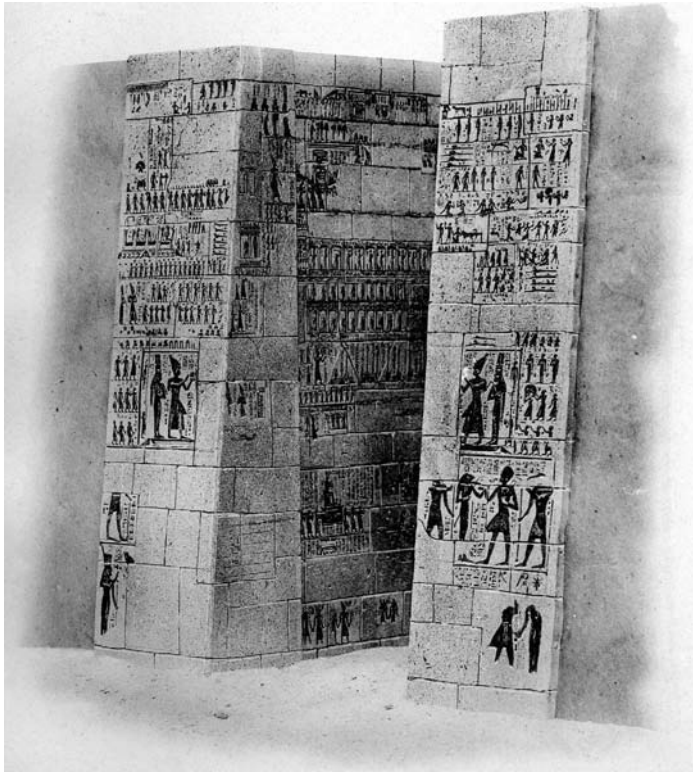
Figure 7.1 Reconstruction by Edouard Naville of the outer face of the *Sed*-festival gateway of Osorkon II, showing the south side-wall. Courtesy the Egypt Exploration Society.

in particular. With regard to monumental architecture, it appears that little of significance was built during the Twenty-first Dynasty. The most spectacular achievement of the Libyan Period at Thebes is the colonnaded festival court built by Shoshenq I in front of the second pylon of the Amun temple at Karnak. An entrance at the southeastern corner of the court, known as the ''Bubastite'' Gate, leads to the southern exterior wall of the hypostyle hall, which is decorated with spectacular reliefs of Shoshenq's campaign into Syria-Palestine. The gate itself was inscribed over a century later by ''Prince'' Osorkon who chose these surfaces to record his ''chronicle'' of the struggle for power in Thebes.

It seems greater energies were devoted to construction in the Delta, particularly in the centers of royal authority. The vagaries of archaeologists' priorities and the unfortunate truth that archaeological remains are generally better preserved in the Nile Valley than in the Delta, where the water table is generally higher, have negatively affected our appreciation of the achievements of the Libyan Period. The great temples of Bubastis and Tanis provide an indication of what once stood, although today they are mere ruin fields by comparison with Karnak which has received much more attention from archaeologists and much more of which has, as a result, been reconstructed. At Bubastis Osorkon I began construction of a new temple of Bastet, the full extent of which has yet to be revealed. Osorkon II added to it a hypostyle hall
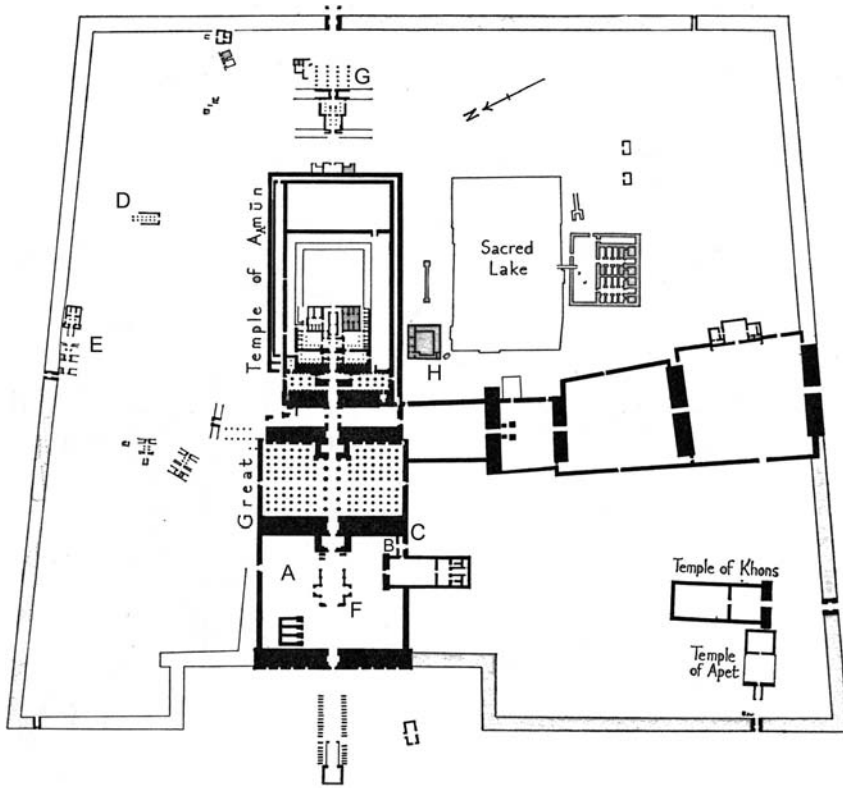
A: Festival Court of Shoshenq I
B: 'Bubastite' gate
C: Southern exterior wall of the Hypostyle Hall, decorated with reliefs of Shoshenq I
D: 'Gold House' of Shabaqa
E: Small Ptah temple
F: 'Kiosk' of Taharqa
G: Colonnade of Taharqa, temple of Amun-Re-Horakhty
H: 'Edifice' of Taharqa

Figure 7.2 Plan of the Amun enclosure at Karnak showing the major monuments of the Libyan and Kushite Periods. After B. Porter R. L. B. and Moss, *Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings* II. *Theban Temples*, 2nd revd. Edn., Oxford, 1972, plan VI.

and *Sed*-festival gateway, which remains one of our most important sources for this rite of kingship. At Tanis the great northern temple of Amun was built by Psusennes I and enlarged by Siamun. Much of the stone used in the construction of the temple was re-used, having first been deployed in the construction of a temple of Ramesses II at Pi-Ramesse.

Under the Kushites, as noted above, Thebes was the focus of much construction and renovation. At Karnak, a "gold house" was constructed north of the Akh-menu, a columned entranceway added to the Amun temple just north of the third and fourth pylons, and a gateway was added to the small Ptah temple at the north of the Amun enclosure. At the temple of Luxor a columned entrance surrounding the

Figure 7.3 Reliefs of Shabaqa inscribed on the thickness of the First Pylon at the Temple of Luxor. Courtesy Christopher Naunton.

obelisks and colossal statues of Ramesses II was constructed and the thickness of the first pylon inscribed with new reliefs whilst at Medinet Habu the small Amun temple was embellished with a courtyard formed of a double row of columns connected by screen walls, and a new entrance pylon was dedicated to Kashta (Arnold 1999: 47). Shabaqa's successor Shebitqu, a son of Piyi, appears to have left little trace of his reign in Thebes, but his brother, Taharqa, who succeeded him in 690 BC, was responsible for the greatest programme of building in Thebes since the New Kingdom. A dramatic new entrance kiosk consisting of ten enormous columns was added to the first court of the Amun temple at Karnak, and similar structures were erected at the front of temples dedicated to Mut, Re-Harakhty and Amon-Re-Montu elsewhere at Karnak (Arnold 1999: 53–8). An entirely new temple was erected on the site of the Ramesside temple of Khonspakhered in the Mut enclosure and an ''edifice'' was also erected to the north-west of the sacred lake in the Amun enclosure, its role being connected with creation and the renewal of kingship (Cooney 2000: 46).

Burial practice

The construction of royal tombs at Tanis marked a significant break from the tradition of the New Kingdom. Before this period kings had been buried in concealed tombs in the series of *wadis* on the west bank at Thebes known as the Valley of

Figure 7.4 Columns of the kiosk of Taharqa, in the festival court of Shoshenq I at Karnak. Courtesy Christopher Naunton.

the Kings. They were in this way physically disconnected from the temples that served the cult of the deceased Pharaoh, which were situated in the plain closer to the river. Psusennes I inaugurated a very different series of burials. Simple chambers, situated within the main temple complex, were constructed of massive blocks of stone to house the body of Pharaoh inside a stone sarcophagus. In another departure from New Kingdom tradition the chambers would each be used for the burial of more than one body: the tomb of Psusennes I, for example, also contained the burials of a king Hekakheperre Shoshenq (IIa), two unknown individuals, and the coffin and sarcophagus of Amenemhet. The funerary equipment of Psusennes, in particular, was of the highest quality and included a solid-gold death mask reminiscent of that of Tutankhamun (plate 4). The tombs' location within the temple enclosure may reflect a desire to provide better protection for the burial of Pharaoh in reaction to the robberies perpetrated on several of the royal tombs of the New Kingdom during the Twentieth and Twenty-first dynasties, but these new practices might equally have sprung from a different mortuary tradition, perhaps brought to Egypt by Libyan settlers.

The burial of non-royal individuals outside the Delta followed the pattern established in the royal necropolis at Tanis. In Thebes the tradition of cutting tombs into the bedrock of the hills and plain in the Qurna area gave way to the reuse of earlier tombs and the preparation of simple shaft tombs terminating in undecorated burial chambers. Such tombs were often used for multiple burials, and many are to be found within the temple enclosures of the Ramesseum and Medinet Habu. The latter was also the location for the chapels of the God's Wives of Amun of the later Libyan, Twenty-fifth, and Twenty-sixth dynasties.

Figure 7.5 The royal tombs at Tanis. Courtesy Christopher Naunton.

Figure 7.6 Tombs Chapels of the God's Wives of Amun at Medinet Habu. Courtesy Christopher Naunton.

During the Twenty-fifth Dynasty, as noted above, there was a revival in monumental construction in Thebes, and it is likely that Kushite activity in the area and a renewed focus on the city, in general, was partly responsible for the creation of a newly wealthy upper class at this time, which in turn led to the construction of some of the largest and most ostentatious non-royal tombs anywhere in Egypt to this point. These tombs were cut into the plain at el-Asasif and in the low-lying areas to the west of the Ramesseum.

Libyans in Egypt

The Libyan and Nubian peoples constituted two of the four races of man according to the Egyptian world view, along with the Asiatics and the Egyptians themselves (Leahy 2000: 226). The history of Egypt in the first millennium BC is dominated by the influence of successive groups of foreigners. There is a distinction to be made from the later groups, including the Assyrians, Persians, Greeks, and Romans, all of whom, in one way or another, were recognized as being ''foreign'' by the native Egyptian population, while the earlier groups, the Libyans and Nubians, seem, most of the time, to have been treated as Egyptians, even if elements of their ethnic origins remained evident (Jansen-Winkeln 2000: 1–2).

Sources record three major episodes of conflict with Libyan contingents during the Nineteenth and Twentieth Dynasties. In each case the Egyptians appear to have emerged triumphant, but it is very unlikely that any defeats the Egyptians may have suffered were recorded. Lists of the spoils of their various triumphs against the Libyans suggest that the invaders brought cattle and other animals with them in large numbers, at least in year five of Merneptah and year eleven of Ramesses III (O'Connor 1990: 37), and the texts of Merneptah indicate that women and children had accompanied the expedition (Leahy 2001: 292), all of which suggests that the Libyans' intention was to settle in Egypt, and the records of the battle of Ramesses III's eleventh year state explicitly that the northern invaders wished to ''dwell in Egypt'' and spend their lifetime there (O'Connor 1990: 108). It may safely be assumed that a large number of Libyans penetrated Egypt's borders in smaller groups without facing much resistance (Leahy 1985: 53).

The identification of individual Libyans and detection of Libyan influence in Egypt is one of the principal difficulties faced by scholars of the period. Few individuals with Libyan names appear in the evidence prior to the Twenty-second Dynasty, and superficially little had changed: iconography, worship of traditional gods, language, script, and other cultural elements remained thoroughly Egyptian. Nonetheless, the evidence suggests that certain things had changed, and this change can be explained by the influence of Libyan peoples. The installation of family members to important religious, administrative, and military positions was a feature of Libyan influence in Egypt and reflects the importance of kinship to those in power. This emphasis on lineage is characteristic of the oral tradition of non-literate societies such as that of the Libyan settlers (Leahy 1985: 55) and is also manifest in the appearance during this period of long genealogies in inscriptions. These record patrilineal (i.e. father-to-son) relationships often stretching back through several generations, giving both the names of the individuals concerned and their titles, although the latter are commonly indicated only by the phrase *mi nn* (''the like-titled'') indicating that an individual

had the same titles as his predecessor, itself a reflection of the degree to which offices had become hereditary (Taylor 2000: 341–2). During the New Kingdom royal family members had been prevented from assuming positions of influence (Taylor 2000: 241) so as to minimize the risk of nurturing rival claimants to power. By contrast, during the early years of the Twenty-second Dynasty the major positions at Thebes and important Middle Egyptian centers such as Herakleopolis had come to be dominated by members of the royal family. As these positions were allowed to become hereditary the potential was created for individuals to establish themselves as independent rulers in their respective localities.

The influence of Libyans also contributed to the north-south divide apparent during the period. The division may, even at the end of the New Kingdom, have reflected the non-Egyptian dimension in the population, substantial communities of Libyans having settled in the Delta, in particular, while the areas further south remained predominantly Egyptian. This divide is manifest in a divergence in the style of certain object types such as coffins but perhaps most clearly in the divergence of scripts used for administrative documents at this time, the cursive, Hieratic of the New Kingdom having developed into Demotic in the north and ''Abnormal Hieratic'' in the south.

Nubians in Egypt

Unlike the Libyans, but in keeping with the Egyptian situation, the Kushites came from a stable sedentary society and were highly Egyptianized, at least at the higher levels of society. Elements of their ethnicity are, nonetheless, apparent in the ostensibly Egyptian monuments which they left behind. In two- and three-dimensional representations the king was often shown wearing a close-fitting cap-crown with a wide head-band and two *uraeus* serpents, their tails reaching over the back of the head and running down the back as two streamers. This headgear and the ram (of Amun)-headed amulets, usually worn around the neck, are distinctive features of Kushite royal iconography. In terms of their physical form, Pharaoh and other members of the royal family are often shown with fleshy, almost chubby cheeks; the nose is wide and flat, and in colored representations their skin is often shown as being of a darker, brown hue by comparison with the red usually used for Egyptian men.

Private statuary, from which we derive much information on non-royal individuals, particularly from Thebes, is relatively abundant during the period from the beginning of the Twenty-second Dynasty onwards. During the Twenty-fifth Dynasty, in particular, sculptors appear to have been influenced by the representation of the Kushite kings themselves; demonstrably Nubian individuals such as the priest of Amun Iryketakana, are shown with the fleshy cheeks and somewhat corpulent figure characteristic of some representations of the Nubian Pharaohs, and similar features are also manifest in three dimensional representations of Egyptians. This trend is apparent particularly in the *shabti* figurines of certain wealthy individuals such as Harwa, the Chief Steward of the God's Wife, and the Chief Lector Priest Petamenophis, although both seem to have been Egyptian. Artists were also influenced by the iconographic conventions of previous eras. This phenomenon, known as archaism, would continue as a central feature of the Late Period revival in art which would flourish during the succeeding Twenty-sixth Dynasty, but it was already in evidence

under the Kushite Pharaohs and perhaps had its genesis in the investment in Theban craftsmen and workshops during this period.

The Kushite kings' mode of succession has been claimed not to follow the Egyptian model whereby the king was succeeded by his eldest son but to observe the "collateral" pattern in which the throne passes from an elder brother to a younger brother and then to the children of the elder brother. However, this has recently been challenged, and it is now suggested that patterns of inheritance may have followed traditional Egyptian principles (Kahn 2005: 163), or even that no such system was in use and that any claimant to the throne may have had to rely on the backing of important power groups such as the military as much as legitimatizing principles of inheritance (Morkot 1999: 221).

Decentralization and kingship

Several Upper Egyptian individuals, including the High Priests of Amun Amenhotep and Herihor at the end of the New Kingdom and Pinudjem I during the Twenty-first Dynasty, adopted elements of the royal insignia, though they were not "kings" as such. Similarly, early in the Twenty-second Dynasty, the High Priest Shoshenq (C), enclosed his name in a cartouche and added to it the royal epithet "Meryamun" ("beloved of Amun"), and subsequently, during the reign of Osorkon II, there appears a "king" Harsiesi A who is known exclusively from Upper Egyptian sources. The latter appears to have been a son of Smendes (III), another High Priest and brother of Shoshenq (C), (Jansen-Winkeln 2006: 241, n. 64), and, therefore, a grandson of Osorkon I. This tendency of the Theban High Priests and their offspring to declare themselves king is a feature of the period. The transition to royal status seems to have been a natural step for the High Priests, and this was precisely the situation that obtained after the cessation of hostilities in Thebes, when the High Priest "Prince" Osorkon (B) became king Usermaatre Setepenamun Osorkon (III). The authority of the High Priests was based not only on their influence within the cult of Amun but on their tenure of non-religious posts, most importantly, that which gave them charge of the armies of the region, a post which Prince Osorkon had held. The position of these individuals had, however, also been strengthened by inheritance and kinship with others in authority which allowed them the same kind of security that Pharaoh had enjoyed for centuries.

As noted above, during and after the period in which Thebes came under the rule of Upper Egyptian "kings" Egypt as a whole seems to have become further fragmented. The lunette of the victory stela of Piyi graphically represents both the political situation only a few years later and the status of the individuals claiming kingship at this time. In the center of the scene Piyi stands facing right with Amun and Mut behind him. In front of Piyi stands Nimlot, the "king" of Hermopolis, and in a separate register beneath Nimlot three further "kings" – Osorkon (IV) of Bubastis (the "Osortho"/"Osorthon" of Manetho's Twenty-third Dynasty, which seems to have been little more than a continuation of the Twenty-second Dynasty (Jansen-Winkeln 2006: 247)), Iuput (II) of Leontopolis and Peftjauawybast of Herakleopolis – are kneeling in a gesture of obeisance before the Kushite Pharaoh. Behind Amun and Mut are five further rulers of Delta provinces, among them two Great Chiefs of the Meshwesh, an important Libyan ethnic group. In addition to this further rulers are mentioned in the text of the stela.

Clearly, the concept of kingship had altered fundamentally by this point. Pharaoh's title, the "King of Upper and Lower Egypt," implies a unity in the country which had not existed since the New Kingdom, and yet the title, along with the other elements of royal insignia, was used by all the various kings throughout Egypt during this period. The multiplicity of kings at this time contradicts the traditional notion of Pharaoh as sole ruler of the country, and most significantly of all, the equivalence of the "kings" to the other rulers reveals that by this point the title "king" had become simply one among several that were used to designate the pre-eminent individual in a given region. The sporadic appearance of Upper Egyptian "kings" throughout the period should be understood in this context. Essentially, the appearance of tradition had been maintained, but kingship had lost much of it meaning, as is also reflected in the repeated use of New Kingdom throne names by the Libyan kings who brought little originality to the process of formulating royal names. This loss of meaning has been interpreted as another manifestation of Libyan influence, the result of the adoption of the insignia of kingship by a people unaccustomed to the political system that went with it. The situation at the time of Piyi's invasion reveals that migrant populations of Libyans had retained their socio-political structure and were headed, effectively, by chiefs, some of whom retained Libyan titles while others had adopted Egyptian protocols. Once settled, these tribes had established their own local authority, further contributing to decentralization. Such a situation precisely reflects the tribal structure of society that scholars believe characterized the populations of Libyan migrants who entered Egypt during the last years of the New Kingdom. The fragmentation of the country was the result of the Libyans' retention of their own way of doing things: they were unaccustomed to centralized rule, preferring to organize themselves as a confederation of principalities, loosely allied to one another through marriage and the appointment of family members to important posts (Leahy 1985: 59).

One of the great problems for historians of the period lies in distinguishing that which is ideologically important from that which was of practical significance. The use of the title "High Priest of Amun" for the pre-eminent governmental individual in Thebes is a case in point: the connection with the most important deity of the times provided legitimation and an ideological basis for their authority, but, in practice, their authority derived from their control of other, nonreligious/ideological areas of state such as the military, the administration, and the (temple) economy. Furthermore several other titles such as that of "vizier" which, in earlier times of centralized government, had signified specific roles, had lost much of their meaning. The continued use of these titles suggests that the old structures and hierarchies of government remained in place, but the reality was quite different since the country had become a loose confederation of towns and principalities governed on a local/regional basis; the titles no longer had any value as descriptors of the role and responsibilities of the individuals concerned.

4   Conclusion

The arrival of the Libyan peoples in Egypt was a relatively subtle process of migration and settlement. The elements that infiltrated the Egyptian ruling class retained elements of their ethnicity but became, to an extent, Egyptian themselves.

The coming of Kushite rule was, by contrast, utterly momentous. Although their arrival was swift, and their people seem not to have settled in Egypt in such large numbers as the Libyans had before them, their society was already highly Egyptianized; it was quite natural that on arrival in Egypt they would continue to embrace the traditional signifiers of Egyptian culture – language, script, and religious beliefs and practices – and to devote resources to monumental construction at traditional sites of worship. Furthermore, the phenomenon of archaism, which is much in evidence during the period of their rule in Egypt, is evidence of their desire to associate with a classical Egypt.

In Egypt, both the Libyans and Nubians could be regarded as culturally, if not ethnically, Egyptian. This calls into question the use of the terms "Libyan" and "Kushite" to describe the periods in question. The first is highly apposite in that the distinctive features of the "Libyan Period" such as political fragmentation, the reduction in the status of the king, and the change to burial practices, can be attributed to the influx of non-Egyptian migrants who settled in great numbers across large areas of the country. The effects were felt throughout Egyptian society. Cultural, as opposed to top-level, political changes are often very subtle: they are not always clearly manifest in the available evidence, often do not occur uniformly throughout the country, and are not usually marked by momentous events in the same way that political changes often are. It is not possible to speak of the "Libyan period" as having begun at any precise point; assessed on the basis of Manetho's dynastic lists the Libyan Period might be thought to have begun with the accession of Shoshenq I, founder of a line of kings who were manifestly of Libyan origin. However, there is enough evidence of the features described above from the end of the New Kingdom onwards for it to applied to the Twenty-first Dynasty as well. That this is appropriate is confirmed by the presence of a king Osorkon ("the Elder") in the main line of Delta kings from this period. On the other hand, the label "Kushite period" reflects a purely "top-down" approach to history, deriving simply from the ethnicity of the Pharaohs of the time. There is no reason to suggest that the Libyan element of the population had been removed – a Great Chief of the Meshwesh is known to have been active in the middle of the reign of Psamtik I (Ritner 1990b: 101–8), although presumably, in some aspects, they had become more and more acculturated with each generation. The political fragmentation which characterized the Libyan period remained in place under the Kushite Pharaohs: a text inscribed on the "Rassam Cylinder" records a list of towns throughout Egypt and the individuals who had been appointed or confirmed in authority after Esarhaddon's invasion, several of whom can be identified with Egyptians known from archaeological sources. Two of them are well known Thebans: the Governor of Upper Egypt and Fourth Priest of Amun Montuemhet and the Vizier Nespamedu (Leahy 1979: 31, n.3). Despite the different Egyptian titles which hey held both men were accorded equal status in the annals of Ashurbanipal, as *sharru* in their respective regions, Montuemhet in Thebes and Nespamedu at Abydos. Both men came from prominent families whose members had held high-status titles going back several generations to a point perhaps coinciding with the arrival of the Kushites in Upper Egypt. Although they may not have been able to alter fundamentally the political structure of Egypt, this suggests that the Kushites were able to manipulate the Egyptian ruling classes so

as to maintain a level of control. The theory is supported by evidence which suggests that the office of vizier was transferred from the family of Montuemhet to that of Nespamedu in the middle of the period, perhaps as an attempt to redistribute power among the ruling families (Leahy 1979: 35). Furthermore the promotion of the God's Wife and establishment of a series of princesses to her harim provided the ruling house with a strong connection to the cult of Amun and gave Kushite investment and building activity at centers such as Karnak, Luxor, and Medinet Habu a focus. The harim was administered by a Chief Steward; the two known holders of this office during the Twenty-fifth Dynasty appear to have been of relatively humble origins, and their office was prevented from becoming hereditary, a policy which prevented the possibility for newly powerful individuals and families to develop. Whatever policies they pursued seem to have been successful: the Kushite Pharaohs remained the recognized authority in Thebes until some years after they had been ousted without ever having faced rebellion in this part of the country.

   Although from the time of Shabaqa onwards the Kushite kings seem to have resided in Egypt, there is little evidence that the population of Kush migrated to Egypt in significant numbers, and, as inhabitants of a stable, sedentary society themselves, they would not have faced the same imperatives that drove the Libyans to settle in Egypt in any case. Kushite influence seems largely to have been confined to the top echelons of society. The harim of the God's Wife became an institution of the Kushite royal family, and a few Kushites were appointed to other prominent positions, particularly at Karnak, but the vast majority of official positions in Thebes were controlled by Egyptians, and it seems very unlikely that any centers further north than this would have been treated differently, with the possible exception of Memphis. However, evidence for any city outside Thebes is scarce. The renewal in monumental construction at Thebes, the phenomenon of archaism, and the revival in other art forms, particularly sculpture, all seem to have begun under Kushite rule and would endure beyond its end. The development was also perhaps of significance only at the top levels of society. In terms of the political geography of the country and the enduring influence of Libyans among the ruling classes, the period following the conquest of Egypt by Piyi was arguably as Libyan in character as it was Nubian/Kushite, but Egypt and its culture had been modified but not replaced; despite this mixing of ethnicities and traditions, Egypt remained Egyptian.

FURTHER READING

The most detailed and comprehensive survey of the period remains Kitchen 1986. This volume, originally published in 1973, was the first to synthesize the relevant primary material from both Egypt and the Near East, and has since provided the starting point for any research into the period. Naturally, however, it has now been superseded in certain regards. Kitchen's reconciliation of Manetho's Twenty-second and Twenty-third Dynasties with the archaeological data has, for example, been challenged; an excellent summary of the current thinking is presented by Karl Jansen-Winkeln 2006a. The question of Libyan influence on the period is masterfully dealt with in Leahy 1985, and this has been augmented by Jansen-Winkeln 2000. The best recent study of the rule of the Twenty-fifth Dynasty Pharaohs in Egypt is

Morkot 2000. For the Kushite state itself readers should consult Edwards 2004. An excellent recent overview of Egypt's contact with the Assyrian empire, as recorded by both Egyptian and Assyrian sources, is provided by Kahn 2006. The Egyptian texts of the Twenty-first Dynasty have now been presented in hieroglyphic transcription by Jansen-Winkeln 2007, and volumes on the texts of the Twenty-second to Twenty-fifth Dynasties are to follow. The Twenty-fifth Dynasty texts are presented in translation in Eide et al.1994, but there is, as yet, no anthology of translations for the Libyan Period, although selected texts are included in Lichtheim 1980.

CHAPTER 8

Saites and Persians (664–332)

Olivier Perdu

1   The Origins of the Twenty-sixth (Saite) Dynasty

Before the Twenty-sixth Dynasty conquered the entire country under Psamtik I its influence was confined to the Western Delta which it controlled from a fiefdom based on Sais. Its expansion took as its starting point the residue of a "kingdom" founded a short while before around Sais and its two satellites Buto and Imu (Yoyotte 1961: 151–9). Three figures were associated with this first Saite hegemony: two Libyan chiefs, Osorkon C and Tefnakht, respectively contemporary with Shoshenq V and Piyi/Piankhi, and a king, Bocchoris, the only representative of the Twenty-fourth Dynasty whom Shabaka managed to eliminate, temporarily bringing an abrupt end to Saite expansion.

2   The Twenty-sixth Dynasty

The predecessors of Psamtik I

At the beginning of the Twenty-sixth Dynasty, after the obscure "Ammeris the Ethiopian," Manetho mentions three kings: Tefnakht (written Stephinates through an error in transmission), Nechepso, and Necho. For the first and the third we can find evidence in contemporary texts confirming their reigns. Tefnakht appears on two donation stelae which assign him the prenomen Shepsesre (Perdu 2002: 1230–3), but, apart from his hold on the western Delta, we know nothing of this king to whom Manetho allocated seven regnal years. On the other hand, we are quite well informed on the immediate predecessor of Psamtik I, Necho I, who was also his father (Perdu 2002: 1234–9). Two objects, a scarab and a figurine of Horus doubtless coming from Sais, preserve his name, which also appears on a stele in which Akanosh B, the powerful Libyan chief of Sebennytos, commemorated a donation and referred to Necho's year 2. Not only does this evidence confirm the royal status of Necho I, but

it also indicates that Saite influence extended at least to the central Delta. Assyrian Royal Annals inform us of the support that they received from the Saite king in their battles against the forces which the Kushites had established in Egypt to protect their commercial interests in the Levant. Thus we learn that in 667, when Assurbanipal led his first campaign against Taharqa, the Assyrian policy was to place their trust in Necho I by maintaining him as "king of Memphis and Sais," a position with which he had been entrusted by Esarhaddon during an Assyrian invasion four years before, but which he had lost as a result of the Kushite counterattack. A little later, despite an unhappy Saite change of allegiance in favor of Taharqa which brought with it for Necho a spell of capitivity in Niniveh, the same concern to win over Saite power forced the Assyrian king to conclude a treaty under the terms of which Necho was reinstated in Sais in exchange for his support, and his son Psamtik was put in charge of Athribis. Thus, the Saite king found himself forced to oppose Tanutamun when the latter succeeded Taharqa and launched a campaign to reconquer of Egypt, a stance which cost Necho his life after a reign of eight years and led to the accession of Psamtik I.

Psamtik I (664–10): the restorer of national unity

Initially the return of the Kushites to Egypt under Tanutamun forced Psamtik into exile, allegedly in Syria, but the southern invasion soon provoked a vigorous reply from Assurbanipal who sent his forces to retake Memphis and Thebes. This move caused Tanutamun to retreat and freed the north of the country, at least, from Kushite influence. Before withdrawing the Assyrian king decided to restore Psamtik to his position at Sais in return for his submission (Spalinger 1976: 133–7). However, this subordination became progressively less a reality as the attention of the Assyrians was increasingly absorbed by the difficulties which confronted them from Babylon and Elam and subsequently even within their own country.

Psamtik's reign of a little over half a century is of crucial importance since it led to the reunification of Egypt, an event which had had no genuine parallel since the reign of Osorkon II two centuries earlier. When he came to power, only part of Lower Egypt was fully under his authority, and his first actions, therefore, focused on extending his influence in the north. Above all, that policy amounted to putting an end to the aspirations to autonomy of the northern Libyan chiefdoms which the Kushites had never managed to eradicate (Perdu 2003a: 6). The solution to the problem took rather different forms in different places. In Busiris, the series of Chiefs of the *Ma* (*wr n M^c*) who succeeded each other in charge of the town after Piyi was abruptly terminated by the introduction of a newcomer who was established as "Count and Governor of Busiris in Anjet" (*rp^c ḥ3ty-^c m ^cnḏt ḏdw*) (Perdu 2006a: 176–8). At Sebennytos, on the other hand, the representative of the Libyan Dynasty established there since the beginning of the Twenty-fifth Dynasty managed to retain his position but with his privileges reduced to those of a simple governor (Perdu 2004: 101). Whatever the outcome, the Delta was freed from all these Libyan chiefs in a few years, one of the last being a person mentioned in year 7 of Necho II but who probably disappeared well before that (Perdu 2004: 107). Very quickly, Saite influence also prevailed in Middle Egypt, where the strategic crossroads of Herakleopolis

was dominated by a certain Pediese, a person closely linked to the Twenty-sixth Dynasty whose son Somtutefnakht also became a partisan of Psamtik by beginning his career in the Saite court (De Meulenaere 1956: 251–3; 1964: 98–101; Spalinger 1976: 139).

A decisive phase in the conquest of the country was reached in Year 9 when Thebes passed into the control of Sais (Spalinger 1976: 139; De Meulenaere 2003: 61–2; Perdu 2003a: 6–7). Until that date this ancient bastion of the Kushite kings was still held by men devoted to their cause, such as the governor Montuemhet, who had a wife of Kushite origin, and the First Prophet of Amun Harkhebi, the grandson of Shabaka (plate 5); in the dating system the regnal years of Tanutamun continued to be used, even though he had not reappeared in the country since his rout by Assurbanipal. To establish himself in the city Psamtik I chose to send his daughter Nitokris there to be adopted by the God's Wife of Amun Shepenwepet, daughter of Piyi, a move which guaranteed that Nitokris would ultimately become God's Wife herself. However, out of respect for local susceptibilities he did not make his daughter the immediate successor of Shepenwepet since the latter already had a successor in the person of Amenirdis, daughter of Taharqa; nevertheless, Psamtik ensured that Nitokris was accompanied to Thebes by a large squadron under the leadership of his faithful admiral Somtutefnakht, thereby making of the journey a genuine display of power. The manoeuvre succeeded, and the Thebans henceforth shook off the Kushites, as is apparent from their practice of dating by reference to the Saite Pharaoh rather than the Kushite king after the arrival of Nitokris.

The Saite reunification of Egypt was accompanied by an administrative reorganization which may well have been on a considerable scale. Provincial administration was modified so that provinces were more tightly linked to central government and corresponded more closely to geographic realities, and the status of the governors themselves changed in that they appear everywhere as simple agents directly dependent upon central government and liable to be changed as and when the needs of the service required (Perdu 2006a: 153–86). These officials included the most loyal servants of the crown, notably, a great number of military personnel, a phenomenon which illustrates well the Saite concern to assert its authority.

Psamtik I also needed to contain threats from abroad. From Year 11 we see him intervening on the Libyan coast (Spalinger 1976: 140) where, according to Diodoros (1.66.12), his Delta opponents had taken refuge. In the western desert, the king extended his influence as far as the Dakhla Oasis where a temple to Seth at Mut el-Kharab shows traces of his building activity, probably continued by Psamtik II (Kaper 2001: 76). On the Kushite front the extant documentation does not allow us to follow closely the king's actions, though the south still seems to have been a focus of his attention even after Tanutamun's withdrawal. However, he may well have acted here with the same prudence which he showed with regard to the Thebans, at least at the beginning of his reign, though relations with the Kushites could quickly become more confrontational (Habachi 1974: 323, 325; Spalinger 1976: 139; Perdu, forthcoming). The king was also active in Asia, but his policy was of limited scope. He treated his distant Assyrian protector with circumspection, but at the same time Psamtik took advantage of the latter's domestic and foreign difficulties to extend his influence northwards and thereby assured himself a buffer-zone beyond his

eastern frontier (Spalinger 1978b: 49–53). According to Herodotos he also took possession of Ashdod (2.157) (thereby gaining a point of entry into Philistia) and bought off the Scythians who had raided as far south as Palestine (1.105). However, overall, the Babylonian Chronicles reveal that the king's interventions were as discreet as they were ineffectual. At the end of his reign the aid given to the Assyrians did not enable them to prevail over the Babylonians and their Median allies (Spalinger 1977: 223–5).

A dominant characteristic of Psamtik I's policy remained his action in the military realm which allowed him to restore the unity of the country and also to maintain its territorial integrity, but this policy had ramifications of major importance beyond that. On the one hand, he paid close attention to the frontiers with Nubia, Libya, and Asia and reinforced the military bases situated at the southerly point of the island of Elephantine, Marea at the western extremity of Lake Mariut, and near the mouth of the Pelusiac Branch of the Nile at Daphnae-Tell Defenna (Spalinger 1976: 138; Chevereau 1985: 315–7). In addition, he set about developing Egypt's military potential, which he did by massive recruitment of foreign troops (Chevereau 1985: 311–2), in particular, augmenting his Phoenician, Jewish, and Arab assets with eastern Greeks whose martial qualities were well known. In his conquest of the Delta Psamtik had already made use of Ionian and Carian mercenaries, probably put at his disposal by Gyges of Lydia, but subsequently these same backup troops had been encouraged to make their lives in Egypt in dedicated military camps and were incorporated into a ''foreign legion'' which was integrated into the national army as an elite corps designed to stiffen expeditionary forces. The career of one of these men is known quite well: a certain Pedon, an Ionian who entered service with a king Psamtik (Masson & Yoyotte 1988: 172 and 175–9; Vittmann 2003: 203–5). After a distinguished career on active service he received a golden bracelet from the sovereign and the post of district governor before leaving for Priene with a statue in Egyptian style bearing an Ionian inscription (Haider 2001: 200–1). The arrival of these Greek troops had consequences which went well beyond the military sphere. As Diodoros relates (1.66.8), they effectively opened the way for artisans and merchants, Greek or Phoenician, whose presence stimulated the Saite economy (Vittmann 2003: 209 ff.). They were enthusiastically received by Psamtik and established themselves in the Delta, traveling up the Kanopic and Bolbitine branches of the Nile, e.g. the Cypriots who settled at Naukratis where the king had already located a Milesian garrison for the protection of Sais.

As master of all of Egypt Psamtik I was in the position to embark on a major architectural programme. His name is not only associated with the promotion of Sais to the rank of a dynastic capital which was to become the burial place of the Saite kings (Leclère 2003: 25–9 and 33–4; Wilson 2006; 3) but also appears on monuments throughout the country where his activity is evidenced by developments in many temples: Tell el-Balamun, Busiris, Hermopolis-Baqlia, Tanis, Pharbaithos, Daphnae-Tell Defenna, Heliopolis, Memphis, Wanina-Athribis, Koptos, Thebes, Esna, Elkab, and Edfu (Perdu 2003a: 9). This interest taken in sanctuaries was accompanied, moreover, by a real involvement of the king in religious life which emerges with particular clarity in the measures taken at Memphis on behalf of the Apis bull (Perdu 1987: 152 and 160–2): not only did he supervise the obsequies,

which had become a very popular event, but he inaugurated a new area for their burial. His piety towards this god would be imitated by his successors and, in particular, by Amasis, who showed his devotion by burying one in a sarcophagus of rose granite rather than the traditional timber.

Necho II (610–595): an active foreign policy

Psamtik I's successor Necho II ruled for little more than fifteen years, but those years were very eventful. In Egypt itself peace was preserved, and the king continued to meet the needs of the temples (Yoyotte 1960: 367–8), working not only in the northern sites of Buto, Sais, Imu and Mefky, Athribis, Tanis, and Memphis but also at Naga el-Mesheikh, Thebes, and Elephantine in Upper Egypt. He also continued the Saite commitment to the Dakhla Oasis initiated by his predecessor, contributing to a sanctuary in Amheida which also shows the names of Psamtik II and Amasis (Davoli & Kaper 2006: 13).

Herodotos attributes three original initiatives to Necho: the attempt to dig a canal between the eastern branch of the Nile and the Gulf of Suez (2.158), the construction of triremes for military expeditions in the Mediterranean and the Red Sea (2.159), and the despatch of Phoenician vessels on a reconnaissance mission around

Figure 8.1   Kneeling figure of Necho II making a divine offering. Bronze, ht. 14 cm.; prov. not known. Photograph Courtesy of the Brooklyn Museum.

Africa (4.42). Whilst the first can be verified by archaeology, the second presents a number of problems of detail which have given rise to much discussion, while the third is difficult to accept (Lloyd 1977: 142–54), even if it cannot be totally excluded (Lemaire 1987: 58, n. 53). Whether true or false, these claims present a consistent picture: that of a king resolutely orientated towards the sea (Chevereau 1985: 319–20), in particular, the Red Sea (Lloyd 1977: 154–5; Pernigotti 1996: 96). This justifies us in suspecting that this reign marks the point when, with the assistance of the Greeks and Phoenicians present in the country, Egypt became more deeply involved in maritime expansion, military and commercial, and we should bear in mind a fragmentary inscription from Elephantine which contains the inventory of a major fleet, perhaps part of an expedition by Necho II to Nubia (Junge 1987: 66–7; § 6.2, and pl. 40c; Jansen-Winkeln 1989b).

It is in Asia that the king's activities are most intense, unlike those of his predecessor, but they are often difficult to understand because the reports left by Herodotos, Josephus, the Bible, and the Babylonian Chronicles give rise to very different interpretations (Yoyotte 1960: 372–3). The involvement of the king in Asia was, above all, dictated by his wish to block Babylonian expansion, always a threat to his interests in the Levant which required him to maintain a presence on the frontier at the Euphrates (Yoyotte 1960: 374–6; Spalinger 1977: 225). However, in May-June 605 after two years of indecisive warfare which left the Babylonians unable to set foot on the right bank of the Euphrates, the Babylonian prince Nebuchadrezzar launched a successful attack against Carchemish inflicting heavy losses on the Egyptians, the last survivors of whom were annihilated in the region of Hamah. Before his hasty return to Babylon in mid-August to get himself crowned, Nebuchadrezzar took advantage of his success and grabbed Syria-Palestine where regular campaigns allowed him to maintain his supremacy at least until 594. Necho's activities in the area brought him into conflict with Josiah of Judah which led to the defeat of the latter at Megiddo, probably in Spring 609, and his subsequent death (Yoyotte 1960: 377–84; Spalinger 1977: 255–6). According to Herodotos (2.159), Necho II was also responsible, at some stage, for the capture of Migdol and Gaza (Yoyotte 1960: 389–91). These successes are not dated, but there is currently a tendency to place them at the end of the reign. If this is correct, they mark a resurgence of Egyptian influence in southern of Palestine. On the negative side we should note that references to Necho are occasionally erased to be replaced on occasion by his successor. As yet there is no explanation for this (Gozzoli 2000: 71–80).

Psamtik II (595–89): the conqueror of the Kushites

Psamtik II reigned for barely six years. Despite that, traces of his activity are not lacking, notably in a number of sites where he oversaw the upkeep of the temples: Sais, of course, but also Buto, Hermopolis-Baqlia, Tanis, Letopolis, Heliopolis, and Memphis in the north, and Abydos, Thebes, Elephantine, and Philai in the south. In the oases of Kharga and Dakhla, where the Saite "colonization" initiated by his two predecessors continued, some sanctuaries, like Hibis (at least if we follow the conclusions of Cruz-Uribe 1987: 230, but they are open to criticism) and Amheida (Davoli & Kaper 2006: 13), also benefited from his attention. In line with the policy

initiated by Psamtik I of establishing himself firmly at Thebes, the king had his daughter Ankhnesneferibre adopted by the Adoratrice Nitokris in Year 1, thereby making her Nitokris' heir presumptive (Leahy 1996: 157–8).

Like his father, Psamtik II was preoccupied with Palestine where he tried to arrest the Babylonian advance. Without delay he encouraged Zedekiah of Judah in his opposition to Nebuchadrezzar, and he seems, in effect, to have been an instigator of negotiations started in 594/3 to raise a coalition against Babylon, manoeuvres which involved Edom, Ammon, and Moab, as well as the cities of Tyre and Sidon (Spalinger 1977: 233–4). Careful, however, to avoid all direct conflict with the Babylonians, he went no further in involving himself in this policy of opposition, and his own vassals in Philistia remained aloof from the project.

In 593/2 Psamtik II directed a victorious campaign into Nubia against Aspelta, the new Kushite king. This initiative (Gozzoli 1997: 5–13; Hauben 2001), the most striking of his reign, may have been dictated by the wish to avoid an advancing tide of Kushite troops massed not far from the southern frontier, as suggested by a stele of Year 1 of Aspelta. The event made a major impact on contemporary consciousness, and it was commemorated by a series of official stelae, of which four, more or less well preserved, have come down to us: two set up at the very gates of Nubia, one at Karnak, and one at Tanis. According to a graffito at Abu Simbel (Haider 2001: 204), the Egyptian forces were composed of two army corps, one consisting of foreigners – notably Jews and Greeks from Rhodes and Caria – and the other Egyptian, respectively under the command of Generals Potasimto and Amasis (Hauben 2001: 56–71). We can follow the progress of Psamtik II's troops on the ground, thanks to the Greek graffiti left at Abu Simbel (and perhaps also at Buhen: Gozzoli 1997: 5–6, n. 14) and the mutilation inflicted upon Kushite royal statues in at least two areas: Pnoubs-Kerma and Napata, the very capital of the country (Bonnet & Valbelle 2005: 70–83; 170 and 181–2). As the Abu Simbel graffito states (Haider 2001: 204), the expeditionary force, which moved along the Nile, did not pass beyond the navigable portion upstream of Kerkis, i.e. the region of the Fifth Cataract, if this toponym is to be identified with modern Kurgus. In Egypt itself the desire shown during the expedition to finish with the Kushites was translated into a campaign of monumental mutilation aimed at eradicating all the names of the Kushite kings from Kashta to Tanutamun. Taking advantage of his success in Kush, Psamtik II turned afresh to Palestine, where the influence of Egypt was still effective, and made a triumphal tour there which is recorded in the famous Chronicle of Petiese (Yoyotte 1951; Sauneron & Yoyotte 1952: 135–6). Accompanied by the traditional bouquets given to a victorious sovereign, he clearly intended to maintain the image of a strong Egypt in the face of an omnipotent Babylon.

Apries (589–70): a difficult reign

Psamtik II was succeeded by his son Apries who ruled for nineteen years. Except for the end of the reign the internal situation remained stable, and architectural activity continued its progress (De Meulenaere 1973: 359). Following the example of his predecessors, the king took good care of the temples, as can be seen from Sais, Busiris, Hermopolis-Baqlia, Mendes, Athribis, Tanis, Daphnae-Tell Defenna,

Heliopolis, Memphis, and Abydos. It even extended into the Bahariya Oasis (Fakhry 1950: 2–5) where Saite influence prevailed from now on. In Year 4, moreover, his sister Ankhnesneferibre succeeded Nitokris at Thebes without difficulty, thereby becoming the second Saite princess dedicated as God's Wife of Amun (Leahy 1996: 158–9).

The problems of the reign lay abroad, where, from his accession, the king was confronted with a delicate situation. To put an end to the revolt led by Zedekiah with the support of Egypt, Nebuchadrezzar II resolved to invade Judea. A Pharaoh identifiable as Apries then sent troops to the assistance of Jerusalem, under siege since 589 (Spalinger 1977: 232 and 236). The Babylonians defeated this force, obliging them to retire from Palestine, and Apries, incapable of preventing the fall of Jerusalem in 586 (Spalinger 1977: 236), could only assist its inhabitants by offering asylum to those who had not been deported to Babylon. Some time after 587 or between 574 and 571 Apries mounted attacks on Cyprus and Phoenicia (Herodotos 2.161; Diodoros 1.68.1), launching assaults against Tyre and Sidon (Spalinger 1977: 234). These initiatives were aimed as much to defend Egyptian commercial interests in the eastern Mediterranean as to weaken the hegemony of Nebuchadrezzar, who laid siege to Tyre himself between 586 and 573. Several victories by the Saite navy are reported on the Phoenician coast, the sea thus becoming the element where the Egyptians were in the best position to contest Babylonian predominance.

At the end of 572 Apries was asked by the Libyan king Adikran to help him block the expansion of the Greek colony of Cyrene, then ruled by Battos II, which threatened his own country as much as Egyptian commercial interests. Apries chose to support him (Herodotos 2.161; 4.159; Diodoros 1.68.2). However, to avoid pitting his Greek mercenaries against other Hellenes, he sent him Egyptian troops, but these defeated at Irasa. Retreating full of resentment towards the ruler who had led them to this rout, they revolted and this led the king, at the end of 571, to despatch his general Amasis after them to bring them to their senses (Herodotos 2.162; Diodoros 1.68.2–4). This move proved disastrous; for, once among the rebels, Amasis, who originated from a little town in the Saite nome, had himself proclaimed king (Leahy 1988: 187–8).

Amasis (570–26): the age of prosperity

The first years of Amasis' reign were compromised by his struggle to confirm his position against his rival Apries. This phase is described in a stele from Elephantine dated to his Year 1 (Edel 1978; Spalinger 1979b; Leahy 1988: 189–93; Ladynin 2006). After a possible clash at Marea (Diodoros 1.68.5), Amasis returned to Sais where he was crowned. There he learnt in Autumn 570 that Apries – who had perhaps come from Memphis – had reached Mefky at the head of a fleet laden with Greek troops. He confronted them at Imu-Momemphis, where he put him to flight, compelling Apries to take refuge with Nebuchadrezzar II. Amasis' authority, which was already recognized in the Delta and Middle Egypt at the end of the summer, now prevailed throughout the whole country, the last sign of loyalty to Apries appearing at Thebes in October 570. This civil war came to an end three years later when the

Babylonian king embarked on an invasion of Egypt, apparently accompanied by Apries, whom he perhaps sought to restore to the throne as a vassal king. Probably even before he was able to penetrate into the east of the Delta, he was repulsed by Amasis. Apries himself was killed in this engagement, an event which gave his adversary the opportunity of burying him with dignity in Sais as evidence of his desirer for reconciliation.

The four decades of Amasis' rule happily allowed him to benefit from a favorable situation abroad. After the death of Nebuchadnezzar in 562, Babylonian power entered into decline, while the expansion of the Persian Empire, begun in 559 with the advent of Cyrus the Great, was still only in its initial stages. Abroad, Amasis' policy aimed firstly at guaranteeing the country's commercial interests which he promoted c.565 by sending his navy to seize Cyprus, also coveted by the Babylonians who were already present in Cilicia (Spalinger 1977: 243). Conscious, however, that his actions could not be based only on armed force, he tended to prefer diplomacy, turning for support to the eastern Mediterranean, notably to the Greeks. Even before the attempted invasion by Nebuchadrezzar, Amasis had already established good relations with Cyrene through his marriage to the Cyrenian Ladyke which greatly strengthened his position when attacked by the Babylonians (Spalinger 1979b: 597; Colin 1998: 331). Later, apart from maintaining good relations with Polycrates, the tyrant of the rich island of Samos with whom he exchanged gifts, he formed an alliance with the very powerful Kroisos of Lydia, who was himself bound by treaty to Babylon and Sparta, thus forming a coalition to contain Persian ambitions. His diplomatic activity led him also to offer gifts to many Greek temples, not only in Cyrene and Samos but also at Delphi, Rhodes, and Didyma. However, the front created by these alliances was not solid enough to resist the Persian drive. From 546 the Persian expansion under Cyrus the Great was inexorable and the subjugation of Cyprus and Phoenicia at last gave Persia a naval force to complement its formidable armies.

Although Amasis' interests were focused above all on the Mediterranean, he remained aware of the situation to the west and south. In the distant oasis of Siwa, therefore, not far from Cyrene, he prevailed on the local chief to recognize his authority (Colin 1998: 337 and 351–2), whilst the Bahariya Oasis, closer to the Nile Valley, had been administered by an Egyptian governor at least from the time of his predecessor (Colin & Labrique 2002: 60–72). In Nubia, on the other hand, an incursion seems to have been made three years before the end of his reign, but its precise nature remains obscure (Zauzich 1992).

The policy of Amasis was just as vigorous in Egypt itself and ultimately very favorable to the Greeks. This dimension is exemplified by the attention paid to the trading post of Naucratis where he encouraged the concentration of Greek commercial activity (Herodotos 2.178), which move which guaranteed him of a new phase of commercial expansion. It also emerges in the transfer of Greek mercenaries from Pelusium to Memphis, not so that he could control them better but in order to ensure his security in the royal residence there (Herodotos 2.154), a clear indication of the confidence which he placed in them. However, the most important aspect of his internal policy remains the breadth of his reforms which are strongly emphasized by Herodotos (2.177) and Diodoros (1. 95.1) and illustrated by Egyptian documentation itself. The changes, above all, aimed at the better exploitation of the country's

riches and involved a modification of administrative structures and a systematization of the principles of management. In concrete terms, that translated into the installation of a genuine central economic office placed under the authority of a "planner" (*snty*) (Yoyotte 1989: 80–1). With the support of large and competent bodies of administrators tasked with assessment, economic control, and provisioning (Perdu 1998: 193), this officer not only organized agricultural production but was also given the responsibility of calculating the deductions to be made on the profits that it generated in order to guarantee the resources required by the "house of the king." These far-reaching changes are detectable also in the abandonment in the Thebaid of Abnormal Hieratic in favor of Demotic with all that this meant for modifications in administrative practices (Leahy 1988: 198). In this area, moreover, the work of Amasis turned out to be so durable that a decree as late as the reign of Ptolemy VIII Euergetes II makes reference to texts from Amasis' reign in a legal case concerning land ownership (Thiers 2006: 109). Even commerce did not escape the sovereign's desire for reform. In Naucratis he not only concerned himself with defining the legal framework for its trading activities (Yoyotte 1989: 80), but he was also responsible for the taxes raised on Greek imports for the benefit of the temple of Neith at Sais (Posener 1947: 130–1). Perhaps we should also attribute to him the creation of the position of "Chief of the Royal Transport Fleet" (*imy-r ḥ'ww nsw*), the holder of which will have been installed in Memphis (Yoyotte 1989: 81, n. 34). By supporting economic and commercial development the measures taken by Amasis contributed to a prosperity that is reflected not only in Herodotos' comments on his reign (2.177) but also by the number and quality of royal works in the temples of Buto, Sais, Kom el-Ahmar, Mendes, Athribis, Tanis, Imet-Tell Faraun, and Memphis in the north, in Abydos, Elephantine, and Philai in the south, and in the Bahriya Oasis.

Psamtik III (526–5): defeat by Cambyses

In 525, when Cambyses was preparing to invade Egypt, Amasis had just died, leaving the kingdom to his son Psamtik III who had to face quite alone the Persian assault on which Herodotos dwells at length (3.10–14). Reaching Gaza, where he could count on the support of Arab tribes, the Great King marched towards the Nile Delta in the Spring, backed up along the coast by a fleet made up of Phoenicians and Cypriots, Ionian and Aeolian Greeks, as well as a contingent from Mytilene. Psamtik III waited for him on the coast at Pelousion at the head of an army composed of Egyptians and Greek and Carian mercenaries. Despite a vigorous resistance, the new Pharaoh had to give ground and retreat to Memphis where Cambyses laid siege to him, before taking him prisoner and entrusting the town to a Persian and Egyptian garrison. According to Herodotos, whilst the Great King continued his progress towards the oasis of Siwa and into Nubia, after having received the submission of the Libyans and the Cyrenians (3.17), Psamtik was convicted of a conspiracy and took poison (3.15). With his demise after a reign of barely six months the Twenty-sixth Dynasty came to an end. In the Spring of 522 Cambyses himself left Egypt, recalled to Persia to deal with a rebellion, and died shortly afterwards from gangrene, leaving Egypt under the control of a satrap (governor) named Aryandes.

3   The First Persian Period (525–401)

The conquest certainly brought its problems: a "great disorder" is described by Udjahorresnet, a contemporary witness; Amasis underwent a *damnatio memoriae* (De Meulenaere 1968: 184; Gozzoli 2000: 79); and his daughter Nitokris II was prevented from succeeding the Adoratrice Ankhnesneferibre, without any replacement, thereby marking a clean break in the line of princesses married to Amun of Thebes (De Meulenaere 1968: 187). Nevertheless, the country recovered a measure of calm, adapting to Persian control and the way in which it operated.

In taking Egypt the Great King intended to integrate it into his vast Empire in order to impose on it the provision of tribute and military contingents as and when the king required. Therefore, Egypt, in association with Libya, Cyrene, and Barca, became a single satrapy – the sixth in Herodotos' inventory (3.91) – and one of the most profitable whose governance was entrusted to Achaemenid officials charged with the maintenance of order and respect for the obligations incumbent upon it (Ray 1988: 264–70). Installed at Memphis with his chancellery the satrap represented the Great King, while Persian officials assisted him at the head of the Egyptian provinces. To ensure their authority these agents could rely on Persian garrisons located in different parts of the territory, among which were Kheraha, near Memphis and the great Saite bases on the frontiers. Provided that Egypt accepted this control and its constraints, it could always count on a certain flexibility on the part of the occupying power. Her traditions and cults were respected, the clergy and the temples continuing to function in their normal way, without having to suffer too many changes except on the financial front (Ray 1988: 270–1; Chauveau & Thiers 2006: 382). As for the Pharaonic office, this was preserved, at least in theory. The Great King henceforth took on the attributes of Pharaoh in representations to fulfil religious requirements (Chauveau–Thiers 2006: 378–9), and, when he is mentioned, he was supplied, like Cambyses and Darius I, with a titulary formulated according to the Egyptian model with his personal name inscribed in hieroglyphs in a cartouche. In administration, the organization of which had not been disrupted (Chauveau–Thiers 2006: 380–1), a number of important posts continued to be occupied by Egyptians (Ray 1988: 272), notably in the fields of the economy or building, as is attested by the "Planner" (*snty*) Horudja or the "Director of Works" (*imy-r kȝt*) Khnumibre. These concessions demonstrate a pragmatic approach to the occupation based on the principle that the best way to exploit the country's riches was to avoid attacking its structures.

The Egyptian reaction to this policy is difficult to assess (Ray 1988: 275–6), but the duration of the first Persian domination – more than a century – itself suggests that it was not too bitterly resented. The country continued to develop, thanks to the efforts made to improve its agricultural productivity, notably in perfecting irrigation by means of underground conduits in the oases, and it is beyond doubt that representatives of the elite such as Udjahorresnet and the treasurer Ptahhotep collaborated closely with Persian power. On the other hand, the existence of an opposition is clear, and this became active when circumstances were favorable, but this seems to have been limited mainly to the western Delta, the very center of Saite power.

Figure 8.2 Statue of the Overseer of the Treasury Ptahhotep in Persian costume with Persian bracelet and torque and Egyptian pectoral. Schist, ht. 83 cm; possibly from Memphis. Photograph Courtesy of the Brooklyn Museum.

The most successful Achaemenid ruler of Egypt was Darius I (522–1–486–5), though his reign began on an inauspicious note with an uprising fomented by the actions of the satrap Aryandes (Salmon 1985: 148–51). This was terminated by Darius in person, and in dealing with the crisis the Great King showed a consideration for the country which would characterize his entire approach to Egypt, particularly in the religious sphere: under him an Apis bull was buried which died in Year 4 of his reign, and he continued to maintain the temples, whether in the valley at Busiris, Memphis, Hermopolis Magna, Thebes, and Elkab, or in the oasis of Kharga at Kasr el-Ghoueita (Onishi 2005: 127–31) and Hibis (Cruz-Uribe 1987: 230). In a Demotic papyrus we even encounter Darius encouraging "scholars" (*rmṯ rḫ*) in compiling the laws of Egypt (Devauchelle 1995a: 74–6; Agut-Labordère, forthcoming), a detail which Diodoros also mentions (1.95.4). The Great King's interest in Egypt is even shown by a statue from Susa sculpted by Egyptian craftsmen which represents him in a standing position with a mixture of Pharaonic and Achaemenid iconographic elements (Yoyotte, forthcoming).

In Egypt, the name of Darius is also associated with a great engineering feat: the completion of the canal begun by Necho II between the Nile and the Red Sea. The goal was to improve communications with Persia and, beyond that, to facilitate the transportation of the products intended for it. Because of its importance the

enterprise was commemorated by a series of monumental stelae along the waterway, three of which have been found near Tell el-Maskhuta, Kabret, and Suez. In the oasis of Kharga on the other hand, the works completed in two temples could be tied up with the development of a line of defence in the region against the Greeks of Cyrene.

Before its end the reign of Darius in Egypt was again troubled by revolt. It was doubtless taking advantage of the discontent generated by the increase in Persian demands for conscripts and involved at least the Delta. The Great King was preparing to intervene at the time of his death. This turbulent period is the time the appearance of a native king mentioned in the Demotic archives of Diospolis Parva, Psamtik IV, who was contemporary with the last year of Darius and the first of his successor (Pestman 1984: 147–8). We may guess that he was the instigator of the uprising, though nothing can be proved. Xerxes I (486–65) succeeded in re-establishing order but with a firmness that marked a clear hardening of Achaemenid control (Salmon 1985: 151–2). The new king intended to subjugate the country to his demands, particularly in fiscal matters, without having to worry about hostile reactions, but in this he failed. His assassination in 465 brought to a close a reign marked in Egypt, as elsewhere in the empire, by increasing opposition to Achaemenid rule, made all the more bitter because the Persians had been weakened by a series of reverses against the Athenians at Salamis, Plataea, and Eurymedon.

The reign of Artaxerxes I (465–424) is marked in Egypt by the most serious revolt yet under the leadership of the Libyan Inaros, son of Psamtik (Salmon 1985: 152–5), perhaps a descendant of the Saite Dynasty (Chauveau 2004: 44). This insurrection was made all the more serious because of the heavy military support which it received from Athens. Despite initial success the rebellion was successfully put down in 454 with catastrophic loss to the Athenians and the rebels. Inaros himself was captured and put to death five years later. Once this revolt had been put down, Egypt was entrusted to the satrap Sarsamas who remained confronted by a hotbed of rebellion in the north of the country. Sheltered in the marshy confines of the Delta, Amyrtaios of Sais continued the struggle with the Persians. In 450 he obtained the assistance of 200 Athenian ships but was quickly abandoned by them, a loss which probably precipitated his downfall. Between 449 and 430 his son Pausiris and Thannyras, the son of Inaros, both managed to exercise some semblance of authority in the north of the Delta, which the satrap tolerated insofar as neither of them really affected Persian hegemony; moreover, the danger that they represented was markedly reduced by the fact that they could no longer count on the support of the Athenians who had been at peace with the Great King since 449. The picture of inherent instability continued in the reign of Darius II (423–405/4) whose accession was quickly greeted by an uprising, but that was speedily put down in 422 (Salmon 1985: 155–7). Another revolt occurred in 414–13, but the spirit of insurrection continued to simmer until a little after 2 December 405, the beginning of Darius II's last year of reign, when a full-scale rebellion broke out with the appearance of Amyrtaios II (404-400/399), probably a grandson of the previous Amyrtaios (Salmon 1985: 156; Lemaire 1995: 51–6). In fact, he claimed royal status, encouraged by the death of the Great King in the spring of 404 and the ensuing dynastic conflict. Manetho presents him as the sole ruler of the Twenty-eighth Dynasty and notes his connection with Sais through which, according to Diodoros (14.35.4), he had a link with the

Twenty-sixth Dynasty and we now know that, when he became king, he took the name Psamtik (Chauveau 1996: 44–7). This choice, particularly appropriate for a Saite, possibly reflected his anxiety to present himself as the counterpart Psamtik I whose exploits in freeing Egypt from foreign occupation he was repeating. During his penultimate year Amyrtaios' authority was recognized as far as the south of the oasis of Kharga, but one year earlier it was not yet accepted at Elephantine where documents still referred to Artaxerxes II, and that was also the case even south of Kharga one year before (Lemaire 1995: 53; Chauveau 1996: 44). His five years in power have left hardly any traces in Egypt, but Diodoros (14.35.4–5) preserves a story that he eliminated the Egyptian Tamos, an admiral of Cyrus the Younger who had come to take refuge in Egypt after the defeat of his protector by Artaxerxes II at Kunaxa in 401.

4   The Last Indigenous Dynasties

According to Manetho the first king of the Twenty-ninth Dynasty was Nepherites (399–3). We do not know how he gained power, but we can presume that this was the result of a struggle with Amyrtaios (Salmon 1985: 158–9). At any rate, an Aramaic papyrus might lead us to suppose that he became the new champion of the country's independence after the capture and execution of his predecessor at Memphis (if we follow Dupont-Sommer 1978: 771). His origins are themselves obscure, Manetho allowing us only to localize him, like his successors, in the district of Mendes in the eastern Delta, where he left several monuments and chose to build his tomb (Redford 2004a: 24–34). Some artefacts with his name have been found not only at Mendes but also at Buto, Memphis, Wanina-Athribis, and Thebes (Traunecker 1979: 408–9), revealing that his tenure of office, though brief, allowed a significant revival of architectural activity in the temples. Overseas, policy was always dominated by the struggle against the Persians, which encouraged the king to establish closer links with Sparta which was now in opposition to the Great King. Thus in 396 Nepherites marked his support for the Spartans by sending them troops, corn, and the equipment for 100 triremes, aid which was, however, intercepted.

The most brilliant figure of the dynasty was Achoris (393–80). Not only is his reign the longest of the dynasty, but it appears also to have been the most memorable (Salmon 1985: 159–61). His energy is illustrated by the extent of works carried out in the temples, traces of which exist at Mendes, Bubastis, Tell el-Maskhuta, Letopolis, Heliopolis, Memphis, Herakleopolis Magna, Wanina-Athribis, Medamud, Thebes, Tod, Elkab, Elephantine, and even Hibis in the Kharga Oasis (Traunecker 1979: 411–5). Even if his position in the family did not make him a direct descendant of Nepherites, he at least took pains on some of his monuments to link himself to the Mendesian line by proclaiming "the chosen" (*stp*) of the city god of Mendes.

Thanks to the Greek historians, we are particularly well informed on the king's foreign policy which was consistently directed against the Persian menace and which led him to enhance his force of Greek troops and his battle fleet. Towards 389 he approached Evagoras, king of Salamis in Cyprus, an opponent of Artaxerxes II and an

ally of Athens (Carrez-Maratray 2005: 50–3), to help him extend his power on the island and thereby deprive the Persians of a position from which to reconquer Egypt. This alliance alarmed the Persians who opened hostilities by turning first against Evagoras. The battles went at first in favor of the latter, who even succeeded in gaining possession of Tyre while at Sidon two fragmentary altar supports of Achoris bear witness to the city's maintenance of relations with Egypt (Traunecker 1979: 415–6). Nevertheless, the peace concluded by Persia with the Greek cities in 386 allowed the Great King to isolate Achoris and Evagoras, and in 380 he managed to subdue Cyprus, which had been able to obtain only financial assistance from its Egyptian ally which was little more than symbolic. In Egypt, on the other hand, the Persian attempts at invasion made from 385 to 383 came up against major defensive measures taken in the Delta with the help of the Athenian general Chabrias, a failure all the more bitter because it led to the defection from Persia of admiral Glos, son of Tamos, in favor of Achoris.

The king who follows Achoris in Manetho is Psammouthis, a particularly enigmatic figure whose reign is given one year only. Despite its brevity, several traces of this king's interest in the temples have survived at Akhmim and, above all, at Thebes (Traunecker 1979: 410–1). Currently, there is something of a tendency to believe that his reign marked a short break in the long reign of Achoris which seems to have suffered a hiatus at some point (Carrez-Maratray 2005: 46–50, 53–5 and 61–3). At least that is what the epithet "Renewal of Coronation" (*wḥm ḫʿw*) sometimes joined to the birth name of Achoris seems to indicate, and the same may also hold true, perhaps, of the absence of all reference to his reign before Year 7, although he is credited with thirteen years in power. There is no agreement on the timing of this break, even if we prefer to consider it as being in the first half of the reign of Achoris, but, if we look at the attested regnal years, it would be logical to favor the middle of the reign. The last king of the dynasty was Nepherites II (Salmon 1985: 161) who is presented by the Demotic Chronicle as a son of Achoris and assigned a reign of only four months which was brutally terminated by the tumultuous accession of an erstwhile general Nectanebo in Autumn 380.

Nectanebo I (380–62) whose father Teos was a Commander-in-Chief (*mr mšʿ wr*) and also the son of a king (possibly Nepherites I) founded the Thirtieth Dynasty (Salmon 1985: 162–3), the last native dynasty which maintained Egypt's independence for some forty years. It consisted of three kings from Sebennytos, a town in the central Delta to which the two last recall their devotion in inscriptions by claiming to be the "elect" (*stp*) of its city god Onuris. Better than the previous dynasty, it illustrates the way in which national independence had become the business of military chiefs whose ambitions led them to claim the kingly office against rivals who were always ready to dispute their authority; the dynasty is equally representative of the manner in which power was confirmed through reliance on an army whose foreign contingents, in this case Greeks, constituted the main strength.

At Sebennytos itself, but also in Thonis, Naukratis, Sais, Tell el-Balamun, Hermopolis-Baqlia, Mendes, Athribis, Tanis, Imet-Tell Faraun, Pharbaithos, Saft el-Henna, Pelousion, Tell el-Maskhuta, Letopolis, Heliopolis, Memphis, Hermopolis Magna, Abydos, Dendera, Koptos, Medamud, Thebes, Moalla, Elkab, Elephantine, Philai,

and even Hibis in Kharga, numerous remains bear witness to the quantity and the quality of the work carried out by Nectanebo I in the temples. There is also incontestable proof of the recovery that the country underwent at that time. As in the reign of Amasis, the influence of the sovereign reached the distant oasis of Siwa, where it was recognized anew by the local chief as indicated in the temple of el-Bahrein (Gallo 2006: 14). This revival recalls the Saite renaissance which became the unique reference point for the sovereigns of the Thirtieth Dynasty who were careful to present themselves as imitators of their counterparts of the Twenty-sixth (Gozzoli 2006: 103–9). In this respect, it is significant that one of the first decisions taken by Nectanebo I related to fiscal measures – a levy of one tenth of the taxes collected by the state on Greek production from Naukratis and imports coming through the Canopic branch – ensuring a surplus of offerings in the temple of Neith at Sais (Yoyotte 2001: 27). Saite influence on the period is more generally seen in artistic production which drew its inspiration from the works of that period conforming to a general tendency to the culturally "archaistic" (Bothmer & De Meulenaere 1986: 8).

The major practical concerns of the reign were focused on the struggle with the Persians, and that would remain so until the end of the dynasty. Although he was weakened from the beginning of his reign by the departure of the Athenian commander Chabrias, whom Artaxerxes II has caused to be recalled to Athens, Nectanebo I was nevertheless able to benefit from a respite given him by the Persians who devoted seven years to preparations for a massive invasion of Egypt. He took full advantage to prepare himself to meet this assault, notably through careful attention to the improvement of the Delta defences by fortifying the mouths of the Nile. Hostilities were started in the Spring of 373, when Persian armies led by the satrap of Syria Pharanabazos and supported by the Athenian general Iphikrates, made a surprise attack at the Mendesian Mouth, not at the better defended Pelusiac. Nevertheless, their advance towards Memphis was slowed down by dissention between their two leaders, which allowed the Egyptians to react and also gave time for the inundation to arrive, two factors whose combined effects forced them to retreat. After an equally fruitless attempt at invasion the following year Artaxerxes II, faced with a large revolt of satraps, was in no position to maintain his pressure on Nectanebo, and he was, therefore, able to take advantage of his last six years in power to devote himself to the development of the country. Three years before his death, he seems to have associated his son Teos with him in government, particularly foreign affairs (Engsheden 2006: 63).

On the death of his father Teos (362–60) inherited the crown and immediately engaged in the conflict with the Persians (Salmon 1985: 163–4). At the risk of making himself unpopular, he imposed heavy taxes on the temples and increased the imposts on private individuals to order to create resources to mount a large-scale expedition. He was, therefore, able to bring together 80,000 native infantry, 10,000 Greek mercenaries, and 200 triremes, commanded respectively by his cousin Nectanebo (Engsheden 2006: 63–6 and 68, *contra* De Meulenaere 1963: 91–2), his ally the Spartan king Agesilaos, and the Athenian admiral Chabrias. Entrusting the country to his uncle Tjahapimu, he took charge of the army himself. In Spring 360

he reached Phoenicia, but a plot ruined any change of success (Kaenel 1980: 41–4):
in Egypt Tjahapimu rebelled, taking advantage of the unpopularity of the king to
foment a revolt and press for his son Nectanebo (then occupied with besieging Syrian
towns) to claim the throne. This Nectanebo did, while making sure of the support of
his troops and the consent of Agesilaus. Thus abandoned, Teos could do nothing but
flee and seek refuge with Artaxerxes II. The reign of Teos was thus reduced to a brief
interlude which left monuments at few sites, amongst them Athribis, Tanis, Bubastis,
Memphis, and Thebes (Corteggiani 1973: 143, n. 2).

Upon his return to Egypt Nectanebo II (360-42) needed at first to make
good his claim against the "prince of Mendes," another figure who had been
declared king, but he succeeded quickly in eliminating him with the help of Agesilaos
(Salmon 1985: 164–6). Once established as undisputed ruler, this experienced soldier
was well aware that the key to preserving his authority lay in keeping control of the
army, particularly through his eldest son who was promoted "First Generalissimo of
His Majesty" (*imy-r mšꜥ wr tpy n ḥm.f*). For some fifteen years the country benefited
from a relative calm which Nectanebo II used to continue and even enhance its
economic development. During his reign the agricultural boom led to an increase
in the number of "planners" (*sntyw*) necessary: there were now three, split between
Memphis, Hermopolis Magna, and Hermonthis in order to ensure country-wide
coverage (Yoyotte 1989: 76–7). The king's commitment to the embellishment of
temples was a reflection of this development and became ever more ambitious,
extending to an ever great number of cities: Sebennytos, Behbeit el-Hagar, Busiris,
Athribis, Tanis, Pharbaithos, Bubastis, Saft el-Henna, Tell el-Maskhuta, Heliopolis,
Memphis, Abusir el-Meleq, Herakleopolis Magna, Nebwy-Bilifia, Hermopolis
Magna, Abydos, Koptos, Thebes, Hermonthis, el-Kab, Edfu, Elephantine-Aswan,
and Hibis in Kharga. The king's building activity was, therefore, very considerable,
and his energy also found scope in the sphere of religious practice where he showed
favor to animal cults, demonstrating a particular interest in the sacred bulls at
Memphis, Heliopolis, Pharbaithos, and Hermonthis (Perdu 2006b: 47).

Outside Egypt even though the Persian menace only became an immediate threat
at the end of the reign, it remained ever present. From 360 or 359, having regained
possession of Syria-Palestine, Artaxerxes II sought to take the offensive against Egypt,
but his death in 358 upset the invasion plans which suffered a further setback in the
difficulties encountered by his successor, Artaxerxes III, in restoring royal authority in
the empire. It was only in 351 that it was possible to unleash the assault, but it ended
in a failure all the more serious in that it induced Phoenicia and then Cyprus to revolt
against the Persians. The movement was itself encouraged by Nectanebo II who
dispatched to Sidon, the center of the uprising – but also one of the Persian logistical
bases for an attack on Egypt – a reinforcement of 4000 Greek mercenaries under the
command of Mentor of Rhodes, but in 345 the Great King was able to turn this
situation to his advantage. With the aid of a powerful army he took Sidon back, where
Mentor joined him, and the whole of Phoenicia together with Cyprus submitted to
him. Two years later, in the Autumn of 343, he was ready to fall upon Egypt with
forces which were perhaps even more considerable. After clashes around Pelousion
which made it possible for the Persians to begin making progress into the country,
Nectanebo chose to return to Memphis, which he considered to be directly threatened,

in order to organize its defence. This withdrawal increased the disarray amongst the Egyptian troops left in the north and unfortunately provoked the surrender of several cities, beginning with Pelousion and Bubastis. By the end of the year the situation had become so desperate that Nectanebo II decided that further resistance was useless, preferring to flee and seek asylum in Nubia. This capitulation before Artaxerxes III marked both the end of the last indigenous dynasty and the return of Egypt to the Persian Empire.

5   The Second Persian Period (342–32)

This new domination lasted only ten years but was notably more brutal and destructive than its predecessor, exacerbating anti-Persian sentiment in the population (Devauchelle 1995a: 68 and 79–80). Diodoros (16.51.2) attributes a series of retaliation strategies to the energetic Artaxerxes III (Devauchelle 1995b: 35 and 38–40): dismantling the defences of the principal cities, pillaging sanctuaries, and the seizure of the sacred annals, demonstrating the severity with which the Great King imposed his rule. He made Pherendates his satrap to govern the country in his name, a role which passed to Sabakes in 333. We know practically nothing of the manner in which Egypt was governed directed under his successors Artaxerxes IV (Devauchelle 1995b: 40) and Darius III (Devauchelle 1995b: 36 and 43), who respectively came to power during the Winter of 338/7 and in June 336, except that the situation did not improve for the inhabitants.

The arrival of Alexander the Great in 332 brought this sorry episode to a well-deserved conclusion.

At a point which is difficult to establish general discontent led to the resurgence of an ephemeral indigenous kingship represented by the rebel Khabbash "chosen by Ptah" who enjoyed a reign of two years and whose influence extended to Memphis, where he carried out the burial of an Apis bull, and also to the western Delta and the Theban area (Devauchelle 1995b: 36 and 40–2; Ladynin 2005: 100, n. 42).

FURTHER READING

For the history of the period one may consult Huss 2001: 20–54, with recent references. For more detail on the events of the Saite period consult James 1991: 708–38; for the two Persian dominations, there is abundant information in Briant 1996, with complementary bibliography in Briant 1997: 5–127; 2001. For the Twenty-eighth–Thirtieth Dynasties see Lloyd 1994: 337–45. On the special features of the Twenty-sixth Dynasty, in addition to the analyses in Spalinger 1978a, and Jansen-Winkeln 2001a, see above all those of Yoyotte forthcoming b; not only does the author revisit the origins of the Saite Dynasty along the lines of Perdu 2002: 1215–43, but he also covers the role played by Sais after the extinction of the line. The principal royal documents relating to Saite Egypt are presented in Perdu 1986, Der Manuelian 1994: 297–385, and Gozzoli 2006: 87–103. As for the essential account of

Herodotos on that period, this is discussed by Lloyd, 1975. For the Twenty-seventh Dynasty the hieroglyphic sources are brought together by Posener 1936, and recently recapitulated in Gozzoli 2006: 111–25. For the later dynasties, only the Twenty-ninth has benefited from an inventory of the royal accounts in Traunecker 1979: 395–436. To get at least an idea of the works accomplished by each of the kings in the temples, you should consult Gauthier 1916: 66–155, for the Twenty-sixth and Twenty-eighth Dynasties, and Kienitz 1953: 190–232, for the following dynasties.

CHAPTER 9

The Ptolemaic Period

Katelijn Vandorpe

Alexander the Great liberated Egypt from Persian rule in 332, facing no resistance and laying the foundations for the longest non-Egyptian dynasty ever, the Graeco-Macedonian Ptolemies. These kings left a deeper mark on the country than any previous foreign dynasty.

1 Ptolemaic Documents and Modern Research

Though papyri are already a feature of Pharaonic Egypt, papyrological material is more abundant for the Graeco-Roman period and has had an enormous impact on Ptolemaic research. Thousands of private and official papyri have come down to us, often bundled in archives; whereas individual texts are like instant snapshots, archives present a coherent sequence of pictures of a person or a family (Vandorpe 2009). Alongside papyrus, large amounts of potsherds (ostraca) and some wooden tablets were used as writing material; Ptolemaic potsherds, abundant and virtually free, were used for tax receipts or private memos but are limited to Upper Egypt. These documents were written either in Greek (the language of the administration) or in Demotic, a very cursive script derived ultimately from hieroglyphs. Greek papyri are the focus of Greek Papyrology (Rupprecht 1994) whereas Demotic papyri are studied as a subdiscipline of Egyptology (Depauw 1997). Both are quite technical disciplines, subdivided into a literary and a documentary branch on the basis of their characteristic script, vocabulary, and contents. Evidently, Greek papyrologists and demotists should collaborate, and historians should rely on both types of source in order to "appreciate the full complexity and dynamics of Ptolemaic Egypt" (Johnson 1987: 324), transcending the narrow confines of "papyrological history" (Bagnall 1995; Manning 2009).

Thousands of papyri have been preserved, though they are unevenly distributed over the country since they only survive in dry conditions. Hence Alexandria, the

Delta, and many places in the Nile Valley have hardly produced any such documents. Most papyri have been discovered by legal or illegal excavators, among the latter *sebakhin* who dig out ancient town mounds in their quest for *sebakh* (fertile dust and debris). Papyri discovered illegally have been sold profitably on the antiquities market and turn up in collections all over the world. From the reign of Ptolemy II onwards there is an increase of official documents on papyrus, due to the new practice of recycling old papyri for mummy-cases made of cartonnage, a practice which disappeared after Augustus. Manufacturers of such *papier mâché* bought up in bulk old documents from the administration, pasted two or three layers of papyri onto each other, and covered them with plaster to be painted.

This papyrological evidence, praised for its "innocent quality" (Van Minnen 2000: 32), is essential for our knowledge of daily life and socio-economic and institutional history, and its large quantity makes Egypt unique among the Hellenistic states. However, papyri are not the appropriate sources to reconstruct political history, and scholars have to rely on Greek and Roman historians like Diodoros, Plutarch, and Dio Cassius since the dynastic histories of the Ptolemies have almost completely disappeared (Ogden 2002: XXII–XXIII n. 20 and XIII–XIV). Nevertheless, papyri may furnish some additional information, as on the Blitzkrieg of Ptolemy III in Syria or the Great Inland Revolt.

2   Overview

Ptolemaic Egypt stands at the crossroads of Egyptian and Hellenistic history. Unfortunately, it is often reduced to a last paragraph of Egyptian history, whereas the term Hellenistic may have overtones of obscurity and complexity. Within the field of Hellenistic studies Ptolemaic history is usually narrowed down to dynastic and political history, whereas the wealth of material in other fields such as law, economy, and religion is passed over as atypical. Alexander and Kleopatra are the exceptions to the rule, being the ancient-history publisher's best man and woman (Ogden 2002).

Ptolemaic history with its 274 years (304–30 BC) yields Egypt's longest-lived dynasty (the Eighteenth Dynasty attained 255 years, Taagepera 1979) and by far the most stable Hellenistic monarchy, thanks to Roman support. No Egyptian or Hellenistic king created a more successful dynastic cult. No Egyptian empire covered an area comparable to that of the early Ptolemies. No Egyptian or Mediterranean city had the international aura of Alexandria with its Pharos lighthouse, one of the Seven Wonders of the ancient world. The second Ptolemaic king was said to be the richest man of his time, and in no other Hellenistic empire was monetization so far-reaching. Some typical Egyptian features rose to a new high, like the Ptolemaic writing system introducing an enormous number of hieroglyphs and the Ptolemaic temples which are amongst the best preserved examples in the country. The famous trilingual Rosetta stone, a priestly decree honoring Ptolemy V (196 BC), became the key to the decipherment of hieroglyphs by Young and Champollion.

Ptolemaic history is more than a history of superlatives; it is the first multi-cultural society where East meets West: "Ptolemaic rule was the first European political intervention in the Near East" (Manning 2009). Despite Plutarch's claim that

Alexander's mission brought civilization to Asia (*De Alex. fort.* 328–9), in reality these Graeco-Macedonian rulers encountered in Egypt a high and long-standing civilization. How were the Ptolemies able to establish control? The key-word is "balance" (Manning 2009), i.e. balancing innovation and tradition on an institutional level and balancing give-and-take *vis-à-vis* the population and elite groups, resulting in a double-faceted Graeco-Egyptian society. Balance and state control are clear features of the Ptolemaic "Golden Age," the first century when the empire was ruled by Ptolemies I to IV. The last 175 years, the "Age of Crisis," are often considered a period of decline, but this view should be nuanced (Manning 2009; Quack-Jördens 2010), since most intervals of crisis functioned at the same time as driving forces of increasing state intervention.

The "balancing" policy of the Ptolemies is foreshadowed in Alexander's visit to the Siwa Oasis. Why did the great king, who had probably been crowned Pharaoh at Memphis, travel 300 km to the remote oracle of Zeus-Ammon? What exactly happened remains a mystery, but Alexander "received the answer his soul desired" and subsequently he claimed to be the son of Ammon-Zeus. The decision to visit the oracle, sacred to Egyptians and Greeks, must have been calculated. As a descendant of Ammon, an offshoot of Amon-re, Alexander could present himself as a legitimate successor *vis-à-vis* the Egyptians, for whom Pharaoh was the son of Re. A response from an oracle enjoying prestige in the Greek world also legitimized his divine origin *vis-à-vis* Greeks and Macedonians, and indeed, the oracle of the Didymaean Apollo and the Erythraean Sibyl (both in Asia Minor) hastened to confirm his divine birth.

3   Founding a New Dynasty

After Alexander's untimely death in Babylon in 323 BC his empire was inherited by his mentally deficient half-brother Philip III Arrhidaios and by his posthumous son Alexander IV. These absentee kings were accepted in Egypt as the new rulers and recorded as such in papyri and on temple walls. Real power, however, rested with the military elite, the Diadochs or "Successors" of Alexander, who fought each other in a series of wars (Errington 2008). Three independent powers eventually came into being: Macedonia, the Seleucid kingdom based on Syria and Mesopotamia, and the Ptolemaic empire. When in 306 BC Antigonos Monophthalmos laid claim to Alexander's empire by assuming the title of king, the other Diadochs soon followed, though becoming kings of their personal territory only. With the defeat of Antigonos at Ipsos in 301 BC the last defender of a unified empire dropped out of the picture, but peace remained utopian.

The Diadoch Ptolemy, son of a Macedonian nobleman Lagos, had been one of Alexander's most trusted generals, the man who captured Bessos, murderer of the Persian king Darius III. In 323 BC he went to Egypt and ruled as satrap (governor) for almost 20 years before he was acclaimed king by his army in 306 BC and crowned on January 12, 304 BC, the anniversary of Alexander's death according to the Macedonian calendar (Grzybek 1990: 96). A new dynasty was founded, that of the Ptolemies, also called the Lagids after Ptolemy's father.
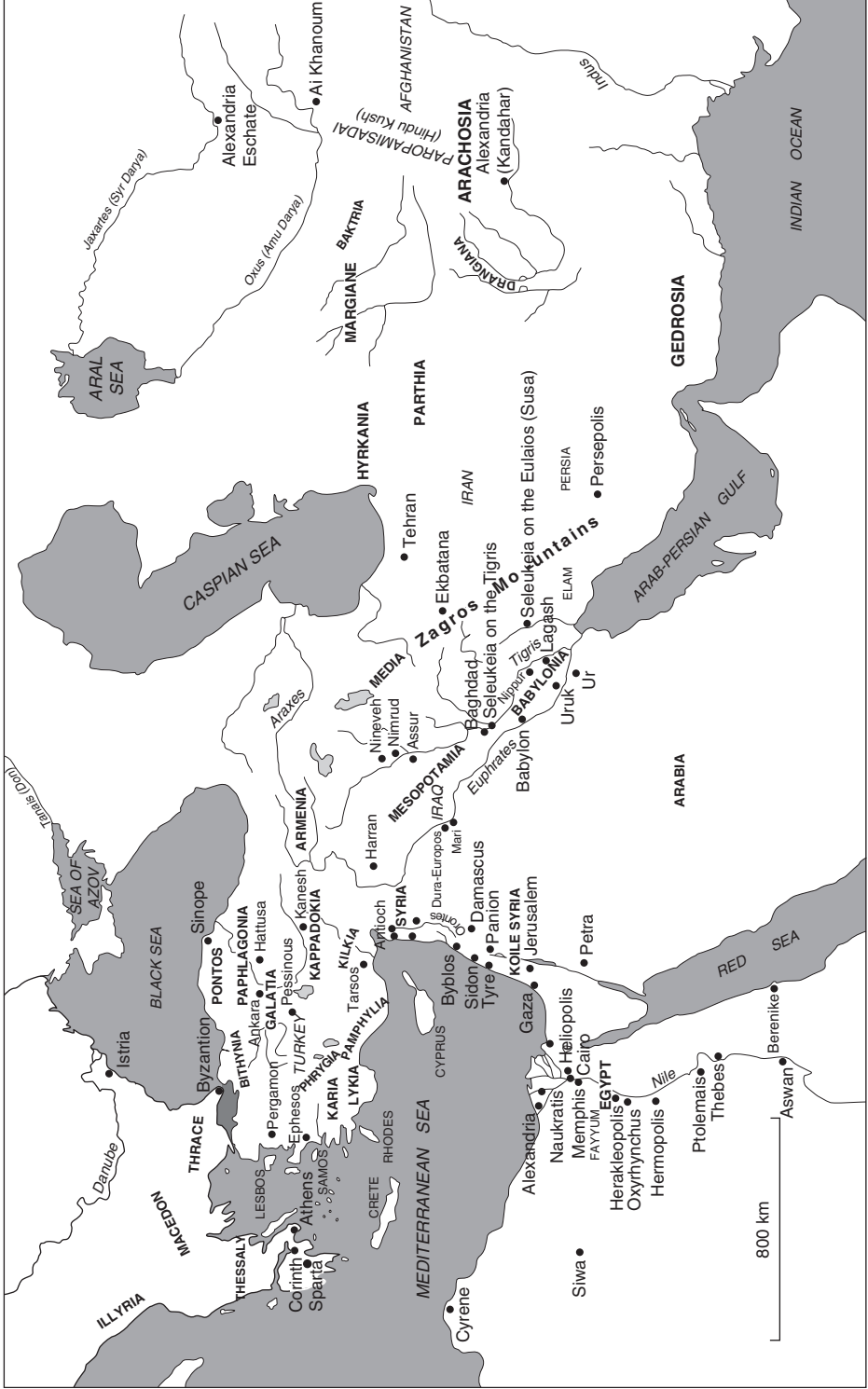
Figure 9.1 Egypt and the Near East. From Erskine (ed.), *A Companion to the Hellenistic World* (Blackwell, 2009).

The male representatives of the dynasty all bore the name of Ptolemaios. In antiquity they were distinguished from one another through their cult names created from Ptolemy II onwards. (Ptolemy I became Soter (Savior).) The Roman numerals I–XV attached to the kings are a device of modern scholars. Since the seventh, the boy-king and co-regent Ptolemy, should be eliminated from the list of rulers (Huss 2001; already Bouché-Leclerq 1963; Bevan 1968), the later Ptolemies should be renumbered, but for the sake of clarity most scholars stick to the prevailing numbering, and Ptolemy Euergetes, brother of Ptolemy VI, remains number VIII. The names of the queens are more varied: Arsinoe, Berenike, and Kleopatra, the Kleopatra of Caesar and Antony being the seventh Ptolemaic queen to bear that name. These are typical Macedonian names, taken over in the Graeco-Macedonian elite groups in Ptolemaic Egypt.

4   Creating a Strong Dynasty: Internal Harmony and Dynastic Cult

The monarchy was very much a "family affair" (Bowman 1996b), passed on from father to son after a period of co-regency. The internal harmony is reflected in some of their cult names: Ptolemy IV was "father-loving" (Philopator), Ptolemy VI "mother-loving" (Philometor). The strongest ties are reflected by consanguineous marriages. Ptolemy II started a tradition of incest under pressure from his ambitious sister Arsinoe II. After being married to king Lysimachos of Thrace and, disastrously, to her half-brother Ptolemy Keraunos, Arsinoe II fled to Egypt where she became queen for the third time: Ptolemy II divorced his first wife to marry her, though they were full siblings. In order to legitimize this marriage, it was compared by the court poet Theokritos to that of Zeus and Hera, thus claiming a divine prerogative for the king (*Idyll* 17.128–34), paralleled by the marriage of Osiris and Isis. (The long series of incestuous marriages at the Ptolemaic court was not an isolated incident in the Hellenistic world (Hornblower 1982)). The practice was rarely followed by their subjects, but in Roman times the phenomenon appears to have been common among Egyptians (see, however, Huebner 2007; Remijsen and Clarysse 2008).

The dynastic cult contributed to the legitimization of kingship (Pfeiffer 2008). The first steps were taken by Ptolemy I who continued Alexander's idea of the king as a being of divine origin, claiming to be a descendant of Zeus and spreading rumors that he was a secret son of Philip II (Pausanias 1.6.2). He even carried off the body of Alexander, embalmed in Babylon and on its way to Macedon, and buried him in Alexandria where a "Priest of Alexander" was installed. With Ptolemy II and his sister-wife the foundation of a successful dynastic cult was laid, resulting in the worship of living kings as gods. The Egyptians considered Pharaoh the son of a god, an idea expressed in Graeco-Roman temples in the mammisi or birthhouses, associating the birth of a local child divinity with that of king, but the attribution of divine honors to the living Pharaoh and his wife had no recent parallels in Egypt.

Ptolemy II elevated his parents to divine rank, whereas the king and Arsinoe II became the Brother-Sister Gods in 272/1 BC. After her death in 270 (Cadell 1998),

Arsinoe received a priestess of her own, called the *kanephoros* or ''basket-carrier'' in good Greek tradition (Minas 1998). Her cult was propagated throughout the country: temples were constructed for her; her image had to be placed as guest-goddess (*synnaos*) in all the houses of the gods; and a specific tax on vineyards and gardens financed libations in honor of the new goddess (Clarysse & Vandorpe 1998). Many Egyptian documents mention or represent the queen (Quaegebeur 1998), and a dozen cities in the empire were named after her. The new goddess was worshipped throughout Egypt and the Eastern Mediterranean.

The Greek dynastic cult received its final form in 215/4 BC, when a marvellous mausoleum was constructed for Alexander and the Ptolemaic kings in Alexandria's palace precinct, and when the dynastic cult was extended to the Greek city of Ptolemais in the south of the country. The Greek cult was maintained by an increasing number of Greek priests and priestesses in both Alexandria and Ptolemais. As ''eponymous priests'' in the tradition of Greek cities, they figured in all Greek and even Egyptian Demotic contracts after the statement of the regnal year of the king. These ever growing lists of priests' names are helpful for modern researchers in dating texts (Clarysse & Van der Veken 1983) but were purely symbolic in antiquity.

After Ptolemy II the hint was taken by the Egyptian clergy, and an Egyptian dynastic cult developed, of which Alexander was not part (Pfeiffer 2008: 108). Under Ptolemy III a fifth *phyle* (tribe) of priests was added to temple staffs, which served the royal couple and their divine ancestors. Whereas in pre-Ptolemaic times Pharaoh had always faced the gods as the representative of humanity, he now also faced his ancestors alongside of the gods. The Egyptian version of the Ptolemaic dynastic cult was truly imbedded in Egyptian tradition, and the king's initiative was manifestly supported by the Egyptian elite.

The king was double-faceted, but the Greek and Egyptian aspects were not separate. The idea behind legitimation, ideology, and propaganda was the same for both constituencies but is ''expressed in forms and conventions that render the idea understandable for the other segment of the population'' (Koenen 1994: 29). The dynastic cult remained successful throughout the Ptolemaic period but became a weapon in dynastic strife. The Romans would put an end to the Janus head of Ptolemaic kingship, since the Roman Pharaoh again represented humanity facing the gods, and the emperor would receive only Greek-style divine honors (Heinen 1995).

5   Internal Harmony Disturbed and the Age of Crisis

As internal harmony in the Golden Age guaranteed a strong policy, so the lack of it from the end of the third century onwards caused times of crisis, exploited by ambitious individuals, resistance groups, and foreign powers. The numerous royal cartouches left blank in temples in this period may reflect cases of dynastic strife. Even though we use explicit terms like ''disturbed internal harmony'' and ''Age of Crisis,'' the second century BC (mainly the reigns of Ptolemy VI, VIII, and part of the reign of IX) should not be labeled so since state intervention became stronger than ever before.

The complicated dynastic history of the Age of Crisis is dealt with in excellent studies (recently Hölbl 2001 and Huss 2001). In this chapter we focus on the causes of the dynastic strife. Ambitious individuals at court are a first cause of the disturbances. Ptolemy IV was influenced by the unscrupulous Alexandrian Sosibios, who had several members of the royal family murdered and became, together with Agathokles of Samos, the king's counsellor. Their actions would mortgage the succession for the coming two generations in the absence of adult heirs to the throne. When finally Ptolemy VI put the empire back on the rails, the future of the country was mortgaged again, this time by the marriage policy of his brother and successor Ptolemy VIII. In 141/40 BC the latter, already espoused to his sister Kleopatra II, married his step-daughter and niece Kleopatra III and made her queen as well. Mother and daughter became "the fiercest of rivals, without precedent in the Hellenistic world" (Hölbl 2001: 195).

The dynastic cult was also abused to claim the throne, and the cult name became a political identity card. Kleopatra II, for instance, who claimed to be sole queen, replaced her cult name "Benefactor" (Euergetis), which recalled her reign with her rival brother-husband Ptolemy VIII Euergetes, by "Mother-loving Savior" (Philometor Soteira), which referred to her first husband-brother Ptolemy VI Philometor.

The sole inhabitants of Egypt who played a major role in the dynastic strife were the Alexandrians, who did not shrink from using force. Ptolemy's IV counsellor Agathokles, for instance, was lynched by the Alexandrian mob. After 168 BC the Romans intervened increasingly in Ptolemaic affairs (Lampela 1998), and Ptolemaic princes tried to strengthen their position by turning to the Roman senate and even bequeathed foreign possessions and, in the end, Egypt itself to the Romans. Under Ptolemy XII Auletes ("Flute-player") a real clearance-sale was held. Chased away by the Alexandrians, he distributed impressive bribes in Rome and managed to seize the throne, but debts had to be cleared, and Rabirius Postumus, the main creditor of the new king, became Minister of Finances. In the Alexandrian War (48–47 BC), the Alexandrians and Romans finally took a stand against each other. The Alexandrians preferred Ptolemy XIII, whereas Caesar (to whom Ptolemy XIII offered the head of Pompey) decided to support Kleopatra. In this grim struggle the world-famous Alexandrian library accidentally went up in flames spreading from ships in the harbor.

Leaving the Alexandrian and Roman stage, we turn to the consequences of the dynastic strife for the Egyptian countryside (McGing 1997; Veïsse 2004). The inland troubles are often vaguely described as "revolts," but we need to distinguish between (a) revolts by natives, usually concentrated in the south, (b) a *coup d'état* by a confidant of the king, (c) a civil war in which inhabitants did not turn against the foreign rulers but supported one of the rival kings. Two native revolts are attested, of which only the first produced native rebel kings, and even these revolts may not have been a reaction against foreign rule. The main cause was rather the general decline in living conditions.

The Great Revolt (206–186 BC)

The rival kings of the first great revolt must have been in a sense Messianic figures announcing a new Golden Age, as suggested by their names Hurgonaphor ("Horus-Onnophris") and Chaonnophris ("Onnophris lives"). The fiercest and

longest revolt, also known as the Great Theban revolt (Pestman 1995), plagued the country for 20 years and was concentrated in Upper Egypt. (A second center of rebellion was the Delta, but this is not well documented.)

One of the first signs of the Great Revolt was the interruption by "ignorant rebels" (Pestman 1995: text e) of the work on the temple of Edfu at the very end of the reign of Ptolemy IV. On this king's death in 204 BC his son, barely six years old, inherited the crisis, and it may well be only then that the revolt proper started. The two rebel kings Hurgonaphor (205–199 BC) and Chaonnophris (199–186 BC) were at some stage assisted by Nubian troops and made Thebes the center of their territory. The Ptolemaic building and renovating projects in Upper Egypt were halted and even destroyed, like the Ptolemaic temple in Medamud (Vandorpe 1995). The Theban clergy probably did not always receive the rebels with as much enthusiasm as some would have us believe, since there are no indications of repression of the priesthood by the government after the revolt's conclusion.

Coups d'état

In the second half of his reign Ptolemy V put an end to the Great Revolt and regained control over the country. On his death in 180 his wife Kleopatra I was left behind with very young children, and after her demise in 176 she was replaced by incompetent guardians who installed the three minor siblings as kings: Ptolemy VI, VIII, and Kleopatra II (170–163 BC). This situation was exploited not only by the Seleucid Antiochos IV, who invaded Egypt twice, but also by one of the "friends" of the young kings, Dionysios Petosarapis (c.168–167 BC), apparently a Hellenized Egyptian, who carried out a putsch with the help of some thousands of rebel soldiers. The *coup d'état* had repercussions even in the Thebaid, and the country was stabilized only in 165, when the building of a new Satis-temple at Elephantine could start. Ptolemy VI settled things with his rival-brother Ptolemy VIII who had to content himself with Cyrenaica. After Ptolemy's VI unexpected death in 145, Ptolemy VIII Euergetes was brought back to Alexandria and had to deal with an unsuccessful putsch by Galaistes (141/140 BC).

The civil war of 132–124 BC

Ptolemy's marriage policy led to civil war dividing the country into partisans of Ptolemy VIII Euergetes/Kleopatra III and followers of Kleopatra II. It has long been assumed that an Egyptian rebel king Harsiesis instigated a short-lived uprising in the region of Thebes and Karara, but the historicity of this event is now seriously doubted, and Harsiesis is probably a ghost-king (Veïsse 2009). The trio, Ptolemy VIII, Kleopatra II and III, were reconciled by 124 BC, and the ensuing unparalleled triple monarchy led to more instability. As in the aftermath of previous rebellions, a generous amnesty decree in 118 BC brought some relief, but not for long.

Last Native Revolt (c.88–86 BC)

Ptolemy IX and X and their mother Kleopatra III started a new series of dynastic problems, as the queen manipulated her sons to gain control over the empire. The unstable situation eventually led to a last rebellion in Upper Egypt. The bastion

of the rebels was Thebes. This time no mercy was shown to the city; Ptolemy IX Soter II treated the Thebans so harshly that they did not have any reminiscence at all of their former wealth (Pausanias 1.9.3), and Theban documentary papyri now become rare.

6   The Reign of Kleopatra VII: Towards a New Superpower

In the late Ptolemaic period dynastic troubles were no longer an internal affair and Kleopatra became a major player in world politics (Chauveau 2000, 2002; Schaefer 2006; Ashton 2008). Her liaisons with the world's leading politicians are considered the equivalent of dynastic marriages, her dowry being Egypt (Pomeroy 1990: 25). She gave the Romans clear signals of her ambitions when she built a Caesareum in Alexandria and called her eldest son Ptolemy Caesar Philopator (the Father-loving), thus presenting her son by Caesar to the world, though Caesar's paternity was doubted even in antiquity (Pomeroy 1990: 25–6; Heinen 2009: 154–75). The Alexandrians teasingly called him Caesarion, "Little Caesar" (Schuller 2006: 131).

Figure 9.2   Kleopatra VII and Caesarion making offerings to Hathor at Dendera. Courtesy Martina Minas.

Together with the triumvir Antony, who controlled the eastern part of the Roman Empire, she dreamt of creating a Hellenistic kingdom in the East. They made their dream public in the gymnasium of Alexandria (Plutarch *Ant.* 54) and took the necessary steps by emptying the Egyptian treasury. This explosive alliance was expressed on coins showing both her image and that of Antony, and, at a final stage, in their common burial. The dynastic cult was given a strong boost when Kleopatra reactivated themes from the time of Ptolemy II, though she sometimes exaggerated, as shown by the divine names of her twins by Antony, Helios ("Sun") and Selene ("Moon"). Antony made Kleopatra "Queen of Kings" and her son Caesarion "King of Kings." For Antony these titles were part of the propaganda war against the Parthians, but, when he made his children titular heads of Roman provinces and regions not yet conquered, Octavian interfered promptly and attacked the couple in western Greece where the last great naval battle in antiquity at Actium was won by Octavian. Kleopatra and Antony fled to Egypt, and Kleopatra even entered the Alexandrian harbor accompanied by victory songs. She filled the empty treasury and bargained secretly with Octavian to ensure the succession of her son Caesarion (Dio Cassius 51.6), but one year after Actium Egypt was defeated, and Octavian's reign in the country began when he entered Alexandria on 1 or 3 August 30 BC. Kleopatra, the New Isis, had failed. Her suicide by cobra's poison, if such was the method, could have been symbolic, the cobra being an ancient symbol of Pharaonic power, but recent research rather points to use of a cocktail of deadly poisons, including the hemlock that killed Socrates (Mebs & Schaeffer 2008).

Octavian refused to pay homage to the deceased Ptolemaic kings, but he did show respect to Alexander, wishing to see "a king, not corpses" (Suetonius 2.18). He brought the Ptolemaic dynasty to a swift and efficient end, executing Caesarion ("a plurality of Caesars is not a good thing," Areios in Plutarch *Ant.* 81), but he spared her children by Antony and had her daughter Kleopatra Selene betrothed to the king of Mauretania.

7   Prominent Queens

In Ptolemaic history queens became prominent after Arsinoe's divinization by her husband-brother Ptolemy II, and dynastic women gradually infiltrated both political and cultic spheres. Their political importance is reflected in their royal titulary, applied for the first time to Arsinoe posthumously but after her to all living queens. More active political interference is attested from the Kleopatra's onwards: Kleopatra I became regent for her minor children when her husband died in 180, and Kleopatra II, in the middle of a dynastic conflict, claimed to be sole queen. She even started a new era, and the "reckoning of dates solely on the basis of a woman's rule represented an extremely audacious innovation" (Hölbl 2001: 197). Only the last Kleopatra would be able to follow her example. The more active role of queens in the later Ptolemaic period is reflected in cultic temple scenes where they could now act alone (Minas 2005).

The dynastic cult paid particular attention to queens who were granted their own priestesses and from Kleopatra III onwards even their own priests. Their cult names

reflected their political identity in times of dynastic crisis (Minas 2010), whereas their association with goddesses like Isis and Aphrodite may show the image they wanted to propagate (but see Ashton 2001: 45). The supreme goddess Isis symbolized the mother figure who also took the role of a fertility goddess guaranteeing the Nile inundation. When Kleopatra VII bore her first child Caesarion, she was able to cast herself in the role of Isis in relation to Horus, and at the end of her life she even became the "New Isis," being dressed like her in public, whereas her Antony represented Osiris.

The significance of queens was expressed in an impressive series of statues and coins. A new Ptolemaic style was created for dynastic women on the basis of Egyptian traditions but with new additions and features, containing obviously divine characteristics (Quaegebeur 1978; Albersmeier 2002).

Kleopatra VII is the only Ptolemaic queen who has stood the test of time, becoming an object of Kleopatra-mania. With Amyot's translation of Plutarch's *Life of Antony* in 1559 the legend of Kleopatra was reactivated, and her life became a popular subject for paintings and drama, but was she popular in antiquity? Ancient authors were hostile to the Egyptian queen, but the archaeological and art-historical record may show another picture of a Kleopatra who had a substantial influence on Rome visible in, for instance, the coiffures of Roman women (Kleiner 2005). To the great annoyance of Cicero she stayed in Rome for two years until Caesar was brutally murdered. In Egypt, Kleopatra was venerated shortly after her death in a Cleopatreum-temple and most probably in the Isis temple of Philai as late as AD 373.

8   Egypt as a Mediterranean Power: The Empire at Its Greatest Extent

Though Egypt had indulged in bouts of expansionism from an early period, the early Ptolemies pursued a more ambitious foreign policy than any previous dynasty, undoubtedly dictated by the turbulent context in which their kingdom found itself. There was room for diplomacy, dynastic alliances, and marriages, but also for military aggression and wars, fought by strong armies and fleets. The first Ptolemies created a northern buffer-zone that could protect the homeland in future clashes and at the same time provided Egypt with natural resources. Ptolemaic power and control relied on their naval forces, but, as a thalassocracy had proved to be vulnerable, Ptolemy III expanded the zone to the east and in the northern Aegean. Eventually, the Egyptian empire reached its largest extent ever: the Ptolemies controlled an area embracing Cyrenaica to the west, Syria-Phoenicia, Cyprus, parts of Asia Minor's coast, Greek islands in the Aegean, Thrace, and other regions in the northern Aegean (Bagnall 1976). They had turned the Nilotic kingdom into a Mediterranean kingdom (Manning 2009).

The core of Ptolemaic foreign power was formed by the nearby territories of Cyrenaica, Cyprus, and Syria-Phoenicia which were vital to Egypt's security and placed under strict royal control. The strong bond with the mother country was reflected in Egypt's closed currency zone of which they were part. Syria-Phoenicia

(also called Koile-Syria) was most fought over, as in Pre-Ptolemaic times. The Seleucid kings of Syria and the Ptolemies fought six Syrian Wars, one of the military highlights being the Battle of Raphia in 217 BC during the Fourth Syrian War. The scale of military preparations and the number of troops on both sides in this conflict were most impressive, but Raphia was a spectacular victory for Ptolemy IV, and, as a result, he was able to reconquer Koile-Syria to be lauded in the new Edfu-temple as "ruler of Syria."

Whereas Ptolemy I was responsible for initiating the creation of the empire, Ptolemy II and III take the credit for its organization and systematization. This successful foreign policy collapsed under the weak government of the infant king Ptolemy V when Egypt was subjected to simultaneous assaults by Seleucid and Macedonian kings. The Ptolemaic king had to give up the majority of the foreign possessions except for Cyprus, Cyrenaica, and some Aegean bases. However, later in his reign Ptolemy V would compensate for the losses by implementing a "growing systematization of the administration among the remaining provinces," a policy followed by his successors (Bagnall 1976: 244). Ptolemy VI brought foreign policy to a new peak, though after a few extremely difficult years: with the loss of Syria-Phoenicia, Egypt had become vulnerable and Antiochos IV was the first foreign king to invade Ptolemaic Egypt which he achieved twice in the Sixth Syrian War (170/169 and 168 BC), and he may have gone as far south as Elephantine and destroyed the Satis-temple (Vittmann 1997, but see Quack 2010). Whereas in the past diplomatic contacts with the Romans had remained exceptional (Eckstein 2008), this newly emerging power in the east, which had just defeated the Macedonian king at Pydna (168 BC), intervened. On the famous "day of Eleusis" (a suburb of Alexandria) C. Popilius Laenas demanded the complete withdrawal of Antiochos IV from Egypt (Polybius 29.27.5), and he had no alternative but to obey. Probably out of revenge (Blasius 2010) Ptolemy VI was eager to reconquer Koile-Syria, but, due to his unfortunate death in Syria in 145 BC, this territory was lost for good. The sixth Ptolemy also had intense diplomatic contacts with areas which he never possessed. "This kind of activity extended the Ptolemaic sphere of influence beyond the area of actual control" (Bagnall 1976: 233).

In the second century BC two unfortunate tendencies developed which were linked to dynastic conflicts: appeals by rival kings to the Romans and the abuse of foreign possessions as havens of refuge or as independent kingdoms. The two trends led to the final loss of foreign territories. Ptolemy Apion, illegitimate son of Ptolemy VIII, was responsible for the loss of Cyrenaica after he left this kingdom on his death to the Romans (96 BC), and Cyprus came in Roman hands through its last king Ptolemy the Bastard (80–58 BC). Some possessions reverted for a short while to Egyptian control under Kleopatra VII and her brother, and the ambitious queen tried to create a new Hellenistic empire with Roman aid, but she failed, and Egypt, in its turn, passed into Roman hands.

9   The Dodekaschoinos or Southern Buffer Zone

In the centuries immediately preceding the Ptolemies Egypt's southern border was normally located at the First Cataract of the Nile, but the frontier could move further south creating a kind of buffer zone which provided both natural resources and

military recruits. The idea of a multifunctional buffer zone was taken over by Ptolemy II who turned part of Lower Nubia into the Dodekaschoinos or "Twelve-mile District" (Dietze 1994, Locher 1999). The area was donated to Isis at the expense of Khnum, and on Philai a comprehensive building project was started (Vassilika 1989), turning the island into the main religious center in the area instead of Elephantine. Ptolemy II to IV organized hunting expeditions for war-elephants even further south. Ptolemaic involvement and foundations on the Red Sea coast were equally part of an exploration programme for elephant hunting and ivory and, more generally, harmonized with the spirit of the age to explore the edges of the known world (Burstein 1996; Mueller 2006: 151–7).

In northern Lower Nubia Meroitic and Egyptian ranges of influence met peacefully. Ptolemy IV initiated in Philai the building of the temple of the Meroitic god Arensnuphis, but during the Great Revolt the Nubian king Ergamenes II (Arqamani) occupied Lower Nubia and Philai, where he continued the Arensnuphis building project. After the revolt the border was temporarily brought back to the First Cataract, but a new expansion under Ptolemy VI reestablished control over the buffer zone (Pfeiffer 2010). A votive inscription even testifies to two city foundations in the area (Heinen 2000; Mueller 2006). These cities Philometris and Kleopatra were apparently part of a territory called the Triakontaschoinos, "Thirty-mile District," probably conquered by the high official Boethos and subsuming the Dodekaschoinos. Building projects in Lower Nubia continued, but the Ptolemies had lost control there by the first century BC.

10 A Society with Two Faces

Ptolemaic Egypt was a multicultural and multilingual society (Ray 1992; Thompson 2009) to which immigrants came from all over the Eastern Mediterranean (Mueller 2006). Many Jews settled there, since Palestine was part of the Ptolemaic empire for almost a century. The largest concentration was found in cosmopolitan Alexandria where the Jews became Hellenized, and some had a brilliant career in the Ptolemaic administration, like Dositheos, son of Drimylos, who became a priest of the Greek dynastic cult (Jördens 2008). Greeks and Egyptians were the two largest ethnic groups, already in direct contact from at least the Saite Dynasty (664–525), and they both left a deep mark on Ptolemaic Egypt. The Ptolemaic king was the living symbol of this double society: he was the subject of a Greek dynastic cult, but an Egyptian-style cult was introduced in the countryside; he was portrayed as a Greek-Macedonian king wearing a diadem on his coins, but as a Pharaoh on the walls of Egyptian temples. However, Ptolemaic Egypt was not turned into a double-faceted society at all levels. In public sectors, such as administration, the state chose from the start to apply one system to the entire population, though it did take into account long-standing traditions and privileged the Greek element in the population. On the other hand, in private sectors, like religious life and private law, the state was less dominant. The Egyptians continued to worship their own gods whilst temples were constructed for the Greek gods in the Greek cities. In the countryside the Greek

A
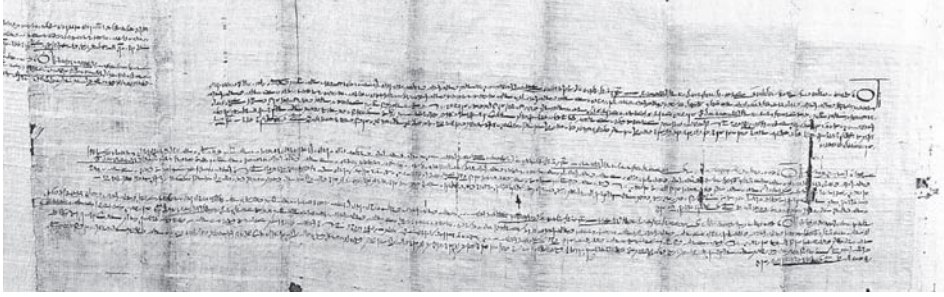
B

Figure 9.3a and 9.3b The two faces of the Ptolemaic Period are reflected in its bilingual documentation. The Egyptian Demotic sale contract is Brussels, Musées Royaux E8252; the Greek sale contract is Brussels, Musées Royaux E8441. © Musées Royaux d'Art.

Olympian gods were frequently referred to, but these were, as a rule, just Greek names for the local Egyptian gods. Thus, Greeks worshipped Egyptian gods in a Greek guise (*interpretatio graeca*): at Thebes the Heraion was Mut's temple; Apollonopolis Magna (Edfu) was the city of Horus/Apollo; and Panopolis (Achmim) was the city of Min/Pan. As to private law, the people continued their own traditions in their own language. A Greek could appeal to a Greek notary to draw up his will, whereas an Egyptian went to the Egyptian temple notary. Greek and Egyptian notarial offices existed alongside each other even in small towns like Pathyris (Pestman 1978). Different courts (*dikasteria*) judged the Greek immigrants whilst Egyptians were served by *laokritai* (literally "people's judges") based in the temples, though they were all subordinate to royal justice in the person of the king or his representatives the *chrematistai*.

   Whilst the two ethnic groups could at first be easily identified as Greek or Egyptian, the boundaries became blurred after a while, even at the highest levels. Greek royal portraits increasingly show Egyptian influence, while Egyptian-style royal portraiture adopted Greek features (Ashton 2001), and the Egyptian dynastic cult became popular even among Greeks living in the countryside. There were two main forces causing the ongoing melding of Egyptian and Greek culture: mixed marriages and social mobility. Greek male immigrants living in the countryside married Egyptian

women (Mélèze-Modrzejewski 1984), partly due to the shortage of Greek women (Thompson 2002). Thus the Greek military officer Dryton son of Pamphilos, a citizen of Ptolemais, married the much younger Apollonia *alias* Senmonthis, who descended from a Hellenized Egyptian family and lived in a small Upper-Egyptian town, but the marriage brought a Greek dimension into the family for only one generation (Lewis 1986; Vandorpe 2002). Through social mobility the Egyptian elite managed to penetrate the higher echelons of the army or administration. As a consequence natives who Hellenized to a certain degree took on either a Greek or Egyptian identity, depending on whether they were at work or at home (Clarysse 1985). In the second century BC it is no longer possible to identify a person as a Greek or an Egyptian on the basis of his name or ethnic. Many inhabitants assume a double name, usually a Greek and Egyptian one. As they could even receive a new ethnic as result of a promotion, ethnics no longer referred to origin but rather to status (La'da 1994; Vandorpe 2008). Thus, Dionysios, son of Kephalas, of Egyptian origin, was promoted from "Persian" to "Macedonian" soldier (Boswinkel-Pestman 1982). Even for the Ptolemaic courts it became impossible to make the ethnic distinction: from 118 BC onwards it was the language of the contracts and no longer the ethnicity of the parties that determined the type of court. Inevitably, Greek and Egyptian traditions affected each other. The position of the Greek woman, for instance, improved under the influence of Egyptian traditions, but Greek women would never become as independent as their Egyptian colleagues (Pomeroy 1990).

With the reign of Kleopatra VII a Roman dimension was added; for she was a queen with affinities to three cultures (Schuller 2006): she was of Macedonian descent; she was the first Ptolemaic dynast who could speak Egyptian (Plutarch *Ant.* 27); and through her children there was a physical fusion with the Romans, and her son by Caesar obtained a Roman name alongside his other names as Ptolemy Caesar Philopator.

11   The International Aura of the Ptolemaic Empire

As diverse as Ptolemaic society in reality was, the picture disseminated abroad was very one-sided. It was a Greek-orientated picture of superlatives which the Ptolemaic dynasty presented to its Greek and Macedonian rival kings. They presented themselves as the wealthiest of dynasts; they employed the best Greek scholars and scientists; and they disposed of the greatest Greek library and the most impressive Greek architecture. The Egyptians came into the picture only as the providers of rich resources: the Egyptian countryside was praised because of its "general excellence, in that it is well suited to provide for the security and greatness of an empire," including the blessings of the Nile, the great number of Egyptian cities, and the density of the population (Diodoros 33.28b). As soon as they got to Alexandria foreign visitors got the picture: they confronted the Pharos or great lighthouse, one of the wonders of the Ancient world, dedicated by the Greek Sostratos of Knidos, and flanked by colossal statues of the Ptolemaic royal couples represented as rulers of the wealthy land of the Nile (Empereur 1998b). The Ptolemies seized any opportunity to display

their wealth "at times pushed to the level of megalomania" (Hölbl 2001: 92). Ptolemy II was considered the richest man of his time, and Ptolemy III was the most generous benefactor after an earthquake hit the colossus of Rhodes in 227 BC. Some of their successors in the more turbulent second century BC could still afford the epithet Tryphon, "Luxurious." The Greek dynastic cult and its festivals were a perfect vehicle to display wealth and power. The Ptolemaieia, a four-yearly festival of the dynasty, became a weapon in the arena of world politics since most Greek states were invited (Thompson 2000b). The Ptolemies also created an "image of power" with agonistic successes, using sports as a propaganda tool all over the Greek world (Remijsen 2009). However, Ptolemaic opulence was not always able to impress the Romans, faithful to their sober *mos maiorum*. When Scipio Aemilianus, the destroyer of Carthage, and his fellows came to Alexandria and were welcomed by Ptolemy VIII "with a great reception and much pomp," they were "scornful of his extravagance as detrimental to both body and mind" (Diodoros 33.28b). Kleopatra VII raised the Egyptian image of luxury to new heights when she seduced Mark Antony at Tarsos, but that was only a foretaste of what awaited him at Alexandria.

The Ptolemaic dynasty lived in Alexandria which was not always considered part of the country, as was well understood by the Romans who created the province of "Alexandria and Egypt." Founded on 7 April 331 BC, it was under construction for years, hence the derisive Egyptian name Rakotis or "Construction Site" (Chauveau 2000: 57). The city enjoyed a favorable climate and established through a web of canals the perfect connection between the Eastern Mediterranean basin and the Nile. Alexandria eclipsed Memphis as the seat of government, surpassed Athens as the cultural metropolis, and became the most important city of the Eastern Mediterranean, only to be superseded after many centuries by Constantinople. The sumptuous royal quarter or Brucheion, expanded by the successive monarchs, harbored the Sema or funerary complex of Alexander and the Ptolemies as well as the Museum. This Center of Excellence was one of the most prestigious institutions, and it housed the greatest scholars of the Hellenistic world. Here Eratosthenes of Cyrene calculated the circumference of the earth and the distance to the moon; here Aristarchos of Samos announced that the earth orbits around the sun; here writers like Theokritos of Syracuse and Kallimachos of Cyrene wrote their poems. The latter also compiled the *Pinakes*, a catalogue of all the works in the Library which was for centuries the largest in the world, the library of Pergamon being its only competitor. Original works of the great authors were bought, and translation of books in other languages were also made, like the Septuagint, the oldest Greek translation of the Hebrew Bible, supposedly composed by 70 scholars. For the first time critical editions of classical texts were made, particularly of Homer's epics. The Greek scholars of the Museum were linked to the royal court by their court titles, such as "Friend of the King," and the scholar who was appointed main librarian participated in the education of the prince. Arsitarchos, who produced some 800 books, raised Ptolemy VIII and later Ptolemy VII Neos Philopator. When the latter was murdered by the former, Aristarchos left Egypt for Cyprus followed by at least two of his disciples. There is, though, no evidence of a persecution of scholars by the king, as often suggested. Ptolemy VIII continued the policy of his predecessors, and the Museum remained a Center of Excellence (Horster 2010).

Only one successful export product derived from Egyptian religion: the cult of Sarapis, worshipped in the Greek-style great Serapeum at Alexandria (Hornbostel 1973). The first Ptolemy thought the highly popular Memphite Apis-bull, honored as Osiris-Apis or Sarapis after his death, a perfect god for the new dynasty, provided that he was adapted to Greek tastes. Sarapis formed a couple with Isis which supplanted the ancient couple Osiris and Isis.

The early Ptolemies were proud of their innovative projects, the most impressive being located in the Egyptian countryside. The Fayum, called by the ancient Egyptians "the lake" (*Phiom*, hence the Arab name), is a large depression in the desert, watered by the Bahr Yusuf (Joseph's Canal). In the Middle Kingdom a large-scale reclamation project made parts of the lake and the marshland available for agriculture and settlement. In the early Ptolemaic Period, new large-scale irrigation projects gained more land under the direction of new officials and Macedonian engineers, like Kleon and Theodoros who have left us their archive (Lewis 1986: 37–45) and who followed Greek precedents (Thompson 1999). The cultivated area was almost tripled, and Ptolemy II proudly renamed it after his wife the "Arsinoite Nome." He replaced the old twofold division of the area by a three-part division into *merides* called after their first administrators (Vandorpe 2004). Several new settlements were founded, and old villages were renamed (Clarysse 2007b; Mueller 2006). Greeks and Macedonians serving in the Ptolemaic army settled there and were rewarded with a parcel of land. The minister of finance under Ptolemy II, Apollonios, was even donated a domain of 2750 ha, where new crops, like poppy for oil production, were tried out. His estate manager Zenon has left us the largest archive of Graeco-Roman Egypt, amounting to 2,000 papyri (Pestman 1981; Orrieux 1985; Clarysse-Vandorpe 1995). In the wake of this great agricultural expansion, a new town, Philadelphia, was founded, harboring a residential area for elite members, like Diotimos, the Vice-Minister of Finances whose costly villa boasted a replica of the mosaic floor of the women's baths in the Alexandrian palace. Not surprisingly, therefore, Philadelphia proudly hosted foreign embassies. However it was not only Greeks who were settled in the new area. Egyptians were also transferred from parts of Lower or Middle Egypt, e.g. Oxyrhyncha was founded by people from Oxyrhynchos in the Nile Valley.

12   Controlling the Empire: Balancing Tradition and Innovation

The ultimate aspiration of the Ptolemies was to project an image of power and wealth by generating revenue. State control through a civil administration was one of the main achievements of the Ptolemaic dynasty. A pivotal role was played by Ptolemy II, whose reign has produced a lot of documents, but we may easily underrate Ptolemy I who greatly expanded the empire, made Alexandria the capital of Egypt, founded a new Greek city in the south (Ptolemais), and started land reclamation in the Fayum basin. His successor consolidated the empire, brought the Fayum irrigation works to a new high, carried through fundamental monetary and fiscal reforms, and secured

state income, as shown by his Revenue Laws (Bingen 2007: 157–88). Ptolemies I and II brought prosperity, economic growth, and political stability. Their reigns were milestones in history, and they considered the time ripe to write Egypt's history: by order of one of the two kings the Egyptian priest Manetho produced his *Aigyptiaka*, "History of Egypt," and his division of Egypt's past into dynasties is still used by Egyptologists today.

In the Age of Crisis internal harmony was disturbed, and several foreign possessions were lost. The later Ptolemaic period is characterized by official abuses, inflation, and temporary lack of control of local administration and taxation, but the periods of crisis were, at the same time, the driving forces behind even stronger state intervention and increased administrative systematization. After the Great Revolt, for instance, Ptolemy V successfully installed a hierarchic system of court ranks, such as "kinsman" of the king, assigned to higher officials in Egypt and overseas and thus linking the elite more closely to the royal court (Mooren 1975 and 1977). The control of Upper Egypt is another example. The region was called the Thebaid in Greek sources, as it was, in part, controlled by the mighty Amun priesthood of Thebes. Ptolemy I had already created a political counterweight here by founding Ptolemais, a Greek capital for Upper Egypt perpetuating his name, and Ptolemy III installed a new religious symbol of Ptolemaic rule by initiating the building of a new Horus' temple at Edfu (Manning 2003b: 74). After the revolts the later Ptolemies took a series of measures leading to greater state control in that region. The kings introduced new military camps, sometimes using the enclosure walls of temples like like that still extant in Medinet Habu (Dietze 2000), they employed local soldiers, confiscated land, and sold it at public auctions, and they gradually introduced more state banks, more state granaries, and more Greek notarial offices (Vandorpe 2010). One of the highlights may have been the foundation of a new Greek city Euergetis in 133 BC in the northern Thebaid by the high official Boethos (Heinen 2000).

How were the Ptolemies able to create, almost unopposed, an increasing level of state control? How could they govern through a minority of Greeks who represented 5 to 10% of the population and held higher offices in the administration and the army? The key-word is balance, between tradition and innovation and between give-and-take *vis-à-vis* the native population and Egyptian elite. They ruled over a country that had a well-developed administration adapted to the specific needs of the Nile regime. "The Ptolemies adapted in a practical manner to the realities of Egypt" (Manning 2009), but at the same time they introduced new elements to enhance the control or to adapt to new realities such as the intake of Greek immigrants and the use of coins. The kings preserved the traditional division of the *chora*, the Egyptian countryside, into provinces called "nomes," but replaced the ancient nomarch by a *strategos*, "general," who had by 230 BC become a civil official. Greek replaced Egyptian Demotic as the official language of government. The temples continued their own systems for administering business, but the government supervised them through the newly created office of temple *epistates*, though the function was soon to be taken over by temple personnel (Clarysse 2003). The Egyptian judges (*laokritai*) remained part of the legal system but had to tolerate the supervision of a government clerk, the *eisagogeus* (Allam 1991, 2008). Similarly, the Egyptian temple notaries continued to function but experienced competition from Greek notarial offices.

The traditional taxes in kind were retained by the Ptolemies (Muhs 2005b), but the government gradually took over the assessment of several taxes from the temples (Vandorpe 2000), except for taxes which were closely linked to the temple's burial practices (Muhs 2005: 87–103). The government installed instead a civil administration, though the people appointed were often the former priests of the temple. In order to maximize control and minimize risk to the royal treasure the Greek tax-farming system was introduced for several taxes, though in a modified form (Bingen 1978). Other fundamental fiscal reforms were the introduction of money taxes and state banks (Reden 2007) and the creation of census procedures on the basis of which a new poll tax was levied (Clarysse-Thompson 2006).

The army also became a mixture of old and new. The Ptolemies introduced a Graeco-Macedonian army. The immigrants became military settlers called *klerouchoi* (cleruchs) and later on *katoikoi*, as they were allotted an Egyptian *kleros*, a parcel of land for lifetime and eventually inheritable by their offspring (Uebel 1968). The Egyptian army was at first under-utilized (Lloyd 2002a), but Ptolemy IV trained native Egyptian troops to fight in a Macedonian-style phalanx during the Fourth Syrian War, and they proved a great success at the battle of Raphia in 217 BC. Consequently, the Egyptian soldiers were brought into the Greek system of land allotment, though their plots of land were smaller in size and of inferior quality. In Upper Egypt a lot of native Egyptian soldiers were employed in the Age of Crisis, but the system of land allotment was rarely applied there: the soldiers received a salary (Vandorpe 2008).

The Egyptian population were able to continue their traditions: they could turn to their temple notary or Egyptian judge, and they could profess the religion of their choice. The tax burden was heavy but probably not heavier than in previous times. The main difference was that people no longer paid all taxes through the temple which used to control economic life. Taxes were now increasingly levied by state officials, to the advantage of a far away foreign ruler, and the administration became a civil one. The pill was sweetened by calling in local people, often members of the priestly elite, who acted as tax officials or administrators. The royal house was propagandized in the countryside by the Egyptian dynastic cult and by Ptolemaic coinage which was wide-spread in large sections of the population as shown by private money loans. The Ptolemies invested in local traditions by supporting the cults and by impressive building projects as far south as Philai and even beyond. Popular local forms of religion were stimulated, like the oracular cult of Thoth-the-Ibis in Qasr el-Aguz, and local forms of jurisdiction were supported, as shown by the Bab el-Amara, the monumental propylon of Khonsu's temple at Karnak built by Ptolemy III, known as the "Gate of Justice" where oaths were sworn and judgements were pronounced (Quaegebeur 1993). The Ptolemies also from time to time left their home at Alexandria to make a progress through the Egyptian countryside (Clarysse 2000c). Another positive factor was social mobility. Native Egyptians gained promotion in the administration and army, became part of the more privileged and Hellenized groups, and in some cases obtained the highest positions. Even Egyptian women had mobility, since they could marry into the privileged groups.

How did the Egyptian priestly elite feel about the new foreign rulers? The "Greek organization of the country slowly undermined the clerical pillars of the Egyptian

Figure 9.4 Karnak. Propylon of the temple of Khonsu built by Ptolemy III. Courtesy Katelijn Vandorpe.

cultural system" (Bingen 2007: 254–5), but at the same time the kings supported the temples by setting them free from several taxes, by royal gifts, by paying them a yearly allowance or *syntaxis*, and by generously stimulating temple building and cults in general. Memphis became a second capital, having a palace and being regularly visited by the king. The Memphite coronation of Pharaoh by the High priest of Ptah would become standard (Crawford et al. 1980; Thompson 1988), and the priestly caste was able to strike bargains with the kings as shown directly in the priestly trilingual decrees of Canopus and Rosetta. Moreover, individual priests increased their personal benefits as they received fiscal privileges and had access, from the very start of Ptolemaic rule, to the highest administrative and military offices (Lloyd 2002a). As a result, the priestly elite had no difficulty in supporting the Macedonian dynasty (Huss 1994).

13   Conclusion

The Ptolemies were successful rulers, even in the Age of Crisis, integrating the Egyptian priestly elite and local traditions into their state system. Egypt became a society of two faces, Greek and native Egyptian, resulting in an ongoing symbiosis of both cultures. The Ptolemaic kings were foreign rulers, showing a Greek face

to the world and living in the "city by the sea" that created gods "from new metal," as the anti-Greek propaganda text the Oracle of the Potter put it (Dunand 1977), but they considered Egypt the core of their kingdom and not simply as a lucrative addition. The Ptolemies can, therefore, truly be judged the last Pharaohs.

FURTHER READING

Most accessible and broadest in scope is the overview of history and daily life in Bowman 1996b. A comprehensive account of dynastic and political history is provided by Hölbl 2001 and Huss 2001, while Veïsse 2004 analyses the revolts. Pfeiffer 2008 discusses the new dynastic cult, distinguishing between a ruler's and dynastic variant. Ptolemaic Alexandria is the subject of the fundamental work of Fraser 1972, but see now also Ballet 1999. The foreign Ptolemaic possessions and their administration are dealt with by Bagnall 1976, and the history of Egypt's southern border area is treated by Locher 1999. The way state control was organized has for a long time been determined by the masterly works of Rostovtzcv and Préaux, but their views need modification: see Bingen 1978 and Manning 2009, who moves beyond the prevailing model of despotic one-man-rule and adopts a "bargained incorporation model." Bingen 2007 focuses in a series of collected papers on the nature of the Greek experience in the Ptolemaic world. The Egyptian material and local Upper-Egyptian traditions are analysed by Manning 2003c. The rich archaeological and historical material of the Ptolemaic Period is lavishly illustrated by the guide of Bagnall and Rathbone 2004. A general and accessible introduction to the Greek papyrological material is available in Turner 1980 whilst the handbook edited by Bagnall 2009 provides a detailed overview of this particular kind of evidence. Hunt and Edgar 1932–4 present a fine selection of translated Greek papyrus texts. Depauw 1997 unlocks the Egyptian Demotic material for non-specialists. More and more scholars are now combining the study of Greek and Egyptian sources, as is done at the Leiden and Leuven school.

The Roman Period

Livia Capponi

1   Conquest before the Conquest

To say that the Roman presence was a new phenomenon in Egypt after the fall of Alexandria in 30 BC would be an untruth. Ptolemy VIII was the first Ptolemaic monarch to bequeath Egypt to Rome at the end of the second century BC in the form of an inscription (Austin 1981: no. 230), and around 80 BC Ptolemy X Alexander again framed a bequest of his kingdom to Rome. Egypt was not turned into a Roman province probably only because of the internal dissensions within the Roman senate about who should take up the governorship (Bowman 2007). By the 60s BC the crown of Ptolemy nicknamed Auletes, "the Flute-Player," depended on permission by the Roman senate. When Auletes was expelled from Egypt by the Alexandrian mob in 55, he went to Rome, relied on rich Romans for the expenses during his stay there, and then bribed the senate with 10.000 talents: as a result, he was duly restored as a "friend and ally of the Roman people" with the help of Gabinius, legate of Syria.

Egypt was now a protectorate of Rome, although not yet a province (Heinen 1966; Thompson 1994a). The country was occupied by Roman troops, the so-called *Gabiniani*, and a Roman, the banker Gaius Rabirius Postumus became the *dioiketes*, i.e. the finance minister of Egypt. The decision to impose a Roman as the financial manager of Egypt (probably in order to recover the debts of Auletes) was unprecedented, and in 54 BC the Alexandrians revolted against Rabirius, accusing him of tyrannical behavior. He was arrested and then defended by Cicero in a famous speech (*Pro Rabirio* 39–40; Klodt 1992; Capponi 2005: 6). A papyrus document, *SB* 22.1503, complains that *Postomos* "once he took the power removed those who had been appointed from the beginning and those who inherited from their fathers and from their grandfathers . . . He appointed incompetent and unknown men, after selling off the goods that had been accumulated and guarded for centuries ... and then ordered that the able and good men be removed, for the purpose of robbery" (Balconi 1994). A list of temple payments refers to "robbery by the Romans" as early as 51 BC.

Julius Caesar's presence in Egypt symbolizes the importance of the kingdom in Rome's eastern policy (Bowman 2007: 169). In 48 BC he landed in Egypt to fight the last part of his war against Pompey, whom he found dead, assassinated by the young son of Auletes. Displeased by the news, Caesar decided to support Kleopatra VII as the heir of Auletes in the dynastic struggle between her and her brother. Around 47 Caesar and the queen had a son Ptolemy Caesar, nicknamed Caesarion ("Little Caesar") who was later associated with the queen as co-regent with the epithets Philopator Philometor ("Father-loving Mother-loving"). Thereafter, Caesar went back to Rome, leaving his freedman Ruphio and three legions to keep control of the country, and Kleopatra visited him in Rome at least twice, in order to secure benefits for her kingdom. After the Ides of March and the formation of a second triumvirate Kleopatra met Mark Antony, the new master of the East, at Tarsus. The rest is well known through Plutarch, Cassius Dio, and Shakespeare: they got married, had three children, and ruled together, and after his return from Armenia in 34 BC, Antony granted the queen territories he had conquered in the so-called Donations of Alexandria, a sumptuous ceremony that explicitly evoked Alexander's empire and conquest of Persia (Dio 49.40–1). Antony and Kleopatra were finally defeated at the Battle of Actium in 31 by Octavian and Agrippa, and after the fall of Alexandria they both committed suicide.

During the reigns of Auletes and Kleopatra Egypt was already occupied by Roman forces, as demonstrated by a document preserving a Latin edict of Octavian as *triumvir* concerning the Roman veterans in the Fayum region of Egypt. Many Roman names feature in Egyptian documents before 30 BC, perhaps Roman soldiers and officials who settled before the formal conquest (Capponi 2005: 8). Roman tycoons started new businesses in the country: a certain Quintus Ovinius was the chief manager of Kleopatra's textile industries (Orosius 6.19.20 and Bowman 1996: 676–702), and P. Canidius (or Q. Cascellius, according to a different reading of the text) received tax privileges in a document possibly signed by the queen herself (van Minnen 2000 and 2001a; Zimmermann 2002). The increasing presence of Romans in Egypt probably worried Octavian. For fear that they would become too powerful or monopolize the corn supply of Rome, he revived a Ptolemaic regulation whereby nobody should enter or leave Egypt without a passport, and prohibited both senators and prominent knights from entering Egypt without his permission (Tacitus *Ann.*2.59; Dio Cassius 51.17.1; Purpura 2002). *Vice versa*, the Alexandrian Museum exported intellectuals, who went to Rome to teach and often became the tutors of prominent Romans, among them the Stoic Arius Didymus, tutor of Octavian, who declined the offer to rule the province as the first Prefect, and the historian Timagenes, who ended up in disgrace for being critical of the new emperor.

2   Augustan Egypt, a 300-year-old Creature

Octavian entered Alexandria 1 August 30 BC, riding his horse up to the temple of the Egyptian god Serapis (the Serapeum) and then to the hippodrome, where he addressed the people by claiming that he would spare the city because of its great

beauty, its founder Alexander, and to do a favor to his friend Arius. The beginning of a new era was immediately by all perceived to have begun. Two days earlier, the sixteen-year-old High Priest of Memphis, a potentially dangerous religious office because of its wide influence, died, most probably assassinated by order of Augustus (Thompson 1990: 115). By 30/29 BC the temple lamplighters of Oxyrhynchos were already taking oaths in the name of the new monarch "Caesar, God son of God" (*POxy* 12.1453), and documents were dated by a new era, the "dominion of Caesar the son of God." Soon after the conquest, Augustus instituted a cult of himself in the Kaisareion of Alexandria, the temple built by Kleopatra to Julius Caesar, which was converted into a Sebasteion (from *Sebastos*, "Augustus"), and all temples in Egypt, whether Greek or traditional Egyptian, were obliged to offer daily sacrifices to the emperor (Frankfurter 1998; Herklotz 2007). A new "Victory City," Nikopolis, was founded outside Alexandria on the site of the military camp of Octavian, and Greek-style portraits of Augustus were sent up to the region of Meroe far to the south (Bowman 1996: fig. 1938). Octavian's victory over Antony and Kleopatra was celebrated in all the arts throughout the empire as an event that opened a new era of peace (Bowman 2007: 171).

However, Augustus's policy in Egypt in the first years after the conquest was anything but peaceful. Up to the late 20s BC, he had in mind new conquests and had also to face local rebellions against Rome and its new panoply of taxes. The first Prefect of Egypt, the poet Cornelius Gallus, struggled to suppress revolts in the Thebaid and boasted that he had subdued five cities over fifteen days (Bernand 1965: no. 128). A papyrus roll preserving elegiac verses by Gallus was found as far as Qasr Ibrim, the Roman garrison of Primis, in Lower Nubia (Anderson, Parsons, and Nisbet 1979; Capasso 2003). The next two Prefects Aelius Gallus and Publius Petronius tried in turn to conquer Nubia, which was governed by the legendary, one-eyed queen Kandake, and launched a campaign into Nabatean Arabia. Both attempts were disastrous and forced Augustus to retreat to a more defensive policy (Jameson 1968).

In 22 BC Augustus began his travels from Sicily to the East, and it is possible that the voyage included Egypt. Substantial institutional reforms probably took place in this period under the Prefecture of Petronius (24–22 BC). The institutional, social, fiscal, and legal structure imposed by Augustus represents an exemplary case of how a Hellenistic kingdom could be rapidly turned into a Roman province, governed by Roman officials, garrisoned by the Roman army, and subject to Roman tributes and law, a case especially striking because it remained more or less unchanged for the following three hundred years. First of all, Augustus used the Egyptian booty to pay his soldiers. For the same purpose he continued Kleopatra's policy of confiscation of temple land, which he rolled up with the royal land of the queen and the land of the supporters of Antonius. Former royal land was turned into either "public land" or imperial estates (*ousiai*), lands with high-revenue crops (e.g. wine) or proto-industrial facilities that Augustus distributed to his family and friends, and that, exactly like the Ptolemaic *doreai*, reverted to the emperor on the death of the beneficiaries (Parássoglou 1978; Kehoe 1992). Privately owned land was increased in the Roman period, as the land of the Greek colonial settlers of Egypt, the *katoikoi*, became officially alienable. Royal farmers, who leased out small plots of land from

the state, were renamed *demosioi georgoi*, "public farmers," and their life continued to be burdened with taxes, rents, and corvées (Rowlandson 1996). Commerce and trade were increased, and the route to India, opened by the Ptolemies, became a good opportunity for Italian entrepreneurs, while elite Alexandrian citizens, the arabarchs or alabarchs, levied the custom duties on import and export goods. The so-called "Muziris papyrus," a document registering the entrance in a Red Sea port of a ship coming from the western coast of India, records a cargo of luxury goods headed for Alexandria, including silk, pearls, pepper, worth almost seven million sesterces, several times over the minimum fortune of a Roman senator (Casson 1990; Rathbone 2000). The historian and geographer Strabo of Amasia, who went to Egypt around 26–23 BC and included a description of Egypt in his *Geography*, tells us (perhaps exaggerating a little) that "up to a hundred and twenty ships make their way under sail from Myos Hormos for India, whereas previously, under the reign of the Ptolemies, very few people dared to launch their ships and trade in Indian goods" (2.5.12 [118]).

Although Augustus changed radically the institutions of Egypt, he often chose to retain Ptolemaic titles and names, perhaps to avoid giving the idea of an imposition of new, foreign rules, to a country that traditionally hated foreign masters, in a deliberately ambiguous manner, perhaps rooted in a Stoic idea of kingship (Grimal 1986). Greek, for instance, and not Latin, was the official language of bureaucracy throughout the Roman period. The old consensus up to the 1970s was that Egypt was an atypical or peculiar province, set apart from the rest of the empire and governed directly by the emperor; since then, however, numerous studies have shown beyond any doubt that Egypt was not an atypical province (as there was no typical province), nor a personal possession of the emperor, but a Hellenistic kingdom that was turned into a Roman province, governed by Roman officials and subject to Roman soldiers, Roman taxation, and Roman law (Geraci 1989; Lewis 1970 and 1984 [1995]; Geraci 1983; Amelotti 1990; Bowman and Rathbone 1992; Rathbone 1993; Capponi 2005; Bowman 2007). The apparent peculiarity of Egypt depends largely on the peculiarity of its main source, that is, the papyri, an exceptional and gigantic body of documents which cannot be found in other provinces, and which needs special training to decipher and interpret. However, the historical conclusions drawn from the papyri may (and should) be compared with those derived from other provinces, especially with the Greek-speaking provinces of the Near East which, like Egypt, were subject to Persian, Hellenistic, and Roman domination. A further problem is that the distributions of papyri finds in Egypt is random, so that, paradoxically, we have an overwhelming wealth of information on minor villages and virtually no documents from Alexandria, where the damp earth of the Delta has prevented the survival of the scrolls.

According to Strabo, the Prefect took the place and functions of the old king, while Roman officials with equestrian status took over the top posts of the province, based in Alexandria, leaving Ptolemaic-style officials to the administration of the nomes or administrative districts and below. The *epistrategoi* supervised groups of nomes while the *strategoi* governed the nomes, assisted by local secretaries, often competent both in Greek and Egyptian, while temple archives and *scriptoria* were replaced by the *grapheion*, the office of the *strategos*. As concerns the administration of justice,

for instance, the chief judge or *archidikastes* continued to supervise tribunals and the administration of justice and, although the old tribunal in the royal palace was suppressed, a new tribunal was set up in the gymnasium of Alexandria (Burkhalter 1992; Capponi forthcoming). Augustus also introduced the yearly *conventus*, an itinerant assize-court in which the Prefect and his *consilium* responded to petitions and adjudicated cases, supported by a newly introduced official, the *iuridicus* (Haensch 1997). New archives were created in Alexandria to speed up and centralize the collection and storage of public and private documents (Burkhalter 1990), and a new legal code was published, the *Gnomon of the Idios Logos*, preserved in some copies of the Antonine period (Riccobono Jr. 1957; Riccobono Jr. 1950; Anagnostou-Canas 2007: 307–26). The extant fragments (*BGU* 5.1210, *POxy* 41.3014) show that the Augustan social and moral laws were applied in Egypt, where rigid social and fiscal barriers were introduced between Egyptians, Greeks, and the Alexandrian elite. Chapters 30 and 32 of the *Gnomon* apply the Augustan marriage laws, prescribing that "inheritances left to Roman women possessing 50,000 sesterces, if unmarried and childless, are confiscated," and that "Romans possessing more than 10,000 *sestertii*, if unmarried and childless, do not inherit, but those who have less, inherit."

A fundamental change brought in by Augustus was the use of the Greek class, and of the Alexandrian citizens on top, as the new governing body of the country, while the Egyptians (as well as the other foreign communities present in Egypt), unlike other provincials, were not integrated into the administration of the empire, mainly because Augustus excluded them from the Roman Senate, and even the army, except its lowest division, the fleet. Greeks were the only privileged class, as they paid reduced taxes, and could hope to achieve Alexandrian citizenship, the status necessary to obtain, eventually, the Roman citizenship (Delia 1991). Space was also reorganized, and power was centralized in the capitals (*metropoleis*) of the provinces of Egypt, and specifically in the gymnasia, the educational and recreational centers of the Greek elite (Bowman and Rathbone 1992). The number of Greeks and Alexandrians in Egypt was strictly guarded by the Roman authorities, in an almost racist attempt to preserve the "purity" of the race. In 4/5, Augustus promoted an *epikrisis* or "scrutiny of the individual status" in the Oxyrhynchite nome, prescribing that, in order to be one of "those from the gymnasium," one should have both great-grandparents from that class (Bussi 2008, 17–20). Other documents show that the Greeks of the Arsinoite Nome were also a closed number of 6475 cavalrymen, their rights and status periodically scrutinized (Montevecchi 1970). The Alexandrian citizens, the gymnasial class, and the Greek aristocracy were granted fiscal and legal privileges. The most important was the partial or total exemption from the provincial poll tax, called in Egypt *laographia*, "registration of people," in other provinces *tributum capitis*, "tax per head," introduced soon after the conquest and paid by all adult males. As was the case in other provinces, the liability to the poll tax (as well as to other taxes and compulsory services) was assessed by a house-to-house census that, at least in Egypt, took place every fourteen years under Tiberius, and possibly every seven years under Augustus (Bagnall and Frier 1994: 2–5).

To improve the grain produce, which was destined to feed Rome, Augustus reorganized the irrigation system of Egypt, the web of canals and dikes that allowed a rainless country to produce, by exploiting the annual flood of the Nile, over twice as

much as a normal harvest. The exploitation of the land was changed also in that new cash-raising crops, such as vineyards and olive groves, were introduced, especially in the area of the Fayum and in the imperial estates. The Ptolemaic system of corvée labor was continued and entrusted, needless to say, to the Egyptian population while a system of compulsory services was gradually introduced to cover all the bureaucratic offices and tasks of the community – a process which would culminate in AD 202 with Septimius Severus' institution of city councils. Compulsory labor and taxation were often too heavy a burden for the farmers, who frequently abandoned their homes in a form of strike, the *anachoresis*, a device existing in Egypt from Pharaonic times. Egypt was the granary of Rome and the cow to be milked, although this often brought ruin, as we learn from Tiberius' reproach to his Prefect of Egypt Aemilius Rectus, probably during a famine: "I want my sheep to be shorn, not skinned alive!" (Dio 57.10.5; Suetonius *Tib.* 32.2; Orosius 7.4; Joann. Antioch. fr. 79.2; Suda *s.v. Tiberios*, 552.5).

From Pharaonic times, Egypt was a multicultural and multilingual country inhabited by communities (*politeumata*) of foreigners, such as Jews, Syrians, Idumeans, and Arabs, and endowed with a semi-autonomous administration. Each *ethnos* or foreign nation gravitated around a temple of the national religion and had magistrates, an assembly of elders, a local head called the politarch, and a general chief, the ethnarch. The Jews were the most populous foreign community in Egypt, counting, according to the Jewish-Alexandrian philosopher Philo, over a million people (*Flacc.* 43; Barclay 1996: 41). Julius Caesar, then Augustus had granted the Jews the right to continue their ancestral religion but made them subject to the provincial poll-tax like the Egyptians, whether or not they regarded themselves as Greeks. In an Augustan petition (*CPJ* 2.150) a Jew called Helenos describes himself as an "Alexandrian," but the scribe deleted this and wrote on top: "a Jew from Alexandria" (Mélèze-Modrzejewski 1995: 164–5).

Slavery was wide-spread in Egypt although the documents record mostly domestic slaves as agriculture was carried out by free farmers, who frequently lived in worse conditions than slaves (Biezuṇska-Małowist 1974–7; Straus 2004). An important feature of Julio-Claudian Egypt is the presence of imperial slaves and freedmen, who acted as business managers, procurators, supervisors of tax collection, and priests of the imperial cult, and were often involved in long-distance trade (Aubert 1994). Despite their low social status they were often immensely rich and used their bank accounts in Alexandria and Rome for operations of giro-credit and to facilitate the collection and transfer of revenues to Rome (Harris 2006). Naturally, they were carefully chosen and closely controlled by the emperor, to whom all their fortunes reverted automatically on their death. After the Julio-Claudian period the power and popularity of imperial freedmen was readjusted, and the financial business of Egypt was entrusted to equestrian procurators, such as the *procurator ad Mercurium*, the area of Alexandria where the granaries for the exportation to Rome were located, or the *procurator usiacus*, supervising the estates of the imperial family (Beutler 2004, 2007a, 2007b).

In conclusion, the reign of Augustus marked a profound change in the life and administration of Egypt, as it established the new administrative structure of the province, which continued and transformed Ptolemaic institutions and recycled the existing offices for the purposes and needs of a new Roman province. Augustus'

structuring of Egyptian administration and taxes remained virtually unchanged until the reforms of the third century, though, naturally, some institutional, social, and fiscal changes were brought in by individual emperors, often on the occasion of a voyage to Egypt.

3   Roman Emperors and the Voyage to Egypt

Egypt and Egyptians had a very bad reputation in imperial Rome. Tacitus (*Hist.* 1.11) spoke of Egypt as "a province which is difficult to access, productive of great harvests, but given to civil strife and sudden disturbances because of the fanaticism and superstition of its inhabitants, ignorant as they are of laws and unacquainted with civil magistrates" (tr. Moore, *LCL*), and Livy (38.17.11) sadly observed that the Macedonian population in Egypt "degenerated" into Egyptians. Josephus, a noble Jew who followed Vespasian and Titus after the fall of Jerusalem of AD 70, attacked his rival, the Alexandrian anti-semite Apion, by saying that "we refuse to call you all Egyptians, or even collectively men, because you worship and breed with so much care animals that are hostile to humanity" (*C.Ap.* 2.66, transl. Thackeray, *LCL*) and Juvenal (15.11.13), who went to Egypt as a soldier under Hadrian, tells tales of Egyptian cannibalism in the Thebaid. In the fourth century, the *Historia Augusta* (*Quadriga tyrannorum*, 7–8) calls the Egyptians "fickle, irascible, vain, offensive," and even insinuates that they had sexual intercourse with chickens!

From the political point of view, the whole province of Egypt was infamous for being inclined to revolution. Seneca (*Ad Helviam matrem* 9) described it as a traitorous province. The city of Alexandria had a reputation for being unstable, a reason, perhaps, why the Alexandrian citizens were not allowed, from Ptolemaic times up to Septimius Severus, to have their own city council. Documents show that on different occasions Alexandrian delegations asked the Roman emperors to restore their *boule*, but were always unsuccessful (cf. *PSI* 10.1160, the "Boule Papyrus"). The "terror of Egypt" was a strong theme in Roman imperial propaganda, probably determined by the leading role of the country in the exportation of the grain supply to Italy, and, in addition, by the extreme wealth of Alexandria, an international financial and commercial center that linked Egypt to both the Roman West and, through the Red Sea, to India. Whoever managed to gain military control of Egypt, whether a Roman or a foreign leader, would have become a serious threat to the stability of the empire.

After Augustus few emperors bothered to go and visit Egypt. Imperial visits mostly served to regain control of the country, when there were internal squabbles, to resolve problems connected with famines and grain supply, or to seek the support of the troops stationed there. The first member of the imperial family who went to Egypt after Augustus was his nephew Germanicus, who in 19 helped the population during a famine by opening the granaries destined to serve the exportation of corn to Rome. He was applauded by an excited crowd in the hippodrome of Alexandria and was offered divine honors, which he refused in an official edict, preserved on papyrus (*SB* 1.3924, *SelPap* 2.211.31ff). An extract from an official collection of imperial

receptions (*POxy* 25.2435 *recto*) registers, in a lively style, the salutations and cries of the Alexandrian crowd, the words of the Alexandrian chamberlain, and the improvised speech of Germanicus, trying not to be interrupted by the crowd: "if you really want me to talk to you, be quiet and let me finish." The news did not please Tiberius, who accused Germanicus of breaking the law by entering Egypt without his consent, but he was probably more worried by the possibility that Egypt, with no Prefect at the time, might fall in the hands of the charismatic general (Tacitus *Ann.* 2.59; Purpura 2002). A new Prefect, Galerius, was sent to Alexandria from Sicily in the record time of one week, and Tiberius reduced the legions garrisoning Egypt from three to two, to prevent insurrections. One year later Germanicus died in Syria, a death which, as Tacitus insinuates, Tiberius had ordered. The following Prefect, Avillius Flaccus (32–3), also prohibited the retention of weapons, for fear of insurrections and raided the houses of the Alexandrian Jews in search of presumed, but non-existing, hidden arms.

During the Prefecture of Flaccus the relationship between Jews and Greeks got worse, and on the occasion of a visit of king Agrippa of Judaea in 38 the Alexandrian Greeks took revenge on he Jews. In 39 both an Alexandrian and a Jewish delegation left Egypt for Rome, where they were received by Caligula. The spokesman of the Greeks was the grammarian Apion, while the Jews were defended by Philo. But the emperor neither gave a full response to the delegations, nor visited Alexandria as he had planned, as he was assassinated in the theatre in January 41. Claudius responded to the Alexandrian delegations in a letter, preserved on papyrus (*CPJ* 2.153) and in Josephus (*Ant.* 19.380–9), where he promised that the rights of the Jews would be maintained, in the manner prescribed by Augustus and by the Ptolemaic kings before him, and exhorted the Jews to be content with what they had "in a city not their own." He also warned the Jews not to invite other Jews from overseas and compared this clandestine immigration to a world-wide disease. It is uncertain whether he alluded to the Jewish extremists who might come to Alexandria to fight the street-war against the Greeks, or to the beginning of Christian preaching.

The difficult relationship between Jews and Greeks in Alexandria under Caligula and Claudius is reflected and documented in an exceptionally colorful way in an interesting and enigmatic genre, the *Acts of the Alexandrian Martyrs* or *Acta Alexandrinorum* preserved in the papyri (Musurillo 1954; Harker 2008). These are fragments of the proceedings of fictitious trials of Alexandrian magistrates before various Roman emperors, from Claudius to the Severans. In these proceedings, which pretend to be documentary reports, but are actually political pamphlets, the Alexandrian magistrates show off their nationalistic and anti-Jewish feelings, which are instrumental to their opposition to Rome. In these works, both the emperors and the senate are constantly accused (in shockingly violent tones) of being philo-Judaic. In one fragment Claudius insults the gymnasiarch: "Isidorus, you are really the son of an actress," and Isidoros replies: "I am neither a slave nor the son of an actress, but a gymnasiarch of the glorious city of Alexandria. But you are the cast-off son of the Jewess Salome!" (*CPJ* 2.156d; Harker 2008: 42–3).

Neither Claudius nor Nero visited Egypt, although Nero had actually planned a trip to Alexandria, and even banished a friend of his, the Prefect C. Caecina Tuscus, for daring to use the baths that had been built for the expected visit (Suetonius *Nero* 35.10; Dio 62.18.1). A papyrus letter of Nero addresses a delegation from the capital

of the Fayum, Ptolemais Euergetis, which included members of the 6475 katoikic soldiers of that district. The surviving part of the letter starts with the last part of a list of honors that the delegation offered to the emperor, to congratulate him on his accession, which he refused by using a formula (probably introduced by Augustus) for accepting or rejecting honors. The letter and the embassy were probably connected with an official selection of the Greek elites in Egypt, aiming to keep the Greek class separated from the rest of the population (Montevecchi 1970; Hanson 1988: Bussi 2008).

From the end of the reign of Nero up to the rise of Vespasian Egypt was governed by Tiberius Julius Alexander, a nephew of Philo, who abandoned Judaism to follow the equestrian career. His edict of 68 is an example of how the Prefect tried to fight the socio-economic problems of such a delicate period at the fall of the Julio-Claudian dynasty (*OGIS* 2.669; Chalon 1965). Despite Alexander's long list of reforms, on problems such as the burden of taxes and corvée works imposed on the Egyptian farmers, and despite his claim to report these problems to the new emperor, the edict boils down to the question of cancelling the arrears of taxation and does not introduce radical changes. It emerges that Roman provincial governors proceeded by trial and error rather than by radical reforms, and this conservatism probably mirrors the general trend of the Roman imperial period, while the "great policy-forming debates" between the emperor and his advisers, often evoked by modern scholars, probably never took place (Sherwin-White 1966).

The "year of the four emperors," AD 69, opened people's eyes to a "secret of empire": the Roman emperor could be elected outside Rome (Tacitus *Hist.* 1.4). Egypt was at the center of this phenomenon, when Vespasian was acclaimed as the new emperor by the troops in Alexandria, with a little help from Tiberius Julius Alexander. An extract from an official chronicle of imperial receptions (*PFouad* 8; *CPJ* 2.418a) describes the arrival of Vespasian in Alexandria and his encounter with the crowd that swarmed into the hippodrome and greeted the emperor as "savior and benefactor" in the Hellenistic fashion, and as "Son of Ammon" and "Rising Sun" in the Egyptian tradition (Montevecchi 1981). Despite the documentary style of this chronicle, that gives an impression of a truthful and immediate account, this text is contradicted by the literary sources, which claim that the Alexandrians insulted and ridiculed Vespasian (Dio 65.8; Suetonius *Vesp.* 19.2). Even Josephus (*Vit.* 415–16; *Bell.* 7.116), who was on the staff of Vespasian at the time, omits to chronicle Vespasian's visit to Alexandria, perhaps not to embarrass him by showing his past as a rebellious general and usurper. It is likely that Tiberius Julius Alexander, and Vespasian himself, probably supervised and checked whatever piece of news was written in Alexandria. Sometimes, on the other hand, documents help us provide reliable dates. In a private letter (*POxy* 34.2725) of 29 April 71, a man informs his son or brother in Alexandria that "the lord Caesar entered the city on 25 April 71 at seven in the morning." The emperor is Titus, returning from Palestine after the conquest of Jerusalem (Suetonius *Titus* 5, Jos. *Bell.* 7.116). After the fall of Masada in 73 the Jewish revolt spread in North Africa, especially to Cyrenaica where the rebels could count on a rich and numerous Jewish community. To quell the revolt, Vespasian traveled in person to North Africa and also ordered that the Jewish temple of Leontopolis near Heliopolis in Egypt be shut and then razed to the ground for fear

that it could became the center of new Jewish uprisings. Egypt, once again, was one of the most dangerous areas of the empire, and Alexandria the focus of anti-Roman feelings.

In the period between 116 and 117 Egypt was the theatre of a violent revolt of the Jews against the Greeks and the Egyptians, and at the same time against the Roman government. The Graeco-Roman literary sources, for instance Appian of Alexandria, an Egyptian contemporary, tell us the story from the point of view of the winners, while the point of view of the Jews emerges only from one passage in rabbinical literature (Appian, *Arabicus Liber* fr. 19 = Stern 1980: Vol. 2, 185–6 fr. 348; *Bell. Civ.* 2.90 = Stern 1980: vol. 2, 187 fr. 350. Pucci Ben Zeev 2005). The documentary papyri preserve a lively and effective account of the disasters of the war. Through them we hear the voices of women, who wrote the correspondence personally, as the men were all away from home. Eudaimonis, the mother of the *strategos* Apollonios, complains that she could not find help in weaving, because of the scarcity of labor available during the war and talks about the damages to the fields and villages, the consequences for trades, and the lack of food supplies that made living even more difficult (*CPJ* 2.438.1–6). She even discarded religion: "be sure that I shall pay no attention to God until I get my son back safe" (*CPJ* 2.442.25–8). Other documents show that the main foodstuffs were scarce. At Oxyrhynchos there was no bread (*POxy* 12.1454) and at Apollinopolis the price of wine became astronomical (*PGiessen* 79). When the Jews were defeated in battle the Greeks offered sacrifices to thank the gods (*CPJ* 2.439.8–10), and when the revolt was bloodily repressed Roman forces, annihilating the Jewish presence in Egypt, the Greeks instituted a festival to commemorate the event, which was celebrated for more than 80 years (*CPJ* 2.450.ii.33–35).

When Hadrian came to power in 118, both the empire and Egypt were in deep socio-economic and military crisis, giving rise to his decision to inaugurate a period of peace and reconstruction, which he occupied travelling throughout the empire, from North Britain to Cyrenaica (Birley 1997; Galimberti 2007). In 130 Hadrian visited Egypt, calling at all the main cities during his Nile cruise (Birley 1997: 235–56). The chronicles of Hadrian's voyage on the Nile, including Yourcenar's famous *Memoirs of Hadrian*, are all overshadowed by one main incident: the death of beautiful Antinous, the emperor's boy-lover, who drowned in the river in mysterious circumstances, perhaps, as was rumored, in a voluntary sacrifice to save the reputation of the emperor. Next to the site of the incident, opposite Hermopolis, Hadrian founded a Greek city called Antinoopolis and instituted the cult of Antinous, which thereafter spread throughout the Mediterranean. At Alexandria Hadrian promoted a massive building program, including new official archives, such as the Hadrianeion, that helped to centralize bureaucracy (Burkhalter 1990), but also temples, fortifications, baths, and palaces, all in the Graeco-Roman style. He also built temples in the traditional Egyptian style (as did Augustus and other emperors before him), and restored many buildings that had been damaged in the Jewish revolt under Trajan (Boatwright 2000; Bowman 1992 and 2000; McKenzie 2007). The provinces needed to be reassured of the *grandeur* of the Roman empire.

However, the long story of Egyptian insurrections was not over. Under Hadrian's son Antoninus in 153 new riots broke out in Alexandria, in which the Prefect L. Munatius Felix was killed, and under Marcus Aurelius, in 172, there was a major

Figure 10.1 Relief from the north side of the temple of Khnum, Latopolis (Esna) showing the emperor Trajan (98–117) in a traditional Pharaonic pose subduing the enemies of Egypt. Courtesy Alan K. Bowman.

Figure 10.2 Trajan's kiosk at Philai, built in the early second century AD, a watercolor by David Roberts, *Sketches in Egypt and Sudan* 1846. Courtesy Alan K. Bowman.

insurrection, the so-called revolt of the *boukoloi*, (usually translated to "herdsmen"), guided by the Egyptian priest Isidoros. Disguised in female clothes, the *boukoloi* approached a centurion pretending to be their own wives offering gifts, and, after killing him, they sacrificed the body, took an oath on his entrails, and ate them. Isidoros managed to defeat the Romans in battle and had almost conquered Alexandria, when Avidius Cassius, the son of a Prefect of Egypt, sent from Syria, managed to divide the rebels and defeated them in several battles (Dio [Xifilinus] 71.4; *HA M. Ant.* 21.2; *Avid. Cass.* 6.7). In 175, however, Avidius Cassius went to Alexandria, and his troops declared him emperor (*SB* 10.10295; Bowman 1970; Syme 1988). Marcus Aurelius spent the winter in Alexandria quelling the sedition.

The reign of Septimius Severus at the beginning of the third century marked an important turning point in Egyptian history. A petition of some farmers (*PCattaoui* 2; *SB* 1.4284) recalled the visit of Septimius Severus and Caracalla in admiring terms: "When the most sacred emperors . . . arose like the sun in Egypt." Once again, the imperial visit was dictated by the need to resolve a crisis. Severus' reforms are preserved by a large papyrus roll containing 31 brief *apokrimata*, or "imperial rescripts," issued by Severus during his three-day stay in Alexandria in 202 (Westermann 1954). The most important change was what modern scholars call "municipalization," that is, the introduction of city councils or *boulai*, the Greek equivalent of Roman municipal senates, both in Alexandria and in the capitals of the Egyptian districts. The process affected the administration of the cities, which were now governed by an assembly of liturgical councillors (that is, selected on the basis of their wealth), who were responsible for the collection of taxes (Bowman 1971; Bagnall 1993). In addition, Severus was the first emperor who allowed the Egyptians to enter the Senate of Rome – a revolutionary move that finally canceled one of the most "racist" policies of Augustus. As to religion, Severus was less open-minded. Fearing, perhaps, the increasing power of Christians in Egypt, he suppressed the influential Christian School of Alexandria and made conversions illegal, creating a large number of martyrs (Clement *Strom.* 2.20; Eusebius *Hist.Eccl.* 5.26; 6.1).

Severus' infamous son Caracalla is remembered above all for his *Constitutio Antoniniana* of 212, an edict that extended Roman citizenship to all the male adult population of the empire, excluding *peregrini dediticii* ("rebellious" freedmen, who were forever debarred from the Roman citizenship), and which is preserved on papyrus (*PGiss* 40; Montevecchi 1988, Lukaszewicz 1994). This provision may have been issued in order to improve the economy by levying the inheritance tax and all the other taxes imposed on Roman citizens, and probably looked less important to contemporaries that it does to us. The change is signalled in the papyri by the sudden and massive presence of people called *Aurelius*, the name that symbolized Roman citizenship and that was adopted by all before their own individual name. Around 216 Caracalla struck a serious blow at Alexandrian culture by closing the theatres and suppressing the *syssitia*, the dining rights of the scholars at the Museum. The last emperor of the Severan dynasty, Severus Alexander (222–35), visited Egypt, or at least planned to do so, as a papyrus document informs us, in order – as always – to stop the excessive fiscal and liturgical impositions (Thomas and Clarysse 1977). In fact, as soon as the new council-based system was established in Egypt, a terrible crisis pervaded the country.

An attempt of reform was made by Philip the Arabian (244–9), who aimed to increase the revenue, despite the fact that his procurators proclaimed to be "lightening the burden of all Egyptians, worn down as they are by the limitless liturgies" (*POxy* 33.2664; Parsons 2007: 172). Egypt had always been the milch-cow, and, when Rome had more need of supply than usual, emperors looked to it. However, in the third century Egypt "was in no condition for further milking," as the financial crisis of the imperial government aggravated the already difficult internal situation (Parsons 1967: 140). Many documents relating to the town councils of Oxyrhynchos and Hermopolis evoke an atmosphere of crisis (Bowman 1992), and in 247/8 Oxyrhynchos suffered a shortage of food (*PErl* 18). The new taxation was resisted and population declined. The crisis affected also the middle class and the once privileged categories: around 260 an Oxyrhynchite teacher complains that his salary, when he is so fortunate as to get it, is in sour wine and in grain which has been eaten by worms and asks for a small plot of land in order to be able to carry on his job, (*PCollYoutie* 60). The conflict between tax collectors and the population was violent and seemed intractable (Youtie 1967; Badian 1972). Failure to collect and deliver all the taxes due could lead to trial, fines, and confiscation of one's property by the treasury, hence the diffused social discontent which caused revolts and internal squabbles in the villages. The census returns cease after 257/8, and no censuses were taken after the third century. Paradoxically, however, archaeological excavations seem to point to a third-century boom of civic, Roman-style buildings, such as porticoes, processions places, gymnasia, baths, and theatres (Bowman 2000). One explanation for this apparent contradiction is that public works were an area in which the councils were autonomous, and civic pride may have played a role. After the failure of Philip's reforms, Aurelian and Probus made new efforts. Aurelian hoped to revive agriculture throughout the empire by reorganizing Nile transports, and Probus worked on the system of dykes and canals, but the crisis would not go away (*HA Aurelian* 47; on transport, see Adams 2007). In 273 Aurelian razed to the ground the Museum to punish the Alexandrians for a revolt, and the scholars either fled the country or sought refuge in the smaller library of the Serapeum. The cultural focus of the ancient Mediterranean had been destroyed, and a new more brutal and militarized age began.

4   Byzantine Egypt up to the Arab Conquest

An anti-imperial revolt led by Domitius Domitianus broke out in Egypt around 297, inspired by fiscal and social oppression. Domitianus was declared emperor and controlled the country for almost a year, until Diocletian personally went to Egypt to quell the revolt (Schwartz 1975; Boak and Youtie 1957; Barnes 1982: 11–12; Palme 2007). The edict of the Prefect Aristius Optatus of 16 March 297 (*PCairIsid* 1) spoke directly to the provincials, promising imperial benevolence in exchange for the prompt payment of taxes: "For it is fitting that each person discharge with the utmost enthusiasm everything that is due to their loyalty, and, if anyone should be seen doing otherwise after such concessions, he will risk

punishment … The collectors of every kind of tax are also reminded to be on their guard, with all their strength, for, if anyone should be seen transgressing, he will risk his head'' (transl. Parsons 2007: 174). Tax collectors no longer simply risked a fine, as in previous years, but could be sentenced to death.

In 284 the emperor Diocletian (284–305) undertook a comprehensive reform. He divided the empire into an eastern and western half, and Egypt itself was divided into two smaller provinces (Bagnall 1993: 64). Egypt was also forced to give up its special closed currency system and its special dating-system, and was assimilated to the Roman norm. Latin became the language of bureaucracy, probably in the attempt to cement, at least in terms of language, a fragmented empire. Diocletian's reforms have been read as a sign of the decline of the city council and of the bureaucratization of Late Antique Egypt: in the first half of the fourth century most civic offices of the city disappeared and new authorities were created, and individual officials, such as the *logistēs* or *curator civitatis*, superseded the municipal council as the chief executive of the city and the governor of the district. The magistrates connected with the gymnasium and the ephebate, the Greek curriculum, and eventually also the councillors and the gymnasiarchs declined (Bagnall 1993: 60; Keenan 2007; Kiss 2007; van Minnen 2007; Gascou 2008).

One reason for these changes may be sought in the spread of Christianity and the decline of Paganism: while Christian bishops appeared and gradually superseded pagan High Priests, the Greek educational and recreational center, the gymnasium, was overtaken by a new concept of both education and entertainment. Alexandria was the cultural capital of the Mediterranean and naturally played a special part in the rise of Christianity, with a number of scholars, mystics, heretics, and saints. Origen worked on commentaries of the Old and New Testament with a large staff of pupils and was tortured and killed in the persecution launched by Decius in 250–1 (Eusebius *Hist.Eccl.* 6.23), while St Anthony left his home around 270 and took refuge in the Western Desert of rock and sand as a Christian ascetic. Diocletian and his co-emperors (303–11) launched the most violent persecution against the Christians: a decree of Diocletian in 303 ordered a systematic destruction of churches and sacred books and a general enslavement of Christians, so that this period has come down to us as the ''Age of the Martyrs.''

In 313 Emperor Constantine and his colleague Licinius issued edicts of toleration and Christianity was made the official religion of the empire. After defeating Licinius in 324 and founding Constantinople (modern Istanbul) as a ''Second Rome,'' Constantine directed Egypt's taxes to the new capital, and Egypt thereafter was for more than three centuries part of the Byzantine Empire. Most of that time was peaceful (324–617) apart from Egypt's role in supporting Heraclius' usurpation from Phocas. In 324, the ecumenical Council of Nicaea established the patriarchate of Alexandria as second only to that of Rome, with powers over both Egypt and Libya, but Christianization was slow and regional. The *History of the Monks of Egypt*, certainly prone to hyperbole, reports that Oxyrhynchos was ''so full of monasteries inside that the monks themselves make the walls resound, and it is surrounded outside by other monasteries, so that there is another city outside the city … There are twelve churches in it … ten thousand monks … and twenty thousand virgins.'' (*Historia monachorum in Aegypto* 5. trans. Parsons 2007: 193). The papyri

Figure 10.3 The monastery of St Simeon (strictly Anba Hadra) at Aswan, a seventh-century foundation substantially rebuilt in the tenth century and dedicated to a hermit saint who was bishop of Aswan during the Patriarchate of Theophilos (389–412). Courtesy Alan K. Bowman.

show that traditional religion coexisted with Christianity until at least the fifth century, but by the sixth century, Oxyrhynchos had at least thirty churches (*POxy* 11.1357; 67.4618–19).

Rebellious Alexandria soon came into conflict with Constantinople, as it was the home of alternative Christianities and heresies. Among others the Gnostics (literally "Those who Know") saw the universe in a Neo-Platonic way, the presbyter Areios (died 336) founded the Arian heresy that minimized the divinity of Christ, and the bishop Athanasius (bishop 328, died 373) waged doctrinal war over the relation between the Son and the Father – Athanasius' view that they both proceed from the same substance has prevailed to the present day as the orthodox doctrine. The Egyptian desert hosted the legendary lives of the Desert Fathers, and the rise of monasticism and the monastery in Egypt deeply affected and stimulated the rest of the empire. Nevertheless, despite the triumph of Christianity, some Greek aristocrats in Egypt looked back nostalgically at Greek culture (Cameron 2007), and magic continued to flourish, almost as an anti-church. Egypt also saw some pagan martyrs, victims of the intolerance of Christians. In 391, when the emperor Theodosius decreed the closing of pagan temples and the banning of pagan cults, the mob of Alexandria, encouraged by the patriarch Theophilus, destroyed the Serapeion, and possibly the library that it contained, and in 415 the pagan mathematician and

philosopher Hypatia, the first female lecturer in Alexandria, was stoned to death in the church of the Kaisareion: "They watch for her to return home from somewhere, and throwing her out of her carriage, they drag her to the church known as the Kaisareion, and stripping off her clothes they took her life with pieces of broken pot, and after tearing her apart limb by limb they brought the limbs together at the so-called Kinaron and consumed them with fire" (Socrates *Hist. Eccl.* 3.10; transl. Parsons 2007: 195).

Thereafter, a turning point was the Council of Chalcedon in 451, which marked the beginning of the Monophysite schism, separating the Catholics from the Egyptian church. The Egyptian church, also called Coptic, from the Egyptian language, written in Greek letters, that was becoming predominant, never recognized the authority of Constantinople, and the schism has lasted for centuries up to the present day as a form of national religion (Emmel 2007). These doctrinal wars eventually marginalized Egypt from the rest of the empire: although the Alexandrian patriarchs were enormously important in the Christological disputes, Alexandria was eventually overtaken by Constantinople and lost ground also to Antioch as a regional political center (Bagnall 2007: 4–5).

Documentary papyri of the fifth and sixth century come mostly from the archives of great families of landowners. Among them it is worth mentioning the archive of the Apions, a powerful Oxyrhynchite family of the fifth and the sixth centuries with large landholdings in the Oxyrhynchite Nome and in the Fayum (Mazza 2001; Alston 2002: 313–16; *POxy* Vols. 6 and 16). The Apions were so influential that they had political careers both in Egypt and Constantinople and may even have married into the imperial family. Their estate archive has been preserved with a huge number of documents, giving us details on the management of the land and insights into the life of the fifth and sixth centuries. Numerous accounts record payments and charitable donations from the Apions to churches, monasteries, and hospitals and enlighten us on the links between the ecclesiastical administration and the aristocracy. The Apions supported circus factions, for instance, by sending wine to the faction of the Blues, showing the important role played by the Hippodrome in sixth-century civic life (*POxy* 27.2480; Alston 2002: 313–16). The archive seems to point to a continuity of the institutions (such as the *curator civitatis*) which had been introduced during the fourth century, although, naturally, the survival of these offices does not guarantee that they did not have their own evolution. In a recent study Beaucamp (2007) argues, on the basis of the papyri, that there was no general, religiously motivated opposition to Justinian's legislation in Egypt and that Egypt was no more distinct in the field of law than any other province in the empire.

Under Justinian (527–65) a terrible plague and an earthquake devastated Egypt and spread throughout the eastern empire, and the religious persecutions of the Christian Copts and the growing burden of taxation fueled the Egyptians' conflicts with and hatred of the Byzantine court. Egypt was in constant turmoil. Frequent riots afflicted Alexandria, while the Thebaid and Upper Egypt were raided by brigands, Beduin, and Nubians. The peace enjoyed by Egypt under the Byzantine Empire was interrupted by the role of the province in Heraclius's usurpation. Under the reign of Phocas (602–10) Heraclius, the Prefect of Africa, attempted a *coup d'état* while his general Nicetas planned to occupy Alexandria and cut off the corn supplies from

Constantinople. Phocas hurried from Syria supported by Bonōsus who failed to conquer Alexandria. Heraclius was master of Egypt and Nicetas the governor of Alexandria. For the thirty years between the accession of Heraclius and the Arab conquest we depend on ecclesiastical sources with a strong religious bias. In the seven century in Egypt religious issues predominated and the interest in politics declined (Butler 1978: 6–7, 44; Kiss 2007).

In the time of the Coptic Patriarch Anastasius (died 616) and of the emperor Maurice, the Persians invaded Egypt and ended temporarily Byzantine rule, which was restored in 629. The country was devastated by battles and famines, and Alexandria was swollen by refugees who had come to Egypt after the Persian invasion of Syria. In 618 the keys of Alexandria were sent to Chosroes along with spoils of war. (Butler 1978: 72–80; Bagnall 2007: 1–3). While the Persians had been relatively tolerant of the Copts, the restoration of Roman domination in Egypt in 631 was followed by ten years of persecutions, which, in effect, opened the way to the conquering armies of Islam. In 640 'Amr bin al-'Aṣī, a general of the Caliph Omar, besieged the fortress of Babylon in the Delta and subsequently conquered Alexandria. A treaty, signed by the patriarch Cyrus and by 'Amr on 8 November 641, sealed the Arab conquest of Egypt (Butler 1978: 310–20; Sijpestein 2007).

The theory that Egypt was hostile to the Byzantine Empire and that the local population welcomed the Arabs as liberators should be rejected, as the Arabs entered Egypt thanks to the support of the privileged, not the lower classes. Furthermore, Egypt was not alienated from the empire. Wealthy Egyptians, such as the Apions, sometimes lived in Constantinople (*POxy* 43.4397), monks traveled to the capital on financial business (*POxy* 43.4397) and villagers sent delegations to defend their rights there. Naturally, the literary sources, all concerned with theological issues, do not expand on these details, something that the documents do – and Byzantine Egypt is probably the most documented of the ancient societies. Probably, the cities of Egypt remained prosperous until the Persian invasion, and the villages also continued to exist, although the growing number of monasteries as rural centers transformed the geography and connectivity of the countryside (Bagnall 2007: 4–10).

5   Conclusion

This chapter has suggested that Alexandria and Egypt were at the center of Mediterranean politics in the Roman period. The mummified body of Alexander, locked in a glass coffin, symbolized the aspirations to a universal empire and magnetized the attention of Roman emperors, who saw themselves as the ideal successors of Alexander. The history of the rebellions of Egypt and subsequent interventions on the part of Roman emperors show that the country constantly played a strategic role in the political shape of the Roman Empire. One hundred years after the acclamation of Vespasian in Alexandria, and two centuries after the suicide of Antony and Kleopatra, the revolt of Avidius Cassius disclosed an *arcanum imperii*: the empire could be divided into an eastern and a western part, and Egypt, a frontier state, could become

the center of an alternative empire (Syme 1988; Eck 1997). The later invasions of the Persians and the Arab conquest once again showed that, along with Syria, Egypt was the door that opened the Mediterranean to the East.

The fundamental importance of the province and its capacity to play a key role in imperial history lay in its role in the corn supply of the empire (Geraci 1994). Besides, Egypt was a tax-exporting province, as its revenues flew into the imperial treasuries or the pockets of Roman senators, freedmen, and entrepreneurs and stimulated trade. The caravan routes and the Red Sea ports supplied Rome with pepper and exotic goods, and the state banks played a decisive part in the economy of the province. In the Byzantine period, when the currency system was in a crisis, the principal asset of Egypt was, again, wheat: any enemy, if cut off the provisions, could be reduced by hunger.

From its Hellenistic past Alexandria had a glorious Museum and Library that made it the cultural capital of the world, and a city more beautiful than Rome. The Greek intellectuals of the Museum went directly from the ''common room'' of Alexandria to the imperial house as diplomats, judges, and speech-writers. Egypt, too, with its ancestral religion and concern with the afterlife, shaped Roman religious ideas and politics. The obsession with the solar cult deeply influenced Roman emperors, as early as in 12 BC, when the Prefect Rubrius Barbarus brought two obelisks from the temple of the sun god Helios-Re at Heliopolis to the Kaisareion of Alexandria, and when an inscription in Latin was written on one obelisk claiming: ''After having subdued Egypt to the *potestas* of the Roman people, [Augustus] gave it as a gift to the sun,'' linking officially the imperial cult to the Egyptian sun-cult. The cosmopolitan and polyglot mixture of Eastern religions, Greek philosophy, and monastic mysticism which prevailed in Egypt also contributed to the rise of Christianity in ways that are still an object of debate. For all these reasons, we should look at Egypt as a very important, and in no way marginal province of the Roman empire.

FURTHER READING

For a survey of the problems of Egypt just before the Roman conquest see Thompson 1994 and Bowman 1996. For the history of Egypt under Augustus see Capponi 2005, and now Bowman 2007. There is no comprehensive study of Egypt under Roman rule; however one can use Bowman 1996. For the Byzantine period see Bagnall 2007, including issues of social political and cultural history up to the Muslim conquest, and Gascou 2008. See also the old Butler 1978. Excellent monographs on specific aspects of Roman Egypt have appeared in the past twenty years: on land see Rowlandson 1996 and Mazza 2001; on the Roman army see Alston 1997; and on urbanization consult Alston 2002. The evidence for an Egyptian census has been studied by Bagnall and Frier 1994. On the connected problem of status and citizenship in Alexandria see Delia 1991. On the selection of élites, both priestly and lay see now Bussi 2008. On slavery there is the useful Straus 2004. There is no recent and comprehensive study of Roman taxation, for which one should still use Wallace 1938. On coinage see the section on Egypt in Burnett, Amandry, and Ripollès 1992, and on land transport Adams 2007 is essential. For religion see Frankfurter 1998, and on the beginnings of the imperial cult

Herklotz 2007. On the genre of the *Acta Alexandrinorum* and the war between Greeks and Jews see now Harker 2008. Schools and education are covered by Cribiore 2001. On papyri preserving letters written by women see Bagnall and Cribiore 2006. A useful handbook on the role of women in Egypt is Rowlandson 1998. For recent studies of cities consult Bowman, Coles, Gonis, Obbink, and Parsons 2007, Parsons 2007, Bagnall and Rathbone 2004, and the excellent, sumptuously illustrated McKenzie 2007.

PART III

State and
Economic Structures

The Pharaoh and Pharaonic Office

Ellen F. Morris

As in many sacred monarchies, the central paradox of Egyptian kingship was that the body politic was unequivocally divine but was by necessity filled by a body natural, subject to the laws of nature and to all too human foibles (Kantorowitz 1957). In emic terms, the king when fully immersed in his hallowed role as the ruler of Upper and Lower Egypt was the *nsw*, while his physical, individual self was referred to as the *ḥm* – or "incarnation" (Goedicke 1960: 17–37, 51–79; Blumenthal 1970: 23). Those few points in Egyptian history where the humanity of a particular Pharaoh may be glimpsed are precious on account of their rarity. For the most part, Pharaohs were portrayed as the living image of the most esteemed god, the distillation of all that was perfect in heaven and earth. This chapter focuses on the manner in which this Pharaonic ideal of kingship was promoted, enacted, and assiduously protected from any tarnish that an imperfect mortal occupant might introduce.

1 The Foundation Myth of Kingship

Even prior to Egypt's official unification, Nilotic kings styled themselves as the earthly avatar of the falcon-god Horus. The Horus name, later written inside a stylized palace, conveyed the ideology that the divine falcon's spirit had alit on the palace and infused its occupant with supernatural power. At the dawn of the state, this message was further imparted by scenes of the god dominating a foreigner in parallel with the king or offering the sign of life to the martial personification of his name, thereby animating and invigorating him. The god Horus introduced two of the king's earliest regnal names (the Horus name and the Golden Horus name) and the same deity was virtually always incorporated into the name of the king's funerary estates (i.e., Horus-star-of-the-divine corporation; see Wilkinson 1999: 119).

The cult of the falcon-god Horus received a great deal of royal attention and patronage, as manifested in the annals of the earliest kings (Wilkinson 2000: 121, 125, 154, 179, 198, 224). Further, it is notable that the two most elaborate, archaeologically attested early temples in Egypt were those dedicated to aspects of the living and dead king: Horus at Hierakonpolis and Khentiamentiu at Abydos. Abydos was the ancestral homeland and final resting place of the Early Dynastic kings, and the local god of this polity therefore became increasingly identified with the cult of the royal ancestors. Certainly, by the Fifth Dynasty at least, Khentiamentiu had been almost entirely subsumed into the divine persona of Osiris, the father of Horus and the collective embodiment of the divine destiny of each Pharaoh after death (Griffiths 1966: 94). The spatial geography of cities sacred to kingship ensured that the ruler's presence was maintained in full force throughout the country. In the Delta, he ruled from his palace at Memphis, journeying on occasion to the important cult centers of Buto and Sais to visit his northern patron goddesses. Further upstream, on the other hand, the king was worshipped at the southernmost major population center (Hierakonpolis) and also at the juncture of Upper and Middle Egypt (Abydos).

Just when the god Horus received a narrative mythology to fully fledge his character is unknown, but this undoubtedly occurred some time prior to our first glimpse of it in the pyramid texts of king Unis of the Fifth Dynasty. The myth is too long and complex to discuss here in detail, but, as it served as an etiology of sacred kingship in Egypt, a brief overview of the narrative is essential. According to the origin story, Osiris – the good and just king, who served as a model for every good and just sovereign to follow – once ruled over Egypt, when this land was paradise upon earth. Osiris' brother Seth, who envied his kingship and committed fratricide to get it, introduced evil into the world, irrevocably altering it for the worse. Despite this act, Osiris kept his blessed kingship, simply transferring it to the realm of the dead instead of that of the living. In his otherworldly kingdom, only individuals who had lived a just and honest life were deemed worthy of entry. All others died a second death.

Meanwhile, in the terrestrial world, Horus was conceived and born following the murder of his father and was safeguarded by his mother until he came of age, able to challenge his uncle's rule. The successful resolution of this struggle between Osiris' brother and son for the office of kingship, waged in legal courts and in single combat, set an important precedent. Brothers of kings are, by definition, also sons of kings, and in most instances their age and experience far exceeds that of the previous king's son. However, while older and wiser rulers may be good for a country, succession struggles are not, and so this mythological judgement – this divine edict of proper succession – clearly determined that the stability and perceived legitimacy of kingship was of greater value than the "fitness" of any one particular king.

2   Eligibility and Training for Kingship

If the myth surrounding Osiris and Horus effectively privileged the direct line of descent, this didn't solve matters entirely, for Egyptian kings frequently married numerous women and enjoyed the sexual favors of a great many more besides.

Some exceptionally active kings produced scores of sons. According to the myth, Horus' mother was his father's sister, and both his parents were the offspring of the Earth-god Geb and the Sky-goddess Nut. Thus the principal wife in the mythological template possessed a lineage as sacred as that of the king himself. In certain instances, it can be proven that kings did marry their sisters and that the true heir was this couple's eldest son. In other instances, it seems that kings married half-sisters strategically, so as to improve their own legitimacy and that of their future offspring. Thus, a king borne by a lesser status wife – presumably because the higher status wife had no surviving son – frequently married the daughter of a wife of nobler blood and made the eldest son of that union heir (Middleton 1962; Troy 1986). Some of Egypt's most famous queens, such as Hatshepsut and Ankhesenpaaten, had far bluer blood than their spouses as a result of this practice. In addition to the status benefit of a union with the highest ranked woman in Egypt, kings who practiced sibling marriage indebted themselves to no one and blatantly disassociated themselves from the world of mortals. The only other population known to have practiced sibling marriage in Pharaonic times was the gods, and it is thus significant that such pairings were most frequent following periods of disunity in Egypt, junctures at which it was of utmost importance to quickly and decisively re-establish the Pharaoh's divinity.

It must be stated, however, that the highest status wives of a king were not always closely related to him, and there are many whose origins we know little if anything about. Other women appear to have been raised to the exalted position of chief wife only after their sons had become crown prince or even king. Clearly, then, a son's chances of ascending the throne occasionally depended on factors other than his mother's bloodline, such as sentiment or active lobbying on the part of interested parties. In cases in which the choice of heir was not based on established protocol, it would presumably have been especially important for a king to publicly acknowledge his son as crown prince or co-regent prior to his death so as to avert contestation. In extreme cases, where no legitimate sons were produced or survived, kingship occasionally fell to a brother or a daughter. Given the unorthodoxy of these successions, however, such recourses often signalled the onset of dynastic disputes. Rather than allowing a female of royal blood to rule alone, even though Manetho (*Epitome* fr., 8, 9, 10) asserts that this had been ruled permissible since the Second Dynasty, it was preferable to marry the most royal eligible female to someone deemed fitting, presumably due to their accomplishments, noble blood, and membership in the ruling circle. Whether such bridegrooms were drawn from administrative, religious, or military backgrounds, however, depended on the character of the time and of the individual concerned.

It is often the case in history that there is an inverse relationship between the legitimacy a leader enjoys and the amount of energy he or she expends in broadcasting it. When succession was not orthodox, extra measures were occasionally deemed necessary to bolster a king's claim to his office. These included the manufacture of prophesy – in which the rise of a king was predicted by a wise man, in a dream, or by the gods. Likewise, in many cases it appears that kings, especially those of lesser legitimacy, were publicly acknowledged and "chosen" by a deity in the course of a festival or in some other particularly prestigious and populated context. The latter

scenario undoubtedly would have been the occasion for much stagecraft and drama if presented as a spontaneous act on the part of the deity.

Unusual stress upon the divine parentage of a king (where the god's role in the procreation of the monarch was unambiguously literal) was also often a sign of dubious legitimacy, and claims to theogamy were most famously applied by (or to) the first kings of the Fifth Dynasty and by Hatshepsut. Indeed, one wonders if the Fourth Dynasty title "Son of Re" had been introduced by Djedefre in an effort to bolster his own contestable claim to the throne. Such stratagems could, however, occasionally be employed by perfectly legitimate kings – such as Amenhotep III and Ramesses II – to enhance their own divine lustre while on earth. Both of the above named kings copied the tactics of Hatshepsut, portraying Amun as having lain with their mothers. In Ramesses II's case, however, his true paternity may remain undecided, for Ptah, the patron god of Memphis, also confessed to him, "I am your father who begot you among the gods, all of your body being from the gods. Now I assumed my form as the Ram, Lord of Mendes, and I implanted you in your august mother" (Kitchen 1996: 102). In other texts Ramesses claimed to be born of Re and only raised by his earthly father.

Given child mortality rates – a problem even for the upper echelon of society – Egyptian kings believed in producing an heir and many spares. Royal princes were educated together with the sons of the top-tier elites in the royal court and/or were tutored by specific high-borne instructors. Although the degree of royal nepotism varied quite consciously throughout Egyptian history as a matter of policy, the heirs and lesser princes appear to have learned the fundamental skills related to literacy and military prowess. Some sons rose to positions in the priesthood, while others commanded armies, or became famous architects or administrators. Others no doubt busied themselves with the management of their father's funerary cult and estates, as did the progeny of many wealthy nobles. When living kings chose to elevate a particular son to the position of crown prince or junior co-regent, however, on the job training increased, for the heir shadowed the king and at times replaced him in important rites and duties.

3   Accession Rites

The public life of a new king ideally began at sunrise on the day after his predecessor's death. It was reported after Thutmose III passed on, for example, that "when the next morning dawned, the sun disc rose, the sky brightened, and the King of Upper and Lower Egypt, Aakheperure, the son of Re, Amenhotep [II], given life, was installed on the throne of his father and assumed the royal titulary" (Leprohon 1995: 277). Suitably lavish funerals and coronations take time to prepare, and during the canonical seventy-day period when the dead king's body was embalmed and plans for the funeral and coronation were arranged, the government averted the potential chaos of an interregnal period by quickly establishing the authority of the new king. The symbolic association of this king's rule and the dawn of a new day evoked the primeval reign of his ancestor, the Sun-god, and also the solar radiance that

characterized any "appearance" ($\underline{h}^{c}i$) of Pharaoh. It may also have alluded to his omnipotence as the "solar disk of mankind that dispels darkness from Egypt" (Caminos 1954: 153, see similarly 49).

By the middle of the Old Kingdom, the royal titulary was composed of five regnal names that melded ideological tenets of good kingship with affirmation of the king's relations with the gods and his commitment to the impartial governorship of the entirety of his kingdom. Once the king's names were drawn up, a proclamation was drafted and dispatched to officials throughout the country and to Egyptian personnel and vassals beyond the borders (Wente 1990: 27). For many of these Egyptian and foreign officials, a change of reign necessitated a renewal of their oaths of office. Indeed, it has been speculated that the numerous campaigns undertaken in a king's first year had less to do with proving his valor than with the necessity of punishing those who declined to continue their alliance (Helck 1971: 247). While the king was immediately installed on his throne in order to preserve stability in the country, however, certain evidence suggests that until the funeral, the country and king alike focussed on mourning the newly departed Pharaoh. Ostraca depicting unshaven monarchs, one streaked in tears, likely represent the new Pharaoh during this sanctioned period of mourning for his real or ideological father (Desroches-Noblecourt 1947: 185–232).

Much of this liminal period, it seems, was occupied by a ceremonial journey known as "The Creation of Order in all Provinces." During the course of this royal progress the king would travel throughout Egypt, visiting various temples, receiving regalia and endorsements from the deities, and propitiating the gods (and their priesthoods) in return (e.g., Breasted 1988b: 91–2; Murnane 1995: 232–3; Kuhrt 1995: 633). These journeys likely resembled the Following of Horus processions that occurred biennially in the Early Dynastic Period in their display of pomp and circumstance as well as the vast amounts of "gifts" that were evidently bestowed upon the king by the populations he visited. The giving of these gifts occurred at selected points on this journey, certainly at those locations where the king and various other important actors performed the Mystery Play of the Succession (Sethe 1928; Helck 1954a; Frankfort 1978: 123–39). This dramatic performance showcased the new king's piety toward his predecessor and essentially provided as wide an audience as possible with a preview of the coronation ceremonies that would take place shortly in Memphis – ceremonies that only the most elite of audience members would likely attend. The central themes of the script, not surprisingly, were the burial of Osiris, the resolution of the hostilities between Horus and Seth, the ascension of Horus to his father's throne, the equipping of the "the king who will rule" with the regalia of sacred kingship, and the provision of bounty (as typified by ceremonies of feasting and gift-giving).

One of the especially interesting aspects of the Mystery Play is how passive and distant the king remains for most of it, having actions performed to him on the deck of the royal barge (Fairman 1958: 82). Thus, although the populace was indeed allowed a glimpse of the new king, it was a glimpse spied from afar. Assuredly the majority of the audience would have perceived little more than the elaborate costumes of kingship. Like a camera lens coated with an obfuscating sheen of vasiline, distance ensured that the populace at large would not have the clarity of vision

necessary to observe any imperfections in their new Pharaoh. Instead, his stillness may have seemed to them rather akin to the stillness of the cult statues they worshipped in community chapels, public processions, and household shrines.

Indeed, had the audience been near enough to smell the king during the ceremony of crowning – as enacted in the play and presumably also during the coronation itself – they would not only have seen the image of a god, but they would have smelled a deity as well. According to the script of the Mystery Play, just prior to his crowning and the subsequent distribution of foodstuffs, the king was censed incessantly. This ceremonial censing of the king, repeated until it seemed that the scent exuded from the king's very own pores like the pores of a god, encapsulates the foremost function of the coronation. During this central ceremony of kingship, a more or less ordinary mortal, whom many of the elite had known on a personal level, was transfigured into a living god.

For most monarchs, who hadn't already been raised to the status of co-regents during the lifetime of their predecessor, their public life as Pharaoh began after their accession at the funeral of the dead king. The proper performance of funerary rites for his predecessor established and broadcasted the newcomer's legitimacy, even if this predecessor was previously a political enemy (as was Apries to Amasis). Indeed, it is of great interest that the only extant scene of a Pharaoh officiating at his predecessor's funeral was commissioned by Ay, whose claim to the throne was particularly tenuous.

Just as the initial ascension to kingship coincided with sunrise – symbolic of rebirth and new beginnings – coronations too were timed to occur at momentous occasions in the marking of time, such as the first day of the New Year (ideally) or of a new seasonal cycle. Such cyclical starts were similarly chosen for Heb-sed jubilee festivals, which were essentially the re-enactment and reinvigoration of a Pharaoh's coronation thirty years after the original event (Fairman 1958: 78). By so smoothly inserting himself into the natural cycle, the king conveyed the same message as expressed by the occasional royal epithet ''Repeater-of-Births'' (Murnane 1985: 49); the onset of his reign was to be the initiation of a new era, similar but even more perfect than the best of those that had proceeded it.

Our knowledge of coronations comes from a number of disparate sources – though interestingly the coronations of the two least ''legitimate'' kings (Hatshepsut and Horemheb) are known in the most detail. Here, like Ay's depiction of his role in the royal funeral, the emphasis by these Pharaohs on their coronations was likely a ploy to increase the efficacy and long-lastingness of this vitally important transformative event. Coronations undoubtedly varied significantly over the nearly three millennia that they were practiced and incorporated numerous innovations and adaptations. There seem, however, to have been a great many conservative rites. Those that remained more or less inviolate symbolically alluded to the original unification of Upper and Lower Egypt (such as the Union of the Two Lands and the Circuit of the Walls) or to the king's control of the four directions (such as the shooting of arrows to the four cardinal directions and the king's baptism by the gods of the four cardinal points). The ruler also received his deed of entitlement to rule the entire country, as symbolic of Horus's rightful assumption of ownership over the land (Wilkinson 2000c: 67, 136, 150; Fairman 1958: 78–85).

The climax of the ceremony, of course, was the investiture of the new king with many crowns and other items of royal regalia by priests who likely enacted the roles of the deities that sanctioned the king's rule (e.g., Breasted 1988a: 276–7). As the crowns of Upper and Lower Egypt were themselves considered goddesses, it was this act of crowning that finally infused the king with his supernatural powers. A dialogue between the king and the Red Crown of Lower Egypt in Pyramid Text 220–1 is extremely enlightening, as the king – cast as Horus – asks the goddess, "Grant that the dread of me be like the dread of you; grant that the fear of me be like the fear of you; grant that the acclaim of me be like the acclaim of you; grant that the love of me be like the love of you. Set my *ʿbꜣ*-sceptre at the head of the living, [set] my [*sḫm*-sceptre] at the head of the spirits, and grant that my sword prevail over my foes" (Faulkner 1969: 49). Following his investiture, Pyramid Text 222 proclaimed the king more powerful than all the various northern and southern gods and their spirits.

4   Kingliness is next to Godliness

The degree to which the coronation worked its magic and was able to transform a mortal convincingly into god has been the subject of much discussion. Georges Posener (1960) has argued that the godhood of the Pharaoh has been overstressed by many scholars and that in numerous instances kings were quite clearly seen for the flawed mortals they were. While Posener is undoubtedly right, it should perhaps also be noted that gods as well as kings were subject to rather unflattering folk-tales and were prone to their own petty weaknesses. Further, if the king was frequently portrayed as worshipping the gods – while the gods never returned the favor – this may be a reflection primarily of filial piety and religious practice. Egyptians throughout history seem to have paid special cultic attention to their forebears, and the king's forebears were deities according to official rhetoric and king-lists. As their beloved son, who performed the rituals for their cult – as did pious sons everywhere – the king is shown in the close embrace of the gods and as the recipient of their blessings.

It is clear from art and text that the king was included as a member of the divine corporation and as its representative or steward upon earth. Just as other gods had their own particular zone of authority (such as the Nile flood, the sky, the desert, etc.), the king's sphere was the Nile Valley and its inhabitants, whom he tended, as a good shepherd, in the interests of the divine corporation as a whole. Posener's caution against taking too literally the kingly claim to divinity must be borne in mind, yet the thrust of this chapter is the ideal of kingship (the body politic, rather than the body natural – the *nsw* rather than the *ḥm*), and in official contexts the Pharaoh's status as a divinity on earth is neither ambiguous nor contested.

The infusion of the king with divinity during the coronation was in all likelihood viewed as akin to the infusion of cult statues with life following the proper performance of hallowed rites. Thus, the material that hosted divinity – whether flesh and blood, gold, or quartzite – mattered less than the divine spirit that animated it. During the coronation, the king became possessed and transfigured. As expressed in the tomb of Rekhmire: "Every king of Upper and Lower Egypt is a god by whose

guidance men live. He is the father and mother [of all men], alone by himself, without an equal" (Davies 2002: 81). Inscriptions routinely designated the Pharaoh as the Good God (*nṯr nfr*) or occasionally the Great God (*nṯr ˁ3*); moreover, "this god" (*nṯr pn*) was frequently employed interchangeably with "his incarnation" (*ḥm.f*) even in quite mundane circumstances. In some cases, at least one of the king's five names expressed his identity as a god. Djoser, for example, was Netjerykhet, "Divine one of the corporation of gods," while Mentuhotep II bore the name Netjeryhedjet, "Divine one of the white crown" (Barta 1980: 477–9; von Beckerath 1980: 543–50).

Certainly, the effect of kings and the effect of gods upon the world were likely perceived as very similar. In the Memphite Theology, for instance, the world in its entirety was created bit by bit, first as a thought conceived by the creator deity (Ptah, who ruled from Memphis, as did the king) and then as an utterance spoken by him (Lichtheim 1975: 51–7). In much the same way, the major changes that occurred in Egypt's built landscape or in the ways that individuals were allowed to live their lives, occurred first as a thought conceived of or embraced by the king and then as a formal edict issued by him (or on his behalf), as innumerable royal and private inscriptions attest.

Interestingly, while the king is most often depicted as junior in status to other gods, he shared with Ptah the ability to create divine life. According to the Memphite Theology, Ptah fashioned the bodies of the gods and oversaw their installation in temples. "Thus it is said of Ptah: "He who made all and created the gods" … He settled their offerings; he established their shrines; he made their bodies according to their wishes. Thus the gods entered into their bodies of every wood, every stone, every clay" (Lichtheim 1975: 55). Here the equation between the king and Ptah is implicit, for one of the best publicized royal prerogatives, evident in the earliest of annals, was to commission divine statues. The king in this role, like Ptah, was the architect of divine life on earth. As Tutankhamun boasted, he was "the one who built the one who built him, who fashioned the one who fashioned him" (Murnane 1995: 212). The king not only commissioned the gods' manifestations upon earth, but he further imbued them with the breath of life through the performance of the Opening of the Mouth ritual (Traunecker 1989: 96, 106). Just as the gods imparted the gift ("breath") of life to the king, the king reciprocated. Further, the gift of life was subsequently offered in rhetoric – and perhaps ritual as well – to the king's mortal supplicants.

As god was to Pharaoh, so Pharaoh was to humankind in his position as "the god of the living" (Strudwick 2005: 85). Kings, like gods, also had the power to answer prayers, rewarding the righteous with gifts that they could not possibly reciprocate. Boons-that-the-king-gives – i.e. royal favors such as the provision of a sarcophagus, false door, or other high status, otherwise unobtainable mortuary supplies – appear to have been granted primarily in response to specific requests. Thus a courtier, desirous of such royal favors, was placed in the vulnerable and potentially humiliating position of having to publicly request them as a gift from the king.

It is notable that the sensation of being in the close presence of the king appears to have been remarkably similar in some accounts to the popular notion of how it would feel to encounter a god. For example, in the story of the *Shipwrecked Sailor*, the protagonist relates his experience of encountering a deity – of lying prostrate and

contemplating the divine being's earth-shaking power and the terrible beauty of his body, composed as it was of gold and lapis lazuli. A nearly contemporary inscription in which a priest of Khnum claimed to have "kissed the earth before the lord of the cataract" confirms that such behavior was not strictly literary (Breasted 1988a: 277). The sailor's experience, in fact, closely resembles the account of an audience with Senwosret I purportedly offered by Sinuhe, another Middle Kingdom traveler. The character of Sinuhe states, "I found his majesty on the great throne in the portal of electrum. Then I was stretched out prostrate, unconscious of myself in front of him, while this God was addressing me amicably. I was like a man seized in the dusk, my soul had perished, my limbs failed, my heart was not in my body. I did not know life from death" (Parkinson 1997: 40). That "this god" was not a polite euphemism on Sinuhe's part is bolstered by a more explicit statement elsewhere in the tale that the king "is a God who is peerless, before whom no other exists" (Parkinson 1997: 30).

The prostrations that occurred before the king, like those undertaken in the presence of a god, were performed in formal contexts by all men – no matter how esteemed in society at large. In the Fifth Dynasty, for instance, there are two tomb inscriptions in which it is explicitly stated that the tomb's owner was granted the highly unusual privilege of kissing the king's foot rather than the earth in front of him. One of these men, Ptahshepses, was not only a high priest of Ptah at Memphis, but he also had been granted the privilege in the reign of a former king of marrying the king's eldest daughter (Strudwick 2005: 304–5). The other, Washptah, served as vizier and also as keeper of the diadem (Strudwick 2005: 318–20), two immensely important titles. The impression that, despite his status, Washptah's invitation to kiss the royal foot was indeed exceptional and fraught with danger is suggested by the statement that "when the royal children and companions who were in the court council heard they trembled with fear" (Strudwick 2005: 318) and likewise by the fact that the king ordered that this mark of favor be inscribed on the walls of Washptah's tomb. The practice of kissing the ground, incumbent upon all other mortals, was indeed so prevalent and enduring that there existed, for example, an Old Kingdom office of "overseer of kissing the ground" (Strudwick 2005: 279). Well over a thousand years later two men shouting "to the ground!" warned attendants of King Osorkon's jubilee festival that the king was approaching and they'd best ready themselves (Uphill 1965: 370). In the meantime, at Horemheb's coronation – as at undoubtedly innumerable other royal functions, courtiers and visiting dignitaries "did reverence to [the king's] face as to a god" (Murnane 1995: 231).

The King of Upper and Lower Egypt's body, whose very extremities could be touched only with the greatest of trepidation by the luminaries of the land had numerous professional caretakers – hairdressers, manicurists, wardrobe managers, cup-bearers and the like – whose sumptuous tombs demonstrate that their elite status was a prerequisite of their rather menial sounding jobs. Certainly, already on the first royal monuments at the dawn of the state, the king's sandal-bearer is shown with such prominence that one strongly suspects he served other more practical purposes in the realm as well. Numerous demonstrated instances of high-status "personal servants" support this notion (Helck 1954b: 15–28; Baines 1995b: 132). Under Mernere, for example, Weni occupied the positions of master of the footstool of the palace and sandal-bearer, just before he was promoted to the much more recognizably important

office of governor of all of Upper Egypt (Strudwick 2005: 355). Djau, the brother-in-law (twice-over!) of King Pepi I, and the king's vizier, also served as the controller of every (royal) kilt (Strudwick 2005: 358). The overseer of the treasury in the reign of Ramesses IX was also the royal cupbearer (Wente 1990: 37), etc. A complete list of obviously rich and powerful officials, who boasted in their inscriptions of performing seemingly trivial tasks for the royal person, would soon get cumbersome.

   In Egypt, as in many cultures, the manner in which priests tended the statue of a god and the manner in which servants cared for the wants of their master were explicitly placed in parallel; priests were the "servants of the god," and the deity was washed, dressed, fed, flattered, and entertained in much the same fashion as the most esteemed of men. Thus it is hardly surprising to find the duties of the king's officials and servants paralleled in temple ritual (Sauneron 2000: 84–8). Such conscious and cultivated parallels between king and god abound. Palaces and temples, for instance, were in many cases architecturally similar to one another in placing their main occupant at the far central axis of multiple impressive courtrooms and halls. Indeed, the comparison between palace and temple is explicit in encomiums to Ramesses II's palace at Pi-Ramesse, said to have been "like the horizon of heaven. Ramesses-miamun (life, health) is in it as god" (Caminos 1954: 37, 154). Further, throughout much of Egyptian history, the most elaborate of palaces included chapels, while the most elaborate of temples included miniature palaces (Silverman 1995: 71; O'Connor 1989a: 74–8; 1995: 290–2). Issues of access were also important with respect to both buildings, for even people of high status boasted of their access to the palace on festival days or of their access to particular places within the palace. Sabu Ibebi, a great controller of craftsmen in the Old Kingdom, for example, claims to have been allowed to enter into the ways of the palace of Upper Egypt in every festival of appearances and then, as a royal favor, to have been allowed to enter the residence (Strudwick 2005: 308). Another official, Kaihap Tjeti, similarly boasted of being permitted to enter the royal house of King Teti following his promotion to sole companion (Strudwick 2005: 287). Thus palaces, like temples, opened their doors somewhat during festival days but remained otherwise restricted to the chosen few.

   One of the reasons that access to Egypt's state temples was so tightly monitored was that strict regulations regarding purity had to be observed while in the presence of a deity. In Piyi's victory stele, it is thus notable that the king reports that all but one of his former enemies were barred from "kissing the ground before his majesty" in the royal house "because they were uncircumcised and eaters of fish, which is an abomination to the palace" (Lichtheim 1980: 80). This is, of course, reminiscent of Herodotos' (2.37.4) remark that priests of his time were forbidden from tasting fish. In many sacred kingships, the ruler was restricted by a variety of taboos that ensured that he did not come into contact with impurity. Perhaps more importantly many of these restrictions also may have limited the king's ability to behave erratically or impulsively in a manner unbecoming to a deity. According to Diodoros, "The life of the kings of Egypt was not like that of other monarchs … everything was fixed for them by law, not only their official duties, but even details of their daily life. The hours both of day and night were arranged at which the king had to do, not what he pleased, but what was prescribed for him" (Frazer 2006: 97). It is a common phenomenon in divine kingships that the ruler – so inhibited by the many ritual

regulations that surrounded his person – was in effect transformed into a living fetish (Grottanelli 1987: 314). Cloistered in the safe confines of his palace, the king's person was held so powerful that he was, ironically, rendered powerless. Indeed, it is fascinating to speculate as to whether such a system represented something of a subversion of royal power, ensuring that the real governors acted anonymously rather than autocratically.

The extent to which this was the case in ancient Egypt is uncertain, and it is very likely that over the course of nearly three millennia the real active, effective power of the king fluctuated. That he was to some extent a figurehead is indicated by the fact that the country could function reasonably well in situations where the king was too young or old to effectively rule. Likewise, scholars have pointed to the reasonably settled state of the union during the early portion of the Thirteenth Dynasty, when kings were averaging two years of rule, to suggest that the person of the king mattered relatively little, just so long as there *was* a king and that succession functioned relatively smoothly (Baines and Yoffee 1998: 224). On the other hand, one can point to the idiosyncratic narratives of numerous kings throughout Egyptian history to suggest that these individuals played an active role in the public life of their countries and even accompanied their armies on campaign, thereby exposing themselves to intense physical and spiritual danger. Thus, it is likely that the degree to which the king was cloistered and protected as a holy object and the degree to which the rituals and regulations that bound him were relaxed in order to enable a more ordinary existence shifted according to the priorities of the kings and the persuasive power of those who in effect managed them.

Regardless of whether laws of purity similar to those that protected the divine image pertained to the Pharaoh, it appears in all periods to have been extremely important that the king appear as the "living image" of a god to the population at large, and much stagecraft was employed to enhance this affect. Even the highest officials in the land approached the king at formal occasions on their bellies and kissed the earth in front of him. The court may also have required that all in his vicinity – with the exception of the royal family – bend slightly, so as to not place their heads above his own. Certainly, this is what we witness in the art of Akhenaten, though it is unclear whether this king initiated the practice or whether the new standards of decorum enacted in his reign for the first time allowed the portrayal of a practice that had always existed. A parallel in the reign of Niuserre suggests the latter (Baines 1997: 144–5, fig. 4), and certainly since the time of Narmer artists avoided depicting mere mortals and the king on the same plane and in the same scale interacting with one another. Instead, while the king is portrayed in close embraces with deities of similar stature, he is traditionally portrayed as a giant with respect to mortals other than his wife, towering above even the highest elites of his realm. Alternatively, the same effect is achieved by other means, such as by placing the king on a high throne, in a window of appearance, on a palanquin, or in a chariot. Undoubtedly these same visual effects, utilized in art to demonstrate how far raised above other men the king was, were also enacted when the king left his palace on public occasions. The parallels in the tradition of carrying the king aloft in a palanquin and the method of transportation for gods in festival processions would not likely have been lost on the public. Moreover, it appears that numerous capital

cities in Egypt were at least partially set up with elaborate processional routes from palace to temple in order to showcase the processions of the king and perhaps to implicitly create parallels between his movements throughout the core of his realm and the transit of the Sun-god across the sky (Kemp 1989: 279; O'Connor 1995a: 270–96).

Two final tricks of representation that were employed with respect to Pharaohs in order to blur the boundaries between the king and other gods should be noted before passing on to the subject of royal roles and responsibilities. First, given the importance of animals as receptacles of the divine spirit in Egyptian cosmology – and of the iconographic tradition of portraying deities as part human, part animal – it is notable that various animals appear to have been employed even in earliest times to represent the strength, might, and otherworldly nature of the king. Besides the falcon, the two most popular animal stand-ins for the king were the lion and the bull – the fiercest and most noble of animals. Hor-aha, the first king of the First Dynasty was buried together with a number of lions in his retinue, and from the Old Kingdom at least, the fusion of the lion and the king began in earnest with that most iconic of royal symbols, the sphinx. In public ceremonies, however, it was the power of the bull that was more frequently evoked by the addition of a ceremonial bull's tail to the king's costume. Indeed, the Festival of the Bull's Tail, the Heb-sed, was the single most important festival for a monarch. The king-bull fusion was likewise emphasized via other avenues, such as the epithet Strong Bull, and the numerous metaphorical comparisons of the king with this animal.

While the emphasis on the king's hybrid nature (part man, part animal, part god) was stressed as early as the Protodynastic palettes and maceheads, it was only with the ascendancy of the god Amun in the Middle Kingdom that a physical resemblance between the god-king and the king of the gods began to be cultivated in earnest. This anthropomorphic deity, nearly devoid of any mythological narrative to call his own, became the perfect blank sheet upon which to project the persona of the reigning king. Thus, Amun (and to a lesser extent other state deities) is often bestowed with royal titles (''lord of the two lands,'' for instance) and regalia, and often appears with facial features that resemble those of the reigning king (Brunner 1980: 461–3). Amun and the king shared temples; occasionally they shared regalia or the horns of the ram; and at the Opet Festival, the king and Amun shared a rite that cyclically fused the two, re-emphasizing and re-invigorating their cosmic connection as well as the Pharaoh's own divinity (Wildung 1977a: 3–8; Bell 1985). By the New Kingdom, interestingly, the gods that the Egyptians established in virgin territory on Nubian soil were no longer local versions of the royal god Horus but were now local versions of Amun.

The most elaborate efforts to promote the cult of Amun among the Egyptians and Egyptianized Nubians living in Nubia coincided with a very real effort on the part of some New Kingdom Pharaohs to actively enhance the cult of sacred kingship. Amenhotep III, for example, erected temples in Soleb and Sedeinga for himself and his wife Tiyi. Tutankhamun, once orthodoxy was restored, did much the same thing in Faras, and Ramesses II famously constructed temples partly dedicated to his own divine image at Abu Simbel, Gerf Husein, and Wadi es-Sebua. At these New Kingdom temples, kings present offerings to their own deified selves, and images of

the king with a falcon's head, ram's horns, or a human head surmounted by a sun-disc are in abundance. Divination of various aspects of a king's distributed personhood were possible because the king, unlike his subjects, possessed as many as fourteen *ka*-souls (Frankfort 1978: 74), all of which could be active and effective at any given point. One of Ramesses II's colossal divine statues, for example, was known as "the royal living Ka, Re of Rulers" (Habachi 1969: 18–20). Akhenaten, ever the self-aggrandizer, went so far as to appoint a high priest of himself and, like his father, he adopted much divinizing iconography (Tawfik 1976: 97).

While the cult of the living king was not entirely confined to Nubia – one sees evidence for it in various mortuary temples as well as in other contexts in the royal centers of Piramesse, Memphis, Thebes, and Hierakonpolis – it was indeed most enthusiastically promoted south of Aswan (Habachi 1969: 1–16; Wildung 1977a: 16, 20, 23; Hein 1991: 121–2), and this emphasis on the king's presence at the borders of his realm may have had earlier precedent in the aggressive Old Kingdom smiting scenes in Sinai. Interestingly, one of the monarchs most active in promoting his own divinity prior to the New Kingdom was Nebhepetre Mentuhotep II, who was faced with the daunting task of reunifying Egypt after a long period of disunity and obviously all-too-mortal kings (Habachi 1963). Thus, perhaps, like the stress on legitimacy by the most illegitimate of rulers, the stress on godhood occurred in areas and at times in which the king was perhaps *least* likely to be viewed as such. Indeed, this might also account for the fact that so many increases in the emphasis on divinity in a particular reign occurred in conjunction with Heb-sed festivals, when the king had, by and large, achieved an advanced age when "eyes are dim, ears deaf, strength is waning through weariness" (Lichtheim 1975: 63). By utilizing this most important of festivals to promote himself cosmically, the king thus enhanced his own powers precisely at a point at which they might otherwise have been suspected to be on the wane.

5   The Role of the King in Religious, Military, and Administrative Affairs

Although the living king's godliness in life was stressed to varying degrees in different reigns, his role as an intermediary between humanity and the gods was always of paramount importance. The king was a god himself; he was the son of various deities; he was beloved by them, and he was their clear choice as ruler upon earth. Because of these various attributes, in combination with his unique position as a god who had been born a man and who inhabited the perceivable world, he served as the most fitting link between humankind and the divinities that were relied upon to bring blessings to those that inhabited the Nile Valley. In this respect, the king was "lord of performing rituals" (*nb irt-ḫt*), the high priest in every state temple, and the sole actor depicted on temple walls – offering to the gods, performing sacred rites, and officiating at state festivals. Whether this role fell naturally to the king, or whether it was in fact a more cynical appropriation of religious power, is debated (Baines 1995a: 12–13; Kemp 1995: 36). Certainly it is notable that mere mortals were not allowed to

portray the king or gods on their private monuments until the Middle Kingdom, and it was not until the New Kingdom that the practice became even somewhat common (Silverman 1995: 83; Baines 1995b: 114–5). Interestingly, when such rules were relaxed dramatically after the Amarna heresy "popular piety" becomes everywhere evident.

While it appears that many of the king's primary duties were religious in nature, judging from the preponderance of such activities in royal annals (Wilkinson 2000; Altenmüller and Moussa 1991), there were, of course, issues of practicality. The king could not be everywhere at once, and so the many ritually activated statues and images infused with his ka that resided in temples must have been relied upon to solicit the gods' goodwill locally in his stead. Indeed, in the New Kingdom, at least, royal statues sometimes bore inscriptions in which the king offered to serve as an intermediary to his subjects at large (Wildung 1977a: 13; Pinch 1993: 357), and already in the Middle Kingdom, Senwosret III's oversized ears may have offered the same service without texts needing to be carved. Otherwise, the king was forced to deputize his roles in daily cult and subsidiary festivals to high priests and to royal sealbearers, such as Ikhernofret, who "acted as 'his beloved son' for Osiris, Foremost-of-the-Westerners" (Lichtheim 1975: 124) or the high priest under Seti I at Abydos, who announced to the deity: "It is the king who has ordered me to see the god" (Traunecker 2002: 153).

For much of Egyptian history, the king was the only individual allowed to found temples, commission divine statues, or to make donations to state temples (aside from donations pertinent to the erection of private funerary cults). Further, many of the king's gifts to the gods likely stemmed from gifts offered first to the king (Kemp 1995: 34–5). By inserting himself between god and man in such a fashion, the king rendered himself ideologically indispensable; though in practice his mass delegation of authority rendered his physical self dispensable just so long as his ka-infused images and priestly deputies performed properly. In return for large scale donations, such as are attested in the Palermo Stone and Papyrus Harris I, the temples utilized their walls and cultic performances to promote the message that the good works performed by the king on behalf of the gods were directly responsible for the health and happiness of the nation.

Just as the nobles presented the king with gifts and received in return "boons" in the form of quarried architectural elements, prize mortuary real estate, or otherwise unobtainable items, so the king offered gifts to the gods and received in return blessings and success in battle. A portion of the booty reaped from battles that occasionally had been explicitly commanded or authorized by a deity would then be returned to the gods in the form of further temple donations, perpetuating a theoretically endless cycle of reciprocity. According to the ideology encapsulated in the all-too-familiar smiting scene, the king was also the sole representative of his people when it came to war. Whether a particular king accompanied his troops into battle or not depended on a great variety of variables (the king's age and proclivities, the might of the enemy, the norms of the day), but even when he did not, it was common for him to claim credit for commanding that the battle happen. Success in war was proof of his own "strong arm" and of the love held for him by the most martial of gods. When he marched, at least in the Nineteenth

Dynasty, Amun, Ptah, Re, and Seth marched with him, incarnate in their respective troop detachments.

While kings usurped the credit for the outcome of battles, engagement was dangerous. The axe-wounds suffered by King Seqenenre-Tao attest to this fact, and it is perhaps doubtful that a king of a securely united Upper and Lower Egypt ever would have participated in hand-to-hand combat, the bluster of Sinuhe's encomiums and Ramesses II's war records aside. Kings were too imbued with symbolism to be placed at high risk, and – with the possible exception of those rulers that had received military training prior to their enthronement – battles were too important to leave to kings. Thus, in the vast majority of instances, generals functioned as the anonymous high priests of war, while all victories were officially ascribed to the might of the "lord of all foreign countries" (*nb ḫꜣs(w)t nb(w)t*).

Just as battle was too dangerous for most kings to participate in directly, there is also remarkably little evidence for kings deciding legal matters – despite the fact that the king was the "lord of truth" and that Re had placed him "upon the land of the living, for ever and ever, to judge men and satisfy the gods" (Grandet 2002: 118). With the exception of King Solomon, few judges escape the reality that in the most contentious of cases a judgement in favor of one party angers the other. Thus, there may have been a very conscious attempt to shield the king from being placed in a position so apt to garner ill-will. As Thutmose III explained the function of the vizier, "he is the copper that shields the gold of his master's house" (Lichtheim 1976: 22). Indeed, even in the *Tale of the Eloquent Peasant*, set during the rather anomalous First Intermediate Period, the king was only called upon to decide a case after eight appeals had already been entertained. At that point, once the case had been summarized for him in writing, the king's response to the presiding official's enquiry was: "Judge yourself" (Parkinson 1997: 75). In clear-cut cases of regicide and attempted regicide, still the living king did not serve as judge. Indeed, the only venue in which it was evidently deemed safe for the monarch to render judgement was the afterlife. From this untouchable realm, the king as Osiris punished living individuals for the violation of tombs and condemned departed evildoers to die a second death.

In as much as the king was evoked whenever oaths were taken, however, he acted as witness to nearly every matter of legal import that took place within Egypt. In court cases, those testifying took the "oath of the lord" in which the penalty for perjury was acknowledged and the Pharaoh's name was evoked (sometimes together with Amun) as the highest authority a person could swear by. The king not only safeguarded truth by supernaturally overseeing the honesty of oath-takers, but he was also popularly credited with giving the law, perhaps due to his power to issue edicts, exemptions, and the occasional general guideline.

By virtue of having appointed his vizier, seal-bearers, and all major state and provincial officials, the king administered his realm by proxy, and the highest judges judged in his name. Just as not all monarchs were equally inhibited by the ritual restrictions of their office, however, some seem to have played an unusually active role in state affairs. We have, on occasion, letters purportedly composed by the king that show a great deal of active interest in internal and international affairs (e.g., Wente 1990: 18–21, 24–8; Moran 1992: 1–3, 10–11, 101, 366; Bryce 1998: 310–14).

Further, many inscriptions demonstrate that the king routinely met with his counsellors and sought their opinion on matters such as whether to erect an obelisk or which path to take en route to war. Indeed, at least one Old Kingdom official whose advice the king sought found fit to brag of this in his tomb (e.g., Strudwick 2005: 277), and a First Intermediate Period king humbly imparted the advice to his heir that ''a king who has courtiers is not ignorant'' (Lichtheim 1975: 105). That the court did not automatically rubber stamp the king's decisions is clear from the *Königsnovelle* genre of royal inscriptions (Loprieno 1996: 277–95). While the point of such compositions was often to showcase the wisdom of the king as set against the miserable foil of his cowardly advisors, the form nonetheless indicates that some room for disagreement and discussion existed in affairs of state. Certainly, in the *Contendings of Horus and Seth*, the royal drama made cosmic, the sun-god's orders were not always followed, and the assembly was an arena for debate and dissention. Such a tradition of active cabinet conversation, of course, helped enable the country to function effectively in the absence of a wise or mature Pharaoh.

6   Conclusion

Perhaps the king's most important role was also that which to the modern mind has the least to do with his person. Proof of a king's proper performance of his duties seems to have been that all was right with the world – the king ''having repelled disorder throughout the Two Lands, so that Maat rests [in her place] as he causes falsehood to be abomination and the land to be like its primeval state'' (Murnane 1995: 212–13). And indeed, the king's necessary role in the maintenance of an orderly and prosperous environment is undoubtedly the point of the propagandistic literature penned in the early Middle Kingdom, which contrasted the disorder that had come during the Intermediate Period with the new state of affairs under the kings of a united Egypt. In practice, however, the restoration of the country to peace and prosperity could be claimed by Pharaohs of any era.

   Although there seems in Egypt not to have been the direct linkage attested in many African divine kingships between the king's person and nature, the king and the natural world were closely linked, and the fertility of the land depended on the king's good relations with particular deities. Certainly, a downturn in nature spelled a potentially fatal loss of legitimacy for the king. In modern democracies, few elected officials survive the political consequences of economic recessions, even if such were not brought about by their own doing. Thus, it seems that virtually any king – infant or imbecile – could rule over Egypt, provided that (through his piety to the gods) the Nile rose on time, the granaries were stocked, and the country's borders remained firm. This is, of course, an exaggeration, but it may have been that the institution of sacred kingship, in many periods at least, allowed for far greater power-sharing and negotiation than is commonly thought and that its chief function was to promote a national symbol of unity – a single lord common to Upper Egypt and Lower Egypt alike.

FURTHER READING

The bibliography on Egyptian kingship is substantial. O'Connor and Silverman 1995 and Ziegler 2002 provide excellent modern introductions to the issues. Older studies of high value are Frankfort 1978(1948), Goedicke 1960, Posener 1960, and Barta 1975.

CHAPTER 12

Administration and Law: Pharaonic

Ben Haring

1   Political Structure and Administration

The development of the Pharaonic state in the course of the fourth millennium BC produced a nation under the rule of one single king stretching from the Mediterranean Sea to the First Cataract in the south. This state is thought to have crystallized late in that millennium, and it may have resulted from the gradual but aggressive expansion of a smaller kingdom in the south at the cost of states or chiefdoms in the north. That would be in keeping with modern theories in which competition, or even warfare, is regarded as instrumental for early state formation (Bard and Carneiro 1989; Warburton 1997: 51–7; Kemp 2006: 73–8). Evidence for actual warfare is lacking, but the slaying of captives is an important motive in funerary iconography of Chalcolithic elite burials (see Chapter 2). Whatever the exact process, later Egyptian kings always emphasized that they ruled over "The Two Lands," that is a dual territory, the south and the north. Even more specifically, the common word for "king," *nesu* ("He of the Reed") was the title for the king of the south (rendered by Egyptologists as "King of Upper Egypt"), whereas a separate title (*bity* "He of the Bee") denoted the same Pharaoh as king of the north ("King of Lower Egypt"). Administrative texts sometimes refer to the two separate zones (*a-resy* "Southern District" and *a-mehty* "Northern District"), but, as a rule, there was no separation of these two zones in the departments of government. However, the vizirate, the highest government office below kingship, was at times divided between two functionaries, one for the north and one for the south. Also, during those periods in which the central government was not able to maintain its control over the whole of Egypt (the so-called Intermediate Periods), there were rival kings in the north and south. Despite the north-south division apparent in royal ideology and, on occasions, government administration, Pharaonic Egypt should be regarded as a unified state with a single government.

   Modern definitions of a state require that its central government rules over a defined and politically independent territory, and that usually it is represented within

this territory at central, provincial, and local levels (e.g. Claessen and Skalník 1978: 586–7). These three levels of administration in Ancient Egypt will now be examined more closely.

Central administration: the king

The world view of temple inscriptions and other ceremonial Ancient Egyptian texts focuses on the king, to such an extent that he appears to be the single human being in a world otherwise dominated by gods and goddesses. And even the king, a descendant of the deities, has divine qualities which enable him to communicate with his ancestors. Royal ideology thus presents a world virtually lacking in human subjects and assistants. A different perspective can be seen in the autobiographies in the tombs of the king's relatives and officials, but still here the king and the tomb owner's loyalty towards him are of central importance. Even from ceremonial texts, however, it is clear that the king is responsible for the well-being of his human subjects as well as for that of the gods. This is evident in a text represented in several New Kingdom temples (see Assmann 1970: 22):

> Re has appointed King NN on the earth of the living for all eternity,
> to be the one judging the people and making offerings to the gods,
> who creates order and terminates chaos.
> He makes offerings to the gods, and funerary offerings to the blessed (the deceased).

The king appears here to be endowed with the qualities of judge and priest. He was actually represented in both capacities by vast numbers of functionaries: administrative and legal tasks were performed by government officials under the authority of the vizier (see below), whereas sacred duties fell to the priests. The king is remote and invisible in texts about everyday administrative and judicial practice, though sometimes a reference is made to what is felt to be the ''Law (or Rule) of Pharaoh'' (P. Bulaq 10: see Allam 1973: 289–93), and at least one literary text from the Middle Kingdom expresses the ideal of the king as the ultimate source of justice. In the tale of the *Eloquent Peasant* (Tobin 2003), the oasis-dweller Khuenanup travels to town in order to trade his products (minerals, plants, animal fur) for grain. When he is waylaid by his greedy neighbor Nemtynahkt, an argument takes place during which one of Khuenanup's donkeys eats some barley on Nemtynakht's field. Khuenanup is given a beating, and his donkeys are seized by Nemtynakht. This is the beginning of a long story in which Khuenanup, while detained by a chief royal steward, makes repeated appeals to justice until his eloquent plea is submitted to the king himself. The king is pleased by the submission and orders his chief steward to pass judgment. Nemtynakht's entire property is forfeited and assigned to Khuenanup. If this idealized picture of the king showing such interest in a commoner's plea has any basis at all in reality, it shows that securing the king's interest was a very long and cumbersome process.

In some ways the king may have been more of a ceremonial head of state than an actor on the political stage. It is true that he regularly appears as the instigator of political and legal measures, but only in royal inscriptions. He is credited with issuing

decrees to secure protection for temple property (Goedicke 1967) or specific legal reforms (Kruchten 1981), but the formula "sealed in the presence of His Majesty" used in these decrees is not sufficient to justify the assumption that, in fact, he initiated them.

There does seem to have been an active royal involvement in politics regarding the appointment of government officials and priests. Administrative and priestly offices were held by prominent families and passed on from father to son. According to genealogical information and private funerary texts this practice was normal and desirable. But the king could break such a succession to office, and on occasions used his power to do so, especially with such prominent functionaries as viziers, treasury overseers or high priests of major temples.

The king also seems to have pursued an active role in his capacity as a military leader. Battle scenes and inscriptions on temple walls show the king in his chariot leading his army into battle and personally deciding on the course of his military campaigns. But some military action was undertaken without the king being there to lead, as when Akhenaten's governor in Nubia, the King's Son of Kush, as the king's representative, stifled a local rebellion himself (Murnane 1995: 101–2). Another literary text of the Middle Kingdom (the *Tale of Sinuhe*) opens with the crown prince leading a military campaign in the Libyan Desert at the time of his father's death (Simpson 2003).

While these indications suggest some kind of role of the king in political, juridical, and military affairs, we are still somewhat uncertain about his actual responsibilities and initiatives. There is no text giving a glimpse of political activity in the royal palace. The few remains of palace records from the Thirteenth Dynasty (P. Bulaq 18: Quirke 1990: 9–115) and the reign of Seti I (Kitchen 1993: 159–85) are accounts of food production and supplies, not the decisions of administrative councils. To the Ancient Egyptians, "king" and "palace" were virtually synonymous as designations for a closed unit whose internal workings remained obscure to the outside world. This may be why in the New Kingdom the Egyptian expression for "palace" (*per-a'a*, "Great House"), words transmitted through Biblical Hebrew as "Pharaoh," came to refer to the king, as if it were a personal name.

Although the king had palaces throughout Egypt, and so in this sense there was more than one residence at any time, the residence *par excellence* during much of Pharaonic history appears to have been in Memphis. Among the kings who built palaces were Thutmose I, from whose palace Tutankhamun issued his restoration decree, and Apries, the remains of whose palace have actually been identified (Kemp 1977c). At times kings would build palaces elsewhere, as an additional residence (e.g. that of Amenhotep III at Malkata), or even as an exclusive residence (that of Akhenaten at Akhetaten/el-Amarna, which involved building an entirely new city). Entire dynasties had their own "home" residences (Itj-tawy/el-Lisht for the Twelfth Dynasty, or Piramesse for the Ramessides). In the so-called Intermediate Periods political fragmentation between north and south, with at least two separate residences, made things more complicated. For the south it would always be in Thebes, but for the north there were various locations. The Hyksos kings of the Second Intermediate Period had their palace in Avaris in the Eastern Delta, but Manetho's *Aegyptiaka* states that the main Hyksos dynasty (Fifteenth Dynasty)

started with the foreigners conquering Memphis, and it goes on to say that the Libyan dynasties of the Third Intermediate Period are associated with Tanis, Bubastis, and Saïs. However, this does not mean that Memphis had lost its role as a royal residence. It remained the capital of Egypt even when the land was ruled from Assur (at the end of the Third Intermediate Period) or Persepolis (during the periods of Persian occupation). It also retained much of its status in the Ptolemaic Period, when the capital moved to Alexandria.

The palace was not only the king's residence but it was also the economic base on which royal power depended. From the text *Duties of the Vizier* (see below: The Vizier) we learn that the king's treasury was in the palace, and from the legal text of Mose we learn that during the reign of Ramesses II the record-offices of the royal treasury and granary were in Piramesse (see below: Central Registration). There were also royal domains scattered throughout Egypt, and these, together with the palaces in various locations, could have provided the impetus for the king and his entourage to travel sporadically or at regular intervals. His attendance at important annual feasts that required the presence of the king as the country's supreme religious authority would also have been a reason to travel.

Central administration: the vizier

Whereas hieroglyphic inscriptions on temple walls and on stelae mention the king as sole ruler and judge, other texts make it clear that the actual head of government administration was the *tjaty*, "the vizier." This translation, traditionally used by Egyptologists, arises from the notion that his official status has some superficial resemblance to that of the vizier in the Ottoman Empire and so is technically anachronistic. Similarly anachronistic is the term "prime (or chief) minister" which is sometimes used to refer to the same person. Many Egyptian texts present the *tjaty* as the highest administrative and juridical functionary and as the executor of the king's decisions. He appears in texts from the Third Dynasty onwards. In the early Old Kingdom he was a relative of the king, but in the Fifth Dynasty the office of vizier became formally detached from the royal family. We have very little information about his precise tasks in this early period, but it is assumed that government officials reported to him. In the Old and Middle Kingdom the vizier was also the director of royal building projects, and in the New Kingdom he was still directly responsible for the workers who constructed the royal tombs. In the Ramesside Period he was the chairman of the "Great Council" (*kenbet aat*), the administrative and judicial council of the capital.

From the time of the Old Kingdom there was just one vizier responsible for the entire nation, but after the beginning of the New Kingdom, possibly even earlier, there was one residing in the north (in Memphis, Heliopolis, or Pi-ramesse), and one in the south (in Thebes). Only during the last years of Ramesses III and (possibly) the reign of Akhenaten was the vizirate an undivided office in Egypt. At the end of the New Kingdom the prestige of the title seems to have weakened; for *tjaty* is just one of several titles, such as "King's Son of Kush," "High Priest of Amun," and "General of the Army," ascribed to Piankhy, Herihor, and Pinedjem (Häggmann 2002: 315–317). In the Third Intermediate and

Late Periods the title is still attested, but it is very unclear what responsibilities the persons thus designated held.

What is known of the vizier's activities comes mainly from the text *Duties of the Vizier* (see Van den Boorn 1988), which is found in the tombs of several viziers of the Eighteenth Dynasty. The fullest version comes from the Theban tomb of Rekhmire (TT 100), the vizier under Thutmose III and Amenhotep II. In the same tomb there was a related text, *Installation of the Vizier*, which is a code of conduct declared by the king for the newly appointed vizier. It emphasizes attitudes such as impartiality and the protection of the weaker parties in judicial conflicts. The text of the *Duties* probably dates from earlier than the preserved copies; it may have been composed first in the reign of Ahmose (Van den Boorn 1988: 333–76), or even in the late Middle Kingdom. It is also possible that the text as preserved is the result of a longer period of evolution (James 1984: 68). It refers to the residence in Thebes (the "Southern City"), implying that a separate vizier of the south lived there, which sheds some light on its historical background.

The *Duties* indicate that the vizier was the king's representative and executive, as well as his principal source of information. In these capacities, he seems to have had two main tasks. One was directing *per nesu*, "the house of the king," the palace and its personnel, in close cooperation with the overseer of the royal treasury. These two functionaries held daily meetings, after which the vizier would give his orders with regard to all persons and goods entering and leaving the palace. His responsibilities also extended to the residential city beyond the palace compound. The second task was to control government administration, the individual departments and the functionaries. The vizier inspected his subordinates, registered administrative neglects and abuses and took steps against these; one possible measure he could adopt was to withdraw the sources of income from an official. In short he seems to have acted as a judge for administrative procedures. The following extracts are typical (version TT 100):

> He shall daily enter and greet the lord – life, prosperity, health – in his house
> when the condition of the Two Lands has been reported to him.
> He shall enter the Great House when the treasurer stands at the northern flagpole.
> Then the vizier will proceed from the east(?) through the door of the Great Double Gate
> and the treasurer will come to greet him, and report to him as follows:
> "All your business is safe and prospering!
> All responsible persons have reported to me:
> 'All your business is safe and prospering;
> the Palace is safe and prospering!' "
> Then the vizier shall report to the treasurer as follows:
> "All your business is safe and prospering!
> Every place of the Residence is safe and prospering.
> The sealing on time of the sealed rooms and their opening on time
> have been reported to me by all responsible persons."
> After the two functionaries have reported to each other,
> the vizier shall give a command to open every door of the Palace,
> to make everything that comes in, come in,
> likewise everything that goes out.
> It is his messenger who makes it happen by a written statement. (cols. 5–8)
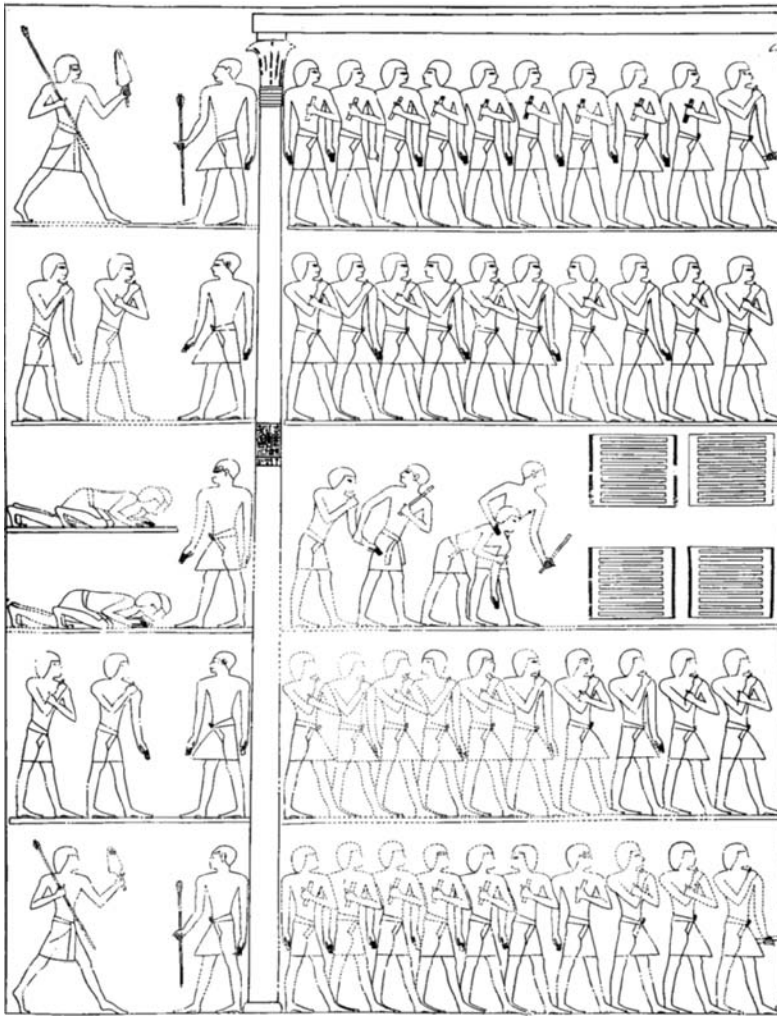
Figure 12.1   Office of the vizier as depicted in TT 100 (Davies 1943: pl. XXV).

As for everything the vizier does during a hearing in his office:
as for anyone who is [not] functioning properly [. . . on] any duty about which he is questioned [lit. heard],
and who shall fail to counter an objection when he is questioned about it,
he shall be entered into the criminal register that is in the Great Prison;
likewise anyone who shall fail to counter an objection of his messenger.
If their deeds come to pass again, it will be reported,
and it will be made known that they are in the criminal register;
the matter for which they have been entered in the register will be communicated according to their offences. (cols. 13–15)

It is he [the vizier] who orders trees to be cut
according to what is said in the Palace.

It is he who sends out the district councillors
to construct canals in the entire country.
It is he who sends out the mayors and overseers of domains
for ploughing and harvesting. (cols. 24–25)

It is he who sends out the army and the scribes of the mat
to carry out the lord's instructions.
A district register shall be in his office
at every hearing concerning all fields.
It is he who establishes the borders of every estate,
every pasture, every temple estate, and all that is sealed(?).
It is he who effects every decision. (cols. 26–27)

Apart from describing the daily administrative and legal tasks of the vizier, the text also shows us two important characteristics of Egyptian state administration prevailing at the time the text was composed. One is the importance of protocol, of minutely prescribed actions by the vizier and his subordinates. This is an indication of bureaucracy in a Weberian sense, with formal structures and prescriptions taking precedence over personal influence and motives. This bureaucratic impression is strengthened by the role of written text: not only are the duties themselves laid down in writing, but documents also play a vital role in the daily actions of the vizier. We read that instructions were conveyed in writing and that documents were deposited in an administrative or legal archive (that of the so-called "Great Prison," *khenret-wer*) where they could be consulted. Another important characteristic is the vizier's supervision of the various administrative departments and their functionaries, who had been carrying out their tasks without interference on his part. This post-event control appears to have been the main way in which the vizier acted; it shows him to have been as much a judge as an executive administrator. This feature of Pharaonic state administration explains why it is often hard to distinguish administration from jurisdiction in Ancient Egyptian texts. Any official could assume the role of a judge whenever problems arose in the department under his authority. The position of a specialist judge does not seem to have existed before the Late Period (see below, Law).

   The *Duties of the Vizier* indicates that the responsibilities of the vizier were not restricted to departments and functionaries in the central administration and the residence, but in some respects penetrated to a local level, such as concerns of agriculture and irrigation. It is stated that the vizier could order canals to be dug and send people to cultivate land, but it is doubtful if this means that he was responsible for all irrigated fields in Egypt. State interference with irrigation has been the subject of a fierce debate in Egyptology. According to the "hydraulic hypothesis," there was a need for supra-local irrigation networks to enable early states to develop, but since the rulers' responsibility for irrigation does not figure at all in texts predating the First Intermediate Period (Schenkel 1978; Endesfelder 1979), this has been shown to be untenable for Ancient Egypt. The vizier's responsibility for irrigation as expressed in the *Duties* does seem at first sight to indicate that it was very much a concern of the state, at least in later periods, but the text may actually be referring to specific agricultural domains belonging to the government and to temples; for it is explicitly stated that the vizier is responsible for temple

estates. A similarly restrictive interpretation may be required when it is stipulated that every title-deed (*imyt-per*; col. 19) is to be sealed by the vizier. This does not necessarily mean that every confirmation of land ownership, public or private, was to be authorized by the vizier, but that he was probably involved whenever public interest was at stake (as in the case of the lawsuit of Mose; see below, Law). Alternatively, it is possible that only very limited categories of property (such as that belonging to the state or very wealthy individuals) was the subject of written title-deeds at this time.

Provincial and local administration: nomes and "mayors"

Pharaonic Egypt had always been divided into districts or provinces. The oldest regional administrative units are called nomes (from *nomos*, the word used in Greek texts, following Herodotos's *Histories*, for Egyptian districts); the Egyptian equivalent is *sepat*. They may have had places of worship as their centers, the symbols of which became the standard way of writing the names of the nomes (see Helck 1974a). The principal tasks of the nome supervisors seem to have been the control of the regional government resources, the collection of taxes and the recruitment of a workforce for state projects. Nome administration is recorded from the Third Dynasty onwards, but in the Old Kingdom different nome administrators had different titles throughout Egypt indicating that the system was not uniform. The universal title "Great Head" for any nome was introduced only in the Sixth Dynasty. By that time, however, many nomes had become practically autonomous, a development foreshadowing the disintegration of the kingdom in the First Intermediate Period. An attempt was made by the pharaohs of the late Old Kingdom to keep nome administration centralized by appointing a Supervisor of Upper Egypt, who was supposed to control the individual nomarchs in the south, but it was obviously to no avail. An outline sketch can be made of such developments in the south, but hardly anything is known about nome administration or its history for Lower Egypt.

The Middle Kingdom saw new types of provinces, sometimes called "city districts" (Pardey 2001: 18), with towns or urban complexes at their centers. At the head of such a district was the *haty-a*, a title known from the Old Kingdom, used by some nomarchs but not by all (Martin-Pardey 1976: 117). It is often conventionally translated as "mayor," even though he was the head of more than a town or a city, being responsible for the whole of the surrounding region as well.

In the Twelfth Dynasty two Upper Egyptian nomes, the Fifteenth and the Sixteenth (the "Hare" and the "Oryx") still retained their former status, possibly in recognition of their support for the Theban kings who had re-unified the kingdom. Elsewhere, however, the nomarchs were replaced by "mayors" whose territories were smaller than the ancient nomes. This system continued in the New Kingdom. The mayors had essentially the same tasks as the nomarchs before them: controlling royal domains and collecting state revenues. According to the Duties of the Vizier (see above), the mayors received their orders directly from the vizier. Thus provincial administration was ultimately his responsibility (for a different view, in which mayors were seen as essentially local administrators with no responsibility to any real provincial government, see van den Boorn 1988: 328).

In the Middle Kingdom the ancient nomes had disappeared as administrative units, but in later periods they are still referred to in a religious context in temple inscriptions. This is a perfectly understandable archaism in view of the fact that originally their centers were places of worship. The standard number of 42 nomes in religious texts (22 for Upper Egypt, 20 for Lower Egypt) may well not correspond to any administrative practice.

There were no ''mayors'' in smaller towns and villages, so on this very local level an important role must have been played by prominent families, who would often supply local representatives to the state and as temple officials. These could be members of the local council, *kenbet* in Egyptian. Whether such councils represent regular administration on the local level is doubtful. Two sources suggest that they could be formed *ad hoc*. In the decree of King Horemheb instituting legal reforms (see below, Law) it is stated that mayors and priests could establish any council they wanted for judicial purposes (Kruchten 1981: 151). And there is also data from Deir el-Medina, the site of the Ramesside community of royal necropolis workmen, showing that in this community legal decisions were made by a council composed of local functionaries, with the occasional involvement of outside authorities, convened specifically to settle occasional difficulties (McDowell 1990: 143–86). The scenario is either provincial (mayors) or institutional (the royal necropolis, and priests – temple councils are attested already for the Middle Kingdom), and in both cases the councils are concerned with judicial rather than administrative matters. It is difficult to answer the question of whether the *kenbet* was a council or a court, or both. There were also two *Kenbet aat*, 'Great Councils/Courts', in the New Kingdom and Third Intermediate period, normally chaired in the Ramesside period by the viziers of the north and the south (see further below, Section 2, Law).

Special Sectors of Administration: Religious and Military

According to van den Boorn (1988: 315), the vizier was the head of the ''civil administration,'' a term normally understood as excluding religious or military activity, which implies that the vizier had no authority in these spheres. Yet in the *Duties of the Vizier* he is said to select the military units that accompany the king on his travels (col. 23), and that he is responsible for temple estates (col. 27). As he was the king's representative, there is every reason to expect that royal decisions about temple property and functionaries as well as about military matters were in fact implemented by him. The vizier was obviously active in a military sphere in the account of Ramesses II's battle at Kadesh. There he is given the order to collect a section of the Egyptian army still on its way to Kadesh when the vanguard under the king's personal command was suffering a major attack from the Hittites. Religious authority was conferred on several New Kingdom viziers who held the title ''Overseer of Priests of Upper and Lower Egypt,'' a title otherwise associated with the high priests of major urban temples, such as Heliopolis, Memphis, and especially Thebes.

Egyptologists usually treat military and temple administration as separate entities because the different titles of functionaries make it easy to distinguish their duties. This is especially true for the temples, which in the course of Pharaonic history grew into highly autonomous administrative units and even major economic powers

(see e.g. O'Connor 1995). At the same time, however, temple estates were subject to inspections by officials of the royal treasury (Spalinger 1991; Haring 1997: 17–20) and in various other ways were integrated into government administration.

The army had developed as a permanent and specialized institution by the time of the New Kingdom (at the latest; in earlier periods it can hardly be distinguished from a workforce for mining, quarrying, and trade expeditions). The highest functionaries bore the title "Overseer of the Army" (also translated as "General"). The army became a separate institution as a result of the expansion of the empire in the early Eighteenth Dynasty. The administration of foreign territories in Nubia, and especially in the Levant, directly involved the military. In the Middle Kingdom Egypt had controlled its conquests in Nubia by building huge fortresses along the Nile, and in the early New Kingdom, when it came to control territory as far as the Fourth Cataract, it did so again. This time, however, governors were appointed over Nubia who were direct subordinates of the king, bypassing the authority of the vizier. Such a governor was entitled the "King's Son of Kush" (although they were not actual sons of the Pharaohs) and the "Overseer of the Southern Deserts."

Egyptian administration of the northern territories was different. Here, native rulers of city states remained in their position and swore oaths of allegiance to the Egyptian king. By installing garrisons and permanent administrators in some locations, and by regularly sending messengers and military functionaries to the local rulers, Egypt exerted control over city states as far as Kadesh on the Orontes. Although a messenger may have been given the title of "Overseer of the Northern Deserts," his position was nowhere near as exalted as that of an "Overseer of the Southern Deserts," and here no supreme governor such as the "King's Son of Kush" was to be found (Murnane 1997).

Because the religious and military branches of the state administration had particular titles and offices distinct from other administrative sectors, they could be examined as separate units, but to see them as entirely separate would be incorrect, especially because different functionaries in different sectors often belonged to the same family. One single family might provide civil, religious, and military functionaries, and, since it was common for an official position to be inherited, that family would keep their positions and, where possible, accumulate others (for the role of families, see Cruz Uribe 1994). It was possible for a single individual to bear different titles corresponding to different administrative sectors. Such details are important factors to note when discussing the role of bureaucracy in Ancient Egypt.

Central registration

For a complex and formal government structure to function properly information on the territories and the people governed had to be readily available. It has already been stated that for the earliest periods of Egyptian history there are no indications of any government interference with local irrigation and agriculture (see Central Administration: the Vizier). On this assumption there is no reason to suppose that records on local agrarian matters were kept by the government, but in a later period

Figure 12.2 The Palermo stone, obverse (Schäfer 1902: pl. 1).

the central government was concerned with local matters; for in the *Duties of the Vizier* it is the vizier who judges any dispute about fields and who consults local authorities and documents for the purpose. So by the time of the late Middle or Early New Kingdom records seem to have been kept on a local or provincial level for the use of the government. This raises the question of whether such records were kept by the central government itself.

Here an important source is the so called Annalistic Inscription, the principal fragments of which are now in Cairo and Palermo (full publication by Schäfer 1902; for the entire inscription see e.g. Beckerath 1997: 14–19). It is clear from this text that, as early as the Early Dynastic Period, records on people, land, and cattle were kept by the central government. This inscription records the reigns of individual kings, starting with the period preceding the First Dynasty and ending with the earliest kings of the Fifth. Of the predynastic kings only the names are recorded,

and their authenticity is far from certain, but from the First Dynasty onwards the horizontal registers of the inscription are subdivided into small sections representing consecutive regnal years. A specific event is mentioned for every year, and the years were probably named after the events occurring in that year, such as smiting enemies or building a temple. The level of the Nile inundation in cubits, palms, and fingers is also recorded.

An event known as *shemsu Hor*, "Following of Horus" recurred on alternate years. Its hieroglyphic classifier is the sign of the ship, and so the name may refer to a journey of the king and his entourage through Egypt. From the Second Dynasty onwards, or at least from the reign of Ninetjer, as recorded in the fourth register of the Palermo Stone, the Following of Horus was an event used for "counting" (*tjenut*), a word which in the Fourth Dynasty annals seems to have replaced the original *shemsu Hor*. "Counting" became the standard way of numbering regnal years: within a reign "the year of the *n*th occasion of counting" (e.g. *renpet sep* n *tjenut*) would be followed by "the year after" that variable number. This system was abandoned after the Old Kingdom, when regnal years were numbered consecutively, and *renpet sep* became a seemingly meaningless expression. According to the annals of the Third Dynasty it was gold and fields that were counted, and in those of the Fourth Dynasty it was prisoners and cattle from Nubia and the Libyan Desert (or simply unspecified "cattle"). The counting thus seems to have been a biennial inventory of the government's economic resources and of military spoils from the information gathered during a tour of the country.

Inscriptions from the late Old Kingdom mention the word *ipet*, another term for counting or inspection. Autobiographies in private tombs of the Sixth Dynasty refer to the inspection of government domains throughout the country, and royal decrees from the same period for the protection of temple estates stipulate that the properties of specific temples would not be subjected to such inspections, clearly a concession of fiscal importance. The word *ip* (or its causative *sip*) "to count" is also attested in the Middle and the New Kingdoms (see Valbelle 1987).

One important responsibility of the nomarchs and "mayors" of Egyptian provinces was the fiscal administration of the land and the workforce; for taxes were claimed by the central government from the mayors. Mayors and other officials, such as district councillors, fortress commanders, and scribes, are shown presenting state revenues to the vizier in the Eighteenth Dynasty tomb of Rekhmire. The decree of King Horemheb mentions contributions required from the mayors for the upkeep of royal mooring places along the Nile, places visited by the king on his annual travels to Thebes (Kruchten 1981: 98–9). According to the decree these contributions, instituted by Thutmose III, were no longer an authorized practice and were being demanded from the mayors unjustly. The mooring places are mentioned later in Papyrus Wilbour, an agrarian register from the reign of Ramesses V, and it becomes clear from this text that by this time they were institutions enjoying revenues from their own fields (Gardiner 1948: 18). These mooring places may have survived as landmarks from the "Following of Horus" itineraries in the earliest periods of Egyptian history.

The legal inscription in the tomb of Mose, a scribe of the temple treasury of Ptah in Memphis under Ramesses II (Gaballa 1977: 22–32), provides important information
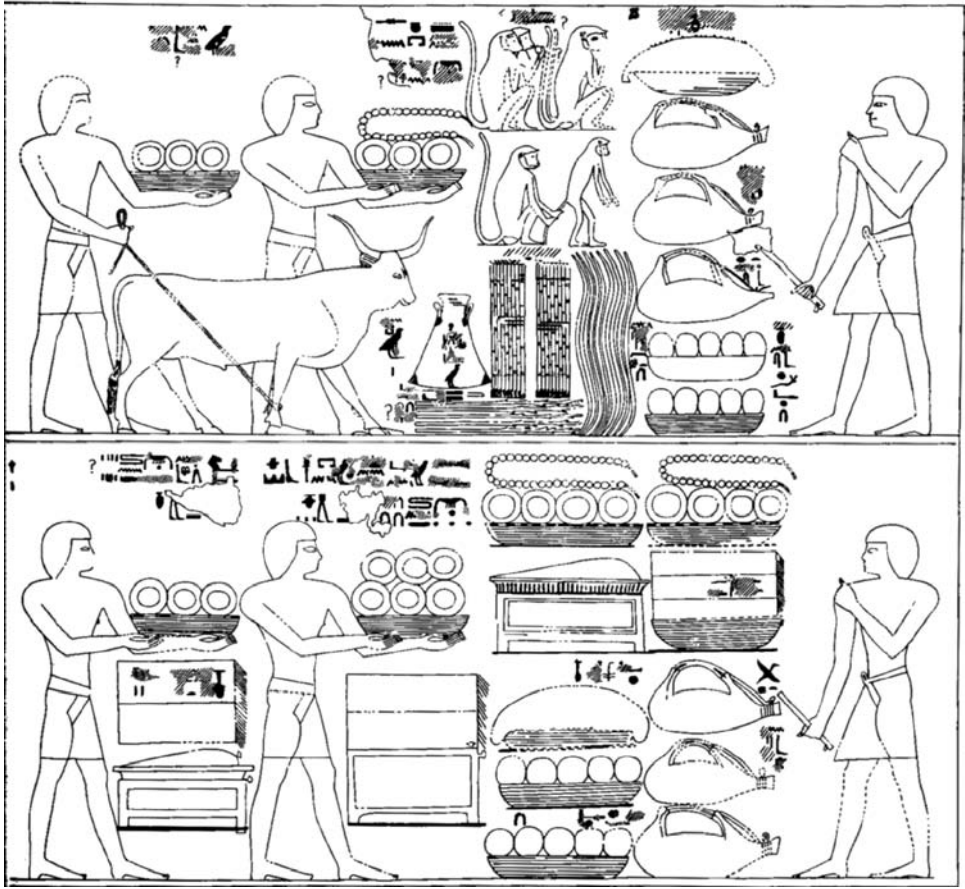
Figure 12.3 Taxes of Upper Egypt (detail) as depicted in TT 100 (Davies 1943: pl. XXIX).

about the central registration of fields by the residence. Mose was a descendant of the military hero Neshi, who had assisted King Ahmose in the fight against the Hyksos. Neshi had been rewarded for his accomplishments with extensive grants of land, which remained in the family for many generations. But in the reign of Horemheb they had become the subject of a legal dispute. Two branches of the family, one represented by Mose's grandmother Urnero, the other by the deputy Khay, could not agree about them. Urnero won her case, and the fields duly passed on to her son Huy and his wife Nubnofret, the parents of Mose, but after Huy's death Khay again challenged his widow's right to the fields. Nubnofret requested that the Great Council in Heliopolis, which was chaired by the vizier, should consult the registers of the royal treasury and the royal granary in Piramesse. She evidently expected that her name would be mentioned in them as the rightful heir to the disputed fields, but this proved not to be so. Undeterred, her son Mose pursued a claim to the land, declaring that the registers had been altered by Khay, and he was able to appeal to witnesses living on or near the family property. The end of the text is badly damaged so, although it is difficult to prove, it is assumed that Mose was probably successful.

An accompanying scene depicts him as victorious before his judges. It is, in fact, unlikely that Mose would have decorated his tomb with an account of an unsuccessful legal process.

What is significant in this episode is that the land registers of the royal treasury and granary, kept in the residence (Piramesse), were available to be consulted. The same registers are referred to in a Ramesside model letter about land providing fodder for the king's horses (P. Sallier I. 9. 1–9; Caminos 1954: 325–8). The fact that Nubnofret expected her name to be in the registers suggests that they would have been kept up to date, and Mose's allegation against Khay shows that tampering with them was not out of the question. Even so it is uncertain whether these registers would have included all the fertile land of Egypt, or only that in which the residence had a specific interest. The king had granted the land to the family of Mose, but it may still have been subject to taxation.

The inspections of temple estates by officials of the royal treasury has already been noted (see Special Sectors of Administration), and inspection and registration by the central government for fiscal purposes can be shown to have existed throughout Pharaonic history. The registers were concerned with royal and temple fields, with cattle and with the workforce, that is to say, only with the assets of the institutions, and perhaps only with a limited number of them. The Wilbour Papyrus mentioned above is concerned only with land subject to claims by royal and temple estates. No "land-register," which would have covered all institutional and private holdings of land, can be shown to have existed in Pharaonic Egypt. The earliest possible reference to such a register of irrigated land comes from the time of Ptolemy II in 258 BC (Demotic ostracon L.S. 462.4: Bresciani 1983). Ptolemaic administration differed from the earlier pharaonic system in a number of ways, and in the longer term it seems to have aimed at a higher degree of centralization (see Chapter 13).

2 Law

By definition a state is required to maintain law and order through its centralized government (Claessen and Skalník 1979: 21), and so we have every reason not to be surprised that in the Pharaonic state there were laws, courts, judges, and police, but it is not always easy to distinguish in Ancient Egyptian documents between law and administration.

We have already drawn attention to the vizier, who was the head of government administration as the king's representative, but whose actual activities make him seem more of a judge (see Central Administration: the Vizier). Religious texts present the king as the supreme judge (see Central Administration: the King), but his actual judicial responsibility is far from clear. It was he who was formally responsible for decrees concerning specific institutions or situations, which are introduced with the words "My (or His) Majesty commands," but we know from the *Duties* that it was the vizier who implemented any decision taken by the king. This suggests a formal distinction between the king as legislator and the vizier as executive. The same vizier also appears as the supreme judge (i.e. as the chairman of the "Great Court," see

below). It seems, therefore, clear that the central person in Pharaonic jurisdiction was the vizier rather than the king (Allam 1991: 110). In fact, it is very difficult to distinguish between king and vizier, either in administration or jurisdiction; after all, the vizier was the king's representative.

Most decrees are concerned with the foundation, protection, or restoration of temple estates. Only rarely do we come across the text of a decree with a wider scope. One such rare example is the decree issued by King Horemheb, in which he addresses several abuses in Egypt's administration and jurisdiction as illustrated by the following extracts (see Kruchten 1981: 148–61):

> [I have selected(?)] discrete men of good character, who can discern thoughts, who listen to the words of the Palace and the laws of the Gate. I have appointed them to judge the Two Lands and to calm the one who is in [. . .]. I have placed them in the two great cities of Upper and Lower Egypt, everyone being at peace because of them, without exception. I have given instructions to them, and laws in [their?] day-books. (Karnak stela, right side, col. 4)

> [. . .] judges of the court. It is the god's servants of the temples, the mayors of the interior of this country, and the *wab*-priests of the gods who constitute any court they desire in order to judge any citizen. (right side, col. 7)

Horemheb established new "courts" (*kenbet*) in Upper and Lower Egypt, and made rules to govern these courts. Very probably what are referred to here are the so-called "Great Courts" (*kenbet aat*) in Thebes and Memphis. Legal texts from the New Kingdom show how these courts functioned, with the vizier as their chairman. The most important example is the text of Mose (see Central Registration). As the chairman of the Great Court of Heliopolis, the vizier was to judge in a dispute about land belonging to a wealthy family. This is in perfect agreement with the much older text of the *Duties of the Vizier*, in which it is stated that the vizier interferes personally in disputes about fields. The reason for the vizier's (and the Great Court's) involvement, however, may also be the simple fact that the problem arose within an important and wealthy family. A late New Kingdom papyrus records how the vizier passed judgement on the inheritance of a Theban priest. It was not about land but about the division of a remarried priest's property, including his slaves, between his new wife and his former one and her children (P. Turin Cat. 2021: Allam 1973: 320–7).

Mention is also made in Horemheb's decree of courts that could be formed on occasion by mayors and priests. Such local and temple courts have already been referred to. The single local court of which the workings are more or less clear to us is the one frequently referred to in the Ramesside ostraca and papyri from Deir el-Medina, but it should not be forgotten that the community which produced these records represents a government institution, the royal necropolis, usually referred to in Egyptian as "The Tomb." The *kenbet* featured here seems not to have been an administrative "council" but a purely juridical institution, a "court" (McDowell 1990: 143). The explanation sometimes given is that the necropolis workmen were supervised directly by the central government, with the foremen and scribes immediately subordinate to the vizier. As such they did not require their own administrative board, and it was sufficient for their particular *kenbet* to be purely juridical (Allam 1991: 110). It is very difficult to substantiate the truth of this

theory in view of the absence of documentation on other local courts or councils. While it is commonly assumed that administration and jurisdiction were inseparably joined, the fact remains that the Deir el-Medina *kenbet* is our chief source of information about Pharaonic justice on the local level, and the lack of other documentation makes it difficult to prove that assumption. What we can learn from the necropolis records is that the court was composed of the workmen's local superiors, mainly the scribes and foremen (the "chief workmen"). They were not professional judges and held no titles expressing specific judicial authority. Moreover, the court could be differently composed for any particular session, and the proceedings are referred to as the "court of this day." This practice is reminiscent of Horemheb's stipulation that courts could be formed at will by priests and mayors, although at Deir el-Medina the members were neither priests nor mayors.

A typical example of court proceedings is illustrated by the following text from the Theban necropolis:

> Regnal year 22, second month of *peret*, day 5. Court of this day: the four administrators of the interior; the four administrators of the riverbank. The workman Khaemnun reported to them as follows: "As for me, the water-carrier Penniut has taken my donkey together with her foal. They died while being in his possession. I have reported (it) in court four times. He was charged to pay me for the donkey and her foal on all four occasions, but he has not given me anything." His [i.e. Penniut's] statement was heard. He said: "The workman is right. I was indeed ordered (to pay) him." He was punished.
>
> He repeated the oath-of-the-lord, life, prosperity, health, again saying: "Penniut shall [. . .]."
>
> What he has brought to me in regnal year 22, second month of *peret*, day 26: barley, 1/4 sack. (Ostracon Gardiner 53; Allam 1973: 158–9)

A session of the *kenbet* would usually open with a statement by the plaintiff. The court would react by interrogating the defendant and then make its decision. That decision was designed to terminate the conflict between the two parties rather than to administer punishment to a guilty defendant. Almost invariably the defendant was asked to take an oath to the effect that the plaintiff would be compensated for any injustice he had suffered, and this oath was the formal conclusion of the session. Such a procedure is typical in societies dominated by an oral culture. The legal proceedings of the necropolis workmen happened to be documented simply because the local scribes, who were there to keep track of work in progress and the necessary supplies, developed the habit of writing down matters of local interest (Haring 2003: 17–18).

A different legal procedure from the *kenbet* was practiced in temples and in matters of state as well as in the villages. It was a form of divine justice exacted by means of an oracle. The local procedure attested at Deir el-Medina and elsewhere is very similar to that of the *kenbet* sessions. First a question would be submitted by the plaintiff such as "Did so-and-so do this?" or by someone accused such as "Did I really do this?" The deity they consulted was the one worshipped in the local chapel or temple and whose statue was brought out, often on the occasion of a procession. The statue of the deity would then respond positively by consenting (lit. "nodding") or negatively

by denying (lit. "receding"). If found guilty, the accused would normally be asked to take an oath promising that he would compensate the wronged party. Exactly how the deity responded is not quite clear, but the Egyptian verbs "to nod" and "to recede" strongly suggest movements made by the statue when being carried in procession by a group of priests. Sometimes it is stated explicitly that the deity's answer was communicated by a priest or a scribe, who was clearly acting as an intermediary. After an unsatisfactory response a second oracular consultation could be made in a nearby village with a different deity, as described in papyrus BM EA 10335, which is not related to Deir el-Medina (see van Lieven 1999: 81–2).

The *kenbet* was used not just to resolve conflicts but its sessions were also opportunities for making legal contracts, such as those required for marriage and divorce. There is no evidence for any formal registration of these events by officials or religious authorities, but they required the acceptance by the local community, preferably in front of the *kenbet*; this is stated explicitly in papyrus BM EA 10416 (Janssen 1991: 28–32). In Deir el-Medina a man expressed his wish to take a wife by bringing a gift ("carrying the bundle") to her father (P.DM 27; Allam 1973: 301–2). This would qualify him as a candidate for marriage to the exclusion of others. Written marriage contracts did not become a rule until the ninth century BC, and even then they represented the agreement between a groom and his father-in-law. In the Saite Period they changed into agreements between husband and wife (Pestman 1961: 11–13). Both the contracts of the Late Period and the oral agreements of the New Kingdom concerned the legal consequences for the husband and wife living together and their offspring; arrangements had to be made for the division of property in case of inheritance or divorce. The goods or income brought by the husband and wife into their household were considered joint property. On divorce, this joint property would have to be divided between both partners and their children. One Deir el-Medina text presents us with the customary arrangement, and this general rule is confirmed by records of actual property divisions (Toivari-Viitala 2003: 90–5):

> If the children are small, divide the goods into three parts: one for the children, one for the husband, one [for] the wife. But if he [i.e. the husband] should take care of the children, give him two-thirds of all goods, one third being for the wife. (Ostracon DM 764: Toivari-Viitala 2003: 87–90)

After the New Kingdom the *kenbet* appears to have fallen into disuse. The *kenbet a'at* (Great Court or Council) is still mentioned in Theban legal proceedings of the Third Intermediate Period, but under the Saite Pharaohs new expressions occur in legal documents. The cursive Hieratic script used for administration and jurisdiction was now replaced by Demotic, and many administrative and legal innovations were introduced. It is also noteworthy that in this same period there is an unprecedented discrepancy between cursive texts on papyrus and hieroglyphic inscriptions on monuments. Archaic expressions which had become extinct during the early New Kingdom or even earlier appeared again in hieroglyphic inscriptions. For example, the word *djadjat*, "board" or "council," is still found in the *Duties of the Vizier* but not in Ramesside texts, where *kenbet* presumably would have taken its place. In Demotic the

expression *awy wepy* (lit. "house of judgement") is used for what seems to be a purely judicial institution, a "court" (Allam 1991: 116–17). This is seen as evidence that the formal separation between administration and jurisdiction took place in Egypt as late as the seventh century BC; earlier the *kenbet* had administrative and judicial functions, but the Demotic "court" was only judicial (Allam 1991: 119). It is difficult to prove that administrative and legal reforms had occurred from what essentially is evidence arising from changes in script and language. Furthermore, it is not at all certain that the *kenbet* was anything more than judicial, but the Late Period did clearly witness changes in legal practice, such as the growing popularity of written contracts, e.g. the marriage contracts discussed above.

In the Ptolemaic Period, Greek law was introduced into Egypt, but it only applied to the Greek population. There were separate courts for the native population who were to be treated according to Egyptian law. These courts (*laokrisia*) probably corresponded to those referred to as *awy wepy* in Demotic. The Ptolemies introduced a royal official, the *eisagogeus*, into the native courts (Allam 1991: 124–5). In the later Ptolemaic Period, any legal arrangement in Demotic had to be registered by a Greek notary in order to be effective, and Greek summaries written underneath Demotic contracts confirm this practice.

The earliest compilation of Egyptian law in writing, the so-called *Legal Manual of Hermopolis*, also comes from the Ptolemaic Period. These laws are not to be read as a comprehensive code, but they are concerned with very specific situations, as can be seen from the following passage:

> If a man prevents a house from being built, and says: "Builder, do not build!," and he builds (nonetheless), he reports to the chief of police saying: "I have said to the builder: "Do not build the house!." He did not listen to me, and he built unlawfully." The builder shall be questioned. If he says: "He did not prevent me," it is said to him: "Take an oath saying 'NN son of NN did not say "Do not build the house!" '." If he does not swear, he shall receive fifty strokes of the stick. The house is not built until its [i.e. the court's] judgement is recorded. (col. VII, lines 29–32; Mattha and Hughes 1975: 36)

The casuistic nature of these "laws" is somewhat reminiscent of the specific objectives of royal decrees from earlier periods. It is also similar to Mesopotamian legal tradition, in which casuistic law had been put in writing from the late third millennium BC at the latest, with the Codex Hammurabi (eighteenth century BC) being the most famous embodiment of that tradition. The existence of written law in pre-Ptolemaic Egypt has been the subject of some debate. References to legal manuals are made, according to some authors, in the *Duties of the Vizier* (for discussion and references see van den Boorn 1988: 29–32, who is himself opposed to the theory), or in the decree of Horemheb (Kruchten 1981: 154). No specimen of such a written tradition seems to be extant, apart from the decrees. It has been argued, however, that the *Legal Manual* itself provides evidence of a much earlier origin, dating back at least in part to the eighth century BC (Pestman 1983). It is possibly to be associated with King Bocchoris of the Twenty-fourth Dynasty, who, according to Diodorus Siculus, was an important legislator.

Another traditional characteristic of Egyptian law that becomes apparent from the passage quoted above is the importance of the oath. Just as the oath by a defendant in

a New Kingdom *kenbet* case would be the end of the court's session, a legal dispute in the Ptolemaic Period could be settled by a compulsory oath, to be taken by the defendant and invoking a deity. Reluctance to take the oath would indicate the defendant's guilt. Numerous texts of such temple oaths have survived on ostraca.

Finally, attention should be drawn to the status of women in native Egyptian law. Whereas in Greek law a woman would normally be represented in legal matters by a man (*kurios*), the Egyptian tradition allowed women to act independently, and they represented themselves in contracts or in court (see e.g. Allam 1990). This custom persisted after the Macedonian conquest and testifies to the persistence of traditional Egyptian law under Greek administrative and cultural influence.

FURTHER READING

Important observations on pharaonic Egyptian administration will be found in Kemp 2006. Helck 1975a (1958) remains the basic outline of government administration in the Middle and New Kingdoms, with prosopographical notes on the highest functionaries. Source documents for Middle Kingdom administration are presented by Quirke 1990. For the duties of the vizier as laid down in Egyptian texts, see van den Boorn 1988. Important work on provincial administration has been done by Eva Pardey: Martin-Pardey 1976; Pardey 2001. For temple administration, see Haring 1997. Valbelle 1987 provides an outline of the history of central registration. A recent overview of Pharaonic law is Jasnow 2003; for the Late and Graeco-Roman periods see Manning 2003a. Allam 1991 discusses the development of jurisdiction from the New Kingdom until the Ptolemaic Period. McDowell 1990 focuses on the rich documentation of the Ramesside community of necropolis workmen at Deir el-Medina. For marriage settlements and the position of women, see Pestman 1961. Théodoridès 1995 is an important collection of case studies in Pharaonic Egyptian law.

CHAPTER 13

Administration and Law: Graeco-Roman

Jane Rowlandson

1 Introduction

The many thousands of papyri and ostraca surviving from this period, which are predominantly of routine administrative or legal content, allow us insight into the detailed working of the administrative and legal systems of Ptolemaic and Roman Egypt unparalleled by comparison both with earlier Egyptian history and with other parts of the Hellenistic and Roman world. During the Ptolemaic Period, both Demotic and Greek were regularly used for administrative and legal documents, although the Demotic texts are only recently being accorded their full weight alongside the Greek in historical studies (Manning 2003; Clarysse and Thompson 2006). The tendency for Greek to gain ground at the expense of Demotic for documentary use, already noticeable by the later Ptolemaic Period, accelerated sharply under Roman rule, so that our evidence for administration and law in the Roman Period is very largely written in Greek.

It is, however, not easy to form a balanced overall picture of how the administration and law operated, because the evidence is so patchy, being intensively concentrated (often in the form of "archives" or dossiers) in a few locations, and even there documenting only some specific procedures over a short time-span. Most of our evidence comes from the Fayum (named the Arsinoite nome from 257 BC) and parts of what the Roman administration termed the "Heptanomia," the Nile valley nomes from the Hermopolite northwards. The Thebaid is reasonably well documented for the Ptolemaic Period (Manning 2003), much less so for the Roman and Late Roman Period, while the Delta, because of its high water table, has yielded only a few carbonized papyri. In particular, little papyrological evidence directly relates to Alexandria, which throughout the period under discussion here was the center of government, as well as much the largest city in Egypt. Our perspective on the central government and administration is, therefore, necessarily somewhat tangential and indirect.

Both the Ptolemies and Romans, like the Persians before them, in many respects maintained and worked with the pre-existing administrative and legal framework,

progressively adapting it and introducing new elements as they perceived the need. Egypt's distinctive geography and hydrology, unfamiliar to both Greeks and Romans, encouraged continuity and also suggested solutions which, even when not directly derived from earlier precedent, ran along similar lines. The continued tension between Egypt as a unitary state and the tendency for north and south to be split under different administrations (see Chapter 12 above) is a case in point: throughout our period the Thebaid formed a distinct administrative region, and in Late Antiquity it became a separate province. Greek penetration and settlement of this area initially made much less impact than further north, and the Ptolemaic state only slowly (in response to rebellion; Chapter 9 above?) assimilated its government to that of Middle Egypt and the Delta (Manning 2003: esp. 65–98).

However, the superficial continuities or similarities between many administrative offices and those of earlier periods hide fundamental shifts in overall conception and objective. Ptolemaic Egypt was part of a maritime empire which in its heyday stretched from Cyrene to encompass the Aegean, the Anatolian coast, Cyprus, Syria, and Phoenicia, governed from a Greek city, Alexandria, which lay at the extreme fringe of Egypt itself but occupied a central place within that hegemony, to which the horizons of the kings and their chief administrators were primarily orientated. The smooth and effective administration of Egypt was directed towards supplying the resources to facilitate their military, political and cultural competition with their rivals on this Mediterranean stage. While the Romans were no less concerned than their predecessors to tap Egypt's vast wealth, their preferred methods for achieving this, to devolve much of the responsibility for both production and local administration onto an urban, Hellenized, landowning class based in the nome capitals, produced a much sharper break with Egypt's past and greater assimilation to Rome's other eastern provinces than scholars used to believe (see Chapter 10 above). The reforms of Diocletian and his successors around the turn of the third to fourth century AD at one level mark the culmination of this process of assimilation, but also, in fundamentally revamping the governmental and administrative system of the entire empire, introduces a further major turning point into the administrative history of Egypt.

It makes best sense, therefore, to divide this chapter chronologically (in contrast to Chapter 12), into sections on the Ptolemaic, early Roman, and late Roman periods. While the lack of clear differentiation between the administrative and judicial spheres noted in Chapter 12 remains true throughout the period covered here, and some discussion of law is integrated with that of administration, separate sections focusing on law follow the corresponding period of administration.

2   The Evolution of Ptolemaic Administration

According to the later Greek writer Arrian, whose history of Alexander's conquests uses Ptolemy I's own account and reflects its perspectives, Alexander the Great divided the civil administration of Egypt between two Egyptians, Doloaspis and Petisis, as nomarchs, but, when Petisis declined the office, Doloaspis (whose name

is actually Persian rather than Egyptian) held sole charge. Various Macedonians and Greeks were put in command of the military forces, and Kleomenes, a Greek from Naukratis in the Delta, obtained financial authority and later overall governorship of Egypt (with the Persian title "satrap": Hölbl 2001: 12), under instructions to "allow the nomarchs to govern their own districts in accordance with ancient tradition" while handing the tax revenues to Kleomenes (Arrian 3.5). This careful disposition soon foundered on Kleomenes' rapacity and Alexander's sudden death, but its basic principles survived when Ptolemy established his own rule (quickly eliminating the unpopular Kleomenes), notably the division of civil, financial and military authority, the partial continuity with earlier administrative practice, and the inclusion of both native and immigrant personnel into the system of government.

As in the other Hellenistic kingdoms, the "central government" essentially consisted of a small group of personally chosen "friends" (*philoi*) of the King, who acted collectively as an advisory council and individually in capacities such as generals, admirals, ambassadors, and secretaries for private correspondence (the *epistolographos*) and official memoranda (the *hypomnematographos*). These men were by origin overwhelmingly Greek or Macedonian (although a few Egyptians are now being identified), and, while some are known from the papyri to have been granted *doreai* (gift estates) in the Egyptian countryside, the main focus of their activities lay in maintaining Alexandria's relations with the Greek world (Rowlandson 2007b). Even Apollonius, the *dioiketes*, head of the internal administration under Ptolemy II, about whom we are relatively well informed thanks to the survival of his agent Zenon's vast archive (Edgar 1931: 5–26; see ch. 9), in addition to his tours of inspection of Egypt also wielded great influence in the overseas territories (e.g. *Sel.Pap*. II 267: Calynda in Caria; P.Lond. VII 1948: his estate in Palestine). Alexandria was governed by its own city magistrates, supervised by a royal official, and inevitably the presence of the royal court overshadowed its independence (Fraser 1972: 93–131).

Ptolemy I's decision to found only one further Greek *polis* in Egypt (Ptolemais in the Thebaid), instead establishing his military and other immigrant settlers mainly in rural communities in close proximity to the Egyptian population, had consequences for the administrative system as profound as it had for the development of Ptolemaic society in general (cf. Ch. 9). The military character of the early settlement introduced elements of military organization into the civil administration of the nomes, most notably the office of *strategos* ("general"), whose competence soon expanded from responsibility over the kleruchs (soldier-settlers) to matters also concerning the civilian population, both Greek and Egyptian. In some of the earliest Ptolemaic papyri from the Herakleopolite nome, we find him acting as a judge in a civilian context (P. Hibeh I 92, 93, from 263/2 and c.250 BC), and from 222–218 BC there survives a large group of around one hundred petitions, all addressed to the King but handled in practice by the *strategos* of the Arsinoite nome, Diophanes (Lewis 1986: 56–68 introduces and translates a selection). By the late third century the *strategos* had become the head of the nome administration in Middle and Lower Egypt (see below on the Thebaid), a position which persisted for over five centuries to the third century AD. This rapid expansion of the effective competence of the *strategos* was probably less the result of deliberate policy than of the inevitable influence wielded by a figure backed by military

authority and with direct access to the King (the later judicial role of Roman centurions is a partial parallel; see below).

Papyrological evidence for administration is almost entirely lacking, especially in Greek, until the 260s BC. This reflects less the chances of survival (private documents and tax receipts in Demotic survive in fair numbers) than the transitional nature of the first two generations of Ptolemaic rule in Egypt. There are two aspects to this. Firstly, the major development of the Fayum, the area which supplies most of our Greek evidence, is a phenomenon of the middle, rather than the early, third century; the same is probably true of the kleruchic settlement of the adjacent Herakleopolite and Oxyrhynchite nomes. Secondly, the early Ptolemaic regime was seriously short of administrative personnel capable of writing Greek. Papyrologists can detect from the use of a rush rather than the normal Greek reed pen (as well as from characteristic idiosyncrasies of spelling and grammar) when a Greek document has been written by an Egyptian scribe, a phenomenon which suggests the systematic retraining of the Egyptian scribal class to operate also in Greek (Clarysse 1993; Thompson 1992a, 1992b). This incidentally brought them, as well as their teachers, the tax privileges of ''Hellenic'' status, like the scribe Petechonsis, son of Imouthes, who probably served as a *topogrammateus*, a district administrator (Clarysse and Thompson 2006: II 144).

Only by the middle decades of the century was the Ptolemaic administration fully taking shape. The famous ''Karnak ostrakon,'' a Demotic version of a royal order for a comprehensive audit, nome by nome, of Egypt's land and its produce and tax yield, dates from 258 BC; how novel this was is unclear on present evidence (Clarysse and Thompson 2006: II 16, on Bresciani 1983; English trans. Burstein 1985 no. 97), but from around the same date comes our earliest evidence for the salt-tax (a form of poll tax) and the census procedures on which it was based, as well as royal orders for the registration of livestock and slaves in the overseas territories of Syria and Phoenicia (Clarysse and Thompson, ibid.). This looks like an attempt at greater systematization of government more than just the chance survival of evidence.

Much of the Greek administrative evidence from this period consists of informal correspondence between officials (often identified by name rather than by the offices they held), from which it is easier to detect their practical day-to-day concerns, notably maintaining order and facilitating agricultural production and government revenue, than to fit the various elements together into a coherent bureaucratic system. One surprising feature to emerge from the census records is the large number of policemen, who composed on average over 3% of the adult population (Thompson 1997; the proportion in modern England is 0.7%), a prominence borne out by the administrative correspondence.

Especially in the initial phases, the administration was more pragmatic than rigidly hierarchical; what counted most was personal influence with the King and his ministers, and influence remained a crucial lubricant of the system even when it had matured and acquired greater homogeneity. One attempt to make sense of the system is Falivene's (1991) division of some of the numerous offices into three groups, based respectively on the Greek linguistic roots *arch*- (govern), *graph/gramm*- (write), and *oik*- (house) (see table 13.1). Of these groups, the first two were adapted from

Table 13.1　A model of Ptolemaic administration

	Egyptian roles		*Greek roles*	
	-arch	-graph/gramm	oik-	other
central	nomarch		*dioiketes*	
nome	nomarch	*basilikogrammateus*	*oikonomos*	*strategos*
district	nomarch			
	meridarch			
	toparch	*topogrammateus*		
village	komarch	*komogrammateus*		

Source: Developed from Falivene 1991

Egyptian precedents, and were still perceived as "Egyptian" through the Ptolemaic Period; their holders predominantly had Egyptian names (whatever their actual ethnic ancestry; Clarysse 1985). The last group, by contrast, were seen as strongly Greek, being concerned with managing Egypt as the King's private estate or household (*oikos*), and precedents for the terms can be found in earlier Greek contexts. However, although scholars no longer see the *dioiketes* as derived from the earlier vizier (*tjaty*; see Chapter 12), the use of *senti* as the Egyptian equivalent shows that the office also had a Late Period Egyptian precedent (Yoyotte 1989).

A particular source of confusion for scholars is the title "nomarch," which was demonstrably used for officials at very different levels. In addition to the two nomarchs mentioned by Arrian, who were each responsible for half of Egypt, we also find nomarchs in charge of whole nomes, while others dealt with sub-divisions of nomes, called "nomarchies." In the Fayum these district nomarchs were entirely superseded by toparchs after 230 BC (to reappear in the Roman Period, with purely fiscal responsibilities), but elsewhere they are found throughout the Ptolemaic Period. Perhaps influenced by Greek literary usage, and uncertainty over whether to trace its etymology to "nome" or to the verb *nemein* ("distribute"), "nomarch" thus appears as an all-purpose term which could refer to officials with different Egyptian titles and functions (Falivene 1991; Derda 2006: 63–70 usefully summarizes the issues).

A major task for the royal administration was the regulation of agricultural production and taxation. The role of officials in supervising economic activity and revenues emerges clearly from the so-called *Revenue Laws* of Ptolemy II, a text which *inter alia* regulated the manufacture of oils and the *apomoira* tax on vine and orchard produce. The instructions for the *apomoira* were addressed by the King to all the "*strategoi*, [hipparchs (= cavalry commanders)], officers, nomarchs, [toparchs], *oikonomoi, antigrapheis, basilikogrammateis* (= royal scribes), Libyarchs and chiefs of police" (col. 37, trans. Austin 1981: no. 235; cf. 236; Bingen 2007: 157–205; see ch. 17). Characteristically, we see the royal administration using a range of military, civilian, and police personnel in combination. The *oikonomoi* and *antigrapheis* (checking-clerks) who closely supervised the farmers and private-enterprise tax contractors also kept an eye on one another, while lists of the land and its produce were drawn up separately by the royal scribes.

Another key text for understanding the nature of Ptolemaic administration is a lengthy set of instructions probably from a *dioiketes* to an *oikonomos* (P.Tebt. III 703, dating from the 240s or later; tr. Austin 1981: no. 256).

> During your tours of inspection, try as you go around to cheer each man up and make him in better spirits; and do this not only in word, but also, if any of them complain about the village scribes or komarchs concerning anything bearing on agriculture, investigate, and as far as possible put an end to such incidents. (lines 40–9)

Its moral and rhetorical tone places it in the tradition of earlier Egyptian instructions on the proper conduct of officials (Crawford 1978; cf. Ch. 12 above on the *Duties of the Vizier*), but the ruler's role in providing justice and protection for the common man against the potential rapacity of intermediate officials was an element of both Egyptian and Hellenistic Greek kingship ideology. A conscientious *oikonomos* was a busy man; in addition to the duties specified in the *Revenue Laws*, this text instructs him to inspect canals and watercourses, oversee the crops from the sowing to the transport of the harvest to Alexandria, register all the cattle and inspect the calf-byres, inspect the production of linen, audit the revenues of every village, if possible, and pursue any deficits, oversee prices, take care that trees are planted correctly, report the condition of royal houses and gardens, restore order to the countryside, prevent extortion, steer clear of bad company, and avoid all evil collusion!

The series of rebellions and civil wars which afflicted Egypt from Ptolemy IV's reign onwards undermined administrative efficiency and allowed malpractice to flourish. Among the measures to secure Ptolemaic control over the Thebaid after the great rebellion of 207–186 was the creation of a new office based at Ptolemais in Upper Egypt, the *epistrategos*, first certainly attested in 185, and later often held jointly with that of *strategos* of the Thebaid (Thomas 1975b). From the 130s there were probably two *epistrategoi* operating concurrently in the *chora* (i.e. Egypt excluding Alexandria), although their respective spheres are still disputed by scholars (Mooren 1984; Van't Dack 1988). Eventually, by the first century, *strategoi* are found governing individual nomes in the Thebaid, as had long been the case further north. Some of these late Ptolemaic *strategoi* are well-known from statues and Greek and Egyptian inscriptions; they came from local Egyptian families, and the office was often passed down, in traditional Egyptian style, from father to son (e.g. the family of Pachom at Dendera: De Meulenaere 1959; compare Panemerit, governor of Tanis in the Delta: Zivie-Coche 2001). Thus by the end of the Ptolemaic Period the structure of the nome administration had become more or less homogeneous throughout Egypt. Another unifying development initiated in the crisis of the early second century was the system of court ranks, which embraced both internal and overseas royal officials in a single hierarchy ("kinsmen," "of the first friends," etc.; Mooren 1975, 1977).

The Ptolemies issued royal edicts (*diagrammata*) and decrees (*prostagmata*) on a wide variety of topics, encompassing both administrative and judicial matters, such as billeting of troops, the Dionysiac rites, judicial procedures and penalties for various crimes, or the supply of wheat to Alexandria (e.g. P. Hibeh II 198, Sel.Pap. II 207–209; all conveniently collected in *C.Ord.Ptol.* = Lenger 1980, 1990). In the aftermath of

rebellion or civil war these took the form of royal indulgences (*philanthropa*) proclaiming amnesties for past offences and arrears and attempting to restore order for the future. The most famous is that issued jointly by Ptolemy VIII Euergetes II and his former and current wives, Kleopatras II and III in 118 BC, after their civil war; its catalogue of arrears and official abuses shows the sorry state to which the administration had sunk:

> And they have decreed that the *strategoi* and the other officials shall not impress any of the residents in the countryside for private services, nor requisition their animals for any private purposes nor force them to feed calves or sacrificial animals nor force them to supply geese or fowl or wine or grain for a price or for the renewal of office, nor compel them to perform work for free on any pretext whatever.
>
>   And they remit to the policemen throughout the countryside the penalties entered against them with regard to [negligence in] royal inspections and for the produce they have mislaid and for the sums handed over to them for arrears or other reasons and which have disappeared, up to the 50th year (=121/0 BC). (P.Tebt. I 5 lines 178–92).

Our surviving text of this important decree is a private copy (full of errors) made by Menches, *komogrammateus* of Kerkeosiris in the Fayum during the 110s BC. The chance preservation of large numbers of Menches' papers in the wrapping of mummified crocodiles sheds a uniquely detailed light on the activities of a local official, although his typicality is more difficult to assess (see especially Verhoogt 1998, 2005; cf. Crawford 1971; the texts are published in P.Tebt. vols. I and IV). Menches, from a partly Hellenized Egyptian family (he was also known by the Greek name Asklepiades), was an influential figure in the village and a key link in the chain of patronage which disseminated power from the center even to remote villages. As well as dealing with petitions, his main duties concerned the survey of land and agricultural production, which involved regular liaising with other officials of equivalent and higher status (Verhoogt 1998: 70–105). Surprisingly, Menches made annual visits not only to present his survey reports to the *basilikogrammateus* in the nome capital but also to Alexandria to report direct to the *dioiketes* (Verhoogt 1998: 142). A more shadowy Alexandrian contact was Dorion, who held the court rank "of the first friends," and for reasons not entirely clear paid most of the fee for renewing Menches' tenure of his office (Verhoogt 1998: 57–62). A close reading of Menches' accounts has revealed in detail not only the duties and remuneration of the *basiliko-grammateus* and other officials and their respective staffs, but even the foodstuffs with which they were entertained while inspecting the village (Verhoogt 2005: especially 62–65).

3   Ptolemaic Law

Neither Greeks nor Romans attempted to suppress the legal traditions of the peoples they governed. Ptolemy II provided courts (*dikasteria*) for the Greek settlers in the *chora*, in parallel with the Egyptian courts of the *laokritai*. A royal representative, *eisagogeus* (clerk of the court), was a key figure in the Greek courts, no less than in

the Egyptian, and seems like other Ptolemaic functionaries to derive from both Greek and Egyptian precedents (Allam 1991, 2008; cf. Ch. 12 end). The city of Alexandria possessed its own legal system and courts (but the *archidikastes,* "chief of justice," was a royal appointee: Fraser 1972: 107–115). Alexandrian laws differed in some details from the Greek law of the *chora* and are poorly documented (mainly from a single papyrus, P.Hal. I; see *Sel.Pap.* II 201–2). The community of Jews settled in Egypt was also free to apply its own law, as is now well illustrated by a group of texts from the Herakleopolite nome published in 2001 (P.Polit.Jud.), but there was no barrier to Jews or Egyptians also using the Greek courts, if they chose, and even *vice versa.*

A case between two persons of Jewish descent, in fact, provides some of our best evidence for the working of the Greek courts. This cites a royal edict directing the courts to make their judgement in accordance with any relevant royal decree; or, failing that, to follow the city laws (*politikoi nomoi*: it is disputed whether this refers to the litigants' origins in the cities of old Greece, or to Alexandria, Ptolemais, and Naukratis, the Greek cities in Egypt); or otherwise, to judge according to the most equitable view (*Sel.Pap.* II 256 = P.Gurob 2). Until recently the *dikasteria* were thought to have become obsolete by the end of the third century, but newly published documents show them still working through the 170s at least (P. Heid. VIII 412–17, with pp. 3–9). However, after the originally peripatetic royal judges, the *chrematistai*, became permanently based throughout the *chora* in the late third century, they soon supplanted the *dikasteria* as the main recourse for Greek litigation.

Many hundreds of private legal documents, both Egyptian and Greek, survive on papyrus. One important group is part of a register, probably from a notary's office, containing copies of Greek wills, mostly of military settlers, from the Arsinoite nome between 238 and 226 BC (P.Petrie[2] I). From these and other texts such as sales, leases, and loans, scholars can trace developments in the forms of Greek legal documents in the Hellenistic Period (Rupprecht 1994: 94–153, 2005). For most transactions, individuals did not need to involve a public notary, drawing up agreements privately as "six-witness documents" or *cheirographa* ("hand-written agreements"); even a purely oral contract was legally valid. Nevertheless, particularly once the system of official notaries (*agoranomoi*) was formalized around the end of the third century, parties commonly chose the added security of a notarial document, or at least publicly registered their private legal documents (Gagarin 2008: 237 attributes this increased use of writing to influence from Egyptian scribal practice).

Several archives of Egyptian family papers have been found, some actually in the jars where the families kept them (Totoes from Thebes; probably Horos son of Nekhoutes; references for these and other archives in Depauw 1997: 154–8). That documents such as marriage agreements or divisions of parental property were actually produced in court is shown by the verbatim record of a case before the *laokritai* at Assiut in 170 BC, in which a woman, Chratianch, asserted a claim against her husband's half-brother Tefhape, over some land devolving from their father (P. BM 10591 in Thompson 1934: 12–33; Tefhape won the case). While the earliest Ptolemaic archives are entirely in Demotic, the later ones are bilingual, reflecting the increasingly complex social and ethnic mix of communities, even in the Thebaid; the same individual might use an Egyptian or Greek document depending on the

particular requirement – for instance, Egyptian marriage documents offered greater protection to the wife. This ethnic complexity lies behind the much-discussed clause in the royal decree of 118 BC, which (whatever its exact wording – Menches' copy seems defective) provided that the language of the contract, rather than ethnic identity – which might be ambiguous –, should determine whether a case was dealt with by the *chrematistai* or *laokritai* (P.Tebt. I 5, ll.207–20; Mélèze-Modrzejewski 1975; Pestman 1985b). Despite this ruling the tendency for Greek to gain ground at the expense of Egyptian in legal documents, encouraged by the requirement for all Demotic contracts to have a summary in Greek and be registered in the public record-office (from 146 BC, Pestman 1985a), persisted through to, and beyond, the end of the Ptolemaic Period. Direct evidence for the functioning of the *laokritai* ceases at the end of the second century, although they possibly still existed early in the Roman Period (Allam 1991: 126).

4   The Early Roman Period: Changes of Approach

Roman provincial government economized on manpower by co-opting the elites of the provincial cities to control the local population, including collecting many taxes. In Egypt it seems that Augustus did not regard the nome capitals (*metropoleis*, such as Oxyrhynchos or Hermopolis) as sufficiently urban or "Greek" to fulfil this role. Below the small group of Roman officials, therefore, the existing nome administration was retained in modified form, with Alexandrian Greeks initially occupying the key positions of *strategos* and *basilikogrammateus*, but the Roman policy of developing the urban and Hellenic status of the nome capitals and their elites soon created an identifiably Hellenized elite among the "*Aigyptioi*" of the *chora* (the gymnasial class: see Ch. 10), from whom by the second century AD the *strategoi* and other nome officials were also drawn. The progressive assimilation of the *metropoleis* to the full status of cities is the major development in the administrative history of Roman Egypt, with implications for the administrative relationship of town and countryside, and of Alexandria to the *chora* as a whole.

Beneath the superficial continuity in the names of most officials from the Ptolemaic to the Roman Period lie significant changes to their status and duties, and to the fundamental structures of the system. One important change of principle was that officials should serve away from their home area for quite short terms of office (typically two or three years). Thus *strategoi* and *basilikogrammateis* always governed a different nome from where they lived and owned property, and even *komogrammateis* seem to have served away from their own village in the second century (Derda 2006: 149–50). This would reduce their scope to wield influence over their districts as men like Menches or Pachom had done, although strong characters could still manipulate local networks to their advantage.

The second general change was the progressive spread (in common with the rest of the empire) of the system of liturgies, i.e. the compulsory imposition of state services on persons in virtue of their possession of the requisite property qualification. Starting with some tax collecting posts in the first century AD, the liturgical system

expanded over the next two centuries to include most official posts in the *chora* (but apparently never the *strategos* and *basilikogrammateus*; Lewis 1997; Thomas 2001: 1249–51 succinctly outlines the issues). This resulted in the increasing perception of administrative office as an undesirable burden rather than a source of advancement; appointees were vociferous in appealing against unfair nomination, and, when in the third century civic magistracies became compulsory, an appointee might prefer to give up his property rather than serve (e.g. P.Oxy. XXXVIII 2854; Tacoma 2006: 265–68).

The Prefect and other Roman officials were appointed by the emperor. With few exceptions (such as Tiberius Julius Alexander), they were not native to the province but held one or more posts there as part of an "equestrian" career (Brunt 1990, Thomas 1982: 54–6). Although based in Alexandria, like all Roman provincial governors the Prefect travelled annually to hold assizes (*conventus*) at major provincial centers: Alexandria itself (for the western Delta, in June–July), Pelusium (eastern Delta, in January), and for the rest of the country normally at Memphis (late January –April; occasionally at Arsinoe, Antinoopolis or Koptos instead – note the strong bias towards the north). At the *conventus*, the Prefect audited local administration and finance as well as holding court and receiving vast numbers of petitions (1,804 in just over two days at Arsinoe: P.Yale I 61). The Prefect also had overall charge of the Roman military forces, but all other officials discussed here had purely civilian powers (the *epistrategoi* and *strategoi* losing the military role they held in the Ptolemaic Period).

Of the other equestrian officials, a rare Roman innovation was the post of *dikaiodotes* (Latin *iuridicus*) in charge of civil law and head of a permanent tribunal in Alexandria. The *idios logos* ("private account"), formerly in charge of the Ptolemies' private possessions, now dealt with irregular revenues including properties confiscated by the state (an ever-expanding portfolio, hence the elaborate rulebook drawn up to assist him, the *Gnomon*: see Ch. 10; Swarney 1970). Whereas in the early Roman Period *dioiketai* were minor local officials, under Hadrian the office of *dioiketes* was restored to something of its former importance with financial responsibility over the *chora* (Hagedorn 1985, with Thomas 2001: 1246). The number of *epistrategoi* was increased to three, responsible for the Delta, Heptanomia, and Thebaid (later perhaps four, dividing the eastern and western Delta; Thomas 1982: 29–39), with duties linking the central and nome administration. They assisted at the Prefect's *conventus*, judged cases on their own, and were involved in some appointments to liturgical offices and metropolitan magistracies, and appeals, especially those concerning Antinoite citizens (dealt with by the *epistrategos* of the Heptanomia).

The competence of some officials of Alexandria also extended over the *chora*; this was true of the *hypomnematographos* (who dealt with issues of personal status; Whitehorne 1987), the *archidikastes*, in charge of the law courts and archive of private contracts (*katalogeion*), and the *exegetes*, whose various duties included the appointment of guardians for women and children (Alston 2002: 188–9). The prominent Alexandrians who held these posts were often, but not necessarily, also Roman citizens.

As overall head of the nome administration, responsible for everything from investigating suspicious deaths to posting up lists of those appointed to public office, a *strategos* was kept as busy as the Ptolemaic *oikonomos* had been, but he was

nevertheless expected to put in an appearance at a flower-festival in one of the villages under his supervision (P.Oxy. XLII 3074, 3025, LII 3694). The *basilikogrammateus* deputized, if necessary, for the *strategos*, but his main responsibilities were, as in the Ptolemaic Period, concerned with administrative record-keeping. A survey of his duties, therefore, encompasses virtually the entire administration of the nome, from the census to lists of temple property or the distribution of seed (Kruse 2002; on census procedures, see Bagnall and Frier 1994: 1–30).

Most types of document were submitted in multiple copies addressed to different officials (usually at least the *strategos*, *basilikogrammateus*, and *komogrammateus*), so producing them was a veritable industry. The long Egyptian tradition of bureaucratic administration reached its apogee in the early Roman Period (cf. Parsons 2007: 159–71). However, the functional literacy of lower officials (not to mention the population generally) varied immensely, from Petaus, *komogrammateus* of Ptolemais Hormou, who struggled to sign his name, to the learned tax collector Sokrates, who amused himself by translating Egyptian names in his tax records into obscure literary Greek (P.Petaus, Youtie 1966; Youtie 1970; Harker 2008: 113–14. On the organization of tax collection generally see Sharp 1999).

Outdated administrative records were sold or taken home by officials at the expiry of their office, often reusing the reverse for copying works of literature (for instance, Pindar's *Paeans* on the back of a census register, P.Oxy. 984; Bagnall et al. 1997), but Prefects showed great concern for preserving both public and private documents in an increasingly sophisticated system of public archives in the villages, *metropoleis*, and at Alexandria (Cockle 1984; Burkhalter 1990). The working of a village record-office (*grapheion*) is well-known from the survival of many papyri from the Tebtunis office in the mid-first century AD including contracts, abstracts (*eiromena*), indexes (*anagraphai*), and accounts (published in P.Mich. vols. II and V; Toepel 1973). The same registrars wrote both Greek and Demotic documents, and the position was effectively hereditary, following Egyptian custom (Muhs 2005).

Around AD 70, a registry office for private property (*bibliotheke enkteseon*) was created separately from the public archives in the *metropoleis*. Mettius Rufus (Prefect AD 89; Sel.Pap. II 219) ordered all property to be registered within six months of acquisition, and all mortgages and other claims, including the entails (*katochai*) held by wives and children on the property of their husbands or parents following Egyptian tradition, but, despite repeated orders by subsequent Prefects, many properties went unregistered for generations. The registrars of these archives (*bibliophylakes*) were appointed from the metropolitan elite but nevertheless might be hounded by their superiors; Mettius Rufus' demand that the Arsinoite Public Archivists repair some documents damaged by heat and worms (copying where necessary from the versions held in the central Alexandrian archive) led to a protracted legal wrangle which lasted to the next generation (P.Fam.Tebt. 15 and 24).

Because the *metropoleis* were subordinate to the nome officials, scholars have sometimes seen them as no more than big villages, administratively speaking. However, at least from the mid-first century AD, innovations appear which increasingly marked their distinct civic identity (Bowman and Rathbone 1992 trace this trend right back to the first definition of an hereditary metropolitan class and the concentration of gymnasia in the *metropoleis* under Augustus). For example,

between AD 72 and 74 the *topogrammateis* and *komogrammateis* of Oxyrhynchos were renamed "scribes of the city" (P.Oxy. LXV 4478; Hagedorn 2007: 203 n.2). The *metropoleis* were already organized into administrative districts (*amphoda*) on the Roman model (Alston 2002: 130–44). Towards the end of the century appears the first evidence for the *exegetes*, *kosmetes*, and gymnasiarch as true municipal officials (Hagedorn 2007; note their responsibility for the civic waterworks of Arsinoe attested in a document of AD 113: Habermann 1997). Scholars now agree that, well before Septimius Severus granted them councils, the *metropoleis* possessed much of the civic organization as well as the physical appearance of Greek cities.

5   Law in Early Roman Egypt

The Romans, in principle, allowed most provincials to follow their own local laws and customs; Roman law was applied only to Roman citizens. Thus the citizens of Alexandria and the other Greek cities in Egypt (Ptolemais, Naukratis, and after AD 130, Antinoopolis) each had their own civic laws, while the *Aigyptioi*, who included the Hellenized elites of the *metropoleis*, were subject to the "laws of the Egyptians." This term, however, did not mean Egyptian as opposed to Greek law, but rather the entire legal tradition of the Ptolemaic *chora*, combining (or juxtaposing) both Egyptian and Greek elements, with the latter arguably predominating (Mélèze-Modrzejewski 1988). The old Ptolemaic courts in the *chora*, of the Greek-speaking *chrematistai* and the Egyptian-speaking *laokritai*, both disappear under Roman rule; justice was provided by Roman officials (using Greek language; translators assisted Egyptian-speakers, e.g. P.Oxy. II 237, P.Col. VII 175).

However, legal documents continued to be written in Demotic for almost a century after the Roman takeover, and their eventual demise was not due to any deliberate Roman policy to suppress them, but was a by-product of the Roman requirement for all contracts, including those in Greek, to be authenticated by the contracting parties writing a subscription in Greek (or having a "subscriber" do so on their behalf, if they were illiterate in Greek) rather than by witnesses. This requirement – which incidentally illustrates how Rome's concern for transparency introduced changes to local law – tipped the balance of convenience and practicality in favor of having the entire contract in Greek (Muhs 2005, *contra* Lewis 1993). This marks the end of Egyptian law as a distinct tradition, but Egyptian elements continue to be represented in the Greek documentation, most clearly in the area of marriage and inheritance, especially the type of marriage document termed *syngraphe trophitis* ("alimentary contract," Egyptian *sẖ n sꜥnḫ*; Pestman 1961: 37–50). Roman officials did their best to apply the indigenous law in their courts, taking advice from experts, as exemplified by a series of extracts of legal judgements collected on a single papyrus concerning the rights of Egyptian testators, presumably the private notes of a lawyer for his own use when acting as an advocate or advising the Prefect or *epistrategos* (P. Oxy. XLII 3015, cf. XXXVI 2757). One can see that such a person would also have a more than antiquarian interest in the Greek translation of the *Demotic Legal*

Manual (P.Mattha; cf. Ch. 12 above), of which a partial copy survives from Oxyrhynchos from the later second century AD (P.Oxy. XLVI 3285).

Roman judges were not, however, bound to follow the advice of the legal experts, as emerges from the famous "petition of Dionysia." This quotes a lengthy series of judgements where various Roman officials, in face of explicit evidence that "Egyptian" law (here in reality Greek in origin) gave fathers the right to annul a daughter's marriage, declined to apply a law which they considered inhumane, instead allowing the daughter to choose whether to stay with her husband: "Severus and Heliodorus, advocates, replied that the former Prefect Titianus heard a similar plea advanced by Egyptian persons, and that his judgement accorded not with the inhumanity of the law but with the choice of the daughter, whether she wished to remain with her husband" (P.Oxy. II 237 col. vii 33–5). This shows another way in which Roman legal norms progressively penetrated the province, as such judgements become precedents in future legal cases (though precedents, too, were not binding).

The only regular courts in the *chora* were those held by the Prefect at his annual *conventus*, and by the *epistrategoi* on a more permanent basis. Provincials also sometimes travelled to Alexandria for cases, but, since this might involve prolonged absence from home, it was inconvenient and expensive (on the physical locations where courts were held, see Capponi, forthcoming). In practice, the *strategos* provided the primary source of legal arbitration for most provincials, although he could deal only with more routine cases. Cases initially presented to a higher official might be referred back to him, and the *strategos* would also normally be the person responsible for implementing the decisions of higher authorities (Anagnostou-Canas 1991; Lewis 2000). Centurions and other military officers were also regularly approached to adjudicate disputes, even though they possessed no formal judicial authority (nor, one assumes, any juridical expertise), but they did patently have the power to enforce their decisions, and, since military units were widely dispersed throughout the *chora*, they were the most readily accessible representatives of the Roman state in the remoter villages, such as those of the Fayum which provide most of our examples (Whitehorne 2004).

No procedural distinction was drawn between civil and criminal law, and anyone reading the papyri will notice how few texts relate to criminal cases (Anagnostou-Canas 1991 devotes a mere sixteen pages to criminal justice; see also Anagnostou-Canas 2000). Indeed, it has been argued that the very terms "criminal" and "penal" are anachronistic and inappropriate to Roman Egypt; the Egyptians did not differentiate what we call criminal action from other kinds of dispute, which they settled, if at all possible, by local, informal arbitration, involving the state only as a last resort (Bagnall 1989: 210–11; Hobson 1993). This view undoubtedly has some validity, but we must also bear in mind that the quantity of surviving documentation is a very unsure guide to the original importance of any ancient procedure and is heavily biased towards the margins of Egypt (the papyri include the papers of lower officials, but not Prefects or even *epistrategoi*). There is sufficient evidence for the official pursuit and punishment of crime to show that these duties were far from unimportant but generated much less local paperwork than, say, the routine distribution of seed to farmers; it is indicative that the commonest texts relating to criminals are "orders for arrest" in the form of brief notes usually sent by the *strategos*

to the village police (Gagos and Sijpesteijn 1996). The idea of protecting the human rights of criminals, particularly lower-class ones, with meticulous paperwork would have seemed ludicrous to a Roman administrator; the purpose of archives was to protect the interests of the state and its local allies, the propertied class.

The acquisition of Roman citizenship by provincials, although a progressively more common occurrence through military service or individual grant, produced all kinds of legal problems and conflicts. For soldiers and their families the rules were clear but could still have undesirable personal consequences. For instance, the veteran Gaius Longinus Kastor, who left his property by will to his two freedwomen and their offspring, was liable to the five per cent inheritance tax because they were technically not his legal kin, although very probably the offspring were in fact his own children; Kastor could not legitimize his union with both women without infringing the law against bigamy and presumably could not marry one without causing offence to the other! (BGU I 326, translated and discussed in Rowlandson 1998: 188–90). More generally, the description of persons as *apator* (''fatherless'') in the papyri usually does not mean that their paternity was literally unknown, but that their parents' relationship was not legally recognized because it infringed the rules on status or marriage (Youtie 1975). Thus Sokrates, the well-educated tax collector from Karanis mentioned previously, was almost certainly the father of twins born to his neighbor Sempronia Gemella, a Roman citizen, and registered by her in the proper Roman manner, but the twins' own status as Roman citizens would have been jeopardized had she recognized Sokrates, an Egyptian, as their father, since the offspring of mixed marriages followed the father's status (P. Mich. III 169; see Rowlandson 1998: 91).

The family papers of Marcus Lucretius Diogenes, born in 186 (P.Diog.) show less problematic consequences of Roman law for a provincial family. Their Roman citizenship derived from an ancestor's service in the auxiliary cavalry, and recent generations also held citizenship of Antinoopolis. All the family's business transactions (receipts, leases etc) were conducted in Greek, and followed local law and notarial practice. The only two Latin documents in the archive are those required to conform to Roman law: a declaration of birth (*testatio*), and the will of Diogenes' brother-in-law (also a Roman and Antinoite citizen, but he signed in Greek). The original Roman will would have been written on waxed tablets; our text is a copy on papyrus recording the opening and reading of the will.

6   The Later Roman Period

The formal transformation of the nome capitals into full Greek cities with Septimius Severus' grant of councils at the start of the third century not only had major implications for their internal administration, now run by the class of councillors (*bouleutai*, Latin *curiales*; Bowman 1971; see Ch. 10 above), but also paved the way for the final dismantling of the ancient nome-based bureaucratic system. Along with new civic ambitions and the magistrates' pride in their enhanced status went economic strains produced by these new responsibilities (the entrance fee for the council of Oxyrhynchos was at least 10,000 drachmas, and councillors faced a string

of liturgical duties on top of their formal offices, such as supplying chaff to the army; P.Oxy. XLIV 3175, LXVII 4597, cf. 4608). The onset of political and financial instability throughout the empire before the system was fully established compounded the inherent fragility of the curial class (Bagnall 1993: 54–61, especially 56; cf. Tacoma 2006). While complaints against liturgical service were in part the predictable moans of an articulate bourgeoisie who wanted the prestige and autonomy of running their cities without being prepared to foot the bill, the lower ranks of *curiales* seem genuinely to have had difficulty meeting the financial demands made on them.

Viewed from the *longue durée* of Egyptian administrative history, the reforms of the 240s, although identified only quite recently, are as significant as those of Diocletian and his successors some fifty years later (Parsons 1967). The abolition of the *basiliko-grammateus* and *komogrammateus*, and *amphodogrammateus* in the cities, finally marks the end of the Egyptian tradition of scribal administration; they were replaced, respectively, by a liturgical college (Kruse 2002: 940–54), komarchs (reintroduced for the first time since the Ptolemaic Period: Thomas 1975a, Derda 2006: 182–96), and phylarchs (soon themselves replaced by *systatai*: Alston 2002: 145–6). Other aspects of these reforms, too, proved short-lived; the introduction of *dekaprotoi* to replace the former *sitologoi* in grain administration was reversed at the start of the fourth century (Thomas 1975a). The disappearance around the mid-third century of several types of administrative document characteristic of the earlier period may variously reflect the need for reform, the reforms themselves, or their failure; e.g. declarations of livestock (Kruse 2002: 182, 213–28), uninundated land (introduced 158, last attested 245), census declarations (257/8; Bagnall and Frier 1994: 9–11). These changes in documentation bespeak of a major upheaval in the administration at this period.

Diocletian's general provincial reforms of 298 (creating many more provinces, grouped into dioceses, with military separated from civilian authority) initiated a series of experiments in the subdivision of Egypt, initially into two, later three, four, or even more provinces, which partly reflected the former *epistrategiai* and other, much older, regional identities (the Thebaid was consistently marked off from the north, and in the sixth century itself split into two). The civil governor of these smaller provinces was generally termed the *praeses* (but in some cases Prefect or *corrector*). After 381, an Augustal Prefect was placed in overall charge of the Egyptian provinces. In the fifth and sixth centuries, civil and military authority were once more sometimes combined, particularly in the post of *dux et Augustalis*, created as part of Justinian's major administrative reform of Egypt in 538/9 in his *Edict* 13 (Palme 2007: 245–9, with a convenient diagram; cf. Bagnall 1993: 63–4).

Diocletian also completed the long process of "municipalization," bringing Egypt's internal administration in line with other provinces. Now, instead of the *metropoleis* being subordinate to the nome administration, the nome became the rural territory of its capital city, governed by officials appointed from its curial class. The *logistes* (Latin *curator civitatis*) was in overall charge, taking on many of the former duties of the *strategos* (Bowman 2008). A collection of texts relating to Oxyrhynchite *logistai* shows them hearing legal cases, receiving a doctor's report on an injured person, and being notified by the relevant guilds of the prices for commodities from goatskins to gold (P.Oxy. vol. LIV). The *riparius* was in charge of

law and order, and the *syndikos* had judicial powers (or *ekdikos*; Latin *defensor civitatis*. Bagnall 1993: 165, P. Oxy. LIV 3771.3 note). Although we still regularly find *strategoi* involved in rural administration through the fourth century, this was now just the local name for a different official, the *exactor* (Thomas 1995. The *strategos'* importance was arguably declining even during the third century; Thomas 2001: 1247–8).

Local administration underwent another major shake-up in 307/8, when the former toparchies (intermediate between villages and nome) were replaced by smaller units called *pagi*, each under the authority of a *praepositus* drawn from the local curial class and subordinate to the *logistes*. Thus documents from the fourth and fifth centuries relating to rural administration attest a significantly different set of offices from those familiar from the Ptolemaic and Roman Periods (and even the superficially familiar *strategos* and komarch conceal change or discontinuity). The vocabulary of government was now more obviously Roman, although the documents are still in Greek – some Latin terms, like *praepositus* and *riparius*, were simply transliterated).

The villages of late antique Egypt have been described as "rudderless and captainless vessels," without communal identity or organization apart from the collective fiscal responsibility imposed from above (Bagnall 1993: 137), but village administration had always been primarily geared towards taxation, and from a more optimistic perspective the village *koina* ("associations") did at least provide some local mechanism for sharing out the state's fiscal demands. Thus the *koinon* of the villagers of Takona in the Oxyrhynchite nome took their turn in nominating the *nomikarios* to be responsible for paying their share of taxes in return for a salary (P.Oxy. LIX 3985, AD 473; the office of *nomikarios* had existed since 298). This propensity to form associations is epitomized by an agreement of the association of headmen, taxpayers, and landowners of Aphrodito with its association of shepherds and field guards for them to guard the village estates (P.Cair.Masp. I 67001, AD 514). Aphrodito was an untypical village in having formerly been a nome capital, but contemporary Oxyrhynchite texts suggest that the villages of that nome were comparable both in social composition and organization (Keenan 2007; Rowlandson 2007a: 215–17).

Being a seat of provincial government, as for instance Oxyrhynchos was for the province of Arcadia (Middle Egypt) in the fifth and sixth centuries, enhanced a city's prestige and prosperity, from the presence of the *praeses'* large staff (*officiales*; see e.g. P.Oxy. LIX 3986). Despite the image of the late Roman Empire as overburdened with bureaucracy, the actual proportion of government officials in relation to overall population was much lower than in the modern world (Palme 2007: 251, estimates no more than 1 per 2,400 inhabitants; cf. Bagnall 1993: 66). Even though land registers and other evidence for their comparative wealth suggest that the *officiales* were not systematically better off than the civic elite, government service was perceived as a "gravy train," with lucrative *sportulae* ("tips") supplementing the officials' modest basic pay, and exemption from liturgies providing an avenue of escape from the burdens of council service (Palme 2007: 250–4).

After the late fourth century our documentation for city administration shrinks drastically, although cities and their councils continued to function (van Minnen 2007). The large religious and secular "houses" (*oikoi*) that characterize Byzantine Egypt, like that of the Apiones, were much better equipped than the cities in economic resources and organization to provide an effective fiscal and administrative

rural infrastructure; thus, although in a sense "private" estates, they are found taking on "public" administrative roles such as tax collection (Gascou 1985). However impressive the Roman policy of urbanization was in other respects, the reliance on cities for administration of the *chora* was not a success.

7 The Impact of Roman Law in Late Antique Egypt

With Caracalla's grant of Roman citizenship throughout the empire (AD 212, see ch. 10), all Egyptians, in principle, became subject to Roman law. The papyri show that, in practice, change was patchy and gradual; while some indigenous legal practices, like brother-sister marriage, were prohibited, most were tacitly incorporated as local customs, or even formally enacted as imperial law (Honoré 2004: 115–16; Garnsey 2004: 146; cf. Beaucamp 2007: 284, on Justinian). The initial requirement that all wills must be in Latin, using Roman legal formulae, was soon amended to recognize the validity of wills in Greek (e.g. P.Oxy. VI 907; in the interim, private copies or other records of Latin wills were written in Greek; e.g. P.Oxy. XXII 2348, AD 224). Contracts show little Roman influence, apart from inserting a "*stipulatio* clause" ("when asked the formal question, I consented" and variants), which became obligatory after AD 221. References to women exempt from guardianship "by right of children" (the *ius liberorum*) according to the Augustan marriage laws appear commonly for more than a century after 212, while the number of women acting with a *kyrios* ("guardian") declined sharply. The newly enfranchised provincials enthusiastically embraced this most distinctive feature of Roman guardianship, even if not entirely sure of the detailed differences from Greek guardianship (the use of *kyrios* for both Greek and Roman guardians encouraged confusion; Arjava 1996: 118–23).

From the third century, the emperor effectively monopolized the formation of law, leading to more frequent legislation and greater systematization, culminating with Justinian's great project of codification: the *Codex Justinianus* (AD 529/34) compiled imperial legislation, updated by the *Novels*, and the *Digest* (533) collected opinions of earlier jurists (Stolte 2003). Scholars have debated whether imperial legislation generally, and specifically Justinian's codification, made much impact on Egypt; current opinion is moving away from a minimalist line, while acknowledging that the impact was patchy and incomplete (see the excellent survey in Beaucamp 2007; failure to implement laws could be due to deliberate subversion rather than ignorance). The papers of Dioskoros of Aphrodito show the extent of legal expertise of a small-town notary, although arguably an untypical one (he twice visited Constantinople, and later became notary in the provincial capital of the Lower Thebaid, Antinoopolis). His papers include wills and other private legal documents in Greek and Coptic and drafts of imperial rescripts (responses) in favor of his home town, apparently composed by himself, and reveal awareness of recent legislation (van Minnen 2003, Beaucamp 2007: 272–5).

Late antique law was characterized by increasing professionalism, with governors assisted by well-trained lawyers in the courts of the provincial capitals, but this greater professionalism may have made the courts less accessible to the common man;

by the sixth century, papyrological evidence for court proceedings dries up, while that for settlements (*dialyseis*) arrived at through negotiation, mediation, or arbitration, increases (Gagos and van Minnen 1994; cf. Bagnall 1993: 162–4). These settlements offered a local, less expensive, and less protracted way to resolve disputes over matters such as inheritance. The documents are themselves not without legal sophistication and should be understood as complementary to the courts, not a sign that they had ceased to function (cf. Gagos and van Minnen 1994: 81–2).

FURTHER READING

On both administration and law, the scholarly bibliography is bafflingly large and many key works are in (often technical) German. Thomas 1975, 1982 provide English-speakers with general insights into the administration beyond their particular focus on the *epistrategos*; Verhoogt's studies of the Menches archive (1998, 2005) similarly provide a general flavor of Ptolemaic village administration. My references here and in the chapter cannot attempt to be comprehensive, and concentrate where possible on work in English; Thomas' survey article (2001) provides references to all recent specialist studies of the various offices of the Roman Period. For those who can read German, Jördens 2009 is the best guide to the administration of the Roman province. The standard treatment of fourth-century administration is Lallemand 1964; Bagnall 1993: 54–67 provides a brief and lucid account in English.

On law, Keenan, Manning, and Yiftach-Firanko (forthcoming) will provide an accessible and comprehensive handbook to a confusing and technical field of study. Taubenschlag 1955 is now rather old. Wolff 1971, 1978, and 2002 are the definitive treatments; but his short essay in English (Wolff 1966) is still worth reading. Geller and Maehler 1995 is a useful collection of studies on Ptolemaic law. For a clear survey of Egyptian law in this period see Manning 2003a.

The online Leuven Homepage of Papyrus Archives (www.trismegistos.org/arch/index.php, accessed November 2008) collects references to a great many documentary archives or dossiers of administrative or legal interest, accompanied in some cases with useful editorial essays. The online Greek and Latin texts themselves (in the Duke Data Bank: http://scriptorium.lib.duke.edu/papyrus/texts/DDBDP.html, accessed November 2008) lack the translations and editorial matter provided in most printed papyrological volumes. The standard abbreviations of papyrus editions and associated material are listed in J.D. Sosin, R.S. Bagnall, J. Cowey, M. Depauw, T.G. Wilfong and K.A. Worp (eds.), *Checklist of Editions of Greek, Latin, Demotic, and Coptic Papyri, Ostraca and Tablets* [Last Updated 11 September 2008], http://scriptorium.lib.duke.edu/papyrus/texts/clist.html.

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CHAPTER 14

Priests and Temples: Pharaonic

Neal Spencer

1   Introduction

The temples of Egypt are now viewed as one of the defining characteristics of pharaonic culture. In the ancient Mediterranean world the priests who staffed temples were recognized as individuals with particular skills and access to knowledge (Potter 1994: 183–212). The term "priest" is, however, rather laden with meaning which can mislead the modern reader, particularly as it is a designation of those who perform public religious duties in Christian churches. Ancient Egyptian priests fulfilled very different roles, not least in acting within a non-congregational setting. Priests of the pharaonic era were, of course, more than religious officiants: the careers of some could be easily characterized as political, and even the lower-ranked priests performed a multitude of mundane tasks. For many it was only a part-time profession.

Though Egyptian cult places are present in both the archaeological and the representational record from late Predynastic times (Kemp 2006: 116–35), the explicit evidence for officiants in that cult, as distinct from personal and thus direct expressions of piety, is not possible before the use of writing for a broader range of subjects. Though many early temples should perhaps be re-interpreted as arenas for royal display (McNamara 2008), all such institutions would have needed servicing, whether with part-time or full-time staff. As discussed below, the organization of cult in "royal" temples is rather similar to that in those of "gods," perhaps emphasizing the misleading nature of our terminology. It is clear that in Middle Kingdom Lahun, for example, a cult of Anubis was housed within the Senwosret II temple (Quirke 1997). Priestly titles are already attested in the First Dynasty, with some of the designations for high priests appearing at the end of the Second Dynasty (Wilkinson 1999: 272–4). Explicit evidence for priests in provincial cult centers is not found until the Fifth Dynasty.

The papyrus archives of the same era provide a fascinating glimpse at the micro-management of temples, a system which is likely to have been in place during the Third and Fourth Dynasties too, when large cult complexes were associated with the

royal tombs. Though these complexes provided a setting for the cult of the deceased Pharaoh, many elements of the regular rituals in these cults would become integral to the cult of deities in ensuing periods. Thereafter, the introduction of biographical texts, first upon tomb walls and later inscribed on statues and stelae, expands the depth of information available on temples and the priests who staffed them. Royal decrees concerning temples, and the fortuitous survival of several ritual texts, improve our understanding further. Evidence from well-preserved archaeological contexts can also be used to shed light on priestly activities, though, as is often the case, the evidence from northern Egypt is less well preserved (particularly in terms of papyri, and metal and wooden cult paraphernalia), and our knowledge is mostly confined to the large, formal, cult temples. This chapter largely eschews consideration of the funerary sphere, though many of the rituals and organizational structures were similar.

   This chapter will seek to provide a broad characterization of the ritual roles of priests within formal cult settings, but also the organization of priesthoods as attested in many important temples. The minutiae of when individual titles appeared, and in which parts of Egypt, are not appropriate here: an array of detailed studies are available for those interested (see Further Reading). The term "priesthood" creates a modern impression of a uniform, well-organized model for organizing the staffing of temple cult, but variation was undoubtedly prevalent, with practical and political considerations probably as important as the desire to ensure a temple had a "complete" priesthood at any given time. A sense of the variety of priestly positions and roles is hopefully reflected amongst the examples discussed. Furthermore, this chapter seeks to highlight the range of non-ritual activities undertaken by priests. Readers should remain aware that during the two and a half millennia covered by this chapter there are large formal temples (plate 6), small village shrines, chapels dedicated to divine birth narratives, royal "mortuary" temples and sacred places (often natural features) imbued with meaning, both in the Nile Delta and Valley, and in the desert and distant foreign territories. All of these required a cult service, of vastly varying scale and degrees of permanence: some may only have been staffed seasonally, particularly sacred places at, or en route to, mines and quarries. A detailed discussion of religion in society – temples large and small provided the most evident, but not the only, arena for expression – and the subject of temple architecture are not covered here (see chs. I, 27; II, 7).

2   The Organization of Ritual Staff

In common with many other areas of elite pharaonic social structure a bewildering array of titles existed which are now broadly classified as "priestly," though the activities undertaken by the holder of such titles may not match modern expectations hinted at by the translated titles. Long biographical texts make it clear that strings of priestly titles could be accrued over a successful career. Presumably these individuals were not fulfilling the duties of all of his or her positions; there would, however, have been considerable financial benefits to the accumulation of titles. It needs to be stressed, however, that there was not always a permanent priesthood, akin to

a modern clergy, for every temple, and this may in fact have been quite unusual until New Kingdom times. Rather, many of the roles were fulfilled on a part-time basis, the protagonists being fully integrated into Egyptian society for the remainder of the year.

The most common title was *ḥm-nṯr*, literally "God's Servant," often translated as "prophet" or simply "priest." There is ample evidence for individuals holding offices relating to the cults of several divinities and of course, in several temples, not always in the same town or even region. The title could be associated with both gods and statues of Pharaohs. The other major group of priests hold the title *wꜥb*, or "pure one." These are not necessarily lowly priests deprived of access to the divine images; at Karnak there is copious evidence that they were particularly involved with processional images (Kruchten 1989: 251–4). While these are generally accepted as a lower rank of priests than the *ḥm-nṯr* priests, in some cults they would have performed specific duties. Thus the *wꜥb*-priests of Sekhmet, closely associated with the notion of appeasing the furious goddess, were involved with medicine, if one can rely on their prominent role in the medical papyri (Von Känel 1980).

Temples from the Old Kingdom onwards had "an Overseer of God's Servants" (*imy-r ḥmw-nṯrw*), and in some cases an "Inspector of God's Servants" (*sḥḏ ḥmw-nṯr*). Others were simply qualified as "great" (*ḥm-nṯr ꜥꜣ, wꜥb ꜥꜣ*), suggestive of a more elevated rank. Priestly positions could be conferred by Pharaoh (e.g. Strudwick 2005: 343–4); personal circumstance and favour must have been very important. By the New Kingdom, the larger temples had more developed hierarchies of officiants, with a "First Servant of the God" (High Priest), below which were Second, Third and Fourth Servants of the God. This is well attested at Karnak, particularly in New Kingdom statues and reliefs, and upon the large number of private statues of the Third Intermediate Period, but sources from other major temples indicate this organizational model was more widespread. Three cities are notable for the distinctive terminology used for their most senior officiant: "Greatest of Seers" (*wr mꜣꜣw*, Heliopolis), "Great (one) of those who control the Craftsmen" (*wr ḥrp ḥmwt*, Memphis), and "Greatest of the Five" (*wr diw*, Hermopolis Magna); it is perhaps no coincidence that these cities were all associated with distinct creation narratives.

Other titles which appear with some frequency include "God's Father," held by high-ranking priests in the Old Kingdom, but much more widely used in later periods (*LÄ* 6: 389), and "Lector Priest" (*ẖry-ḥbt*). This last title is particularly common amongst the elite, often combined with other administrative, courtly, or temple titles. While some may have been involved in temple ceremonies, they were also prominent in mortuary rites such as the Opening of the Mouth ceremony; several can be associated with copying texts, artistic production, or liturgies (Parkinson 2009: 157–9). The "Stolist" (*smꜣty*) was responsible for clothing the god, particularly the royal image in mortuary temples (e.g. Quirke 2004: 127). "Hour-priests" have been interpreted as part-timers by some Egyptologists, whereas others propose the holders of this office had specific knowledge of the celestial bodies in relation to the timing of rituals and festivals. Titles generally understood to relate to the funerary cult, most notably "Servant of the *kꜣ* (*ḥm-kꜣ*)" and *Sem*-Priest (Schmitz, *LÄ* 5: 833–4) would not lie entirely outside the temple sphere, particularly with the trend towards elite burials in temples during the first millennium BC.

These are only the most common titles, with many others known only from a small number of monuments, most notably the private statues set up in temples. Many are difficult to transcribe, let alone translate or understand their meaning. It is clear that some were associated with one or several temples in a particular town or region. For example, the combination of *rnp* and *ḥpt-wdȝt* seems specific to the Kom el-Hisn/ Kom Firin region of the western Delta (Perdu 1992: 186–7; for titles specific to other sites see *LÄ* 4: 1097–8). At a period when ritual and mythological texts particular to certain towns or regions were apparently being developed in ever larger numbers, it might be that the Late Period saw more positions with specific roles to play in local rituals. Furthermore, many of the titles may have quickly become markers of status rather than reflecting the duties performed, a facet further emphasized when arcane titles came back in vogue, as happened in the Late Period (*LÄ* 4: 1097).

During the Old Kingdom, and perhaps to a lesser degree in later times, a number of elite women held the title of "God's Servant of Hathor," but there is sufficient evidence to show that women could also hold priesthoods relating to other gods and goddesses, as well as to royal statues (*LÄ* 4: 1100–5), though the proportion of sources seems to suggest that this was a relatively rare female occupation. There is evidence that musical troupes (*ḫnr*) and dancers, both of men and women, were attached to temples, perhaps as early as the Fifth Dynasty onwards (Nord 1981). The *mrt*-dancers were particularly associated with royal rituals from the Fourth Dynasty.

In the New Kingdom and thereafter there seems to be a decline in the number of women holding priestly positions, with two notable exceptions. Firstly, the designation "Songstress (*šmʿt*)" is rather common throughout Egypt in the New Kingdom, and may not have reflected a real ritual role. Secondly, the important office of "God's Wife of Amun" becomes prominent in the early Eighteenth Dynasty, when it was held by royal figures such as Ahmose-Nefertari (Gitton 1984; Gosselin 2007). The role of this woman was to act as the consort of Amun during religious ceremonies; the designation "Divine Adoratrice" and "Hand of the God" was held by many of the same individuals. With the development of royal birth narratives in the Eighteenth Dynasty, eventually resulting in the creation of mammisis (birth-houses) as separate cult-buildings, it is perhaps unsurprising that the God's Wives assumed particular importance. In the Twenty-fifth and Twenty-sixth Dynasties, the God's Wives of Amun were often political appointments, most notably when Nitocris is installed to mark the consolidation of Psamtik I's power over Upper Egypt (Caminos 1964).

A papyrus archive from the Fifth Dynasty funerary temple of Neferirkare-Kakai allows us a detailed glimpse at the workings of a royal funerary temple, including the range and roles of the different personnel involved in ritual service (Posener-Kriéger 1976, 1997). The cultual tasks required in each month of temple service were recorded upon a dedicated roll of papyrus, with additional rolls being kept for particular festivals. Staff were organized on the basis of "phyles," also prevalent in the organization of mortuary cults and corvée labor (Roth 1991), which allowed priests to work one month in four. The vast majority of the persons held the title of *ḥm-nṯr* or *ḥnty-š*, the latter denoting those responsible for bringing offerings into the temple. Evidently, the phyle system ensured that a large number of persons were involved in temple service, including central government officials (Posener-Kriéger 1976: 589–609), while ensuring they remained integrated into society at large. As the
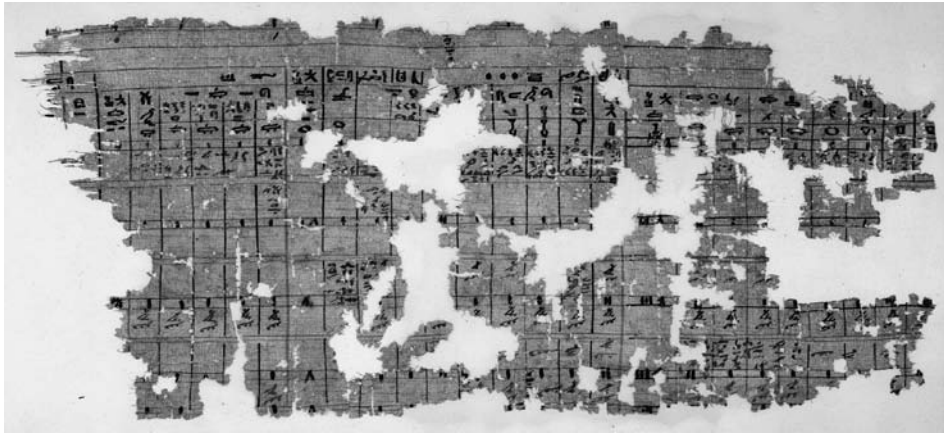
Figure 14.1 Temple furniture inventory upon a papyrus from the Abusir archive, relating to the funerary temple of Neferirkare-Kakai (Fifth Dynasty). The material, object and quantity of items are given in tabular arrangement, across three successive inspections when the phyles changed over. British Museum EA 10735/12. Courtesy the Trustees of the British Museum.

priesthood grew, this was essential to ensure that agricultural productivity, the basis for Egypt's prosperity, was not undermined. Conversely, with the development of a strong centralized government in the early third millennium BC the importance of involving a large number of people in remunerated positions, and immersing them in settings where the royal ideology was proclaimed, cannot be underestimated. Further finds from Abusir and Gebelein (Posener-Kriéger 1975, 1997) provide corroboration that the situation portrayed by the Neferirkare-Kakai archive was not unusual.

Documents and sealings from several Middle Kingdom temples provide further evidence for the complex administration required for the functioning of religious and economic institutions, again principally from temples related to the royal mortuary cult. The phyle system continued, identified by number only, without the characteristic names of the Old Kingdom royal phyles. Priests would thus be termed as belonging to, for example, "the third phyle" (literally 3-*s3*, "the third watch"). Excavations at the mortuary temple of Senwosret III at southern Abydos yielded a mass of sealings, but very few bore priestly titles. This may simply reflect that priests were not largely responsible for sealing goods and documents (Wegner 2007b: 355–7); the priests attested include an "Overseer of the Temple," "Phyle Regulator" (*mty n s3*), *w'b*-priests and a lector priest, but also a "God's Father of Sobek, Lord of Crocodilopolis." The last example hints at movement of priests, something attested throughout Egyptian history (e.g. Frood 2003, a high priest at Abydos who also held responsibilities at Akhmim). Wegner notes that the phyle regulators probably rotated at each watch-change, a suggestion supported by the evidence from Lahun, where complete lists of men eligible for service in each phyle also survived (Quirke 2004: 119–31). This phyle system persists throughout most of dynastic history: at the temple of Teudjoi in Middle Egypt, each phyle consisted of twenty men during the sixth century BC (Vittmann 1998: 158–9); it is also referred to in the *Book of the Temple*, a series of late copies of a manuscript which includes descriptions of priestly

duties and ranks (Quack 2003). A fifth phyle was added in 238 BC, a development recorded in the Canopus Decree. The phenomenon of cult guilds, to ensure the requisite amount of priestly participation, through shared responsibility for undertaking ritual and burial of sacred animals, is principally known from Ptolemaic documents, but there is evidence for similar arrangements from the sixth century BC onwards (de Cénival 1972).

3   Servicing the Gods

Physical manifestations of the divine, typically in the form of statues, were the focus of regular ceremonies to ensure the satisfaction of the gods. These cult actions were motivated by a fundamental ideology which defined Pharaoh's relationship to the divine world. In essence, the king was guaranteed a prosperous reign if he ensured the territorial integrity of Egypt (maintaining the order of Maat) and satisfied the god's requirements for sustenance, thus ensuring the continued cosmic order. This latter aspect was architecturally codified through formal cult temples at which, in theory, the king regularly completed rituals, particularly the offering of food and drink, to sustain the gods. A text known as *The King as Sun-priest*, first attested in the temple of Hatshepsut at Deir el-Bahri, but probably of earlier date, occurs in seemingly restricted contexts (mostly temples) until the Saite era (Assmann 1970). Though placing an accent on secret knowledge needed to perform the role, it nonetheless sums up the reasons underlying formal temple cult as practiced throughout Egypt:

> Re has placed the King NN on the earth of the living
> for endless repetition and invariable duration
> to administer justice to human beings and satisfy the gods,
> to fulfil Maat and annihilate injustice.
> He (the king) gives food-offerings to the gods
> And funeral offerings to the transfigured (dead). (Assmann 1995: 19–20)

In practice, of course, priests fulfilled the ritual obligations of the king.

Unsurprisingly, those involved in these rituals were expected to follow certain rules related to "purity." Much has been assumed about these rules, and the taboos, of the Egyptian priests, but again there would have been considerable variation from formal temples to the local chapels. Herodotus remains our best source: effectively descriptions of Saite practices, somewhat distorted through second-hand evidence and the Greek viewpoint of the author. Egyptian sources include a relief at Karnak depicting temple staff undertaking purification rituals prior to service, labelled as "going down to wash by the God's Servants, the God's Wife, the God's Hand, in the cool pool, (then) entering into the temple" (Legrain and Naville 1902: pl.11b). A series of texts known as "priestly annals" were carved in spaces near the central sanctuary at Karnak during the Third Intermediate Period: these record the initiation of a priests into the sacred space for the first time, using the charged term *bs* (Kruchten 1989). The lengthier examples include genealogies, sometimes fictional, followed by an address hailing the power of Amun-Re, and alluding to the experience

of being before the god. Bakhenkhonsu, a High Priest of Amun under Ramesses II, actually describes his initiation:

> I went forth from the "room of writing" as an excellent youth in the temple of the Lady of Heaven (for) my instruction as *wᶜb*-priest in the temple of Amun ... I was initiated (*bs.kwi*) as God's Father (so) I could see all his forms. (K*RI* III: 296, 1–4)

A room known as the "house of the morning" (*pr-dwȝt*) may have been dedicated to the pre-ritual purification of priests. The Piyi Stela describes how, following the king's conquest of Memphis, he underwent purification: "in the *pr-dwȝt*, there were performed for him all the ceremonies that are performed for a king, (then) he entered the temple" (Grimal 1981a: 104).

Ideologically, the daily ritual before the cult statue was only undertaken by the High Priest, as representative of Pharaoh (himself seen as the son of the god in a given temple). Ptolemaic sources, most notably reliefs in Edfu temple (Alliot 1949), provide a comprehensive description of this daily ritual. Less expansive descriptions from earlier times suggest that earlier temple ritual not remarkably different from that described at Edfu. A range of Old Kingdom titles reflect some of the rituals (*LÄ* 6: 390): "Keeper of the Headdress of adorning Ptah" (*iry nfr-ḥȝt m ẖkr Ptḥ*), "Chief of the Wardrobe in the Temple of Onuris" (*ḥry-tp ḏᶜt m ḥwt-nṯr nt 'In-ḥr*). Biographical texts of the late Old Kingdom also refer to the daily ritual. Pepyankh, Overseer of Priests of Hathor of Cusae, describes "entering in before Hathor, Lady of Cusae, seeing her, performing the rituals (*iḫt*) for her with my hands" (Blackman 1924: pl. 4A). The monthly registers of temple service from the Neferirkare-Kakai archive at Abusir offer further glimpses at some of the rituals, including those before the royal statues at the start of each month (unveiling, purifying, clothing, adorning, incensing), performing morning and evening rituals around the royal tomb, but also the responsibilities in caring for the sacred equipment after use in ritual. A legacy of extensive inventories of cult equipment has survived as a result of this last preoccupation (Posener-Kriéger 1976: 1–57, tableau I; 125–208, 536–40).

Slightly later in time, in the *Instruction for King Merikare*, the ideal role of a priest is described as

> In the monthly service, wear the white sandals
> Visit the temple, observe (?) the mysteries,
> Enter the shrine, eat bread in the god's house;
> Proffer libations, multiply the loaves
> Make ample the daily offerings. (Lichtheim 1976: 102)

Thus the basic ritual always seemed to consist of food offerings and libating, as was still the case at Edfu over two millennia later. It is, of course, not surprising that temple cult may have been one of the more ostensibly conservative areas of pharaonic civilization.

Our sources are more expansive for the New Kingdom, with a series of scenes in the sanctuaries of the temple of Sety I at Abydos indicating the similarity of the daily ritual for the different gods (David 1973: 89–144). Much of the detail is matched in the Twenty-second Dynasty papyri which provide a checklist of the daily rituals enacted

Figure 14.2 The king as priest before Ptah: performing the "spell for breaking the clay seal (of the god's shrine)," an episode in the Daily Temple Ritual, as depicted in the temple of Sety I at Abydos. Courtesy Neal Spencer.

for Amun-Re and Mut at Karnak (Moret 1902); a related text inscribed at Hibis temple refers to similar rituals being recorded upon wooden tablets (Lorton 1994: 168). The rites for Amun-Re in the Twenty-second Dynasty papyri are introduced as

> Beginning of the formulae of offerings to the god made at the temple of Amun-Re, king of the gods, in the course of every day, by the chief *wʿb*-priest who is in his day of service. (Moret 1902: 7)

followed by 66 individual actions, many of them repeated. To summarize, after purification of the area with incense, the sealed doors of the shrine containing the divine image were opened. The principal officiant then kissed the ground before the god, prostrated himself upon his stomach and raised his arms in adoration while reciting hymns to the god. Offerings of incense and scented oil follow and an offering of Maat (itself embodying all other offerings, Teeter 1997). The statue is then dressed in different types of cloth before two types of eye-paint are proffered. Finally, the priest leaves, with offerings of natron, water, and incense left for the god. Within the ritual for Amun-Re there is also reference to burning incense for other gods. Similar, but shortened, rituals would take place at midday and in the evening.

Figure 14.3 Copper alloy incense burner, with representation of a kneeling priest. British Museum EA 41606. Courtesy the Trustees of the British Museum.

The paraphernalia needed for these rituals has in places survived, with incense-burners, braziers, libation bowls, situlae, tongs, ladles, strainers, sistra, and other objects recovered from caches in temples (Insley-Green 1987). Water clocks (clepsydrae) would facilitate time-keeping through the night (Mengoli 1989).

Few cult statues survive, but depictions such as those on a naos from Saft el-Henna (Roeder 1914: pls.17–32) remind us that many cult images consisted of complex groups of statues, often in active poses. Ancient descriptions underline the fantastic array of materials of which these were made, even in relatively small temples (McDowell 1999: 95). Hill has commented on how many cult statue groups may have been dismantled after ritual use (2007: 157), though this may not have been the case for the main cult image which benefited from daily ritual. These were not the sober, stone images of gods that today dominate museums and the much-visited temples of Egypt.

The site of Deir el-Medina provides plentiful evidence of ritual continuing along similar lines to that in the grand temples, if on a more modest scale. Papyri have survived containing a modified version of the daily ritual to benefit the deified Amenhotep I (e.g. McDowell 1999: 93–4). Excavations at other sites reflect a degree of consistency in the layout of shrines and temples, particularly the architectural progression towards a sanctuary area, and a similar focus on offering as a ritual (bowls, evidence of burning, small figurines and other "votives"; see Pinch 1993). There was not always a clear delineation between magical practice and formal "state cult." The fact that clay figurines, such as those of cobras, are found in domestic, military, funerary, and temple contexts (Szpakowska 2003) underlines how fluid magico-religious practice was in pharaonic Egypt, encompassing both formal temples and domestic cult. Other rituals seem more specific to certain sites, at least

in their initial guise. The "ritual of the four balls" featured the throwing of clay balls towards the cardinal points, as a means of protecting Osiris from his enemies (Goyon 1975). This ritual is known from relief depictions in a number of temples (Abydos, Hibis, Karnak), yet is also transmitted through less elevated media, such as on amuletic papyri bearing spells against snake bites. As such, there is clearly an underlying consistency, though not bland homogeneity, to cult practice throughout levels of society.

It is striking how restricted the range of offerings is in the daily rituals for Amun and Mut known from papyri. In contrast, the list of products designated as offerings for Amun-Re in *P. Harris* I is staggering, encompassing an array of bread and cakes, beer, wine, incense, oils, honey, fruit and vegetables, meat, fish and poultry, flowers, wax, linen, and leather (Grandet 1994: 246–52). Few of these would have been physically placed before the god: a select group of offerings were seen to embody the whole lavish array. Temples clearly housed significant amounts of produce and goods, as evident from the large storage capacity at temples such as the Ramesseum and Abydos, though this temple should not be seen as typical of all sites in Egypt. The construction of "storehouses of the divine offerings" (*šnwt nt ḥtpw-nṯr*; *Quirke 1997: 29*) and later "pure storehouses" (*šnᶜ wᶜb*, Traunecker 1987a) allowed a proportion of the regular offerings to be sanctified before being brought into the divine presence. Architectural arrangements were also made to substitute for the regular trips dictated by festival ritual (Traunecker 1982).

A central tenet of Egyptian temples was the practice of the "reversion of offerings (*wḏb-rd*)," in which offerings placed before the principal god were then offered to secondary gods and even revered ancestors before eventual distribution, including to mortuary cults outside the temple. The priests were an evident beneficiary of the system, which may also have affected a wider tranche of the population. Some priests held titles clearly attesting to their involvement in managing the distribution process, such as "Overseer of the Divine Offerings (*ỉmy-r ḥtpt-nṯr*)." This redistribution system was already in place during the Fifth Dynasty (Posener-Kriéger 1976: 405–12).

The daily ritual during the theological revolution of the Amarna period was somewhat different. In the formal temples of the royal city Akhetaten only the Aten received offerings, but, in contrast to traditional temples, the courtyards of the Great Aten temple were provided with row upon row of offering tables, filled during rituals with food, drink, and floral offerings, as shown in contemporary tomb reliefs (Davies 1903: pl. 25). The culmination of the offering ceremonies took place on one of the raised open-air altars. Excavation of a structure at Amarna has provided details of the vast quantity of cattle slaughtered for the Great Aten temple (Payne in Kemp et al. 2006: 45–52), with the suggestion that only the heads and shoulders were being dedicated in the temple; presumably other parts were processed and immediately redistributed for consumption.

Outside of the daily ritual the calendar for most temples appears to have been crowded with festivals of varying size and importance. The early nationwide processions of the king recorded in the Palermo Stone may have provided the model for the lavish processional festivals of later times. At Abusir the Neferirkare-Kakai complex hosted a monthly festival to mark the new month; further celebrations were held in honor of Min and Hathor; and another festival, perhaps processional in character, was

focused upon a series of divine emblems (Posener-Kriéger 1976: 59–123, 544–63). The amount of offerings dedicated in these Old Kingdom festivals is evident from reliefs in the nearby sun-temple of Niuserre (Strudwick 2005: 86–90). The Sokar festival was probably the major annual event in the Memphite necropolis, which involved rites at various royal mortuary temples in turn. Elements of the royal jubilee festival (*Heb-sed*) were staged in and around certain temples, and surviving reliefs indicate that priests from different temples throughout Egypt participated in the rites (Hornung and Staehelin 2006).

The most extensive sources relate to Theban festivals, particularly during the New Kingdom. In the "Festival of the Valley," the cult images of Amun-Re (and other gods) from Karnak visited shrines on the West Bank (Schott 1952). The other principal festival at Thebes was the Opet festival, when the images of the Theban triad travelled from Karnak to Luxor and participated in rituals designed to reinvigorate royal power (Bell 1985). It has been suggested that iconographic keys in the reliefs could hint at which areas of the temple were accessible during such festivals (Bell 1997: 164–70). Other celebrations were more localized, with several dozen festivals known from Deir el-Medina. Those inhabitants with priestly roles would have been busy during some of these, though the atmosphere may not have been especially formal, with the village's inhabitants purportedly drinking for four days in the lead-up to the festival of the deified Amenhotep I (McDowell 1999: 96–7).

Outside Thebes and Memphis, the evidence is less expansive prior to the Ptolemaic era, but the number of regular festivals is clear from both temple and tomb sources (Spalinger 1996). Osiride festivals were evidently an important part of the year at temples throughout Egypt, as attested in papyri (Barguet 1962a) but also from the archaeological evidence for the burial of figurines of Osiris at Karnak (Coulon et al. 1995). Abydos, the southern center for Osiride cult, hosted an important processional festival. A Twelfth Dynasty stela of the "overseer of gold and silver houses" Ikhernofret, describes his participation in a dramatic performance relating to the triumph of Osiris:

> I conducted the Procession of Wepwawet, when he goes forth to champion his father. I repulsed the attackers of the *nšmt*-barque, I felled the enemies of Osiris. I conducted the Great Procession, following the god in his steps. I made the god's boat sail, Thoth steering the sailing. I equipped with a cabin the barque "Truly-risen-is-the-Lord-of-Abydos." Decked in his beautiful regalia he proceeded to the domain of Peker. I cleared the god's path to his tomb in Peqer. I protected Wennefer on that day of great combat. I felled all his foes on the shore of *Nedyt*. (Lichtheim 1975: 124–5)

Later, the Ramesside High Priest Wennenefer outlined his involvement in similar mysteries (K*RI* III: 452). The recent publication of a manual relating to cult and ritual in the temples of the Nile Delta provides glimpses at otherwise unknown or obscure temples and their festivals (Meeks 2006). The celebrated festival at Bubastis drew 700,000 pilgrims to the city, according to Herodotos (II: 138–9) of which very few can have been allowed into the inner parts of the temples.

As times when the divine presence was physically projected beyond the temple enclosures, festivals enabled direct supplications to divine images by a wider group. The mechanics of these approaches are well understood, with a movement of the

divine image, or the barque upon which it was housed, denoting a positive or negative view of the question put before the divinity. At Karnak, particular places within the temple hosted oracular consultations (Kruchten 1986). In the late first millennium BC oracular petitions were handed over to a priest in the temple forecourt or *dromos*, brought before the divine image, and the pronouncement was later conveyed to the supplicant. Oracles relating to royal succession, such as Hatshepsut being "chosen" as ruler, clearly reside within a framework of pharaonic ideology and political legitimation. The majority of approaches, however, would have been more mundane (see Smith 2002: 367–8). Evidently, this placed considerable power in the hands of the priests. It is not always clear how access to the gods was managed. At Deir el-Medina persons of apparently modest standing could approach the gods of the village, but it is not clear whether other famous oracles, such as that in the Siwa oasis, were accessible to the wider populace.

Daily and festival rituals were evidently recorded in ancient temple documents, and there is clear evidence for the presence of libraries within temple precincts. Institutions such as the "House of Life" and the "House of Books" are referred to in many texts (Gardiner 1938). The only preserved structure securely identified as a "House of Life" is at el-Amarna, but other excavations have revealed temple buildings designed to house texts. On the south side of the Ramesseum a building with rooms or cells overlooking a court yielded a number of ostraca bearing literary texts, leading to its identification as a school (Leblanc 2004). A modest brick building of the Thirtieth Dynasty, fitted with wooden shelves for storing papyri, was found near the royal tombs in the temple enclosure at Tanis (Bovot et al. 2000). The charred papyri recovered from within included accounts, personnel lists relating to the Khonsu temple, and one lengthy text recording the distribution of goods to various religious institutions. The compositions stored in temple libraries would also include ritual instructions, though the oblique nature of the texts makes it clear that these were not step-by-step manuals but rather texts for those already familiar with aspects of the ritual. A list of compositions stored in a library, possibly a Ramesside temple, includes literary works (Burkard and Fischer-Elfert 1994: no.180). We should not necessarily expect different departments, or even distinct storage spaces, to house documents of administrative, liturgical, or other types.

In the first millennium BC a genre of texts termed *pseudepigrapha* is attested in which declarations of a temple's rights, immunity from expropriation, or simply its resources, are fictionally placed in much earlier times, presumably to lend them legitimacy. These works can only have been authored by the priests of the temple in question, perhaps inspired by ancient texts housed in the temple libraries. Examples include the Famine Stela at Sehel, purporting to be a decree of Djoser granting revenues to the temple of Khnum at Elephantine (Lichtheim 1980: 94–103).

Were ancient Egyptian priests scholars of theology? Many were likely to have been actors in carefully defined roles, content with remuneration, and may not have had a personal interest in theological matters. Yet Classical writers certainly credited the Egyptian priesthood as a knowledgeable class (Sauneron 2000: 61), and the nature of some texts makes it evident that theological matters did concern some priests, motivating a desire to compile, edit, and re-interpret ancient narratives and rituals. This is hinted at in some biographical texts, such as that of the priest Wennenefer,

who claims to have acquired a knowledge of the geography (*ip m ki*) of Ta-wer, the region around Abydos (K*RI* IV: 297, 6–11). The *Delta Cult Manual*, a Late Period document with information relating to various northern temples, is one example of the compilation of various mythological traditions. Again, the enigmatic nature of some of the texts suggests these were not written for an uninitiated audience. The *Manual* reflects a rich tapestry of regional variation in ritual, festivals, and the associated mythological narratives, too often obscured by a dependence upon Upper Egyptian sources. While architecture and decoration were consistent, but not identical, in many areas of Egypt, the survival of a series of monolithic shrines, with unusual decorative schemes, from Late Period temples in the Nile Delta (but not in Upper Egypt, where shrine decoration remained more traditional) indicates a growing interest in codification and re-presentation of local cosmogonies. Priests must have been key protagonists in such developments, which include "catalogues" of divine images held in temples but also the presentation of local mythological narratives (Spencer 2006). By the middle of the first millennium each temple had become the symbolic place of the first time, and creation myths recounted how the world had come into being around the specific temple (also evident in the décor of the small temple at Medinet Habu). These myths were often developed from much older antecedents, those relating to the sacred cities of Memphis, Heliopolis, and Hermopolis being amongst the better known. The Memphite theology, for example, is preserved upon the Shabaqa Stone (Lichtheim 1975: 51–7). The vast majority of surviving solar hymns come from funerary contexts, though many are rooted in older temple cult (Assmann 1995). The religious response to the Amarna period – how theological questions brought up by the schism were to be ignored or approached in sacred contexts – must also have seen priests play a crucial role.

Outside the confines of Egypt proper, colonial communities and military garrisons naturally echoed the arrangement of temple cult back in Egypt, albeit at varying scales. The cult of Amun and associated gods persisted in Nubia long after Kushite control over Egypt had been lost. The royal stelae from Kawa clearly indicate the organization of ritual, and the endowments of Kushite temples had many similarities with that in Egypt (Macadam 1949). Despite the difficulty in deciphering Meroitic texts, it is still possible to propose a hierarchy of priestly positions (Török 1997a) and the temple reliefs at Naga, Meroe, Dangeil, and Musawarrat es-Safra suggest that many of the same rituals were undertaken, though they may well have been imbued with new meaning (Török 1997b). Of course, foreign communities resided in Egypt in not insignificant numbers: the presence of non-Egyptian temples has been suggested for several enigmatic buildings by their excavators (e.g. Martin 1981), while a mass of textual data attests to the functioning of a Jewish temple at Elephantine and its often uneasy relationship with the staff of the nearby Egyptian temple of Khnum (Porten 1996: 17–18). The integration of foreign gods into Egyptian cult should also be borne in mind, particularly in the New Kingdom (Baal, Reshep, Astarte, Dedwen). Though this may derive from imperial prerogative, it is implicit from this presence of non-Egyptian deities that dialogue between cult practitioners from Egypt and elsewhere would have taken place.

4   The Mundane within the Sacred World

As with officiants in any religion, pharaonic priests existed in the real world, where they had families, received remuneration for their services, and carved out careers, in some cases attaining the throne. Additionally, immoral and criminal activity, particularly corruption, were far from absent in the priestly sphere in ancient Egypt.

We are fortunate that extensive documentation survives in relation to the remuneration of priests, which typically derives from temple lands and income allocated to the office. There is abundant evidence for the endowment of funerary cults, but also relating to temple service. The early Fifth Dynasty tomb of Nykaiankh at Tehna features inscriptions relating how thirteen individuals were provided with fields in return for serving as priests in the local Hathor temple (Strudwick 2005: 196–7); after their death, these persons' children would fulfil the duties and benefit from the endowment. While concerning arrangements for his mortuary cult, the lengthy inscriptions in the tomb of Djefaihap at Assiut illustrate how priests in the temples of Anubis and Wepwawet at Assiut could be paid from the resources of an individual, whether from personal wealth or through the proceeds from his various positions, including that of High Priest. A complex system of redistributive system can thus be reconstructed (Spalinger 1985).

Sizeable salary differentials existed amongst the priesthood in many temples. This is clear from papyri such as those from the Twelfth Dynasty royal mortuary temple at Lahun. Over a millennium later the Demotic papyri relating to Teudjoi again allow us a glimpse of the financial rewards available for priests at a regional temple of the Late Period. Revenue from temple lands was divided at 20 percent for each of the four phyles (of 20 priests), and the remaining 20 percent was assigned to the "Priest of Amun" and "Priest of the Ennead," positions held by the same person in this instance (Vittmann 1998: 159, 490).

At Ayn Manawir in the Kharga oasis Demotic ostraca record the regular leasing of liturgical responsibilities, presumably to the inhabitants of the settlement, for the "festivals of the temple of the domain of Osiris-*iw*" (Chauveau 1996). *P. Rylands* IX records how the transfer of priestly titles, with associated incomes, was something recorded upon papyrus (Vittmann 1998: 122–7). It is not clear if accommodation for priests was provided as part of their remunerations; housing areas are known from temple precincts at certain periods, some clearly occupied by priests (Traunecker 1993).

For many individuals, it is possible to chart their career, through a succession of priestly posts, as proclaimed in the biographies upon statues often set up in temples. These statues were intended to ensure the legacy of the individual and access to the distribution of offerings. Some were clearly in a position to commission a large number of such statues, which could become the focus of piety in their own right. The Late Period phenomenon of healing statues is one example of this, but the importance of such statues also led to the proclamation of lengthy genealogies to claim an illustrious background for an individual who felt this was necessary (e.g. Ritner 1994; Vittmann 2002). Hereditary transmission of priestly offices is well attested at many periods of dynastic history. A priest Hori, in the reign of

Takelot II, emphasizes his parents as hailing from good priestly families, and that he was born in Thebes – "I am not one newly arrived!" (Kruchten 1989: 257–9).

Higher authorities could intervene to appoint new priests. The High Priest Nebwenenef was transferred from Abydos to Karnak at the behest of Ramesses II, with his former office being assigned to his son (Ritner 1994: 220–2). In Saite times, the Master of Shipping was the local authority in Middle Egypt: he appointed staff to the temple at Teudjoi (Vittmann 1998: 138–9). Oracles were also consulted for matters from the divine to the legal, including priestly appointments, such as at Deir el-Medina (McDowell 1999: 95). Kruchten has put forward the case for a dispute between rival priesthoods in Karnak of the early first millennium BC (1989: 264–7), something that is not explicit in any of the records. The occasional reference to turmoil at the highest levels of the Karnak priesthood (von Beckerath 1968) is perhaps unsurprising given the amount of influence and wealth at stake.

Throughout dynastic history there was no clear division between the priestly world and the civil administration, the military, and other spheres of activity. In fact, priests were often overtly political. It was common for Middle Kingdom town mayors (*ḥꜣtyw-ꜥ*) to also hold the position of Overseer of God's Servants (*imy-r ḥmw-nṯrw*), for example at Lahun and Abydos, echoing the situation that had developed at the end of the Old Kingdom, when the nomarchs came to hold both civil and religious offices. The Heliopolitan high priest (*wr mꜣꜣw*) typically held elevated civil titles during the Middle Kingdom (Grajetski 2000: 111). More striking still, by the end of the New Kingdom, the High Priests of Amun displayed clear political ambitions, some assuming effective control over parts of a politically fragmented Egypt (Kees 1964; Kitchen 1986). These High Priests displayed their titulary within cartouches. Perhaps in a bid to ensure the Amun priesthood did not again become a springboard to political rule, the Twenty-sixth Dynasty kings installed family members as God's Wives of Amun at Thebes, ensuring a dynastic presence in the southern capital (Caminos 1964).

Other than priests seeking political advantage, many were involved in other aspects of state activity. Overseers of Priests (*imyw-r nṯrw*) were already part of large military expeditions sponsored by Pharaoh at the end of the Old Kingdom (Lichtheim 1975: 20), and even in times of reduced central control the "Elder of the Portal of the Temple of Amun" at Karnak, Wenamun, travelled to the Levant, via the ruling house at Tanis, to acquire wood for a sacred barque (Lichtheim 1976: 224–30). We need not imagine all regional temples acting in this manner, as the considerable resources of Karnak at the end of the New Kingdom were probably unusual.

Many expeditions were mounted to seek building materials: limestone and sandstone were typically quarried in areas of some proximity, but significant resources were also expended to source hard stone such as granite from the Aswan area, even by temples in the far-away Delta. There is plentiful evidence that priests were involved with quarrying expeditions, such as the Third Priest and Chief of Phyle of Hermopolis Parva, who left his name in the Tura quarries (Zivie 1975: 136–44). In view of the number of temples that would be witnessing construction work at any one time, it seems striking that the quarrying missions seemed to be aimed at acquiring material for individual temples. However, this probably reflects the degree of local and non-royal initiative that lay behind much temple building (Spencer 2000). From the Old

Kingdom onwards there is ample evidence for priests being involved in the building of temples, which can range from minor modifications to the demolition of existing buildings to make way for a replacement (e.g. Strudwick 2005: 271–2; Frood 2007: 77–81). It is not only the most senior priests who are involved in this activity. In Athribis of the fourth century BC, the "Chief Doorkeeper" and "Chief Guardian of the (Sacred) Falcon" Djedhor was seemingly responsible for an extensive building programme (Jelinkova-Reymond 1956: 104–8). Presumably some of these individuals can be credited with the design of temples, rather than simply project management. Foundation ceremonies complemented the building work; theoretically a prerogative of Pharaoh, these were of course undertaken by a wide variety of officials and priests (e.g. Cumming 1984: 39–40).

Ritual activity would have been disrupted by construction work, and many of the large temples were effectively building sites during much of antiquity. When the Saite temple of Khnum was dismantled to allow the construction of a replacement under Nectanebo II, a project requiring years of construction work, it seems that a small stone temple was built alongside the construction site. The excavator has plausibly suggested this was a temporary cult installation until the new sanctuary was operational (Kaiser et al. 1999: 145–8). Once constructed, temples needed to be consecrated before they were deemed fit for purpose, and repurifications were necessary prior to festivals and particularly after events seen as desecrations, as with Montuemhat's actions after the Assyrian sacking of Thebes:

> I purified (*sw⁽b*) all the temples (*rw-prw*) across all the regions of Upper Egypt, conforming to the ritual "purification of the sanctuaries (*mi ntt r sw⁽b r-prw*)" … after what occurred … in Upper Egypt. (Leclant 1961: 202)

Though this chapter has focused on the priests of Egyptian temples, formal cult temples of the pharaonic era also employed a large number of individuals, both in and around the temple, and even elsewhere in Egypt. The archives from the funerary temple of Neferirkare-Kakai are dominated by records of commodity deliveries and redistribution, much of it from the solar temple of Neferirkare (Posener-Kriéger 1976: 209–428), which would dictate a certain level of staffing. Outside of the residence city an extensive number of employees is attested at the temple of Min at Koptos, according to the Sixth Dynasty royal decrees: servants (*mrt*), functionaries (*imyw-st-⁽*), retainers (*šmsw*), day attendants (*wršt*), people of the workhouse (*šn⁽w*) and builders (*ḳdw*) (Strudwick 2005: 107–11). The administrative papyri from Lahun attest to scribes, laborers (*k3wtyw*), doorkeepers (*iryw ⁽3*), a brewer (*⁽fty*), and a Steward of the God's Offerings (*imy-r pr n ḥtp-nṯr*) working within the temple (Quirke 2004: 121–31). Immense economic holdings are a well-known feature of New Kingdom temples, including land and its produce, livestock, and a myriad of precious commodities. Again, this needed administering, and positions attached to temples included stewards, gardeners, farmers, brewers, bakers, fishermen, craftsmen, weavers, and scribes. *Papyrus Harris* I records the assignment during the reign of Ramesses III of 86,486 workers, 421,362 cattle, and 864,168 arouras [23,634 km^2] of land to institutions of Amun alone, as well as boats, workshops, and gardens (Grandet 1994: 235–6). Sety I saw fit to endow his temple at Abydos with a staff

of gold-washers, based in the Wadi Mia opposite Edfu (Lichtheim 1975: 52–7); in specifying that these staff cannot be co-opted for other tasks, the decree implicitly attests to a problem with the permanence of temple staff. This issue of appropriating temple goods and staff had become a problem in the Old Kingdom, prompting a series of decrees preventing provincial staff and assets of provincial temples from being requisitioned for other purposes (Strudwick 2005: 97–127). Many of those fulfilling ''secular'' duties within temples simultaneously held priestly offices.

Egyptian temples were in theory places of great sanctity. Yet in those temples where fortuitous archaeological preservation allows us glimpses of an operational institution, one is struck by the clutter. Fine statues, decorated walls and monolithic shrines are perhaps what we expect, but the halls were also filled with royal and private donations of varying scale and quality: statues in various materials including bronze figurines (some of which may have been hung on the walls, Perdu 2003), the ''sculptors models'' (Tomoum 2006), and perhaps the common but rarely published clay and terracotta figurines. A striking example of this sacred clutter was found in the small ancillary rooms adjacent to the sanctuary of the temple of Osiris-*iw* at Ayn el-Manawir, in which nearly 400 small metal alloy statues had been stacked up, mostly of the god Osiris (Wuttmann et al. 2007). The excavators suggest that the statues had been deposited at intervals. Caches of bronze statues, particularly at popular places of pilgrimage such as the Sacred Animal Necropolis at North Saqqara, attest to the need for periodic burial of these statues to clear space for the temple to remain operational (Davies 2007). As this was presumably a religious ritual, taking place within the sacred space, one can expect a priest to have been present, if not charged with undertaking the burial. Evidently, persons would have been employed to dig the pits for these caches. The building work would have created an almost constant flurry of dirt and dust, the situation being further exacerbated by Egypt's climate with its frequent sandstorms and annual Nile flood. A stela records the large hall at Karnak being flooded in the Seventeenth Dynasty (Baines 1974). Who cleaned and swept up? Largely anonymous in the elite written record, the *talataat* of the Amarna age do offer a glimpse of the sweepers in a palace context (Cooney 1965: 73); the title ''laborer'' (*kȝwty*), known from temples (*LÄ* 6: 403), may encompass such lowly positions.

Many pharaonic temples bear grooves ground into the wall surfaces, often referred to as ''pilgrim gouges,'' as they may be the result of the pious wanting to take away fragments imbued with the temple's power. Some can be accurately dated to the dynastic era, and their distribution in the temple at Karnak suggests areas where access was less restricted (Traunecker 1987b). During the first millennium BC, there is ample evidence for temple staff being responsible for ensuring that private donations – whether land or small statuary – were maintained and benefited from cult and ritual. This responsibility was doubtless accompanied with some material reward (Hill 2007: 153). Priests were effectively intermediaries, though often remunerated ones, in these transactions (e.g. Morkot 1990: 332–3). The practice of pious individuals overnighting in temples (incubation) is best known from later sources (Daumas 1957; Ray 1976: 130–6), but clearly occurred in the New Kingdom (McDowell 1999: 100–1). All of these phenomena demand that we imagine some areas of temples being busy with people making donations, touching statues and relief images thought to resonate with spiritual powers, and attempting to approach the gods in personal ways.

Did temples require policing? It is worth bearing in mind, as the treasuries of the principal temples evidently held extensive resources, many of them extremely valuable, but also transportable and re-saleable. The tomb-robbery papyri of the late New Kingdom bear ample witness to the attraction of similarly luxurious burial goods. With the number of staff employed in these temple, the amount of precious goods stored therein (under Ramesses III alone 780 *deben* [10.6 kg] of gold and silver were donated to the Ptah temple at Memphis, Grandet 1994: 294), alongside the masses of pilgrims which had access to at least the outer parts of temples, security must have been a consideration. The Abusir papyri already attest to the organization of a system of surveillance of the temple and its storerooms throughout the day and night (Posener-Kriéger 1976: 27–46). The great inspections of nationwide temple holdings (*sipt wr*, for references see Cauville 1987: 73–4) must have been partly introduced to facilitate the management of precious resources. More generally, the control of sacred space was achieved through the construction of large enclosure walls around temples but also less imposing modifications to ensure processional ways remained unencumbered, as outside the East Gate at Karnak (Pirritano 1979). In contrast, some sacred areas remained free of later incursions, despite the apparent lack of any defined physical boundaries, most notably in the area around the Early Dynastic royal enclosures at Abydos, at least between their construction date and the Middle Kingdom (O'Connor 1989: 67). The lengthy *P. Rylands IX* has elicited much debate as to the nature of the text – documentary or literary (Vittmann 1998) – but the portrait of long-running squabbles over temple revenues, culminating in murder in the temple area (Traunecker 2008), can reasonably be seen as reflecting aspects of ancient life, perhaps more so than the official texts we typically rely on. Less serious types of crime within temples, but undoubtedly more common and often unnoticed, include misappropriation of property, such as at Elephantine in the Twentieth Dynasty (Peet 1924).

Temples were bustling microcosms of the settlements in which they were located, encompassing sacred rituals enacted by elite priests but also activities such as baking bread for the offerings, or overseeing the delivery of building materials for a new construction project. It is little wonder that the Greeks named each Egyptian city after the main god of its temple, as the temples at their center would have seemed like the pulsating heart of the settlement, and the officiants of cult as the knowledgeable, somewhat mysterious, guardians of traditions and wisdom. This was to be the view transmitted through the ancient Mediterranean.

FURTHER READING

The general *Lexikon* entries on priests largely discuss the attestation of certain titles at different periods, with a separate entry on female priests (*LÄ* 4: 1084–1105); another pair of articles concerns temple personnel in a broader sense, though the abundant post-New Kingdom evidence is not considered (*LÄ* 6: 387–407). Both sets of articles provide extensive references to source material. The most accessible introduction to priests is that of Sauneron, originally published in 1957 (new translated edition, 2000). With an emphasis on evoking an ancient ambiance, the work fails to convey the complexity and variation evident in ancient sources.

The prior publications of Blackman (collected in Lloyd 1998) and Kees (1953; 1958) remain important points of reference, underlining how wide-ranging studies of the priesthood are long overdue, other than chapters dedicated to the subject in more general volumes (e.g. Schafer 1997). Studies of the priests of certain temples, gods, cities, or regions have been a staple of twentieth century Egyptology, such as Gauthier (1931), Kees (1964), Gitton (1984), Graefe (1981), Gosselin (2000), Von Känel (1984), Moursi (1972), Naguib (1990), Vittmann (1978), Lefebvre (1929a, 1929b), Clère (1995), and Guermeur (2006); there are many more examples in journal articles. More integrated studies, rather than following a certain title or studying individual temples, are now needed. The ritual of an even smaller number of temples has been the focus of analysis, notably the atypical Luxor (Bell 1985) and Abydos (David 1973). The most comprehensive study of the organization of priests is possible through the Abusir Papyri (Posener-Kriéger 1976). Some ancient individuals have commanded whole volumes on their careers, such as the governor of Thebes and Fourth God's Servant of Amun, Montuemhet (Leclant 1961). Otherwise, the scholar is required to browse the vast numbers of articles which present one or several monuments of individuals, many of which provide important insights into priests and temples.

CHAPTER 15

Egyptian Temples and Priests: Graeco-Roman

Willy Clarysse

1   Gods, Temples, and Cult

Function of the temple

Public Egyptian religion was concentrated in the temples, which were called *ḥwt-nṯr*, "mansions of the god." The temples were the earthly dwellings of divine forces, represented by their statue, usually in human form, in the holy of holies. The ordered world (*kosmos*, *Maat*) created by the gods and continuously recreated by them, was like a fragile soap-bubble surrounded on all sides by chaos, which was the natural state of things before creation: the realm of the dead beneath the earth, the water of the *Nun* above and below (coming down as rain and coming up as the Nile flood) had to be kept at a distance or tamed; within this created world Egypt was the real *kosmos*, threatened on all sides by barbarians, but chaos also loomed from the deserts surrounding the cultivated land. Inside each town the temple was the only place were *kosmos* really ruled: the tidiness inside the temple walls contrasted with the dirt of the surrounding city like the whitewashed and quiet mosque in the messy and noisy street today. The gods renewed their creation every day after the chaos of the night, every month when the moon waned and was reborn, every year when the Nile rose from the waters of the *Nun*. They did so thanks to their presence on earth in a sacred place, where they received the service of humankind, represented by the Pharaoh. On the walls of the temple the Pharaoh acts as the intermediary between men and gods, presenting to the gods all kinds of offerings (food and drink, clothes and incense, fields and crowns, and finally *Maat* herself) in a never ending ritual of *do ut des*. The daily cult service to the gods guaranteed the well-being of the country. When the service was stopped, the country fell into chaos (we, of course, see things rather the other way round). In this respect, the temples functioned more as nuclear power plants than as churches or mosques.

Temple building

Because the temples were dwellings of the gods, they were "houses of eternity" and were built in stone, not in mud brick. Sandstone was used in Upper Egypt and limestone in Middle and Lower Egypt. Ptolemaic temples were copied from their New Kingdom predecessors, with some minor innovations, e.g. carefully prefabricated stones were now placed in regular courses of equal (isodomic) heights (Arnold 1999: 144); human and divine figures are all of the same height and cut at the same places by the horizontal joins of the stones. The house in which the god lived symbolically represented the world: it was directed towards the east (its front gate oriented towards the Nile), and the sun came up between its two pylons; the columns were enormous plants (lotus, papyrus, and all kinds of composite leaves) supporting a roof decorated with stars symbolising the sky.

The temple was centered around the divine statue, often gilded, set up in a stone shrine (*naos*). In this statue the god was present. This statue was not the god but a sacred spot where he came to rest on earth, not unlike the presence of Christ in the tabernacle of a Catholic church. The *naos* stood in a chapel at the very end of the building, preceded by a room in which the divine barque was kept. In the larger temples the holy of holies was surrounded by a series of chapels and by an ambulatory (the *couloir mystérieux*). In the Graeco-Roman Period one of these chapels, the *wabet*, had an open air court in which the New Year festival was celebrated (Hölbl 2000: 56). Temple building started from this inner sanctuary towards the front, and over the years new constructions might be added: a hypostyle hall with heavy columns, an open courtyard, one or more gate towers (pylons), colossal statues, obelisks and a sphinx alley (*dromos*). Finally a separate birth house (*mammisi*) could be constructed for the divine child god, since the god usually lived with his divine wife. The separate *mammisi* is a typical feature of Graeco-Roman temples. The birth of the divine child from a divine and human father legitimated the reigning king. Guidelines for the building of an ideal temple, given in the so-called *Book of the Temple*, were taken into account where possible (Quack 2000).

Walking along the alley the visitor entered the temple through a monumental gate with two pylons, often decorated with a scene depicting the king smiting his enemies. Though these enemies are identified as barbarian peoples, the scene also shows how the forces of chaos were kept out of the sacred space. The temple was constructed as a fortress to keep all chaos out. The floor gradually rises, the ceilings become lower and the interior darker, so that no unclean intruders can pollute the god in the holy-of-holies. Demons with knives inside the gate also keep evil forces out, and the king is depicted as being purified with live-giving water by Horus and Thoth before he enters the gate. Only clean-shaven priests were allowed beyond the open courtyard.

Typically the walls of the temple are full of hieroglyphs and reliefs (the figures are in fact enlarged hieroglyphs), which were brightly colored. This *horror vacui* is still very much the style of the Ptolemaic Period but tends to disappear later (though in Esna, for instance, it is kept up to the end). The hieroglyphic script, written in the classical language of two thousand years before, becomes ever more complicated: new signs are added, word plays and rebus techniques suggest hidden meanings.

Table 15.1 The spread of temple decoration during the Graeco-Roman Period

Date	Kings and emperors	Temples	Scenes
331–304	Alex. III, Philip Arrhidaios, Alex. IV	9	227
304–246	Ptol. I, II	24	508
246–205	Ptol. III, IV	16	945
205–145	Ptol. V, VI	17	549
163–80	Ptol. VIII, IX	24	1214
107–30	Ptol. X, XII, Kleopatra VII	15	863
−30 - +14	Augustus	18	1177
14–69	Tiberius, Gaius, Claudius, Nero	14	997
69–98	Flavii	12	245
98–161	Nerva, Traianus, Hadrianus, Antoninus Pius	26	386
161–192	M. Aurelius, Commodus	7	84
192–250	Severi and third century	4	39

Recent studies (Arnold 1999; Hölbl 2000–5) and the Würzburg database on ritual scenes in Egyptian temples allow us to map how temple decoration was spread over time and place. Though the decoration was sometimes added many years after the building was completed, the names and titles of the kings on the reliefs are our surest way of dating the buildings (see table 15.1).

These are rough figures because the periods are uneven in length and decoration is not always contemporaneous with the building of the temple. Moreover in Upper Egypt and in the desert the chance of survival is far better than in the towns of the Delta, where the stones were reused as building material. However, differences between individual rulers are surprisingly great: Ptolemy VIII (1214 scenes) and Augustus (1177) appear far more often in offering scenes than Ptolemy II (438) or Ptolemy III (only 174). The very low figure for Ptolemy V (91) can be explained by the great revolt in the south during most of his reign, but the drop under Ptolemy I (70) after the reign of Alexander and his successors (227) is unexpected, since the temples carrying the names of Philip Arrhidaios (124) and Alexander IV (26) were, in fact, built by the later Ptolemy I in his role as satrap. Under the Flavii Domitian is far better represented than Vespasian and Titus (186 vs. 36 and 23 respectively), and there seems to be a last revival under Antoninus Pius (95 vs. only 78 for Hadrian, who visited Egypt). The distribution over the country is also very uneven: whereas Lower Egypt is well represented from Alexander to Ptolemy I, and Middle Egypt sporadically occurs until Ptolemy VI, Upper Egypt becomes predominant from Ptolemy III onwards. The new temples built in the Roman Period are all in Upper Egypt (El-Qala, Shenhur, Aswan, Philae) or in far away Nubia and the oases.

Temple ritual

Though on the temple walls the Pharaoh acted as the sole representative of humanity towards the gods, and he may actually have performed some rituals in person when visiting the temples (Clarysse 2000b), the daily service was, in fact, delegated to the priests. By the end of the Ptolemaic Period and certainly in the Roman Period

Pharaoh often became a nameless figure, a purely ritual king (instead of a royal name the cartouche could be filled by the word *pr-ꜥ3*, "Pharaoh"), and sometimes his functions were even taken over by a god (Hölbl 2004: 152–3; 2005: 103).

The daily ritual of clothing and feeding the god was performed in hermetic isolation by a small group of male initiates, who had to be clean, both physically and ritually. The "clean" (*wꜥb*) priests were circumcised, cleanly shaven, dressed in linen, and subject to alimentary (no pork, no fish) and vestimentary (no leather, no wool) taboos. Before entering the temple they purified themselves with water from the sacred lake. The daily service is well known thanks to the ritual texts on papyrus and the scenes on the temple walls: the shrine was opened, the image of the god was purified, clothed, and crowned and a sacrificial meal of several courses was set before it. The priest left the sanctuary walking backwards, whilst an assistant swept away the traces of his footsteps. The liturgy was accompanied by incense burning, vocal and instrumental music, sometimes by dancing. Each activity was exercised by a specialist, such as *stolistai* for clothing the god's statue. As a rule only singers and sistrum players were women, and these probably had to stay outside the holy of holies (see Colin 2002 for priestesses).

The gods and the common people

Since the temple was not a meeting place for the faithful, but, to a large extent, forbidden territory, the common people, those who were not pure, looked for other ways of making contact with the divine. The public approach to the temple was along an alley, called *dromos* in Greek, *ḫft-ḥr* in Egyptian, leading to the sacred gate. A lot of activities were concentrated at the temple entrance, which was often the center of the town: official proclamations could be held here; royal and priestly decrees were put up here in public view (Hölbl 2005: 37–9); judges, both officials and priests, held court at the gate (Quaegebeur 1993); oaths were sworn by the local god to prove one's innocence (Kaplony-Heckel 1963: esp. 20–2); notaries and bankers had their offices along the *dromos* (e.g. Bogaert 1994: 79–92), where one could also find chapels, food stalls, tax offices, and club houses; when the gate opened the public could have a glance into the first court, which was no doubt accessible to important persons and on festive occasions for the masses. Worshippers could also approach the divinity from the rear wall of the temple, where they could come close to the back of the divine statue in its *naos*. In several temples, e.g. Dendera, Kom Ombo or Shenhur a large relief and/or traces of beams in the wall show the cultic importance of this area (Gutbub 1978).

On festive occasions the god left his temple in a solemn procession, carried in a barque by the priests. Thus, three times a month the statue of Amun of Thebes, sitting on his throne and hidden under a veil (to protect it against evil forces) in a portable sacred barque, crossed the Nile to the west bank on the Festival of the Decad (Doresse 1979). In Pauni the highest civil authorities were present when the god crossed the Nile for the Festival of the Valley (P.Tor. Choach., p. 184). Every year in Epiph Hathor left her temple in Dendera for a divine marriage ("the Good Reunion") with Horus in Edfu, 100 km south (Altenmüller 1998). Processions also offered the opportunity to see and to consult the gods. For these special

occasions people went on pilgrimage to sanctuaries near-by or far-off to be close to the god, often for oracle consultations or therapeutic purposes (Volokhine 1998: 82–97).

Popular cults

The limited access to the great gods may have been one of the causes of the rise of popular cults in small "open" shrines with only one or two rooms, often partly or completely built in mud bricks. To these minor temples of second and third rank belonged, no doubt, the numerous Isis shrines (*isieia*) in the countryside, which were run by a single priest and his family (*isionomos* or *in-wwy*) and where the goddess was directly available without the pomp of the great temples (Depauw 1998). Other gods of the official pantheon also developed popular forms: Mestasytmis (*Msḏr-sḏm*, the hearing ear) (Quaegebeur and Wagner 1973) and Pnepheros (*P3-nfr-ḥr*, "the Beautiful of Face") are "listening gods" (*epekooi theoi*), i.e. gods who listen to the prayers and look down mercifully upon those who call upon them. In these cases, as also with the popular cults of Isis and Sarapis abroad, Pharaoh is no longer needed as an intermediary between the believer and his god. Ultimately this development may have contributed to an Egyptian religion without temples in the fourth century AD (Frankfurter 1998).

Another example of this "religion of the poor" are the animals cults, which flourished in the Graeco-Roman Period as never before. The sacred bulls or lions were "living images" of their gods, visible to the public in their bullrings and zoos; the crocodiles were fed by the priests and by tourists alike (P.Tebt. I 33 = Wilcken, *Chrest*. 3, to be compared with Strabo 17.1.38); and ibis shrines were ubiquitous in the villages (Vandorpe 1991). After death these animals were mummified and solemnly buried. Millions of sacred ibises, hawks, and cats, often killed for the purpose, were dedicated in the animal cemeteries. The crocodile mummies were carried to the necropolis by *theagoi* (*t3y-nṯr*), apparently a prestigious duty for the villagers involved (Dils 1995). The animal cults were linked to the temples of Ptah (the Apis bull in Memphis), Montu (the Buchis bull in Hermonthis), Thoth (the ibis cemeteries in Hermopolis and elsewhere) or Bastet (the cats' cemeteries), but also led a life of their own. In the temple of Edfu a living hawk played a role in the official cult, but the hawk cemeteries in Saqqara and elsewhere were only loosely connected with the main temples. In AD 210 the temple of the crocodile god Soknebtynis provides *byssos* for the burial of the Mnevis bull in Heliopolis (P.Teb. II 313), but animals which were sacred in one place could be persecuted elsewhere, e.g. the crocodile was venerated in Kom Ombo but killed in Dendera (Juvenal 15.27–92).

There were also cults of deified humans. In the Fayum the Middle Kingdom Pharaoh Amenemhet III was venerated as Marres (*M3ˁt-Rˁ*) or Pramarres (*pr-ˁ3-M3ˁt-Rˁ*) (Widmer 2002) whereas a cult for the sages Imuthes and Amenothes was established in the New Kingdom temple of Deir el-Bahri (Lajtar 2008). For different reasons ordinary people could receive in death the status of "hesi," "blessed," or "heri," "master," and a limited cult, perhaps to be compared with the present-day sheikh tombs (Quaegebeur 1977).

The so-called cult-guilds or religious associations also illustrate how religious life was organized alongside the official temple cult (Muszynski 1977; Bresciani 1994).

The guilds (Dem. *snt*, Greek *synodos*) are primarily known through their extensive rules. Members paid regular dues and attended monthly meetings in which wine or beer were consumed and offerings given to the gods and the kings. Many of the participants belonged to the lower priestly class; they took part in processions, festivals, and in the burial of sacred animals. Though some titles are identical to those in the temple hierarchy (e.g. prophets), most (e.g. ''general,'' ''second'') are not, and the link with the temples is unclear. The associations also provided mutual assistance (common payments for burials of members, assistance at court), and fines were laid out for misbehavior, such as absence at meetings, drinking too much, or quarrelling. Women's associations were copied on those of the men (Colin 2002: 110–14).

Dynastic and imperial cults

The Ptolemies innovated by introducing the dynastic cult into the temples. It all started with the cult of the divinized queen Arsinoe in 270 BC (Quaegebeur 1998), but soon after the whole royal family entered the temple as ''associated gods'' (*synnaoi theoi*). The king (often accompanied by his queen) now brings offerings not only to the Egyptian gods, but also to his own forebears, who are enumerated on the temple walls (Minas 2000). In 237 BC a fifth priestly phyle was instituted in honor of the *Theoi Euergetai* (i.e. Ptolemy III and Berenike) (*OGIS* I 56.24–33) and the official titulature of the priests now includes the names of the divinized Ptolemies, following those of the main gods of the temple (Lanciers 1991).

In the Roman Period the cult of the predecessors, the associated gods, and the images of the queens disappear from the scene. With the exception of Augustus (Dunand 1983), the imperial cult was practiced in Greek civic temples by municipal elites. On the temple walls the emperor still plays the roll of mediator between humanity and the gods, but statues of emperors as Pharaohs are rare. Even though the imperial cult is no longer part of the temple ritual, the priests continue to stress the importance of the temple rites for the well-being and victory of the reigning monarch (e.g. P.Oxy. XXXVI 2782), and they celebrate the imperial birthday as a festive occasion with a procession or the burning of incense (Stud. Pal. XXII 183 col. iii.51–4).

2   The Temples in the World

Temple property

The temples were not just cult buildings, but also economic organizations. Their main source of income was the temple land (*hiera ge*), which was, in theory, donated by the king, who is time and again shown in the ritual scenes offering the hieroglyph for field (𓊾) to the gods. In fact each monarch renewed the donations of his predecessors and usually the same land was offered generation after generation. According to Diodoros 1.27.7 and 73.2 one third of the land of Egypt was controlled by the temples, though this is probably an overestimation.

A famous inscription on the outer wall of the Edfu temple celebrates a donation by Ptolemy X Alexander, confirming an earlier grant by Nectanebo II and even by Darius (Meeks 1972; English translation in Manning 2003b: 245–66). According to this text, a hieroglyphic copy of a Demotic land register, the Edfu temple owned 13,209 arouras (3,640 ha), of which 9,181 were in the Apollinopolite nome (about 18% of the agricultural land in the nome), and nearly 4,000 in Pathyris and Latopolis (Manning 2003b: 74–9). Ptah and Apis together owned at least 1,680 arouras (c. 420 ha) in the Memphite nome in 110 BC; another 10 arouras were set aside for the lighting of the Ptah temple (BGU VI 1216, ll. 52–3, 190–1, 130–2). Land could also be donated by private persons: about 100 BC the temple of Tebtunis owned about 1,000 arouras (2,756 ha), to which the cleruchs from Kerkeosiris added 130 arouras in 130/128 BC (Crawford 1971: 96–9). In Kerkeosiris sacred land for different temples amounted to 292 arouras (about 6 percent of the village land), most of it belonging to the first-class temples of Souchos and Soknebtynis (Crawford 1971: 44, 86–102); in neighboring Magdola the figure is similar (170 arouras). The temple of Soknopaiou Nesos owned its land on the other side of the lake, as far as Dionysias (P.Amh. I 35). On the land of the temples, often leased by priests (cf. below), grain was cultivated, but also vines, olives, and palm trees.

Some of the livestock grown on temple land was, no doubt, offered to the gods (P.Gurob 22; Crawford 1971: 89 n.8). In Kerkeosiris one third of the produce of the pigeon-houses was dedicated to Soknebtynis (P.Teb. I 84, 9–10). The importance of the temple for the economy is well illustrated by the fact that weights and measures often referred to the standard measure in the local temple (P.Recueil II, p. 47 n. p).

Economic activities of the temples

Alongside agriculture and its immediate results the diversified industrial activities of the temples included papyrus production and weaving. The temples produced their own oil for lighting; thus the temple of Soknopaiou Nesos even owned oil presses in several villages (Lippert-Schentuleit 2005, p. 72). Thanks to an abundant supply of papyrus the Egyptian temple notaries wrote their contracts on large papyrus rolls, whereas the Greek notaries often scribbled on small sheets (Quaegebeur 1979: 724–5). The finest linen products, the so-called royal linen or *byssos*, were apparently manufactured only in the temples (Evans 1961: 226–8). Weaving remained important in Roman Soknopaiou Nesos (Lippert-Schentuleit 2006: 11). The ferry-boats which set the pilgrims over Lake Moeris were let out by the temple (P.Oxf. Griffith 52–4; P. Berl. 15505; Lippert and Schentuleit 2005: 76; 2006: 10).

Temple activities in the service sector were often linked with religious activities. In the temple the gods could be consulted by means of written oracle chits, often addressed to the god in double copy, one positive and one negative. Hundreds of such chits have been found in or near the temples (for Tebtunis see now Hoffmann-Thissen 2004: 110–14) and there can be no doubt that the temple was paid for this service (Valbelle-Husson 1998; Martin 2004: 413–26). A Prefect's letter of AD 202 threatens the death penalty for those who "through oracles, i.e. by means of written documents supposedly granted in the presence of the deity, or by means of the processions of the cult images or suchlike charlatanry, pretend to have knowledge

of the supernatural or to know the obscurity of future events'' (SB XIV 12144). Clearly the custom was still flourishing when Septimius Severus visited Egypt, and it survived even in Christian churches up to the seventh century, no doubt because it made a handsome profit for the priests.

In Egypt burial was usually accompanied by mummification, and the family tombs received a funerary cult over many generations. God's sealers and embalmers (*ḥtmw-nṯr wyt*, stolistai), lector-priests (*ḥryw-ḥb*) and choachytes (*wꜣḥw-mw*, choachutai), originally responsible for the three consecutive phases of mummification, burial and mortuary service, all became ''owners'' of tombs and funerary chapels, which could be sold or bequeathed among them (Derda 1991; Vleeming 1995). They are the best known religious professionals in Ptolemaic Egypt, because they often kept their family papers in well-protected tombs. Their business was supervised by the director of the necropolis (*imy-r-ḫꜣst*), who was a priest of the local temple. In the early Ptolemaic Period the ''payment for the director of the necropolis'' amounted to 1 dr. for each burial (Malinine 1961; Muhs 2005: 88–95). In the later Ptolemaic Period the state was also involved, and the products used for mummification were sold to the undertakers like other monopolized raw materials (Clarysse 2007).

An important source of income were the notarial offices, held by priestly scribes, who wrote in Demotic. In Thebes these scribes wrote ''in the name of the priests of Amonrasonther,'' in the Memnoneia ''for the prophetess of Djeme,'' in Pathyris ''in the name of the priests of Hathor'' (P.Recueil I, p. 139). In the Roman Period Demotic contracts are no longer written in the temples, but in the *grapheion*, the Greek notary office. Here Demotic is superseded by Greek by the end of the first century AD (Depauw 2003a).

Temples were also health-care centers where priestly doctors combined science and magic. Egyptian medicine drew upon an age-old tradition and Demotic handbooks dealt with specialized matters, such as eye diseases, snake bites or gynaecological problems. One could be healed by sacred water that had been poured over a divine statue of the Horus child standing on the crocodiles, receive a dream when passing the night in the temple, get a child by divine intervention like Taimouthes the wife of the Memphite High Priest (Otto 1954: 192; Reymond 1981: 165–77), or be treated in the temple sanatorium (Daumas 1957; Hölbl 2000: 83). The healing cults are also illustrated by graffiti and ex-votos (Frankfurter 1998: 46–50).

Temple income and expenditure

The temples received most of their income from their land and from the economic activities mentioned above, but some religious services were paid for by visitors. Priestly intervention in oracle questions, health services, and mummification have been treated above as economic activities. Similarly the so-called self-dedications, by which persons became ''slaves'' (*bꜣkw*) of the god and paid a small monthly sum for the rest of their lives, may in fact have functioned as a health insurance for alternative medicine (Clarysse 1988). The purity of sacrificial animals had to be checked by a specialized priest, a *moschosphragistēs* (P. Recueil 13–14, with commentary in vol. II, 117–21); that a payment was involved appears from the taxation on sealing sacred animals in the Roman Period. Newly admitted priests paid an entrance fee

(*eiskritikon*) to the temple, which amounted to 52 dr. in Roman Tebtunis (SB XII 11156) and 12 dr. in the smaller temple of Bakchias (Gilliam 1947: 203–4). Individuals also offered valuable assets to the temple in precious materials as, for instance, a golden harp and an ebony couch offered by the officer Peteesis to the temples of Elephantine and Philai (Ray 1987), or more generally the renovation of the ''cult material in silver, gold, bronze, wood and stone'' (Zivie-Coche 2004: 259 §9). The Elephantine text also advises giving a tithe (1/10) to the gods, but this instruction was certainly not applied universally. Lay persons could also contribute to the mummification and burial of sacred animals, as in P.Lund. IV 11, a list of expenses for the burial of sacred crocodiles in Bakchias, followed by the Greek and Latin names of contributors (total amount 1340 dr.; AD 198).

Money was needed for building, renovating, and keeping up the numerous and often grandiose monuments, but also for the daily cult, which involved offerings of meat, bread, oil, and incense. It can hardly be doubted that the new temples in places difficult of access, e.g. in Philai, Kalabsha, Dendur, and elsewhere in the deep south, were constructed by the king or emperor, but buildings were also paid for by private individuals, as is shown by scores of inscriptions in hieroglyphic (e.g. Zivie-Coche 2004: 259 and 272), Demotic and Greek. A conspicuous example is the building inscriptions by Parthenios in Koptos (Vleeming 2001, nos. 179–202 and Pasquali 2007). Not only priests but also private persons, soldiers, and professional groups proudly advertised that they erected pylons, *dromoi*, enclosure walls (*periboloi*), and other temple buildings (Otto 1905: 398–9).

In the great priestly decrees the kings are praised for their benefactions (*euergetemata*) towards the temples (e.g. *OGIS* I 56.9–10; 90.9–10), but details are given only exceptionally, as in the Pithom Stela. Here the king offers 500 silver talents yearly to the temples of Egypt; for year 21 of Ptolemy II the amount given is 2,500 talents (on a yearly royal income of about 30,000 talents), besides gifts of wine, oil, meat, fruits, and incense (Thiers 2007: 118–22). The king also contributed to the burial of sacred animals, e.g. the Apis bull (Diodoros 1.84.8; confirmed by C.Ord. Ptol. 53.76–79) or the Hesis cow (P.L.Bat. XX 50). Such gratuities by the government disappear in the Roman Period.

Temples could also be indirectly subsidized by setting them free from certain taxes. Thus the Isis temple south of Ptolemais, built by the *epistrategos* Kallimachos, is proclaimed tax-free (*ateles*) in 75 BC (C.Ord. Ptol. 67). Economic activities of the temples could also be exempted from taxation, e.g. the ferry tax in the Mendesian nome (Thiers 2007: 191). In the Rosetta Stone the contribution for *byssos* textiles is reduced to one third, and some taxes on grain land and vineyards belonging to the temples are abolished (OGIS 90.17–18; 30). In several second-century amnesty decrees temple income is protected against exactions by officials (see, e.g. C.Ord. Ptol. 53.57–61). Sometimes taxes were even set aside for the temples. Thus Ptolemy II set apart the *apomoira* on vines for the cult of Arsinoe (Clarysse and Vandorpe 1998: 13–17), and in some instances the temples also benefited from the Ptolemaic sales tax on houses, up to the second century BC (Depauw 2000: 56–63). This is clearly no longer the case in the Roman Period.

From the late third century BC onwards until the third century AD temples received a yearly allowance in money and in kind from the state (Otto I 1905: 366–84; P. Köln

XI 454). This allowance was called *syntaxis*, and this Greek term was transliterated into Demotic (cf. Clarysse 1987: 30). Already in the Rosetta Stone Ptolemy V guarantees that these *syntaxeis* "will remain in place as under my father" (OGIS I 90.15). In the second half of the second century AD the temple of Soknopaiou Nesos still received from the royal bank the substantial amount of 8,160 dr., no doubt as *syntaxis*, for a year or perhaps even for a few months (Lippert and Schentuleit 2006: 13 and no. 69). This *syntaxis* is usually interpreted as a compensation for the growing state intervention in the economic life of the temples, though proof for this is rather scanty. Thus in P. Teb. II 302 the *syntaxis* comes in place of the right to cultivate 500 arouras of temple land. The allowances were used for paying priestly services, and these payments from the temple to the priests are also called *syntaxeis* (Préaux 1939: 49, 481).

Some bookkeeping documents from Soknopaiou Nesos offer an idea of the yearly expenses by the temple. About AD 138 (P.Louvre I 4 with important addenda by Capron 2008) money taxes amounted to 9288 dr. Taxes on land and on economic activities were clearly a major expense (Evans 1961: 253–77; Lippert-Schentuleit 2005: 73). It is less clear whether they increased in the Roman Period, when temple income decreased (Evans 1961: 282). Other payments were for products used in the cult, such as linen, perfumes, incense, myrrh etc. (1340 dr.), oil for lighting the lamps and for anointing the statues (21 *metre tai*) and wine for cleansing and for special occasions (47 *keramia*). The salary for the prophet of Souchos amounted to 344 dr., payments for priests who took part in religious festivals and processions totalled 1150 artabas of grain. The payments in kind (l.100) were neatly offset in the account by incomes from pious donations (ll.1–4). Again in Soknopaiou Nesos one artaba (40 l.) of wheat was needed for the daily meal of the god; this bread was baked into loaves by the temple bakers (Lippert and Schentuleit 2006: 13).

Temples and the civil administration

The Pharaonic administration was based on priestly scribes, the only literate group in the country: taxes were levied through the temples. Part of the income was used for the cult, for the clergy, and for new buildings, the rest went to the royal treasury. The local temple was the administrative center in each nome. The Ptolemies installed a civil administration (in Greek) and also privatized to a large extent the collection of taxes. The levy of a tax could be "bought" for a fixed sum from the government. After payment of this lump sum the tax collector had to see that he got his money from the tax payers. This system insured the government against risks (Bingen 1978). Just as beer taxes or oil taxes were farmed out to one or more local brewers or oil-sellers, so taxes on economic temple activities could be collected through the priests. Thus the change from a temple to a civil administration happened gradually and in different ways from one region to another. In some areas it was complete only in the Roman Period. This is not only the case in the south, but also in the far more Hellenized Fayum, where the temple of Soknopaiou Nesos continued to function in the collection of taxes on oil-presses, washermen, or weavers who worked for the temple or even beyond. It is not always clear when the temple pays taxes for its own produce of oil, linen etc. and when it functioned as a kind of tax office within the

administration (Lippert-Schentuleit 2005; 2006: 9–14). Similarly in Tebtunis weaving taxes were in some way still farmed out through the priests in AD 135 (P.Tebt. II 305).

Elite priestly families quickly adapted to the new situation: taking over the Greek notarial offices they became *agoranomoi* in Pathyris and Dendera in the second century BC (Pestman 1978); they became involved in the royal administration of the nome in such a way that in hieroglyphic monuments it is often difficult to decide whether a "royal scribe" belongs to the temple or to the civil administration (Gorre 2009); they may even have taken over banks and royal granaries (Clarysse and Vandorpe 2008). The involvement of natives in the administration probably started with scribal functions (Quaegebeur 1979: 716–27). Although village scribes, *topogrammateis*, and even royal scribes on the nome level kept their Egyptian names, they headed an administration that wrote mainly Greek, and they may even have entered the category of tax Hellens (i.e. people treated for tax purposes as Greeks) (Clarysse and Thompson 2006: 144). Some Hellenized Egyptians reached the highest circles of the kingdom, such as the dioikētēs Dioskourides (Collombert 2000) or the military family of Ptolemaios in Edfu, who were also priests of the local cults (Yoyotte 1969).

Whereas priests became administrators, Ptolemaic officials also assumed priestly functions. Government officials, who closely collaborated with the priests in the collection of taxes or passed justice at the gate of the temple, also needed to enter the temple precinct in order to give honor to the gods. Therefore, they often adopted some priestly titles and functions. In the later Ptolemaic Period it is hardly possible to know whether the "indigeneous" *strategoi* of Dendera were primarily priests or officials (De Meulenaere 1959); in Ombos the solemn burial of the sacred ibises and hawks is headed by the local *strategos*, *oikonomos*, and *topogrammateus* (O.Prinz Joachim); Plato Jr, an important official and the son of an official in Greek documents, appears as an Egyptian priest on a hieroglyphic statue (Coulon 2001); Heroides, phrourarch of Syene about 150 BC, is at the same time prophet and *archistolistes* of Khnum (I.Th. Sy. 302; *Pros. Ptol.* II 2059). It is, therefore, erroneous to oppose "church and state" in Egypt. The temples were part of the kingdom, and their world view necessarily puts the Pharaoh in the center as the intermediary between gods and humans. The priests honored the Ptolemaic kings; they went to Alexandria for the yearly synods; and they stressed in their petitions the importance of their offerings and services for the reigning house, both emperors and kings. The temples were also engaged in the administration of the kingdom on the local level, and some members of priestly families made a career in the royal administration or even in the army. Temple loyalty functioned as a legitimation for the Ptolemies, less so for the Romans, because in the Roman Period officials served outside their hometowns. This was probably a measure against nepotism and favoritism, but it also put an end to local power bases and led to a growing separation between temple and civil government.

Because they were part of the system, temples and priests also enjoyed the privileges going with this, but at the same time they stood, as a matter of course, under government control. For this same reason temples were attacked during the revolts, even though many priests may have personally sympathized with the opposition.

In the early Ptolemaic Period temples were allowed to produce oil for their own use outside the monopoly system. The oil presses were, however, strictly controlled, and it was forbidden for the temples to sell their produce (P.Rev. Laws 50.20; 52.3).

From 263 the *apomoira*, earmarked for the cult of Arsinoe, was levied by tax-farmers and, therefore, went first to the government and from there to the temples. Of course there was a risk here that the money never reached its final destination (Clarysse-Vandorpe 1998: 16–17). The *epistates* of the individual temples may have been originally a kind of royal controller, but the function was rather quickly taken over by a member of the clergy, thereby losing part of its intended purpose (*UPZ* I: 44–5). In the second century Fayum the prophet of Bastet seems to have functioned as a royal controller (*nty šn*) for the whole Arsinoite nome (P.Oxf. Griffith 39). When temples in an area could not fulfil their obligations towards the king, a Greek official could be appointed to check their accounts, as did the "praktōr of the temples" Milon in late third-century Edfu (Clarysse 2003).

It is often claimed that government control became tighter in the Roman Period, when the *archiereus*, a Roman *procurator* in Alexandria, was in charge of all the temples of the country (Demougin 2007). Growing government interference is also seen in the *graphai hiereōn kai cheirismou* ("reports of priests and temple inventory"): each year the priests of all temples had to send to the *strategos* ("nome governor") a list of the temple personnel and cult objects and an account of the corporate receipts and expenditure for taxes or religious purposes. These yearly lists are, however, not a full inventory of temple possessions and do not imply full control (Burkhalter 1985: 131–4). In our opinion temples functioned as wheels of the government in both periods, but this same role also involved protection of the temple community by the king and the emperor. This clearly emerges from the royal decrees forbidding visiting officials to importune the temples (C. Ord. Ptol. 51–2), guaranteeing temple income from land and state subventions (*syntaxis*) (C. Ord. Ptol. 53.50–6), or protecting asylum rights against encroachments by overzealous civil officials (Rigsby 1996: 540–73). In difficult times the temples may even receive substantial tax cuts.

Temples and native culture

Temples were the main centers of native erudition and culture, which were practiced in the so-called "House of Life." In Edfu and Philai some rooms where papyrus rolls were stored can still be identified, thanks to the hieroglyphic inscriptions (Hölbl 2004: 56–9). The temple libraries of Tebtunis and Soknopaiou Nesos are partially preserved and offer a glimpse of priestly scholarship, with its inextricable mixture of religion and science. Ancient religious texts in the classical language were copied in Hieratic and Demotic scripts, and their vocabulary was listed in onomastica, which developed into encyclopedias of native knowledge (Osing 1998). These books were used as lexica for drawing up the sacred hieroglyphic texts on temple walls: though the syntax of the ritual texts is repetitive and basic, their vocabulary is extremely diversified, as scribes looked up synonyms in their onomastica. Handbooks for the organization of the temple, both its ideal architecture, the management structure of the priestly staff, and the liturgic rituals, are preserved in many copies, in Hieratic and Demotic (Quack 2000). Religious geography is found in the *Book of the Fayum*, which includes a kind of map in the form of a goddess, with ancient crocodile shrines situated on both sides of the Bahr Yusuf (Beinlich 1991).

Knowledge about the time and the height of the Nile inundation was gained from the Nilometers along the Nile; the rising of the waters first visible in Elephantine could be transmitted by fire signals to the capital in a single night. It was also measured in the temples by means of a well. Thus good and bad floods could be predicted from the start of the agricultural year; but at the same time the rising of the waters was explained by divine intervention. Thus Ptolemy X continued the traditional role of the Pharaoh by performing the *sollemne sacrum* at the so-called sources of the Nile in the First Cataract at Elephantine (OGIS I 168 = O.Thèbes-Syene 244 ll.9–10). Precise astronomical observations are inextricably mixed up with astrological predictions of good and bad days in the treatises on the heavenly bodies (e.g. Hughes 1986) and in the onomastica. They were applied in the astronomical ceilings of several Graeco-Roman temples and in horoscopes, which are a new phenomenon of the Roman Period (Neugebauer and Parker 1969; Cauville 1997). The user-friendly Egyptian calendar of 12 months of 30 days with 5 festival days at the end of the year was also taken over by the Greeks; a minor correction, adding an extra day every four years, was first proposed in 237 BC (*OGIS* I 56 ll.37–47) and eventually put into practice by Augustus in 30 BC. Native judges (*laokritai*) rendered justice at the gate of the temple on the basis of traditional Egyptian laws, which were codified, amongst others, by Pharaoh Busiris and the Persian king Darius (Quaegebeur 1981). Some sections are preserved in Demotic papyri (e.g. P. Mattha and P. Zauzich 41 and 42), and a Greek translation was still in use during the second half of the second century AD (P.Oxy. 46 3285 Vo.).

Greek breaks in

Whereas in the early Ptolemaic Period only the Greek names of the new rulers point to foreign influence, the Greek presence becomes gradually more visible. Side by side with the buildings in the age-old Egyptian tradition appear smaller shrines in Greek style within the enclosure or along the *dromos*. Examples are the Greek chapels and statues along the *dromos* of the Serapeum at Saqqara (2nd century BC; Bagnall and Rathbone 2004: 100), the Sarapis temple along the *dromos* in Luxor (inaugurated on Hadrian's birthday in AD 126; Hölbl 2000: 53), or the Isis chapel with Greek inscription on its lintel in Dendera (I.Portes 25; AD 1). The pronaos of the Egyptian temple of Kalabsha seems to take into account the rules of Graeco-Roman architecture as expounded by Vitruvius (Hölbl 2004: 127). The lower register in the Tutu temple in Ismant el-Kharab (Dakhla oasis; second century AD) is decorated with imitation marble slabs, similar to what is found in houses at Pompeii (Hölbl 2005: 91).

Greek inscriptions are cut side by side with traditional hieroglyphs: dedicatory inscriptions are carved above the rock temple of Hakoris (I.Akoris 1; 197–194 BC), on door lintels in Philai, Kom Ombo, or in Theadelpheia (I.Philae I 4 and 8, 244–21 BC and 186-80 BC; I. Thèbes Syène 193, AD 88; I.Fay. II 107; 137 BC), and even on the shrine of the god in Soknopaiou Nesos (I.Fay. I 74; AD 50); trilingual decrees for the Ptolemies were set up in all major temples, and this continues in the early Roman Period with the inscription of Cornelius Gallus (I.Philae 128), Greek hymns on the door posts of the sanctuary of Narmouthis (I.Métr. 175; first century AD), Greek dedications on the walls, on stelae, and statues (I.Fay. I 77–80), royal orders

protecting rights of asylum, and Greek graffiti on the walls or on the sphinxes of the *dromos* (Rogge and Harrauer 1999: 1–15). The twenty-five building inscriptions by Parthenios, *prostatēs* of Isis in Koptos in the time of Tiberius, are written in a remarkable mixture of Greek, Demotic and Hieroglyphic (Vleeming 2001: nos. 179–202 *passim*).

Though keepers of the indigenous traditions, the priests were not averse to Greek culture. Greek papyri, including fragments of Homer and Euripides, but also scientific works on medicine and astrology were found in the priestly houses and the rubbish dumps near the temples of Soknopaiou Nesos and Tebtunis (van Minnen 1998: 145–68). The astrological ceilings of the *wabets* in Dendera, Shenhur, and elsewhere, render the Greek zodiac in Egyptian style. Oracle questions to the gods originally in Demotic change to Greek already in the Ptolemaic Period in Tebtunis. The numerous Roman examples are all Greek, though they were written in the temple by priestly scribes. In the great trilingual decrees honoring the Ptolemies the priests, with their *phylai*, take the place of citizens (also organized in *phylai*!) elsewhere in the Greek world; these honorary decrees follow the Greek epigraphic model: the verb "it has been decided" is preceded by a series of motivations introduced by *epeidē*, "because," and followed by infinitives containing the honors voted upon the kings. The priests have adapted the Greek format to the Egyptian situation (Clarysse 2000a).

3   The Role of the Priests

Organization of the priesthoods

Priestly status was normally inherited from one's father, as is clear from hundreds of hieroglyphic inscriptions. Besides having to demonstrate priestly lineage (belonging to the *hieratikon genos*) priests were examined and declared pure, which involved circumcision. In P.Teb. II 291.40–45 (AD 162) a new priest gives a practical demonstration of his literacy by reading from a hieratic book (Sauneron 1962).

In the major temples priests functioned by rotation on the basis of four tribes (*phylai*), augmented after the Canopus Decree (237 BC) to five, carrying out duties for one month at a time (sometimes even for half a month, see e.g. Pros. Ptol. IX 5351–5368 *passim*) at the time. The tribes were headed by a *phylarchos*, called "great one of the *phyle*" (ꜥꜣ-n-sꜣ) or "great one of the month" (ꜥꜣ-n-ibd) in Egyptian. Perhaps the titles "first, second, third prophet" refer to these tribes rather than to a hierarchy among the prophets. This would explain that some priests combined different prophecies in the same temple, since they could be members of more than one tribe. In Ptolemaic inscriptions prominent priests accumulated functions in different tribes and different temples (see Pros. Ptol. III and IX 5351–5874 *passim*). This was apparently less common in the Roman Period.

The cultic hierarchy was very diverse and titles partly overlapped. There was a great difference between the major temples of first, second, and third rank and the small shrines, served by a single priestly family. All priests entering the major temples were

"pure" (*w꜖b*, rendered in Greek as *hiereus*), but some were more prominent than others: prophets ("servants of the god," *ḥmw-nṯr*), *stolistai* ("the priests who enter the *adyton* for clothing the gods"), *pterophoroi* ("feather-bearers," in Demotic "scribes of the sacred books") and *hierogrammateis* ("sacred scribes," in Demotic "scribes of the house of life") are singled out in the great decrees of Memphis, Canopus, Raphia, and Philai. Since, however, these offices were often combined by one and the same person, this is not a strict hierarchy. Clearly singers and dancers, often women, ranked lower, and so did mortuary priests and *pastophoroi*. The latter group, whose obscure Greek title *pastophoros* ("bearers of a *pastos*") apparently corresponds to Demotic *iry-ꜥꜣ*, "door-keeper," were perhaps at first a kind of temple wardens (see PSI IX 1149 and Zauzich 2000: 47–8), not real priests. In the Roman Period rivalry seems to have developed between priests and *pastophoroi*, as appears from the *Gnomon of the Idios Logos* §§ 82, 88, 94, 95 and SB X 10564.

The more important temples also had an administrative hierarchy and were headed by a lesonis (*mr-šn*), whose title could also be translated as High-Priest (*archiereus*) in Greek. In the great decrees these *archiereis*, who were chosen from the highest-ranking priests, precede the prophets. In the Ptolemaic Period the *lesoneis* were chosen for a single year and acted as a kind of temple director rather than as priests; probably they were personally responsible when the temple failed to pay to the government. In third-century Edfu a family of High Priests fell into financial difficulties and had to sell part of its property because of debts owed by the temple (Clarysse 2003). Elsewhere priests complain against a lesonis abusing his power (e.g. P.Oxf. Griffith 39 and P.Amh. 35).

In the later Ptolemaic Period the eldest (*ẖl-ꜥyw*) of the priests functioned as a corporate body side by side with individual temple officials (e.g. P.Oxf. Griffith 28; P. Lugd. Bat. XXIII, p. 168–70). In Roman times the *lesoneis* too became a board of priests (P.Dime Dem. II, pp. 16–18); it is not clear if they are identical with the board of (usually five) elders (*presbyteroi*), mentioned in the Greek texts of Soknopaiou Nesos and Tebtunis (cf. already Otto 1905: 46–52), but there clearly was not a uniform structure in the administration of the temples and individual directors (*prostatai*), like Parthenios, played a role in the early Roman Period.

Sometimes priests of individual temples are controlled by a superior authority which is in charge of a whole area. The most conspicuous example is the High Priests of Memphis, who crowned the Ptolemaic kings and seem to have been a kind of *primi inter pares* among the higher clergy, thanks to their relationship to the royal court (Thompson 1988: 138–46). In the Roman Period *archiprophetai* are in charge of several temples (Bülow-Jacobsen 1979; add P.Ammon II 50.4–5).

Priestly assets and privileges

The priestly status, though not always a full-time job, entailed financial and fiscal advantages. Lower-ranking priests, no doubt, combined their religious functions with farming or other activities. In the Ptolemaic Fayum up to 10 percent of the population was registered with priestly functions (Clarysse & Thompson 2006: 195). For the Roman Period we get an idea of the numbers of temple personnel thanks to *BGU* XIII 2215 (AD 112): 61 priests in Bakchias, 54 priests and 50 *pastophoroi* in Karanis,

40 or 50 priests and 40 *pastophoroi* in Tebtunis. In Soknopaiou Nesos 100 males were exempt from tax or from corvée, no doubt because of their priestly status (SB XVI 12816).

Being a priest may have helped to escape professional taxes in the Ptolemaic Period, as each person was listed with one single function (Clarysse and Thompson 2006: 177–86). On one occasion priestly hierarchies (*hiera ethnē*), more than 100 persons on a population of 2000, are listed as "not paying tax" (*ateleis*) (P. Count 16). In the Roman Period there was a *numerus clausus* of priests who were "set free" (*apolysimoi*), usually interpreted as exempt from poll-tax (Gilliam 1947: 205). Others paid at a reduced rate (P. Lund IV 1 registers payments of 8 dr. in AD 198). Tax arrears were remitted for leading priests in C.Ord. Ptol. 53.62–76 (118 BC). Priests were also to a certain extent free of compulsory labor, as is confirmed by an edict of the Roman Prefect in favor of the priests of Soknopaiou Nesos, again using the verb *apoluō* (P. Fay. I 75; AD 54; see also P.Aberd. 16, AD 134 and Gilliam 1947: 199–202). In fact *apolysimos*, when not accompanied by the specification *apo laographias*, as in Wilcken, Chrest. 102, may refer to exemption from corvée rather than poll-tax.

Besides these fiscal privileges priests were also paid for their work in the temple. Thus the "twins" (*didymai*) in the Serapeum, who were lower-ranking priestesses, received a yearly allowance of 49 artabas of *olura* bread and 1 *metrētēs* (about 30 l.) of oil each, far more than was needed for their personal use (Thompson 1988: 237–8). In AD 107 priests in Tebtunis who were serving on their month of duty in the temple received a daily allowance of 1/4 artaba of wheat and the *pastophoroi* 1/8 artaba (P.Teb. II 298.67–9). The high clergy could certainly make a living from their temple functions. In the mid second century AD, for instance, the prophet of Souchos at Soknopaiou Nesos received a yearly salary of 344 dr. (P.Louvre I 4; Capron 2008: 142 l.42). In AD 146, 2200 dr. were offered for a *prophēteia* in Tebtynis; the yearly income of the prophet would be a fifth share of the temple revenues, which amounts to 50 artabas of wheat, 10 artabas of lentils, and 50 dr. (P.Teb. II 294; cf. Evans 1961: 187). These temple services, expressed in monthly "days of emolument" (*hrw n sꜥnḫ*) could be leased, sold, or bequeathed as profitable property among priests; the same applied to funerary services on family tombs (Johnson 1986: 78–81). Priests had also preferential access to temple land, probably at low rent rates. Part of the temple land was confiscated in the early Roman Period, but most became a kind of private property of priestly owners, comparable to catoecic land (Monson 2005b). Priestly houses (*pastophoria*), built within the temple precinct, were also treated as private property.

4   The End of the Temples

Organized Egyptian religion flourishes until the first half of the third century and then seems to decline rapidly. Often the Roman government is held responsible because the temples were now strictly controlled and financially squeezed. Though some temple land was confiscated in the early Roman Period, and new central controls were instituted by the Prefect Tuscus in the reign of Nero (Whitehorne

1978) and by the *archiereus* of Alexandria and all Egypt about AD 120 (Demougin 2007; P. Oxy. XLIX 3472), the Romans also built new temples, and they did not abolish priestly privileges. In fact no decline is visible in the first two centuries of Roman rule. On the contrary, the priests flourished: they were exempted from some taxes and liturgies; they were well paid for their services; they had prime access to temple lands and turned these lands into private possessions; and the most prominent of them became part of the Greek-speaking elite. In the mid-fourth century a rich metropolitan family of Panopolis was fighting for the *archipropheteia* in that nome, and it is clear that great financial interests were involved; the (Christian) emperor wouldl in the end decide (P.Ammon I 3). In AD 299 the family declares more than 50 arouras of temple land (P.Ammon II 50).

The decline of traditional religion was probably due to a change in the religious interest of the population rather than to government interference. Dedicatory inscriptions in the temples and priestly activities in the papyrus documentation disappear in the early third century (Bagnall 2003: article X). The great gods of old were replaced by newcomers (Shai, Bes, Tutu) or take on pantheistic features, which bring them closer to monotheism. Traditional name patterns lose their rich diversity, before being superseded by moralising (Eusebios, Akakios) and Christian (Biblical) names in the fourth century. Egyptian religion was hollowed out from within rather than by neglect or obstruction from the government. It simply became irrelevant to its customers and was replaced by a new form of religion, based on a single sacred text and uniform throughout the whole Roman Empire. In the fourth century Christianity could occupy a largely empty space (Bagnall 1993: 261–89). Most of the violent conflicts between pagans and Christians are probably later inventions (van Minnen 2006).

FURTHER READING

In Clarysse, Schoors, Willems 1998 one finds a wide array of articles on Egyptian religion in the late period, e.g. oracle questions, typical gods, temple building, priestly titles and functions, dynastic cults etc. See also Clarysse in Bagnall 2009: 561–89. On temple building in the Graeco-Roman Period see Arnold 1999 and Hölbl 2000–5. Sauneron 1957 gives a general survey of the tasks and position of the Egyptian priests; Colin 2002 concentrates on the role of women and offers a full recent bibliography. For the social and economic role of the clergy see Evans 1961 (concentrated on Tebtynis), updated in a broader context by Quaegebeur 1979. For the relationship between temples and Ptolemies see Huss 1994 (the old view; very well documented) and Clarysse 2000a (the view presented here).

The Economy: Pharaonic

Christopher Eyre

1   Introduction

The relationship between production and consumption defined both social structures and the interaction between people and their environment in the Nile Valley. Egypt was a large country, of small villages, with regional centers focused on local temples, but few major cities. Patterns of settlement, population densities, and economic activity were defined by the Nile and the reliability of flood-based agriculture (Butzer 1976). Communications were dependent on the river: a rapid highway in ideal conditions, but travel out of season was difficult. Individual settlements, towns, and villages, relatively isolated within their agricultural hinterlands for significant parts of the year, show strong local identities, and central government penetration of the provinces was uneven and erratic. It is important, then, to distinguish between the imperatives of local economies – micro-economics at the local level – and the functioning of the national economy, in terms of the macro-economic structures represented by central government activity.

Cycles of prosperity and crisis are associated with fluctuations in the Nile flood, short and long term, although warfare, imperial expansion, and internal conflict characterize the peaks and troughs of individual cycles. Such cycles are recognized in the archaeological record as periods of major monument building, against periods of few and poor quality monuments. Long-term change is more difficult to evaluate. The greatest mass of data comes from the New Kingdom, but differences are visible in the political and cultural regimes of the Old or Middle Kingdoms, which must be reflected in economic activity. Evidence for the prehistoric, pre-Pharaonic economy of the Nile Valley is very limited and provides little basis for speculation about economic factors in the origins of Egyptian civilization. However, deep common imperatives run throughout the Pharaonic economy at all levels and all periods.

2 Transport and Communications

The Nile provided the only practical means of communication. Animal transport – the donkey – was vital for local movement of goods. Donkey caravans were used on the desert roads for communication with the mines and quarries, as well as foreign expeditions, but transport over any distance, or of heavy goods, was by boat. For much of the year – from January to June – the low water in the Nile made sailing difficult if not impossible, while erratic winds made travel against the stream unpredictable. The most plausible picture is one in which little government presence was seen in the villages or the countryside for most of the year, but after harvest revenue officers collected crops, particularly from local threshing floors, for transport to central collecting points. The Ramesside papyrus Baldwin-Amiens records a fleet of 21 ships of the Temple of Amun, collecting revenues in Middle Egypt (Janssen 2004; Castle 1992: 240). The largest boat-load is just over 1000 *khar* – about 76.5 cubic m, perhaps 50 tonnes – but other loads are half or a third of this. The largest boats, such as an obelisk barge of Hatshepsut at 120 cubits by 40 cubits (60 m by 20 m) (*Urk.* IV, 56, 13–15) could only be used for short periods of the year, but all transport was necessarily seasonal. Transport costs, including payment of grain rations to the crews, have been estimated as high as 10 percent of cargo (Janssen 1994).

3 Agriculture

The economic base of the Egyptian state lay in agriculture. Well-drained areas of the natural flood-plain provided extremely fertile arable land. Land that did not flood regularly provided scrub vegetation suitable for pasture and plots that could be developed for orchards. Low, poorly draining land formed swamps, with rich seasonal populations of water-birds and fish. The conversion of this wild landscape into a disciplined artificial irrigation regime was the work of the nineteenth and twentieth centuries (Eyre 2004). Artificial watering in the pharaonic period was limited to the hand watering of gardens and orchards (Eyre 1994). The ancient history of water control consisted of gradual, limited, and locally focused efforts to discipline the seasonal flow of water on and off the natural flood basins, improving local efficiency and security of cultivation (Atzler 1995). The partial exception is the Fayum, where Middle Kingdom works to improve and control flow along the connecting channel to the Nile seem to have expanded the areas available for cultivation by natural flood. The Old Kingdom landscape is likely to have been largely undisciplined: irrigation control was neither a cause nor a factor in the development of central government. By the early Ptolemaic Period the landscape certainly appeared more disciplined, and the introduction of the water-wheel and Archimedes screw then extended artificial watering for high value cash crops.

Agricultural decision-making was necessarily local, with land management based on peasant village communities (Eyre 1997, 1999). Annual decisions about cultivation could only be taken when the extent of the flood was clear, when a match had to be achieved between cultivable plots and available labor. The fields were ploughed and

sowed in the narrow window after the drainage of the floodwater, when the soil was in prime condition – a very short period of intensive work in the autumn. The crop did not need manuring, watering, or weeding before its harvest in the late spring or early summer – another short period of intensive work. Protection of crops from animals was important, and through the growing season animals were herded away from the fields. Particular regions of the country specialized in large-scale animal herding, notably the Delta but also parts of Middle Egypt (Franke 2007: 160–4), where in the New Kingdom the settlement of cavalrymen marks a specialization in horse rearing. These were presumably areas where inundation-based grain cultivation was less reliable. Professional herdsmen formed an identifiable and socially marginal group. Orchards – fruit trees, dates, and vines in particular – stood outside the inundated land. Vegetable plots might also be situated on small plots of land that became cultivable late or unpredictably. These were small scale enterprises, using hand-watering year-round, although in the New Kingdom specialist wine production – a luxury product – was established on a substantial scale in parts of the Delta (Tallet 1998). Herding and orchard cultivation were specialist, year-round activities, requiring expertise and investment, employing limited numbers. In contrast arable farming was characterized by substantial seasonal underemployment.

The rural economy can be quantified, but the figures do not paint a full picture of the stresses and insecurities of individual peasant life. The measure of land was the *aroura*: 100 × 100 cubits: approximately 2735 m^2, about 2/3 of an English acre or modern Egyptian *feddan*, but less than 1/4 hectare. The standard calculation is that one sack of seed – the *khar*, of 76.88 litres – sowed on one *aroura* of land should produce a crop of 10 *khar*. The yield seems high, but the figure is standard in revenue calculations. Subsistence in grain for a small nuclear family was 1½ *khar* a month. The maximum area that an individual might plough was 20 *arouras*, to produce a yield of 200 *khar* (Janssen 1975b, 148–9), but this represents an ideal of efficiency in farm management with workers employed for wages or rations to produce maximum returns. The use of plough oxen significantly raised costs, and it likely that the poorest farmers worked their fields manually, greatly reducing cultivable area.

In the New Kingdom holdings of 3, 5, and 10 *aroura* are well attested. The basic calculation for a plot of 3 *arouras* assumes a yield of 30 *khar*, from which seed costs of 3 *khar*, and probably tax of 3 *khar* (Eyre 1994a: 130; Haring 1998: 85) leave a little more than the annual grain subsistence of 18 *khar*. Holdings of 5 or 10 *arouras*, with yields of 50 or 100 *khar*, provided well above subsistence, sufficient for a landholder to draw income by renting to a farmer on a share-cropping basis: at typical rates committing 1/3 or 1/2 of the crop to rent and expenses, a share-cropping farmer needed to work at least 5 *arouras*.

These calculations do not tell the whole story, since grain provided only part of the diet, perhaps as little as 1/2 or 2/3 of calorific intake (Foxhall and Forbes 1982), supplemented by edible oils and fats, vegetables, pulses, fish, and poultry. For a peasant family these must come from their domestic economy: field cultivation of non-grain crops, marginal cultivation of vegetable plots, domestic rearing of poultry and small animals – sheep and pigs (Kemp 1987, 36–41; Miller 1990) – and probably seasonal fishing and trapping of wild fowl, although professional fishermen and fowlers are well attested. Edible oil-seed cultivation was important, but it is hardly

traceable in the documentation of the Pharaonic period. Flax provided the other important crop for domestic production of linen that both clothed the family and produced cash income for the household.

The economic model was that of a family household, best attested in the early Middle Kingdom letters of Hekanakhte (Allen 2002; Wente 1990: 58–63). He writes to his eldest son about crop choice: emmer, barley, or flax. He discusses costs and rental against expected returns, partly on his own holding and partly on land chosen for rent according to the flood. Unusually he pays the rent in advance in cloth and grain. Rent paid as a proportion of the crop was more normal. He comments on management of seed reserves, of ploughing, and the family herd, and on the hiring of temporary labor for wages for a month during ploughing to maximize the amount of land cultivated. He discusses household weaving and marketing the cloth produced, but he is most concerned with the family food reserves, cutting the family grain ration in half in the face of a national shortage; presumably the previous year had been very bad.

Large farms, on which men were employed for rations or wages, seem to be the exception. Share-cropping cultivation seems to have been more effective even for large land-holders – such as temple endowments – with an economically dependent peasantry working their land and paying shares of the crops, rather than attempting to micro-manage their villages and peasants on unified large farms. The imperative for the revenue system was to ensure that peasants occupied the cultivable land, but there was a difficult balance between hierarchical pressure to maximize income and the problems caused by default and flight if the terms of rural tenure became intolerable to the peasant farmers (Eyre 2004: 182–3).

The picture is one of subsistence farming with farmers producing sufficient grain for the family and roughly equivalent quantities in rent or revenues. In a bad year the socially weakest farmers, with insecure access to workable land, suffered immediately and badly, as potentially did those reliant on rent income or those receiving wages for non-agricultural work. It is a conservative calculation to suggest that in normal conditions village farmers only produced about twice the amount of grain they ate themselves, when a fully employed farmer could physically work enough land to achieve higher productivity, although the calculation must include the cultivation of non-grain crops. In practice, however, the majority of peasants are unlikely to have achieved anything near maximum productivity. The concept of an agricultural surplus, as the basis for a complex state economy, and the efficient management of that surplus as revenue, are not appropriate to peasant thinking in the village. The farmer is focused on annual food security for the family. He does not look to buy or sell grain but grows it in the quantity necessary to eat and meet (with the utmost resistance) any revenue demands in kind. Only then does the enterprising farmer focus on other crops, where his decisions will become highly rational and profit-oriented.

Although well off in peasant terms, the family of Hekanakhte were hungry in a bad year. Attitudes to the economy were strongly focused on fear of hunger and consequent social collapse. Extreme famine was exceptional, but the shortage of inundated land in bad years provoked flight in search of food and employment, with cycles of rural depopulation in marginal areas followed by resettlement and rural expansion in better times. The relief of poverty reads as a cliché in tomb autobiographies, and

significant levels of hunger and destitution should be considered a norm of rural society, where rights and management of access to good land produced significant variations in the wealth and security of individual peasants.

4   Money and the Market

The market in Pharaonic Egypt is best described as a monetary system without coinage (Menu 2001; Müller-Wollermann, 2007). Goods were valued against weights of metal – given monetary value – and exchange was based on the quoted values (Janssen 1975; Kemp 2006: 319–26). The most detailed evidence comes from Ramesside Deir el-Medina, where the normal standard was a *deben* of c.91 gm, made up of 10 *qite*. Before this a *shat* or *sniw*, of 1/12 *deben* was used. The smaller weights are typical where values are quoted in silver – a *deben* of silver is a large sum – but at Deir el-Medina the habit was to quote values in *deben* of copper. In the earlier New Kingdom the equivalence between silver and copper was 100:1, but a ratio of 60:1 is attested in later Ramesside Thebes. A rate of 2:1 is attested for gold to silver. The weights themselves are very small to measure accurately, and no evidence survives of attempts by the central state to impose accurate standards; the earliest references are to a guarantee of silver from temple treasuries in the Twenty-fifth Dynasty (Müller-Wollermann 2007: 1353). In practice accurate control of weights and measures was not important for local transactions, where bullion did not change hands. Such a system, involving a significant element of barter, may seem cumbersome and inefficient, but at a local level the use of credit among neighbors smoothed its operation. For high value transactions, and especially long distance trade, commodities exchanged were characteristically metal objects, cloth, and luxury goods that were readily portable, and where retained value was evident.

The best depictions of local markets are found in Old Kingdom tombs, where they show a riverside market at which both men and women sell consumables (vegetables, fruit, fresh and dried fish) and craft products (small metal objects, notably fish-hooks, and cloth), but also where personal services (notably barbering) were available (Moussa and Altenmuller 1977: Abb. 10). A lively local forum provided goods and services necessary just above pure subsistence requirements (Eyre 1998). Evidence for a market in craft goods comes in sale records of the New Kingdom, especially from Deir el-Medina, where workmen employed to build the royal tombs produced goods for the market as private enterprise on the side (Cooney 2007). In the same way peasant households, like that of Hekanakhte, wove cloth for sale as well as domestic use, and individual peasants can be assumed to profit from rural craft work between periods of field labor. Small-scale individual enterprise was a significant form of economic activity in village and local society.

The quayside, as natural crossroads, provided the natural market place (Bickel 1998). Travel was slow and boats sailing the Nile stopped regularly: records survive of boats' transactions from quayside to quayside on their journeys. There is probably an overlap between official journeys, for instance to collect revenues, and the individual market activity of the boats' crews. Old Kingdom pictures of markets show

men with bags round their shoulders dealing with the local producers, and these can perhaps be taken as small-scale itinerant traders and not simply local customers. In the New Kingdom *šwy* or *šwty* people acted as traveling commercial agents (Römer 1992; 1998). These were not, however, an independent commercial class, but representatives who marketed trade goods for temples or wealthy individuals. A Ramesside *Satire on the Trades* describes their practice:

> The *šwy*-people go north and south, tasked hard (? or "tasked (merely) in copper": *iw.w sẖn mi ḥmt*), carrying things (*ꜣi ẖt*) from one town to another, providing for the one who does not possess them. But the tax-people (*ḥtr*) carry the gold (*ꜣi nbw*), the most precious mineral. The ships crews of every house, they receive their cargoes. They set out [from] Egypt to Syria. The god of each man is with him, none among them saying "We will see Egypt again." (P. Lansing, 4, 8-5, 2; Lichtheim 1976: 170–1).

Even when such textual evidence survives, translation is rarely straightforward. Here it is not clear whether "carrying gold" might refer to taxation of trade or the exclusion of the merchant from the best profit. State control of incoming foreign trade through direct customs duties is not attested before the Saite-Persian period (Briant and Descat 1998), but this may simply be a gap in the data.

High-value foreign trade was closely connected to the palace, and in the New Kingdom to the great temples, since it was tied closely to diplomatic and military policy. Incoming goods were officially described as the "tribute" of foreign rulers, using the vocabulary of ordinary revenues (Warburton 1997: 219–91), while the Egyptian king sent diplomatic gifts to foreign rulers. The distinction between ideology and reality is, however, brought out clearly in the *Story of Wenamun*, from the end of the Ramesside period (Lichtheim 1976: 224–30). An official of Karnak temple, he traveled to Byblos to buy timber for the divine bark of Amun, carrying bullion: 5 *deben* gold (455 gm) and 31 *deben* silver (2821 gm), evidently no more than a down payment. Traveling on a foreign boat, he was robbed. Left without money, Wenamun argued from an ideological standpoint that the ruler of Byblos should provide the timber without payment, as a proper expression of religious and cultural tribute to Egypt. The local ruler brought out the written records of previous payments made for timber and asked ironically whether these were simply gifts sent by Pharaoh. A suitable exchange was eventually agreed.

The importance of a lower level and open market for imports has probably been underestimated. In the Middle Kingdom *Story of the Eloquent Peasant* (Parkinson 1997: 54–88), the hero comes in to the capital from his home in the Wadi Natrun, leading donkeys loaded with natural products of the Wadi – salt and natron – but also more exotic goods that clearly come from the oases or Libya, for instance, leopard skins, used as ritual clothing in both temple and funerary ritual. He seems to be acting as a middleman from the margins; he was not an arable farmer, since his intention was to return home with grain to feed his household. The story assumes he was acting for a powerful local agent in the capital, since his treatment is explained on that assumption: "Presumably it is a peasant of his who has gone to somebody else. Look, that's what they do to their peasants who go to others." (Peas. B1, 75–7). This can be compared with pictures from the Twelfth Dynasty tomb of Khnumhotep II at Beni

Hasan, showing Asiatics bringing in galena (for eye-paint) under the authority of the nomarch himself (Kamrin 1999: 93–6; Kemp 2006: 317–19), or with the permission given in the Semna stela of Senwosret III for Nubians to pass the frontier to trade at Iken (Mirgissa). Late Old Kingdom autobiographies describe expeditions to Nubia and the oases – perhaps more accurately donkey caravans – led personally by local magnates, and bringing in goods which were at least in part destined for the capital. In contrast, the *Story of Wenamun* refers to companies of Philistine and Canaanite merchants sailing regularly to Egypt. This is convincingly depicted in the Eighteenth Dynasty Theban Tomb 162 of Kenamun, Mayor of Thebes and Overseer of the Granaries of the Temple of Amun, which shows foreign boats moored at a quayside, bringing luxury imports. Their main imports are being taken to an official reception (now lost), but individuals are also trading on a small scale with stalls on the quayside (Davies and Faulkner 1947). Foreign trade is, then, shown as a mixture of high-level diplomatic and official business and the personal enterprise of those involved at all levels.

Despite this evidence for markets in consumables, craft production, and luxury goods, the primary subsistence crop – grain – was not commoditized in Pharaonic Egypt. There is no evidence for an open market in grain that would allow a real economic separation between the agricultural sector and an industrial or commercial sector that worked simply in money. Grain was not grown as a cash crop, for profit, but as the subsistence crop for personal consumption. Rents and revenues were denominated in grain. Wages were denominated and paid in grain, or bread and beer, for consumption. Consequently there was no structural role for a grain trade, and a disjunction between the primary subsistence commodity and the market. That is not to say that grain could not be bought and sold. Hekanakhte refers to selling grain stored in a town away from home, and there are references to buying bread or grain for very high prices during the famine in late Ramesside Thebes. These are, however, special cases that do not mark price inflation on an open market but special conditions of shortage. In this Egypt seems to fit a pattern characteristic for subsistence peasant economies, where trade in the subsistence crop was structurally anomalous; it could be loaned, given in charity, or used to hire labor and pay for services, but to buy or sell grain as a commodity was potentially a matter of shame for a peasant.

5   Wealth and Purchasing Power

The workmen at Deir el-Medina were paid at least three times the amount of grain they could be expected to eat, and this would seem to give them obvious purchasing power, although there is no clear indication of how they used it. Grain appears quite rarely in the commodity lists recording their transactions. There is enough data, however, to indicate a regular, if nominal, equivalence between 1 *khar* of grain and 2 *deben* of copper. The monthly wage, paid in grain, was:

Minimum-subsistence wage:	1½ *khar* = 3 *deben*
Deir el-Medina workman:	5½ *khar* = 11 *deben*
Deir el-Medina scribe or foreman	7½ *khar* = 15 *deben*

A non-agricultural employee necessarily expected to receive regular payments of oils, vegetables, fish, and occasional items of clothing: commodities that a peasant might be expected to provide for himself in addition to his grain harvest. The full value of the salary of a workman at Deir el-Medina was then perhaps twice as much as the grain calculation allows. These wages can then be compared with typical commodity valuations: (Janssen 1975a):

Pair of sandals	2 *deben*
Standard gown	5 *deben*
Goat	2 *deben*
Donkey	30 *deben*

These sums allow a crude valuation of wages in terms of how long a man needed to work to buy shoes or ordinary clothing, and so estimates of standards of living and the possibility of acquiring capital. The comparatively high value of a donkey relates to its value as a business investment; local workmen regularly hired donkeys at high prices for local transport work (Janssen 2005). The contents of the intact tomb of the Eighteenth Dynasty foremen Kha fill out the picture, at the top of the local standard of living, since they give the impression that he took all his movable property with him (Meskell 1999: 178–212): some furniture, both wooden and cheaper palm-rib items – chairs, stools, beds, boxes and baskets – substantial quantities of cloth and clothing, pottery, small numbers of copper tools, and a varied diet including fruit and nuts, and occasionally meat. Limited capital acquisition is seen in metal jars and dishes. Although this standard of living is well above minimum subsistence, the differentiation is one of quantity rather than quality.

 The important class distinction of quality is seen in the archaeological record at key urban sites, most notably Amarna, Tell ed-Daba, and Kahun. Here spacious villas, with extensive storage facilities, contrast with small, tightly packed housing in what sometimes seem to be slum conditions. Genuinely middle-ranking housing is hardly to be seen in the record, and it is not possible to distinguish a clear intermediate class distinction on the basis. However, the mortuary record allows such distinctions to be drawn (Richards 2005) on the basis of quantity and range of tomb and grave goods, correlated with the holding of minor and local titles related to function: a class of petty officials, craftsmen, military, and the more enterprising local farmers, who rise above the absolute subsistence economy in quantity of acquisition, and through economic and social domination at a local level act as the headmen, without becoming socially or economically separated from their communities.

 The nuclear family households of the mass of society – the minor functionary and the working population – show differentiation in quantity of possessions but are essentially a wage-dependent and subordinate class. The contrast lies with the economy of the great villas, seen at Amarna, described in Late Egyptian model letters as the idyllic world of the apprentice's teacher (e.g., P. Lansing 10, 10–13a, 6 = Lichtheim 1976: 172–3), and depicted on the walls of the major tombs of the Old Kingdom as the *pr-ḏt* of the tomb owner. This is the world of a small, economically self-sufficient, and self-reliant ruling class, with rich and varied income, including agricultural revenues sufficient to fund a wide range of economic activity and a large dependent workforce producing all the normal needs of a great household.

The economic limitations on such great houses lay in the most specialist and most prestigious types of work. Old Kingdom inscriptions stress the use of royal resources for the stone-work of the tomb – by the favor of the king – with royal workmen detached for the sculpture. Tomb owners stress that they employed the tomb builders for generous wages: "They have praised god for me for it very much. They have made this (tomb) for me for the sake of bread, beer, clothing, oils, and grain in great amounts" (*Urk.* I, 50, 13–14). The inclusion of metals in such a list, that could be considered "money," is quite exceptional (Eyre 1987: 24–5). The workmen were, in practice, temporarily provided for within the context of the great man's house and should not be considered as independent commercial contractors. Royal sculptors are then sometimes shown, named, on the walls of the tomb as clients and particularly favored members of the household of the tomb owner.

6   The Urban Economy and Craft Production

Knowledge of urban life is very fragmentary (Kemp 1989: 305–17; 2006: 326–33). Major cities were the centers of royal government. Regional and provincial centers had independent local rulers at times of political disunity and were foci for channeling revenue to the central state at periods of strong government. There was, however, always a well-endowed local temple economy that was typically granted strong protection from the revenue demands of civil government and provided an important focus for regional and often national economic activity. There is no evidence for distinctively urban styles of production and market; this is the context in which Pharaonic Egypt has in the past been described as a "civilization without cities." Nor does it seem possible to discuss rural immigration to the towns or the extent to which employment was available for peasants migrating to the towns.

There is no evidence for independent, craft-guild organization. In the absence of a real coinage equivalent or structural market in grain a non-agricultural workforce required a salary in food. Deir el-Medina provides the basic model, where the workmen received monthly grain rations but also sold tomb furniture and tomb-building services to individuals (Cooney 2008). Similarly in the Old Kingdom royal sculptors carved the reliefs of private tombs. Palace – or state – and temple workshops provided the context for regular employment and training for the highest-value specialist crafts, as they provided the main market for their production. More ordinary craft and service employment was widespread, through the houses of great men. Pictures from the Theban tombs of the New Kingdom focus on the workshops of the Temple of Amun, while those from Old and Middle Kingdom tombs show work directly associated with both tomb preparation and the working estates of great men (Drenkhahn 1976). Evidence is, however, lacking for wholly unattached craft workshops.

The lower levels of service industry are also associated with this quasi-institutional model. The workmen at Deir el-Medina were supported by a service staff – *smdt* – that included vegetable-growers and fisherman, providing core foodstuffs, but also water carriers, wood-cutters (Janssen 2003), washermen, and potters (Frood 2003a), producing quotas of work against a monthly grain-salary. Basic crafts such as pottery

manufacture, or service tasks such as laundry, which are described in very negative terms in *Satires on the Trades* (e.g., P. Lansing 4, 2–5, 7; Lichtheim 1976: 169–70), provided core support for the more complex activities and are not attested simply as independent enterprises. For example, letters and daybooks from the Middle Kingdom temple at Kahun record the assignment of animal skins to sandal-makers. The regular daily sacrifice provided the source of raw material and so the practical context for the craft itself. For a craftsman without control of his subsistence – without his own plot of land – association with a higher-level institution, provided structural security of employment, as well as the context for training and access to raw materials. All such work was, however, organized on a limited scale: workshop and not factory production. This mixture between institutional and domestic craft production is inextricable. For instance, cloth provided both a domestic necessity and the primary commodity for the market. It was widely (if not universally) produced in individual households but also in state and temple workshops. Even so, much of the cloth production required by the state seems to have been put out for domestic working (Kemp and Vogelsang-Eastwood 2001: 427–76).

The temple or great house itself marketed some surplus production, but individuals also exploited the opportunities to supplement income through production or provision of services. It is impossible, then, to estimate what proportion of the urban population might have been outside core institutional patronage and dependent on seeking wages in food for casual employment. For instance, market scenes show stalls providing food and drink, notably to sailors in return for grain, perhaps a necessary service for travelers rather than simple entertainment (Eyre 1998a: 176–7). This casual, insecure service economy is the least documented, important for individuals involved, and structural to the economy as a whole, but its very lack of organization makes it impossible to describe systematically.

7 Revenues and Labor Requirements

Revenue assessment and taxation are poorly understood. There is no evidence for direct personal taxation of the sort collected in Graeco-Roman Egypt, but only taxation of production, nor is there evidence of a precursor to the banking system which facilitated a more obtrusive fiscal regime in the Ptolemaic Period (von Reden 2007). Scribal ideology distinguished those who worked from those who collected:

> Be a scribe! It will save you from work (*bꜣk*). It will protect you from all (physical) labor (*kꜣt*). It will separate you from rowing with an oar, so you will not carry a basket, and you will not be under (the charge of) many lords, under numerous chiefs. (P. Sall. I, 6, 10–11)

> But the scribe, he is the controller of the work of everybody. Work is counted for him as writing. (var. "Work is not required (*ḥtri*) for the scribe"). He does not have dues (*šꜣyt*). (P. Sall. I, 6, 8–9)

Those who worked (*bꜣk*) then handed over their "production" (*bꜣk*) (Warburton 1997: 237–57). The terminology does not distinguish clearly in a modern sense between "taxation" and production. The terms *ḥtri* and *šꜣyt* then simply refer to all

types of payments due as royal revenues (Allam 2002: 99–101; Warburton 1997: 263–81). In many cases these were assessments on the production of groups, not individual workers, managed under the delegated responsibility of local officials. Model letters, used as scribal exercises in the New Kingdom, are then full of complaints that such assessments are too high or that insufficient personnel or resources have been provided to deliver the production required (Caminos 1954; Lichtheim 1976: 167–75).

The collection of revenues required the mobilization of fleets of ships, and very considerable administrative effort. In the Early Dynastic Period the regular "Following of Horus" may refer to a royal progress around the country, collecting but also consuming revenues on the spot. New Kingdom model letters refer to the very expensive local preparations for the arrival of the king traveling round the country. Collection for the center is hardly documented in the Old Kingdom, although Weni, as Overseer of Upper Egypt, claimed to have "counted" Upper Egypt twice for the palace (*Urk*. I, 106). Old Kingdom dating formulae refer, however, to a (typically) biennial counting of cattle and other animals. Temples owned large herds, providing the constant stream of animals for sacrifice, and the crown received a regular supply of animals from the herds in the provinces (Franke 2007: 162), but the taxation of single animals belonging to individual owners is more difficult to envisage.

In the Ramesside period the primary state revenues from land consisted of "rents" from categories of royal land, and possibly a general collection of 1 *khar* of grain for each *aroura* of cultivated arable land (Eyre 1994a: 130; Haring 1998: 85): the single term *šmw* is used both for "harvest" and harvest revenues, and it is difficult to distinguish between terms that refer to land quality and terms that refer to revenue classification. The surviving documentation comes mostly from the Ramesside period, when the Temple of Amun managed much of the countryside of Upper Egypt, but in practice revenue responsibility was complex and overlapping. The Eighteenth Dynasty vizier Rekhmire is described as controlling the accounts of the mayors, local officials, and scribes of the fields throughout Upper Egypt (*Urk*. IV, 1119–39). In contrast, in the late Ramesside P. Valençay 1, the Mayor of Elephantine argued with the Chief Taxing Master at Karnak over responsibility for lands in Edfu and Kom Ombo. One plot had only received partial inundation; the mayor had assigned a cultivator and had already paid the appropriate reduced assessment. It has always been a principle in Egypt that no rent or tax should be paid on land that received no flood. The other plot was cultivated by *nmḥw*-people who paid dues by "carrying gold" (*ꜣi nbw*) direct to the Treasury (Wente 1990: 130–1). This is an isolated reference, both as evidence of a revenue mechanism and for its suggestion of payment in money rather than produce (but note Römer 1998: 131–2).

Reeds and palm ribs for basketry and matting, clay for pottery or flax for cloth were readily to hand for domestic production. Good-quality wood, metal, and stone came from outside the Nile Valley. Wood required trading expeditions. Metals, semi-precious stones, and fine building stone were acquired by expeditions into the unfriendly desert environment, with the logistic problems of rations, water supplies, and transport. The mines and quarries never seem to have been worked continuously. The direct acquisition of these prestige resources was not a private enterprise but a government activity that was sometimes centrally organized and

sometimes locally controlled. In the Twentieth Dynasty the hierarchy of the Amun Temple controlled such production in Upper Egypt, both for temple projects and to transmit produce to the palace. This compares with the role of the nomarchs during the Middle Kingdom. Amenemhet of Beni Hasan, in the reign of Senwosret I provides the clearest statement. He organized all forms of work, including gold-mining expeditions using locally recruited men, so that: ''all work (*b3k*) of the King's-house happening under my charge ... I delivered their production (*f3i.i b3k.sn*) for the King's-house; there was no deficit against me in any bureau of his. The entire Oryx Nome was working (*b3k*) for me in unison'' (*Urk.* II, 15–16; Lichtheim 1988: 135–41).

It is not clear whether labor duties – corvée – were a regular revenue imposition for royal projects (Trapani 2004), and it is difficult to strike a clear distinction between corvée as a compulsory labor tax and a recruitment of migrant labor that mitigated rural and seasonal underemployment. The issue is one of the degree of compulsion, and demands were probably uneven. Expedition records stress the satisfaction of the workforces with payment and conditions, In contrast, those on royal service expected to draw on local communities for all types of resources. Protection decrees attempt to exclude temple workforces from such demands in order to protect their revenue streams and activities, while a decree of the reign of Horemheb (Kruchten 1981; Allam 2002) publicizes measures against the petty abuses of the military and local functionaries in imposing work services and payments on the population, but especially on the *nmḥw* class. The picture is one of delegated responsibility, unevenly imposed, and widely liable to petty abuse. Probably labor demands were imposed on communities rather than individuals: Thuthmose III had the canal round the First Cataract cleared of stones, and then decreed that ''It is the fishermen of Elephantine who will dig (out) this canal each year'' (*Urk.* IV, 814).

Slave labor played no major part in the Egyptian economy (Bakir 1952). There is clear evidence for the sale of individual slaves, particularly prisoners of war, but this was to individual domestic households and not for large-scale agriculture, building, or manufacturing. Captive populations were settled on the land and were assigned to major building projects, particularly in the endowment of temples. However, their status seems to merge rapidly into that of the rest of the population, even when they retained a degree of ethnic identity. This is not to suggest that the working population should be classed according to modern concepts of individual personal freedom. Their situation was one of economic dependence rather than of legal status (Menu 2000/1; Eyre 2004). Much of this population was attached by ties of dependence and patronage to the household of a high office holder or to a temple, working land or providing service to which they were tied by economic reality. Translations of key terms are conventional and not particularly reliable as technical classifications: *mrt* ''serfs'' for groups of dependent agricultural workers, *(n)dt* as personnel dependent on (the estate of) a great man, or *smdt* for the productive ''staff'' of a temple endowment. These contrast with the New Kingdom *nmḥw*, ''free-man'' – literally ''orphan'' – or earlier *nds*, ''little-man,'' who seem to be persons without a dependent economic relationship to a patron, but directly dependent on the king. This terminology does not provide a clear picture of economic class distinctions.

8   Quantification

The core of economic study lies in quantification, but for Egypt no number or measure is absolutely accurate. Population size depended on the area of land cultivated and its carrying capacity (Baer 1962; Butzer 1976: 76–98; Grandet 1994, I: 128). The ancient flood-plain is estimated at just over 8,000 sq. km for Upper Egypt, and about 22,000 sq. km to include the Delta and Fayum (Butzer 1976: 83). A square kilometre equates to roughly 400 *aroura*. In practice nowhere near the entire flood-plain can have been under arable cultivation. Papyrus Harris, of the reign of Ramesses III, records national temple endowments of 1,071,780 *arouras* – approximately 2680 sq km – and 107,615 persons (Grandet 1994, I: 91–101). This figure represents about 12 percent of the notional floodplain for the whole country but in practice might represent as much as half the land under arable cultivation in Upper Egypt. Papyrus Harris also records donations of 3,000,000 *khar* of grain to the temple of Karnak, and 309,950 *khar* to Medinet Habu and the minor temples of (Haring 1997, 412–14). Papyrus Wilbour, of the reign of Ramesses V, shows Karnak administering 17,324 *arouras* in Middle Egypt (Janssen 1975b: 148). The assessments on different plots vary between 5, 7.5, and 10 *khar* per *aroura*, suggesting an income in the region of 100,000 *khar* per year. At Deir el-Medina wage–rates this would provide for about 1,000 non-agricultural workers on top of the entire agriculturally productive workforce of the temple, and Papyrus Wilbour does not cover all the land managed by Karnak temple.

The calorific value of ancient grain is difficult to evaluate against modern grain (Kemp 1986; Miller 1991; Foxhall and Forbes 1982), but the best estimate suggests that one *aroura* under grain would suffice to feed an adult male (Miller 1991); the estimate that 2 *arouras* of actual flood-plain could support each person suggests a population for Upper Egypt of around 1.5 million (Baer 1962); the occupation of the Delta and Fayum will be much lower before the Graeco-Roman Period. This corresponds to the practical calculation that a plot of 5 *arouras* provided for a nuclear family and compares well with the more modern calculation that 3 *feddan* provided minimum family subsistence. The most reasonable guess is perhaps a population of about 1 million in the early Old Kingdom, rising to about 3 million in the New Kingdom, but the margin of error is very high. These estimates leave no margin between production and consumption, and even a small drop in cultivable area or yield would mean hunger. The population is likely to have fluctuated considerably with economic and ecological cycles. Population density is also poorly documented (Hassan 1993); census information of any sort is very scanty (Valbelle 1987). A population of 25,000 has been estimated for late Eighteenth Dynasty Amarna, from the extent of the archaeological site (Kemp 1981), and roughly similar figures for New Kingdom Memphis and Thebes (Strudwick 1995). The Middle Kingdom pyramid town of Kahun contained an estimated 450 houses, so that one might guess a population in the region of 2,000 using an average family size of 4.3 based on demographic data from the Graeco-Roman Period (Clarysse and Thompson 2006, II: 240–1), but figures as high as 10,000 have been suggested. At Ramesside Deir el-Medina, a norm of 60 men employed suggests a population of around 250.

Although they are special foundations, Kahun perhaps models the size of a regional town and Deir el Medina the size of a rural community within immediate walking distance of their fields.

Immigration posed special difficulties. When a Fourth Dynasty text claims 17,000 Nubians were brought captive, the figures have to be treated with care. The Old Kingdom does, however, seem to be a period of major economic expansion through deliberate rural colonization to expand the agricultural base by the development of new settlements and the creation of estates in the provinces (Eyre 2004: 161–3), at least partly using immigrant population. Similarly prisoners in large numbers – the profits of empire – underpinned the temple wealth of the New Kingdom, both as building labor and to expand the supporting base of agricultural production. This particular model of internal colonization is, however, an ideological one. In the aftermath of the great population movements of Libyans in the Nineteenth and early Twentieth Dynasties Ramesses III settled huge numbers of "captives" in new settlements in the (actually devastated) areas of the western Delta. In practice this represents acceptance of a *status quo*, resulting from their violent and disruptive mass migration. At a much lower level Upper Egyptian magnates of the First Intermediate Period and early Middle Kingdom talk of acquiring people and flocks as populations migrated from neighboring nomes in search of food in times of famine. The context in both cases is one of serious violence and economic disorder.

Other forms of quantification are even less reliable. Estimates of the numbers employed to build the great pyramid are pure guesswork, so provide no sound basis for estimating the levels of economic reserve – agricultural surplus – available in the Old Kingdom. The Eighteenth Dynasty was evidently the richest period for pure bullion. Gold donations to Karnak temple in the reign of Thutmose III come to about 15,000 kg, although this includes booty from the wars: production in the Nubian mines – not the most productive – was rated at only 265 kg a year. In contrast, Papyrus Harris, of the reign of Ramesses III, records only 51.8 kg gold delivered annually to Karnak, and other donations to temples at only 232.7 kg (Janssen 1975b: 153–8). The gold mines were at their most productive in the Eighteenth Dynasty, but Ramesses II already had difficulty keeping the Nubian mines in production, and by the Twentieth Dynasty supply had declined to lower levels seen in the Middle Kingdom. The gold from the tomb of Tutankhamun does not represent a norm for royal burials but something close to a peak.

9   The Household Model and Theoretical Approaches

The model of the Egyptian economy is that of a patrimonial household (Lehner 2000). The state was the "Great House." This is the term Pharaoh, *pr-ˤȝ*, that came to be used for the king personally. It was distinct from the King's House as the royal palace itself. The temple of a god was similarly his "House" (Haring 1997), while in the Old Kingdom the property organization of the great man was his House of *ḏt*, a term of uncertain etymology: "House of Personaity" or "House of Eternity."

The larger the house, the more economically complex. The tombs of the Old Kingdom show self-sufficient economic units, employing a full range of personnel: craftsmen, herdsmen, fishermen, and fowlers/poultry-men as well as ordinary farmers. Temple endowments include people to carry out all the necessary tasks for a self-sufficient economy, until, at the extreme, the House of Amun in the Twentieth Dynasty was effectively a state itself. In each case the agricultural holdings, and the farmers who worked them, funded the non-farming activities.

At the lowest level the basic unit of consumption was the unit of residence – the nuclear family – although a rather larger family might work as a unit. The Middle Kingdom letters of Hekanakhte show him as authoritative head of a family, including adult married sons. They farmed as a single economic unit, but Hekanakhte assigned separate grain rations to each individual to consume with his family. An extreme example is then seen in an estate granted to the naval officer Neshi in the reign of Ahmose, which was the subject of legal dispute as late as the reign of Ramesses II over the rights of "the children of Neshi" to shares (Gaballa 1977). This land had continued to be worked as a unit under control of a single representative manager, an arrangement that had advantages where the heirs included women or functionaries not working the land personally, but such arrangements naturally broke down over time. Property was normally divided equally among all the children, male and female. The exception was property derived from a funerary or religious endowment which carried a requirement to perform ritual service and passed to the eldest son, "son to son, heir to heir" in perpetuity. The eldest son was the primary heir to the father in all ritual and social respects, including succession to office.

Women worked within a household, where domestic production – particularly weaving – could provide personal as well as joint family income through small-scale markets (Eyre 1998). Matrimonial property was jointly held and divisible at the end of marriage, when women retained rights to their dowries and their income in marriage. There were, however, no significant employment opportunities for women in the wider economy, and for most women there was no real resource beyond the family household. The widow and divorced woman are characteristic objects of charity. Conversely there was no economically practical role for the unmarried man, who could not exist without the domestic provision of the nuclear family household (Eyre 2007).

The model of the economy as a "house" poses problems in respect of the degree of impersonalization in the economy. True wealth lay in people and their productive capacity, while patronage and reciprocity lay at the heart of the practical functioning of the system. The ideology of hierarchy remained personal at all periods; officials expected to be praised publicly for specific tasks and rewarded by "the gold of praise" at the king's hands. The highest officials of state were in direct contact with the king, and their subordinate officials were few in number. The state granaries dealt primarily in the grain in which land revenues were denominated, although other crops must have been collected. However, the extent and location of state facilities – in provincial centers or the capital – is not documented, and there is no hard evidence for the extent to which the state, or any other institution, built up effective grain reserves to mitigate famine. The Treasury – the "House of Silver" – seems to have dealt with all commodities other than grain. The High Steward seems to have managed palace

resources. However the overlap between these administrations is rarely clear, and varied from period to period. The House of Gold and Overseers of Treasure managed the most valuable materials separately – gold, silver, precious stones – for production of luxury objects for palace and temple, and stood outside the core revenue institutions. In practice the state enforced its demands as best it could on local hierarchies and individual communities, not having the size or administrative structures to tax individuals effectively from the center. It is a cliché, but one that needs to be treated seriously, that government in Egypt has never fully controlled economic or social life in the villages.

Delegation, in practice, often meant the assignment of land or protected right to revenue as a source of income, avoiding the direct payment of wages to functionaries. Priests controlled and received direct shares from the income of the cult. Specific priestly functions were endowed with plots of land and rights to the income of specific endowments: so many days of the offerings or particular cuts from each sacrificial animal. When endowing his mortuary cult, the Middle Kingdom nomarch Djefaihap was careful to distinguish the property of his father's house from that of the house of the nomarch – the property of his office – in setting up the endowment of his mortuary cult. The early Eighteenth Dynasty inscription of Ahmose, son of Abana, records that holdings of 5 *arouras* in their home towns were assigned to sailors taking part in the wars against the Hyksos, and the endowment of the military and minor function in this way seems normal for the period. In contrast, wage payments were characteristic for expeditionary workforces, paid in daily bread and beer rations, or to workforces separated from the fields and agricultural labor: to craftsmen, or those working in directly in the household of the employer, where direct provision of food was appropriate or necessary.

10   Theoretical approaches

The system just described is often referred to in Egyptological literature as a "redistribution" economy. This term is only appropriate in the weakest sense, of an economy where payments had to be made directly in kind, or by the assignment of income from a particular source, such as an area of productive land. In no way did the state collect production from the producers to return it to them as rations or wages. The term "redistribution" is then best avoided, for the false sense it creates of a central control over the physical movement of real income and goods at a low level, but also because it derives from a particular political-evolutionary theory about the working of ancient economies that is not justified by the data from Pharaonic Egypt. It is a difficulty that theoretical approaches focus on the structure of the economy, where the real problem for Pharaonic Egypt is to improve understanding of low-level economic practice (Fitzenreiter 2007: 1–8; Manning and Morris 2005: 163–204). The micro-economic imperatives and behavior of individuals provides a much more chaotic and varied picture than macro-economic generalizations based on deductive classification from any over-arching theoretical perspective. The contrast is seen, for instance, in the words used to refer to recompense in kind for labor. The term "rations" can deliberately give focus to hierarchy and structure, ties of dependence,

and the concept of "redistribution" from the top down. The term "wages" can imply an essentially commercial relationship between employer and employee. This argument belongs more to political philosophy than description of economic reality in Egypt, where payment for work, service, or goods has a sense of social reciprocity which is never calculated in the exact terms of piecework wages but which is hardly a thorough-going ration system.

The central state was never large or efficient enough to micro-manage the fiscal regime in Egypt but only to exercise authority over locally functioning structures. From the perspective of an ordinary producer, the state did not provide but took, and contact was focused on revenue demands and occasional conscription for particular projects. This core economy operated by the rules of subsistence behavior to ensure family security. It was, then, in personal interactions in the local community and in a local market in everyday goods that this subsistence economy operated, largely disconnected from the macro-economic concerns of the central regime. In contrast the elite economy was marked by very considerable accumulation of wealth associated with hierarchical control over agricultural production. This was characterized by conspicuous consumption, most clearly visible in major tomb- and temple-building projects, but also by a patron-client relationship, in which prestige and public approval derived from the maintenance of a social order expressed in the first place as prevention and relief of hunger and destitution. The focus on subsistence and prestige as overt driving factors in individual economic decisions should not, then, obscure the fact that these are really particular manifestations of the balance between supply and demand in the economy, at micro- and macro-economic levels, even if it may seem more convenient to discuss them in terms of a relationship between supply and consumption rather than classically conceived market demand.

Evidence for the working of the Egyptian economy – both textual and archaeological – is considerable in quantity, although it tends to be fragmentary, unprocessed, and can often seem intractable. In particular, it typically does not fit conveniently into an easy theoretical structure. Consequently the most productive advance in understanding the Egyptian economy is currently focused on micro-economic issues of detail, of complexity in the behavior of individuals, and on problems of the flow of resources between local production and central consumption rather than on problems of general structure. However, there is, in particular, a real need for more sophisticated attempts at quantification.

FURTHER READING

No recent monograph provides a full treatment of the Egyptian economy, and all writing is deeply influenced by the theoretical and ideological perspectives of individual authors. This leads to significant contradictions in the classification of Egypt as an economy, and sometimes in the interpretation of individual data. The primary modern account is Kemp 2006. Helck 1975 remains the fullest general survey. Janssen 1975b lays the basis for all later writing, and his classic work of 1975b lays the basis for understanding the market and its working. Warburton 1997 has to be used with care, in that much of its argument is from a polemical and theoretical standpoint. Particularly useful as context is Manning 2003c, and for wider ancient comparisons

see Manning and Morris 2005. Individual issues are best approached through a series of recent conference publications, although these bring out fairly deep disagreements in theoretical approaches. For money and commerce see *SAK* 26 (1998), the publication of a colloquium ''Handel, Hafen und Schiffahrt im alten Ägypten,'' Grimal and Menu 1998, and Fitzenreiter 2007. For the agricultural regime see Allam 1994, Bowman and Rogan 1999, Menu, 2004, and Moreno García 2005a.

The Economy: Graeco-Roman

Dennis Kehoe

1 Introduction

The major political changes in Egypt during the Graeco-Roman Period had significant consequences for the economy. Property rights and other legal institutions surrounding the economy were gradually transformed, so that an observer familiar with conditions in Ptolemaic Egypt would hardly recognize many of the economic institutions of the later Roman Empire. The difficulty is to assess whether changes in institutions had positive effects on the economy, in the sense of promoting economic growth and the welfare of a broad class of people. Some economic growth resulted from an increase in Egypt's population, which grew at a modest rate, at least until the late second century AD before the onset of the Antonine plague in 166–7. At its height, this population is reasonably estimated at around five million people, with a high estimate of seven million (Frier 2000: 812; Manning 2003c: 47–8; Rathbone 2007: 699–700, 706–7). Although it is difficult to gauge the level of mortality caused by the plague, it seems highly likely that in Egypt it caused substantial loss of population as well as significant disruption to the economy (Zelener 2003; Duncan-Jones 1996; Bagnall 2000, 2002; Scheidel 2002), but, perhaps more so than in other parts of the ancient world, economic life in Egypt was regularly subject to deadly diseases that killed people in the prime of their lives, when they would be most productive economically (Scheidel 2001).

   In spite of a seeming abundance of evidence, at least in comparison to other parts of the ancient world, there are many uncertainties about the Egyptian economy, and it is not possible to offer definitive answers to questions about economic growth and welfare in Egypt. Documentary papyri allow us to see close-up many aspects of the Egyptian economy, including taxation, the organization of landholding, and contracts, such as leases for private or public land, loans, and labor agreements, but these documents do not provide us with anything like a complete picture of the Egyptian economy. The documentary papyri tend to come from two major areas, the Fayum depression and the Oxyrhynchite nome, and recently also from the Dakhla

oasis. Far fewer documents survive from much of the Nile valley, the Delta region, and Alexandria, despite its being one of the ancient world's major urban centers. Ostraka, especially from the upper Nile valley and from desert regions, provide some evidence for areas that have not produced a great many papyri, but this type of evidence, rich as it is, requires us to infer broader economic patterns from numerous particular cases. In recent years our understanding of the Egyptian economy has been deepened by increasingly sophisticated analysis of the numismatic and archaeological evidence for economic activity (Von Reden 2007). In what follows I would like to trace the main developments in Egyptian economic life during the Graeco-Roman Period and to suggest hypotheses about how these developments would affect and be shaped by the relationships among the state, the elite, and the common people.

2   Agriculture

Agriculture, as the basis of the Egyptian economy, provided the livelihoods for most of Egypt's population and as well as the incomes for the elite of the country. In addition, agriculture was central to the finances of the state, whether it was the Ptolemaic kingdom or the Roman Empire. Consequently, much of the administrative structure maintained by the state revolved around a continuous effort to capture revenues from agriculture. Egypt's agricultural resources made it strategically important. In the late Ptolemaic Period it represented a prize for successive Roman military dynasts. Under the Principate Egypt, together with the province of Africa, was one of the chief sources of production of grain for the *annona* at Rome, the program of distributing wheat on a monthly basis to some 150,000 recipients. In late antiquity the food supply of the imperial capital city of Constantinople was maintained to a large extent with Egyptian grain and other foodstuffs.

Egypt's unique geography made agriculture there different from much of the Graeco-Roman world. In parts of the ancient world with a "Mediterranean" climate, characterized by wet and rainy winters and hot and dry summers, agriculture gener-ally depended on managing water supplies resulting from scarce and irregular rainfall to cultivate the basic staples in the ancient diet of grain, olive oil, and wine (Foxhall and Forbes 1980; Horden and Purcell 2000). In Egypt agriculture was subject to quite different geographical constraints. The vast majority of farmland in Egypt was either in the Nile Valley or the Nile Delta, although there were also oases, such as the Dakhla Oasis, where agriculture also flourished. Since Egypt had little rainfall, all land had to be irrigated, either directly by the Nile flood or indirectly by mechanical means.

In the Nile Valley and Delta, managing the flood of the Nile was crucial to survival, and it required a community-wide organization. The agricultural calendar revolved around the Nile flood. The Nile would begin to rise in the summer and subside in the late autumn (Bagnall 1993:17–18, 21–3; Manning 2007: 438–9). The task that villages faced was to channel as much of the water as possible into their fields and to keep it there as long as possible, and then to drain it so that farmers could plough and plant their fields. Maintaining an irrigation system was a constant concern of the central state, which tended to impose the task of organizing the required labor and

resources on village authorities (Manning 2003c: 27–30; 72–3; Bonneau 1993). All farmers in Egypt were expected to contribute to this effort. In Roman times this meant that all adult men, with the exception of a relatively few exempt because of their privileged status, were required to perform five days of labor each year on the dykes and canals. In addition, taxes (the *naubion*) were collected from agricultural land to support the maintenance of communal facilities. This type of basin agriculture tended to be more productive in terms of yield for each unit of land than Mediterranean dry-farming, with yields that were in all likelihood on the order of 10:1 or even higher, that is, about 1,000 kg/ha (Rathbone 1991: 242–3, 465). Grain crops were generally cultivated in land that was flooded naturally by the Nile or other major water source (such as the Bahr Yusuf in the Fayum, which channeled water from the Nile into Lake Moeris). Vineyards and orchards were often enclosed areas, called *ktemata*, and they were generally situated on higher land or at some remove from water sources. They were irrigated artificially by means of the ancient counterparts of the *shaduf* and *saqiya*, a water wheel powered by animals.

The most characteristic pattern of landholding in Egypt involved farmers cultivating relatively small parcels interspersed along the thin strip of arable land in the Nile Valley. They key was to have land close to the river or, in the Fayum, to the canals bringing water from the Nile. As a consequence, landholdings often consisted of modest-sized parcels rather than contiguous plots of land. This is the case for small farmers as well as for owners of large estates. For example, in the Roman Period the great estate of the Alexandrian magnate Appianus was divided into individual units or *phrontides*, each organized around an individual village in the Fayum (see below). The units, in turn, were composed of numerous individual parcels of land that were interspersed among the other lands in the village that belonged to local landowners. In late antiquity the lands belonging to the vast estate of the Apiones in the Oxyrhynchite nome were situated side by side with other farmland in the various villages of the nome. The one major exception to this tendency of estates to consist of multiple smaller holdings is the estate in the Ptolemaic Period that the king Ptolemy II Philadelphos granted to his financial manager, or *dioiketes*, Apollonios. This estate included a large contiguous parcel of land, comprising 10,000 *arouras*, near the village of Philadelphia in the Fayum (Manning 2007: 454). The king could grant such an estate because, as will be discussed below, the Fayum was undergoing intensive land reclamation, so there was likely to have been more land available than in other regions of Egypt whose land had been cultivated for millennia.

Agriculture in Egypt was subject to different risks from those associated with other regions in the Mediterranean world. Whereas in most of the Graeco-Roman world the major risk was from periodic droughts, in Egypt the risk was that the flood would not reach the land to be cultivated. Land that went without water during the flood season would be classified as "waterless," or *abrochos*, and *abrochia* was often grounds for tax abatements or claims for remission of rent in farm leases. One famous example of the former was a tax moratorium issued by the Roman emperor Hadrian in 136 as a response to a disastrously low Nile flood (Oliver 1989: no. 88). The practice of cultivating multiple plots of land, as discussed above, provided Egyptian farmers with one important means to reduce their exposure to this type of risk.

3   Urbanism

Alexandria's development into one of the largest cities in the Mediterranean world had major consequences for the economy. The population of Alexandria was in the order of at least several hundred thousand. In the first century BC, it was possibly as high as 500,000, and under the empire perhaps 750,000 (Rathbone 1990: 120; Manning 2003c: 47–8). Alexandria was thus the second largest city in the Mediterranean world (Rome had a population generally estimated at about one million). It represented the major trading link between the eastern and western Mediterranean (Rathbone 2007: 710–11). Much of the grain used to support the supplies of Rome and Constantinople was exported from there, and state-subsidized trade in grain also spurred additional commerce (Morley 2007). Alexandria was linked to the rest of Egypt by the Nile, which provided a transportation network that made it possible to ship agricultural products there relatively cheaply from most of the country (Rathbone 2007: 711). The Ptolemies founded other cities as well, most notably Ptolemais, which became an important administrative center for Upper Egypt in the Thebaid; under the Ptolemies it may have had a population on the order of 50,000 (Manning 2007: 442). Other important administrative cities, including Memphis, and possibly also Thebes, had populations on this order of magnitude (Manning 2007: 442). Roman rule would foster further urbanization in Egypt, as it did elsewhere in the empire. Many nome *metropoleis*, the capitals of Egypt's forty or so administrative divisions, developed into autonomous cities similar to those elsewhere in the Roman Empire. Essential to this transformation was the Roman policy to foster local governmental institutions comparable to those in other areas of the empire (Bowman and Rathbone 1992). This process reached its logical conclusion under the emperor Septimius Severus, who, early in the third century AD, reversed a long-term Roman policy of denying Egyptian cities city councils. Septimius Severus thereby established nome capitals as self-governing municipalities responsible for the administration and taxation of the surrounding region. This political transformation was linked with an economic one, since Egyptian cities were starting to have a sufficiently large land-owning class capable of shouldering the financial burdens associated with local-office holding. Many of these cities had long had features characteristic of cities elsewhere in the Roman Empire, such as gymnasia, bath complexes, and other forms of monumental building. Oxyrhynchos, for example, had a large and lavishly decorated theatre (Rathbone 2007: 706–7). Egypt thus became one of the most urbanized provinces in the Roman Empire. Alexandria and other cities may have accounted for as much as twenty to thirty percent of its overall population, and this process of urbanization, even if took place on a more modest scale than suggested here, had profound effects on the economy of Egypt.

In Egypt, as elsewhere in the Graeco-Roman world, the concept of the "consumer city" is useful for understanding the complex relationship between the urban and rural economies (Erdkamp 2001). According to this model, the urban economy of cities depended on revenues from the countryside, including taxes and rents or other income achieved by landowners resident in cities. The primary engine of the urban economy was the demand created by landowners for goods and services to support

their urban households. Cities were not first and foremost centers of production that derived their wealth by producing manufactured goods for distant markets, although there is no doubt that almost all cities did this to some extent. Urban economies also developed around the need for rural producers to market their crops. Thus the maintenance of a market infrastructure created a whole host of related industries, such as shipbuilding or the manufacture of ceramic vessels to transport crops. Egypt was well situated to benefit from rural production and use it to create wealth in cities. The Nile, with the proximity of almost all major urban centers and even villages to the river or canals connected to it, provided a transportation network unmatched anywhere in the Graeco-Roman world (Rathbone 2007). Virtually all cities in Egypt were in a position to transport cash crops to Alexandria and other urban centers. To cite an extreme example, in late antiquity, it appears that olive oil produced in the Dakhla Oasis could be marketed in the Nile valley, some 300 km distant (Bagnall et al. 1997).

An important question for Egypt, as for other parts of the ancient world, concerns how the development of cities affected conditions in the countryside. One possibility is that it was largely wealthy landowners resident in cities or the state that profited from rural production, and that the development of cities drained resources from the countryside and provided little in return. Although it is impossible to quantify this, the documentary papyri offer the strong impression of the continued vibrancy of the countryside and the persistence of crafts and other types of production there. Indeed, most of our documentation for the organization of crafts and industries comes from a rural setting, primarily villages in the Fayum or the Oxyrhynchite nome. This situation suggests that much of the wealth generated from the agricultural economy remained in the countryside and was not simply siphoned off to the city, either in the form of taxes or rents for elite landowners.

4   Agricultural Change

Agricultural production had to expand to support a growing urban population. One way to increase the productivity of agriculture was to apply new technology, often to cultivate land more intensively. Elsewhere in the Roman world, elite landowners derived substantial portions of their wealth by investing in viticulture and other capital-intensive crops to meet growing urban demand for wine (Purcell 1985). Landowners in Egypt followed this strategy, generating more wealth in the country-side than would have been possible in a rural economy dominated by grain. The Ptolemaic and especially the Roman Period in Egypt saw increasing investment in irrigation equipment, particularly in the *saqiya*, the animal-driven irrigation device that made it possible to cultivate vineyards and orchards on an increasing scale. These were generally to be found in walled enclosures, *ktemata*, which were not reached by the Nile flood. Two surveys from the village of Theadelphia in the Fayum suggest the nature of the expansion of viticulture in the Roman Period. In the first survey, from 158–9 AD, some eight percent of the village's 6,300 *arouras* of farmland were taken up by vineyards. In 216 AD, although the total area under cultivation had shrunk by

about one-fifth, now twenty-nine per cent of the land was devoted to vineyards and orchards (Sharp 1999b; Rathbone 2007: 703). In the third century AD Egypt came under increasing influence of large-scale landowners, such as the aristocratic Aurelius Appianus, whose estate in the Fayum generated much of its revenues from the production of wine (Rathbone 1991; see below). In this period there is greater evidence than previously, both papyrological and archaeological, for substantial pressing rooms, called *lenoi*, which featured screw-presses, cement floors, and ceramic amphoras (Rathbone 2007: 705). In late antiquity viticulture remained a major source of wealth for aristocratic landowners in Egypt. This was the case for the Apiones, the family which owned a huge estate in the Oxyrhynchite nome in the late sixth century. The Apiones and other members of the provincial elite invested much of their wealth in viticulture to meet a continuing urban demand for wine (Banaji 2001). Since they gained much of their wealth as profits from their collecting taxes for villages surrounding their estate, it is not clear whether this type of investment contributed to economic growth or rather represented a redistribution of wealth from the small farmer to wealthier landowners (Kehoe 2003).

The reclamation of land also increased the productivity of agriculture. The most important land-reclamation project was the massive draining of the Fayum in the third century BC undertaken by Ptolemy I Soter and Ptolemy II Philadelphos. This effort, which involved lowering the level of Lake Moeris by restricting the flow into it from the Nile through the Bahr Yusuf, required the organization of thousands of laborers and enormous expenditures of money. It resulted in tripling the overall cultivated area of the Fayum to between 1,200 and 1,600 km^2, roughly five to seven per cent of the arable land in Egypt (Manning 2003c: 99–107). The draining of the Fayum was not the end of land reclamation, since, at least in the Fayum, the advancing desert always threatened the cultivated area. The maintenance of irrigation and drainage canals demanded constant vigilance, and this was an ongoing concern for the state under both Ptolemaic and Roman rule, since its revenues were directly tied to agricultural production. To maintain its revenues the state might offer incentives for private initiatives to restore land to cultivation, such as auctions of derelict properties and tax abatements. On occasion, however, the Romans would seek to counteract losses to revenues by assigning unoccupied land in villages to local farmers to cultivate (or at least to take over the take liability for it) through the institution of *epibolē*, which involved assigning the responsibility to cultivate and pay taxes for unused lands to individual landowners.

5   Property Rights and Land Ownership

Within the basic constraints set by population and technology, law and legal institutions, especially those defining property rights to land, played an important role in the economy of Egypt. The most important institutional development in our period involved changing the legal status of the land, with a long-term process of moving from a system of state and institutional control of land to private ownership. The tendency for land to come under private control increased the incentives for the type

of investment described above, since landowners exercised greater freedom in how they exploited their land, and they also could be more confident that they would receive an adequate return on their investment.

At the beginning of our period the Ptolemies built on institutions that they had inherited from the Saite kings (664–525) and the Persian satraps (525–332, with interruptions). The Ptolemies managed what could be called a "tributary state" (Manning 2007: 446). The monarch claimed the ultimate ownership over all the land and, on this basis, the right to derive revenues from it. This claim of sovereignty was buttressed by land surveys, theoretically of all the land in every nome. These surveys were often not accurate and might on occasion be woefully out of date, but they served to assert the monarch's divine claim on the land (Manning 2007: 449). However, if the Ptolemies, like their predecessors, were able to amass considerable wealth from their agricultural revenues, the monarchy was not the only institution that exercised "economic rights" over the land (for this concept, see Barzel 2002: 15). Rather, the Ptolemies and other rulers had to work through local institutions and elites, principally temples and their priests. Thus in the Thebaid, Demotic papyri recording transfers of land among local cultivators indicate a multi-layered hierarchy of institutions and individuals who exercised rights over the land. The actual cultivators came from a restricted class of people with the designation "servant of *x* divinity." They enjoyed private rights to their land, since they could transfer them to other people, at least those who shared their status. At the same time, the land in some sense belonged to a temple, since revenues from the land supported the temple and its priests. Ultimately, the monarch also claimed control over this land, but as a practical matter this control could not be exercised (Manning 2003c: 79, 89).

The Ptolemies used land to support their political control over Egypt. One of the chief methods they used to achieve this was to provide soldiers with land grants, or kleruchies, whose size depended on the rank of the soldier. Cavalry received 100 *arouras*, while infantry received 20, 25, or 30 *arouras* (Manning 2003c: 56). The kleruchy system goes back to the earliest period in Ptolemaic rule as a way to reward the Greek and Macedonian soldiers who supported the regime. Originally, the kleruchies were revocable, and so they served to provide an economic basis to support a military class that could be called upon to support the monarchy. At the same time, they provided a way of settling the land with a class of people whose loyalties lay first and foremost with the monarchy. Later, soldiers of Egyptian origin received kleruchies, especially after the battle of Raphia in 217 BC. It seems likely that the principal location of kleruchies was in the Fayum region; much of the land reclaimed by the draining of the Fayum must have been awarded to kleruchs (cf. Monson 2008).

Over time, kleruchic holdings became hereditary, and the holders of this type of land came to represent one of the wealthiest groups in Ptolemaic Egypt. This is confirmed by third-century BC census lists of people required to pay the salt tax, which was a kind of capitation tax. In these declarations, kleruchs had the largest households, with livestock, domestic slaves, and dependent farmers. They were classified as "Hellenic," a privilege that gave them a more favorable tax status (Clarysse and Thompson 2006). In economic terms the kleruchs became landowners who often exploited their holdings by leasing them out to farmers of Egyptian status. This represented the beginning of a landowning class that would persist under the

Principate. In that period there emerged a class of landowners who, while residing in nome *mētropoleis*, owned a substantial portion of land in villages and leased it out to local tenants (Rowlandson 1996). Under the Ptolemies hereditary rights to land were associated with status, and the status distinctions established by the Ptolemies, primarily between Greeks and Egyptians, would provide the basis for the social hierarchy that existed under Roman rule. This does not mean, however, that status was identical with ethnicity: many ethnic Egyptians gained Hellenic status in return for service to the state. Egyptians with Hellenic status would often have two identities: they would use a Greek name for legal transactions involving Greek law and a Greek milieu, but for other aspects of their lives they would have an Egyptian name and identity (Clarysse and Thompson 2006).

Another form of Ptolemaic land grant was the "gift estate," a grant of land to a close associate of the monarchy. The best known of these is the estate of the finance manager or *dioikētēs* for Ptolemy II Philadelphos, Apollonios, which was administered for many years (262–39 BC) by his agent Zenon. This estate included an impressive concession of 10,000 *arouras* (6,700 acres, or 2700 ha) near the village of Philadelphia in the Fayum. In addition, Apollonios received a series of parcels of land in the Memphite nome. The extensive Zenon archive provides numerous insights into the management of this estate and the economic planning of the time (Manning 2003c: 110–18). In view of the large size of the concession near Philadelphia it seems likely that the cultivation of this estate involved the reclamation of a great deal of land. Apollonios and Zenon, moreover, seem to have been very adventurous in experimenting with new crops. In addition to cultivating vines on a large scale, they created a "vertically integrated" clothing industry, involving the control of both the production of raw materials and the manufacture of finished goods. They cultivated their own flax for linen and also raised sheep for wool. In addition, they were involved in the manufacture of luxury clothing items, presumably to meet the demand of the newly established and growing royal court (Loftus 1999). From the point of view of the monarchy gift estates rewarded service and also created revenues (at least for the associates of the court, if not for the crown) from land that might otherwise not be exploited in any significant way. The gift estates were a phenomenon of the Ptolemaic Period, and, since they did not involve hereditary rights to the land, they must have passed back to the crown upon the death of the holder.

Land classified as "royal" represented perhaps the most important source of revenue for the Ptolemaic crown as well as a means for the crown to exercise political and economic control. Theoretically, this land was leased out on an annual basis to farmers in exchange for a rent in kind for each unit of land that would be adjusted in accordance with changing conditions. The cultivators would receive a seed grant to be paid back with the rent. The sizes of the plots known to have been leased out ranged from the very modest to as much as 160 *arouras*, and groups as well as individuals might lease the land.

Royal land was to be found in large portions in every region of Egypt, but the exact extent of it is unknown. We can gain some sense of its importance to the village economy by considering the late second-century BC archive of the scribe Menches from the village of Kerkeosiris in the Fayum (Manning 2003c: 119–20, based on Crawford 1971). Kerkeosiris was a village with a population of some 1,520 persons

during Menches' tenure, and it had 4,000 *arouras* of arable land. Royal land accounted for just over half of the total (52%), and it was worked in small plots, with an average size of about eight *arouras.* There were 148 royal farmers, some working in groups, and about one-fifth of the land was classified as unproductive. Temples controlled another 16% of the land, and another third was classified as kleruchic land. This category was leased out in parcels generally larger than with royal land. For the royal land rents accounted for approximately 50% of the crop (conservatively assuming a 10 artab/*aroura* yield). The figures for Kerkeosiris cannot be taken as representative for Egypt as a whole since it seems likely that the land reclamation project in the Fayum resulted in the creation of royal land, but the distribution of land is suggestive about the roles that royal, kleruchic, and temple land played in the local economy. In some parts of the Nile Valley it is likely that the portion of royal land was smaller, since this was the location of powerful temples with long-established rights to the land.

If, in theory, royal land was subject to re-leasing every year, tenure on it seems to have been relatively secure. From one perspective the extent of royal holdings suggests that the Ptolemies fostered a class of dependent, small-scale farmers, whose production of wheat provided the basis for the monarchy's wealth. However, the cultivators of this land, "royal farmers" or *basilikoi georgoi*, seem to have enjoyed a coveted status, since they emphasize it in petitions to the king or other higher officials. They enjoyed certain basic rights, such as freedom from billeting soldiers and from harassment during the planting and harvesting seasons. In addition, they had the right to have cases tried before Greek courts (Manning 2003c: 54–5; 2007: 452). This claim to status finds its analogue in the Roman Empire in the similar claim made by tenants of imperial estates, that is, lands that belonged to the imperial treasury. Both royal farmers and imperial tenants enjoyed protection from the government because of the important role they played in supplying revenues.

It is worth considering the likely economic incentives that resulted from the property regime maintained by the Ptolemaic monarchy. As emphasized in recent scholarship on the Ptolemaic Period, it does not seem possible that the Ptolemaic crown, or any ancient government for that matter, was capable of establishing a command economy in which production was directed from some central bureau. The immense costs of gathering sufficient information rule this out. In addition, as Joseph Manning has emphasized in his recent work on the Ptolemaic economy, the regime was interested first and foremost in achieving stable sources of revenue (Manning 2003c: 141–2). Managing a planned economy was simply not possible, even if the monarchy had ever hoped to do this.

To achieve its revenues the monarchy set up a property regime that privileged its ability to secure steady revenues over incentives for greater productivity. For example, the monarchy's reserving royal land for its own revenues and requiring grain to be cultivated on it removed flexibility that might have allowed private owners of the land to make more informed decisions about what crops to cultivate and in what proportions. Moreover, the lack of secure rights to the land would have diminished the incentives to invest substantial resources in long-term improvements. Although many people enjoyed various private rights to their land, the purely private sector of the Ptolemaic agrarian economy was restricted largely to the gift estates, but even these

were not exactly private property but instead were held in a sort of revocable trust. The state's goal, however, was not to foster a system of property rights that maximized productivity, but rather to maintain revenues in various agricultural commodities, principally wheat, that represented one of the monarchy's most important assets. The real task that the monarchy faced, as Manning points out, was to create and foster a system of local agents who could be relied upon to collect revenues from royal land and taxable land and turn it over to the central government. The village scribes were very important in this process, since they were responsible for the registration of land (Manning 2003c: 150ff.), but controlling the village scribes and other local officials involved in the collection was no easy manner. One step the crown took was to use royal banks and granaries in the collection of taxes instead of temples (Manning 2007: 444). On occasion the crown employed members of the Greek elite in administrative positions to counter some of the power that local elites exercised. The Roman administration would address this problem in a more fundamental way by appointing governors of the nomes, *strategoi*, who were prohibited from governing the nome from which they originated and, in the first century were recruited from the elite class of Alexandria (Bowman and Rathbone 1992: 125–6). It seems likely that much of the land that was theoretically taxable simply escaped official registration.

The Romans were also dependent on agricultural production for revenues, but they tended to impose the liability for taxes corporately on villages. To make sure that the villages had the resources to meet their obligations the state compelled people to remain in their village of origin, or *idia*. This requirement was difficult to enforce, and villagers commonly abandoned their villages either to escape liability or to seek economic opportunities elsewhere, for example, in Alexandria and other major cities. The phenomenon of leaving one's village of origin, or *anachoresis*, became a problem that the state continually had to confront. Affected villages would lose the personnel they needed to perform civic liturgies (compulsory public services, such as collecting taxes or maintaining irrigation facilities) or to cultivate their lands and pay taxes, and they frequently petitioned the authorities for relief when this occurred. For its part, the state sought to enforce the obligation of people to remain in their village of origin with occasional amnesties and sometimes with force. In one famous example the emperor Caracalla ordered the expulsion of native Egyptians from Alexandria so that they would return to their villages and perform their duty to cultivate the land (*Sel.Pap.* II 215, 215 AD). Caracalla's edict is an extreme manifestation of a policy that did not weigh the advantages of one form of economic activity against possible alternatives but, instead, sought to achieve a goal of overriding importance to the state.

The Ptolemaic crown's policy of maintaining more or less direct control over royal land also had distributional consequences in that it promoted greater equality of land holding at the village level and helped to maintain a viable class of small-scale farmers. It certainly impeded the accumulation of large tracts of land by locally powerful people, which might have had the effect of compromising the authority of the monarchy. Rather, the monarchy was very jealous of the privileges that it granted, since it bestowed gift estates on a relatively narrow circle of close associates of the monarch. The kleruchs were a strength but also a potential danger to the monarchy, and the state attempted to exercise control over their land by foreclosing the possibilities of alienating it; kleruchic land could be bequeathed but not sold to other

landowners. This was a restriction that the Roman administration removed, with the result that kleruchic land came to represent private property (see below). Political conditions compelled the Ptolemies to alter some of these arrangements. After the battle of Raphia in 217 BC the government rewarded Egyptian soldiers with kleruchic grants, sometimes using royal land for this purpose. After the major revolt in the Thebaid ended in 186 BC, the monarchy settled soldiers in this region, at the expense of temple estates.

Under Roman rule, the property regime in Egypt changed gradually but significantly. To begin, the state continued to be the largest landowner (Rowlandson 1996: 76–101). Royal land, *ge basilike*, remained under the control of the state, but state land was augmented by public land, or *ge demosie*, which was confiscated from temples or other supporters of M. Antonius and Kleopatra. A third category of state land created under the Principate, ousiac land, or *ge ousiake*, was land that had been granted to members of the Julio-Claudian family or close associates of the court, such as Seneca or the freedman M. Antonius Pallas (Parássoglou 1978). After the demise of the Julio-Claudian regime the Julio-Claudian *ousiai* came under state control and were administered like other categories of state land. The conditions under which this land was cultivated certainly varied from region to region, but broad principles guided the state's policy in administering it. It was generally leased out in small parcels, usually under ten *arouras*, but sometimes it could be leased in larger amounts. As under the Ptolemies, the rents were theoretically subject to constant oversight, but they seem to have remained stable for the long term, generally changing only at the request of a cultivator. The most common range of rents was between 3 1/2 and 4 1/2 artabs per *aroura* for wheat land. As under the Ptolemies, tenure on this land was relatively secure; the major concern of the state was to find sufficient cultivators for its land. The rights to cultivate state land could even be passed on to heirs. In addition, the cultivators, or *georgoi*, of state land included people who owned land on their own or leased in private land. The rents must have remained below the level of rents for private land, since otherwise cultivators would have withdrawn their resources and devoted them exclusively to private land. The state on occasion tried to address revenue shortfalls by assigning public land to private cultivators under the system known as *epibole* (see above). The possibility of leasing in state land under what were surely favorable conditions served to help maintain a more equal distribution of land in Egyptian villages than must have been the norm in many other parts of the Roman Empire.

The second major change under Roman rule was the increasing development of private land. The Ptolemaic system of recruiting soldiers from kleruchy holders was something of the distant past, and kleruchic land for all intents and purposes represented private land, even if it required a special legal form to convey it from one owner to another. It is possible that the range of eligible owners of kleruchic land was restricted to the elite Greek-speaking class in the nomes, those people belonging to the gymnasial class (the local elite with Greek status; Rathbone 2007: 701 n. 14), but with time this restriction would have disappeared. The extent of private land in all likelihood increased as the state auctioned off public land lacking cultivators (Rathbone 2007: 700–1). In the third century this process of returning state-owned land to private ownership seems to have gained steam. By the early fourth

century royal land was for all intents and purposes another category of private land, distinguished from ordinary private land only by a higher tax rate (2 1/2 artabs of wheat per *aroura*, as opposed to generally one artab per *aroura* on private land). The tax rates for these lands are known from a decree of the emperor Diocletian preserved in the Isidoros archive (P.Cair.Isid. 1; Rathbone 2007: 702).

The property regime that the Romans inherited from the Ptolemies and to some extent maintained must have been a major factor in slowing the creation of large estates and an increasing stratification of landownership that was characteristic of many other regions in the Roman Empire. To be sure, in all periods, wealthy citizens of Alexandria owned land in other nomes, and many may have accumulated quite substantial holdings. One example would be the wealthy Alexandrian aristocrat and office-holder C. Calpurnius Firmus, who purchased a vineyard at Oxyrhynchus in the third century for his young son from Aurelia Apollonia, alias Harpokratiaine, also a citizen of Alexandria (P.Oxy. XXXIV 2723; for the family, see Rowlandson 1996: 110–11,196–7). Firmus also had ties to Oxyrhynchos, since he had held civic offices there and had provided the city with benefactions. This vineyard no doubt represented only a portion of the land owned by either party to this transaction, and it is likely that the elite of Alexandria commonly owned land in multiple locations in the Egyptian countryside.

The creation of estates is something different. In the first century the *ousiai* granted to close associates of the imperial courts represented estates only in a limited sense. They were not contiguous masses of property but collections of individual parcels of land. For this reason, the role of the owner or beneficiary in managing them was likely to have been quite limited, and to a large extent they were leased out to tenants. They do not seem to have been managed in such a way as to create economies of scale. The creation of centrally managed estates seems more to have been the product of the second century and especially of the third. In the mid-second century a wealthy Alexandrian named Ti. Iulius Theon owned an estate consisting of properties in various villages in the Oxyrhynchite and neighboring nomes, including the Hermopolite (*P.Theon.*). This estate, like others in Roman Egypt, consisted of diverse individual properties which were probably accumulated gradually. Another example is the estate in the Fayum belonging to the descendants of a man named Laches. This estate consisted of several hundred *arouras* near the village of Tebtynis, some of which was cultivated directly, with the rest being leased out to tenants (Kehoe 1992: chap. 3).

The upheaval resulting from by the Antonine plague in 166–7 AD may have speeded the process of estate building in Egypt. The loss of population that the plague caused resulted in economic disruption, among other things leaving a great deal of land without cultivators, although the extent of this is the topic of heated debate (see above). One aspect of this disruption was to create uncertainty about the ownership of land. It has been convincingly argued that the Roman government's legal doctrine of the *longi temporis praescriptio*, which protected possessors of land in the provinces against legal challenges, was a response to this crisis (Nörr 1969). Still, the disruptions cause by the plague created opportunities for the survivors. It should have resulted in decreased rents, benefiting small farmers, but it is also likely that it became increasingly difficult to find cultivators for state land. Enterprising

landowners could have taken advantage of this circumstance by purchasing land, including state land from the imperial administration (Rathbone 2007: 701–2).

In the third century Egypt had an elite landowning class comparable to that found in other provinces in the Roman Empire. The wealthiest members of this class had equestrian status and were resident in Alexandria, where they served on the council. They derived their wealth from landholdings in the countryside, sometimes in multiple locations. For example, a member of this Alexandrian aristocracy, Valerius Titanianus, who at one time had been *praefectus vigilum* at Rome, owned an estate in the Fayum, as is indicated by an account prepared by one of his managers (*P.Mich.* XI 620, 239–40 AD). The best known case is Aurelius Appianus, whose estate is known from the Heroninos archive, a collection of accounts and other documents connected with one of the administrators of the estate (Rathbone 1991). Appianus' estate in the Fayum had several divisions, or *phrontides*, each consisting of a number of diverse parcels organized around an individual village. Each of the division managers, or *phrontistai* (Heroninos was *phrontistes* for Theadelphia in AD 249–68), submitted accounts and other reports to the central administration of the estate located at the nome capital.

The task of the managers of the estate of Appianus was to cultivate the parcels of land in their village to produce a variety of cash crops, the most important of which was wine. They employed a relatively small staff of permanent wage workers, called *oiketai* and *metrematiaioi*, who were resident at a village or compound, called an *epoikion*, that formed part of the estate. This type of settlement became characteristic of Egyptian estates into late antiquity. Much of the labor on the estate was provided by wage laborers hired on a daily basis, and these were probably recruited from local small-scale landowners and tenants. The major innovation on the estate of Appianus, and what distinguished it from smaller enterprises, was to achieve economies of scale by organizing substantial resources, including funds but also valuable equipment like draft animals, and sharing them among the various divisions. To assure itself of stable revenues the management of the estate on occasion would farm out the collection of the vintage and the marketing of the wine to middlemen, called *karponai*. This practice, also followed on other estates in Roman Egypt, helped reduce risk for the estate and managerial costs, while providing a source of cash in advance to meet operating expenses. It is paralleled in other parts of the Empire, notably on the estate of the early second-century Roman senator Pliny the Younger in Umbria (*Ep.* 8.2).

The estate of Appianus displayed some of the characteristics that would define estates in late antiquity. It took on the responsibility for organizing its laborers and other people in the village for liturgical and tax purposes, a responsibility that would increasingly be imposed on large landowners (Rathbone 1991; Aubert 1997; Gascou 1983; Banaji 2001). In addition, although the estate itself had a small staff of artisans and craftsmen, it also hired such skilled labor from the villages. So the prosperity of this estate depended on the continued viability of the village economy, and this symbiotic relationship between a large estate and the village economy would also be characteristic of the agricultural economy of late-antique Egypt. Finally, although estate owners under the Principate and in late antiquity leased out much of their land to tenants (some land on the estate of Appianus was leased out), they also employed wage labor on a long-term basis. Slave labor was important in the domestic sphere

in Egypt and possibly also in certain crafts, but it does not seem to have played much of a role at all in agriculture in any period (Rathbone 2007: 712).

Farm tenancy was clearly important in the exploitation of state land, but it also played a significant role in the private agricultural economy. Being a tenant did not, in and of itself, determine economic status. Some tenants owned land in their own right, and leased in additional land to increase their sources of income. Such tenants would have been attractive to landowners because of the substantial resources that they might bring to cultivate the land under lease. At the other end of the scale were tenants who could supply few resources of their own and so were tantamount to laborers (Foxhall 1990). The boundaries between landowners and tenants were blurred, but there was also a range in resources provided by tenants. Thus some tenants were substantial farmers in their own right, while others were essentially laborers.

We can develop a better idea of the contribution that tenancy made to the economy by considering some specific examples. Soterichos, a farmer from first-century Thea-delphia in the Fayum (Omar 1979), leased land over a long period from a single landowner, in spite of often being behind on his rent. One of his contributions was to provide for the continuing upkeep of vineyards that he was leasing, as revealed by two leases (*P. Soterichos* 1–2). In a later period Aurelius Isidorus, a farmer from early fourth-century Karanis, owned as much as eighty *arouras* of land, but he was only able to cultivate about twenty of these in any given year, probably as a result of the advancing desert. However, he also cultivated land over a long period of time belon-ging to several wealthier landowners (Boak and Youtie 1960). A somewhat more complicated arrangement to use tenants to produce cash crops is indicated in an account book from the village of Kellis in the Dakhla Oasis in the fourth century. This account book, which recorded rental payments made by tenants, seems to indicate that tenants produced wheat and other foodstuffs, which the administration of the estate used to pay laborers producing olive oil, which was the estate's major cash crop (Bagnall et al. 1997).

In Egyptian tenancy leases were typically for limited periods of time, from as little as one growing season to several years. Typically, for grain land the rent was set as a fixed amount of crops for each unit of land. For vineyards, leases were generally for shares of the harvest, with the share due from the tenant in inverse proportion to the resources that he contributed. Some leases involved the landowner's paying the tenant a wage for his services. In late antique Egypt, there is little sign in the papyri for *coloni* bound to the land, a product of the fiscal system of the later Roman Empire (Bagnall 1993), but long-term leases do begin to appear; often, the tenant's tenure was set at the owner's discretion.

Overall in the Roman Empire there was a tendency for landownership to become increasingly stratified, and this phenomenon also characterized agriculture in Egypt, even if large estates developed there somewhat later than in other parts of the Empire. Another important change in late antiquity was the emergence of the church and eventually monasteries as important landowners, but the growth of large estates does not mean the disappearance of the small-scale agriculture characteristic of Egypt. Even in the vicinity of large estates there remained a viable peasant society that had many dealings with the various business agents of large estates. At the same time there were some locations without large estates, such as late antique Aphrodito

(Keenan 2000). We can gain some perspective about the distribution of land in late antique Egypt by considering Roger Bagnall's study of landholding in the Hermopolite nome during the fourth century (Bagnall 1992). During this period, Bagnall argues that there was a relatively egalitarian distribution of land. A majority of landowners had holdings of between 10 and 50 *arouras* in size (10 *arouras* is approximately 2.7 ha, an amount of land probably sufficient to support an individual family). There were a few with larger holdings, including residents of the nome *metropolis*, who presumably had holdings in multiple villages. This distribution of land is comparable to what Jane Rowlandson has found in Oxyrhynchos under the Principate. There most landowners had relatively modest holdings, between five and fifty *arouras*, with a very few people having much larger holdings of 500 *arouras* or more (Rowlandson 1996: 102–38).

6   The Non-agricultural Economy

As discussed previously, the agricultural wealth of Egypt supported a vibrant and growing urban society, but much of the wealth produced from agriculture remained in the countryside, creating there a demand for manufactured goods and also services. Unfortunately we are much better informed about the agriculture than about non-agricultural sectors of the economy, but we still have ample documentation for how crafts and industries were organized in Graeco-Roman Egypt.

For the most part crafts and industries were organized on a small scale, at the workshop level. The intervention of the state in craft production was limited, the collection of taxes notwithstanding. The Ptolemies sold licences for the production and sale of certain agricultural products, but this was a revenue measure rather than an effort to control the economy, and it was not pursued by the Romans (Manning 2007: 445). One of the most important industries in Egypt, as throughout the ancient world, was cloth production. Weavers seem to have been ubiquitous in Egypt, not just in the cities but also in the rural villages, and the major investment required, the expenses to pay for a loom, was modest. In fact, it is likely that weaving was not necessarily a full-time profession, but an activity in which farmers engaged during slow seasons (Wipszycka 1965; van Minnen 1987). Weavers and other artisans and merchants might form themselves into associations, termed *synodoi*. These did not fulfil the role of early modern guilds in the sense of determining who was licensed to enter a profession, but on occasion at least they helped to facilitate business by dividing up market territories and setting prices, as well as organizing the payment of the tax on trades, or *cheironaxion*, but they also performed a social function, providing dinners and also covering for burial expenses (Rathbone 2007: 708–9). Sometimes a weaving establishment might be larger than a workshop of one to four weavers. As we have seen, under the Ptolemies, Apollonios employed specialized weavers to make high-value clothing for the urban elite of Alexandria. During the Principate, another Apollonios, who served as *strategos* under Trajan, employed weavers on his estate in the Hermopolite nome, but it is likely that they produced largely to meet the needs of his household. There certainly were larger establishments,

however. For example, in a petition concerning liturgical obligations a person describes himself as the proprietor of a weaving establishment in Alexandria that employed many linen weavers (*P.Oxy.* XXII 23410, 192 AD; van Minnen 1987, 47).

The proprietors of workshops in Egypt were generally of free status, but, unlike in agriculture, slave labor might also be employed. We know this especially from the methods used to train people in crafts and other skills important to the economy. In other parts of the Roman Empire such training often took place within the household, where property owners would train their slaves in important skills. Training slaves in this way allowed property owners to be better assured of gaining a return on their investment, and it also allowed owners to exercise greater control over skilled employees. In Egypt property owners had the same incentives to have control over skilled labor, but commonly the setting for training was the workshop of a master artisan, who would train children in his craft. Often apprenticeship contracts would involve a child being turned over to a master craftsperson for a period of several years. The master took on the obligation to instruct the apprentice, and, after a few years, might also pay the apprentice a wage (cf. the apprentice contract involving a weaver, *Sel.Pap.* I 14, P.Oxy. 725, Oxyrhynchos, 183). The apprentice might be either a free person or a slave. The master gained from this by having access to a supply of relatively inexpensive labor, the chief cost for which was the training he or she provided. It seems likely that the villages of Egypt were full of people trained in various crafts in this way, and the existence of apprenticeship contracts indicates the high value placed on their skills. This, in turn, provides some confirmation for the hypothesis suggested earlier that much of the wealth produced from agriculture remained in the countryside and supported a thriving village economy.

The state also might play a role in non-agricultural production when the resources needed for an enterprise were beyond the capacity of wealthy individuals to provide. In Roman times one important example would be the state's organization of quarrying, such as at the Mons Claudianus and the Mons Porphyrites in the Eastern Desert in Egypt (Maxfield 2001). These quarries were important suppliers of marble and porphyry for imperial building programs, and the task of quarrying and transporting huge marble columns required the organization of numerous workers and vast resources. The private market was not capable of this. The state's intervention certainly imposed substantial costs on society, but at the same time it generated employment for many people, from skilled carpenters to owners of draft animals, over a long period of time.

7   Conclusion

This survey of the Egyptian economy under Ptolemaic and Roman rule suggests the degree to which the state and social and legal institutions could affect an ancient economy. The unique geographical setting of Egypt established some basic parameters within which the agricultural economy might evolve, and population and technology set limits on the degree to which the economy could grow, but within these constraints, the Egyptian economy underwent a profound long-term transformation. The economy

was integrated more and more into a Mediterranean-wide system, which fostered changes in demand and production. This integration was inextricably linked with institutional changes in Egypt, which redefined property rights and the relationship between individual producers and the state.

FURTHER READING

Manning (2007) and Rathbone (2007) provide the most recent and in-depth discussion of the economic development of Egypt under Ptolemaic and Roman rule. Von Reden (2007) is an invaluable study of coinage under the Ptolemies and the development of a monetized economy. For further discussion of the Ptolemaic economy see Manning (2003c). Rathbone (1991) offers a comprehensive study of the Heroninos archive, with important conclusions about the estate economy of Roman Egypt as a whole. Kehoe (1992) examines the workings of additional estates, with a focus on farm tenancy. Rowlandson (1996) provides a detailed study of landownership in Oxyrhynchos during the Roman Period. Banaji (2001) studies the process by which large estates, including that of the Apiones, were formed and managed in late antiquity. Finally, the economic changes of the Roman period can best be understand against the backdrop of the administrative changes that Roman rule fostered, for which the article by Bowman and Rathbone (1992) is fundamental.

Settlements – Distribution, Structure, Architecture: Pharaonic

Gregory D. Mumford

1   Introduction

Ancient Egyptian settlements have generally received much less attention than monumental tombs and temples, but a picture of Egypt's urban landscape is beginning to emerge (Fattovich 1999b: 857–8). Despite the patchwork nature of surviving and excavated villages (New Kingdom *wḥyt*), towns (*dmiw*), and cities (*niwt*), the archaeological and textual-pictorial sources are sufficient to reveal the distribution, layout, architecture, and development of diverse settlement types and buildings across the Pharaonic landscape. The ultimate subdivision of the Nile floodplain into administrative districts (nomes) focused upon and transformed major settlements and their satellite communities. These nomes straddled stretches of land that lay on either side of the Nile or between Delta river branches (Butzer 1976). Their individual status, size, economy, prosperity, ethnic composition, and cross-cultural relations relied largely on their location and proximity to diverse resources, trade routes, and neighboring nations and peoples (e.g., Eastern Desert Bedouin, Nubia, Libya, Syria-Palestine). Settlement types and structures varied widely, including royal and provincial capitals, provincial towns and villages, specialized communities, funerary cults, cultic centers, border fortifications, way-stations, mining and quarry camps, and garrison posts and other installations in foreign territories.

2   Settlement Patterns

The Nile, its delta river branches, and adjacent terrain and resources formed the prime determinants for the location and evolution of Egypt's main population centers, with smaller settlements and camps emerging in resource-rich areas and along transit routes in the adjacent desert plains and mountains. Throughout the Pharaonic period Egypt's population is estimated to have increased from roughly 1.5 to 7 million
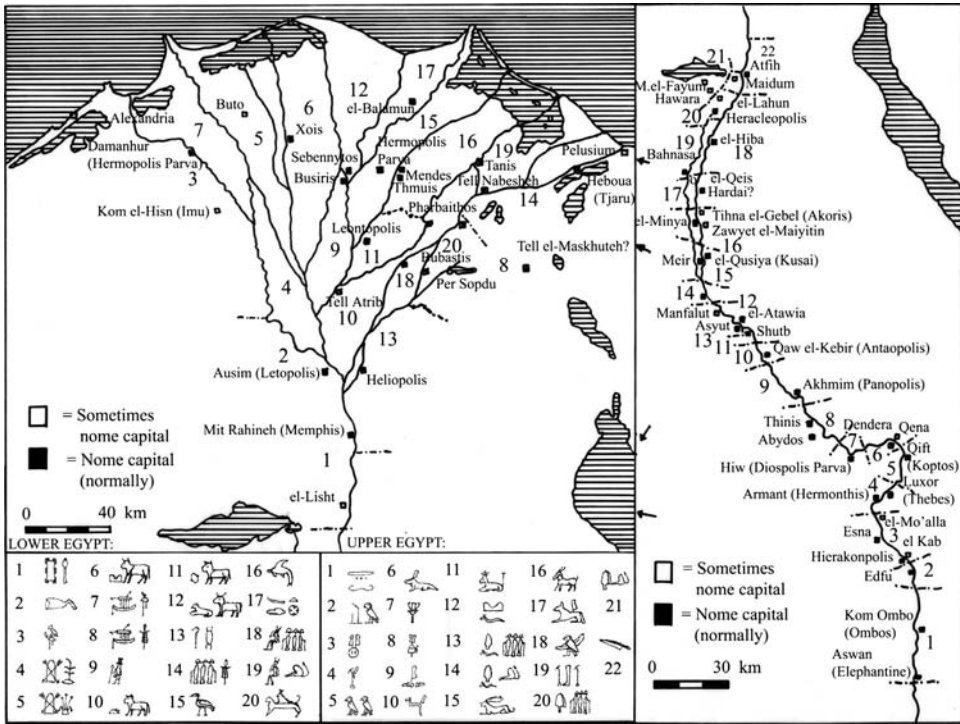
Figure 18.1 Upper and Lower Egyptian provinces (adapted from Baines and Malek 2000: 14–15).

(Butzer 1999: 250–1). The arable Nile flood plain was subdivided amongst a series of relatively prosperous urban centers, many of which had evolved as independent polities during the late Predynastic Period (Fattovich 1999: 841–2): e.g., Hierakonpolis (B. Adams 1999: 372–3), Nagada (Hassan 1999b: 555–6), Abydos (M. Adams 1999: 99), and Merimde Beni-salame (Eiwanger 1999: 501–4). By the Old Kingdom, twenty-two administrative districts (Old Kingdom *spȝt*) are known in the Nile Valley (Upper Egypt), each of which was controlled by a "Great Overlord of a Nome" (*ḥry-tp ʿȝ*); the Delta (Lower Egypt) initially contained fewer districts. The Delta's continuous north-ward growth and meandering river courses dictated modifications and additions to provinces and their settlements, which grew to twenty provinces in traditional lists recorded in Ptolemaic-Roman temples. Some geo-political re-structuring of the southern Upper Egyptian nomes occurred in the First Intermediate Period, while the Middle Kingdom bureaucracy under Senwosret III refined Egypt's administration, including a "sector of the head of the south" (*wʿrt tp-rs*) controlled from Thebes, and a "northern sector" (*wʿrt mḥtt*) (Quirke 1990: 4). Within each Waret, the nomes were named after a main town, albeit retaining their original Old Kingdom nome symbol. The Middle Kingdom administrators for each nome received the title "mayor" (*ḥȝty-ʿ*), which encompassed both the nome capital and its surrounding settlements. These administrative posts continued into the New Kingdom and expanded into Nubia, which was occupied, placed under the control of a Viceroy of Kush, and became increasingly Egyptianized.

3   National Capitals

Memphis formed the national capital of Egypt for much of the Pharaonic period owing to its strategic position at the apex of the Nile Delta. The gradual eastward shift in the Nile at Memphis is followed by a corresponding move by this settlement. Early Dynastic through late Old Kingdom Memphis has yielded limited urban remains (Jeffreys and Giddy 1993: 18) but is better known for its graves, mastaba tombs, pyramids, funerary cults, temples, and associated workmen's camps in the desert at Dahshur, Saqqara, Abusir, Zawiyet el-Aryan, Giza, and Abu Rawash. During much of this period many high officials and their families resided at Memphis, being granted mastaba tombs near the ruler's pyramid. Manetho later recorded that an early First Dynasty Pharaoh (Hor-Aha?) built a palace at Memphis. Nazlet el-Samman at nearby Giza has yielded portions of Khufu's pyramid town and a probable palace (Hawass 1999b: 349–50). During this period, most rulers apparently built a new residence near the site of their pyramid valley temple. In the First Intermediate Period rival kingdoms and capitals emerged at Thebes and Herakleopolis. Although Thebes initially became the national capital of a reunited Egypt in the mid Eleventh Dynasty, early in the Twelfth Dynasty the capital and royal tombs moved north to Itj-tawy (Lisht), to the south of the Memphite region. The royal residence is variously described in *The Story of Sinuhe*, and other texts, while Lisht has revealed portions of a settlement with winding streets and small houses (Grajetzki 2006: 124).

Thebes, which began as a royal capital in the Eleventh Dynasty, regained this status in the Second Intermediate Period. It spanned at least a 550 by 1050 m area within and around Karnak Temple (Kemp 2006: 225–9), which initially lay on an island that bifurcated the Nile (Graham and Bunbury 2005: 19). The central area contains evidence for substantial constructions, including a possible "palace," an enclosure wall, a columned hall, subsidiary chambers, and smaller structures and walling systems. Traces of a Middle Kingdom temple lay to the north-west, whilst the remainder of the town bracketed the western, southern, and eastern sides of the "palace," consisting of smaller houses, storerooms, circular silos, and streets. A 6 m wide wall lay to the east and may mark the city wall. The Theban royal tombs, private cemeteries, and a Sed-festival temple of Mentuhotep III lay on the West Bank (Hölz 1999: 826–7; Kampp-Seyfried 1999b, c, e: 804–5, 810, 822–3; Pirelli 1999: 239–41; Vörös 1998).

During the political subdivision of the Second Intermediate Period, an Asiatic-derived Hyksos kingdom emerged at Avaris (Tell ed-Daba) (Bietak 1996). This town represents a hybrid Asiatic-Egyptian settlement and expanded and prospered during the late Middle Kingdom and Second Intermediate Period, covering a 1,000 by 1,000 m area of mounds and water channels. The site's citadel and fortification wall continued into the early Eighteenth Dynasty. The eastern settlement contained several Egyptian- and Asiatic-style temples. Their environs also produced Asiatic-style burials, including bodies flexed on their right side, Canaanite pottery, weaponry, and donkey burials at the base of an entry shaft. One scarab identified the tomb's owner as the "Deputy Treasurer, Amu" (*idnw n imy-r sḏꜣwt ꜥm[w]*) ("The Asiatic"). The main part of the town had Syrian-style house plans and often contained bodies
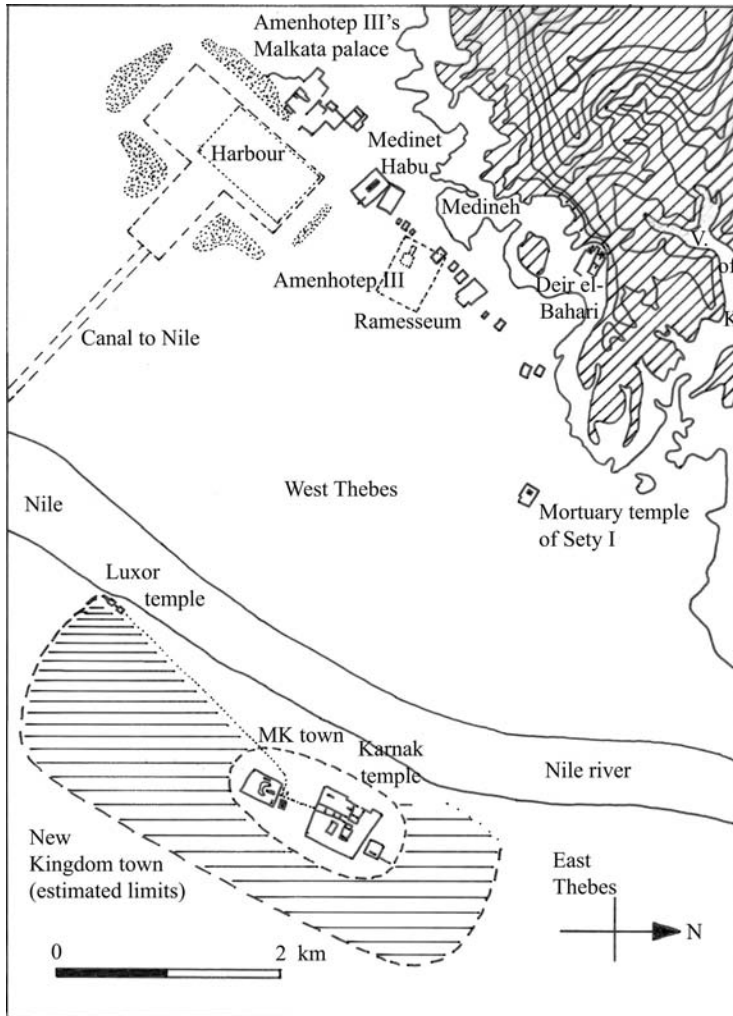
Figure 18.2 Middle Kingdom and New Kingdom Thebes (adapted from Kemp 2006: 266, fig. 97).

placed in mud-brick lined pits in one room. The physiologies of many male skeletons reflect north Palestinian populations, while female bodies resemble mainly Egyptian types (Bietak 1996: 36).

Memphis (Mennefer) regained its status as the national capital under Thutmose III until the middle of Ramesses II's reign, while Thebes remained a royal residence and the cult center for Amun-Re (Lacovara 1997; Strudwick and Strudwick 1999). Ancient Memphis encompassed Mit Rahina and Koms el-Rabia, el-Fakhry, and el-Qala (Jeffreys 1999: 490). Kom el-Fakhry had Eighteenth Dynasty housing and grain storage facilities, while some inscribed blocks of Amenhotep III and Akhenaten represent materials reused in Ramesside constructions. A massive Ramesside temple complex of Ptah yielded statues near each gateway along each side. An Apis Bull embalming installation is known from at least the Nineteenth Dynasty, if not earlier

under Amenhotep III. It was rebuilt several times into the Late Period and provided mummified sacred bulls for the Serapeum at Saqqara (M. Jones 1999: 492; D. Jones: 713). Memphis is also famed for its colossal statue of Ramesses II, who dedicated two small temples to Ptah and Hathor at Kom el-Rabia, beside a large housing area. Merenptah added a palace and temple complex at Kom el-Qala (O'Connor 1991b: 172). The New Kingdom port, Perunefer, may lie nearby to the south (or at Avaris?). In the Eighteenth Dynasty troops are described as assembling and being armed at this port prior to departing for campaigns in Syria-Palestine. The cemetery lay to the southwest at Saqqara, where high officials built tombs during the city's tenure as the administrative capital (Schneider 1999: 694).

In the late Eighteenth Dynasty Akhenaten built a new capital at el-Amarna, occupying it for only a dozen years with a population numbering from 30,000 to 50,000(?) persons (see table 18.1). This city, named Akhetaten, represents the most extensively excavated settlement in ancient Egypt. Although its partly pre-planned layout and five-year construction are abnormal (see Kemp 1977b), its diverse components reflect the requirements for most royal capitals: a state palace for official receptions, several residential palaces of different sizes and plans located within and outside the city (e.g., Great North Palace, North Palace); private, state, and temple storehouses (e.g., for grain, wine amphorae, and other materials); private and public wells; houses and estates of varying size and complexity; state temples (dedicated to the Aten), a small Aten temple (beside the king's small intramural residence), private household shrines and chapels, and communal shrines; police quarters, military barracks, stables, and administrative offices (including the records office); an industrial quarter with diverse workshops; docking facilities associated with the state palace and Great Aten Temple; a specialized workmen's village; desert platforms for receiving tribute; and public cemeteries, elite rock-cut tombs, and a royal tomb. The city's farmland lay on the West Bank, demarcated by boundary stelae.

The settlement was arranged along a north-south royal road connecting the Great North Palace with the central city, while an East-West axis and grid plan are evident through the Great Aten Temple, several palaces, and the Small Aten Temple. Otherwise, state buildings and elite houses and their enclosures were less symmetrically placed but generally retained the next level of priority in location. Akhenaten adopted small, regularly sized sandstone blocks (*talatat*) for his temples, implemented new decorative techniques and motifs, and made his temples open to the sun, including cut door lintels between pylons. This contrasted sharply with other periods in which most temples used larger blocks, roofing, and increasingly darker and more restricted chambers towards the inner sanctuaries. Traditional temples also replicated the Egyptian cosmos through such features as a raised sanctuary floor and altar (i.e., the mound of creation), decorated wall bases and columns (marsh vegetation and fertility), star-decorated ceilings (the heavens), and possibly the undulating mud-brick courses in the enclosure wall (speculated to represent the primordial waters).

The Amarna estates are characterized by houses set in spacious compounds with a well, grain silos, magazines, kitchens, animal pens, servant quarters, and a private shrine (in the wealthiest homes) (Kemp 2006: 327–9). The middle- and upper-class houses varied in size but were typically square, single-storied mud-brick structures. They had an entry porch, a high central pillared hall (lit by clerestory windows),

Table 18.1 Demographic estimates for Ancient Egypt

Date(s)	Settlement	Hectares	Population	Density
Early Dynastic to Old Kingdom:	Memphis	31	6,000 persons	193 per hectare
Dynasties 1–6	Hierakonpolis	5	1,000 persons	200 per hectare
c.3000–2125 BC	Elkab	9	–	–
	Kom el-Hisn	6 +	–	–
	Elephantine	1.6	–	–
	Abydos	1 +	–	–
Middle Kingdom:	Lahun	12 (–14?)	3000? Persons	250 per hectare
Dynasties 11–13	Elephantine	3.5	–	–
c.2055–1650 BC				
New Kingdom:	Piramesse	350 + (1,000?)	100,000 persons	286 (100?) / hectare
Dynasties 18–20	Tanis	105	31,000 persons	295 per hectare
c.1550–1069 BC	Luxor	280	85,000 persons	305 per hectare
	Memphis	79	–	–
	el-Amarna	380 + (1,200?)	30,000– 50,000?	79–131 (25–42)/ha.
	Hermopolis	100	–	–
	Tell el-Yahu-diya	13.7	–	–
Late Period to Ptolemaic–Roman:	Largest towns	85–170	25,000– 50,000	294 per hectare
1069 BC–AD 400	Medium towns	25–65	7,500–25,000	300–385 / hectare
	Small towns	8–15	2,500–5,000	312–333 / hectare
Ptolemaic-Roman:	Alexandria	749.4 hectares	300,000 persons	400 per hectare

Source: Butzer 1976: 74–5; Uphill 1988: 66

sometimes one or two broad halls (loggia), and side apartments or clusters of rooms that might include a square hallway, a main bedroom, smaller rooms, a bathroom, and a stairway. The North Suburb reflects mostly housing for the wealthiest officials and their retainers. The housing for lesser officials and dependents was placed in a more organic fashion around and beside the estates of wealthier individuals, especially in the South Suburb.

Around 1250 BC, Ramesses II established a new royal residence and administrative capital at Piramesse (Qantir), in the northeast delta, where occupation is known from the Eighteenth Dynasty to the end of the Third Intermediate Period (Pusch and Herold 1999: 647–9). It supplanted Memphis but did not reduce Thebes' prominent socio-political, economic, and cultic roles in Egypt. *Papyri Anastasi II–III* provide praise for this city, mentioning its beauty (comparing it to Thebes), its temples, palaces, granaries, and harbor, its commerce, and its orchards, gardens, fields, meadows, ponds, lakes, and their produce (Wilson 1969: 470–1). Excavations have uncovered massive complexes for bronze working, chariot workshops, and stables. The bronze foundries contained multiple blast-pipe channels, several cross-furnaces, and crucibles. The multi-functional workshops included moulds for producing metal

strips for the rims on Hittite-style shields, suggesting the presence of Hittite technicians and soldiers(?). In addition, numerous Mycenaean potsherds and a boar's tusk helmet demonstrate contact with, if not a Mycenaean presence at, Qantir. The chariot complex had a pillared exercise court for horses and an adjacent large stable for at least 460 horses, while inscriptions refer to a chariot garrison here. The stable produced debris from the shrine of a Syrian deity, Astarte, a goddess of love and war. The northern part of the site contained the remains of a temple, while Tell ed-Daba to the immediate south has evidence for a Ramesside temple to Seth (equated with Baal). These archaeological findings confirm Papyrus Anastasi II, which mentions cults of Astarte and Seth, identifies a northern temple of Wadjet, and notes a temple of Amun to the west.

In the Twenty-first Dynasty Egypt was subdivided into a southern cultic center at Thebes and a northern capital at Tanis (north-east delta) and became politically fractured into more northern kingdoms at Tanis, Leontopolis, Sais, and elsewhere in the Twenty-second to Twenty-fourth Dynasties. The port-city of Tanis contained a temple complex dedicated to Amun, Mut, and Khonsu, forming a northern counterpart to the Theban triad at Karnak (Poole 1999: 755–7). Another temple lies further to the south. It is often attributed to Anat but is more accurately identified with Mut and Khonsu. The rulers of Tanis adorned these temples, using many blocks, fittings, and monuments extracted from Ramesside and earlier constructions. Royal burials were now placed in the main temple enclosure and consisted of subterranean limestone and granite-lined burial chambers overlain by chapels with offering slabs.

The Kushite kings, who resided and ruled from Napata in Upper Nubia, were soon replaced by rulers from Sais in the western Delta. However, Memphis reverted to its former administrative role for most of the Late Period (Twenty-sixth to Thirty-first Dynasties) (Jeffreys 1999: 488–90; Jones 1999: 491–3). A fortified Saite palace surmounted a 20 m high mound at Memphis, with colossal columns bearing the cartouches of King Apries. The city held a garrison, several temples, an Apis Bull embalming installation, workshops, housing for diverse ethnic groups (e.g., Egyptians, Phoenicians, Persians, Greeks), water channels, docks, and an outer fortification.

4   Provincial Capitals

Egypt's nome capitals changed location and differed broadly in their size and wealth in comparison to the various national capitals throughout the Pharaonic period (Butzer 1976: 57–80; Baines and Malek 2000: 14–15). These urban centers often contained one or more major cult complex. An early palatial structure appears at Hierakonpolis during the Early Dynastic Period (Kemp 2006: 82; Weeks 1972: 29–33). It contained a large buttressed and niched gateway and façade, reflecting contemporary domestic and mortuary architecture. For instance, the mastaba of Hesyre at North Saqqara bore a detailed painting of a timber frame and matting imitating contemporary housing. A First Dynasty model of an estate from the Saqqara necropolis suggests that wealthy landowners had magazines, grain silos, and courtyards

associated with their estates. An Early Dynastic structure at Buto measured at least 35 by 40 m and bore multi-colored, geometric decoration on its niched walls (Kemp 2006: 87; von der Way 1999: 183).

During the late Old Kingdom and subsequent periods nomarchs moved their residence from Memphis to the provinces. The nome capitals often contain a palatial residence and associated family cemetery. For instance, Old Kingdom provincial capitals, such as Edfu and Elephantine, display an outer enclosure wall, interior winding streets, workshops, domestic quarters, a governor's residence, and shrines and temples (Hendrickx 1999b: 284; Kaiser 1999: 283–9). Other administrative districts also existed outside the Nile Valley, including Ain Asil in Dakhla Oasis (Giddy 1987). This fortified town yielded a governor's palace, intramural mortuary chapels for the governors, and an extramural cemetery to the west (Soukiassian 1997: 15–17).

The immense size and richness of some early Middle Kingdom nomarch tombs, such as at Elephantine, Beni Hasan, and Qau, imply a corresponding lavish residence in the adjacent provincial capital (Seidlmayer 1999: 153). The graves and tombs for their retainers and lesser officials often lie nearby. At Elephantine, in addition to a temple to Satet, the town also contained a shrine dedicated to a former nomarch Heqaib (Kaiser 1999: 285). In the Twelfth Dynasty Bubastis had a massive palace complex measuring at least 100 by 125 m. It contained a wide enclosure wall, multiple pillared halls, colonnaded courtyards, offices, storerooms, domestic quarters, and statues for at least three mayors, possibly reflecting a domestic ancestor cult (also attested in residential contexts at Ain Asil, Askut, and Deir el-Medina) (Kemp 2006: 340–1). The mayors of Bubastis had an adjacent, walled burial complex containing multiple chambers for family interments.

Avaris yielded a similar Thirteenth Dynasty palace with several buildings, colonnaded courtyards, pillared reception halls, offices, storerooms, workrooms, and dwelling quarters (Bietak 1996). A walled garden with trellises for grape vines lay behind the palace, while an adjacent enclosure contained several mud-brick chapels above burial chambers. These interments exhibited Asiatic influence in both their mortuary customs (flexed bodies, donkey burials) and funerary products (Asiatic weaponry and jewelery). At both Bubastis and Avaris the family interments lay within the city, above the surrounding Delta flood plain and water table. In contrast, Nile Valley provincial capitals, such as Hermopolis (with a cemetery at Deir el-Bersha) and Elephantine, normally had extramural and individual tombs for the governors and their families (Seidlmayer 1999: 155; Spencer 1993a; Willems 1999: 246–7).

Despite the long-term reduction of the nomarchs' power and associated trappings in the mid Twelfth Dynasty, New Kingdom provinces received much royal patronage and construction. For example, New Kingdom rulers augmented existing temples and added new structures at Elephantine: the Temples of Khnum and Satet (Hatshepsut and Thutmose III), a way-station for Khnum (Amenhotep III), and an extramural shrine (Ramesses II) (Kaiser 1999: 285). The prominence of cultic installations at Elephantine is underscored by their expansion into almost one third of the area of the walled city (Kaiser 1999: 285–7). In contrast, the former prestigious tombs of provincial governors are now conspicuous by their virtual absence (Eigner 1999: 433; Seidlmayer 1999: 155).
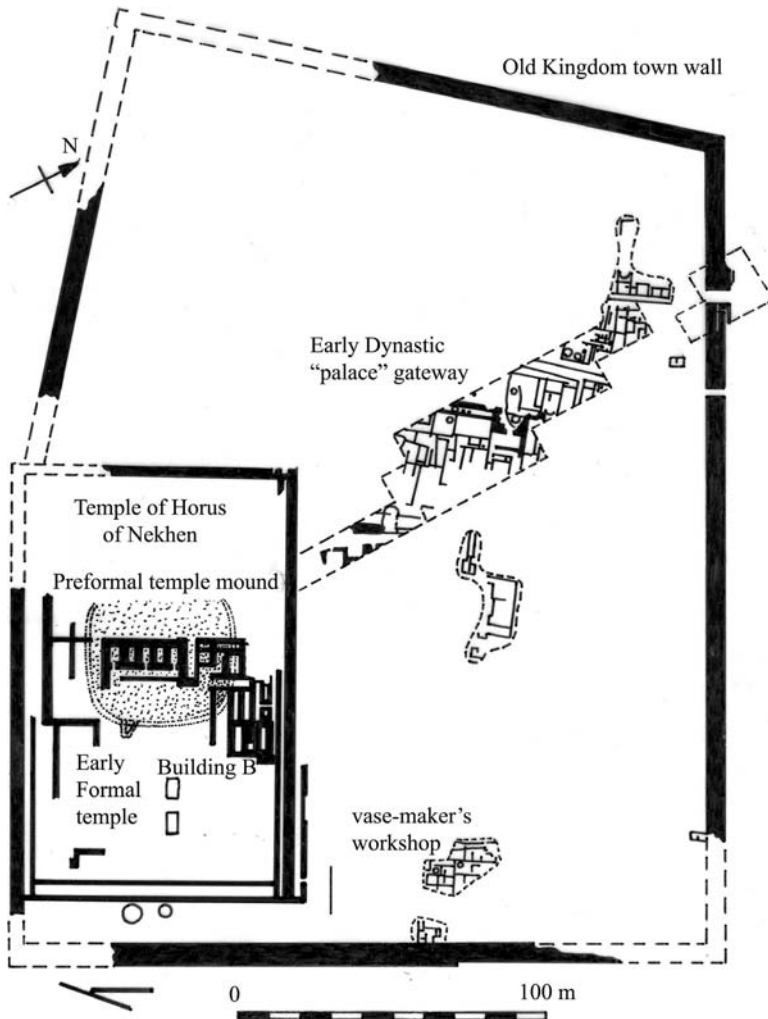
Figure 18.3 Early Dynastic-Old Kingdom settlement at Hierakonpolis (adapted from Kemp 2006: 196, fig. 68).

Some significant Third Intermediate Period centers contain ornate tomb chapels and burials. Medinet Habu has yielded a few elaborate tomb chapels and burial chambers for the "God's Wives of Amun" (*ḥmt-nṯr n 'Imn*) (Murnane 1999: 484). Otherwise, the extant provincial centers exhibit the expected inclusion of private housing of varying sizes and wealth, workshops, communal and state installations, shrines, and temple complexes (e.g., Bubastis).

During the Late Period, provincial centers display much diversity and prosperity. Mendes, a city sacred to the ram god Banebdjed, contains a series of massive temple enclosures, a ram hypogeum, an elaborate shrine dedicated to Shu, Geb, Osiris, and Re, shrines built by Nectanebo I–II, private and royal burials (e.g., Nepherites), and other structures (Hansen 1999: 497; Redford and Redford 2005: 170–94). Exploration outside the temple precincts at Mendes suggests the residential area lay to the

east and south, with a harbor to the east (Redford 2005: 8). In addition, geophysical surveys have been used at Buto and Tell el-Balamun to reveal much of the Saite settlement (Herbich and Hartung 2004: 16; Herbich and Spencer 2006: 17).

5   Provincial Settlements

Some satellite towns became nome capitals at different points in the Pharaonic period, while other sites are less firmly identified with historic nomes. In general, during the late Old Kingdom and early Middle Kingdom the main differences between towns and provincial capitals appear to be the scale and nature of the administrative infrastructure and the absence of a governor's palace and family cemetery (see above). In addition, the presence, size, and wealth of cultic complexes vary between individual towns, with some satellite communities containing important cult centers and receiving royal and private patronage.

A significant Old Kingdom (and later) town appears at Kom el-Hisn, near the capital of the Third Nome of Lower Egypt (Grajetzki 2006: 129; Wenke 1999a: 416–18). It contained a large agricultural settlement in which the excavated mud-brick houses tend to be small and fairly similar in design and contents, and have yielded farming tools (sickle blades), cooking hearths, and other forms of domestic activity. Osteological debris and dung temper in bricks reveal evidence for an unusually heavy emphasis on cattle herding at this site. Wenke (1999: 416) suggests it may be associated with the "Estate of the Cattle" (*ḥwt-iḥwt*), which Egyptian texts ascribed to the Third Nome. The presence and nature of various clay sealings have suggested a state-sponsored community run by a few low-level administrators, while limited social stratification is implied by the relatively poor housing and a few contemporary intramural graves and tombs. The discovery of a stone tomb, built for Khesuwer in the First Intermediate Period, suggests that the town's leadership managed to acquire some wealth.

During the Middle Kingdom, despite the emergence of many state-founded orthogonal-type settlements, there is evidence for continuity in organic settlements at both provincial centers and satellite communities: e.g., Abu Ghalib, Tell ed-Daba, Elephantine, and Lisht (Grajetzki 2006: 123–4). Excavations at Abu Ghalib in the southwest Delta reveal a few medium to large houses separated by streets (Badawy 1966: 29–30). The houses display thick outer walls, a courtyard, an oven, multiple rooms of various sizes, hallways, and a stairway to an upper storey.

Tell el-Maskhuta furnishes a good example of a Second Intermediate Period village at the eastern end of the Wadi Tumilat (Holladay 1982). The community measures about 2–3 ha in area, lacks an enclosure wall, and appears to have been occupied seasonally from the autumn to spring (Holladay 1999a: 787). It contained small mud-brick houses, workshops for pottery, metal, textiles, and leather, sickle blades for cultivation, silos for wheat and barley, pens for pigs, sheep, goats, and cattle, and evidence for hunting hartebeests, gazelles, and birds. The village may represent a satellite community for larger settlements near Tell er-Retaba and probably facilitated overland trade across North Sinai. The intramural and external graves and tombs

yielded evidence for Asiatic contact and influence, including donkey burials and foreign weapons. The interments also displayed diversity in prosperity and social stratification via minimal-to-rich funerary goods, including jewelery, implements, and provisions (Holladay 1999a–b: 787, 878).

Many New Kingdom provincial towns are known, including Ezbet Hilme, which has produced extensive traces of housing and a large palace complex (Bietak 2005: 14). Another New Kingdom settlement lies at Medinet Gurob (Merwer, "Great Channel"), near the entrance to the Fayum, and is enclosed by a wall measuring 250 m north-south by 220 m east-west (Gorzo 1999: 359–61). Although the establishment of a royal harem is equated with its foundation, Gurob has also been interpreted as a workmen's community. Three large mud-brick cultic complexes and a much smaller enclosure dominate almost 45 percent of the settlement. The central complex houses a mud-brick and limestone structure, built by Thutmose III, and is interpreted variously as a temple to Sobek or a large harim palace. Ramesside rulers apparently built a small mud-brick western shrine dedicated to Thutmose III and a southern and northern temple complex. Inscribed materials suggest the latter two structures are the "Mansion of Ramesse-miamun" and the "House of Uesermaatre, Beloved of Amun, East of Waset in Merwer" (Thomas 1981: 7). Kemp interprets these buildings as magazines and other facilities for the palace. The remainder of the settlement contains domestic structures. Archaeological and inscriptional sources indicate that the population consisted mainly of Egyptians, but also included foreign residents, especially harim employees in the Nineteenth and Twentieth Dynasties.

The environs of Gurob produced outlying installations and cemeteries. A square enclosure lay 40 m to the northeast, contained kilns and glass furnaces, and was apparently founded in the early Eighteenth Dynasty (Gorzo 1999: 360–1). A small New Kingdom village lay to the south, while some Ramesside housing was found 500 m to the north, intruding into a late Eighteenth to early Nineteenth Dynasty cemetery. Social segregation is evident in three cemeteries: the main cemetery to the northeast, which yielded infant burials and simple graves for lower to middle class persons; the southern tombs of higher ranking officials and professionals; and the burials of high ranking officials and elite persons in 500 shaft tombs to the west, including a royal family member (Piramessu). In addition, an animal cemetery occurs 600 m to the south, yielding clusters of oxen and goats and individual burials of fish (mostly Nile perch).

Although fewer excavations have exposed significant portions of provincial towns and villages dating to the Third Intermediate Period (Anthes 1959; 1965), sufficient information can be extrapolated from other periods and limited exposures at contemporary settlements. For instance, Brissaud (2000: 10) has used aerial photography to differentiate the subsurface structures from the Third Intermediate Period and later settlement at Tanis. In contrast, more Late Period sites and strata are available for study, including Tell Tebilla and Tell el-Nebesha. Tebilla's temple complex lay to the northwest, while the remaining mound (400 by 400 m) contains numerous Saite mastaba tombs and graves (Mumford 2004); Tell el-Nebesha's town has been more broadly excavated, extending at least 200 by 300 m with its cemetery to the east. The northwest quadrant also contained a large temple enclosure, while the adjacent town has square and rectilinear houses of varying sizes arranged across an irregular network

of narrow to wider alleys and streets. The foundations from these houses resemble Ptolemaic-Roman models of tall and narrow town houses (Kemp 2006: 354). Although this settlement is not fully excavated, it appears to lack an outer wall.

6   Specialized Communities

Egypt's diverse state projects required the conscription and housing of numerous laborers and craftsmen. Such projects included royal and elite tombs, temples, palaces, administrative buildings, forts, redistributive storage facilities, irrigation basins, dykes, dams, wells, mines, and quarries. Old Kingdom Giza has produced traces from state projects (Hawass 1999b: 354–6). A southern workshop complex to the south of the pyramid field enclosure wall has a granary, bakeries, breweries, and seal impressions referring to the "*wabet* of Menkaure." This implies an association with Menkaure's mortuary workshop, magazine, or overall administrative office. A workshop lay 73 m north of Menkaure's pyramid causeway and contained 15 buildings, courtyards, basins, hearths, and kilns used in the production of calcite, copper, pottery, and other items. The South Mastaba Field produced occupation debris, including ash, bones, potsherds, lithics, stone vessel pieces, and mud sealings of Khufu and Khafre, implying that an artisan's workshop and settlement lay nearby. Traces of a 3 km long mud-brick settlement lay to the east of the Giza plateau. It may have housed 30,000 persons and produced ash dumps, animal bones (cattle, sheep, pigs), and potsherds from domestic and finer vessels. The workmen's cemetery to the south of Menkaure's pyramid dates to the Fourth and Fifth Dynasties and had separate burials for workmen, artisans, and overseers. The main portion of the cemetery held at least 300 tombs that ranged from simple to more elaborate miniature copies of the adjacent elite mastaba tombs. Hawass (1999b: 355) reports such titles as an "Overseer of Tomb Builders," "Building Director," and "Priestess of Hathor" (presumably *imy-r ir[w] iz*; *ḫrp ḳd[w]*; *ḥmt nṯr ḥwt-ḥr*). Better quality and larger limestone tombs lay further west: one had a serdab chamber with four statues.

The Middle Kingdom is especially well-known for its orthogonally planned communities. The settlement at Kasr es-Sagha had a 75 by 110 m walled community for at least 150 to possibly 450 or more workmen who quarried basalt from Gebel Katrini in the northwest Fayum (Kemp 2006: 230). The site originally lay beside Lake Qarun and had a cemetery to the southwest, a temple to the northeast, and a basalt quarry to the northwest. It is interpreted as having 30 discrete units arranged into six rows of five units. Each unit measured 14 by 15 m and contained a broad living room and five narrow backrooms. A similar concept was incorporated into the walled workmen's community at Tell ed-Daba. The excavated portion revealed a minimum area of 130 by 135 m enclosing 362 small houses (5 by 5 m) placed in long rows (Bietak 1999: 779). The ground plans suggest a living room, kitchen, bedroom, and bathroom in contrast to the less domestic and barrack-style units at the transitory workmen's community at Kasr es-Sagha.

The walled town of Lahun (Hetep-Senwosret: "Senwosret is satisfied") lay beside the valley temple for Senwosret II's pyramid (David 1986; 1999: 430; Frey and
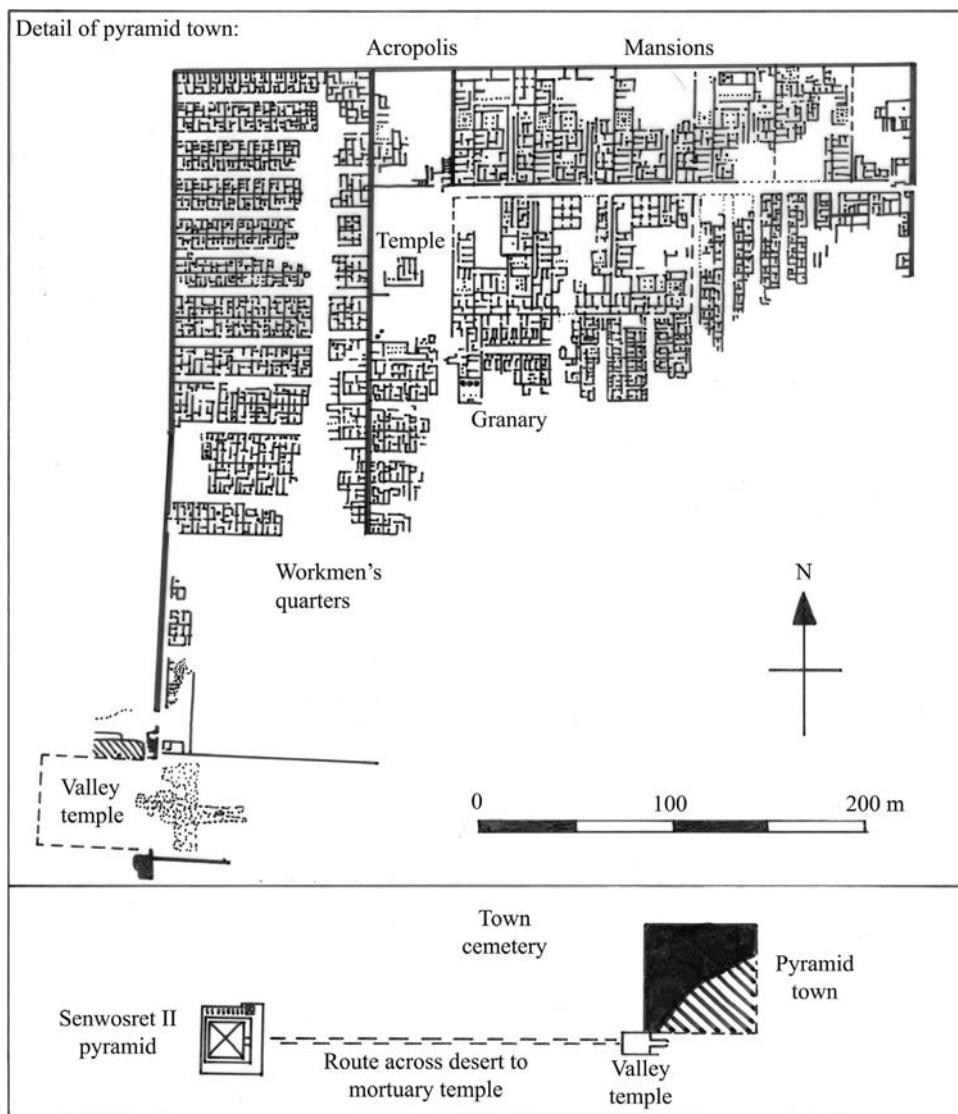
Figure 18.4 Middle Kingdom pyramid town of Senwosret II at Lahun/Kahun (adapted from Kemp 2006: 212, fig. 76).

Knudstad 2007: 23–65). It extended 335 m north-south, 384 m east-west, and had a western and eastern district segregating the poorer and more affluent members of a community that may have numbered 3000 persons (Bard 2008: 188). The western section yielded over 200 houses. Most structures measured around 10 by 10 m with a similar floor plan: four to five rooms with a living room, kitchen, bathroom, bedroom, and sometimes a stairway. A few buildings were a little larger with divergent designs. The eastern section had the most variance. Its northwest corner held a large court with a small temple, and a raised platform (''acropolis'') for a briefly occupied dwelling (Quirke 2005). This structure may have functioned as a residence for

Senwosret II or a mayor. Eight large residential and administrative complexes lay to the east, flanking a street that led to an eastern gateway. Each mansion measured about 42 by 60 m and contained the owner's quarters (a large courtyard and portico, public and private reception rooms, smaller courtyards and porticos, bedrooms, bathrooms), a smaller guest(?) suite, high-status offices, lower-status offices, granaries, workshops (e.g., weaving, baking, brewing), and parallel private and service corridors leading to the main courtyard. The remainder of the eastern section contained smaller houses and workshops, while some streets had drainage channels.

Archaeological and textual evidence reveal that Lahun initially housed workmen and overseers, employed to build Senwosret II's mortuary complex (David 1999: 431–2). However, this town continued for at least 100 years into the Thirteenth Dynasty, supporting farmers, fishermen, craftsmen, tradesmen, doctors, scribes, priests, and high officials. Imported and locally imitated Minoan pottery (e.g., Kamares ware), suggest contact with Crete, while various artefacts and texts note Asiatics also resided at Lahun as citizens, servants, and personnel in households, the temple, and the military: e.g., an "Officer in charge of Asiatic Troops" (*imy-r mšꜥ ꜥꜣmw*) and a "Scribe of Asiatics" (*sš n ꜥꜣmw*). Much of Lahun, its houses, and possessions appear to have been abandoned suddenly in the Thirteenth Dynasty, whether through political expediency (perhaps the removal of the Egyptian court to Thebes), plague, or some other reason. Minimal re-occupation occurred in the Eighteenth Dynasty.

During the New Kingdom, the best-known workmen's settlements appear at Deir el-Medina and el-Amarna, functioning as dependant desert communities for Thebes and Akhetaten respectively (Bierbrier 1982; Bomann 1991; Lesko 1994). The workmen were favored specialists employed to cut and decorate the royal tomb. Although Amenhotep I represents the deified patron of Deir el-Medina, his successor's name, Thutmose I, appears on stamped mud-bricks composing its first enclosure wall. This settlement contained 22 to 24 houses flanking a north-south street. In order to augment work productivity, Thutmose III enlarged the village by 12 houses along its western side, while Ramesses IV briefly doubled the settlement to the south. Under Ramesses XI work ceased in the Valley of the Kings, and the villagers were relocated to the fortified settlement at Medinet Habu (Yurco 1999: 247–9).

At Medina, most houses contained four to five rooms: an outer hall with a birthing box; a pillared living room with a hearth, a dais, a niche for an ancestor bust, and a trapdoor leading to a subterranean storage cellar; a bedroom; a pantry with a stairway to the rooftop; and a courtyard kitchen with a clay oven and sometimes a second rock-cut cellar (Meskell 2002). The relatively wealthier houses lay near the village gateway, accommodating a carpenter, a scribe, a doctor, and the foremen of the western and eastern sides of the tomb. A well lay outside the northern wall, as did several chapels dedicated to various deities, such as the snake goddess Meretseger and Amenhotep I. The village's rock-cut tombs and funerary chapels concentrated mainly along the western hill slope. The workmen had rough shelters closer to the Valley of the Kings, forming a possible secondary dwelling during their work week. The state provided work tools and monthly salaries of linen clothing, firewood, beer, grain, vegetables, fish, meat, and less frequently wine and cakes.

During the reigns of Akhenaten and Smenkhkare, the royal workmen's village was transferred briefly to Amarna, where it lay outside the main city near the wadi leading
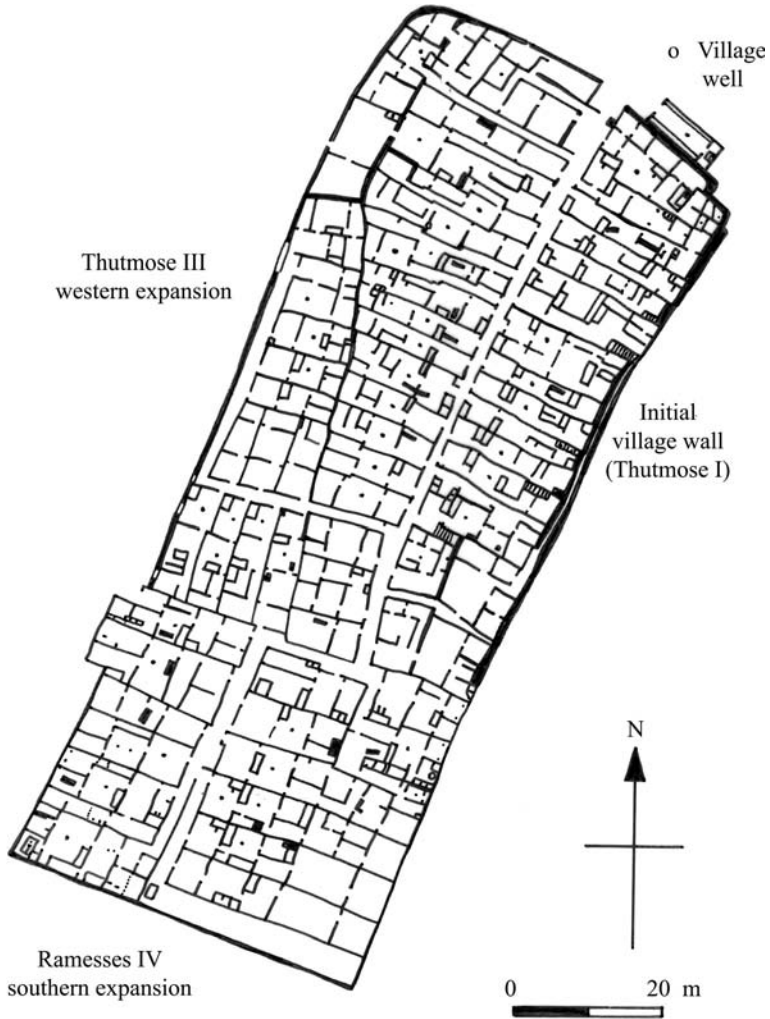
Figure 18.5 New Kingdom workmen's village at Deir el-Medina (adapted from Meskell 2002: 42, fig. 2.8).

to the royal tomb. This village measured 70 by 70 m and contained 73 houses arranged in six separate rows, maximizing individual privacy and probably housing over 300 persons. Like Medina each house had an outer hall, living room, bedroom, stairway, and kitchen, but lacked a pantry, subterranean cellars, and a well; the village required daily deliveries of water jars. The villagers apparently gained further income by raising pigs and supplying pork to the city. Several chapels lay near this village, having exterior animal pens, a garden, cooking areas, a forecourt, an outer hall with benches, an inner hall, steps leading to a terrace, and a tripartite shrine.

Although short-term specialized workmen's communities were undoubtedly required to facilitate the construction of new state and temple projects during the Third Intermediate and Late periods less archaeological evidence exists from this time (see Aston, Harrell and Shaw 2000: 12–15).

7 Mortuary Cults

Royal mortuary cults underwent many changes throughout the Pharaonic period (see Haeny 1997: 86–9), beginning with a temple complex and priests maintaining separate *ka* ("spirit") chapels, funerary enclosures, and tombs at Early Dynastic Abydos. This progressed to a complex containing a valley temple, causeway, mortuary temple, *ka* pyramid, and pyramid tomb in the Old and Middle Kingdoms. Many pyramids incorporated a priestly settlement, adding land endowments in order to maintain and safeguard the cult and burial. Such cults usually functioned as a satellite for a nearby larger settlement. They sometimes resemble workmen's camps, or incorporated aspects of these and regular urban communities (e.g., Lahun). Non-royal funerary cult maintenance relied variously upon family piety, private arrangements, or reversions of offerings for the elite and retainer burials associated with royal tombs.

The Old Kingdom has yielded several mortuary cult settlements. Snefru's pyramid town beside his limestone valley temple at Dahshur measured 45 by 48 m and yielded 15 mud-brick houses, a few other structures, some grain silos, and courtyards (Kemp 2006: 210). Menkaure's pyramid town at Giza slowly evolved and expanded outside his valley temple between the Fourth and Sixth Dynasties, modifying the temple interior and environs by adding a village wall, gateway, mud-brick housing, courtyards, grain silos, and a new shrine for Menkaure (Kemp 2006: 208). The L-shaped priestly complex for Queen Khentkawes at Giza had a row of 10 houses along the northern side of the causeway (Kemp 2006: 206). The southern annexe contained additional houses, magazines, grain silos, and courtyards, and had an isolated east-west route leading from a rock-cut cistern to the mortuary temple. A parallel east-west passage gave access to the northern houses and also led to an underpass that linked the northern and southern sides of the settlement, avoiding priestly traffic to the mortuary temple.

Neferirkare's incomplete mortuary complex and pyramid temple at Abusir were finished in mud-brick and received nine to ten houses along the southern and eastern sides (Kemp 2006: 203–4). The priests later placed mud-brick walls around the colonnade and in chambers to strengthen the collapsing wooden columns and roofing. The archives reveal that a "Director of the Town," or a higher ranking priest, supervised a rotating monthly priestly staff, which may have had permanent homes elsewhere. Royal solar cult temples also had their own priestly communities: Niuserre's solar temple at Abu Ghurob had a small settlement beside its valley temple, presumably functioning as a pyramid town in conjunction with this ruler's pyramid complex and adjacent private mastabas.

The surviving Middle Kingdom royal cult settlements resemble the orthogonal plan found in workmen's communities, garrisons, and some urban centers. The multifunctional pyramid town of Senwosret II has already been discussed (see above). The much smaller pyramid town of Amenemhet III at Dahshur had a 33 by 137 m wall enclosing a row of houses and a possible temple to the north of the causeway (Kemp 2006: 222–3). The foundations of a 50 by 100 m structure lie to the south of the causeway and may form a workmen's community or an administrative complex. Senwosret III built a cenotaph tomb, mortuary temple, valley temple,

and associated settlement (Wahsut) at Abydos, about 4 km to the south of the main town (Wegner 1999a: 107). This installation presumably fostered links between the Osiris cult at Abydos and the royal mortuary cults at both Abydos and Dahshur. Wahsut contained a 53 by 82 m walled estate for its mayor, and an eastern row of smaller estates arranged in sets of four in several 52 by 52 m blocks (Wegner 2000: 8). The mayor's house contained a garden with trees, a granary complex, magazines, courtyard, portico, and domestic quarters.

New Kingdom royal mortuary complexes, designated as "Mansions of Millions of Years," often incorporated a main temple dedicated to the king, Amun, Osiris, and other deities (e.g., Ptah-Sokar-Osiris), a small royal residence to the south of the forecourt, several houses behind this residence, rectilinear storerooms, workrooms, courtyards, one or more wells, and an enclosure wall (Badawy 1968: 36, 73, 138, 340; Haring 1997; Smith and Simpson 1998: figs. 354, 357). Some priestly titles detail their service to either the king's cult or a deity (Haeny 1997: 101–2). The fortified community at Medinet Habu had an outer area around the inner buttressed enclosure, yielding a northern and southern administrative building, an adjacent parallel row of barracks for the garrison, courtyards, and other structures (Murnane 1980: 1). Royal cult temples and their associated facilities and staff are now separate from their tombs in the Valley of the Kings and often included more distant installations, such as Amenhotep III's second "Mansion of Millions of Years" at Soleb in Nubia (Haeny 1997: 104–5).

During the turbulent and politically fragmented Third Intermediate Period and the Late Period royal burials were placed inside temple complexes: e.g., Tanis, Mendes, and Sais. This move likely reflected both economic realities and security issues. It removed the expense of building a new mortuary complex and entrusted their physical and spiritual maintenance to established temples and their deities. Likewise, the elite burials and tomb chapels of the Theban "God's Wives of Amun" are placed in the fortified settlement at Medinet Habu. In contrast, the Theban mayors and high priests, who essentially functioned as rulers of Upper Egypt, built more isolated elaborate mortuary complexes in the Assassif (Kampp-Seyfried 1999c: 803; Eigner 1999: 433–6).

8   Provincial Hinterland and Desert Resources

The state, temples, and populace had varying and fluctuating access to farmland, marshes, waterways, and desert resources throughout the Pharaonic period (Goelet 1999: 65–103). Small settlements and transitory camps facilitated access to these resources, which included cropland, grazing land, orchards, gardens, fishing, fowling, wild game, mines, quarries, and trade routes (Butzer 1976). During the Old Kingdom, the Palermo Stone records King Snefru creating 35 estates and 122 farms in undeveloped land throughout the Nile Valley and south-east Delta (Kemp 2006: 166–7). Their produce maintained his mortuary cult at Dahshur. Exemption decrees and other texts reveal that various mortuary cults made similar arrangements, obtaining clothing, grain, bread, beer, and livestock for state and cultic installations and

settlements in the Memphite region and elsewhere. Such land holdings range from 2–110 *arouras* (16.4 to 905 ha). Elite tomb chapels (e.g., Ptahhotep, Ti, Mereruka) portray diverse scenes of daily life from similar estates. During the late Old Kingdom many high officials shifted their residence from Memphis to the provinces, redirecting more wealth and independence outside the capital. This pattern intensifies during the First Intermediate Period.

The Middle Kingdom experienced a significant drop in water levels, perhaps encouraging Senwosret II–III and Amenemhet III–IV to expand irrigation, farming, settlements, and shrines around Lake Qarun in the Fayum: e.g., Qasr es-Saghr, Medinet el-Maadi, Biahmu, and Kiman Faras. Senwosret II cut a canal from the Bahr Yusuf to Lake Qarun, added water catchment basins, and placed a dyke at el-Lahun. Amenemhet III introduced further basins and dykes, obtaining more arable land near Medinet el-Fayum (Leprohon 1999: 51–2).

The Middle Kingdom tomb of Khnumhotep at Beni Hasan reveals that Egypt controlled and received payment (e.g., malachite) for Bedouin access to pastureland in the Nile Valley. These migrants probably sheltered in small seasonal encampments along the desert edge and may have traded livestock, wool, meat, milk, and other items. Similar arrangements were made between the Theban and Hyksos kingdoms during the Second Intermediate Period. The Kamose Stela mentions Theban cattle in grazing land in the delta fens, whilst grain fodder is shipped south to feed pigs. Hence, Egypt had a complex system of exploiting and redistributing resources and products within and between settlements, their agricultural hinterlands, and adjacent regions.

The level of interaction between settlements and their hinterland becomes more complex during the New Kingdom when the state and temple cults owned much land throughout Egypt, Nubia, and Canaan. In the reign of Ramesses III, the *Great Harris Papyrus* testifies that the cults of Amun of Thebes, Ptah of Memphis, and Re of Heliopolis owned estates in the Levant and Nubia: the cult of Amun received annual payments of 19 cattle, 53 *mskh*-measures of oil, 1757 *mn*-measures of oil, 542 *mn*-measures of oil, six cedar slabs, a cedar mast, and 336 cedar logs from its Syrian estates. In contrast, the cult of Ptah obtained 40 hekets of grain and eight beams of cedar from Syria, while the cult of Re got only five hekets of grain (2/3 bushel).

Following the geo-political fragmentation of the Third Intermediate Period, the Late Period witnessed growing numbers of foreign mercenaries (e.g., Greeks, Judaeans) and shifts in land ownership and wealth. The nobility gained greater independence, while the priesthood and military are attributed with owning the bulk of Egypt's cultivable land and its revenues. Pious donations of land to temples occurred more frequently in which the donors obtained tax concessions and retained revenues for their mortuary cults (Lloyd 1983: 279–348).

9   Frontier Forts

Pharaonic Egypt's frontiers and fortifications have fluctuated over time. At the advent of the First Dynasty, Egypt's southern border at Aswan was protected by a 50 by 50 m mud-brick fort. It functioned briefly as a citadel for its surrounding town,
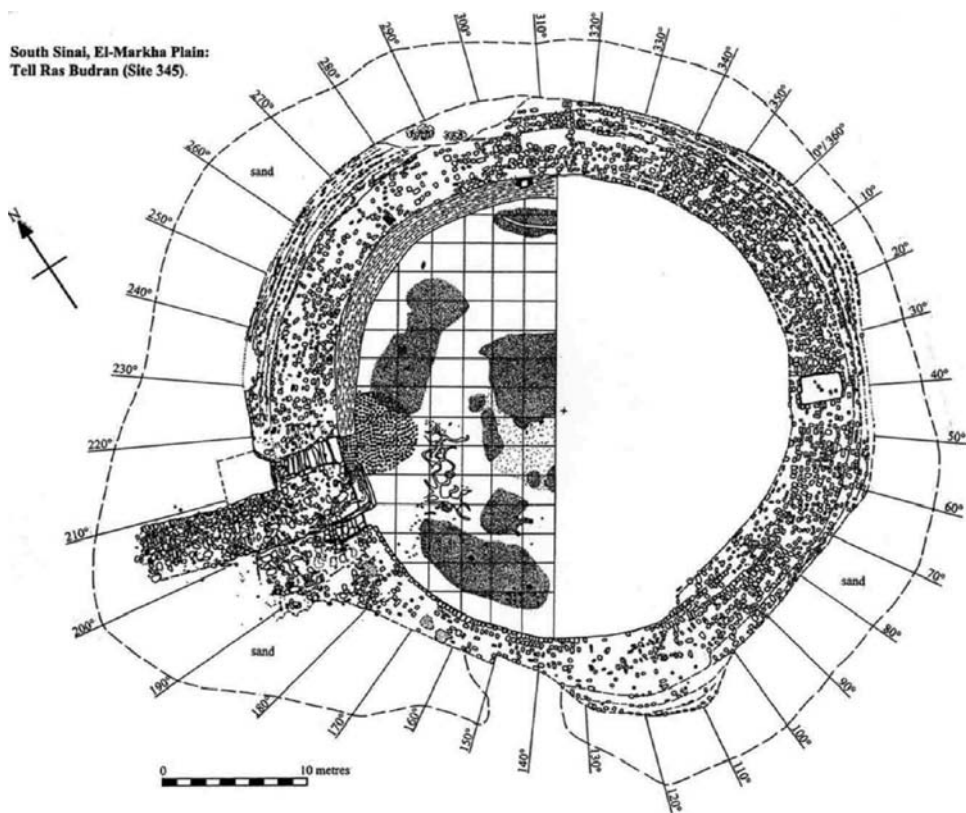
Figure 18.6 Late Old Kingdom fort at Ras Budran in Markha Plain on the West Sinai coast. Courtesy Greg Mumford.

originally lying on the eastern of two large rock islands at the First Cataract (Kaiser 1998); the western island contained a state structure and a cemetery (von Pilgrim 1997: 17). In the Old Kingdom titles mention overseers of fortresses, but few forts are known from this period. The Pyramid Texts allude to strongholds in Middle Egypt and along the eastern edge of the Delta at Kemwer near the Bitter Lakes and a Gate to repel the Fenkhu (probably in the north-east Delta). In the late Old Kingdom, a 150 by 200 m fortified settlement is founded at Ain Asil in Dakhla Oasis, securing this region and its resources (Giddy 1987), while a circular stone fort (44 m in diameter) appears on the West Sinai coast, guarding an anchorage for expeditions to the turquoise and copper mines at Wadis Maghara and Kharig (Mumford 2006). The forts at Aswan and Dakhla are characterized by rounded buttresses. The First Intermediate Period's political fragmentation witnessed a reduction of frontiers and fortified towns to a regional and provincial level.

The Middle Kingdom displays advances in fortress construction and design. Tombs at Thebes and Beni Hasan portrayed forts with crenellated battlements, projecting turrets, and exterior walls with a sloping glacis – a feature designed to deter battering rams. An intricate system of Egyptian forts and fortified settlements extended throughout Lower Nubia, often in pairs on either side of the Nile (e.g., Quban and

Ikkur), and frequently near the mouth of wadi systems leading to stone quarries and gold mines (Williams 1999: 574–8). The Second Cataract contained an elaborate and interrelated system of forts securing Egypt's expanded southern frontier (e.g., Semna West, Semna South, Kumma). Some forts acted as supply depots situated on and designed to fit the contours of several islands (e.g., Askut, Uronarti) (Smith 1995). The fortified town and trading post at Mirgissa lay at the southern end of an 8 km long mud slipway designed to transfer shipping around treacherous portions in the Second Cataract region. Most forts contained a commandant's dwelling, a granary (containing a block of square rooms), a small temple, workshops, quarters for troops, and extramural cemeteries (see Vogel 2004).

A few key forts, such as Mirgissa and the administrative center at Buhen, had extensive mud-brick fortifications and larger administrative and residential sections (Kemp 2006: 231–41). Buhen had an inner and outer sturdy wall with projecting towers, a lower defensive wall, a dry moat, a glacis, and elaborate loopholes for archers. The inner citadel had an elaborately buttressed gateway with a retractable bridge. The riverside defences contained a spur wall at either end, plus two stone quays projecting into the Nile with a covered walkway for protection against arrows. The citadel's interior was subdivided into a grid of blocks, including a commandant's residence, stairs to the battlements, barracks, a temple, rectilinear magazines, and workshops. The space between the citadel and outer wall yielded a large (administrative(?)) structure and part of a cross-wall, but was otherwise devoid of architecture. It may have facilitated tents, livestock, or other requirements for the garrison. Many of these forts continued to be occupied and modified during the Second Intermediate Period, switching allegiance to the Kushite rulers at Kerma.

The New Kingdom rulers reoccupied many of the Second Cataract forts but did not maintain most of their fortifications since Egypt defeated Kerma and rapidly expanded its frontier to the Fourth and Fifth Cataracts. Although many former strongholds became temple towns, a few new forts were added, especially towards the end of the New Kingdom (Kemp 1972a: 651–6). In the Ramesside period an elaborate fortification system was built along the western and eastern edges of the Delta and across North Sinai, including Zawiyet um el-Rakham, Tell Heboua, Tell Borg, Bir Abd, Haruba, Deir el-Balah, Tell er-Retaba, and Kom el-Qolzoum (Suez) (Abd el-Maksoud 1998; Morris 2005). These forts contained many of the elements present in the earlier Nubian examples but display some regional variation. The sand and high water table at Tell Borg in Northwest Sinai required the application of baked bricks or stone along the base of several moats (Hoffmeier and Abd el-Maksoud 2003: 193). Other forts had mud- and stone-lined wells and reservoirs. Deir el-Balah, in northeast Sinai, had an Eighteenth Dynasty mud-lined pool, storage magazines, workshops, a small Ramesside tower fort, and a cemetery with simple burials, 40–50 terracotta anthropoid coffins, and a limestone sarcophagus (Dothan 1993: 343–7).

The Third Intermediate Period has produced fewer frontier forts (Lacovara, Quirke, and Podzorski 1989: 60), while the Late Period contains several examples at Tell Defenna, Tell el-Maskhuta, Tell Qedwa, Qasr Allam, and elsewhere (Colin 2004: 30). During the Twenty-sixth Dynasty, Tell Defenna formed a military head-quarters (Daphnae) at the desert fringe of the north-east Delta (Mumford 1998: 803–88; Petrie and Griffith 1888). It yielded cavetto cornice blocks and other fittings
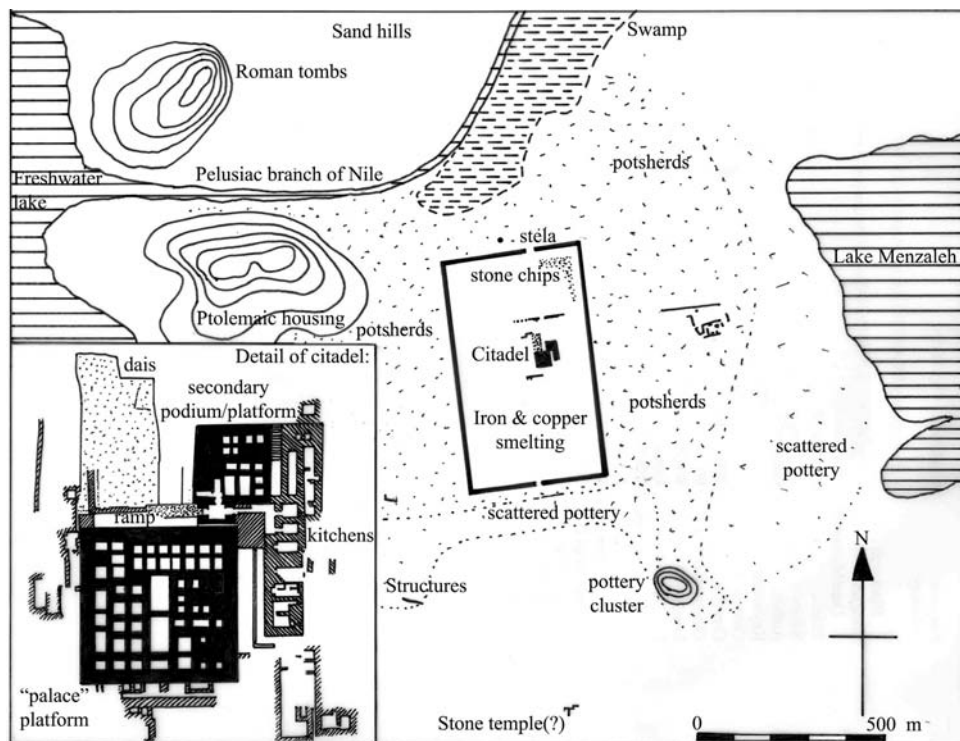
Figure 18.7 Late Period settlement at Tell Defenna (adapted from Petrie and Griffith 1888: pls. 43-4).

associated with an inner citadel. This complex had a 9 m high platform and an adjacent secondary podium with an access ramp. A broad dais, storerooms, and kitchens lay around its base. This installation yielded many royal seals and imported pottery, and probably represents a royal residence. A 7 m wide enclosure wall separated it from the outer fortified town, which had a 12 m wide wall extending 375 by 630 m. This wall had several gates and a stela possibly of Ps. II. Large patches of stone chips mark the probable placement of a temple in the north sector, while mud-brick structures (houses?) lay to the west. Petrie noted that the town's southern half yielded mud-brick ruins, wells, an iron and bronze working area (foundry), and numerous weapons. Leclère's (2007: 14–17) recent satellite image analysis reveals a probable temple complex, magazines, courtyards, and many other structures in this sector. The outermost settlement covered an 800 by 1500 m area. It produced potsherds, walling systems, traces of housing (ovens, bathrooms, courtyards), and a stone temple(?). A harbor probably lay to the northwest, beside the Pelusiac branch of the Nile.

In contrast, the Saite forts at Tell Qedwa and Tell el-Maskhuta measured roughly 200 by 200 m and adopted pronounced buttresses (Holladay 1982; Redford 1998: 45–59). Qedwa lay on a scarped mound and introduced small casemate chambers in its foundation walls, possibly assisting water drainage. These structures functioned as outlying frontier forts and yield evidence for Egyptian troops and Greek mercenaries, including extramural cremation burials at Site T.23, 500 m east of Qedwa.

10   Desert Way-stations and Mining and Quarry Camps

Pharaonic expeditions traveling more than a day's journey outside the Nile flood plain often required way stations, wells, anchorages, and seasonal camps: e.g., Marsa Matruh, Wadi el-Hudi, Wadi Hammamat, Wadi Gasus, Gebel Zeit, Wadi Maghara, Serabit el-Khadim, and Timna (Meyer 1999: 869; Sayed 1999: 866; Shaw 1999: 871; White 1999: 470). During the Old Kingdom turquoise and copper mining expeditions departed from Memphis to Maghara and Kharig in South Sinai: one route passed through Ain Sukhna and a fortified anchorage at Ras Budran (Mumford 2005; 2006). A seasonal camp at Maghara contained 125 rough stone shelters along the edge of a hill top, a stairway, a wall across the wadi bed (presumably protecting miners against flash flooding), other stone shelters at the hill base, copper smelting debris, refuse heaps, and mining galleries in the opposing cliff face (Mumford 1999b: 876).

Although Maghara continued to be visited during the Middle and New Kingdoms, Egyptian expeditions concentrated operations at Serabit el-Khadim. On the Serabit plateau top they established a camp with a rough defensive wall, simple field stone huts, and ore-washing basins (Mumford 1999a: 722–4). The expeditions also cut and embellished two shrines in a hillock, dedicating them to Hathor, Mistress of the Turquoise, and Sopdu, Lord of the East. Over time they added a series of chambers, a pylon entry, and an enclosure wall to the west. The temple received royal and private stelae, statuary, and diverse votive offerings. A few small rock-cut shrines and isolated stelae were established outside the temple. Ramesside expeditions placed small way-stations at Wadi Sannur, Gebel Abu Hassa, and Gebel Mourr, and added a small shrine to Hathor in the copper mining region around Timna in the southern Negev (Mumford 1999a: 724–5; Mumford and Parcak 2003: 85–93).

The Third Intermediate Period experienced a decline in quarrying and mining expeditions, but such activities are revitalized in the Late Period. For instance, Wadi Hammamat contained only one early Third Intermediate Period royal text, while more ventures are attested in the reigns of Shabaqa, Taharka, Psamtik I–II, Necho II, Amasis, Cambyses, Darius, Xerxes, Artaxerxes, and Nectanebo II (Meyer 1999: 870). Harrel and Brown (1999: 18–20) have surveyed a Late Period quarry and workmen's huts at Rod el-Gamra in the Eastern Desert.

11   Garrisons, Forts, and other Installations in Occupied Territories

At different times Egypt established trading posts, garrisons, and other installations abroad. In the late Predynastic and First Dynasty, Egypt exhibits intense activity in south-west Palestine, especially at 'En-Besor (Gophna 1995: 269–80). This site contained an Egyptian-style building, imported pottery and artefacts, and local imitations of Egyptian items alongside indigenous Canaanite materials. However, it remains debated whether this activity represents trade, military conquest, or colonization.

In the Old Kingdom, Egypt established fortified settlements at Ain Asil in Dakhla Oasis, at Kor in Lower Nubia, and possibly at Ras Budran in South Sinai. The settlement at Kor may appear as early as the Second Dynasty, but the main occupation yielded artefacts and sealings bearing the names of several kings from the Fourth and Fifth Dynasties (Adams 1984: 170–3). The settlement encompassed at least 50 by 75 m and featured Egyptian-style stone and mud-brick dwellings, workshops, copper smelting furnaces, and a rough stone enclosure wall.

The Middle Kingdom expansion into Lower Nubia was accompanied by numerous forts and fortified settlements (e.g., administrative, industrial, and trading posts), and seasonal quarry and mining camps that co-existed alongside the indigenous Nubian C-Group population (Williams 1999: 575).

In contrast, New Kingdom Egypt colonized Nubia (Smith 2003) and placed garrisons at key locations in the Levant to control local city states (Morris 2005). Important Egyptian installations appear at Gaza (e.g., Ramesside granite blocks from a temple?), Tell Mor (a small fort), Lachish (an Egyptian-style temple), and Beth Shan (Egyptian-style temples, housing, and anthropoid coffins). Under Thutmose III, Egypt's Levantine empire was organized into the provinces of Canaan (Palestine), Upe (Damascus to the Beka Valley), and Amurru (West Syria), with an Egyptian headquarter city at Gaza, Kumudi, and Ugarit (later Sumur). Each headquarter city had a fort, garrison, and storehouse under an Egyptian commander (Redford 1992: 203–7). Egypt's Levantine empire disintegrated in the reign of Ramesses VI.

Egypt experiences a brief resurgence in imperialism in the Saite period. Psamtik I and Necho II dispatched troops to Syria to bolster Assyria against Babylonian attacks. The Assyrian headquarters at Carchemish displays significant Egyptian influence: House D had Egyptian architectural features and artefacts, such as a stone slab with a corvetto cornice, a royal signet ring (Psamtik I), and mud sealings (Necho II) (Mumford 2007). Other influences during the Late Period include an Egyptian-style shrine at Amrit (e.g., a lotus capital and corvetto cornice), stone anthropoid sarcophagi (mostly at Phoenician sites), and stelae portraying Egyptian deities and iconography at Byblos.

12   Conclusions

Egyptian settlements faced many changes throughout the Pharaonic period, both in their role in the overall political and administrative infrastructure, and in their location, composition, and architecture. Over time, they tend to expand in size, complexity, and geographical distribution, with fluctuations in periods of political and economic decline. The increasing and more diverse influx of foreigners introduced new architectural forms, including Levantine-style housing, temples, and tombs at Avaris, a Syrian "migdol"-style gate at Medinet Habu, a Greek trading enclave and temples at Naukratis, land grants and settlements for foreign mercenaries, and ethnic neighborhoods such as the Jewish colony at Elephantine (Kemp 2006: 32; Lloyd 1983: 316–17). Egypt's expansion into Nubia slowly shifted from Old Kingdom raids and minimal settlement to a substantial Middle Kingdom occupation force

maintained in forts, and a widespread New Kingdom colonization and acculturation of Nubia. Hence, the current patchwork of evidence, albeit undergoing increasing excavation and analysis, allows a better understanding of Ancient Egyptian urbanism but still requires untold work before modern urbanization and agriculture destroy much of Egypt's remaining heritage (see Parcak 2007: 61–83).

FURTHER READING

Ancient Egyptian settlement patterns are discussed by M.Adams (1997: 90–105), Bietak (1979b: 97–144), Carl (2000: 327–35), Goelet (1999: 65–103), Hoffmann et al. (1986: 175–87), Kemp (1972a: 651–6; 1972b: 657–77; 1977a: 185–200; 2006), Lampl (1968), O'Connor (1972 : 681–98), Smith (1972: 698–719), Trigger (1985: 343–53), and Uphill (1988). Different aspects of town planning are provided by Fairman (1949: 32–51), Kemp (1977b: 123–41; 2000b: 335–45; 2006), Lacovara (1997), and Lampl (1968). Other components of domestic, cultic, and mortuary architecture are covered by Arnold (1999; 2003), Badawy (1954 [1990]; 1966; 1968), Blyth (2006), Clarke and Engelbach (1930 [1990]), de G. Davies (1928–9: 233–5), Dodson and Ikram (2008), Kemp and O'Connor (1974: 101–36), Kemp (1986: 120–36; 2004: 259–88), Lehner (1997), O'Connor (1972: 681–98), Shaw (2003), Spencer (1979), Strudwick and Taylor (2003), Uphill (1972: 721–34), A. Wilkinson (1998), and R. Wilkinson (2000). Urban waste disposal is explored by Dixon (1972: 647–50). Plans, reconstructions, and a summary narrative for Pharaonic through Ptolemaic-Roman sites are provided by Aufrère, Golvin, and Goyon (1994; 1997). Encyclopedia entries dealing with Egyptian sites, architecture, and related aspects in Egypt, Sinai, and Syria-Palestine include Holladay, Jr. (pp. 94–114) and F. Arnold (pp. 114–18) in Meyers (ed.) (1997 vol. 3), D. Arnold (pp. 122–7), Hassan (pp. 268–73), Lacovara (pp. 198–200), and Stadelmann (pp.13–17) in Redford (ed.) (2001), Baines (pp. 303–17) in Sasson (1995 volume 1), and Oren (pp. 1386–96) in Stern et al. (eds.) (1993: vol. 4).

CHAPTER 19

Settlements – Distribution, Structure, Architecture: Graeco-Roman

Paola Davoli

1   Introduction

The definition of an ancient settlement as a city, town or village is a matter of debate. Most scholars are inclined to consider only the three, then four, *poleis* (Alexandria, Naukratis, Ptolemais Hermiou, then Antinoopolis) and the *metropoleis* as urban settlements. All other settlements are classified simply as villages. This classification does not reflect the complex reality of urbanism and settlements in Egypt, and it cannot be maintained any longer. Wide and complex settlements with huge enclosures for temples were spread everywhere in Egypt, and it would be highly reductive to consider them simply as villages. A solution to this conceptual, but also existential, question cannot be found in ancient Egyptian or Greek terminology, which was not intended to convey technical meanings (Mueller 2006: 99), nor can we classify Egyptian settlements as urban (cities) or rural (villages) according to their economic activities, because agriculture was the most important resource of the country and was the basis of the economy everywhere. A classification of settlements can only be based on the combination of quantitative data from archaeological and textual sources, and qualitative data concerning their administration (Mueller 2006: 99–104; Daris 1985: 213). The centralized system was organized as a pyramid with a hierarchy of functionaries, matching the subdivision of the territory into *nomoi* with a main town and a regional hierarchical system of settlements. Except for the *poleis* and the nome capitals, it is difficult to establish the rank of each settlement in a region and which ones can be considered as urban or rural. According to Alston and Alston (1997: 202–9) there were only two ranks of urban settlements, the *poleis* at the top and then the nome capitals. Davoli (1998: 30–1) and Mueller (2006: 100) would add a third rank defined as urban on the basis of quantitative and qualitative data. In this third urban rank we would list such settlements as Bakchias, Dionysias, Karanis, Kellis, Narmouthis, Philadelphia, Soknopaiou Nesos, and Tebtynis.

2   Distribution

From the beginning of the Ptolemaic Period a series of new settlements was founded throughout Egypt, particularly in the less densely populated areas of the *chora* and Fayum.

Of course, the most important of these foundations was Alexandria, which assumed the position of capital from 320 BC, at the expense of the thousand year-old center of Memphis. It was founded by Alexander the Great in 331 BC, with the help of the architect Deinokrates of Rhodes. The choice for the location of the city on a narrow strip of coast between the sea and Lake Mareotis was informed by a long-term vision of what the city should eventually become. Traditionally it is held that theoretical principles formulated by Aristotle on the ideal state underlay this choice, just as they underlay the urban planning employed (Bernand 1995:10–19). Thus the city was conceived to conform to criteria and forms of government that were not Egyptian. Furthermore, its citizens, who enjoyed substantial privileges, were, for the most part, not Egyptians. Its two sea-ports, along with the port on Lake Mareotis (connected in turn to the Nile by canals) made Alexandria the most important naval and commercial center in the eastern Mediterranean into Late Antiquity. Despite its location, apparently peripheral to the territory of Egypt, Alexandria lay at the center of the communication routes of its day, located as it was on the Mediterranean but with a direct and easy connection to the Nile, and, by means of that river, to the Red Sea.

The coastal region around Alexandria, just like its inland territory, was deeply influenced by the economic position of the nearby capital, and played a supporting role to it. Kanopos (Abukir) was an important center in the Graeco-Roman Period. Unfortunately much of it has been lost beneath the sea. Underwater exploration in Abukir Bay has identified another town, Herakleion/Thonis, once located on the coast and known as a port frequented by Greek traders (Goddio & Clauss 2006: 289–97). Kanopos and Herakleion were strategic ports on the Mediterranean coast, connected directly to the Nile by its Canopic Branch. Other important trading centers were established on the coast south-west of Alexandria, in a less confined area, with connections to Cyrenaica. The westernmost of these settlements was Paraetonium (Mersa Matruh). Another one of these settlements was Plinthine. We do not know much about its residential center as it has not been excavated, but it is well known for its necropolis, with a hundred or so well preserved Hellenistic (second century BC) *hypogea*. This necropolis is an important source of information about a community that seems to have been culturally mixed, including both Greek and Egyptian. Plinthine appears to have played a role in commercial transportation on Lake Mareotis (Empereur 1998: 227–9). Further to the south-west is Taposiris Magna (Abusir), one of the places associated with the cult of Osiris and the location of an important temple dedicated to that god. Its *temenos* is preserved, built of limestone blocks. Taposiris Magna was a port on Lake Mareotis, bymeans of which it was connected to the Canopic Branch of the Nile and so to an international trade network. The structures that have been discovered there date from the Hellenistic Period to the fourth century AD. Marina el-Alamein (to be identified as Leukaspis or Antiphrai) also had a commercial function, but was also involved in the agricultural

exploitation of the region, located as it was on both land and sea routes between Alexandria and Cyrenaica and lying on a narrow strip of land between the Mediterranean and a lake and it had a port. Both public and private buildings have been discovered there, along with large cisterns and a church. The necropolis shows a variety of burial types, some capped with monumental structures of pyramidal form, sarcophagi, pilasters, or columns. The settlement, occupied from the second century BC to the seventh century AD, was at its peak in the first three centuries AD (Daszewski 1995).

Recent excavation and survey in the area south-west of Alexandria, around Lake Mareotis, has increased greatly our knowledge of the sites there and particularly of the rich agricultural economy of this zone, which today is semi-arid. There were many wine-production facilities located south of the lake, associated with rural villas with vineyards; these began to develop in the Hellenistic Period and expanded to a notable degree in the Roman Period. Thirty or so workshops for the production of transport amphorae used for trading the wine produced in this area have been discovered by Empereur and Picon (Empereur 1998a: 216–9). Marea was an important port on Lake Mareotis as early as the sixth century BC. Recent excavation has brought to light late Roman and Byzantine structures including fragments of piers, ramps and breakwaters in the port, constructed of squared stone. In addition, there is a row of stone buildings identified as shops, residential and commercial areas, a metal workshop, a public bath, a large basilica, and a *cardo* and *decumanus*.

New Ptolemaic and Roman foundations in the central part of the Delta are not well known because of the poor preservation of the sites and the consequent lack of papyrological evidence. With the shift of the capital to Alexandria, the Canopic Branch of the Nile grew in importance as a communication and trade route. Along its course one may note at least three significant settlements of the Graeco-Roman Period, namely Terenouthis (Kom Abu Billu), Naukratis, and Schedia. Today these are almost entirely destroyed. At Terenouthis, Ptolemy I and II built a temple dedicated to Hathor, and a series of 420 funerary stelae dating from the first to the early third century AD provides evidence of the wealth of the community in the Roman Period. Naukratis, founded as a Greek *emporion* in the Twenty-sixth Dynasty, became a *polis* in the fifth or fourth century BC. The excavations carried out by Petrie (1884) recovered imported pottery, fragments of Greek-style architectural decoration and a grand temple enclosure with a gateway of Ptolemy II. Many Graeco-Roman settlements around Naukratis have been discovered recently (Leonard 1999). Schedia (Kom el-Giza and Kom el-Hammam) lies further north. It was an important river port situated on the Canopic Branch at the point where it meets the artificial canal linking Alexandria to the Nile. It was founded shortly after Alexandria and grew in the Roman Period. A substantial Roman fort of pentagonal plan has also been identified at Kom Dahab, near the mouth of the Canopic branch.

The western gate of the Roman fortress of Babylon, with its bastions and parts of the walls, survive today in Old Cairo (Pensabene 1993: 25–7). This fortress was built by Trajan to control shipping on the Nile and on the canal bearing his name that connected the river to the Red Sea. Little survives of ancient Memphis. It lost its administrative importance when the Ptolemaic capital shifted to Alexandria but remained a city of strategic importance on the Nile, a cosmopolitan place with

important temples, among them those of Ptah and the Apis bull, and others dedicated to non-Egyptian deities. In the Ptolemaic Period the city was divided into quarters according to ethnic groupings. The latter are well attested by tombs and other monuments discovered in the necropolis of Saqqara. A Roman military camp has been identified to the south of the ruins (at Kom Sabakha). Our knowledge of Memphis depends in great part on the description provided by Strabo (17.1.31–2), who visited the city in the late first century BC (Thompson 1988: 10–20).

The eastern limit of the Delta was probably expanded by reclamation (like that in the Fayum) in the Ptolemaic Period. A survey in the Wadi Tumilat showed a significant increase in the number of Ptolemaic settlements, many of which remained flourishing as late as the Byzantine Period. At Leontopolis (Tell el-Yahudiya) a settlement was established with the permission of Ptolemy VI in c.160 BC to receive the Jews who followed Onias, priest of the Temple of Jerusalem, into exile. About 40 rolls of carbonized Greek papyri of the early third century have survived from Bubastis (Tell Basta). Other rolls of Greek papyri (late second-early third century) were discovered in carbonized condition in late nineteenth-century excavations at Thmuis (Tell Timai). This was an important Graeco-Roman town with a port on the Mendesian branch of the Nile. Fom the second century it became capital of the Mendesian Nome, and in the fourth century AD it was considered one of the four most important towns in Egypt (Ochsenschlager 1999).

Along the coast of the eastern Delta, Sinai, and the eastern frontier, lie well-known fortresses first built in the Persian period and subsequently reconstructed on a regular basis until the late Roman Period. Examples include Tell el-Herr (Magdolos?), Sile (Qantara), and Gerra (Mahammediya). The area around the lake-marsh of Sirbonis was first exploited agriculturally in the Hellenistic Period. In the same period Ostrakine (el-Felusiyat) was founded, although it was at its peak in the Roman and Byzantine Periods. Pelusium (Tell el-Farama), on the coast of the eastern Delta, was in antiquity at the mouth of the Pelusiac Branch of the Nile and was the most important commercial center in Graeco-Roman Egypt besides Alexandria, oriented in particular towards trade with the Levant and Cyprus. Besides this it was a major military base for the control of Egypt's eastern frontier. Recently foreign archaeological missions, in collaboration with the Supreme Council of Antiquities, have discovered two large theatres, baths, an impressive baked-brick fort, and a large church.

The early Ptolemies brought many immigrants to Egypt from the eastern Mediterranean, particularly from Greek-speaking areas, particularly soldiers (Clarysse and Thompson 2006: II 342–5). These were assigned plots of land (*kleroi*) of sizes that varied according to military rank. To avoid expropriating land from Egyptians, Ptolemy I began land reclamation in the desert fringe areas of the Fayum depression in the Arsinoite Nome. We still have much to learn about the settlement history of the Fayum. At Tebtynis and Bakchias, located respectively on the southern and north-eastern margins of the region, occupation levels datable to the Late Period have been reached in recent excavations (Marchand 1996; Davoli 2005: 219, 222). The fact that these two settlements existed before the Ptolemaic Period and were provided with water from two man-made canals located on the periphery of the region raises questions about when these canals came into effective use, or what other sources of water the settlements may have drawn on before the Ptolemaic

land-reclamation scheme. The Graeco-Roman settlements, both new foundations and existing ones, were spread over the whole territory to ensure its intensive agricultural exploitation. They were located on the southern, eastern, and western shores of Lake Moeris, along the el-Lahun "corridor," in the center of the region and around a second lake, now disappeared, that lay in the el-Gharak el-Sultani depression to the south-west (Rathbone 2001: 1113). Krokodilopolis, the capital of the Arsinoite Nome (renamed Ptolemais Euergetis in 117–116 BC) is one of the oldest towns in Egypt and remains the capital of the region. Its ruins covered a vast area at the end of the nineteenth century, but have now almost entirely disappeared under new development (Davoli & Nahla 2006). It owes its importance and longevity to its location, which is more or less central within the region but, more importantly, of strategic importance for water management. The town was built on a plateau higher than the level of the depression on the course of the Bahr Yusuf, at the point where the latter divides into the eight main canals that distribute water to the plateaux that slope down towards the lake to the north. Undoubtedly there were locks on those canals at Krokodilopolis, as there are now. Other important locks and dams were located on the Bahr Yusuf itself at the entrance to the Fayum, near modern el-Lahun (Ptolemais Hormou). Ptolemais Hormou, ancient *Ra-hent*, along with its port on the canal, has still not been identified.

About forty settlements of the Graeco-Roman Period in the Fayum are known from archaeological remains (Davoli 1998), preserved to a greater or lesser degree as late as the mid twentieth century. However, over 200 place names are known from the written sources. Recent studies (Mueller 2003) have attempted to locate these settlements within the territory by applying theoretical methods of spatial distribution. This entails understanding the now-lost hierarchical system of regional settlement by attempting to establish its overall size, by calculating the population on the basis of written sources such as tax registers, and also from references to public buildings such as baths, theatres, temples, records offices, granaries, gymnasia and prisons (Clarysse and Thompson 2006: II 103–13; Mueller 2006: Appendix I). The results are not entirely convincing, based as they are on incomplete data, partly because of the nature of the sources and the accidental manner in which they are preserved, and even more so because they have been extrapolated using theoretical approaches that are normally applied to modern and well documented situations.

The settlements located at the center of the Fayum were lost long ago (as in the Nile Delta), although occasional evidence is still to be found in modern villages (Davoli 2001: 358). The ancient settlements on the shores of the lake, on land between five and 45 m below sea level, were submerged below the water of the lake in the period between the thirteenth and the nineteenth centuries. Of these sites, the remains at Qaret el-Rusas, at the eastern limit of the lake, are noteworthy. The settlements spread around the edge of the Fayum lay in desert from the late Roman Period to the early twentieth century and thus were preserved by the sand that covered them. Unfortunately few of them survived modern land reclamation, and of those that did survive not all were properly excavated by archaeologists. We owe their identification to the excavations of the British papyrologists B.P. Grenfell and A.S. Hunt (Grenfell, Hunt, and Hogarth 1900).

Study of the Greek toponyms of the Fayum settlements in the Ptolemaic Period has highlighted 30 place names deriving from names associated with the Ptolemaic dynasty (Arsinoe, Ptolemais, Berenike), thus defined as dynastic foundations (Mueller 2006: 26-30). However, not all the settlements with dynastic names were new urban foundations established according to planned schemes. These were spread throughout the three *merides* into which the Arsinoite Nome was subdivided for administrative purposes.

Other Greek toponyms in the Fayum reflect the names of the districts of Alexandria and Ptolemais Hermiou in Upper Egypt (Clarysse 2007b: 76–7). Both of these cities were built in the reign of Ptolemy I. This leads one to think that a single central planning effort oversaw the urban development of Egypt.

Newly founded settlements of the Ptolemaic Period are known in other areas of Egypt too, and some of these also have dynastic names (15 divided between the Nile Valley and the Delta – Mueller 2006: 14, 60). Ptolemais Hermiou, established by Ptolemy I as the principal city of Upper Egypt, replacing Thebes (Diospolis Magna) in that role. Ptolemais is only known on the basis of written evidence, since archaeological excavation has never taken place there. It was the base for important officials engaged in the administration of the Thebaid, for a military garrison that provided officers and troops for other cities in Egypt, the site of a law-court for non-Egyptians, and the location of temples dedicated to Greek deities (Abd-el-Ghani 2001). Strabo, in the first century BC, compared it in size with Memphis.

Six settlements bore the name Berenike. One of these was on the Red Sea coast, south of the latitude of Aswan. It was founded as a port by Ptolemy II in 275 BC and was at its peak in the first century AD. In the Ptolemaic Period it served as a port for the large cargo ships that imported to Egypt, besides luxury goods, elephants destined for the army. Berenike was part of a regional system of ports, settlements, and overland routes through the Eastern Desert that linked the coast with the Nile. Other Ptolemaic ports on the Red Sea were (from north to south), Arsinoe (Kleopatris, Klysma, modern Suez), Myos Hormos, Philoteras (Mersa Gawasis) and Nechesia (perhaps modern Mersa Nakari), all of them connected with the Nile by overland routes that kept them supplied as well as allowing goods from Arabia, Ethiopia, and even India to reach Egypt. The Eastern Desert of Egypt had long been visited and exploited by ancient Egyptians, but it was subject to systematic organization, with settlements, wells, mines, and quarries, in the Ptolemaic and (particularly) the Roman Period. Koptos, Kaine (Qena) and Apollonopolis Magna (Edfu) were the points where the overland desert routes arrived and departed. Koptos, a nome capital, was connected with the Red Sea through the Wadi Hammamat (in Greek called *odos Mysormitike*), which linked up with another important port for trade in luxury goods with the East, namely Myos Hormos. This site is attested from the late second century BC, and recently has been identified with Qoseir (Brun 2003: 188-91). A little to the north of this, near Qoseir el-Qadim, a new port subsequently developed in a location under the control of the Roman army, also intended for trade with India. This other site has also been identified as Myos Hormos (Peacock & Blue 2006: 176).

Survey and archaeological excavation in the Eastern Desert has brought to light new evidence regarding the use of the various overland routes. In the Ptolemaic

Period Apollonopolis Magna (Edfu), capital of Nome II of Upper Egypt, was the departure point for three routes that connected it with the port of Berenike, the port of Nechesia (Sidebotham 1997: 505; Seeger and Sidebotham 2005) and Kharga Oasis, across the Western Desert. Therefore, Apollonopolis must have had an important port for sending goods to the Mediterranean. Its importance diminished, eclipsed by Koptos, in the Roman Period, when a new overland route between Koptos and Berenike was established. It was with good reason that the main monumental temple at Edfu, dedicated to the local god Horus Behdeti (and still perfectly preserved), was built by the Ptolemies, from Ptolemy III to Ptolemy XII (237–57 BC). The importance of Edfu in the control of trade in gold and elephants is attested in papyri (the Milon archive) and by the fact that it was the base of a garrison. Cleruchs were settled in the surrounding territory in the Ptolemaic Period, and it is known that there was a dynastic settlement called Arsinoe nearby. A Roman fort (Contra Apollonos) and successive Byzantine military garrisons continued to guard access to the routes of the Eastern Desert.

In the Roman Period Koptos became the most important *emporion* for overland transport through the Eastern Desert. Gold, emeralds, and many types of stone quarried in the Eastern Desert were traded through the customs point at Koptos (de Putter 2000: 144, 155). Foreign merchants (from Aden, Palmyra, and Italy) lived there, and it was the location of a military base that oversaw the *praesidia* of the caravan routes. The prefect of Berenike was also based here (Ballet 2000: 176). From the early Roman Period the Wadi Hammamat route had six or seven fortified settlements with wells inside them serving as places where travelers could both stay and obtain supplies. With the renewed importance of the port of Berenike in the mid-first century AD, a new road from Koptos to Berenike was opened. This split off from the Myos Hormos route at Phoinikon in the Wadi Hammamat. A series of *praesidia*, fortlets with a well at their center and a place for soldiers to live, was constructed in the ninth year of Vespasian's reign on each of the routes (Brun 2003: 192–8). Tentyra, capital of Nome VI of Upper Egypt, also benefited from trade with the East at this time. The only part of the site preserved is the great temple dedicated to Hathor, built between 125 BC and AD 60. Very little is preserved of the ancient town, which was already an important religious and administrative center in the Predynastic Period.

A fortified civilian settlement with an attached village was built at Mons Claudianus to serve the quarries that extracted grey granite used for construction at Rome in the imperial period. Outside the fort were a temple dedicated to Isis, a bath building, and storerooms (Peacock & Maxfield 1997: 84–5). Small settlements and watering places were also built along the road leading to the relatively inaccessible site of Mons Porphyrites. The largest of these settlements was located in the Wadi Abu Maamel, a fortified site with an attached necropolis and an extra-mural residential area (Maxfield and Peacock 1998).

A new road connecting the Red Sea ports with the Nile was opened by the emperor Hadrian, and it took from him its name, the *Via Hadriana*. It left the Nile at Antinoopolis (Sheikh Ibada) and ran all the way to Berenike, skirting the Red Sea coast. Antinoopolis was founded on the east bank of the Nile on 30 October AD 130 in memory of Antinous, the emperor Hadrian's favorite,

who drowned in the river in the area. The city became an important commercial center because of the *Via Hadriana.*

In the Thebaid the Ptolemies undertook a programme of temple building on a huge scale for both political and religious motives relating to the control of territory through cooperation with the powerful local elites (Manning 2003b: 61–4). Besides the temple of Horus at Edfu the Ptolemies began to construct the temples at Esna, Kom Ombo, Elephantine, and Philai that were subsequently completed by Roman emperors. Unfortunately little remains of these towns that might enable us to understand their layout in relation to the great temples. In the Roman Period the fortified town of Elephantine became a temple-city, while commercial and administrative activity shifted to Syene (Aswan).

The oases of the Western Desert went through a period of particular prosperity in the Middle to Late Roman Period. Probably they underwent intensive agricultural exploitation as the result of efficient organization and advanced hydraulic technology that made possible year-round irrigation, not dependent on the seasonal Nile flood, and, probably, two annual harvests. The oases were divided into three administrative regions: Ammoniake, with the Siwa Oasis; Oasis Minor, consisting of Bahria Oasis; and Oasis Maior, made up of Dakhla and Kharga. Caravan routes connected the oases with the Nile Valley and Siwa with the Mediterranean. At Hibis, the capital of Kharga, little remains besides the temple of Nadura and that dedicated to Amun-Re. A series of solid mud-brick structures, perhaps late Roman, is located north of Hibis, but the exact date and function remain unknown for the present. They appear to have been

Figure 19.1   Fortress of the reign of Diocletian at ed-Deir, Kharga Oasis. Courtesy Paola Davoli.

fortified control points located on the caravan routes that connected the oasis with Lykopolis (Asyut), as seems to be the case for el-Gib, Someira, and Ain Labkha. The only proper fort that is likely to have housed a garrison in Late Antiquity is ed-Deir, also on a desert track, this time leading towards Abydos, Diospolis Parva and Tentyra (Reddé 1999).

The Dakhla Oasis Project has identified about 250 sites datable to the first five centuries AD, among them large ones (such as Mothis/Mut, the capital; Trimithis/Amheida, which became a *polis* in the fourth century AD; and the large town Kellis/Ismant el-Kharab), along with small villages, individual farms, and industrial areas (Mills 1999). The boom in the Great Oasis is visible also in the construction of numerous temples (Kaper 1998: 151–2) and by the reactivation of the water channel system of Kharga (Schacht 2003: 422). At Bahria an extensive and rich necropolis of the Hellenistic and Roman Period has been discovered. This, along with other archaeological data, provides evidence for the presence of a large and important settlement in the vicinity of Bawiti.

3   Structure

The structural layout of the Graeco-Roman settlements of Egypt is not, as one might expect, uniform and rigorously planned. The layout of the settlements is very varied and influenced by local traditions. Often our knowledge is very limited, restricted either to single buildings or parts of a settlement, or to the last occupied phase of the settlement's history, or even to just what happens to be preserved of the highest level of the site. For this reason we know more about the levels of the Roman Period. Even the plan and extent of individual settlements may be unknown. The presence of perimeter or defensive walls is not a constant feature, but some settlements located in or on the edge of the desert had perimeter walls. In most cases these had a practical rather than defensive function, serving as barriers against wind and sand. These functioned also as customs barriers in the Roman Period, with gates controlled to ensure the payment of tolls (as at Bakchias, perhaps Karanis and Soknopaiou Nesos).

As noted already, Alexandria has a very definite Greek plan of "Hippodamian" form, inspired by Aristotelian principles and initially laid out by Dinokrates of Rhodes, the most important architect of his day (plate 7). Our knowledge of the ancient city is still seriously deficient because the development of the modern city (starting with Mohammed Ali) brought about the destruction of the medieval city and along with it whatever remained of the ancient structures. Making use of the range of literary sources we possess, such as the descriptions of Strabo, Pliny, and Philo of Alexandria, along with the iconographic sources and the archaeological remains, it is possible to construct a general picture of the capital's development (Tkaczow 1993; McKenzie 2007). Many palaces, temples, and monuments recorded in the written sources have not been located archaeologically. These include the Library, the Museion, and the Soma (tomb of Alexander). Underwater investigations in the Great Harbor, undertaken by two French teams, have identified the coastal area where the royal palaces were located, as well as remains from the famous Pharos lighthouse. Many

monuments of the Ptolemaic Period but also of Pharaonic periods were recorded and, in part, recovered from the water. These originally came from various parts of the Delta, particularly from the temple at Heliopolis, which was looted first by the Ptolemies, then by the Romans, to decorate Alexandria (Empereur 1998: 71–80). These new discoveries have changed our previous idea of Alexandria as a city of monuments purely Greek in style.

In recent years the *Centre d'Études alexandrines* has carried out survey and rescue excavations that make it possible to document the complete stratigraphy of the city in the ancient area of Brucheion, ten metres in depth, extending from the Mameluke Period back to Alexandria's foundation and beyond. At Kom el-Dikka and in other parts of the city, houses of the Hellenistic and Roman Periods have been discovered. These have fine mosaics and rich décor, and their plans are non-Egyptian in origin. Also discovered were workshops for the production of glass and objects made of ivory and bone. The layers of destruction that characterize the history of the city in the third century AD have also been recognized. Little or nothing remains of the walls that surrounded the city in the Hellenistic and Roman Periods, to the extent that it is not even possible to establish the size of the city at different times. A network of orthogonal streets sub-divided the city into blocks of equal sizes, oriented northwest-southeast to take advantage of the cool winds blowing from the north. There were two main streets, 14 m in width, that crossed at right angles. Kanopos Street, which ran from east to west, was flanked by columns. The Heptastadion, an artificial mole (now completely buried) that connected the land with Pharos island, formed part of the street network, as shown recently by geophysical investigation (Empereur 1998: 53–7). The most extensive archaeological area of Alexandria is Kom el-Dikka, where a Polish mission has uncovered a grand bath building of the Imperial period, a portico (colonnaded street) 280 m long, and twenty *auditoria*, one of them in the form of a small theatre (*odeon*). In the view of the archaeologists who are working here, this was the center of the late Roman city, with a concentration of public buildings. In particular the *auditoria* formed part of an "academy," a school of higher learning for which Alexandria (like Athens) was famous in late antiquity (Majcherek 2007; McKenzie 2007: 209–16).

Approaches to urbanization adopted in other settlements in Egypt were different, in part due to local requirements but also to their attitude towards norms that survived over time. Among these norms were orthogonal street plans, one of the salient features from the Ptolemaic to Byzantine Periods. Orthogonal street plans did not necessarily derive from "Hippodamian" principles but are also well known from Egyptian settlements throughout the country at various periods of Pharaonic history (Davoli 1998: 350). There were also cases, such as Tebtynis, Trimithis, and Kellis, where city quarters with different street alignments co-existed in the Roman Period. In these cases, orthogonal street planning did exist in each quarter but it failed at points where different oriented blocks and streets met.

The distinctive layout of Alexandria, rigorously planned in a regular chessboard scheme with blocks of regular dimensions, was rarely employed in other parts of Egypt, at least as far as we can tell today. Such a layout was used, for example, at Antinoopolis and Hermopolis Magna (Ashmunein), but we know very little about their residential quarters. It may have been used at Dionysias and Philadelphia

Figure 19.2 Plan of Amheida/Trimithis, Dakhla Oasis (2009). Courtesy R. S. Bagnall.

in the Fayum. Philadelphia lacked perimeter walls but was characterized by a network of orthogonal streets and blocks of equal dimensions (100 × 50 m). It was founded in the reign of Ptolemy II, but it has never been excavated stratigraphically, and the plan established by L. Borchardt in 1924 may not correspond to the original layout (Davoli 1998: 143–6). Today the town is completely destroyed. The subdivision of the settlements into residential blocks, for the most part of irregular form, is an urban phenomenon characteristic of Roman Period levels in Fayum. At Philadelphia there

were main streets (10 m wide) that ran from north to south, secondary streets (5 m wide), alternating with tertiary ones, running from east to west through the whole settlement. However, the layouts most frequently adopted in Egypt employed few streets that ran right through the whole occupied urban center. Most streets, while orthogonal, ended in a "T" junction or formed dead-end alleyways, as for example at Karanis, Trimithis, and Kellis.

Antinoopolis was largely occupied by "Greeks" and was built to conform to classical architectural schemes and models. Little is known of its urban plan, despite excavations, in large part because of the fact that the buildings were constructed of valuable materials that were robbed out by the end of the nineteenth century. The city was probably of trapezoidal form and surrounded by walls on three sides. It was crossed by a *cardo* and a *decumanus maximus*, each of them flanked by statues and Doric columns. The layout of the city seems to have been of chessboard type with two main street crossing points (Pensabene 1993: 274, fig. 178). At each of these points were four monumental granite Corinthian columns forming a *tetrastylon*, topped by statues of Antinous and the emperor Alexander Severus. A triumphal arch with three passage-ways faced the Nile, while a theatre was located at the south end of the *cardo*. A large public bath is partially preserved along the *decumanus maximus*. A hippodrome (307 × 77 m) was built outside the city, to the east.

The Roman phase of the center of Hermopolis Magna was reconstructed on the basis of excavations carried out by the British Museum and information in the papyri (Bailey 1991). At the crossing point of the two main roads was a *tetrastylon*, and the principal public buildings, classical in style, were located on these streets. The Tychaion, a temple well known from documentary sources, was built in the second century AD in imperial style, as was the *komasterion* (festival hall). Temples and other buildings of Pharaonic date (such as the temple of Amun and Thoth) were integrated into the new urban reorganization of the Imperial Period, in which diverse cults and even architectural styles were located side by side. Here the *dromos* of the temple of Amun and Thoth (Hermes' *dromos*) maintained its original function and coincided with one of the main streets of the town. The grand Christian basilica, built in the mid-fifth century in the place of a classical temple dedicated to Ptolemy III and Berenike II, employed materials taken from Roman buildings in its construction.

Athribis (Tell Atrib) had two major streets that intersected orthogonally at the center of the ruins, as recorded in the Napoleonic period (Dabrowski 1972). Nowadays the archaeological area is largely destroyed, but a public bath building dated to the second century BC (reign of Ptolemy VI) was recently discovered by a Polish mission, along with workshops for pottery production, terracotta figurines, statues, and gold and silver objects.

Sites in the Fayum are heterogeneous in their plans, even though, for the most part, they were new Hellenistic settlements established as part of a regional scheme of land reclamation. This heterogeneity suggests that they were not the result of a single, standardized project that permitted rapid completion of the settlements – although we know little of their Hellenistic phases. Marina el-Alamein too lacked a chessboard plan and regular city blocks but seems to have developed mostly according to the contours of the site, but with an overall alignment based on its two principal street axes.
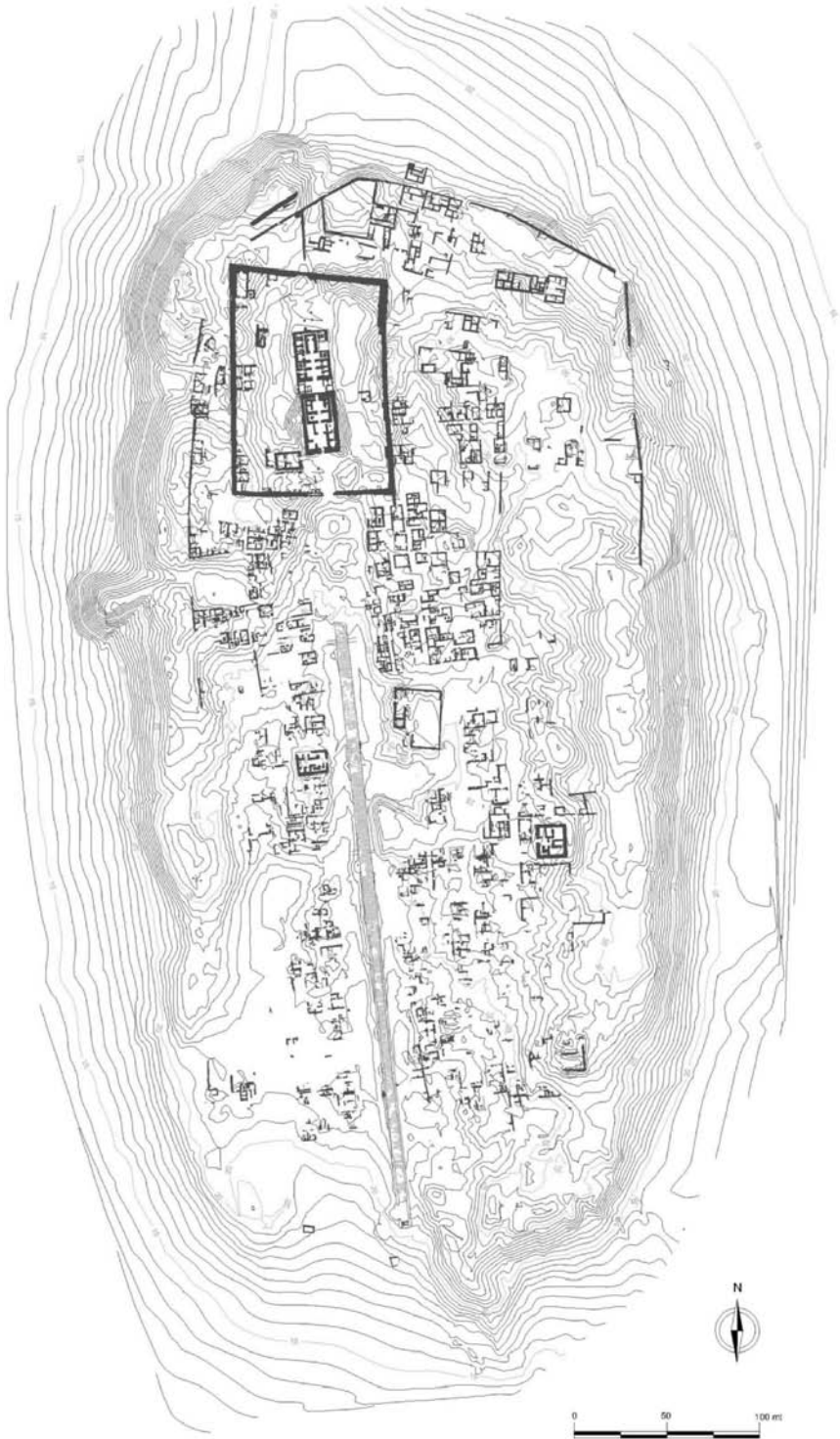
Figure 19.3   Plan of Dime es-Seba/Soknopaiou Nesos. Courtesy the Soknopaiou Nesos Project, 2008.

Figure 19.4 Reconstruction of the *komasterion* at Hermopolis (Bailey 1991: pl. 23). Courtesy The Trustees of the British Museum.

Characteristic of many Egyptian settlements of the Graeco-Roman Period is the absence of a central piazza (*agora*). Instead they often have a paved street of primary importance with a religious function. This was the *dromos*, the route of processions carried out during the festivals of local gods. In some Fayum settlements (Dionysias, Narmouthis, Soknopaiou Nesos, Tebtynis) in which such a street is preserved, the residential quarters seem to have developed around the temple and the *dromos* as early as the Hellenistic Period (Davoli 2005: 231–3; Giammarusti 2006: 258). The *dromos* determined the alignment of the street system, and developed and became monumentalized in the Roman Period through the construction along its length of kiosks for pauses in the procession, with sphinxes and statues alternating with trees along its sides (Rondot 2004: 200–2). This kind of monumental street has exact precedents in the Pharaonic period (for example, at Karnak and Luxor) which owed their existence to their religious function, closely associated with Egyptian temples and cults. The *dromos* appears to be completely absent from settlements of "Hippodamian" plan, with the exception of Dionysias and Hermopolis, where the two types of plan seem to blend in to one another.

Settlements of the Late Period and Ptolemaic and Roman Periods were also characterized by the presence of numerous temples and chapels (often known only from written evidence) and a great temple enclosure. Frequently only the enclosure, along with the temple and associated buildings, is preserved or has been excavated. This means we lose the opportunity of evaluating how it fitted into the overall urban plan, and, particularly, of considering its location relative to the development of the settlement over the centuries. In the late Roman Period these enclosures were also used to house military bases, as at Luxor, Douch and other places in Kharga Oasis.

4   Architecture

When it comes to the architecture of Graeco-Roman Egypt, just as with artistic and artisan production, we encounter a cohabitation of different styles, "classical" and Egyptian. The former tends to be typical of building types that did not exist in the Pharaonic period, such as piazzas, porticoed streets, public baths, fountains, hippodromes, perhaps gymnasia, and temples dedicated to non-Egyptian deities

and to the imperial cult. Egyptian style dominates temple architecture. From the second century BC there developed a third architectural style that one might characterize as "Graeco-Alexandrian," in which certain aspects of the Egyptian tradition were fused with aspects of the classical tradition (Pensabene 1991: 44). This third style was employed particularly in funerary contexts and in sanctuaries dedicated to Serapis. Surviving buildings of "classical" style are few in number, although their former presence throughout all Egypt is shown by surviving stone architectural fragments and columns, largely re-used in buildings of the Byzantine and Islamic Periods (Bailey 1990: 134–5; Pensabene 1993). A survey and history of non-Egyptian style temple architecture in Egypt remain to be written.

According to Bailey (1990: 121), the archaeological remains from the Roman Period demonstrate the extent to which the architecture of that period was similar to that of other provinces. In particular one notes the introduction of decorative forms from Asia Minor from the second century AD, leading one to hypothesize that there were non-Egyptian craftsmen active in the province. This is also a period that sees the use of imported marble from the Proconnesian quarries. Buildings of "classical" style were certainly concentrated in the *poleis* and the nome capitals, settlements that had the highest proportion of occupants with Greek cultural backgrounds. Even in these places the archaeological remains are few, and one has to trust in reconstruction drawings to gain an appreciation of the likely appearance of such edifices, or to written documents that attest to their existence. Study of the architectural orders (Ionic, Doric, and Corinthian) employed is almost entirely limited to analysis of remaining architectural fragments, a fact that limits any comprehensive evaluation of the styles of the buildings in question. The nature of architectural decoration in funerary contexts suggests that different styles might be combined in the same structure (Pensabene 1993: 57).

Our reconstruction of Alexandria reveals a city built according to criteria, and in architectural styles, that were "classical." To a great extent this image is the result of descriptions passed down by ancient authors and of discoveries that have been made at various times and in different parts of the modern city. However, the idea that, because Alexandria was inhabited by non-Egyptians, it reflected only Hellenistic culture in its styles and symbols of royal power and religion, is one that must be reconsidered in the light of the recent underwater investigations in the Grand Harbor, as noted above (Empereur 1998: 64–80; Goddio and Clauss 2006: 82–4).

Little survives of the Serapeum, one of the most important cult places of Alexandria, founded by Ptolemy III and subsequently reconstructed and extended in the Roman Period. It was located near the so-called "Pompey's Pillar," a column dedicated to the emperor Diocletian. A reconstruction of the Serapeum has been proposed (McKenzie, Gibson, and Reyes 2004) based on the foundations and the few extant fragments. The surviving elements show a porticoed enclosure that contained not only the peripteral temple itself but also other buildings. Doric friezes, Corinthian capitals, and possible Ionic elements provide evidence for a complex of buildings of "classical" style, but with Egyptian influence. The latter is attested by the foundation deposits of the temple, the Nilometer, two obelisks, sphinxes, and statues in Egyptian style. The statues depict both Ptolemaic rulers and a variety of Pharaohs, the latter having been brought from Heliopolis.

Decorative elements from the *Lageion*, the stadium, show that it was located south-west of the Serapeum. It was founded by Ptolemy I and used through the Roman Period as a hippodrome as well as an athletics venue. A hippodrome was also built at Antinoopolis outside the city walls. As a Roman city, Antinoopolis too appears to have had public buildings of "classical" style, and some of their remains still existed in the Napoleonic period. Like Alexandria, Antinoopolis was traversed by a colonnaded street, leading to the theatre which today is destroyed. It also had a triumphal arch near the port. Oxyrhynchos had a colonnaded street too and a Roman Period theatre (Petrie estimated it had a capacity of 11,000 people) with columns of the Corinthian order (Bailey 1990: 122–3).

The *komasterion* of Hermopolis was sub-divided into 8 naves, with 54 Aswan granite columns with Corinthian capitals. Its façade had 14 columns and a staircase for access (Bailey 1991: 56–9). Such structures were the buildings from which religious processions would depart, and so they were located on or near the *dromos* and the temple. Other buildings connected with temples were *deipneteria*, meeting rooms for religious associations, opening onto the *dromos*. Members would gather in them to eat and drink when religious festivals and processions were being held. A row of *deipneteria* was established on each side of the *dromos* at Tebtynis in the second century AD (Rondot 2004: 144–6) and in front of the south temple at Karanis (Davoli 1998: 79). These structures are characterized by a rectangular or square plan and masonry benches that run the length of the walls. However, little is known of the appearance of the elevation of such buildings.

A stoa with porticoes of the Corinthian order on three sides is still preserved at Narmouthis (Medinet Madi), built in the Roman Period in front of the *contra temple* (or temple B), dedicated to Hermouthis and dating to the second century BC (Giammarusti 2006a: 58). A paved square, surrounded by a first century AD colonnaded portico and rebuilt in the late Roman Period, was discovered at Marina el-Alamein. *Gymnasia* and *palaestrae* are only attested in inscriptions (for example, at Alexandria, Antinoopolis, Pharbaithos, Philadelphia, Sebennytos, Thebes, and Theadelphia), and so we know nothing of their architectural character. Monumental gates located at the ends of the main streets at Alexandria, Antinoopolis, and Hermopolis are also only known from written sources. Triple triumphal arches occurred both at Antinoopolis and Philae, the latter decorated with pilasters topped by Doric capitals. An arch with a single passageway, now partly buried, existed at Qasr, in the Bahria oasis (Pensabene 1993: 32–4).

Tetrastyla and honorific columns seem to been relatively common in cities of the Roman Period. However, like the other monuments discussed, there are few of them that survive even partially complete. One example is the column of Diocletian at Alexandria mentioned above. This is 28 m high and was topped with a statue of the emperor, perhaps the porphyry example now in the Graeco-Roman Museum at Alexandria (Empereur 1998: 100–9). There were another two *tetrastyla* of the late Roman Period inside the Roman fortress at Luxor. The great *tetrastylon* at Hermopolis Magna was 24 m tall, also with Corinthian capitals, and is the oldest example known to date (Bailey 1990: 130). Papyri and inscriptions mention an honorific column and a tetrastyle at Oxyrhynchos, but only the base of a column with deep foundations is visible there today.

Figure 19.5 A *tholos* of the public bath at Qasr el-Banat/Euhemeria, Fayum. Courtesy Paola Davoli.

Baths are among the best-preserved public buildings (Pensabene 1993: 19–25) and were used in even small provincial cities from the Hellenistic Period onwards. Nevertheless, a systematic study of these buildings remains to be written. The Greek *tholos*-type was very common, often double, for men and women. Many bath buildings of this type are known from the small towns of the Fayum and the Delta (as examples: Buto, Kom el-Ahmar, Krokodilopolis, Dionysias, Euhemeria, Marina el-Alamein, Sakha, Theadelphia). The floors, with pebble mosaics, are often preserved. In the Roman Period, besides the *tholos*-type baths, bath buildings with rooms heated by hypocaust were also built (Karanis, Tell Sirsina, Trimithis). The example known at Alexandria is particularly impressive, constructed in baked brick to an axially symmetrical plan (Kolataj 1992).

Just as there is no fixed typology of Graeco and Roman cities in Egypt, so there is no uniform typology of domestic architecture. This too varies regionally. Many types of house are attested in written documents (Husson 1983), from artistic depictions and from archaeological evidence. Such variety must have its origins in local traditions as well as in house forms that are not entirely Egyptian. Houses in Graeco-Roman settlements were built as separate individual structures, unlike urban houses of the Pharaonic period, which often share outer walls, particularly in the case of row houses. The construction of separate houses meant that they were more stable and thus often able to have multiple storeys. These houses tended to have a very compact square or rectangular plan and to taper towards the top to such an extent that they might be described as "tower houses." They have internal staircases, built around

a central pillar and typically located in a corner. This type of house is widespread in the Fayum (Davoli 1998: 355–8; Hadji-Minaglou 2007: 179–82). It is laid out on multiple levels, one of them a basement or semi-basement divided into small barrel-vaulted rooms used for storing food. The ceilings of the other floors typically are flat, with wooden beams made of palm trunks covered with palm mats. The existence of three floors above the basement level is attested at Karanis, the top floor perhaps being an open terrace (Husselman 1979: 67–73). There was no internal courtyard in houses of this type, and the windows were small openings with embrasures to diffuse the light on their inner side. These were houses adapted to suit desert environments, where protection from heat, sand, and wind are necessary. Kitchens were usually located outside in open courtyards protected by enclosure walls. Such a typology predominates in the settlements of the Fayum from the Hellenistic through the Roman Period, and, in my opinion, represents the evolution of a type of urban house known as early as the New Kingdom (see the chapter by G. Mumford in this volume). The construction techniques used are local, deeply rooted in Egyptian tradition, but sometimes decorative elements made of stone, stucco or paint, are found that reflect a Hellenistic culture (Husselman 1979: 47–8, pls. 72–3).

Another type of house can be defined on the basis of its plan, typically more articulate, and by structural characteristics that imply that it was built with a single storey of rooms, with a roof terrace that could be accessed by a staircase inside the house. Buildings of this sort generally lack basement rooms/storerooms. Examples of such houses dating to the Roman Period were found at Dionysias, Theadelphia, and Narmouthis in the Fayum. Their interior decoration is of Hellenistic type, and another distinctive feature is the large central room with pilasters topped with Alexandrian-style stone capitals. These rooms can, perhaps, be interpreted as *triclinia* (Davoli 1998: 355).

Rescue excavations in Alexandria have revealed houses of the Ptolemaic and Roman Periods. These have plans and décor that derive from Greek and Roman traditions, with internal peristyle courtyards surrounded by rooms richly decorated with mosaic pavements (some of Macedonian style) and wall paintings. The mosaics found in the *triclinia* of Alexandrian houses of the Roman Period are distinctive in that they have a plain, undecorated, band that forms a border around three walls of the room. Couches would have been placed over these bands, so their decoration was unnecessary (Majcherek 2003). The *triclinia* were the largest rooms in houses of this kind, and access from the internal court was through a tripartite monumental entrance.

Houses with peristyle or pseudo-peristyle courts are also known from Marina el-Alamein. These were built entirely of limestone blocks, with limestone floors too. The interior walls were plastered with lime and often painted. There were niches and architraves also richly decorated in Alexandrian style. The column capitals of the peristyles were of the Ionic and Corinthian orders, the former often painted. These houses also had basement storerooms roofed with barrel vaults and perfect thermal insulation made up of layers of sand and amphorae laid horizontally. A system for collecting rain water filled underground cisterns and a series of small channels connecting to a latrine allowed waste water to be flushed away. The presence of steps implies the existence of a second storey (Daszewski 1995: 20–4).

Houses of the fourth century with an articulate plan and a large external courtyard have been discovered at Kellis (Dakhla oasis). They appear to have been single-storey structures without basement (Hope 1997). The public and private architecture of the fourth century at urban sites in the Dakhla oasis such as Kellis and Trimithis is particularly rich, both in purely architectural terms and in its decoration. These are buildings made of mud-brick, often with interior decoration of polychrome paintings on a thin layer of stucco, and with *appliqués* of gilded gesso. A private house at Trimithis had four painted rooms, one of them with superimposed rows of figures including Greek mythological motifs (Bagnall, Davoli, Kaper, and Whitehouse 2006: 26–8). Great residential complexes of the second–third century, with more than twenty rooms, have been identified and partially excavated at Kellis. It is not possible to evaluate fully their plans and functions, but they are made up of large rooms painted in bright colors with plant motifs and geometric figures imitating alabaster and *opus sectile* veneers, with figures depicted on tiles and panels (Hope & Whitehouse 2006). There are also painted columns. One of these vast building complexes, only partly excavated, had more than 200 rooms on two levels. The civil and funerary architecture of Dakhla and Kharga make little use of wood, in contrast to the situation in the Fayum, where it is used in walls and ceilings. The roof forms used most often are vaults and domes, with heavy use of pot-sherds for chinking between mudbricks.

Archaeological excavation on the trade and communication routes of the Eastern Desert and the Red Sea ports shows that the architecture of this area was poor, with forts the only monumental architecture. Construction materials used in Egypt vary throughout Egypt for practical reasons, according to availability and, above all, climate. Mud-brick predominates in public and private architecture of the oases and Nile Valley, while in the Delta and on the Mediterranean coast, extensive use was made of squared blocks of local limestone fitted together with lime plaster or mortar. In the settlements of the Eastern Desert unworked stone was the principal material, laid dry or with a little mortar made of mud. Baked brick is found throughout all of Egypt but it was never used in great quantity because of the large amounts of wood needed to fire it.

Thus, to conclude: the territory of Egypt was extensively occupied and cultivated in the Hellenistic and Roman Periods, and areas such as the western and eastern deserts and the Red Sea and Mediterranean coasts, which had been subjected to little or no systematic exploitation in earlier periods, were organized by the opening of new routes of communication, and urbanized. Large-scale regional land-reclamation projects were begun early in the Ptolemaic Period and continued into the Roman Period, allowing maximum agricultural exploitation of the countryside, with the consequent foundation of new settlements. Egypt's entry into a greater, Mediterranean-focused trade system provided a new impulse for the development of marginal territories through which international commerce passed. The administration of Egyptian territory on a regional basis, with settlements organized hierarchically, continued the ancient Pharaonic tradition in conceptual terms. That tradition survived in the layouts of old and new settlements and of temples and houses, just as it did in the building materials and thecniques used. On the other hand, many innovations were brought to Egypt from other areas and from provinces of the empire in fields such as the planning of settlements, the design of houses and also their decoration. It is only

in recent years, due to recent archaeological excavation of post-Pharaonic settlements, that we have been able to confirm that the urbanism and architecture of Egypt in the Roman Period were very similar to those of other eastern provinces of the Roman empire. Nevertheless, much remains to be studied in greater depth.

FURTHER READING

Bagnall, and Rathbone (2004) provides a useful archaeological guide to the major sites of Graeco-Roman and Byzantine Egypt. It is well documented and takes account of new discoveries and recent bibliography. The most important monuments and discoveries are well illustrated with plans and photos. Boxes on documentary sources enrich the picture of areas and sites. Bailey (1990) is a survey-article on Roman Period monuments and buildings in Egypt, containing, in particular, a useful detailed synthesis of the public buildings found recently at Hermopolis Magna by the British Museum expedition, of which the author published the final reports. Cuvigny (2003) produces the final report of the archaeological excavations and surveys on the eastern desert roads between Koptos and the Red Sea. It is an excellent example of multidisciplinary research with specialists in different sectors. The archaeological sites are carefully examined from architectural and functional point of views as parts of a regional system. The analysis and study of the written sources complete the archaeological picture. Davoli (1998) is dedicated to the study of urban sites of the Graeco-Roman Fayum through a critical analysis of a wide range of bibliography and a good knowledge of the archaeological remains. It is the only monograph dedicated exclusively to the Fayum, a region particularly rich in archaeological remains of the Graeco-Roman Period. Mueller (2006) delivers an exhaustive study of urbanism in the Ptolemaic Empire mainly based on written sources. The extraordinary abundance of documents from Egypt allows a detailed study of the distribution, demography, and toponymy of the settlements as well as of regional systems. Finally, Pensabene (1993) brings together hundreds of architectural fragments from all over Egypt in a monumental catalogue richly illustrated with drawings and photographs. Finally we should mention McKenzie 2007, an invaluable compendium on the Hellenistic, Roman, and Byzantine architecture of Egypt.

Transport in Ancient Egypt

Robert B. Partridge

A good communication system is essential for any civilization to develop and flourish. This is particularly so with Egypt, which in prehistoric times consisted of many separate communities spread along the banks of the river Nile before they were finally united under one king around 3150 BC. The ancient Egyptians have left much information, carved and painted on the walls of temples and tombs, on how they moved around the country. In addition, Egypt's unique climate and ancient funeral practices mean that actual examples of various means of transport have survived.

1   Transport on Water

The context

The river Nile flows northwards from the centre of Africa through Egypt. Six cataracts interrupt the flow, but from the First Cataract at Aswan to the Mediterranean there are no natural obstacles over a distance of some one thousand two hundred kilometres, though sandbanks could create hazards to navigation at low water. There is a relatively narrow band of fertile arable land on each river bank in southern Egypt and a large area in the Delta to the north. In antiquity this supported a variety of wild life, hunted for food, and the black soil was ideal for the cultivation of food crops, and the river itself teemed with fish. The early settlers soon ventured out onto the river using bundles of reeds tied together. These primitive boats could be used as fishing platforms (as larger fish are found in deeper water) and also to navigate the river, uniting communities along the river and on opposite banks. From small one–man rafts, larger craft soon developed and are seen in some of the earliest recognizable paintings from ancient Egypt.

The river runs northwards and the current flows at a moderate pace. Before the building of the Aswan dams and other barrages across the river, its speed averaged

one knot (1.85 km per hour) increasing to four knots when the river was in flood. The first sailors took full advantage of this when they wanted to travel downstream. Traveling south, upstream against the current, or crossing the river were possible with the use of boats propelled by oars or paddles. Wind power was also harnessed, but, since the prevailing wind in the country blows from north to south, its use was dependent on the direction of sailing. Consequently, the image of a sailing boat with its sail raised became the hieroglyphic determinative for the word *ḫnti*, "to sail, travel south," whilst a boat without a sail was the determinative for *ḫdi*, "to sail, travel north."

River traffic must have been considerable with the movement of people, animals, produce and building materials, up, down, and across the Nile, especially at important cities such as Memphis in the north and Thebes in the south. Trading expeditions sailed on the Mediterranean and the Red Seas. The ancient vessels were clearly capable of sea voyages, although the early mariners probably hugged the coast and avoided open water. All this activity would have needed a huge workforce to build and maintain the ships, man them, and handle cargoes at the many quays and harbors along the river. Original quaysides (which enabled high–sided vessels to be docked easily) survive at the mortuary complex of Unis at Saqqara and at the temple of Karnak, whilst sloping ramps or slipways (also surviving at Karnak) allowed smaller vessels to be pulled from the water.

The evidence

The earliest representations of boats are clay models and paintings on pottery dating from c.5000 BC to 3000 BC. Such depictions became more common into and throughout the Dynastic Period and are shown in tomb and temple paintings and reliefs. Whilst a great deal of information can be obtained from these scenes, much interpretation of the evidence is required; for the artists did not show perspective, and judging the scale of some scenes can be difficult, as human figures, for example, are often represented at unrealistic sizes relative to their surroundings and to one another.

Model boats have been found in great numbers in tombs, mostly dating to the Middle Kingdom (c.2055–1650 BC). Made of wood, plastered, and brightly painted, they show vessels propelled by oars and sail, often with a full complement of crew on board. Examples of model boats in poor condition also survive from the New Kingdom (c.1550–1069 BC) originating from some of the plundered royal tombs in the Valley of the Kings, and thirty-five intact examples were found in Tutankhamun's tomb. Good as these models often are, the artists invariably simplified the details. The "sheer" or curve of the hull of the model boat is usually exaggerated, and the hull shape is often distorted. Many have flat bottoms simply to enable models to stand upright on the floor of a tomb, so that it is important to differentiate between these and boats that really did have flat bottoms (Jones 1990). Uniquely for any ancient culture, in Egypt full-sized and intact examples of boats also survive. Few in number, they nevertheless establish proportions, design, and building techniques, which changed little over the centuries. These provide information which is simply not available from any other source. By using all the evidence

A   B
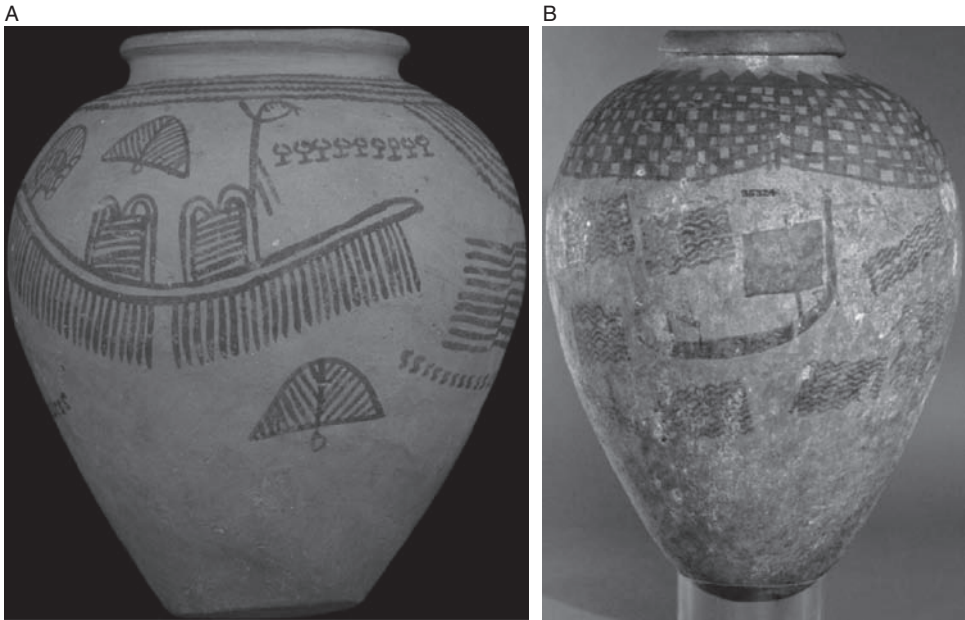
Figure 20.1a and 20.1b   Decorated Predynastic pots from the Naqada II Period showing boats, one clearly with a sail. ©The Trustees of the British Museum.

available boats of the Dynastic Period of ancient Egypt can be reconstructed with reasonable accuracy. They fall into two distinct types: those constructed from reeds and those of wood:

Reed boats

Reed boats were probably the first vessels to sail on the river. Any type of reed could be used to construct simple boats, but that generally used was the papyrus. *Cyperus Papyrus*, to give it its full name, can reach a height of five metres, and each stem can measure 15 cm in diameter at its base. Papyrus no longer grows in Egypt because of climate changes, but in the earliest periods it was found along the length of the river, although by the New Kingdom it grew only in the Delta (Landström 1970). Papyrus reeds are pliable but not particularly durable (unless they remain dry). Paintings and models depicting papyrus craft show the papyrus green in color, indicating that fresh reeds, rather than dried reeds were used, although this may simply be an artistic convention. Fresh or dried, papyrus has a limited life as a boat-building material. This probably means that few, if any, large vessels were constructed, when the labor required is weighed against the working life of the completed craft and if we bear in mind that papyrus is not particularly durable (Landström 1970).

The triangular shape of papyrus stems means that, when tied tightly together, they form a compact and strong bundle. Papyrus boats are essentially rafts made from cut reeds, tied together with rope into bundles. The tapered bundles were then tied together, and the bow and stern were raised upwards, often at right angles to the

Figure 20.2 Models of reed boats from the tomb of Meketre. Middle Kingdom. Egyptian Museum, Cairo. Photograph Robert Partridge. Courtesy the Supreme Council of Antiquities.

water, giving these vessels their distinctive shape. Clay models dating to the Badarian Culture (c.5500–4000 BC) and painted pottery from the Amratian/Naqada I Period (c.4000–3500 BC) depict boats that are presumed to be papyrus, but later painted pottery from the Naqada II Period (c.3500–3000 BC) clearly represents vessels with upswept bows and sterns and shows the individual papyrus bundles and built-up sides. Early, very stylized, drawings of boats show their distinctive shape and often what are presumed to be oars along the sides. The artists show a series of lines that start at water level, not from the deck as would be expected if oars were being represented, and show far more ''oars'' than would probably have been practical. These lines might be the artists' way of showing ripples on the water or the reflection of the boat. However, other representations do seem to indicate more clearly that boats were propelled by men with oars or paddles.

Two large steering oars are often shown at the stern of the vessels, but boats could also be steered by a single oar on one side or mounted in the centre of the stern. A cabin, to protect passengers, crew, or cargo, is often shown amidships, and some drawings depict a simple mast and a sail, but the details are invariably unclear. Other drawings appear to show branches from a palm tree (or a whole tree) at the bows. The reasons why such features are shown in these early drawings are obscure and open to various interpretations, but clearly they were regarded as important by the artists. Some representations show a mask or decoration at the bows. Others show a tassel-shaped object, hanging beneath the bows; these objects have variously been interpreted as anchors, fenders (most likely), or even weights attached to a line, used to establish the depth of water – a necessary task when navigating a river full of constantly shifting sand- and mud-banks.

Tomb scenes from the Old Kingdom portray the making of papyrus boats (although they are always shown virtually completed). The boat builders are represented cutting the papyrus reeds and then tightening the ropes on the hull. The high

bow and stern of papyrus boats are held in place by a rope secured to the hull to help keep the shape and prevent the heavier ends of the vessel from sagging in the water, which would make steering difficult. The bow is always pulled into a vertical position, whilst the stern is pulled inwards from the vertical towards the bow. This typical shape is seen in papyriform boats for the next three-thousand years. A maximum overall length of 17 m for reed boats is generally assumed from later evidence and artistic representations. This would have allowed ten or twelve oars per side, with a gap of about a meter between each rower. Masts could be one piece of timber or bi-pod (a double mast, like an ''A''-shaped ladder). This type of mast, seen in many later models, would have been easier to fix to the flimsy and flexible hull than a single mast.

With the introduction of wood as a building material, the use of papyrus appears to have been discontinued for major vessels but probably continued to be used by fishermen and hunters as small reed boats were easy to make, and the raw material was readily available. Middle Kingdom models from the tomb of Meketre show papyrus boats towing a fishing net between them. The boats are painted green and the ropes holding the papyrus bundles together are clearly shown. Small papyrus boats and rafts are depicted in the tombs of the nobles at Thebes which date to the New Kingdom. Such small rafts could easily support the weight of one or two people. The decks were reinforced with wooden planks, which can be seen in paintings. These rafts were used as floating platforms when fishing or hunting wildfowl in the marshes. They were probably reasonably stable in such a situation, where they were used in relatively shallow water, and they appear in representations throughout the Pharaonic period, used by rich and poor alike. Plutarch, writing at the end of Egypt's long history, describes Isis as using a papyrus raft when searching for the body Osiris; he claimed that the Egyptians believed that papyrus rafts were never attacked by crocodiles, a real danger on the river. If true, this might be another reason why they remained popular.

Wooden boats

The native Egyptian woods were acacia, sycamore, and persea but all produce only relatively short lengths of timber. From the early Dynastic Period cedar was imported from the Lebanon and provided substantial planks that could exceed 20 m in length. The making of wooden boats required the use of fairly advanced tools and skilled woodworking techniques. These had not been developed until just before the beginning of the Dynastic Period, which means that the introduction of wooden boats can be dated to that time. Copper or bronze-bladed adzes, axes, saws, and chisels were used, but iron tools were not available until the end of the New Kingdom.

The earliest models of wooden boats appear to show planks lashed together with rope to form a box-type hull. This type of construction, whilst appearing flimsy, can be remarkably effective. When wet, the wood expands and the rope shrinks, producing a close fit and a watertight seal between the planks. It is from the Naqada II Period that we have the first representations of boats with blunt bows and sterns, which may show early wooden boats. However, many of the early wooden craft are ''papyriform'' in shape, similar to reed boats, the boat builders following the shapes

of the boats with which they were familiar. Consequently, the bows and sterns of wooden boats often imitated tied bundles of papyrus, although these features became more stylized.

Papyriform vessels were associated from an early stage with religious or funerary use and with royal burials, and it was believed that the gods sailed the heavens in them. Many boat burials have been found, although in most cases the pits that once contained the boats are now empty. The earliest date to around 3050 BC at Saqqara and at Helwan. Only fragments of wood and rope, or impressions in the sand survive from these burials, which were made in shallow pits and covered with a boat-shaped mud-brick superstructure. Some of these boats were of a reasonable size, around 14½ m long (Saad 1951).

In 1991 several buried boats were found at Abydos near the funerary enclosure of King Khasekhemwy of the Second Dynasty. Twelve white-painted, boat-shaped mounds, from 18 to 21 m long, each contain a boat, partly buried in a shallow trench and then surrounded by, and covered with, mud bricks. Full excavation and examination of these boats have yet to be completed, and the exact nature of the find is, as yet, unclear, but they appear to be constructed in a similar way to later boats. From the Old Kingdom onwards boat burials become connected with royal burials, though in later periods boats were replaced by models. A large papyriform wooden boat was discovered in 1954 in an air-tight sealed pit adjacent to the Great Pyramid of Khufu, of the Fourth Dynasty (c.2613–2494 BC) at Giza. The boat had been carefully taken apart, and its individual timbers, which were in almost perfect condition, had been neatly stacked in the pit, many neatly tied in bundles. The largest pieces, the planks of the hull itself, were found at the bottom of the pit. Some timbers bore the identification marks, left by the carpenters, which helped them assemble the boat correctly and also helped the excavators, who were faced with an enormous three-dimensional jig-saw puzzle. The remains of quantities of rope were found in the pit and also some larger objects of matting and cordage, probably fenders.

The restored boat of Khufu is a large vessel, 43.63 m long and 5.66 m wide. Her displacement in the water would have been around 40 tons. As a comparison, the keel of HMS *Victory*, Nelson's flagship at the battle of Trafalgar in 1805 is 45.7 m long. The hull is built of cedar planks, some 14 cm in thickness. Elegantly papyriform in shape, it is formed around a central plank rather than a conventional keel. The restorers had expected the boat to be constructed in the same way as modern wooden boats, but they discovered that the planks are held, or "sewn," together with rope passing through slots cut into the timbers. Internal strength is provided by ribs and deck beams running across the hull, which were added to the hull *after* it had been put together. The ribs of the boat are "passive" frames, in that they provide internal strength only. "Active" frames form a rigid skeleton to which hull planks are then attached – this is the most common method of ship-building in other cultures through the ages and is still used today. The wood of the hull shows in places clear impressions of the ropes that held it together. This can have happened only when the timbers were wet, and that is taken as evidence that the ship was used on water. The boat was not provided with a mast or sail, but twelve large oars were included, which it might be presumed were used for propulsion. However, these oars are too large to

Figure 20.3 The boat of Khufu at Giza. Old Kingdom. Composite photograph. Courtesy Robert Partridge/Peter Phillips.

be used this way in practice. The way they are mounted on the boat today is for display only, but perhaps they were actually used with the blades in the water to prevent any sideways movement of the boat in the water as the boat was towed by another vessel. The boat was steered by two even larger oars mounted on each side of the stern. On the deck, near the bows, is a small wooden shelter from the sun for a lookout. A framework of wooden poles, with "tent-pole" acorn-shaped capitals, surrounds the large central cabin. This framework and a simpler frame over the deck were once probably covered in matting or fabric.

The high ornamental and removable bow and stern posts are carved to imitate tied bundles of papyrus. No trace of paint has survived, although all contemporary illustrations show the hulls of such vessels painted green and yellow, with additional decoration on the cabins and oars (Jenkins 1980; Lipke 1984). The exact purpose of this boat remains a matter of conjecture. It may have been used during the king's lifetime, for his funeral, or for use in the afterlife as a solar barge. A special camera inserted into a second, still-sealed, pit at Giza has revealed another slightly smaller boat, apparently not as well preserved, which has yet to be excavated. Other boat pits at Giza and at other pyramid sites were found empty – wood was a rare and valuable commodity and could easily be re-cycled.

For evidence of other Old Kingdom vessels we have to refer to surviving reliefs. Most of the boats shown in connection with the kings or in religious scenes appear to be similar in appearance, and presumably in construction, to the boat of Khufu. Working vessels are simpler in design, with more solid hulls and central cabins. Masts were not fixed permanently in place and could be lowered to lie on the cabin. When upright, the mast was secured in place by multiple rope stays running from the mast head to the stern and a single stay to the bow. In the Fourth and Fifth Dynasties the sails are shown as being narrower at the base than the top, which would prevent the lower edges of the sail getting wet if the boat heeled to one side when under sail. By the Sixth Dynasty the working boats appear to be built with flat bottoms and blunt bows and sterns, giving them more space on and below decks for cargo, and this also made them easier to construct. Cabins are shown brightly decorated; either they were painted, or were covered by woven mats.

Six small Middle Kingdom boat burials, covered in mud bricks, were found in the funerary complex of Senwosret III of the Twelfth Dynasty at Dahshur (Patch and Haldane 1990). Probably part of the funerary equipment of the king, they were found with a wooden sledge, which was most likely used to drag the boats to their burial place. The hulls of the four surviving boats are all about 10 m in length, with a broad beam, shallow body, and narrow tapered ends. The bow and stern posts are missing. As in the boat of Khufu, there is no conventional keel, and the Dahshur

boats are built around a central plank. Unlike the boat of Khufu, the short cedar planks of the hulls of the boats are not held together by rope, but the long edges of each are fitted to their neighbor by mortise-and-tenon joints and further secured by dovetail fastenings. The dovetails may not have been practical in a working boat; for any flexing of the timbers would cause them to pop out of their sockets, so perhaps these boats were not intended for extended, or even actual, use. Strengthening deck beams were fitted across the hull and pegged and lashed into place, with the decking fitted at right-angles to the beams. Traces of paint over a thin layer of plaster survive on the hulls. The gunwales were decorated with a thin blue or black line and two thicker red stripes, and the hulls were once painted green. The steering oars were once equipped with decorative finials in the form of blue-painted falcon heads. At Lisht, another Twelfth Dynasty site, many sturdy timbers of acacia and tamarisk were found close to the pyramid of Senwosret I (Arnold 1992). These planks, some 10 cm in thickness, were joined with mortise-and-tenon joints and were also lashed together. They probably came from a working boat, but they had been re-used in building a mile-long road at the site, contemporary with the pyramid.

With the survival of examples of the boat of Khufu and the Dahshur boats, we have evidence of how large and small vessels were constructed. Herodotos described Egyptian boat-building when he visited Egypt in the fifth century BC, and he could well be describing one of the Dahshur boats:

> from the acacia tree they cut planks three feet long, which they put together like courses of brick, building up the hull as follows; they join these three foot lengths together with long, close-set dowels; when they have built up a hull in this fashion they stretch crossbeams over them. (2.96)

The techniques of boat-building obviously changed very little down the centuries.

From the Middle Kingdom onwards we have limited evidence for sea-going boats, including many boat's timbers and fittings found in recent years on the Red Sea coast, full details of which have yet to be published (Bard and Fattovich 2007). Texts also survive, such as the *Tale of the Shipwrecked Sailor* and the *Tale of Wenamun* which speak of Egyptians traveling overseas by water. The ancient sailors used the prevailing winds and currents to sail around the eastern end of the Mediterranean, probably keeping as close to the land for as much of the journey as possible. The route would take them in an anti-clockwise direction from Egypt to the north east, to the Lebanon, then across to Cyprus and back to Egypt. From the New Kingdom it would appear that the larger vessels were built with a more conventional keel, rather than just a centre plank. This gave the hull much greater strength, essential for sea-going ships and cargo vessels. For additional strength, especially necessary for sea voyages, the hulls of larger vessels from the end of the Old Kingdom onwards were fitted with thick ropes running around the hull, just below deck level, known as "truss-girdles." Yet more rigidity was provided by a "hogging-truss," a thick rope that ran above the deck, from the bow to the stern. The hogging-trusses could be tightened as necessary to prevent the bow and stern of the ships from sagging. Nile craft had little or no need of anchors since they were moored to the river bank using a simple wooden stake, but boats that went
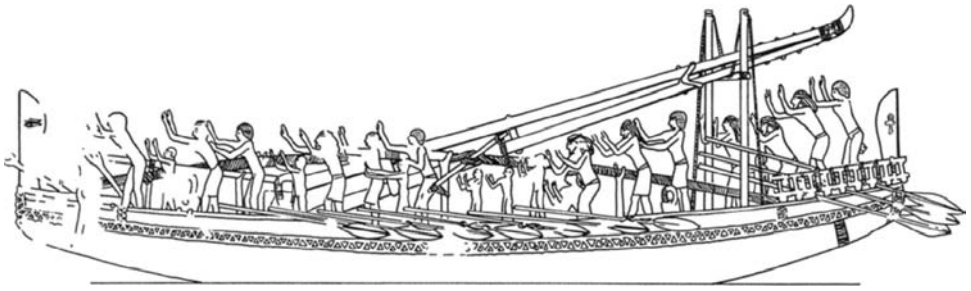
Figure 20.4   Relief from the Temple of Sahure at Abusir showing a large sailing boat with mast lowered. The "truss girdles" can be seen along the hull of the ship and the heavy "hogging truss" running from bow to stern. Drawing Robert Partridge after Landström 1970.

to sea used stone anchors, and, whilst many anchors survive from all periods, dating them is difficult.

On the river most vessels could be poled, paddled, rowed or sailed, to enable them to travel both up and down stream. In shallow water, vessels could be propelled with a pole long enough to reach the river bottom. Short paddles could be used, when the sailors raise the paddle over their heads and lean over the side of the vessel to reach the water. Each man dipped his paddle into the water after the man in front in a wave-like motion. Most scenes show boats being rowed, when larger oars are used. The oarsmen sat on low stools and the oars were secured to the gunwales of the boat by rope "rowlocks." Bipod masts were used extensively until the Middle Kingdom, after which single masts became the norm. Sails were made of heavy linen or sometimes matting and were large enough to catch even the lightest of the breezes. To furl the sails, the top yard was lowered to rest directly above the lower boom and the sail secured. Both the yard and the lower boom were supported by rope "lifts." From the late New Kingdom onwards the sails of boats became smaller and a lower boom was no longer used. To furl the sail, it was now pulled upwards and tied to the upper yard. This left the deck area clear for cargo or people. It is believed that this innovation may have been introduced from a neighboring country, such as Phoenicia or Greece.

We know that the ancient boats could carry huge cargoes. Queen Hatshepsut of the Eighteenth Dynasty organized a large trading expedition to the land of Punt (possibly modern Somalia). The voyage is depicted on the walls of her funerary temple at Deir el-Bahri (Naville 1908). Probably built of cedar, Hatshepsut's boats were around 25 m long, with fifteen oarsmen each side. The hull-shape of each is semi-papyriform, and the stern post ends in a large, decorative papyrus flower. A small platform is provided at the bow and stern. A hogging-truss runs the length of the hull, and the ends of the large deck beams can be seen projecting through the hull above the water level. Cargo was stored both on and below the deck and a central cabin was fitted to some of the boats.

For the Punt expedition the boats had to reach the Red Sea from the Nile. There was no river or canal link, so the only way the vessels could get there was overland across the desert, possibly through Wadi Hammamat to Qoseir on the Red Sea coast. Perhaps they were dismantled, physically carried across the desert and re-assembled

there, or perhaps they were moved intact. However it was done, it was a remarkable achievement. (There is now evidence of a base for such operations on the Red Sea coast discovered by K. Bard.) We now know that it was a feat that had been achieved before; for recently discovered reliefs from the pyramid complex of Sahure at Abusir record a similar expedition, a thousand years before Hatshepsut (el-Awadi and Ismail in Verner 2008).

It is also from the reign of Hatshepsut that we have records of the building of some of the largest wooden vessels in ancient Egypt, or indeed anywhere in the ancient or modern world. Huge barges were built to transport granite obelisks from Aswan, where they were quarried, to Thebes and the temple of Amun at Karnak. The barges are depicted on the walls of Hatshepsut's mortuary temple at Deir el-Bahri (Naville 1908). The surviving obelisk of Hatshepsut at Karnak is 29.6 m high and, with an estimated weight of 323 tons, is amongst the largest obelisks ever erected, and obelisk barges may have been over ninety-five metres long, thirty-two metres wide, and have had a displacement of a staggering 7,300 tonnes when loaded. Too large to be equipped with a sail and not very manoeuvrable, these barges would have been towed downstream by smaller vessels, taking full advantage of the current to travel from Aswan to Thebes, possibly when the river was in flood.

Hatshepsut's reliefs of these barges are very detailed and show two obelisks on board. It has been a subject of debate as to whether the barges actually carried one or two obelisks, but recently a rock inscription at Aswan has been discovered, which provides the definitive answer. An official of Hatshepsut called Hapuseneb states that he was responsible for the transportation of the two obelisks on *one* barge (Stephan Seidlmayer, personal communication, 2009). Clearly this was significant and perhaps the first time that such a feat had been achieved. Obelisk barges could have been used for multiple trips, although maritime experts argue that it would be impossible to tow a vessel of this size back upstream (Landström 1970). The only option would have been to dismantle all or parts of the barge, transport the pieces in smaller boats, and then re-assemble the barge at Aswan, in itself a mammoth undertaking. Hatshepsut was not the first, nor the last, to erect obelisks or colossal statues, so this type of craft must have been a regular sight on the river from the Old Kingdom onwards. Reliefs from the causeway of Unis at Saqqara show vessels carrying monolithic granite columns from Aswan.

Boats were also used to move soldiers and military equipment within Egypt and would have been employed in river-borne campaigns throughout Egyptian history. In the reign of Ramesses III (c.1184–1153 BC) at least one naval battle (or battle on water) was fought, probably in the Delta or very near the coast. Scenes from Ramesses's funerary temple at Medinet Habu show several new developments worth noting. The bows of the boat have figureheads, often described as ''rams'' to sink other boats, but there is some doubt that the boats were used in this way; for their construction would not have been strong enough to survive the shock of the impact, so this feature was probably purely decorative. A small platform was built at the top of the mast for the use of lookouts and also for archers – the first example of a ''crow's-nest'' in maritime history. The boats were fitted with higher-than-usual sides or gunwales to protect the rowers from enemy attack, in particular, from enemy arrows and spears, though, in the
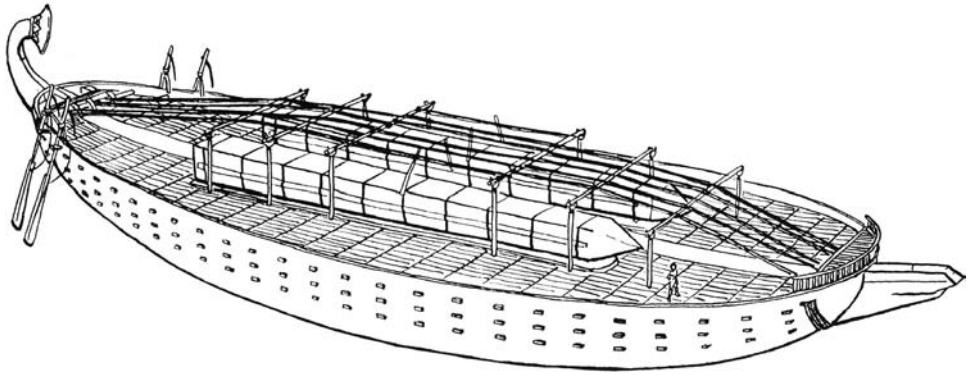
Figure 20.5   Reconstruction of the obelisk barge of Hatshepsut. New Kingdom. Drawing Robert Partridge after Landström 1970.

contemporary illustrations, the rowers are hardly visible. A raised gangway appears to run the length of the vessel to provide a fighting platform for the soldiers, whose main weapon was the bow and arrow.

Vessels for the remainder of Egypt's history appear to have continued to be built along traditional lines, although Egyptian shipbuilders were influenced by the Phoenicians, who were a great seafaring nation. From the seventh or eight century BC, Egyptian warships follow Greek or Phoenician designs, and we know that Necho II, around 610 BC, used such ships in the Egyptian navy. Older traditions, combined with new innovations for seagoing and naval craft continued into the Ptolemaic Period (332–30 BC).

Models of papyriform craft, connected with the requirements of the afterlife, from the tomb of Tutankhamun are shown with decorated bows and sterns. The earthly vessels made for the statues of the gods would have presented an even more splendid sight: for they were papyriform in shape and covered in gold. The bow and stern were decorated with the image of the god, and a shrine on the deck housed the sacred image. These sacred barges were towed in great processions on the river. Since boats played such an important part in the lives of the ancient Egyptians, it is no real surprise that they imagined that the gods used boats for their travels, and it is only in the last two hundred years that the river Nile has lost much of its role as the main highway of Egypt. The vessels constructed by the ancient Egyptians, which must have been as impressive to them as they still are to us today, were practical, but the designers never lost their sense of style and proportion, and even the most prosaic of vessels had fine and elegant lines.

2   Transport on Land

The context

It is a curious fact that one of the greatest civilizations in the world flourished without the use of wheeled vehicles until the introduction of chariots relatively late in Egyptian history. With the river and numerous irrigation canals there would have

been few locations more than a short distance from a navigable stretch of water. Goods could be transported easily by water, and, once on land, could be carried by hand or on the backs of donkeys. There was, therefore, no real need for wheeled vehicles. The ancient Egyptians managed to build some of the largest and most spectacular buildings that the world has seen, but wheeled vehicles would have been of little practical use: for the building blocks used were too large and heavy to be transported by such means. However, the Egyptians did know of the wheel; a scene from the Old Kingdom tomb of Kaemhesit at Saqqara shows men climbing up a scaling ladder fitted with wheels at its base, the wheels enabling the ladder to be manoeuvred into place. Transport on land, at least until the introduction of the chariot, was probably always very simple and for the majority of the population, who would have rarely made long journeys, involved traveling on foot. Most Egyptians probably lived, worked, and died in or near the place of their birth.

The road network

An effective road network evolved very early in Egypt's history within the Nile valley and grew side by side with the irrigation system. Soil excavated from irrigation channels was placed on both sides of the ditch, forming embankments, and pathways and roads were made on the top. Such raised roads were clear of the water level, even during the inundation, and visibility was excellent from them, making them safer for travelers. The hieroglyph for "road" shows an embankment, with papyrus growing in the ditch below.

From the river valley desert routes branched off from the network of roads. Most routes ran along the dry open valleys now known as wadis, the ground at the bottom of which is usually solid, level, and free of major obstructions. On the east bank of the river routes led to mines and quarries in the Arabian mountains and to the Red Sea, and we know that these routes were well traveled since graffiti dating to all periods of Ancient Egyptian history cover the boulders along the wayside. Wells dug at regular intervals provided water for man and beast. Other routes carried gold from the mines in Nubia, turquoise from Sinai, and produce from Punt and Koptos.

On the west bank of the river, desert routes led to the Kharga and Bahria oases and to all the other great oases, as far south as Nubia. The supply of water was more problematic on these routes, and we know that special way-stations were established to which water was transported, probably using donkeys, and cached for later use. In the north-west, the route to the Mediterranean left the Delta and turned towards Libya, and in the north-east, towards Palestine. The kings of the New Kingdom built a series of forts, with wells, each about one day's march from the next (around twenty miles) guarding these important routes; along them traveled the Egyptian armies that expanded the Empire and the goods and tribute from conquered countries.

These routes were not generally paved, but the constant passage of men and animals compacted the already hard ground and clearly marked the way. Some are still visible today, even though they have not been used for centuries. In Egypt itself hard evidence for ancient roads is lacking, but in many cases this is because they are still used today, with modern roads following ancient routes. However, one new development in modern research is the use of satellite images, and these

have made it possible to identify many ancient tracks or roads which are simply not visible from the ground. Dating these tracks is difficult, but it is possible to differentiate paths made by donkeys from those made by camels (which were not introduced until after the Dynastic Period) which might help dating. Once they are identified and located, study on the ground may reveal archaeological evidence to help date them (Parçak 2004a).

A rare paved ancient Egyptian road survives running from the basalt quarries at Gebel Qatrani in the Fayum towards modern Cairo. It runs for around 11.5 km and is built from flagstones and petrified wood found in the area. It is perfectly straight, and the best preserved parts are 2.1 m wide. Artefacts found along the road show that it was in use in the Fifth and Sixth Dynasties of the Old Kingdom, between c.2494 and 2184 BC. Basalt was used extensively during this period, and the stones were dragged on sledges to the shores of Lake Moeris, where they could then be transported by water. Other paved roads have been found in the quarries at Aswan and also connect the temples of Karnak and Luxor in ancient Thebes. Irrigation ditches may have been bridged by simple wooden platforms, but crossing larger irrigation ditches or the river would entail using a boat. The roads away from the river valley and in the desert followed the natural contours and would go around any natural obstacles. Where donkeys could go, man could also go, so roads and pathways could be narrow and steep. It was only the introduction of chariots that required the use of more level ground. Throughout Egypt today many of the pathways are still visible and in use, e.g. on the west bank of the river Nile at Luxor it is possible to tread the same path used by the workmen from the village of Deir el-Medina to the Valley of the Kings.

Transport on foot

Most ancient Egyptians went barefoot, as can be seen in the reliefs, paintings, and sculpture, although simple sandals were worn by those who could afford them, made from reeds, palm leaves, or leather. The majority of small goods were carried, often balanced on the head, as is still seen in Egypt today, and tomb models show servant figures, usually female, carrying such loads which they steady with one hand. One unique Old Kingdom wooden model from Meir, dating to the reign of Pepi II (c.2278–2184 BC) represents a male porter in the service of Nyankhpepi. He carries a large basket on his back secured by a strap around his chest and neck, almost like a modern rucksack, and holds a painted chest in front of him. A chest found in the tomb of Tutankhamun has retractable carrying poles fixed underneath to enable it to be carried by two men. Similar chests are depicted in Old Kingdom tomb scenes. Offering scenes from tombs show a variety of goods being carried; sometimes many items are strung together and attached to each end of a wooden pole, carried across the shoulders.

Carrying chairs

Carrying chairs were a high-status means of transporting individuals. One surviving example from the Old Kingdom belonged to Queen Hetepheres, wife of King Snefru and the mother of Khufu, builder of the Great Pyramid at Giza. This example is not a
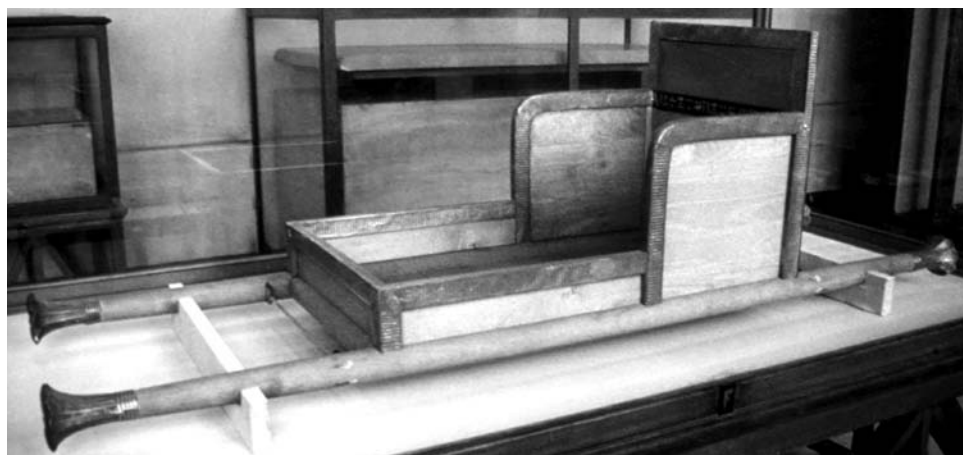
Figure 20.6 The carrying chair of Queen Hetepheres. Old Kingdom. Egyptian Museum Cairo. Photograph Robert Partridge. Courtesy the Supreme Council of Antiquities.

conventional chair, but a low box supported between two poles, carried by at least two, possibly four, people. The box is fitted with a high back and low side panels and the chair is gilded in parts, as befits a high status object. It might look small and uncomfortable, but contemporary scenes show the occupants of similar chairs sitting on cushions, with their knees drawn up close to their chests. It is likely that they were used only over short distances, but a carrying chair would have been the preferred method of transport for high-status individuals at least until the New Kingdom. Scenes from the tombs at Amarna from the reign of Akhenaten and of the later coronation of Horemheb show the king carried seated in a more conventional chair or throne (similar to the golden throne of Tutankhamun) placed on a large platform, carried by at least twelve men at shoulder height. It is likely that by the New Kingdom the use of a carrying chair was limited to specific ceremonial occasions.

Donkeys

The donkey was first domesticated in the Prehistoric or Early Dynastic Period (c.3000–2686 BC) and some of its earliest representations appear on slate palettes from this time. By the Old Kingdom donkeys are frequently shown in tomb reliefs as beasts of burden. They are easy to look after, can survive on little water and poor-quality forage, and are long-lived and self-replicating. They are capable of transporting large loads and are shown carrying corn sheaves, or with net or basket panniers suspended on each side of the their backs. It was the donkey that was used for all long-distance overland transport, traveling the desert routes, carrying not just goods but water for men and animals. Today donkeys are still used for carrying goods over short distances, and they are ridden by their owners, although the ancient Egyptians do not appear to have liked riding them. The introduction of the horse to Egypt, just before the New Kingdom, probably did very little to reduce the importance of donkeys. Scenes from the military campaigns of Ramesses II show the army in camp using donkeys carrying panniers loaded with supplies and equipment, and the

donkey remained the main beast of burden, which labored all over the country in the fields and which, quite literally, carried the wealth of the nation on its back. It was not until the introduction of the camel to Egypt that the importance of the donkey greatly diminished. Camels appear in numbers after the Dynastic Period, although camel remains at Qasr Ibrim in Nubia indicate that the odd one was there as early as 1000 BC (Compagnoni and Tosi 1978).

Horses

Horses were not native to Ancient Egypt and (along with their associated chariots) were introduced to the whole of the ancient Near East from the beginning of the seventeenth century BC. They appeared in Egypt towards the end of the period of Hyksos rule around 1600 BC. They were small by modern standards and Arab-like in appearance, perhaps 1.35 m tall. The partnership of horses and chariots impacted greatly on the early New Kingdom and the expansion of the Egyptian Empire. They were clearly much loved and prized possessions and were given individual names. Amenhotep II, whilst still a prince, is said to have adored his horses and was closely involved in their training. Ramesses III also trained and inspected his own horses.

   Horses adapted well to the Egyptian climate, and herds were raised in the fertile Delta. Stud farms flourished, and the stock was improved by gifts to Pharaoh of new horses from Asiatic kings and by captured animals. Stable blocks were attached to most of the great palaces and estates. Burials of horses are rare, but Senenmut, an official from the time of Hatshepsut (c.1473–1458 BC) had his horse buried near his tomb. It was not mummified but simply wrapped in layers of linen and placed in a large, rough coffin. The horse was a mare and chestnut in coloring (Lansing and Hayes 1937). There are few representations of the riding of horses, a conspicuous exception being a fine scene from the Eighteenth Dynasty tomb of Horemheb at Saqqara showing a mounted rider. The horses were equipped with a bridle and reins but had no saddles or stirrups, though saddle-cloths are sometimes shown. Scenes on the walls of the funerary temple of Ramesses III at Medinet Habu also show mounted men, possibly soldiers, probably used as messengers or couriers.

Chariots

The Egyptians adopted the original Canaanite chariot design and adapted it to make lighter and faster vehicles. Chariots, drawn by two horses, were used for warfare, hunting, and as a means of transport for the aristocracy. Akhenaten mounted his "great chariot of fine gold when he marked out the boundaries of his new city for the god Aten at Akhetaten" (Breasted 1906). In battle, the New Kingdom Pharaohs and their army commanders were quick to realize the chariot's full potential. They were used as a swift-moving firing platform, from which arrows could be poured into the enemy. They were especially effective when attacking a disorganized or routed enemy. The fast vehicles also improved communication during the confusion of battle, enabling the king to keep in contact with his commanders and the divisions of his army.

Several examples of chariots have been found in tombs and enable Egyptologists to compare the accuracy of their artistic representations with the chariots themselves. In paintings and reliefs chariots are always shown in profile and, whilst their proportions are accurate, there is one important thing that cannot be deduced from these scenes but which is apparent from the chariots themselves, namely their width. Their track (the length of the axles) is much wider than that of other ancient chariots. Also evident from surviving examples is that the chariot body is normally open at the rear. The chariot-makers created vehicles that were lightweight and flexible in construction but also strong. They used native woods such as birch and tamarisk and imported elm. Their woodworking skills are best seen in the construction of the wheels, which needed to be light and very strong and which are all just under 1 m in diameter. Earlier examples from the Eighteenth Dynasty up to the reign of Thutmose IV have four spokes, whereas the later versions have six. Some reliefs show eight-spoked wheels, although no examples of these have been found. It would appear, therefore, that there was a "trial and error" approach to their development. The spokes have a composite construction, each being made of two pieces of wood. U-shaped elements make up the wheel spokes; the two legs of adjacent elements, glued back to back, form one single spoke. The bottom of the U was either joined to, or formed, the wheel hub. Most of the parts of the wheel were covered in rawhide, which protected them from wear and also gave them additional strength. The wheel rim was usually made from two pieces of wood with a green rawhide strip of leather over the outer edge of the wheel. This served as a tyre, but, when the rawhide shrank it also tightened up the elements of the wheel. Grease kept the wheels freely turning and prevented wear on the joints, which in some cases were also sheathed in bronze. Linchpins inserted through the end of the axle kept the wheels in place.

The undercarriage of the chariot included a fixed axle, to which the revolving wheels were attached, and the central pole. Axles of the surviving chariots are around 2 m in length and this wide wheel-base meant that the chariots were remarkably stable, especially when turning. The poles are around 2½ m long and are made of a straight-grained, artificially bent piece of wood, attached to the chariot body in a socket beneath the rear floor bar and lashed by rawhide to the front floor bar. The other end of the pole connects with the two-horse yoke, also made from artificially bent wood. Over 1 m in length, the yoke has an elegant curve which was designed to sit neatly over the necks of the horses.

The bodies of the chariots are small, being only about 1 m wide and ½ m front-to-back, and have a "D"-shaped floor plan with the rear of the body being the straight side of the D. This is large enough to hold two standing adults who are depicted in many surviving reliefs. Representations of the king show him alone, although we know from textual evidence that there was also a driver. The floor was made from leather thongs, making it flexible and light and an effective shock absorber when the chariot was driven over rough ground. The positioning of the weight of the chariot body and of its occupants directly above the axle enhanced the vehicle's stability. The sides and front of the body were made of bent wood, and the side and front rails also provided a ready, and probably necessary, hand-hold. Chariots intended for battle use had more solid sides made from wood, laminated linen or leather, often given a plaster and gilt decoration.

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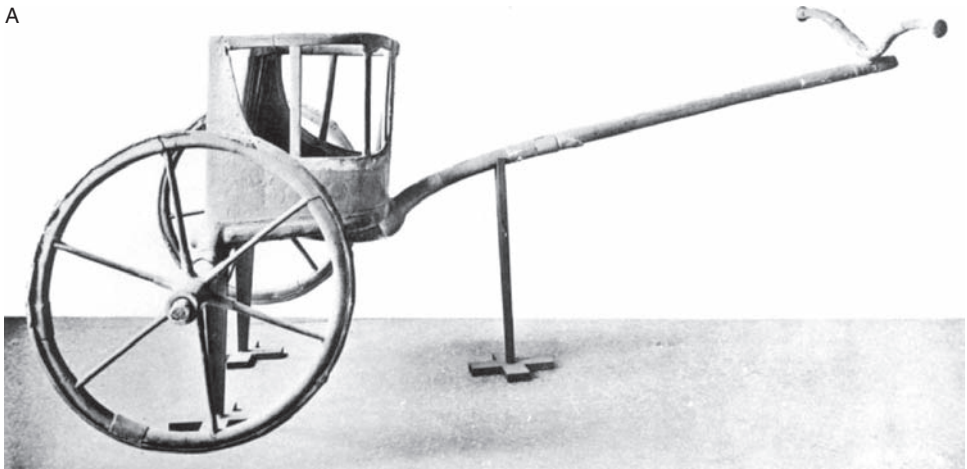
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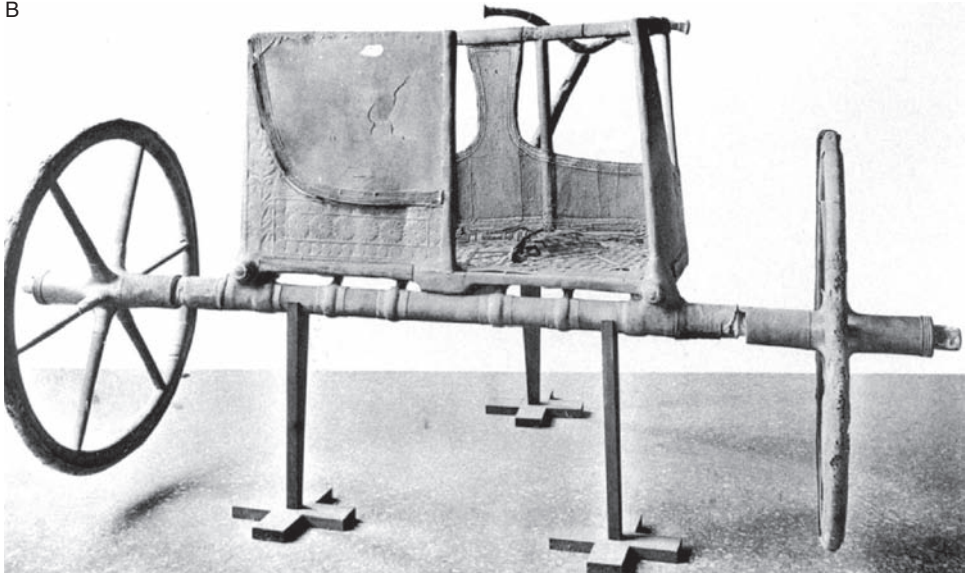
Figure 20.7a and 20.7b   Profile and rear views of the chariot of Yuya. New Kingdom. Photo Quibell, *Tomb of Yuaa and Thuiu*.

The complex harnessing used for the horses is clearly detailed in reliefs and paintings and has been confirmed by the few fragmentary surviving examples. It is, therefore, possible to see how the horses were used with the chariot. In their brightly painted and gilded chariots, the chariot owners can have had no better way of proclaiming their wealth and status in society, in what can be described as the "Rolls-Royce" of the ancient world.

The first chariot to be found relatively intact was discovered at Thebes in 1829 and is now in the Archaeological Museum in Florence. The tomb of Thutmose IV in the Valley of the Kings, discovered in 1903 by Theodore Davis and Howard Carter, yielded a badly damaged chariot body, but, in 1905, also in the Royal Valley, Davis found a splendid complete chariot, heavily gilded and with leather work stained green

and red, in the tomb of Yuya and Thuya, the former having been the Commander of Chariots for Amenhotep III. A total of six intact chariots came from the tomb of Tutankhamun. These had been dismantled in order to get them into the tomb, but they were well preserved, although most of the leather harnessing had decayed. Two were instantly identified by Carter as ''state chariots'' because of their splendid decoration, gold and colored inlay having been lavishly used over a backing of plaster. The remaining four were simpler in design and may have been for day-to day use and hunting. They were all real vehicles which the King used in his lifetime and which he took with him in death (Littauer & Crouwel 1985). No later examples survive, but Tutankhamun's chariots appear to be similar to those depicted in the later battle scenes of Sety I and Ramesses II.

Sledges

The use of sledges to move large building blocks and statues appears early in the history of Egypt, and examples have been found that may have been used for this purpose. They are made of sturdy wood, with two runners, the fronts of which curve upwards. They were pulled by human power, or by cattle, often along specially prepared surfaces to make the moving of large and heavy loads easier. These ''roads'' had wooden sleepers placed across the surface at close intervals, and sledges were pulled over these sleepers, friction being reduced by pouring water in front of the runners. The resultant mix of water and mud produced good lubrication. Examples of these special roads survive at many major building sites, and the method of lubrication is illustrated in tomb reliefs. Sledges are unlikely to have been a practical way of moving objects on loose sand or on rough or unprepared ground. One Middle Kingdom sledge was found at Dahshur, in connection with funerary boats found there. Well-made, it was probably used to transport the boats to their final resting place. Now in the Egyptian Museum in Cairo, the sledge is 4.21 m in length and 0.80 m wide.

Depictions of moving large stones and statues are rare. One Middle Kingdom example survives at el-Bersha in the tomb of Djehutyhotep II. It shows a large statue being pulled on a wooden sledge by 172 men, arranged in pairs along four thick ropes. A New Kingdom relief, from the rock quarries at Tura, shows a large stone block being transported on a sledge pulled by oxen. Interestingly a number of objects such as wooden coffins (those of Yuya and Thuya for example) or funerary goods (such as the canopic chest of Tutankhamun) are fitted with sledges, though there is no evidence of wear on the runners to show that they had actually been used. Examples of wooden rollers, which may have been used to move large stone blocks, possibly in conjunction with sledges, have been found at Saqqara and also at stone quarries at Lahun. Not many identifiable rollers have survived, as, when too damaged to use, they would probably have been burnt as firewood.

Other vehicles

Evidence for other vehicles from ancient Egypt is extremely rare. One unusual example was found with the funerary equipment of Queen Ahhotep of the Seventeenth Dynasty. It is a model, made of solid gold, of a four-wheeled cart, which carries a
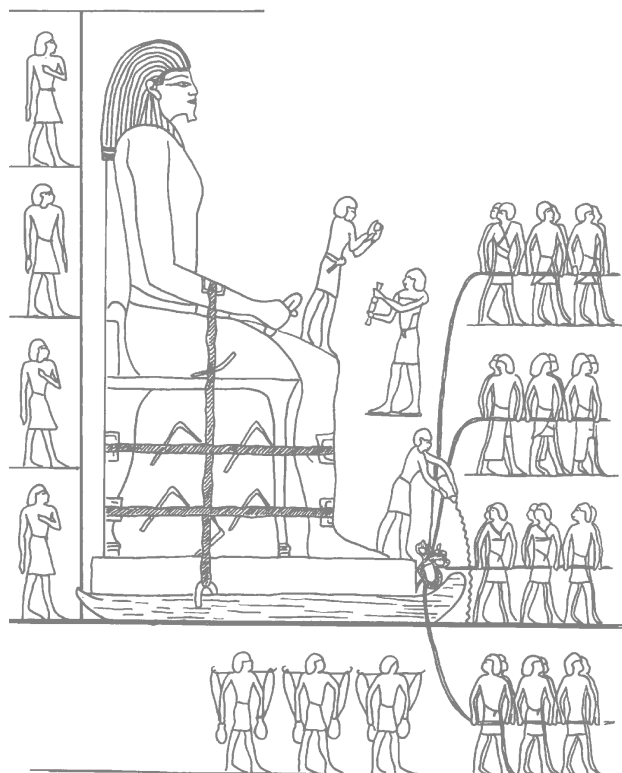
Figure 20.8   Scene showing the moving of a colossal statue of Djehutyhotep, Middle Kingdom. Drawing Robert Partridge after Newberry 1893.

boat. The exact purpose of this model is unclear, and there are no comparable examples available. Carts are shown in the tomb of Sobeknakht of the Second Intermediate Period at Elkab and also in a later scene, dating to the third century BC, from the Tomb of Petosiris at Tuna el-Gebel. Scenes of the army of Ramesses II camped during his military campaigns against the Hittites show oxen and two-wheeled carts, although they resemble converted chariots. These carts would have carried the supplies needed to support the men and animals on campaign. By the end of the Dynastic period it is likely that wheeled vehicles were seen in the areas of Egypt where Greek and later Roman influence was strongest, certainly in cities such as Alexandria, where there was a good road system. The paved stone road along the avenue of sphinxes at Luxor is marked by cart tracks that can be dated to the Roman Period.

3   Postscript

From surviving examples of boats and chariots it is easy to appreciate the skills of the ancient craftsmen, and their talents were not lost with the loss of independence in 30 BC. For centuries before this, the Egyptians had invaded and traded with other

countries, and in their turn had been invaded by others. By trade and invasion Egyptian skills were passed to craftsmen in other countries. The joints used by carpenters today are exactly the same as those used in ancient Egypt, and some of the earliest examples of very complicated joints are found in the construction of Egyptian wooden boats. The skills used by the boat-builders, when they became familiar with the use of wood, were extended to the cabinet and furniture makers, and these skills were essential to the master craftsmen who made the chariots.

FURTHER READING

There are a number of publications on aspects of Egyptian transport, but new finds are being made regularly, and increasingly this information appears first online. Partridge 1996 provides a useful general survey of the subject. Ships and shipping are a considerable focus of interest: see Landström 1970, Vinson 1994, Jones 1995, and Fabre 2004/5. For chariots see Littauer and Crouwel 1985.

Science and Technology: Pharaonic

Corinna Rossi

1 Modern Expectations and Ancient Sources: Labeling the Past

Speaking about "science" in ancient Egypt requires a preliminary discussion of the meaning of this term. If we strictly adhere to the canonical idea of science as a universal and objective truth, then not much would be classified as such prior to the seventeenth century or, according to some scholars, even the early nineteenth century (Cunningham 1988). When dealing with the ancient world and with non-Western cultures, however, it is necessary to adopt a more flexible approach, which is also more respectful of their intrinsic historical development. Every culture legitimately developed its own way of defining, controlling, and predicting natural events which often mixed magic, science, and religion; the separation between rationality and magic, and the subsequent prominence given to the former, is uniquely European (Selin 2000: vi). The criteria for defining and studying science in history tend nowadays to avoid absolute standards and to acknowledge instead the importance of the locally specific nature of knowledge. In this way, the importance of local differences is re-evaluated rather than dismissed because they do not correspond to universal concepts (Turnbull 2000; Rochberg 2004: 14–15).

   As far as ancient cultures are concerned, from the time of Aristotle onwards "natural philosophy" may act as an alternative definition for science in several fields relating to the observation and understanding of the physical world. In applying this discussion to ancient Egypt, however, this approach would not have been particularly useful, for two main reasons. First of all, mathematics should have been treated separately, since it is not regarded as part of natural science. Secondly, the concept of natural science is Greek, and is, therefore, as anachronistic for ancient Egypt as the term "science" in its strictest meaning (Grant 2007: chapter 1, see also 160). The choice was, therefore, made to organize this chapter on the basis of our modern terminology. Our aim is to communicate among ourselves, and, therefore, the

adoption of a recognizable classification system is fully legitimate, but this is applicable under one strict condition: that we do not forget that the ancient point of view might have been (slightly or significantly) different. This must be true both for technical and methodological issues. For example, our approach, understanding, and appreciation of ancient measuring instruments are often hindered by our modern, extremely high expectations of their accuracy (Symons 2000).

In general, it is important to bear in mind that only in a few cases do we know if and how the ancient Egyptians systematically organized their knowledge, and whether they recognized a certain field as a distinct discipline. The absence of sources should be treated with extreme care: implying that the absence of "treatises" means that no corresponding disciplines existed may be as dangerous as implying that sources, now-lost, could revolutionize our perception of the ancient culture. The preservation of the ancient sources, especially in case of fragile papyri, is very uneven and depended, in many cases, on pure chance. The discovery of new sources would certainly improve our knowledge, but this expectation should not be used as an alibi to dismiss the value of the documents that have already been found (as happened in the past, for instance, with mathematics). This chapter will, therefore, contain a brief survey of what we know of how the ancient Egyptians dealt with various fields. As we shall see, the categories of "science" and "technology" may act as complementary guides: when one cannot stretch any further, the other will lead us to explore the complexity of ancient knowledge.

2   Mathematics

The sources and uses of mathematics

Our knowledge of ancient Egyptian mathematics relies on a limited number of documents that may be classified as mathematical texts (Robson 1999: 7). Other texts such as building records and administrative accounts, although not strictly mathematical, may reflect mathematical knowledge and provide important evidence on how mathematics was used (e.g. Simpson 1963; Posener-Kriéger 1976).

The main mathematical texts include the Rhind, Moscow, Kahun, and Berlin 6619 papyri, a leather roll held in the British Museum, and two wooden tablets kept in the Cairo Museum. These all date to the second half of the Middle Kingdom, and the majority come from illicit digs, not from recognizable and documented contexts. They were all found in the second half of the nineteenth century and were all published for the first time between 1900 and 1930 (Peet 1923a; Chace, Bull, and Manning 1929; Struve 1930; Griffith 1898; Schack-Schackenburg 1900 and 1902; Glanville 1927; Daressy 1906; Peet 1923b).

The surviving mathematical documents appear to be school texts, designed to teach mathematics to young scribes (Ritter 2000: 120). Their contents can be classified into two categories: table texts and problem texts (Imhausen 2002). Table texts are ready made collections of mathematical *data* that may be consulted to perform calculations; problem texts, on the other hand, are sample problems, ranging

from recurring tasks such as measuring the area of fields, calculating the volume of a granary, and dividing loaves of bread among men, to exceptional events such as calculating the slope of a pyramid.

Notation and mechanisms

The Egyptian mathematical system was decimal and expressed any number by combining the hieroglyphic signs for the numbers 1, 10, 100, 1,000, 10,000, 100,000, and 1,000,000. The system (with some exceptions, Roero 1994: 32) was additive: the number 7, for instance, was indicated by seven signs each meaning 1; the number 40 by four signs each meaning 10; a number such as 253 was expressed by two signs indicating 100, plus five indicating 10, plus three indicating 1; and so on.

Beside integers (whole numbers), the Egyptians made large use of unit fractions, that is, fractions with 1 as a nominator and any number as a denominator (with the exception of $\frac{2}{3}$). However, they would never use the same fraction twice, that is, $\frac{2}{5}$ would never be expressed as $\frac{1}{5} + \frac{1}{5}$, but preferred strings of unit fractions listed in decreasing order: $\frac{2}{5}$, for instance, may be expressed as $\frac{1}{2} + \frac{1}{15}$, but also as $\frac{1}{3} + \frac{1}{16} + \frac{1}{240}$ or as $\frac{1}{4} + \frac{1}{7} + \frac{1}{140}$ and by six more combinations of three unit fractions each (cf. Gillings 1972: 53–4). The scribes took full advantage of the existence of more than one combination and generally chose the most "convenient": for instance, even numbers were definitely preferred to odd numbers, and short sequences were favoured over long series of unit fractions (Gillings 1972: 49). The most convenient results might be listed in tables and thus made available to the scribes who had to perform quick calculations.

The general preference for even numbers finds a clear explanation in the mechanism underlying the majority of ancient Egyptian mathematical operations: halving, doubling, taking 2/3 of a quantity, multiplying and dividing by 10 were basic actions of many mathematical procedures. The list of the results of 2 divided by the odd numbers from 3 to 101 (which occupies the entire *recto* of the Rhind papyrus) corresponds, in fact, to the doubling of unit fractions with odd denominators, that clearly posed more problems to the scribes than any even number (Clagett 1999: 18; Ritter 2000: 126–7 and 129).

Problem texts provided solutions for specific cases, but could also be consulted as general examples on how to approach similar issues (Clagett 1999: 94). Starting from the *data*, the scribes solved these problems by following a defined sequence of steps, in which each result was employed in the following operation (Imhausen 2003). The study of their algorithmic structure helps understanding similarities and differences with the later development of Egyptian mathematics (Imhausen 2002: 158–9): whereas some aspects clearly evolved over the centuries (Silverman 1975), others remained a constant down to the Graeco-Roman Period (Rihll, ch. 22).

Metrology and geometry

As the centuries passed, among the various units of measurement used by the Egyptians (Hannig 1995; Schlott-Schwab 1981) some survived almost unchanged,

some appeared and disappeared (e.g. Žába, Verner et al. 1976: 83), and some changed their value (e.g. Imhausen 2003: 156). The basic unit of linear measurement was the cubit ("royal" and "small") and its subunits, the palm and the finger. The small cubit corresponded to the length of the human forearm and was equal to 6 palms (c. 45 cm), whereas the royal cubit corresponded to 7 palms (c. 52.3 cm); each palm (c. 7.4 cm) was divided, in turn, into 4 fingers (c. 1.8 cm). The royal cubit was the basic unit of measurement used in architecture, as many standing monuments clearly attest (Arnold 1974a: 29–31; Arnold 1991b: 10–1; Rossi 2004: 96–147); cubic cubits appear in building records reporting on the foundations of standing buildings and on the works done in rock-cut tombs (Simpson 1963: 124–6; Koenig 1997: 9). Agricultural fields were also measured on the basis of the cubit: their dimensions were generally expressed in *khet* (equal to 100 cubits) and their areas in *setat* (also indicated with the Greek term *aroura*), equal to one square *khet* (100 × 100 cubits; Clagett 1999: 12–3; Imhausen 2003: 66–7; see also Arnold 1991: 252).

The mathematical sources contain problems of calculation of rectangular, triangular and trapezoidal areas, that may well reflect the actual practice of land-surveying. The calculation of the area of a circle as large as a field, on the other hand, is likely to represent a theoretical case (Gillings 1972: 139), most probably meant to complete the series of examples on how to calculate the area of the most common geometrical figures.

The main unit of measurement for capacity was the *heqat* (corresponding, at least in the Middle Kingdom, to c. 4.8 litres), with its multiples and sub-multiples ranging from the tiny *ro*, equal to $\frac{1}{320}$ of *heqat* (c. 0,015 litres), to the *khar*, corresponding to 20 *heqat* (that is, c. 96 litres; Clagett 1999: 14–5; Imhausen 2003: 58). Beside the intrinsic commensurability of these units and subunits, an important aspect was the relationship existing between the *khar* and the cubic cubit: the former was known to be equal to $\frac{2}{3}$ of the latter, and this proportion allowed scribes to shift easily from capacity to volume, and the opposite. A common problem assigned to a scribe, in fact, was calculating the volume of a granary and establishing how much grain could be stored inside, or the opposite.

In general, the subjects of the surviving mathematical problems clearly reflect the type of tasks that a Middle Kingdom scribe was likely to be assigned in his working life. They also reflect the various uses of mathematics which played an important role in several contexts: the administration of the community was based on an equitable distribution of goods; large-scale production of food had to be strictly regulated from the initial step of land-surveying to the final act of storing grain; and the construction of important monuments required a constant control of the workforce and of the geometry of the building (cf. Rossi 2009). The respected scribe, well fed and well taken care of by his community (cf. Lichtheim 1976: 167–8), owed part of the success of his profession to the mathematical documents at his disposal. As the first lines of the papyrus Rhind state, they contained "accurate reckoning for inquiring into things, and the knowledge of all things, mysteries [. . .] all secrets" (Clagett 1999: 122).

3   Astronomy

The sources: from religious symbols to computers

Our knowledge of ancient Egyptian astronomy relies on a variety of sources, including religious texts, funerary decorations, and building records. Matching the ancient data to the sky itself, however, is not easy. Religious texts and representations describe the sky in symbolic terms that may or may not reflect distinct celestial bodies or astronomical events. For instance, whilst many stars and constellations were specifically associated with minor deities (Wilkinson 2003: 90–1), an important and single entity like the sun might be identified with three different deities depending on the time of the day (Quirke 2001; Müller 2001; Mysliwiec 2001; O'Rourke 2001). Other sources may not be accurate enough to match our modern expectations: our knowledge of the ancient Egyptian star tables, for instance, is entirely based on artistic representations of ancient time-keeping methods, not on actual working instruments (Symons 2000: 112).

Achievements and problems in the study of ancient Egyptian astronomy may be summarized as follows: our understanding of mechanisms and notation has certainly improved over the years, but the identification of the majority of the stars mentioned in the ancient sources remains an unsolved problem. The introduction of computer-generated models that help to reconstruct the ancient sky has had a significant impact but has not produced results that have met with the general consensus. In general, it is interesting to note that a better comprehension of the ancient sources has weakened, rather than reinforced, some earlier undisputed assumptions, thus opening the way for further research.

The sun, the moon, and the stars

Orientation in time and space is a basic need of every society, and in ancient Egypt the sky provided abundant material for this purpose. The most obvious rhythm and the first basic spatial distinction were provided by the sun which every day rises in the east and sets in the west. For more sophisticated goals, such as keeping a calendar and establishing with precision the four cardinal points, the ancient Egyptians appear to have turned to the night sky and to the more complex movements of various celestial bodies.

From the point of view of an observer, the stars slowly and constantly rotate around the north celestial pole. This point corresponds to the direction of the axis of the planet Earth and is currently marked by Polaris, the North Star. Four millennia ago, however, the axis of our planet pointed in a slightly different direction, and the north celestial pole was not marked by any star. The entire sky rotated around a dark spot: whilst the further stars periodically disappeared under the horizon, those lying closer to the center of rotation never set. In ancient Egypt, because of their constant presence, the circumpolar stars earned the appellative of "the Imperishable Ones".

Stars were grouped in constellations, divided into southern and northern groups (Neugebauer and Parker 1969: 183–202); New Kingdom sources mention about

a dozen in each group but only a few can be identified (Wilkinson 2003: 91). Five "stars that know no rest" (five planets) moved independently against this "fixed" background (Neugebauer and Parker 1969: 175–82), and so did the moon. Among the stars that set and rose, the most important was the bright Sirius, called Sopdet by the Egyptians and Sothis by the Greeks. The moon and Sirius played a fundamental role in the organization of the ancient Egyptian society: the phases of the former and the annual cycle of the latter lay at the basis of ancient Egyptian time-keeping system.

Time keeping

The oldest calendar appears to have been based on the lunar cycle. The interval between equal phases of the moon (the synodic period), however, is about 29.5 days, and lunar months therefore last either 29 or 30 days. This irregularity, noted already in earliest times, might have prompted the Egyptians to turn to the more regular solar calendar. The old lunar system survived in parallel and was used to fix the dates of some religious festivals (Parker 1978: 708).

Finding a match between lunar and solar dates is a difficult task: first of all, the precise sequence in which 29- and 30-day periods alternated is unclear (see, for instance, Parker 1950; Krauss 1985; Luft 1992). Moreover, the first day of the lunar month corresponded to the disappearance of the last lunar crescent, an event that could easily be missed in situations of imperfect visibility. Moreover, the irregular lunar calendar could not be precisely linked to the most important natural event of the year, the Nile flood. Another celestial body, however, appeared to fit this requirement: Sopdet (Sirius), which "disappeared" (that is, rose when the sun was already up in the sky and was thus invisible) for a period of 70 days. Her first visible rising at dawn, called "heliacal", took place at the end of June, in the same period when the inundation reached Upper Egypt.

To the early third millennium BC date the earliest representations of the star-goddess Sopdet as well as, probably, the introduction of a civil calendar which divided the solar year into 10 months of 30 days each, plus 5 extra days, called "epagomenal" (Wilkinson 2003: 167–8; Shaw 2000a: 10–1; Parker 1950). Originally, the beginning of the solar year is likely to have corresponded to the heliacal rise of Sirius. The true length of the year, however, is a few hours longer than 365 days and in fact nowadays, to keep the calendar in place, every four years we assemble the extra hours into an extra day. The ancient Egyptians were fully aware of this shift (they called it "the wandering year") but maintained this time-keeping system unaltered for millennia. It took about 1,460 years to the civil calendar to complete the cycle, and to start again in correspondence of the helical rising of Sirius. This event was celebrated during the reign of the Roman emperor Antoninus Pius in AD 139, thus suggesting that the same correspondence must have taken place around 1320 BC and 2780 BC (Parker 1952; Ingham 1969; Krauss 1985).

The 70-day period of invisibility of Sirius may have also played an important role in the compilation of the earliest diagonal star tables. There are three types of tables, previously known as "star clocks", that were thought to correspond to three stages of a linear evolution of the same system; recent research, however, casts a new light on their function.

The earliest examples of diagonal star tables date to the Middle Kingdom. They record the rising of the stars called "decans" during the course of one night. Every ten days one of the twelve decans disappeared, and a new one appeared, and thus the list "shifted" upwards and sideways, giving to the table a distinctive diagonal pattern. By the time the solar year had passed, 36 decans had appeared and disappeared in the night sky; the five remaining days were marked by a specific group of additional stars (Symons 2007). These tables appear to have been time-keeping systems: the columns represent stars and the rows time-periods, but not necessarily hours, as previously believed (Depuydt 1988). For this reason, the misleading word "clock" has been abandoned in favor of a more neutral and objective definition as "table" or "list".

Spotting a rising star may be difficult, and this led scholars to believe that a "natural" evolution of this method would be looking instead at the transit, or culmination, of stars (that is, their maximum height in the sky; Frankfort 1933; Neugebauer and Parker 1960: 32–42, 113–15). Recent research, however, suggests that the so-called "transit star clocks" of the New Kingdom, rather than being "clocks", are simply embellished lists of stars that share a common characteristic: a 70-day period of invisibility. This span of time, equal to the period of invisibility of Sirius, corresponded also to the time that conventionally elapsed between death and burial of an individual. When someone died, the corresponding disappearing star was chosen: her heliac, rising, 70 days later, marked the time when the burial would take place. As such, these lists may be precursors, rather than successors, of the diagonal star tables (Symons 2002).

Finally, the Ramesside "star clocks" consist of stars placed within a grid, drawn above a kneeling, full-faced figure. According to the traditional interpretation, two people, the observer and the "target figure", would seat facing one another, along a north-south direction. The observer would look at the position of the stars in relation to the "target figure" and, by comparing it with the table, would be able to tell the time (Neugebauer and Parker 1964). This interpretation, however, is based on a number of conjectures, and several questions remain open (Symons 2000).

Astronomical orientation of monuments

From earliest times the first act in the construction of important temples was a foundation ceremony, during which the king performed a ritual version of the basic building operations (Wilkinson 2000c: 111–12, 139; Engelbach 1934; Montet 1964; Weinstein 1973: chapter 1). During the action of outlining the building plan on the ground the king was said to be "looking at the sky, observing the stars and turning his gaze to the Great Bear". In other passages, the "stride of Re" and the "shadow" are also mentioned in connection with the same action, thus suggesting that the orientation of the buildings might be achieved either by using the stars or the sun (Arnold 1991: 16).

The careful study of some buildings confirmed that the sun was involved in their design: the funerary complex of Khafre appears to have been aligned along the rays of the setting sun at the equinoxes (Lehner 1997: 129–30), and the temple of Abu Simbel was designed so that twice a year the sun would reach the innermost sanctuary (Wilkinson 2003: 226). Stars appear to have been the target of other monuments: the

inlaid eyes of the statue of king Djoser placed in the *serdab* at the back of his pyramid were fixed on the circumpolar stars, and it is possible that the so-called air-shafts of the pyramid of Khufu pointed in the direction of specific stars (Lehner 1997: 90 and 112–14).

Other cases are less straightforward. The astronomical orientation of pyramids, for instance, is the subject of a heated debate that opposes supporters of solar and the stellar alignment (Isler 2001; Žába 1953). Within the latter group, there is no agreement on which stars might have been used (see Maravelia 2003 for a summary of the discussion triggered by Spence 2000), nor on which method might have been used to fix the four cardinal points (Edwards 1993; Dorner 1981). Because of the lack of clear textual evidence and the need to test the theoretical methods in the field and to combine computer-generated models with practical observations, the discussion inevitably remains open.

4 Medicine

The sources: papyri, bodies, and art

In ancient Egypt medical knowledge was recorded and transmitted by means of written documents, listing problems and relating solutions. About a dozen papyri survive, dating from the Middle to the New Kingdom. Like the mathematical papyri, they were all found between the end of the nineteenth and the beginning of the twentieth century, and many of them come from illicit digs. They have all been thoroughly studied, translated into German, and systematically published between 1954 and 1973 (Grapow et al. 1954–73); some of them have been translated into English and French (Allen 2005: 70–115; Breasted 1930; Stevens 1975; Jonckheere 1947; Iversen 1939; Barns 1956).

Among the most important documents, the Edwin Smith Papyrus contains a systematic list of cases, nearly all referring to victims of trauma; the Ebers Papyrus, the Hearst Papyrus, and the Berlin Papyrus contain collections of medical cases of various kinds. Gynaecology is the subject of the Kahun and Calrsberg VIII Papyri, whilst Chester Beatty VI deals with rectal diseases. The Ramesseum papyri contain gynaecological, ophthalmic, and paediatric problems, and the papyrus held in the British Museum contains mainly magical spells.

Another important source of information on ancient medicine is represented by human bodies, in particular by well-preserved mummies (Ikram and Dodson 1998). The ancient Egyptians appear to have suffered from the same diseases as we do today, ranging from toothache to cancer, and to have incurred several types of trauma relating to their professions or to warfare (Halioua and Ziskind 2005). Modern techniques, such as X-rays and CT-scan (computed tomography), provide plenty of information on the life and death of the people, commoners and kings whose bodies have been found (Halioua and Ziskind 2005: 53–65; see also Balout et al. 1985; Forbes 1993; Hawass 2005; Forbes, Ikram, and Kamrin 2007).

Finally, artistic representations may also offer important information on traumatic events and medical conditions, including dwarfism, spinal deformities, and various

types of hernia (Nunn 1996: 57, 79, 93, 166; Reeves 1992a: 32–48). Artistic conventions, however, should not be taken too literally: the most controversial case is the Pharaoh Akhenaten (whose body has not been found), usually represented with physical features that may either depend on the development of an artistic canon or as signs of chromosomal or genetic abnormality (Nunn 1996: 83–4; Reeves 1992a: 46–48).

Diagnosis and prognosis

The medical papyri provide important information on the subjects that nowadays we call anatomy, physiology, and pathology. Although the meaning of some specific terms remains unclear, the ancient names of several parts of the body have been identified, including bones and internal organs (Nunn 1996: 46–7 and 50). By combining the information coming from various medical situations, it is also possible to reconstruct how the body was thought to function.

The Egyptians believed that the air was drawn through the nose into the lungs, reached the heart and from there started to circulate in the body through a system of vessels, called *metu*, which contained also blood, mucus, urine, and semen. It was clear that food and drink went down into the stomach and then at some point reached the anus, where also the *metu* was thought to converge (Nunn 1996: 54–6). Emotions were associated with the heart, whilst the brain did not attract particular attention. However, the role of the spine in the transmission of information from the brain to the various parts of the body appears to have been appreciated (Allen 2005: 91). The basic concepts of the reproduction system were clearly understood; fertility, pregnancy, and contraception occupy large sections of the medical papyri (Halioua and Ziskind 2005: 69–75, 175–8). Trauma, infections, and various diseases required the intervention of doctors, although in some cases also priests and magicians acted as healers (Nunn 1996: 113–21; Halioua and Ziskind 2005: 7–12).

The Edwin Smith Papyrus provides information on standard medical procedure, very similar to the modern process, which consisted of examination, diagnosis, prognosis, and treatment. The doctor examined the patient, asked questions, and checked abnormal signs; then he formally pronounced a sentence stating what he had detected. The prognosis was chosen from three stock phrases: ''an ailment which I will handle'', ''an ailment I will fight with'', and ''an ailment for which nothing is done'' (Allen 2005: 70). The first sentence corresponds more or less to our favorable prognosis and the second to an uncertain prognosis. The third sentence was used when no practical treatment was known, including cases with an unfavorable prognosis. In general, apart from a few desperate cases, a treatment was then prescribed.

Treatments

No medical instruments dating to the Pharaonic period can be unequivocally identified, but the medical papyri suggest that doctors made large use of linen bandages and splints, and of swabs made of raw flax (Vogelsang-Eastwood 2000: 294). When necessary, they used at least three types of knives, made of metal, flint, or reed

(Nunn 1996: 24, 164–5). In some cases, it is clear that the "knife treatment" involved cutting and cauterising at the same time (Reeves 2001: 49–50).

Doctors also prepared drugs that could be administered to the patients through mouth, anus, or vagina, or as external applications or fumigations. The origin of the main components might be mineral, vegetal, or animal. Among the minerals, natron, common salt, and malachite were probably used for their septic and anti-bacterial properties (Nunn 1996: 145–7). The identification of many herbs and plants which were used to prepare medicaments, on the other hand, is hampered by several factors: the nature of the ailment may be uncertain; some unidentified plants may have become extinct; it may be unclear which part of the plant was used; finally, their pharmacological effects may be unknown (Germer 1993; Manniche 1989: 64–5).

More than half of the medicaments that appear in the medical papyri contain animal substances. Fresh meat was applied to wounds, fat was widely used to prepare greasy mixtures, milk was probably mainly used as a convenient vehicle; blood and bile also appear, together with excrements of various animals, including cat, ass, birds, lizards, crocodile, fly, and even man (Nunn 1996: 148–50). The most important ingredient of animal origin, however, was honey: applied externally or ingested, it was used either as a vehicle or as a medicament in itself, thanks to its anti-bacterial and anti-fungal properties (Zumla and Lulat 1989).

Finally, amulets and magic spells were also prescribed to help the healing process. The Edwin Smith Papyrus, the most systematic and pragmatic among the medical documents, contains only eight magic spells, but other sources indicate that magic was widely used either alone or alongside the practical treatment and was deeply intertwined with the latter. It would be unwise to underestimate the role of magic in the healing process: the expectation of being cured or relieved of pain would have been strongly enhanced by the use of amulets and incantations, and would certainly have had a positive effect on the patient (Nunn 1996: 96–112).

5   Biology

Botany

Clear and unmistakable evidence of the deep knowledge that the ancient Egyptians had of herbs, plants, flowers and trees can be found in several contexts. Human consumption of plants and vegetables relied on long-established experience: cereal cultivation and processing, as well as beer- and wine- production, reveal a deep knowledge of both the ideal conditions of growth for the plants and the necessary steps to isolate, process, and preserve the edible parts (Murray 2000a; Samuel 2000; Murray, Boulton, and Heron 2000); spices and various herbs were common ingredients of cooking recipes (Murray 2000b), and plants and flowers of various types were used to prepare cosmetics and perfumes (Manniche 1989: 44–63).

The physical characteristics of many plants and trees were also aptly exploited: the peculiar fibres of the papyrus made it particularly suitable for turning into a writing surface (Leach and Tait 2000: 227–38); resins of various origins were used as

adhesives and were also employed in the mummification process (Serpico and White 2000: 430–51); thanks to their flexibility, palm leaves and grass were the most common materials for making baskets and mats (Wendrich 2000: 254–5); finally, about thirty different types of wood were used to produce a variety of objects from small pieces of furniture to large beams to be used in architecture (Gale, Gasson, Hepper, and Killen 2000). Finally, plants, flowers, and trees were also widely used for decorative purposes: gardens were an important part of private houses as well as of royal estates, and in some cases of religious complexes as well (Manniche 1989: 7–21).

Whilst the practical applications of the curative and structural characteristics of plants are relatively well-known, it is unclear whether there was a common theoretical background behind them, as no treatise or complete written document specifically referring to our modern concept of botany has been found from the Pharaonic period (Manniche 1989: 7). This means that we do not know if and how exactly the Egyptians classified plants. Modern research focuses on the identification of plants mentioned or represented in the ancient sources (Manniche 1989: 67 onwards) but has received important contributions from the growing field of archaeobotanical studies (for instance, Wetterstrom and Murray 2001).

Zoology

The ancient Egyptian knowledge of the animal world clearly emerges from their artistic representations (te Velde 1980: 76). A detailed and careful study of artistic evidence dating from the Predynastic Period onwards has allowed the identification of over seventy species of birds (Houlihan 1986), twenty of fish (Brewer and Friedman 1989), and about one-hundred of mammals (Osborn and Osbornová 1998). A parallel, minor source is represented by hieroglyphs which include tiny but detailed representations of over one hundred animals and over sixty parts of animals (Gardiner 1957: 458–77). It is important to remember, though, that artistic representations such as scenes of daily life painted on tomb walls were meant to accompany the dead into the afterlife and not necessarily to be a faithful reproduction of the real world (Janssen 1990: 48); therefore, they may contain mistakes or incorrect representations of some details (Osborn and Osbornová 1998: vii).

The study of zooarchaeological remains provides information on the actual life and death of the ancient animals and, indirectly, also on their role in ancient society (Ikram 2005a). By combining various sources, it is possible to gain a relatively detailed picture of the animals that lived at the time of the Pharaohs (Houlihan 1996). In some cases, e.g. the cat, it is even possible to follow its role in society and religion from the earliest times to the Graeco-Roman Period (Malek 1993). Also in this case, as with botany, we do not know if and how the ancient Egyptians classified animals, beyond – one would imagine – the obvious, visible distinctions between flying creatures, fishes, herbivores *vs.* carnivores, etc.

As with human bodies, preparing an animal mummy implied a good knowledge of the internal structure of dead bodies. There is also evidence that the Egyptians had a clear idea of how live animal bodies functioned or malfunctioned: the way in which sick animals were cured suggests that a parallelism between human and animal organisms was clearly perceived (Petrie and Griffith 1898: 12–4; Ghaliounghui 1983).

In general it was evident to the ancient Egyptians that life (human, animal, and vegetal) always depended on the same basic rules. The fundamental role of sun, air, and water, for instance, is clearly acknowledged already in the earliest myth of the creation of the world (Quirke 1992: 21–50): no systematic written descriptions of flora and fauna have survived (if they ever existed), but the clear understanding of the basic mechanisms regulating the life of all creatures still emerges, even if indirectly, from the symbolic realm of religion.

6   Earth Science

Geography

The ancient Egyptians knew very well the territory that they inhabited: from earliest times the annual cycle of the inundation had determined the best locations where villages and towns could develop (Butzer 1976), and people had learned to exploit the changing conditions of the river. The landscape was not as static as it is today but changed dramatically from winter to summer – and so did the available space and the possible activities.

Navigation was the most important method for transporting people and goods. Whilst during the dry season this was mainly a north-south business, the inundation greatly increased the number of destinations that could be reached by boat to the east and to the west. A good example of how the Egyptians exploited this substantial change is the choice of the locations to build some of the massive Old Kingdom pyramid complexes (Lehner 1997: 58, 82–3, 142, 231).

The valley, with its relatively uniform but flexible landscape, did not hold many secrets; the case with the deserts was different since in these areas long distances separated settlements and sites of interest. A preliminary knowledge of the territory was essential to travel safely across desert areas, and natural landmarks might prove particularly useful to maintain the right direction. The only geographic map that survives from ancient Egypt dates to the New Kingdom and represents, in fact, an itinerary across the Eastern Desert, namely a section of Wadi Hammamat leading to the gold-mining settlement of Bir Umm Fawakhir (Harrell and Brown 1992). It contains the drawing of a track running along a sequence of *wadis* bordered by high mountains, the profile of which is drawn flat on either side of the track. Annotations in hieratic provide further information on locations and directions. Originally interpreted as a description of an area meant to identify the settlement (Murray 1942; Goyon 1949), the map is better interpreted as an itinerary to reach it (Baud 1990). As such, it may be considered a precursor of the later Roman *itineraria non tantum adnotata sed etiam picta* (''itineraries not only annotated but also illustrated'', cf. Brodersen 2001).

It is possible that similar topographical maps existed to support other long-distance expeditions, even before the New Kingdom. There is evidence that the Egyptians traveled far into the deserts from the earliest times (Ikram and Rossi 2004). From the Old Kindgom we have Khafre's mining expeditions to Gebel el-Asr, in Nubia (Shaw and Bloxam 1999; Shaw 2000b) and the deposits of jars found

along the track linking Dakhla to the Gilf el-Kebir (Kuper 2003) as well as Harkhuf's accounts of his travels which prove that the Egyptians knew several itineraries to reach the southern land of Yam (Yoyotte 1953; Edel 1955; Dixon 1958; Spalinger 1979a). No evidence of how these routes were recorded survives, but annotated drawings would have been the most logical and convenient method.

Geology

The ancient Egyptians quarried and mined about fifty different types of stone, and used them for various purposes, ranging from making beads, amulets, and vessels of varying size to building large architectural monuments (Aston et al. 2000). Their sources, scattered all over the Valley and the deserts, differ significantly from one another, as some stones could be found on the surface, whereas others had to be searched for underground. In this case, the Egyptians must have been able to identify the most likely geological environment where deposits of those materials might be found. The same must have happened with metals: the ancient prospectors evidently relied on their ability to combine the information provided by the land formation, the color of the rocks, and even the local flora: acacia trees, for instance, often grow near deposits of copper and lead (Ogden 2000: 148).

7   From Science to Technology

Chemistry

Chemistry is a particularly clear case where the lack of written sources indicating the existence of a specific theoretical knowledge cannot obscure the fact that, in practice, the ancient Egyptians did apply countless chemical processes in several fields. As we shall see below in the section on metals, glass and faience, modern chemical and physical analyses of ancient artefacts provide clear information on this subject. The results might have been achieved by means of repeated experiments; whether or not the reasons behind the mechanism were investigated or understood is unclear and, in a way, might be even irrelevant: the Egyptians knew how to obtain the desired result and transmitted their practical knowledge from generation to generation. In this respect, whereas the category of ''science'' cannot provide a satisfactory systematization of the ancient corpus of knowledge, the term ''technology'' is an adequate label. Technology implies knowledge, practical if not theoretical, and in many cases better represents the general idea that the ancient sources give us of the Egyptian attitude: the practical result was the main concern, whilst reasons and mechanisms appear to have attracted little attention.

New studies on ancient technology

The study of ancient Egyptian materials and technology has gained increasing importance. About one hundred years ago the majority of Egyptologists were mainly concerned with artistic and linguistic issues, and the realms of science and technology

attracted little attention. For many years the analysis of materials and artefacts was basically confined to a few publications which functioned as sole references until recently (Lucas 1926; 1962). In the last twenty years, on the other hand, the application of modern scientific and technological methods to the study of ancient artefacts has allowed the rapid accumulation of detailed and accurate knowledge, with a distinctive multidisciplinary character. A wealth of new *data* and information is now available and keeps accumulating at a brisk pace (Nicholson and Shaw 2000).

An important role in this new wave of studies is played by the growing field of experimental archaeology: a re-enactment of the ancient process is sometimes the only way to understand fully the mechanisms of the ancient technological process and to verify what the final result would have been (see, for example, Samuel 1997 on brewing beer; Ikram 2000 on preparing and consuming biltong; Ikram 2005b: chapter 2).

8   Building Houses and Monuments

Light materials and mudbricks

Mats, reeds, soil and wood were basic building materials from earliest times (Davies 1929; Rizkana and Seeher 1989: 40; Debono and Mortensen 1990: 17–20). Because of the fragility of these materials, the archaeological remains of the earliest architecture are extremely rare; important information may nevertheless be gathered from other sources. The earliest use of intricately woven colored mats and screens, for instance, survived as a common decorative pattern on later mudbrick and stone walls (Wendrich 2000: 257–8 and 263). Seemingly, the appearance of the earliest sacred spaces and some details of their building techniques may be partially reconstructed from some archaic hieroglyphic signs which contain miniature representations of these lost buildings (Badawy 1948: 41–65).

The use of mudbricks although attested as early as the beginning of the Gerzean Period, became suddenly widespread at the beginning of the First Dynasty (Kemp 2000: 79). Domestic and military architecture were almost exclusively built of mudbrick throughout ancient Egyptian history, but religious and funerary architecture also made extensive use of this building technique (Spencer 1979). Mudbrick was also used to build ramps used in the construction of stone monuments (Arnold 1991: 79–98). Mudbricks were made of clay, silt, and sand, often with the addition of straw or chaff, mixed in proportions which might vary depending on various factors, above all the local availability of the various components. The mixture was poured into moulds and then allowed to dry in the sun; the use of fired bricks was probably avoided due to the cost of fuel and the need for a stronger mortar (Kemp 2000: 79-83). The dimensions of bricks vary considerably but generally retained a 1:2 proportion between width and length, due to the intrinsict geometry of bricklaying (Spencer 1979: 147–8, pl. 41).

The ancient Egyptian production of mudbricks must have been massive and constant: the need for impressive quantities such as the 24.5 million mudbricks used to build the core of the pyramid of Senwosret III at Dahshur (de Morgan

1895: 47, n. 3) was probably met by large-scale brickyards, either permanent or specifically set up. Textual and artistic sources on the subject are, however, not numerous and our knowledge depends more on the careful study of the archaeological remains than on any other type of evidence (Kemp 2000: 83).

Stone

Although small-scale quarrying of chert to make tools dates back to 40,000 BP, large-scale demand for stone to produce vessels, statues, and architectural elements arose at the beginning of the Pharaonic period (Aston, Harrell and Shaw 2000: 5–6). Three centuries after the first significant use of stone in the Early Dynastic tombs at Abydos and Saqqara, Djoser chose stone as the sole material to build his funerary complex; the design of many parts of the complex, however, was still deeply influenced by the earliest architecture built of light materials. By the time Khufu built his pyramid just one century later the Egyptians appear to have fully understood the potential of stone and to be perfectly able to exploit it, both structurally and formally. Khafre, Khufu's successor, apart from building the second largest pyramid, inaugurated the tradition of large-scale production of royal statues (Lehner 1997: 84–133). Therefore, in a relatively short time stone had become the most common and most favored building material for any Pharaoh. State expeditions started to be organized to reach specific veins of valuable stones (e.g. Shaw and Bloxam 1999; also Shaw 1998); quarrying techniques developed, as well as efficient methods for transporting the blocks (Aston, Harrell, and Shaw 2000: 17–20), the size of which increased dramatically during the same short period of time (cf. Arnold 1991: 160, 1–2).

Even though quarries have been the subject of detailed studies in recent years (in general Klemm and Klemm 1993; for specific cases Aston, Harrell, and Shaw 2000: 70–7), the exact nature of the tools employed to extract stone blocks remains unclear. Chisels and pounders made of particularly hard stone are likely to have been the most common tools, with or without the help of other materials (Arnold 1991: 33–6; 258–64). In the case of soft stones, the use of copper chisels has been postulated (Klemm 1988); as for hard stones, the old assumption that wooden wedges were used to detach blocks from the bedrock has recently lost consensus (Aston, Harrell, and Shaw 2000: 7). Metal chisels and wooden mallets were certainly employed to dress stone blocks (Arnold 1991: 257–8), whilst the final polishing of vessels and statues was achieved by rubbing their surface with hard stones (Clarke and Engelbach 1930: 197–9).

9   Producing Objects

Pottery

From earliest times pots of various shapes and functions were commonly used to store and transport food, beverages, offerings, and precious materials. Pottery was so ubiquitous and widespread that, in terms of volume, it represents the largest find of

any archaeological excavation (Bourriau, Nicholson, and Rose 2000: 144). The importance of pottery as a potential guide through ancient chronology was already understood in the late nineteenth century (Petrie 1901: 4–8; 1920: 3–4); the way in which it was studied, however, remained virtually unchanged for nearly a century, until a wave of modern studies (e.g., Bietak 1968; Nordström 1972; Holthoer 1977) gave life to a new approach to the subject (Arnold 1976; Arnold and Bourriau 1993). Great attention is paid nowadays to recording the properties of the fabric, conventionally divided into ''Nile silt'' and ''marl'' clays: the former come from deposits left by the river over the millennia, and produce red to brown pots; the latter come from calcareous deposits and produce creamy white to greenish pots (Bourriau, Nicholson and Rose 2000: 121–2; 129–35).

A careful study of the aspect of the pot or its fragments (see, for example, Bourriau, Nicholson and Rose 2000: fig: 5.4) allows a better understanding of the criteria that guided the choice of the raw material and of the method originally used to shape it. After soaking and trampling the clay (Holthoer 1977: 11–13; Arnold 1993: fig. 3a), a varying amount of coarse material was added in order to improve the resistance of the final product to thermal shocks, a particularly useful characteristic in case the pot was meant to be used as a crucible, a cooking vessel, or a water cooler (Woods 1986; Arnold 1985: 23–9).

The earliest method for shaping a pot was by hand, either with the help of a spatula (cfr. Nicholson 1995), or by joining together coils or rings of clay (for instance, Bourriau 1981: 18), with or without the help of a turntable. Pots might also be moulded, or thrown from a wheel, a technique introduced in the Fifth Dynasty which rapidly became the most commonly used (Hope 1981; Arnold 1993: 41–79; Powell 1995). The pots were then fired either on bonfires, or in the more controlled environment of up-draught kilns, and then left to cool until ready for use (Soukiassian et al. 1990: vii–xii, 49 onwards).

Basketry and textiles

Whenever pots were not specifically required, the ancient Egyptians made large use of baskets. The most important materials for making baskets and mats were palm leaves and grass; reeds, sedges, and rushes were also employed to make brushes, boxes, coffins, pieces of furniture, and sandals (Greiss 1957; Wendrich 2000: 254–5). Baskets for daily use were probably made by women within the household, whereas more elaborate specimens were produced by specialized workshops held by men (Wendrich 2000: 265).

Several basketry techniques dating to the Predynastic and the Pharaonic Periods have been identified, including coiling (the best for producing strong baskets, widely used from the earliest period, carried out in at least nine different patterns), twining (in at least six different patterns), weaving, plaiting, looping around a core, knotless netting, piercing/sewing, and binding. The only tools required to make a basket were a needle and a knife, whereas mats, woven in at least six different patterns, required a relatively simple loom (Wendrich 2000: 255–62).

Basketry and textile techniques are contiguous areas, the main difference being that basketry is made with short and often irregular components, whilst textiles are made of long and uniform yarns (Wendrich 2000: 254). The most common material for making textiles in Pharaonic Egypt was flax, followed by sheep's wool and goat

hair. Flax was harvested according to need: the younger the plant, the finer would be the final product. The plants were pulled out of the soil and dried, the seeds were removed, and the inner fibres were extracted and then twisted together to form a long thread. The latter task was not simple and depended on the length of the fibres; it required at least three different progressive steps and might be performed with at least three different techniques (Vogelsang-Eastwood 2000).

Two basic types of looms are known from ancient Egypt: the ground (or horizontal) loom and the vertical (or fixed-beam) loom (Roth 1951; Barber 1991: 83–91 and 113–16). Archaeological evidence shows that textiles were sometimes dyed yellow, orange, brown, blue, and red or with a combination of the latter producing a purple color, but many details on dyestuff and dyeing methods still remain unclear (Vogelsang-Eastwood 2000: 278–9).

Metal, glass, and faience

Metal and glass work are two cases in which the ancient Egyptian ability and competence clearly emerge from the quality and characteristics of the surviving objects; at the same time, though, our understanding of the ancient methods and techniques is still patchy and depends almost entirely on modern chemical and physical analyses, as no ancient sources inform us on how the raw material was found, collected, and worked.

Even if we do not know exactly how hidden metal deposits were located, the Egyptians appear to have been rather systematic in their exploitation (Shaw 1998; Klemm and Klemm 1994). The ores were either treated at or near the mines, or brought to town to specialized working areas. The local availability of fuel must have played an important role in this decision, as high temperatures were required both for smelting the ores and for melting the ingots (Ogden 2000: 148, 157). Copper might be either hammered out into shape or molten and cast into moulds; gold, on the other hand, was either turned into a sheet and then cut, or cast and then refined by hand (Scheel 1989; Ogden 1992).

Apart from using the various metals separately, the Egyptians were also quite skilled in producing alloys with specific physical or aesthetic characteristics. For instance they added lead, oxide, and sulphide ores to copper to lower the melting temperature, and tin or arsenic to increase its hardness (Ogden 2000: 152–5); gold was generally mixed with varying quantities of silver to produce electrum of various shades, or with copper to obtain a reddish color (Ogden 1977; 1993).

Glass, considered an artificial precious stone, was deliberately produced in Egypt from the Eighteenth Dynasty onwards, when the working technique was probably imported from the Near East (Smith 1928: 233; Oppenheim 1973: 263). The main components of glass are silica, an alkali (which would considerably lower the melting temperature), and lime (acting as a stabilizer). The color depended on the addition of other substances, such as cobalt, copper, tin, manganese, antimony, and iron (Nicholson and Henderson 2000: 201–2).

There has been a long debate on whether the Egyptians imported ingots of glass from the Near East and simply worked them into the desired shape, or whether they started from the raw material. In the latter case, it is likely that glass was produced in stages: the components were ground, mixed, and heated to the point of fritting

(but not melting), then cleaned of foreign particles and debris. Recent experimental archaeology proved that efficient furnaces might have allowed the glass-makers to avoid the fritting stage (Nicholson and Henderson 2000: 197– 202). Melting would have been the next step; in order to improve the quality of the glass, which would have been full of trapped bubbles of gas, it might have been necessary to grind and melt it several times (Petrie 1894: 25–6). Once the glass was ready, some objects were carved as if they were made of stone; others were probably made by progressively adding powder material into a heated cast; some vessels, on the other hand, were created by thickly covering heated cores of clay with glass powder, and then by removing the interior once the object was cold (Nicholson and Henderson 2000: 202–4).

Evidence from Amarna and Qantir (Nicholson 1995; Pusch 1990) clearly indicates that the same industrial areas hosted the production glass, faience, and blue pigment: these materials share two important characteristics, the necessity for high temperatures and the use of cobalt, a material not readily available which was most probably under strict state control. The overall impression is that glass and faience were part of a more general industry of vitreous materials (Nicholson and Henderson 2000: 204–5). The continuity between glass and faience is mainly due to their extremely similar composition, both being a mixture of silica, lime or soda, and an alkali. Different proportions, though, produce different results: in faience, the larger quantity of silica and the lower firing temperature produce a crystalline material (Nicholson and Peltenburg 2000: 187). The working technique appears to have been significantly different, to the point that faience-making may be considered more similar to stone-working than to glass-making (Peltenburg 1987: 20).

Many details of the faience-making process are still unclear: its paste is difficult to handle, and the binding agent that was used to keep it together is still a matter of debate; shaping might be achieved either by modeling the object by hand and refining it by abrasion, or by pressing the paste into a mould and then firing it (Nicholson and Peltenburg 2000: 188–9). Three different methods of glazing the surface are known (efflorescence, cementation, and application); however, it is often difficult to understand which method was used, not least because the various techniques might be used in combination with one another (Vandiver 1982).

Firing was evidently carried out in kilns, but our knowledge of many important details (such as shape of the kiln, temperature achieved inside, type of fuel that was used, shape and material of the supports that were used inside) is still vague (Nicholson and Peltenburg 2000: 191–2). New excavations focused on ancient working sites are likely to yield important evidence; furthermore, this is a typical case in which experimental archaeology may play a fundamental role in enhancing our understanding of the ancient technological process.

10   Conclusions

Our knowledge of ancient Egyptian science and technology is likely to increase in the near future thanks to a new wave of studies. A careful re-evaluation of the available sources is likely to produce extremely interesting results, and the development of our

modern technology allows a growing number of new analyses of ancient remains and artefacts. In general, therefore, our understanding of both fields can be expected to grow dramatically and at a steady pace.

FURTHER READING

On mathematics see Clagett 1999, Imhausen 2002, Ritter, 2000. For astronomy consult Neugebauer and Parker 1960, 1964, 1969, and Symons, 2007. On medicine see Allen, 2005, Ikram, and Dodson 1998, and Nunn 1996. Biology is well covered by Houlihan 1986, Brewer and Friedman 1989, Osborn and Osbornova 1998, Ikram, 2005b, and Manniche 1989. On Earth Sciences see Harrell and Brown 1992. Nicholson and Shaw 2000 provide an excellent introduction to Technology.

Science and Technology: Alexandrian

T. E. Rihll

In his wealthy house the gold does not lie useless in piles.
Theokritos Idyll 17

1 Introduction

Ptolemaic Alexandria belongs to the "golden age of Greek science," the couple of hundred years following the death of Alexander, when the most famous exponents of ancient science flourished: Euclid, Archimedes, Eratosthenes, Apollonios, and Herophilos, to name but a few. It was also a time of invention and development in the technological domain, with Ktesibios leading the way chronologically and intellectually. Machines like gears, the force pump, the compound pulley and the catapult reached honed form and found widespread application, whilst more specialized equipment such as surveying instruments, the hydraulic organ, and mechanical clocks were developed for the enjoyment of many if the use of only a few. At this early stage of the discussion an historiographical remark is necessary. Widespread scholarly neglect of ancient technology, and a distinct lack of appreciation of the intellectual and economic value embodied in material culture, gave rise in the last generation to a false posit that there was technological stagnation in antiquity, which discouraged scholarly work in the area, which, in turn, allowed the false posit to dominate for a generation. Fields never remain fallow for long, however, and over the last decade the number of scholars working this fertile soil has grown from a handful to a throng, with the result that there are many new and exciting studies in almost every area of ancient technology (of which there is a good recent overview by Keyser and Irby-Massie 2006 esp. 254–63 and now Oleson 2008). The posit is now recognized for what it is: an interpretation that arose from ideology and fundamental unexpressed assumptions about how things, including society, work, in the abstract, rather than a statement of fact about ancient society or ancient attitudes (Greene 2006; see also Schneider 2007). Appropriately therefore, before moving on to discuss my

interpretation of the detailed evidence, I hereby address the fundamental questions and state my creed (although this is not the appropriate place to give the reasons for these beliefs). I believe that change is constant but discontinuous in scale and pace over space and time, so that there are equilibrium states and relatively dramatic changes between them; I believe that a form of natural selection operates on cultural processes; I do not believe that some kind of progress is inherent in human activity. Finally, I believe in cycles of growth, flowering, and decline that affect cultural structures, though I think that the degree of repetition varies with whether one is in an equilibrium state or is between states. These beliefs consciously and subconsciously inform my reading of the evidence.

2   Alexandria: City of Learning and Science

Early Ptolemaic Alexandria was unequivocally a time and a place of change between equilibrium states – between what we call the Classical period and what we call the Hellenistic Period. This was something that it shared with many other places in Alexander the Great's empire. Alexandria's efflorescence as a center of science and technology was spectacular. Less often recognized, it was also short, as is usual with flowerings; it was essentially confined to the reign of the first three Ptolemies (323–221 BC), I Soter, II Philadelphos, and III Euergetes. More or less directly as a result of the first three Ptolemies' prodigious expenditure over a century, Alexandria bursts onto the pages of the history of science books, like Athene from the head of Zeus. Thereafter Ptolemaic interest and patronage turned more towards the arts and literature than science, and what used to be thought "bastard offspring" (Fraser 1: 434) such as astrology and alchemy grew from their "scientific" parents, astronomy and physics. The efflorescence that occurs in Ptolemaic Alexandria is, therefore, located during the change between equilibrium states; between the Classical period (c.500–300 BC), which includes the lifetime of Alexander himself, and what we could call the mature Hellenistic period (c.200–100 BC). In the economic domain the issue to be addressed is that of the relative integration or superimposition of Graeco-Macedonian institutions on old Egyptian production methods and social organization (Bingen 2007 Part III; Manning 2007), but in the intellectual domain it is not clear that the two cultures even met enough to matter. Bingen identified "the most evident feature in the relations between these two coexisting communities" as "a marked reciprocal opaqueness, which sometimes goes as far as rejection of the 'other'" (2007: 243). Ptolemaic Alexandria appears to have been rather insulated from the rest of Egypt, "a nearby but foreign world" within Egypt (Bingen 2007: 279), and most Greeks and Egyptians seem to have made no more than their usual (i.e. dismal) effort to learn each other's languages. This was not helped by the fact that both cultures had a marked sense of cultural superiority. Of course one can find some influences, generally superficial, crossing over from one culture to another, especially in what Bingen calls the "zones of possible osmosis," such as the army and the women's quarters (2007: 245), but they remain exactly that – two cultures – and almost everywhere one looks in the

scientific and technological domain Greek thinking seems to have made as little impact on Egyptian as Egyptian thinking had on Greek.

We have to begin our exploration with the Library. It has been noted that neither democratic Athens nor Republican Rome created public libraries, and that these were, in the ancient world, associated with powerful individuals (Barnes 2004: 76). Barnes and others have pointed to the cultural pretensions of Alexander's Successors as the driving force behind the creation of the Library at Alexandria; I would add their political and financial unaccountability. In less autocratic regimes other demands on the public purse tended to take priority over an activity that the majority might then have considered to be of dubious interest and utility for grown-ups. At all events, I disagree with those like Méasson (1994: 32), Huss (2001: 236), and Casson (2001: 33) who seem to think of the Ptolemies' activities as akin to the creation of, say, the Smithsonian or Rockefeller Institutes, the British Museum or British Library. The most important fact to hold on to amid all the obscurities and controversies regarding them is that the Museum at Alexandria, the Library at Alexandria, and the "Zoo" at Alexandria were all part of the Ptolemies' private property. They were located *in* the palace complex, the Library at least was connected with the education of the royal family, they were adornments demonstrating Ptolemaic good taste, impressive reach, and deep pockets (they might almost be considered as urban bling), and they were probably as inaccessible as all that implies to the relative handful of Alexandrian townsfolk, passing intellectuals, or native Egyptians who might have had a desire to use them. These institutions were not set up as research institutes, or higher educational foundations, or public benefactions. They were created by *and for* the Ptolemies, new Hellenistic rulers sitting atop a new spear-won kingdom in a very old land with a phenomenally impressive set of monuments and plenty of hoary tradition. The likely physical scale of these institutions should also be registered from the start: "the House of the Faun at Pompeii is larger than any known Hellenistic ruler's palace" (Howe in Rowland and Howe 1999: 256).

The Ptolemies' interests, and their staff's experiments, sometimes did and sometimes did not coincide with what we would call scientific or technological investigation. The development of novel or amusing items was clearly on the agenda in Alexandria. For example, the description of Ptolemy II's great procession (his *pompe*) reveals that a variety of wild animals had been broken and trained to harness and chariot: this included elephants, goats, antelopes, oryxes, hartebeest, ostriches, wild asses, and camels. One assumes that the Ptolemies' animal keepers, together with local chariot makers and charioteers, all worked together for quite some time to achieve such novelties, and that the crowd was suitably impressed by that part of the parade as it passed. Whilst the "wow" factor was clearly achieved, some scientific understanding or technological progress may also have been intended for, or resulted from, this programme of experimentation – a faster chariot would have obvious military benefits – and it puts a rather different complexion on the old yarn about horse-harnessing in antiquity (which issue was constructed on a tiny evidential base). Obviously people could and did design very different types of harness to utilize these different animals' physiques and strengths in the service of men.

A connection between science, technology, and entertainment also exists in the justifiably famous automata – literally, self-acting devices – that were created at this time, such as dancing figures, drinking birds, and wine-dispensers in which the

quantity of wine seemed never to diminish, no matter how many times people refilled their cups from it. Everyone agrees that many of these devices astonished the viewer, and surviving ancient texts indicate that they were so designed, but modern academics typically attribute to their inventors an intent to illustrate physical and mechanical properties (even Wikander, even while questioning it, in an excellent paper that demolishes many other modern myths about ancient high-tech devices, 2008: 789–90). However, if that was the case, then why were the workings so carefully hidden? These devices were designed to *conceal* not to *reveal* how they worked, to maximize the astonishment, not the understanding. The reader thinking of building Philon's automatic theatre, for example, is told explicitly that they should make the column on which it stands smaller than could possibly conceal anybody, so that the audience will know that what they witness could not be caused by a person, however small, hiding inside the device. The aim was to astonish, to entertain, and to impress. Incidentally, these devices were not always small; the statue of Nysa in Ptolemy's *pompe* that stood up, poured a libation, and sat down again, was 8 cubits (about 4m) high when seated, and surely generated the "wow factor" that the organizers of the *pompe* sought (description in Athenaeus 5.198f; Lewis 1997 explains how it might have worked).

The invention of the lighthouse was clearly pragmatic; goods that constituted home comforts for the newly established residents had to come in by sea, since the only alternative route from Macedon and Greece was by very long march through often hostile territory culminating in a significant desert crossing from Gaza. Maritime traffic in this area had been discouraged hitherto (Strabo 17.1.6 [C792]), and the only sea route in the area that would have been familiar to sailors already plying these waters was that to Naukratis in the Delta, via the Canopic branch of the Nile, some 150 stadia (about 8 miles) to the east. They, together with any merchants sailing these waters for the first time, needed a target to steer towards, which was what ancient lighthouses provided, in contrast to modern lighthouses, which signal areas to avoid. "Since the coast was harborless and low on either side, and also had reefs and shallows, those who were sailing from the open sea thither needed some lofty and conspicuous sign to enable them to direct their course aright to the entrance of the harbor," is how Strabo explains its function (17.1.6 [C791], Jones trans.). So the building of a lighthouse on or near Pharos island was an infrastructural invention of critical importance to the growth of the new city and was an idea copied by the Romans and others to mark out, physically and symbolically, favored harbors such as Portus at the mouth of the Tiber. Like most infrastructural developments, they cost a lot to build (800 talents for Pharos, Pliny *NH* 6.18, = c.21,000 kg of silver, Grimm 1998: 43), and Pharos joined the prestige projects just then being listed as Wonders of the World; for it was "the greatest and most beautiful work of all" (Lucian *How to write History* 62). But unlike most such projects, lighthouses also required heavy ongoing costs to function properly, through the nightly supply of fuel to the fire which provided the light, and the associated labor (which was presumably the "few seamen" who lived on the island near the tower in Strabo's time (17.1.6 [C792]). It is to me inconceivable that the business of lifting fuel 100 m or more from the base of the Pharos to the fire was not mechanized, even if there is no evidence, for or against, on the issue. Meanwhile, out in the countryside around Alexandria, experimentation was going on with new crops and new methods in the

newly reclaimed land of the Fayum (Orrieux 1983: 77–9). Land supply there was perhaps trebled through this massive project. It was probably achieved by restricting at Lahun the quantity of water entering the Fayum and digging additional new canals, thereby reducing the size of Lake Moeris and reclaiming land around its margin.

Founded only a few years earlier by Alexander, Alexandria was, under the Ptolemies, simultaneously capital city, imperial naval base, and sole entrepôt for all maritime trade in and out of Egypt (Davies 2006: 82). Current best guess is that the population grew rapidly from next to nothing to perhaps about 300,000 around 200 BC, where it reached a plateau until Roman times, whereupon it grew again by perhaps as much as a third (Scheidel 2004). It was also a cultural fortress for the conquering forces. Ptolemy and his heirs, it has been astutely observed, used culture as a diplomatic weapon, aiming to outdo, in the production and preservation of skills and knowledge, both the others of Alexander's successors, and the old established centers like Athens (Adams 2006: 41), but what exactly did this involve? Ptolemy Soter's interest in, and approach to, matters intellectual is summarized and immortalized in the famous anecdote that he wanted a fast track to geometrical understanding; Euclid famously replied that there was ''no Royal Road to geometry'' (Proclus, *Comm. Euclid Book 1*, 68). Ptolemy II's chief role was in growing the library, by hook or by crook. Ptolemy III's involvement seems more passive: he was, for example, the recipient of the world's then-biggest ship, sent to him by Hieron of Syracuse. (The role of Archimedes in the design, construction, and oversight of this ship, the *Syrakosia*, including the relevance of his treatises *On the Equilibrium of Planes*, *On the Quadrature of the Parabola*, *On the Method*, and, of course, *On Floating Bodies*, is the subject of Pomey and Tchernia 2006.)

After Ptolemy III the Macedonian Pharaohs' support for discovery and invention in science and technology was on a downward trend, as was their empire (probably not coincidentally). Ptolemy IV Philopator (221–204) felt able to hold his own with the philosophers who visited his court and even scored points against them sufficient to enter popular folklore and get into the history books (Diogenes Laertios 7.177), and Philon was drawn to visit Alexandria and talk with its catapult builders sometime around the end of his reign. Ptolemy V was a child Pharaoh, however. The lowest point intellectually was perhaps after Ptolemy VIII's accession in the mid-second century when a military officer was appointed Librarian (one Kydas). Nevertheless, Alexandria's by now established reputation as a center for these studies seems to have served to draw successive generations of students to this city (amongst others such as Athens, Antioch, and Pergamon), and that, in turn, became self-sustaining. So, for example, in the early second century BC Apollonios of Perge, famous for his work *On Conics*, died in Alexandria, though he was not born or raised there. Alexandria's reputation was still strong in the late Republic, when Caesar commissioned one Sosigenes from the city to revise the calendar and bring Roman time to order. Even as late as the middle of the second century AD people like Galen of Pergamon were still being drawn to this city, as well as others, to further their studies. Though Galen found the standard of theoretical and practical medicine at Alexandria significantly lower than he had expected (and had found elsewhere in years previous), he also found here a medical tradition that included some figures he respected, notably Andreas, the only one of Herophilos' pupils who established a medical

reputation in his own right (von Staden 2004). The different cultural centers in different regions of the ancient Mediterranean seem to have preserved and promoted their own traditions, or brands, of medicine or Homeric scholarship (Finkelberg 2006) or whatever, so someone seeking an education in more than one intellectual camp had physically to travel to consult written works and teachers of a different stamp. The Alexandrian tradition and the Antiochean tradition more or less survived the Roman acquisition of their political territories, whilst the Macedonian (centered on Pella) and the Attalid (centered on Pergamon) were dissipated when their libraries were taken to Rome and Alexandria (in 168 BC and about 41 BC respectively), where they formed the basis of new private collections – first those of great generals (Aemilius Paullus and Mark Antony respectively), which became in due course those of emperors. The libraries' owners changed, but their (in)accessibility was probably not much changed from before, when they were owned by Hellenistic kings. Ultimately, the school of Antioch was more successful than that of Alexandria, for Constantinople, where most of our texts found refuge from the decay of time, was in Antioch's sphere, not Alexandria's. Alexandrian scholars' efforts on literary and biblical texts were not, by and large, noticed in the texts that survive to us (Finkelberg 2006 *passim*, esp. 233).

Thus, it would appear that ambitious scientists and technicians passed through Alexandria in the tracks of the few intellectual giants who flourished here in the third century. (Vitruvius may have passed through accidentally, so to speak, when he served on campaign with Caesar in 46; his role in transmitting Alexandrian knowledge to Rome is discussed in Fleury 1998), but we know of no great medics with an Alexandrian ethnic, and almost no works of medicine written by or about an Alexandrian survived the test of time to us. There is no need to assume with Fraser (1: 370) that scientists and healers were routinely offered Alexandrian citizenship and chose to decline it, an assumption that he himself appears not to make when he observes that "the lack of temptation to scholars and scientists from the Greek world to settle in Alexandria" (1: 422) was one of the chief causes contributing to Alexandria's intellectual decline. The intelligentsia associated with Alexandria mostly came *to* it from elsewhere; they were not home grown, and most of them were transient. Of our exemplars of the golden age of Greek science at the start of this chapter, Euclid, Archimedes, Eratosthenes, Apollonios, and Herophilos, Euclid's ethnic is unknown (the evidence is such that he used to be confused with a Euclid of Megara), Archimedes was from Syracuse, Eratosthenes was from Kyrene, Apollonios was from Perge, and Herophilos was from Khalkedon. Even Ktesibios, widely known as the son of an *Alexandrian* barber (Vitruvius 9.8.2), and the sole known torchbearer for Ptolemaic Alexandrian mechanics, apparently had an ethnic suggesting the family were foreigners, resident aliens (though from where exactly is unexplained): "Ktesibios the Askrenian (or Askranian, the MSS are corrupt here), the mechanic in Alexandria" (Athenaios Mekhanikos 29.9).

Given that in Ktesibios' time Alexandria was a new foundation, and it was growing rapidly, this should not be surprising; most of its population would have been immigrants. Moreover, the visiting intelligentsia were mostly from Ptolemaic-dominated territories: Fraser goes so far as to hazard the generalization that "the intellectual achievement of Ptolemaic Alexandria was based on [persons originating

from the Ptolemaic empire and associated regions]… Once Egypt lost her overseas empire, her intellectual pre-eminence in almost all fields was lost, and the new intelligentsia of the Alexandrian citizen-body never provided a comparable substitute" (Fraser 1: 307–8). Perge, for example, the hometown of one of the greatest ancient mathematicians, Apollonios, was a Ptolemaic possession when he went up to his capital to study and work (and, as it happened, die). Note that when he wrote his *Conics*, he sent it by letter to people who were *not* in Alexandria, and whom he had met elsewhere than Alexandria (Fraser 1: 417–8). It might be argued that this epistolary activity is not evidence of local want of talent; for he would not have needed to put his discoveries into a letter to someone in Alexandria (he could simply have told them orally), but it goes deeper than that. Letters were a regular method of "publication" in the mathematical field, and the choice of recipient was not random. Probably the most famous exemplars of this phenomenon, Archimedes' treatises, were published as letters to Eratosthenes, Konon, and Dositheos, all renowned mathematicians in their own right (and none living where Archimedes did, in Syracuse). Konon is another example of an imperial subject who visited Alexandria rather than being a product of a local Alexandrian education or tradition; like Pythagoras, he was a Samian, and Samos was in his time under the control of the Ptolemies. Dositheos' ethnic is a garrison town in the delta (Pelousion), but he was taught by Konon, so either Dositheos' family moved from Samos after his tuition there by Konon, or he attended Konon when Konon was in Egypt. Samos, not Alexandria, was also the home of Aristarkhos, who developed heliocentric theory around the 280s BC and thereby earned the modern accolade of the Copernicus of antiquity, and though he failed to persuade most astronomers of the time, Archimedes knew his work well enough to use it in his *Sand-Reckoner*.

It seems then that intellectuals were not *recruited* as employees of the court at Alexandria. In its intellectual heyday, most of those of whom we know appear rather to have been subjects going up to their imperial capital in order to find fame and fortune, as Dinokrates went in pursuit of his king Alexander and was rewarded with the commission to lay out Alexandria (Vitruvius 2 pref. 1–4). When Ptolemaic patronage for those interested in scientific and technological work declined, such people went elsewhere instead. Meanwhile those who populated the Museum in later times were called *philologoi* by Strabo (17.1.8), that is, *philologists*, and that is exactly what they appear to have been; literary scholars (Homeric above all), poets, and philologists in the modern sense. They dined together, shared the Museum, and held property in common (*khremata koina*) – which again does not require that they were employees, note, but rather gives the impression of a learned society. Even this may be an inflationary description; temples of the Muses are elsewhere glossed as schoolrooms (as e.g. by Finkelberg 245 n. 33; compare the Academy, Lykeion, Stoa and Garden in Athens, Rihll 2003). As befits a temple of the Muses, the man in charge was a priest (*hiereus*), who sometimes doubled as royal tutor, and who was appointed formerly by the Ptolemies and in Strabo's own time by the emperor, much as the priest of any major cult was usually an appointee of the dominant political body or figure in the state.

Fraser suggested that "those patronized expected a material reward from their patron, and it appears that payment was in fact carefully organized" (1: 310).

Now the first statement is banal, and the second, which is not, is based on what Fraser himself describes as "a silly story" concerning the grammarian Sosibios preserved by Athenaios (493e–494a, at the end of a long and tortuous discussion of Nestor's cup, which begins at 487f). No-one would dispute that patronage involved payment or other material reward; the issue here is on what basis was patronage dispensed. Any well-run treasury or financial official wishing to keep his post (or under some rulers, his head) would keep a list of payments to individuals, which is what the source says happened in the Sosibios story, but Fraser turns this into a list of "royal pensions," which implies a very different scenario of regular payment from king to employee. The differences in scenario hide in the difference between "if ever" Sosibios came to demand money, which is what the Greek says, and "whenever" he came to ask for his stipend (*ean* not *hotan* 493f, which is how it is translated in the Loeb). The Vitruvius story that Fraser goes on to discuss (7 praef. 8), which is his second case for the existence of royal pensions-type patronage, opens explicitly with the observation that the claimant, a Homeric scholar called Zoilos, tried – and failed – to make a living privately in Alexandria, before throwing himself on the king's charity. Fraser himself surmises that this was "no doubt simply begging" (2.465 n.34). The Sosibios episode could be construed in much the same way. The third and last case concerns one Panasepis, "an obscure pupil of Arkesilaos," as preserved in a fragment of an equally obscure author, one Polemon of Ilion, which says that this otherwise unknown philosopher (too obscure for inclusion in Diogenes Laertios' ten-volume *Lives of the Philosophers*) received a phenomenal 12 talents per annum (!) from Ptolemy Euergetes (Fraser 1: 310). On those three dubious cases is based the generalization that there was such a thing as a royal pension, and Fraser moves on to wonder who was in receipt of it, before acknowledging that "royal patronage of individuals in Alexandria was essentially a phenomenon of the third century" (1: 312).

   Ptolemaic patronage did not, I think, work that way. Public performance at one of the old and new festivals was the principal occasion for entertainers, and Theokritos, singing particularly of the Dionysia, claimed that anyone who sang was rewarded by Ptolemy as his art deserved (*Idyll* 17). The evidence suggests that the vast majority of the intelligent individuals who lived and worked in Alexandria were not employees of the court, even in its early heyday, and even despite the fact that the conquerors inherited a functioning system of court employment of artisans and technologists (Rostovtzeff 1: 300–1; Lewis 1986). As Cuomo rightly points out (2008: 20) "the practical necessities of ruling states…called for experts in land-surveying, water-supply, architecture (including fortifications), navigation, and military engine-building," but no known scientist was a member of the Mouseion, not even the most famous of them. Straton of Lampsakos, for example, who went to Alexandria from Athens, went expressly to tutor the royal children (Isaac Newton took a similar post in a later age and different place, leading to the production of one of his lesser-known works, *The Chronology of Ancient Kingdoms Amended*). There is, incidentally, no suggestion that he was employed in any other capacity, including that of Librarian, with which the Tutor post is sometimes supposed to have been connected (e.g. by Finkelberg, who ignores Straton amongst others, 2006: 232 n.2), and in due course he went back to Athens, where he became scholarch of the Lykeion after Theophrastos' death.

For the "ordinary" recipient of Ptolemaic monies I think patronage was much more *ad hoc*. Consider the following example. Vitruvius refers to the celebration of Mouseia at the Alexandrian Mouseion (the connection between festival and shrine is lost in the Latinized form of the institution, *Museum*) (7. pr. 4–7). He claims Ptolemy – he does not say which one – founded competitions with prizes not just for athletes but also for *writers*, in order to increase the prestige of the library. There is nothing inherently implausible about the story, though some details are likely or certainly muddled or fictitious (Fraser 1970), but the only person who acquired employment in this story – the post of Librarian (which is the only post known to have existed besides that of royal tutor, with which it was sometimes amalgamated), and that given by the king as a spontaneous reward for his actions – was the judge – the only one of the judges – who spotted that most competitors were plagiarising earlier works. That judge (unlike the other judges) evidently already knew the Library and its contents well, and may even have worked there already, presumably in a lower capacity (Vitruvius 7. pr. 7). The library at Pergamon, which survives, unlike Alexandria's, albeit in ruins, has what appear to be three bedrooms for the librarian and his staff (or his family?), and a dining room large enough for sixteen (Stewart 2006: 167). To take another and even more telling example, there is no evidence that Herophilos and Erasistratos, the most infamous of the Hellenistic anatomists, worked at the Museum; in the latter case, there is no evidence even that he was present in Alexandria. The only explicit connection between these men and the Ptolemies is the story that they received death-row prisoners for vivisection from "the kings" (Celsus 1 pr. 23–5; those not familiar with this episode in ancient history and wanting to know more should consult von Staden 1989, who also discusses the interrelationships between Ptolemaic and Pharaonic medicine thoroughly on pp. 3–31). And it is not just scientists and medics who are concerned; as Cameron pointed out, "there is not a scrap of evidence that any Hellenistic poet literally wrote in or for a library" (1995: 30). We must beware imprecision and anachronism here.

Being given material to work on, or being employed to undertake that work, is not the same thing as being employed in the modern sense, and the former does not imply, still less require, the latter. The normal Graeco-Roman pattern of patronage at this time in the technological domain was for the patron to commission the artisan, supply the materials if they were valuable, and to pay the artisan for his labor on the item, which he carried out in his own premises in his own time. This sort of arrangement underlies what is possibly the most famous fraud in history: a patron supplied a goldsmith with a given weight of gold, and in due course the goldsmith delivered to the patron a crown of the same weight, but subsequently an allegation was made that the goldsmith had substituted another metal for some of the gold, so the patron asked Archimedes to investigate. Like the goldsmith, Archimedes carried on the investigation in his own home, and, famously, in the bath, where, observing the water rising as his body descended into the hipbath, he spotted a possible solution to the problem and apparently then jumped out of the bath and ran through the streets naked shouting "*Heureka, heureka,*" "I found it, I found it!" The results were, ultimately, Archimedes' discovery of specific gravity, and the prosecution of the goldsmith.

So too ancient doctors (with the exception of Roman military doctors serving with the legions) worked in or from their own homes. Medicine, like mechanics, was then

classed as a *techne*, "craft" (see Cuomo 2007: 7–40), like carpentry or metalworking. That this applied to the great Herophilos too is demonstrated by the references to pupils of his as those who came "from the house of Herophilos." The normal pattern for trainee doctors at this time was to learn their craft in the presence and under the instruction of a skilled practitioner – in a pseudo-familial relationship if they swore the Hippocratic Oath or something similar. That they would join his household seems the most natural thing in the circumstances (so Fraser 1: 358), and there is surviving a contract from Egypt in the reign of Ptolemy IV specifying exactly such an arrangement (Fraser 1: 374). Alexandria had schools, just like any other city worthy of the name, but they were private, just like in (almost) any other city. According to Strabo, writing in about 20 BC, Alexandria, Athens, and everywhere else had been surpassed on the educational front by Tarsos, but that place was unusual in that most of the producers and consumers of education there were natives (and although they went abroad to complete their education, they returned to Tarsos). In contrast, many foreigners went to Alexandria to study, and not a few Alexandrians went abroad (and the implication of the contrast is that they stayed abroad; 14.5.13, C674).

If the project was not the detection of a small fraud on a small object, but a major public project such as the defence of a city, or the building and arming of a superfreighter, then the procedure was similar to building a temple. An Archimedes, for example, simply would not have the financial resources to buy, transport, and work enough timber of the right size and quality for counter-siege devices that could repel the Roman army. Very few private citizens had resources of this order in the Hellenistic world, and euergetism is generally the province of the politically ambitious or successful. Enough documents relating to such projects survive for us to understand the *modus operandi*; those from Athens and Epidauros are well known. Requirements were, in brief, a plan, a variety of different materials with their associated variety of different craftspeople, a number of supervisors – both of the public monies being spent on the project and the products that they bought, and a technically competent superintendent. When labor was employed directly by the building commissioners, as in classical Athens, only the leader of the builders (the literal meaning of "architect") was on annual contract rather than piece work, and he was paid once a year. In Hellenistic Epidauros most of the work was subcontracted by a process of competitive tendering, every contract needed a guarantor, and payment was often made in instalments.

It would be natural for someone who invented something in this environment to assume that the same sort of *modus operandi* that was employed for everyday technologies (and which, as craftsmen and service providers they probably instantiated in their normal daily activity) applied in this case too. Therefore they would seek payment from a prospective patron for a good delivered, even if the good had not been sought. This was not a peculiarly Greek phenomenon. "The Persian kings announce publicly a large sum of money for those who discover some novel pleasure," Theophrastos told Kassandros in the treatise *On Kingship* that he dedicated to him (Fortenbaugh et al. II: 603). More recently, in 1809 AD to be precise, the British Parliament awarded £10,000 for services rendered to his country to the man who had contributed most to the development of the power loom (Cartwright; see Lawton II: 1049). The similarly substantial reward offered by the same sovereign

body to solve the longitude problem, and how hard Harrison had to work to realize his claim to it, is a story too well known to need rehearsing here.

Consistent with this unpretentious image of Hellenistic Alexandria's scientific and technological giants is the apparently undistinguished social origins of some of them. Ktesibios, for example, was the son of an Alexandrian barber. Herophilos was "reared beside the looms," according to Galen (X.27 Kuhn). This could be taken for a common domestic environment wherein the women typically made the household's textiles, but it may indicate a less common background: "loom*s*" (plural) suggests a workshop and a mother or father (professional weavers were often men) or both making a living as craftspeople. The Aristophanes who became the librarian (c.265–188 BC) and who (amongst other things) invented the asterisk as a textual notation, was born of a military father who settled in Egypt as a kleruch or member of the garrison (Fraser 1: 308, see also 2: 662 n.97). In this period kleruchs occupied land at the King's pleasure and whim (Rostovtzeff 1: 286), so dependency was assured. Nevertheless, the self-esteem of the inventor shines through in a wonderful story about Sostratos of Knidos, who built the Pharos, the first lighthouse. He had the reigning king's (i.e. the patron's) name inscribed in the plaster – and his own inscribed in the masonry underneath, so that, when time removed the plaster, posterity would know who really deserved the credit for this magnificent monument (Lucian *How to write history* 62).

Philon reports that the formulae for catapult construction were first discovered by artisans (*tekhnitas*) working in Alexandria, and he explains why these men made the breakthrough by saying that they had ample means because they had kings who loved fame and technology (*Belopoiika* 50.24–6 Th.). He goes on immediately to stress that some discoveries cannot be found by theoretical analysis alone but require systematic empirical trials, as this one did. The point seems to be that systematic empirical trials are expensive and the outcome is uncertain, and, therefore, it required an unusual ambition by patron and craftsmen alike to find out why some catapults worked well and some did not, and thereby discover the key to reliable catapult construction and repeatable results. It is rather ironic, therefore, that he does not preserve either the names of said craftsmen or their kingly patrons! The early Ptolemies certainly had plenty of cash with which to reward those who impressed them; it has been estimated that their annual income in coin alone (that is, ignoring revenue in kind, which was phenomenally impressive in itself) had the purchasing power of at least half a million man years (Manning 2007: 455).

One of the most interesting features of the work going on in the ancient world in general and Ptolemaic Alexandria in particular was its interdisciplinarity, for example, concepts, theories, technical terms, and materials can be seen to have moved between mechanics and medics. Concrete illustrations of this include similarities between the mechanics of Ktesibios' force pump, on the one hand, and theories on the physiology of the heart, on the other, and the same technical terms being used both of parts of a machine for reducing fractures, and of parts of catapults (von Staden 1998). Or a theory on the generation of winds which was based on the behavior of water when heated in a container with a narrow opening – and which, incidentally, is obviously a predecessor of Heron of Alexandria's so-called steam engine (Vitruvius 1.6.2). Another notable illustration of disciplinary crossovers is the use of literary genres to

communicate scientific discoveries. For example, Kallimachos wrote a poem about the constellation *Coma Berenices*. This constellation was discovered and named by Konon of Samos (one of Archimedes' correspondents) to commemorate Queen Berenike's sacrifice of her hair to the gods in thanks for Ptolemy III Euergetes' safe return from a military campaign in Syria. Eratosthenes showed his skills in both domains by writing the dedication for his cubic scaling instrument in verse himself, perhaps indirectly responding to Archimedes' similar bravura: his *Cattle Problem* was ''published'' in the form of twenty-two elegiac distichs he put in a letter to Eratosthenes, then in Alexandria as Librarian. Eratosthenes is best known now as a geographer, the ancient who calculated almost exactly the circumference of the earth using nothing more than a little geometry and two measurements (one a distance, the other an angle).

This interdisciplinarity is apparent also in the work of the three great mechanics who are associated with ancient Alexandria: Ktesibios, Philon, and Heron, and we will consider them in turn. Ktesibios, who flourished in early Ptolemaic Alexandria, we have had occasion to mention already. He was a mechanical genius, inventor of the force pump, the water organ, the first feedback-controlled water clock (which set the standard till the fourteenth century AD), catapults powered by compressed air and by springy metal, and amazing automata – and these are just the things we know about over two thousand years later; no doubt there were others of which knowledge has been lost. His towering influence in mechanics is widely recognized by modern scholars, as it was by ancient, but the survival of one of his works is not, because it was included amongst some old mechanical treatises republished by Heron three centuries later, and it is Heron's name that has become associated with the relevant texts, instead of the original author's. Thus Ktesibios' *Belopoiika* is now known as Heron's, and Philon's automatic theatre is now usually called Heron's too. There are several good reasons why these texts should be reassigned to their proper authors that have been advanced by a number of scholars over a very long time, including Degering, Marsden, Murphy (1995: 3) and most recently Rihll (2007: 141–2). The biggest clue is in the title of one of the manuscripts: *Heron's Ktesibios' Belopoiika*, and everything, even the language itself, points to the same conclusion. Schiefsky, for example, in a close analysis of the technical terminology used by the authors of *Belopoiika* treatises, and acknowledging in his prefatory discussion that ''Heron's'' *Belopoiika* ''reflects the technological level of a time several centuries before Heron's own'' (2005: 261), writes *as if* this text preceded Philon's (2005: 262). This would be grossly anachronistic if the author was really Heron, who wrote about 250 years later than Philon. If, on the other hand, the author was really Ktesibios, as its title claims it to be, then the text would have been written some 35–70 years *before* Philon, so the *terminology,* as well as the technological level, would have been Ktesibios', and Schiefsky's impressions, which appear to have been based only on the language used and not on the supposed date of authorship, would be true to history, and not anachronistic (Ktesibios was probably active about 270 BC and Philon probably about 235–200 BC; Heron recorded an eclipse of 62 AD). Moreover, had Schiefsky included in his analysis the *Kheiroballistra*, which probably *was* written by Heron, his results would have been different (see Rihll 2007: 142). Turning to the automatic theatre, Heron introduces the stationary version with the following: ''none

[of my predecessors' writings] are better or more suitable for didactic purposes than those of Philon of Byzantion'' (*Automatopoietikes* 20.1), and he goes on to explain why: in his automatic theatre there are many varied scenes telling the story of Nauplios (ironically, this is one of the least well known myths today), which are well managed except for the handling of Athene. Here Heron thinks a hinge at her feet would work less clumsily than a crane. (Having seen a reconstruction which has Athene appearing and disappearing via Heron's hinged base, I would have to disagree; the goddess appears faintly ridiculous rising backwards from prone position, and even more so when she leaves by apparently falling flat on her face). Heron also complains that Philon forgot to tell the reader how to make the sound of thunder, and so he supplies a scaled down version of the device used in real, full-size, theatres (21. 3–4). He then announces that he is happy with ''all the other things'' in the Nauplios play ''as explained in order and methodically by Philon,'' and ends his introduction with the comment that he believes that ''readers receive the greatest benefit . . . when things said well by older authors are presented to them accompanied by comparisons and corrections'' (21. 5, Murphy trans.). It seems natural to suppose from this (and similar comments in 22.3) that the automatic theatre that follows is Philon's, with an alternative method of bringing Athene on and off stage, and an additional sound effect of thunder.

Philon, who lived a generation or two later than Ktesibios, traveled to Ptolemaic Alexandria when he was studying the theory and practice of everything to do with mechanics, in general, and siege warfare, in particular. We do not know who taught him, either in his homeland or in Alexandria, and we have no idea how long he stayed, but a number of comments in the *Paraskeuastika* are particularly appropriate to Ptolemaic territories (use of palm trees, for example) and suggest composition for a Ptolemaic patron. He was from Byzantion (now Istanbul), and spent time in Rhodes as well as Alexandria in his quest for mechanical knowledge and/or employment. He explicitly recognized the role of the Ptolemies in the development of torsion catapults: as ''kings who loved glory and technology'' they encouraged mechanics and craftsmen, and as a result those working in Alexandria first discovered the formulae that ensured good quality performance from any catapult built according to them; before this discovery catapult performance had been erratic and haphazard (Philon *Belopoiika* 50.26). It would be naive to suppose that consideration of similar rewards did not play a role in Philon's decision to go to Alexandria; in other words, I do not think that the noble pursuit of mathematical understanding was the only reason for his visit. He invented the wedge catapult, and his treatise could be seen as an extended sales pitch for it (compare Biton's, written for King Attalos).

There is then a gap of about 250 years before the birth of the third great mechanician who was associated with Alexandria. Heron was from Roman, not Ptolemaic, Alexandria. He flourished in the 60s AD, about a century after the last Ptolemy, Kleopatra VII Philopator, had died by her own hand, and when the whole of Egypt was part of the Roman emperor's privately run domains. He is best known today for his work in mechanics, his *Pneumatics*, in particular, which tells the reader more or less how to make 75 self-acting devices, the most famous of which is undoubtedly the *aiolipile*, the ball that rotates on a pivot when steam is passed through it, otherwise mistakenly known as a sort of steam engine (see Lienhard 2006

chapters 4 and 5 for the long road between this steam jet and a steam engine). There is no reason to suppose that Heron invented these devices, or that they are particular to Alexandrian culture, in general, or the Museum, in particular: for there was a long tradition of such devices stemming back at least to Philon of Byzantion, c.200 BC at the latest, whose own *Pneumatics* survives in Arabic translation (and partly in Latin) and whose automatic theatre was well known to Heron (see above). A few devices clearly have practical application, such as the self-dispensing wine or lamp-oil reservoirs, many of them are designed to entertain the audience, for example, with dancing (rotating) figures or whistling birds (compare clockwork jewelery boxes of yesteryear), and some are explicitly meant to provoke astonishment (compare modern magic tricks and illusions). The practical dimension is very much to the fore with the sighting instrument called a *Dioptra*, in Heron's work of that name. For example, one reads how to take a variety of measurements at a distance that are obviously useful in a military context, such as establishing the height of a wall or the depth of a ditch, and how to use it to ensure that a tunnel dug simultaneously from both ends will meet, and not become two tunnels. Of course other methods were available; few tools or techniques then or now are unique and irreplaceable, but developments occur because inventive people are dissatisfied with that subset of existing provision with which they are familiar, and so they set out to improve it in the area(s) in which they find it deficient. Most new inventions do not work well or well enough to replace the current method, so it is not reasonable to dismiss ancient attempts as ''armchair exercises'' when a modern engineer can tell that they would not work. Stephenson's *Rocket* was not the first locomotive; it was the first locomotive that superseded the horse, while Trevithick's locomotive, which was the first locomotive, was too heavy for the rails (Lienhard 2006: 108–10) – something that could be worked out today, but was not and probably could not have been in Wales in 1804. Thus it is unreasonable to dismiss the historical reality of an ancient invention simply because it did not work.

Other technological developments that are particularly associated with Graeco-Roman Egypt include alchemy. Bolos of Mendes (a town in the Delta), who flourished about 200 BC, is a key figure in the alchemists' efforts to transform various materials' color, weight, and other features. Then-current ideas about matter and its properties (that were not based on the modern concept of an element of given properties) led to the development of a variety of synthetic dyes, gems, and metal tintings and patinations (Wilson 2002). For example, a good inorganic blue pigment was discovered in Alexandria. Thereafter one Vestorius, a contemporary of Cicero, began its manufacture in Italy, specifically, in Puteoli, on the Bay of Naples, where the Egyptian grain fleet docked at the time (Vitruvius 7.11.1). Many transfers of technologies to and from Alexandria probably occurred in a similar way, especially when Alexandria was at the hub of trade into, out of, and through Egypt. Successful technology transfer generally requires the movement of people as well as goods, but such movements are documented in the surviving sources; for example, an Indian rajah is recorded visiting Alexandria for tourism and trade, and other Indians were spectators at games there (Casson 1989: 34 n.53).

In the second century AD we find one of the greatest ancient scientists walking Alexandria's streets. Claudius Ptolemy synthesized ancient astronomy into the form that persisted for about a millennium and a half, until displaced by the efforts of

Copernicus, and others, from the sixteenth century. Toomer described his *Almagest* as "a masterpiece of clarity and method, superior to any ancient textbook and with few peers from any period ... more than that ... it is in many respects an original work" (and not a mere systematization of earlier astronomy, Toomer 1981: 196). That he wrote a textbook suggests a connection with teaching, but we have no evidence of either school or pupils associated directly with him. Observations which can be dated between AD 127 and 141 in our terms and are reported in his *Almagest* enable us to place his *floruit* under Hadrian and Antoninus, while his name reveals Greek ancestry and Roman citizenship. We do not know who taught him, or where, but his observations were made in Alexandria. He also worked on astrology (the *Apotelesmatika*, or *Tetrabiblos*, *Four books*), *Geography*, where in map-making he had no successor for nearly 1,400 years, on optics and on harmonics, during his investigations for both of which he undertook a variety of clever experiments (see Barker 2000 on music, Strano 2004 on optics), and on mechanics and other mathematical topics, which works are sadly lost. His *Almagest* includes instructions for the manufacture of a variety of astronomical devices, such as the ring astrolabe (5.1). There had been equinoctial rings on display in the Square Stoa in Alexandria since the second century BC at least (Taub 2002), and Eratosthenes also dedicated his mechanical device to find cubes and cubic roots (above) in a public place where (presumably) any Alexandrian who wished could use them. A public interest in, and use for, these instruments is indicated in Plutarch's treatise *On the Face in the Orb of the Moon*, which was written at about the same time as Ptolemy was active, in which the participants at a symposium, who are portrayed as normal well-educated gentlemen, discuss theories on planetary motion, the size and distance of the sun and moon from earth, and many other related matters. Whether the instruments worked or not is a different issue, of course.

The early fourth century AD brought forth another significant ancient mathematician in Alexandria: Pappos. Again we do not know who taught him, or where, but that he was an Alexandrian is stated in the titles of his works, and he appears to have been a teacher; for his *Commentary on* (Ptolemy's) *Syntaxis* (= *Almagest*), which survives in part, appears to be material for lectures to beginners (Bulmer-Thomas 1981: 298). He also commented on Euclid's *Elements*, which would be natural for someone teaching mathematics. His (*Mathematical*) *Collection* is a handbook designed to be read *with* (not instead of) the works on which it comments, which are more or less all of Greek geometry to his time (Bulmer-Thomas 1981: 294). Pappos, therefore, assumes that the reader has access to those treatises, which is an interesting sidelight on the book trade, the schools, or the public library in Alexandria c.AD 320–40. He also worked on geography, apparently basing himself on Ptolemy's maps – this may survive in Armenian translation – and astrology, again like Ptolemy, and possibly also on music, again like Ptolemy. Over a hundred years later Theon followed in much the same tracks (sometimes so closely it is what we call plagiarism), and the existence of educational institutions and traditions as we understand them is now apparent.

Auditoria dating to the fifth to seventh centuries AD in Kom ed-Dikka, a central district of modern Alexandria, testify to the existence of a substantial teaching infrastructure in the city at this time; teaching is no longer confined to teachers'

own houses and gardens or open public spaces. The complex of 20 smallish rooms (most c.11 × 5 m) with two or three rows of stone benches on three walls, and a seat of honor at the apex of the benches, fit the picture of philosophical classrooms attested by ancient literary and pictorial evidence (Majcherek 2007). The interpretation of the "theatre building" close by, following its remodelling in the sixth century, as a hall for public displays of oratorical skill, would suggest that the teaching which took place here was focused on rhetoric rather than on science or technology, as might anyway be expected from the literature and history of this period.

3   Conclusion

Evidently Alexandria produced some magnificent scientists and technologists through the centuries, and her reputation as a center of learning is not misplaced. It is, however, frequently exaggerated, and the private, royal, nature of the Museum and Library is not sufficiently emphasized in most discussions. Science and technology in antiquity was remarkably distributed – great figures came from places otherwise unknown in scientific or technological circles, e.g. Aristotle of Stageira, Dioskorides of Anazarbos, Ktesibios of Askrenia (? Askrania? see above), and Theophrastos of Eresos, and in this context Alexandria performed well above average: Euclid, Heron, and Ptolemy alone would qualify her amongst the great cities in the world history of science and technology, and she can boast more intellectuals in addition; she cannot, however, legitimately claim all those who happened to live at the time, and the Museum and Library can claim only a few of those who passed through Alexandria.

FURTHER READING

On Alexandria in general see Fraser 1972 and Harris and Ruffini (eds) 2004. Argoud (ed.) 1994, Argoud and Guillaumin 1998, Keyser and Irby-Massie 2006, and Oleson 2008 offer introductions to Alexandrian science and the science of the Classical World in general. On sources consult Cuomo 2008, and on the library MacLeod 2000, Casson 2001, and Barnes 2004.

CHAPTER 23

Military Institutions and Warfare: Pharaonic

Anthony J. Spalinger

1 Background: The Archaic Age and the Old Kingdom

The pictorial and archaeological records of late Predynastic Egypt reveal the expansion of small centralized kingdoms in Upper Egypt and provide evidence of overt military activity. Attacks upon fortified cities were a major artistic theme, which seems to reflect the true state of affairs (Partridge 2002: 139–42; Yadin 1963: 50–7, 146–7). For example, a fragment of a slate palette depicts a coalition of Upper Egyptian states hacking down urban garrisons. It is impossible to tell who the foes were. On a second broken palette we see a bull stamping upon and preparing to gore a western enemy, most probably a Libyan, although once more the historical context is lost.

Of great importance for this archaic style of warfare was the development of the double convex bow, a primitive implement frequently depicted on palettes and maces (Partridge 2002: 31–4; Yadin 1963: 43–8). Yet, because of its force maces were employed only in close combat. Hence, the archer came to play a major role in the efficiency and capability of early armies. The dagger sword, a more flexible and lighter close-combat implement than the unbalanced mace, became ubiquitous in the military between 3000 and 2000 BC. Cutting weapons were composed of two separate parts, the hilt and the blade. Owing to the weakness of the join, any downward stroke was somewhat limited. Socketed axeheads, introduced later, were used in Syria at the end of the third millennium BC. A further type, known from Egyptian reliefs of the Eleventh Dynasty, includes epsilon axes which were also socketless (Yadin 1963: 59–62 and 154–5). Their lighter weight permitted easier handling of a longer, sharper cutting surface; the older semicircular axes actually had a shorter contact area. Furthermore, the new axes retained a semicircular head blade that was very useful for cutting and gouging into the mud brick walls of fortified cities. The shields carried by the Egyptian foot-soldiers (but not by the archers) were large and effective against a sword, axe, or dagger, but at this time there was no armor, not even helmets.

The weaponry reflected a static concept of warfare and personal combat. The large shields could limit danger from far-away archers while parrying blows in close combat (Yadin 1963: 46–8). The infantry consisted of foot-soldiers who carried their large cowhide shields on their backs and fought with a sword or spear in the right hand. Some of them served as protection for the archers, with whom they worked in tandem. The regular foot-soldiers could form a wedge or a primitive phalanx in order to forge ahead on the battlefield or attack the wall of a fortified locality.

2   The Old Kingdom and its Ramifications

For a long time, limited war technology prevented the Egyptian state from annexing very much foreign territory. The army consisted of foot-soldiers and marines, who were equipped to control no more than the lands immediately flanking the Nile River. Thus, while we learn from sources such as the Palermo Stone of many attacks upon non-Egyptian enemies, we do not detect any geographical expansion. There was no imperialistic policy (Kemp 1989: 46–53; Davis 1992; Campagno 2004). Expeditions entered into the vast and distant territories of the western desert and the lands south of Libya, but their purpose was to extract ores and stone and to secure the transportation of needed goods. The forays under Khufu and his son Djedefre to the southwest were not military campaigns (Kuhlmann 2002; Kuper and Förster 2003; Shaw 2000; Fischer 1991 for the Old Kingdom routes). The diorite quarry expeditions in Lower Nubia, nonetheless, indicate that this land was in the Egyptian sphere of control. Most of this area was probably devoid of population until the Late Old Kingdom, so there was no opposition to Egyptian quarry activities. On the other hand, the Egyptian campaigns of the Fourth and Fifth Dynasties most certainly devastated the region (Gratien 1995).

Egypt had close commercial relations with the Levant, especially with Byblos and the coast (Redford 1986). Perhaps Asiatics from Lebanon were in the service of the Egyptians as early as the Fifth Dynasty (Bietak 1988). The evidence from Sahure's mortuary temple and Unis' causeway reliefs indicates that expeditions without military intent traversed the eastern Mediterranean as caravans did on land south of Aswan and west of the Nile (Kemp 1991). Sahure's record of 200,000 large and small cattle brought back to Egypt from Nubia is dubious since this figure is a nicely rounded and exaggerated number intended to make an impression.

Inti's tomb at Deshasha depicts a siege in south Palestine or Lebanon (Yadin 1963: 54–5, 146–7; Partridge 2002; Schulz 2002; Vogel 2004: 43–5). The Sixth Dynasty Saqqara mastaba of Kaemhesi shows a siege ladder in use, having been wheeled to an enemy fortress (Vogel 2004: 41–3). These must have been land operations; for no marines appear in the action. Interestingly, at this time there was an "Overseer of Bowmen" who was in charge of the transport boats and who interacted with non-Egyptians (Fischer 1993: 91–5).

Weni's Sixth Dynasty biography reflects the state's interest in removing the threat of trade interruptions or incursions (Goedicke 1963; Lichtheim 1975: 18–23). He would have led his large army along the Sinai coast to Gaza and then
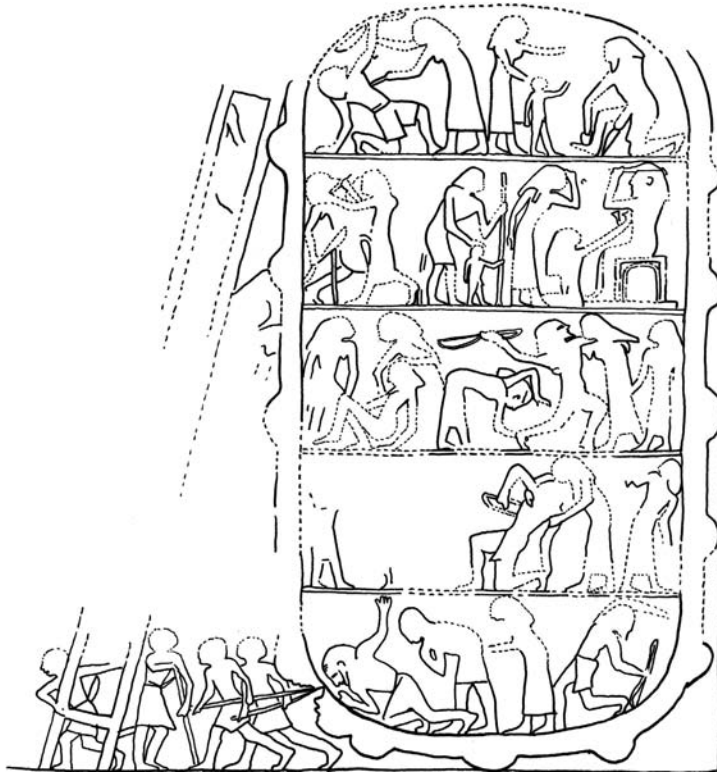
Figure 23.1 An attack on a walled settlement during the Old Kingdom. Scene from the tomb of Anta, Deshasha, Courtesy EES.

inland, but the details of the operation are sparse (Fischer 2002: 38–9). The troops, composed of Egyptians and Nubian mercenaries, moved against the peoples of southern Palestine, but, because food and water had to have been carried by donkeys, especially in the Sinai, the advance was slow. The land "was hacked up," its strongholds were taken and smashed, its vines and fig trees ravaged, and captives certainly brought back to Egypt.

The depiction of the Libyan wars of Sahure, later copied by Pepi II, provide us with important pictorial accounts, but it remains unclear where the enemies were situated and why they posed a threat. Later, during the Sixth Dynasty, the Dakhla oasis and Balat became the main centers of Egyptian control (Giddy 1987: 174–212; Kaper and Willems 2002). The expeditions of Harkhuf at the close of this era intermingled commercial and military issues: by the reign of Pepi II there were embryonic states in Lower Nubia (Edel 1955; Lichtheim 1973: 23–5; Jenkins 2000), and Lower Nubia was now a threat to direct Egyptian trade to the south and to the west (Edel 1955).

Travel overland through the western desert was common, with frequent stops at oases (Goedicke 1981; Darnell 1997a; 2003; 2004). Harkhuf mentions that on his third expedition there were three hundred donkeys loaded with exotic produce. He had traveled westward along the oasis road and discovered that the ruler of Yam in

Nubia had departed for Libya in order to smite it. Although no map can be drawn, it seems that Harkhuf rendered the king of Yam impotent. Libya, Tjemeh in this case, may have been in need of Egyptian support. Significantly, he prepared carefully for his return trip to Egypt on the Nile by including troops of the king of Yam.

Later, Sabni, an expedition leader who lived under Pepi II, points out that he went forth to Wawat (in Lower Nubia) with five divisions of foot soldiers. One of his tomb inscriptions relates that he pacified southern countries including Wawat. Pepinakht fought in Nubia on at least two separate occasions, and his title of "Overseer of the Foreign Countries" indicates a deeper strengthening of Egyptian control over the south. First came Pepinakht's successful attack, one that involved Wawat and Irtjet, two Nubian lands known from Harkhuf's accounts, whilst a second expedition was a pacifying foray that ended by taking two Nubian chiefs back to Egypt.

Various naval expeditions were made into Nubian territory in order to show the flag and to insure that the Nubian "statelets" did not interrupt, on a permanent basis, Egyptian trade from the south. The relative freedom with which the Egyptians moved upstream was later challenged by the C-Group People who resided north of the Second Cataract (O'Connor 1993: 26–37) when Irtjet and Satju, now unified Nubian chiefdoms, formed a single unit (O'Connor 1993: 31–7).

3   First Intermediate Period Warfare

Nubian influence

The importance of Nubian archers in the Egyptian army during this time is recognizable from contemporary wooden models (Bietak 1985; 1966; 1968; Strouhal and Jungwirth 1984: 120–1). The Egyptian foot-soldiers bear large cumbrous spears and cowhide shields. They all look alike and thus present an attitude of military cohesion whereas the Nubians have individual characteristics and lack regimentation.

The region of Assiut was not too distant from the border between the southern Theban (nomes I–VIII) and the northern Herakleopolitan domains (see above, p. 82ff). Three Assiut nomarchs of this time have large tombs containing inscriptions that enable us to reconstruct the civil wars between Thebes and Herakleopolis (Schenkel 1965: 69–89), and an early Middle Kingdom tomb in the same region covers one portion of its walls with marching soldiers (el-Khadragy 2006). The strategic geographical and political importance of this region, where rocks of the western desert encroach on the Nile, persisted even after stability had been attained.

Earlier inscriptional material documents the opening decades of this era. Ankhtify's tomb biography, for example, recounts the struggles in the extreme south when the Thebans had not yet taken control over the first seven nomes of Upper Egypt (Goedicke 1993; 1995; 1998b; Morenz 2005; Gabra 1976). The disunity and internecine strife repeat the late Predynastic evolution of small kingdoms that often fought with one another until a single polity emerged (Kemp 1989: 38–46; Gabra 1976; Grajetzki 2006).

Carved models of soldiers recall the few military wall scenes at Thebes dated to the later Eleventh Dynasty (TT 386 of Antef; Bietak 1988: 88–95; Schulz 2002). If the Nubians do not march so powerfully as the Egyptians, ethnic bias may be the explanation. Furthermore, Nubian soldiers fought for more than one faction within Egypt. For example, the Assiut models reflect the Herakleopolitan side just as TT 386 depicts that of Thebes. The evidence of the Gebelein Nubian soldiers is the most significant (Fischer 1961; 1962a). These foreign mercenaries were frequently recorded in Upper Egypt, specifically at Moalla, Gebelein, Thebes, and Aswan. Indeed, some of these troops were attached to the Theban domain from the fall of the Old Kingdom to the reunification in the Eleventh Dynasty, although Egyptian archers are also attested in the pictorial evidence (Fischer 1958; 1962b). Moreover, it is clear that although Nubians were already in the Egyptian army late in the Old Kingdom, it was only in the First Intermediate Period that their value was acknowledged, perhaps because of the battles that were now taking place in the south of Egypt proper. These Nubians, whom the Egyptians called Nehesiu, were established along the banks of the Nile. The Theban inscription of Djemy indicates the area of Wawat, Lower Nubia, as their origin (Allen 1921; Goedicke 1960; Schenkel, 1965: 116–17; Darnell 2003: 42–3). It is striking that the first Nubian mercenaries were small compared to the Medjay or Nubian Pan Grave peoples of Dynasties XII-XVII – short stature was an advantage on the battlefield (Bietak 1988).

Oases routes

When access to the river was denied, the oases routes could be used. The Abisko inscriptions of Tjehemau, a Nubian mercenary working during Nebhepetre Mentuhotep's visit to Wawat, provide data (Darnell 2003; 2004). He traveled through the western desert, where lengthy pathways leading to and from the Kurkur oasis southwest of Aswan have recently been analysed. In fact, the Eleventh Dynasty's expansion into Nubia was dependent upon this oasis (Darnell 2003; 2004). Another route from the Shatt er-Rigal, a locality well known from a famous rock inscription of Nebhepetre, merged with the Darb Bitan and then proceeded to the Kurkur oasis. A second path, the Darb Gallaba, operated between the Nile and the plateau region where Kurkur is situated. Control over oases and the interlinking roads was necessary for the southern expansion of Thebes and offered a pathway over which Nubian soldiers could be recruited. Texts of Antef I and II describe Theban activity in the western desert, but in this case directed northwards.

Dakhla Oasis was already under direct Egyptian administration by the Sixth Dynasty. Governors, whose titles implied sailing (see below), organized the area and successfully operated distant routes. Harkhuf, leaving the Nile at Abydos on his way to the kingdom of Yam, followed the "Oasis Road" for seven months, a route which snaked south through the Dakhla Oasis and its settlement at Balat, past the Dunqul Oasis, until it ended at the Kharga Oasis. The trek, named the Abu Ballas Trail after its center at Ballas, was used by the Egyptian traders but also provided state control of all desert caravan traffic (Kuhlmann 2002).

There was a difference in emphasis between the western expeditions commencing in the Fourth Dynasty and the forays that were reorganized in the Eleventh. By the

Figure 23.2 Model Nubian soldiers from the Middle Kingdom tomb of Mesehti, Assiut. Photograph Robert Partridge. Courtesy the Supreme Council of Antiquities.

middle of the First Intermediate Period the army was composed of distinct military contingents. Antef II and Mentuhotep II sent rapidly moving columns of foot-soldiers to gain quick access to the oases closest to the Nile. Thebes was blocked from control of the Nile waterway by three other polities: Wawat, or Lower Nubia, which was eventually subsumed under Amenemhet I of the Twelfth Dynasty; the powerful kingdom of Kerma farther south (Kush); and Herakleopolis in the north (O'Connor 1993: 37–44; Kemp 1989: 166–78).

4   Middle Kingdom Expansion and the Social Background of the Military System

Egypt became expansionist under Mentuhotep II (Habachi 1963; Fischer 1964: 112–18 [No. 45]; Goedicke 1982; Demidchik 1998; 2003). A reused inscription of this king, found at the Twelfth Dynasty royal palace at Ballas, quotes the king speaking to his army about his successes in the south and north (Lacovara 1997: 6–7; Wiener and Allen 1998: 7). His base remained the old Eleventh Dynasty capital, Thebes. This composition refers both to a Nubian campaign and to the seizure of

territory from Medenit (the XXIInd nome of Upper Egypt) to the Mediterranean Sea. Hence, the text must be dated after the fall of Herakleopolis, which happened late in the king's reign. The Eighteenth Dynasty reuse of such a text from an earlier period of civil war may have been intended to reinforce the later Theban rulers' self-image as doughty heroes about to shake off the northern enemy.

Mentuhotep's opening lines summarize the campaign in Nubia. His army then speaks to him indicating that in the future the soldiers will return north. The enemy's designation fits the warfare of the third millennium BC; the Nubians are called "bowmen," a term that encompasses archers supported by well-equipped foot-soldiers but not by a fleet. Upon the return to their capital the Theban army eulogizes the success of the king in Lower Nubia (Wawat) and at the oases. The additional generic term "trouble-makers," used at this juncture, might indicate resistance at the oases or local elites who had refused to support the Egyptians. No princes, rulers, or chiefs are mentioned. The Pharaoh first moved south, campaigning along the oasis routes, and then traveled north, where he seized the twenty-second Upper Egyptian nome – Herakleopolis must already have fallen – and continued marching to the sea. One private stela mentions that the owner was placed in Herakleopolis as an overseer of the "prison" of the "great doorway/garrison/ fortress" (Fischer 1960: 261–2). The warfare around Medenit seems to have been conducted by the marine sector of the army since, for example, the rigging of ships is mentioned.

Mentuhotep's narrative is balanced by other sources, including private inscriptions as well as some blocks from Gebelein. Fischer noted the frequency of Nubians within the Upper Egyptian populace and laid emphasis upon the division of the local Theban army into Nubians and Upper Egyptians (Fischer 1961; 1962a). The sporran worn by the Egyptians originated with the Nubians and Libyans of the First Intermediate Period. According to stelae depictions the Aswan Nubians wore a feather on their heads, a custom not followed by other Nubians or Upper Egyptian soldiers of this same era.

At Gebelein there is a scene of Mentuhotep who is shown wielding a mace to smite a Libyan (Habachi 1963: 37–40; Marochetti 2005). These triumphal depictions performed an apotropaic role by linking the triumph of the sovereign with the assistance of a god. Another important aspect of this relief is the reference to Hathor, Lady of Dendera, in the king's cartouche. The Pharaoh established a chapel at Gebelein for this female deity, and he later erected one for her at Dendera. On the rear wall at Dendera is the same smiting scene, and Mentuhotep II is designated as a "Horus who subdues the hill/foreign countries." Thebes has now become the center of Upper and Lower Egypt.

Mentuhotep built his chapel at Dendera in which his might over the foreigner is reflected in scenes and small accompanying texts (O'Connor 1999). One key image has the monarch in the common pose of smiting enemies by holding an insignia of a unified Egypt. The accompanying hieroglyphs cite his military successes. Yet another text states that Wawat had to supply physical labor for the Thebans (Allen 1921; Goedicke 1960). Contemporary data relating to "Victorious Thebes" also reinforce this aspect (Aufrère 2001; Helck 1968: 119–26). This concept, which can be found as early as the reign of Antef II, grew out of the

lengthy internecine warfare (Franke 1990: 124–7). The Abisko rock inscriptions note that the citizens of Thebes chanted to celebrate victory with a fervor that is remarkable (Darnell 2003; 2004).

The Egyptian word "youths" (*ankhu*) referred to soldiers; this common Middle Kingdom technical term word, also translated into English as "living one," indicated a "warrior" (Berlev 1967; 1971). The term referred to the forcefulness, virility, vivacity, and courage of the young soldier. Composite *ankhu* titles designated warriors of a town, a nome, or the simple infantry. These men were subalterns of an *atju*, their military superior. The latter group was composed of superiors ("great ones") as well as other officers One Koptite stela presents an *atju* who was chief of police, leading patrols on land or on water and directing hunters in the west and the east. Records refer to *atjus* in both Theban and Herakelopolian domains.

These military chiefs were the predecessors of the officials of the next unified era, the New Kingdom (Chevereau 1987; 1989; 1991; 1992; Stefanovic 2006). Known are *atju* of the Nubians, of the guard, of the House (of the king), of the necropolis, of the oasis, and of ships. Military men at the Nubian fortresses were either *atju* or simple *ankhu*, while others were connected to a city such as Nekhen or Qaw el-Kebir/Tjebu in nomes III and X of Upper Egypt. Khusobek, who was a "great *atju* of the city" before he was promoted to "*atju* of the king's table," presents a *cursus honorum* of Middle Kingdom warriors (Baines 1987; Goedicke 1998a). The "*atju* of the king's table" were the officers of the fleet of Pharaoh, and this title was often associated with the true infantry soldiers.

The southern borders were carefully scrutinized so as to allow entry only to those who had the right; transgressors were arrested. One of the regular patrols was led by the well-known Khusobek. Under Senwosret III he had advanced his career and became an officer of the royal guards. After this, he received the rank of "Great Tutor of the Town Garrison." When heard from again in the 9th Year of Amenemhet III, Khusobek was already the "tutor of the naval team of the commander/ruler."

During the Middle Kingdom the practice continued of drawing members of each unit from a particular area. Many soldiers retained their ties to their "home base." A powerful family-based nomarch could still lead his own troops. From the mid Twelfth Dynasty on the overlapping of military and administrative functions gradually began to resolve. In the Koptos Decree of Antef, dated to the Seventeenth Dynasty, the key governmental roles were divided between a commandant of the local troops and a governor who handled the non-military activities (Breasted 1906: I 339–41). Although this edict is post Middle Kingdom, locally based generals were earlier known at Kusae, This, and Koptos. Infantry in the Nubian fortresses included soldiers from Elephantine, Thebes, and other Upper Egyptian regions. Indeed, Khusobek fought in Nubia against the kingdom of Kush beside his city regiment.

The military commander of a naval team acted as tutor or guardian to the "youths," and naval terminology was applied to other activities: an *apiru* or "crew" worked on the pyramids; their word for their phylae, *zau*, derived from a noun meaning "board," as in "wooden board," and may have referred to their positions on board ship; and agricultural workers of the period were organized into *izut*, "naval teams" or "crews." Finally, a division of the youths would comprise

one thousand young males led by an *atju* (Berlev 1967). Those who attended the military schools and excelled at the most difficult service in the fleet would become officers.

In the civil fleet the "Commander of the Ships" stood over the "Tutors of the Naval Teams," but in the military fleet the captains of the ships obeyed the king's commands communicated directly by the vizier. For this reason they were the elite sector of the military. According to an inscription dated to the reign of Senwosret I Hammamat was a geographic center for a fleet. An even larger one ought to have been stationed at the royal residence in the north.

The royal flotilla was the "royal army." Stationed among this elite sector were foot-soldiers, now organized into teams that formed the basis of squadrons. Together, the latter were called "battleship teams" (*izut*). Infantry officers were usually battle-experienced veterans. Within the naval ranks, especially at the beginning of the Thirteenth Dynasty, the officers were royal princes or relatives of the royal family. Evidence from Seventeenth Dynasty confirms the situation (Juridical Stela: Lacau 1933; Ryholt 1997: 159–60, 261, 289).

Military organization in the Middle Kingdom achieved only the colonization of the part of Nubia that was close to the river, a minor influence on the kingdom of Kush, and perhaps the control of a few Levantine ports. Egyptian military activity in Asia was limited. Notwithstanding the evidence of warfare from the so-called "Annals" of Amenemhet II, the Khusobek stela (with the attack upon Sekmem), the Execration Texts, literary compositions such as Sinuhe, archaeological data, and unpublished details, the conquest of Canaan would have been impossible. The Middle Kingdom army was amphibian; that of the New Kingdom would be land-based.

5 Contemporary Middle Kingdom War and Establishment of Dominion

The war effort presented in Nebhepetre's Ballas inscription was aimed at controlling Lower Nubia and the western desert routes (Goedicke 1982, a controversial summary). Hence, it is not surprising that graffiti dated to Amenemhet I bear witness to a surge of Egyptian might southwards (Žaba 1974; Eaton-Krauss 1980; Hintze and Reineke 1989). "Patrols" were traversing in Lower Nubia at the beginning of the Twelfth Dynasty. Supplementing rock inscriptions, a stela at Buhen dated to the 18th Year of Senwosret I narrates an attack upon Kush which was led by general Mentuhotep (Breasted 1906: I 247–50; Smith 1976: 39–41). The enemy kingdom probably lay around the Third Cataract, although the location has been disputed (O'Connor 1986 and 1987). This polity had permanent settlements, harvested grain, and raised cattle. Corroborative accounts of the Beni Hasan nomarchs of the XVth Upper Egyptian nome supply further details of the Egyptians' attempt to move their flotillas into southern Nubia.

Senwosret I began this massive push upstream with fortress building connected to military policy (Redford 1987). Beginning in the reign of this Pharaoh, forts were erected south of Mirgissa (Bourriau 1991). Some of them were constructed on the open flat lands close to the Nile (Kemp 1986; 1989: 166–78) and a "plains type" of

design was the first group erected (Kemp 1989: 168). Buhen rapidly became the key center of Middle Kingdom activity in Nubia although there were other garrisons whose large size reflects their role in surveillance and control (Smith 1976: 61–76). Indeed, the grain storage capacities indicate populations up to around three thousand men. The town inside housed artisans, scribes, military, and foods.

Desert surveillance was constant on both sides of the Nile. Semna and Kumma, if not Mirgissa, also seem to have been staging points for potential military expeditions. A carefully planned and logistically developed interlocking system of at least six fortresses finally served as an advance base for aggressive military activity. A method of defence was put into practice that no longer required major expeditions led by the Pharaoh. Studying the topography, the Egyptians learned to build on land that was not flat and even. Semna, Kumma, Shalfak and Askut were carefully erected utilizing the advantages of the rocky terrain in order to repulse the potential enemy. In the extreme south at the Second Cataract, Semna, on hills west of the Nile, regulated the local trade. Kumma, on the less precipitous hill on the east, watched diplomatic messengers and foreign representatives traveling north.

Egyptian war accounts document four separate attacks of Senwosret III upstream. This persistent campaigning must indicate that the Egyptians were unable to dislodge local control over the Nile south of the Third Cataract. Indeed, despite Egyptian desire for gold, the boundary held firmly at Semna. The Middle Kingdom war machine simply could not move deep inland. According to the first Semna Stela of Senwosret III, the southern boundary was fixed (''made'') in the king's 8th Year. It
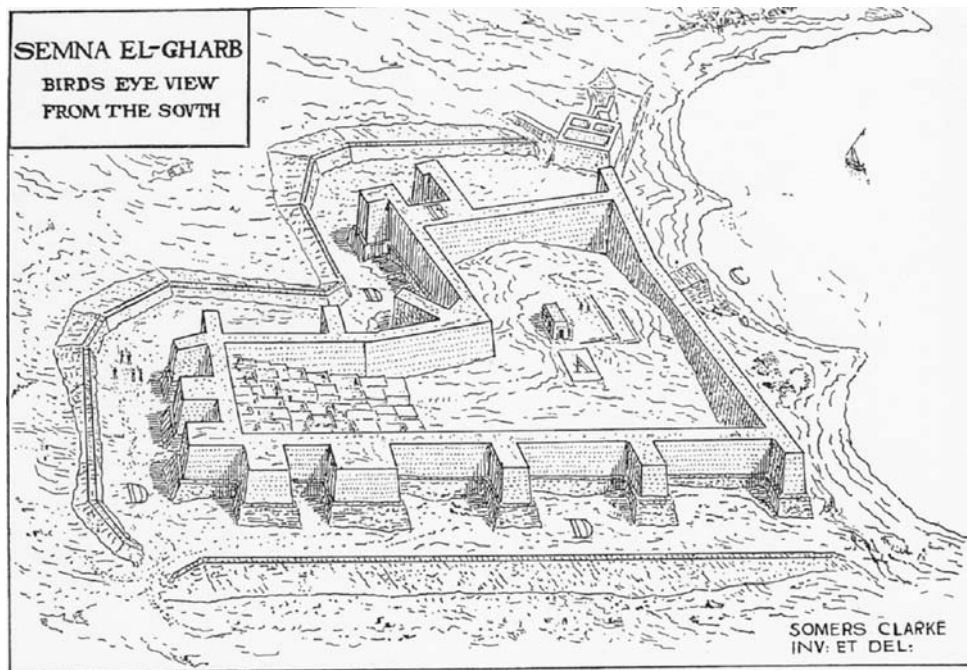
Figure 23.3   The fortress of Semna West built at the Second Cataract by Senwosret III. *JEA* 3, pl. XXXI. Courtesy the EES.

stayed there, even if Senwosret III advanced further "to overthrow vile Kush." His attempts, if successful, were short-lived.

Middle Kingdom imperialism was not based solely upon economic interests (Vercoutter 1959; Kemp 1997). Written and pictorial evidence provide a more nuanced viewpoint concerning such aggression. Nonetheless, the limited imperialistic goals and the maintenance of a "clumsy garrison policy" in Nubia (Kemp 1997; S. T. Smith 1995) were a result of the political structures of the First Intermediate Period as well as the lack of horses and chariots. A centralized and nationalistically oriented state did not yet exist. Any imposed "Egyptianness" and the elimination of native cultures came later. While the C-Group People in Lower Nubia were pacified during the reign of Senwosret I, Egypt continued to face opposition from the Kerma Ware People, who meanwhile had developed a mighty polity further south in Upper Nubia. This kingdom grew to resemble a complex chiefdom, if not a primitive state. Around 1725 BC, with the Egyptian Thirteenth Dynasty distracted and in the process of losing the Delta, Kerma secured control over former Egyptian territory north of the Second Cataract forts (Vogel 2004: 61–99).

In earlier Middle Kingdom battle scenes from Mentuhotep II to Senwosret I there are no pictorial representations of battles that took place in Nubia (Schulman 1982). In the tomb of Antef, Nubian archers can be seen shooting their missiles at the enemy and form a shield for the advancing Egyptian infantrymen. A moveable siege engine is also in use. An additional naval scene of warfare reveals the more expected clash of Egyptian troops fighting from shipboard. Nubian archers are present in Mentuhotep II's battle scenes where there is another attack on a walled Asiatic town (Vogel 2004: 54). Additional fragments depict a battering ram, which turns up later in early Twelfth Dynasty reliefs from the tomb of a Beni Hasan nomarch. In essence, the Nubians still formed the core of the archer sector, protecting advancing foot-soldiers.

The presence of fortress-cities in Asia needs to be stressed. One depiction in the tomb of Baket III of Beni Hasan might indicate a continuance of internecine warfare in the mid-to-late Eleventh Dynasty. Khnumhotep I's tomb from the same area, however, presents Nubian archers with Egyptian troops and Asiatic auxiliaries or mercenaries. The enemy seems to be Egyptian. Finally, attacking troops of Nubians, Egyptians, and possibly also Asiatics turn up in the Beni Hasan tomb of Amenemhet, dated to Senwosret I.

Egyptian opponents of the Thebans must have been centered at Herakleopolis (Schulman 1982; Schulz 2002). The later "Annals" of Amenemhet II, on the other hand, indicate major Asiatic warfare (Altenmüller and Moussa 1991; Goedicke 1991; Lupo 2004). Some of that fighting, in which the navy took part, was centered in Lebanon, and the number of prisoners was 1,554, with weapons also taken. The original purpose of the expedition could have been to secure raw materials. Warfare, nonetheless, took place.

Recent evidence provided by Khnumhotep II's historical inscription at Dahshur aids us to no small extent in revealing the seaborne military tentacles of Egyptian power during Dynasty XII (Allen 2008). In particular, Khnumhotep reports upon a naval expedition which was oriented quite north; Ullaza and Byblos are specifically mentioned. Khnumhotep also refers to the ubiquitous conifer woods of that region – traditionally called "cedar" – and he mentioned previous commercial

relations that existed between Egypt and Byblos. The narrative reinforces our analysis of the logistics of the Middle Kingdom's military and commercial power. Egypt did not possess a far-flung empire of any kind to the north. At best, she could influence local affairs on the coast and not far inland by means of her fleet.

6　Egypt and Nubia in the Second Intermediate Period

The decline of Egyptian control over Lower Nubia accelerated as the Thirteenth Dynasty lost control, and there is archaeological evidence for the weakening of Egyptian control over Nubia. In Lower Nubia the presence of weapons in graves, tomb and body destruction, a spate of local native C- Group fortification building, and the subsequent reuse of Egyptian fortifications are striking (O'Connor 1993: 47–57).

Two royal inscriptions indicate the difficulties for Thebes: the first, from the ephemeral Neferhotep Ikhernofret, provides one of the oldest references to "Victorious Thebes" (Vernus 1982) in a context which is military and defensive in nature. Pharaoh guides "Victorious Thebes" against his opponents, while Amun, his father, fights for him. The monarch is stated to have protected Thebes from "strangers," and foreign rebels are also mentioned. It is probable that Thebes was blockaded by Nubians or possibly even Hyksos Asiatics. Significantly, around the same time, the famous military "blue crown" first appears (Davies 1982; time Neferhotep III).

A second contemporary Pharaoh, Mentuhotepi, presents a more rewarding account with the image of Victorious Thebes again rising in a military context (Vernus 1989). Mentuhotepi defended an encircled territory containing bastions and garrisons that were built to defend his constricted land. The Nubians were the greatest threat even if the Asiatic Hyksos of the Fifteenth Dynasty had conquered the entire Delta and parts of middle Egypt (Ryholt 1997: 118–50, 302–09). Somewhat later than Mentuhotepi, an inscription in the el-Kab tomb of Sobeknakht refers to the kingdom of Kush attacking the Thebans (Davies 2003). The text, which refers to Nubians of the eastern desert and the Medjay, notes that Lower Nubia was aroused by Kush and other southerly regions.

The radical weakness of the late Thirteenth Dynasty owed much to the secession of the Canaanite population in the Delta from Pharaonic control. The quasi-independent zone in the North-east Delta soon became the separate Fourteenth Dynasty, and then the Hyksos, followed by a rapid move onto Memphis, took over as the Fifteenth Dynasty with their capital at Avaris (Ben-Tor, Allen, and Allen 1999 question Ryholt 1997 on Dynasties XIII-XIV). Ultimately the latter were successful at establishing their own dynasty because they brought into Egypt the horse and chariot together with excellent weaponry of a Near Eastern type: local axes, for example, fit well into the Syro-Palestinian contemporary cultures of the Middle Bronze Age with their non-Egyptian forms (Philip 2006).

The earlier Twelfth Dynasty stratigraphic levels at Avaris oddly show wider foreign connections than the later ones of the Thirteenth and Fourteenth Dynasties. This suggests that the rise of the Hyksos was separate from the independence of the North-east Delta and was also dependent upon strong links with the nearby territories of Asia. The

introduction of horses and chariots into the Delta may thus have been a result of these later interconnections, and possibly Manetho's account of a vast sweep upon Memphis by the Hyksos carries with it a core of truth. Furthermore, the Hyksos might not have belonged to the same groups of elite administrators and warriors who had broken away earlier during the Thirteenth Dynasty. The metallic content of tin, for example, so important in making bronze, is of prime importance in supporting this recent hypothesis. Avaris shows little arsenic-based copper, while Egypt, on the other hand, was transforming itself from mid Dynasty XII onwards to an arsenical bronze metallurgic civilization and then to a tin-bronze one. The surprising use of tin-bronze during the earlier phases of Tell ed-Daba in contrast to the overwhelming employment of unalloyed copper in the later strata cannot be overlooked.

The arrival of the sickle-shaped sword, associated earlier with western Asiatic elites such as warriors, kings, and the gods, took place during the Second Intermediate Period (Vogel 2006). This weapon, iconically and textually prominent in the New Kingdom, indirectly points to the newer military elites drawn into the cauldron of Egyptian politics. Even if the first horses ''imported'' into Egypt were considerably different from the mid-Eighteenth Dynasty examples (Rommelaere 1991), the Egyptians already had all the necessary materials and technology for chariot production by the time of the Middle Kingdom (Shaw 2001). If we add the subsequent arrival of the horse during the Hyksos Fifteenth Dynasty, then all of the military components were in place for a gradual switch in warfare.

The political set-up of the southern Theban state of the Seventeenth Dynasty resembled an armed camp with a commander-in-chief as ruler. The Koptos Decree of Nubkheperre Antef is clear on this matter, and early Eighteenth Dynasty details concerned with the first administrator of Nubia, Tjarou, support this analysis (Breasted 1906: I 339–41; Ryholt 1997: 266–9, 304–07). The governance of Koptos fell upon a civilian administrator and a warrior. The latter is called a 'King's Son', a prominent military man equivalent to the later ''general'' (Schmitz 1976). He was also the local commandant at Koptos. This royal edict was issued to the priesthood of Min, the local presiding deity, as well as to the army. Hence, it is reasonable to conclude that, just north of Thebes, a centralized war machine controlled the nome in tandem with a civilian governor. The term ''King's Son'' had been in use since the Late Middle Kingdom, if not earlier; the designee was a military man but not necessarily the child of the ruler (Schmitz 1976; Quirke 2007: 133).

The Koptos decree sheds light upon political and military developments in Nubia under Kamose and Ahmose. The latter appointed a high-ranking military man, a ''King's Son,'' to be the commander over the newly won fortress-town of Buhen (Smith 1976: 205–9). Thus the policy of reconquest in the south was based upon a military system already in place by the mid-Seventeenth Dynasty, when local commanders were in charge of key districts, even though a non-military official took care of day-to-day governmental affairs. In the Seventeenth Dynasty a new administrative system was installed in the south. Pharaoh was both chief of state at Thebes and leader of the army. Thus nationalism reemerged stronger than previously because there were now two enemies: Asiatic Hyksos and southern Nubians.

We should end this historical discussion of the Hyksos ''interlude,'' or conquest, by indicating the efficacy of two of the important technological developments that came

into Egypt during the Second Intermediate Period. The first, the composite bow, is still hard to date precisely within an Egyptian archaeological context. It was considerably more powerful than its precursor, the simple bow, and its range has been estimated to have been around 120 m (Partridge 2002: 42–4). Needless to say, such a weapon meant that, almost automatically, the use of leather armor and helmets for protection had to be employed, neither of which were used in Middle Kingdom times. Composite bows became the staple of the elite military sector, the charioteer soldiers, and were protected in bow cases instead of being slung over the shoulders as the simple bows had been.

Chariots in Egypt were light and propelled by two horses. By the middle of Dynasty XVIII they had six spokes as a rule, although the Pharaoh is sometimes depicted waging war in an eight-spoked vehicle (Partridge 2002: 64–74; Cavillier 2002). From a series of preserved chariot wheels the diameters have been measured. The difference among those extant is slight: between 0.9 and 1.0 of a meter. The cab, or enclosed platform in which only two men stood, was small and narrow. From it one could strike forward provided that some side protection was placed on the cab. This was made usually from ox hide and thus protected the lower portions of the body. The weight of these chariots was slight, and wall reliefs sometimes show them being carried by soldiers on their backs after being unassembled. Probably their total weight would not exceed thirty-five kilograms (Partridge 2002: 65).

There were only two men in the cab, the driver and the warrior. The latter would first employ spears or javelins against the enemy, preferring to hit an opposing horse rather than to aim his arrows carefully against the human foe. Those weapons, as well as bows and arrows, were kept in long cases attached to either side of the cab. In close combat, however, the charioteer would direct his attention against an opposing charioteer hoping to penetrate his armor by means of the composite bow. This last action was considered to be the most important or, at least, was the one that is always depicted when the Pharaoh was depicted attacking a host of foreigners.

Finally, a few caveats should be mentioned concerning the effectiveness of these war vehicles (Spruytte 1983). Although they were highly manoeuverable owing to their light weight, chariots could not advance well on hills. In fact, on an incline more than ten degrees they would be relatively slow. Add to this the problem of a terrain that contained gorse, unsown wheat, or the like, and Egyptian chariots were unable to advance at a fast pace. We must keep in mind that this new war machine was not equivalent to a modern tank even though this misconception still appears in scholarly literature. Instead, they provided a mobile platform from which a charioteer-soldier could aim his javelins or arrows. The horses were solely employed as the propulsive power; no independent cavalry existed at this time.

7   The Early Eighteenth Dynasty

Under Kamose, Ahmose, Amenhotep I, and Thutmose I consolidation and expansion proceeded under a policy of annexation of territories outside the boundaries of Egypt. Kamose continued the traditional strategy of using his war fleet to transport his
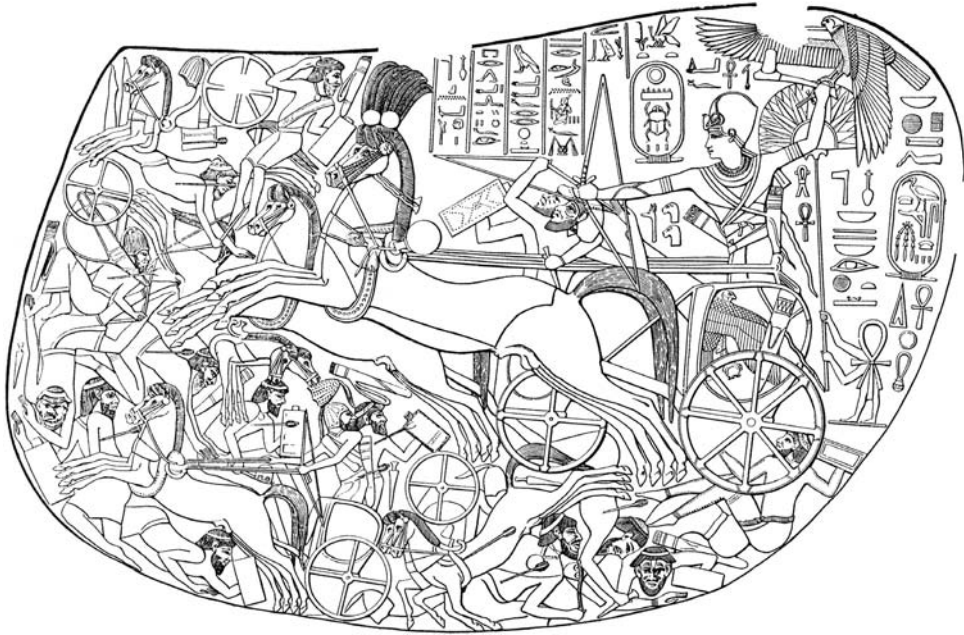
Figure 23.4 Thutmose IV in action with a war chariot and a composite bow. After Howard Carter in Carter and Newberry, *Tomb of Thoutmosis IV*.

chariots, horses, archers, and infantrymen northwards (Smith and Smith 1976; Spalinger 2005: 1–5). He succeeded because he advanced quickly through Middle Egypt. In addition, he had the luck to capture an emissary of the Hyksos ruler, Apophis, who was going west through Libya on his way to contact the independent Nubian monarch. Subsequently, Kamose attacked Avaris with his Theban fleet.

Ahmose, Kamose's successor, deployed chariots outside Avaris, and his war reliefs at Abydos indicate the growing importance of this sector within the Egyptian military (Harvey 1998: 303–72; Spalinger 2005: 19–23). Meanwhile, a governor was installed at the Second Cataract in the fortress of Buhen who acted as the king's deputy over the Nubian territories; this position evolved into the "King's son of Kush." The increasing complexity of administrative control necessitated a garrison system that would include civilians and soldiers.

Egypt was particularly fortunate that adjoining the East Delta lay the extremely arid Sinai. To the north were small city-states that were often fighting with each other and never capable of achieving any unity. After Ahmose sacked the Hyksos capital, he advanced to the kingdom of Sharuhen in the northeast (Oren 1997a). This was the commencement of a series of campaigns, led by the kings themselves, aimed at seizing Palestine. The Asiatic wars of these Pharaohs show how changed was the structure of the Egyptian army. Egypt, already possessing a fleet, quickly developed a Mediterranean flotilla in order to transport war materiel and troops to Lebanese ports. At the same time she now relied upon infantry *and* chariotry in order to expand northwards on land. The first half of the Eighteenth Dynasty witnessed a series of campaigns aimed at controlling Palestine, out of which the chariotry division emerged as the
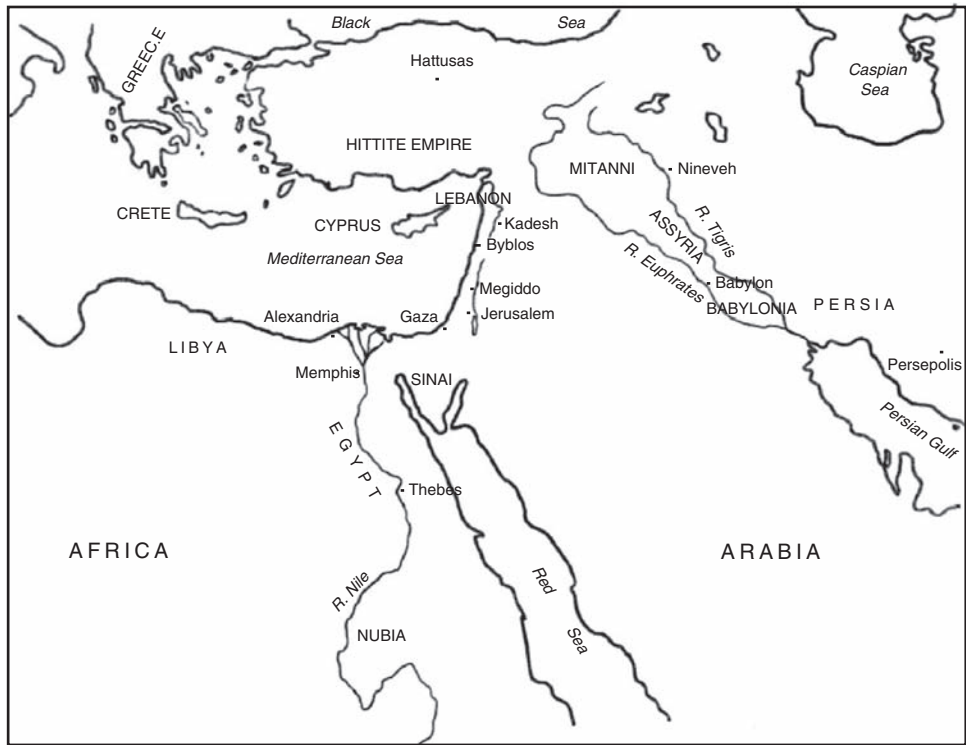
Figure 23.5 The Near East in the second millennium BC. Courtesy Robert Partridge.

premier body of troops within the New Kingdom military (Gnirs 1996: 1–39; Spalinger 2005: 46–69; Redford 2003). The Pharaohs had to ensure that the local dynasts remained under their indirect suzerainty. This would be achieved under Thutmose III by adopting a policy of "personal captives." Sons and brothers of a kinglet were brought to Egypt and lived at the court until the reigning prince either died or revolted. Because massive campaigns were lengthy, hard to organize, and costly, garrisons were established (Spalinger 2005: 130–6). Gaza soon replaced the old border post of Sile/Tjaru (al-Ayedi 2006), located at the extreme tip of the northeast Delta. Inland, Megiddo, located in the Esdraelon Plain in Palestine and, subsequently, Kumudi in Syria became strategic centers. Obstacles were easily overcome at first. Thutmose I, for example, reached the Euphrates while the inland kingdom of Mitanni was weak. The city-state system in Palestine was disorganized, and, as yet, there was no pressure from the Hittites based in Anatolia. Subsequently, however, Mitanni provoked an uprising in Palestine centered on Megiddo and gained the involvement of the king of Kadesh, located in Syria on the River Orontes.

Thutmose III achieved permanent control over Palestine after he completed his subjugation of Megiddo (Redford 2003), but it was necessary to station a moderately sized garrison there, whereas most of the other Asiatic cities had few Egyptian troops and chariots. The mighty kingdoms of the Mitannians and the Hittites, nonetheless, posed a latent threat to Egypt's empire. Thutmose III often dispatched his sea fleet to

the Lebanon in order to fortify those ports so that they could supply his land-based troops. It was necessary to coordinate naval with land-based activities in order to advance into the heartland of Syria. Eventually Kadesh was wrested from Mitanni, Aleppo conquered, and the Euphrates reached. Fighting persisted into the reign of Thutmose's son Amenhotep II (Der Manuelian 1987: 47–56), and ultimately Palestine and Syria were divided into three parts and governors placed over these territories (Na'aman 1975; Spalinger 2005: 130–6).

The wars in Asia did not cease until Thutmose IV and Shutarna of Mitanni agreed to a peace treaty. In the south, despite revolts, Nubia was pacified, occupied, and administered as Wawat (Lower Nubia) and Kush (Upper Nubia). The southern boundary was set at the Fourth Cataract. Pharaoh nonetheless remained the Commander-in-Chief of his troops and an active campaigner. Crown prince Amenhotep II was even in charge of the royal dockyards in the north at Perunefer (either Memphis or Avaris) and was boastful of his warlike deeds. All male royal offspring had to be proficient in archery, horsemanship, chariotry, and rowing, and the ''Sporting Tradition'' became one of the hallmarks of New Kingdom royalty.

8   The Close of the Eighteenth Dynasty

When Amenhotep IV/Akhenaten came to the throne he inherited a growing problem in Asia. The Hittites were pressuring Mitanni under their great king Suppiluliumas. They attacked north Syria and pushed the enemy aside (Kitchen 1962; Na'aman 1990). Border flare-ups became commonplace, and Egypt intervened, albeit indirectly, in the affairs of Kadesh and the Syrian province of Amurru. The aggressive intentions of Suppiluliumas and difficulties at home led to the weakening of Egyptian control so far north. Carchemish fell to the Hittite king, and Mitanni was reduced to a feeble rump kingdom. The Hittites and the Egyptians now stood to divide Syria; but, instead of negotiating a peaceful relationship, they fought, often by proxy. When the Hittites aimed their forces against Carchemish and Aleppo, the Egyptians feared for their zone of control. Princes of important Syrian cities such as Etaqama of Kadesh and Aziru, with his son Abdi Ashirta of Amurru, decided to swing their loyalties to the Hittite monarch. Egypt could not provide an effective counterbalance except through a major campaign. Tutankhamun was unable to achieve success in retaking the southern zones of Syria, nor was Horemheb (Murnane 1985: appendix 6; Martin 1989; Johnson 1992; van Dijk 1993: 41–54). Chariots and horses empowered the army, but inland warfare required foot-soldiers, which Egypt could not send in sufficient numbers. Larger border garrisons also were needed. Moreover, the northern enemy, Hatti, was in the advantageous position of being able to cross Syria from high ground to low.

In an orderly succession Horemheb's fellow officer and general, later vizier, the elderly Ramesses I, established the Nineteenth Dynasty. His only son, Sety I, was already middle-aged when he took the throne. During their reigns structural changes were made to the Egyptian army and its relationship to the nation. The warrior class of chariot officers had come to rival, in importance, the scribal bureaucracies. By the Nineteenth Dynasty anti-soldier tractates circulated among civilian officials

emphasizing their non-physical labor and independence from army life (Spalinger 2006: Chapter I). Much of this literature focused upon the lower ranks in the army, the foot-soldiers, but the young chariot men were also denigrated. The scribes set out to parody the daily life of the soldier, and their sharp reed pen underscores the alteration that had occurred in social standing. A schism had taken place in the corporate identities of military men and scribal officials, and certainly by the Nineteenth Dynasty the scribal class felt itself under attack.

9　The Situation in the Nineteenth and Twentieth Dynasty

Ramesses II, the son of Sety I, met Muwatallis, the king of the Hittites in an encounter that was the climax of the attempt to retake southern Syria (Kitchen 1982: 53–62; von der Way 1984; Goedicke 1985; Murnane 1985; Spalinger 2002). The episode started as one of the many flare-ups that occurred in the borderlands since the time of Thutmose III, but this military encounter became the decisive battle in which Ramesses, though meeting a surprise attack by the Hittite king, managed to rally and send the Hittites back across the River Orontes. On the second day's fighting, however, Ramesses could not remove the Hittite army from the field. Kadesh, despite his father Sety's earlier success, remained pro-Hittite. Ramesses' campaign against Kadesh demonstrated that, despite twenty thousand foot-soldiers, archers, Sherden mercenaries, chariot warriors, and the nick-of-time arrival of yet another division of elite warriors, he did not have enough troops to defeat Muwatallis. Ramesses' departure from the battlefield indicates a tactical defeat, but continual skirmishes afterwards were fought to a standstill, and Ramesses was unable to redraw his political boundaries.

The accounts of Merneptah and his Twentieth Dynasty successor, Ramesses III, are noteworthy for the defensive actions of the Egyptian monarchs (O'Connor 1990; Kitchen 1990; Manassa 2003). Threats upon Egypt's integrity were now a problem. Merneptah also had to face an invasion from the west by tribes-people whose intent was to settle in Egypt, and, although they lacked bronze weapons and a significant chariotry, they came in large numbers. The Egyptian monarch rapidly brought forward his elite troops and marched to the western periphery of the Delta. There he met and defeated the Libyans close to the fortresses that his father had erected in the western desert. An identical situation arose under Ramesses III, and again the armies met west of the Delta where the Libyans invoked the same formation of a massive group of foot-soldiers and archers. The Pharaoh successfully repelled the enemy, but not without a strain upon the Egyptian economy.

The fortifications in the west, as others, were built for control and were not geared to invasion. They served to prevent small numbers of outsiders from entering the lush Delta or possibly hindering any infiltration further south. They could not, however, be used for any large offensive operation. Hence, these garrisons were closely similar to those of the Middle Kingdom Second Cataract fortresses and the later Ramesside forts at the entrance to the East Delta. Both Merneptah and Ramesses III had to

Figure 23.6 Hittite chariotry in action against the Egyptians at the Battle of Kadesh. Note the heavier build of the Hittite chariots and the three-man crew as against two in their Egyptian counterparts. Temple of Ramesses II at Abydos. Courtesy E. J. Gooding.

marshal their troops at a considerable distance from the scene of the invasion. Indeed, Merneptah's Karnak War Inscription provides a striking parallel to the subsequent Libyan war records of Ramesses III at Medinet Habu (Spalinger 2005: 249–55). In the long run the Egyptian war machine was unable to stop the Libyan migration.

The strongholds of the Sherden, who were originally mercenaries in the pay of the Egyptian state, further reveal that these elite troops had become part of the permanent standing army. Indeed, their presence now as agricultural workers in Egypt, "settled" mainly in the north under Pharaonic authority, indicates as well that these elite troops had become similar in occupation to the ordinary native foot-soldiers and minor officers. These former mercenaries, now paid through their land-holdings, had in essence become local troops. They could be called out by Pharaoh in an emergency but seem not to have provided any logistic support to the border garrisons.

The Egyptian territories in Asia had fallen away owing to major political and social stresses in the north. A land-based attack by a confederacy of northerners, called "Sea Peoples" by the Egyptians, moved down along the coastline of the eastern Mediterranean (Oren 2000 for most recent studies). Operating on land with support from their ships, they managed to topple a number of kingdoms, and by the time Ramesses III got his large army into Palestine the enemy had effectively eradicated the Hittite Empire and taken the coastal regions of Syria. The pictorial and written war records at Medinet Habu document Ramesses III's counter-attack. While he

Figure 23.7   The defeat of the Sea Peoples by Ramesses III.   Medinet Habu.   Courtesy Robert Patridge.

managed to prevent a total disaster, he still lost Asia and had to cede the coastal regions to the Peleset and other Sea Peoples; Egypt's control over Asia was at an end. The Sea Peoples came in family groups with the intention of settling. The Peleset, who gave their name to Palestine, settled on the southern coast of Canaan and became federated allies of Egypt. Ramesses III further had to repel a second attack in the Delta, this time by sea. In this case, however, the naval battle consisted of enemy warriors alone.

The Egyptian army of the Late New Kingdom was polyethnic in composition, including Nubians, Sherden, Libyans, and possibly other groups. Maybe the population of Egypt had declined, but it is equally possible that by mid-Eighteenth Dynasty a stable population had reached its capacity for supplying able-bodied male warriors, so that the only way to increase the ranks was to accept foreigners (Spalinger 2005: 264–75). The locally based military strongholds and the Libyan settlement in the West Delta reflect a gradual turn to an internally oriented military. Furthermore, after the final wars of Ramesses III the army's purpose became more concentrated upon the infrastructure of Egypt, which was slowly splitting into two parts. In the south, with its religious and military center at Thebes, the High Priest of Amun eventually became a generalissimo as well. In the north, the last Ramesside kings lost their grasp on the country until a new family arose at Tanis, a port in the Eastern Delta. Here, the leader, Smendes, first took over militarily and politically as a ''Controller,'' but, subsequently, he founded a new lineage of Pharaohs as the Twenty-first Dynasty. Eventually, the Libyan clan leaders solidified their strength in the north and married into the dynasty, while retaining much of their earlier military structure.

The last seven-hundred years of Egypt's military history before the conquest by Alexander the Great is a tale of familiarity and difference (Lloyd in Shaw (ed.) 2000). Despite long periods of weakness the first four centuries saw a resuscitation of Egypt's

ambitions in Asia in attempts, albeit unsuccessful, to recreate past glories, and the Piyi (Piankhi) Stela provides ample evidence that Egyptian and Nubians were well abreast of the best current military practice. The Saite period (664–525) was a time of considerable military enterprise and success in all the traditional areas of military activity, designed fundamentally to guarantee the continued independence of the country (see above Chapter 8). In these efforts the Saites not only used their native Egyptian warrior class (the *Machimoi*) but were assisted by major contingents of mercenary troops, some from Asia, but the most significant forces derived from the Greek states of Asia Minor and the Greek islands. Indeed, so valued were these contingents that permanent camps were established in the country, e.g. at Tell Defenna (see above Chapter 18). The navy too benefited from foreign influence with the introduction of the trireme by Necho II (610–595 BC), a move which could only have taken place with Greek or Phoenician assistance. The conquest of Egypt by the Persians in 525 brought an end to Egyptian independence for some 120 years, but determined efforts were made to throw off the Persian yoke in which significant help was obtained from the Athenian Empire, though Egyptian efforts were denied any long-term success until 404 when the last period of independent Egyptian rule began. As in the great days of the Saite Dynasty, the military force needed to maintain independence was heavily dependent on Greek assistance, either in the form of alliances or the employment of mercenaries, and conspicuous successes were achieved in keeping the Persians at bay. In the end, however, the country fell once more under Persian control in 343 and remained in that position until the conquest of Egypt by Alexander the Great in 332. However, Egyptian forces continued to function as part of the Persian army and even saw action against Alexander at Issus in 333.

FURTHER READING

Egyptian warfare and military institutions have attracted much interest over the last thirty years. In general see Kitchen 1982; Shaw 2001, Bietak and Schwartz (eds.) 2002; Partridge 2002; and Spalinger 2005. On military organization consult Chevereau 1987; 1989; 1991; 1992; and Stefanovic 2006. On the navy see Berlev 1967, and for things maritime in general consult Fabre 2004–5. For the very important Middle Kingdom stela of Khusobek (Sobekkhu) see the excellent discussion in Baines 1987.

CHAPTER 24

Military Institutions and Warfare: Graeco-Roman

Nigel Pollard

The nine centuries or so covered in this chapter can usefully be divided into three periods, Ptolemaic (to 30 BC), the Roman Principate (30 BC–c.AD 284) and Late Antiquity (c.AD 284–c.AD 400). The division between Ptolemaic and Roman is obvious, involving a change from Egypt as the center of a Mediterranean empire, with its own armed forces and foreign wars, to Egypt as part of a larger world empire, garrisoned by the army of an external imperial power. One can trace a high degree of continuity through to the reigns of the Severan emperors (to AD 235) but the definition of Late Antiquity here is a more difficult one. Certainly the Roman army changed, in Egypt as elsewhere, in the period AD 235–284, but the reign of Diocletian (AD 284–305) provides an important turning point, as the emperor's own presence in Egypt seems to have served as a catalyst for change in the defence and garrison of Egypt. In theory, one might follow Late Antiquity through to the Arab conquest of Egypt, but the compilation of the relevant portions of the *Notitia Dignitatum* (a crucial source of information) in the last decades of the fourth century AD provides a convenient end-point.

There are many differences in the military establishments covered in these three periods, but there are also some common themes. By far the most important of the latter is the degree to which the army of Egypt served as an army to control Egypt itself, regardless of the location of its rulers. Another theme is the balance between Egyptians and outsiders in the garrison of Egypt.

1   The Ptolemaic Period

Introduction

Egyptians encountered Greek approaches to warfare long before Alexander's conquest, Greek hoplites having served as mercenaries, allies and enemies of Egyptian armies. However, establishment of the Ptolemaic monarchy saw the introduction of

a new, Macedonian-style army similar to those of its Seleucid and Macedonian rivals (Sekunda 2007). The key elements of the army created by Philip II of Macedon were the phalanx of close-order infantry equipped with the *sarissa* (pike), armored cavalry equipped with *xyston* (lance), and contingents (often more lightly equipped) of subjects, allies and mercenaries, cavalry and infantry. In Alexander's battles, such as Issos and Gaugamela, typically the phalanx fixed the enemy center, the left flank fought a defensive battle and Alexander led a decisive cavalry charge from the right. The use of elephants in battle was a late innovation in Alexander's army, but common among his successors.

Ptolemaic armed forces (including the navy) fulfilled two major functions. One was maintaining the kingdom's possessions beyond Egypt, in the Aegean and Eastern Mediterranean, while contending for control of Syro-Palestine against their Seleukid neighbors. The second important role was internal security in Egypt itself, suppressing large-scale revolts when necessary and otherwise carrying out other duties involving control and policing.

The Ptolemaic army in battle

Our most detailed account of a Ptolemaic army is Polybios' description of that of Ptolemy IV, reorganized for the Fourth Syrian War, against the Seleucid king Antiochos III, culminating in the battle of Raphia (217 BC). He notes (5.79) that the army consisted of 70,000 infantry, 5000 cavalry and 73 elephants. His account of the mustering of the army (5.63–65) provides more detail on its composition, noting the names of the commanders of each contingent (for example, Sokrates the Boeotian with the peltasts, Echecrates the Thessalian with a cavalry contingent) and their place of origin. The cavalry consisted of 700 royal guard, about 3000 Libyan and "native" (*enchorioi*) cavalry and approximately 2000 Greeks and other mercenaries. Undoubtedly the "native" cavalry included Graeco-Macedonian settlers in Egypt (kleruchs – discussed below) recalled to active service and perhaps regular cavalry (*misthophoroi hippeis*) based in the garrisons of Egypt itself (Clarysse & Thompson 2006: vol. 2, 153).

The infantry included 3000 royal guard (*agema*), and a phalanx of 25,000 plus 20,000 Egyptian phalangites. 3000 Libyan troops were "armed in Macedonian fashion," so perhaps phalangites like the Egyptians. 8000 "Greek mercenaries" who trained with the phalanx may have been equipped in the same way. There were 2000 peltasts (lighter infantry, typical of Hellenistic Greek armies), and 3000 Cretans, 1000 of them "Neo-Cretans," perhaps recently recruited, or troops fighting in Cretan style (typically archers). Finally there were 6,000 Thracians and Galatians. Thracians had long provided peltasts for Macedonian (and Greek) armies, and Galatians were eastern Celts who had settled in Anatolia in the third century BC, widely recruited as mercenaries. Polybios states that 2,000 of the 6,000 Galatians had been recruited recently, presumably as mercenaries, while the rest were settlers (*katoikoi*) and their descendants (discussed below). Elephants had been a regular component of Successor armies since Alexander's use of Indian elephants late in his reign. Indian elephants had been captured by the Ptolemies in past victories (Diodoros Sikeliotes 19.84.4 records some were taken after the battle of Gaza,

against Demetrios in 312 BC) but typically theirs were smaller African forest elephants, described by Polybios (at Raphia, 5.84) as weaker than opposing Seleucid Indian elephants. Inscriptions and papyri record the activities of Ptolemaic elephant hunters. *OGIS* 54, originally set up at Adoulis on the Arabian Gulf (c.246 BC), notes that the army of Ptolemy III Euergetes included "Troglodytic and Ethiopian elephants which he and his father were the first to hunt from these lands, and, bringing them back to Egypt, to fit out for military service" (tr. Bagnall and Derow 2004, no. 26).

For the battle of Raphia itself, the Ptolemaic army was drawn up with the phalanx in the center, flanked by the other infantry such as peltasts, Galatians, and Thracians. Cavalry from Egypt and Libya were on the left flank, with Greek and other mercenary cavalry on the right (Polybios 5.82). Thus far the dispositions of the armies might have been typical of Alexander himself. However, elephants were deployed in front of the friendly cavalry on each flank, to intimidate the enemy's horses. While both commanders attempted to emulate Alexander with a decisive cavalry charge, the symmetrical character of the armies' strengths and deployments led to the flanks neutralizing one another, the Ptolemaic force being victorious on their right, the Seleucids on the left (Polybios 5.84–85; see Sekunda 2007: 347). Thus the decisive clash of the battle, unlike those of Alexander, was between the respective phalanxes, with Ptolemy himself leading the center, emphasizing the importance of infantry trained in Macedonian fashion, and the king's new willingness to enhance his army's phalanx by incorporating Egyptians (Polybios 5.83; 85). Polybios (5.107) regards this as a radical innovation, but a two-edged one, providing the Ptolemaic army with a short-term advantage but longer-term problems feeding into the internal conflicts that plagued Egypt in the second and first centuries BC.

This significant employment of Egyptians marks a major difference between the army of Raphia and that of earlier battles, such as Gaza in 312 BC, with Ptolemy I allied with Seleukos I against Demetrios. Diodoros (19.80.3) records that the Ptolemaic army of 18,000 infantry and 4,000 cavalry included Macedonians and mercenaries, along with a "mass" (*plethos*) of Egyptians, some of them carrying baggage, some with missile weapons and some "properly equipped for battle." Their heterogeneous equipment, and their description almost as an afterthought reminds one of the poor-quality subject troops employed by Achaemenid Persian rulers rather than the properly trained *machimoi* employed at Raphia. At Gaza, Demetrios deployed most of his cavalry on his left along with most of his elephants. Initially Ptolemy and Seleukos concentrated their cavalry on their left, but shifted it to match the enemy, using a palisade and missile-armed light troops to counter the enemy elephants (Ptolemy had none). Again, efforts to launch a decisive Alexander-like flank attack were stalemated by the symmetrical deployments and the failure of the elephants on the rough ground. Ultimately, however, Demetrios' cavalry was defeated and the Ptolemaic army won (Diodoros Sikeliotes 19.80.3–84). Diodoros says little about the role played by infantry in this battle, reflecting the importance of cavalry in (particularly) earlier Ptolemaic armies, despite the difficulty of achieving a decisive break-through. This importance is emphasized by the depictions of Macedonian-style horsemen in third century tomb paintings from Alexandria (Venit 2002: 55–8, fig. 42).

Later Ptolemaic military reform?

There is no reason to suppose that the organization, equipment, and tactics of the Ptolemaic army remained unchanged over some three centuries, and there is evidence for changes in detail in all these areas. However, Sekunda (2001) has attempted to demonstrate complete reform of the Ptolemaic infantry under Roman influence in the 160s BC (Ptolemy VI). He proposes that new units called *sēmeiai* ("standards") and *hekatontarchiai* ("units of a hundred") in documents after that time reflect the adoption of organization based on Roman legionary sub-units: maniples, and centuries. He proposes that the organizational change was accompanied by radical changes in equipment and tactics, including adoption of a shield like the oval Roman *scutum*, Roman-style military footware, the Roman *pilum* (heavy javelin) and, in some cases, the chain-mail tunic worn by some Roman soldiers. He bases these conclusions on a re-reading of contemporary images of soldiers, notably the painted stele of Dionysios the Bithynian (Alexandria Museum 20919) and painted *loculus* slabs presumed to relate to the Ptolemaic garrison of Sidon. In detail, much of this evidence is quite tenuous, with problems of dating and interpretation. For example, in discussing the Roman *scutum* found at Kasr el-Harit in the Fayum, Sekunda himself (2001: 80–2) draws attention to the differences between the Roman shield and the Hellenistic *thureos*. However, the shields depicted in the monuments cited as evidence of Roman influence appear closer to his description of the *thureos* than the *scutum*. One suspects that the troops depicted are the peltast-like *thureophoroi* found in other later Hellenistic armies. Sekunda's ideas highlight a number of interesting issues in the evidence, but his overall picture of reform is less convincing than that proposed in the same volume (from rather stronger evidence) for the contemporary Seleukid army.

The Ptolemaic navy and overseas garrisons

Ptolemaic interests outside Egypt were not confined to Syro-Palestine, and particularly in the third century BC kings of Egypt also ruled possessions in Asia Minor and the islands of the Aegean and Eastern Mediterranean. Many of these territories had Ptolemaic garrisons, documented in (particularly) epigraphic sources. Notable among these garrisoned territories were Cyprus, with a Ptolemaic *strategos* commanding naval and land forces, and Thera in the Aegean, whose garrison is particularly well documented (Bagnall 1976: 38–57; 123–34; Van't Dack 1988a; 1988b). The troops based at Thera typically were drawn from southern Asia Minor (Bagnall 1976: 127), as mercenaries or regulars (the distinction is not always clear).

In order to maintain these overseas possessions (and also to patrol the Nile) the Ptolemies retained a substantial navy (Van't Dack 1977: 95–103). The Alexandrian poet Theokritos (17.86–92; admittedly a somewhat prejudiced source) praised Egypt's ships and Ptolemy II's control of land, sea, and river. Like other Hellenistic kingdoms, Egypt ultimately participated in a late fourth century "arms race" to construct larger warships, the triremes of the Classical Greek world being supplemented and replaced by ships known as "fours," "fives," "sixes" and so on, up to "tens" (on a regular basis at least), the names deriving from the number of rowers on each oar (de Souza 2007a; 2007b).

However, at the naval battle off Salamis (Cyprus) in 306 BC, Demetrios, Ptolemy I's opponent, appears to have had larger ships than the Egyptians. Diodoros (20.49–52), providing the most detailed account of a Ptolemaic naval battle, records that Ptolemy had 140 ships in the battle itself, all "fives" and "fours," with another 60 blockaded in Salamis. Demetrios' fleet, perhaps somewhat smaller in numbers, nevertheless included a number of "sevens" and "sixes." The battle itself had some similarities to a contemporary land battle, with the centers fixing one another and each leader strengthening his left flank in an attempt to make a decisive breakthrough. Each left flank routed the opposing right, but Demetrios was more effective in exploiting the breakthrough to strike the Egyptian center, and so Ptolemy was defeated and withdrew. While each fleet's tactics included ramming, the extensive use of artillery, lighter missile weapons, and boarding tactics recorded by Diodoros emphasize further similarities to contemporary land warfare.

Given the cost of building ships with imported timber and the number of rowers required (recruited from the Aegean, Asia Minor, and Phoenicia, as well as Egypt itself), a fleet of this size was a major undertaking. As Egyptian control of overseas territories diminished through the third century BC and later, the fleet diminished in importance (Van't Dack 1977: 100–3). However, even at the time of Caesar's war against Pompey and the subsequent Alexandrian War Egypt was a significant naval power, able to equip and man large numbers of ships (Van't Dack 1977: 102–3, with refs.). Plutarch (*Antony* 56.1) records that Kleopatra VII provided 200 ships for Antony's fleet at Actium in 31 BC, although these included cargo ships.

The Ptolemaic army in Egypt: kleruchs, standing forces, and garrisons

The emphasis of the evidence for the nature of the Ptolemaic army discussed above was on armies outside Egypt. However, much of the evidence for the army comes from Egypt itself, and relates to two important groups, on the one hand mercenaries and standing troops (*misthophoroi*), including guard units and units based in garrisons (*phrouria*) throughout Egypt and, on the other, reservists (*klerouchoi*) with a liability to serve when needed, settled on allotments of land by royal authority. Polybios (15.25.17) draws this fundamental distinction.

The distinction between short-term mercenaries and long-service regulars is not always clear, and evidently the Ptolemaic army at certain times included both. Van't Dack (1977: 90–4) proposed a development, with foreign mercenaries of the traditional kind playing an important role in earlier Ptolemaic armies, substantially replaced by cleruchs (below) through the third century, the cleruchs being supplemented by significant numbers of locally recruited professional troops in the later second century BC. He suggests on the basis of their names that these troops were largely Egyptians or culturally mixed individuals, although, as Clarysse (1985) has pointed out, names employed by individuals in the army and administration may be as much a reflection of context and role as of culture.

Garrisons of regular soldiers were located in great part to ensure royal control of territory against internal revolt, a phenomenon of particular significance in the second and first centuries BC. For example, the end of the great uprising of

207–186 BC in the Thebaid (see Manning 2003b: 164–71) was marked by the establishment of new garrisons at Krokodilopolis and Pathyris (Manning 2003b: 169). Soldiers serving in garrisons appear in the documentary record as a privileged group and as individuals with substantial landholdings (Manning 2003b: 191; Clarysse and Thompson 2006: 148–54 on *misthophoroi hippeis* in the Arsinoite nome).

The other major group of military men in the Egyptian *chora* were *klerouchoi*, military settlers (Uebel 1968; Crawford 1971: 53–84; Van't Dack 1977: 82–90; Serrata 2007: 472–3). These were colonists established on allotments of royal land to provide a body of reservists for service when required. This practice, with Pharaonic precedents (Herodotos 2.168 with Lloyd 1988: 200; Diodoros 1.73.7–8), had the potential advantages of providing manpower with a personal stake in the kingdom in place of mercenaries; of reinforcing royal control throughout the kingdom; and of promoting the cultivation of marginal land (Crawford 1971: 53–4; Manning 2003a: 56, 117).

In the third century BC, kleruchs were predominantly individuals of Graeco-Macedonian origin, settled in particular areas as *katoikoi* (especially the Fayum, but also the Oxyrhynchite nome of Middle Egypt – although the copious evidence from these areas may distort the picture). A high proportion of these kleruchs were attracted from areas beyond direct Ptolemaic control, including Macedonia (Bagnall 1984: 9). The documentary evidence suggests a third-century preoccupation with establishing a reliable cavalry force for the army, and Clarysse and Thompson (2006, vol. 2: 151–3) estimate, on the basis of mid-third century documents, that the Arsinoite nome alone could have provided about 1,000 kleruchic cavalry and 400 regular cavalry, nearly half the "native" cavalry recorded in the Ptolemaic army at Raphia in 217 BC. Allotments were made according to military rank and status, and typically these kleruch cavalry were (nominally at least) holders of 100 arouras. In the first instance, the land remained crown property, reverting to royal cultivation on call-up or death, but by the end of the third century allotments were being granted to holders and their descendants, and over the next two centuries the inheritance and disposal of cleruchic land became normal. These large allotments often were leased out and cultivated by others (Crawford 1971: 55–57, 76).

With the enhanced importance of Egyptians within the army after Raphia, they too begin to appear as recipients of kleruchic allotments. In contrast to the mid-third century documents studied by Clarysse and Thompson, the latter's study of the Kerkeosiris land survey documents shows that all the new kleruchic settlers in the period 130–120 BC were Egyptians (at least inasmuch as one can judge from their names), giving rise to the situation in 119–8 BC when there were 63 kleruchic holdings by Egyptians compared to 41 held by foreign cavalry and officials (Crawford 1971: 70–1). Typically these allotments were much smaller than the earlier ones made to cavalry, and typically cultivated by the holders themselves. Crawford (1971: 70) notes that the Kerkeosiris documents record a single 30 *aroura* grant in 129 BC, seven of 20 *arouras* (to *machimoi hippeis* – "Egyptian" cavalry) and thirty of seven *arouras* (to *machimoi*, presumably infantry).

Various categories of paramilitary police were stationed in the *chora*, with titles like *phylakitai* ("guards"), *ephodoi* ("men doing the rounds") and *eremophylakes* ("desert-guards"). Clarysse and Thompson (2006: vol. 2, 169) estimate that they

made up between 1% and 5% of the adult population of the Arsinoite nome in the mid-third century, suggesting a heavily policed society. From the reign of Ptolemy V (205–180 BC) they began to receive kleruchic allotments of 10 or 24 *arouras*, reflecting their varied statuses (Clarysse and Thompson 2006: vol. 2, 165–77).

2   The Roman Period: The Principate, 30 BC–c.AD 284

Introduction

The Roman military presence in Egypt differed from that of the Ptolemaic Period in a number of ways. First of all, Roman troops in Egypt (even those recruited locally) belonged to a larger military institution encompassing the entire empire, and served a mostly distant ruler. Secondly, aside from a brief conflict in the south in the reign of Augustus, taking Roman armies into Nubia, the Roman army in Egypt fought no external wars, its duties largely being confined to internal policing and the supervision of state interests in activities such as quarrying and trade.

The size, structure, and deployment of the Roman garrison

The Roman army in Egypt, as in other parts of the empire, was a professional standing force organized into legions and auxiliary units. The former were units approximately 5000 strong, made up of heavy infantry largely (but not exclusively – see below) recruited from Roman citizens, with full Roman legal rights. Auxiliary units provided supporting lighter infantry and cavalry, largely recruited (to begin with, at least) from free non-citizen (peregrine) inhabitants of the empire. They were organized in cohorts (infantry) and *alae* (cavalry), with a nominal strength of 500 men. There were also mixed units (*cohortes equitatae*) of infantry with a cavalry detachment. As part of a centralized imperial military establishment, Roman soldiers received pay and bonuses at notionally standard rates. The papyrus pay record *P. Gen. Lat.* I *recto*, showing sums received, deductions made for clothing, and supplies and money set aside as savings by two soldiers in Egypt (AD 81), has been used by scholars to argue about empire-wide rates of army pay. Retired Roman soldiers received (typically) cash retirement bonuses from the state, but many settled in rural communities (see Alston 1995), in a process that perhaps had similar effects to Ptolemaic kleruchic settlement.

Legions

There were from one to three legions based in Egypt in the Principate, when the Roman army empire-wide totalled 25 to 30 legions. Strabo (17.1.12), writing under Augustus, records three in Egypt, but Tacitus (*Annals* 4.5), writing about the year AD 23, notes only two. By the early third century, when Cassius Dio (55.24)

described the deployment of the legions throughout the empire, there was only one, named as *II Traiana* (see Ritterling 1925a). The legions of the first and early second century can be identified as III *Cyrenaica* and XXII *Deiotariana* (see Ritterling 1925b; 1925c).

Strabo describes where the three legions of his day were based, one "in the City" (in the camp at Nikopolis, on the outskirts of Alexandria) and two in the *chora* (two legions). One of the legions of the *chora* was at Babylon/Old Cairo and the other probably at Thebes/Luxor (Strabo 17.1.30 for Babylon; Speidel 1982 for Thebes). These locations made strategic sense. Alexandria was a major population center and link between Egypt and the wider Roman Mediterranean. Babylon was a crucial node of land and water transport at the apex of the Delta and Thebes a site for controlling Upper Egypt and securing the southern frontiers. All three were the sites of legionary bases in the later Roman Period, and the surviving archaeological remains date to that later period. Subsequently the remaining two legions were concentrated at Alexandria, which emphasizes the importance of the internal security role of the army.

Funerary epitaphs of individuals, along with a few collective inscriptions, provide evidence for the origins of legionaries. Of particular importance is a fragmentary inscription from Koptos (*ILS* 2483 = *CIL* III 6627) recording the names, filiation, and origins of thirty-six legionaries engaged in construction work in the Eastern Desert (Alston 1998: 29–31 provides a useful discussion). Each soldier has the same *praenomen* (first name) as his father, an unlikely coincidence unless, as Mommsen (the editor) suggested, this was a legal fiction to disguise the fact that these men were not Roman citizens on their recruitment. As a general rule, Roman legions were recruited from Roman citizens, but the eastern legions had often recruited peregrines (non-citizens), a practice dating back to Mark Antony, and reflecting the relative lack of Roman citizens in many eastern provinces, particularly Egypt (Mann 1983, 45). Nearly half of the men in this inscription came from Asia Minor, particularly Galatian cities such as Ankyra (Ankara). Only three soldiers came from the West (Gaul and Italy), reflecting the culturally Greek character of the eastern Roman army. Seven men were recruited in Egypt (six of them in Alexandria) and two more state their origins as *castris* ("from the camp"), suggesting that they were sons of soldiers, possibly (but not necessarily) serving in Egypt. Unfortunately the date of the document is disputed, and there are grounds for advancing both Augustan and Flavian dates (Alston, *cit.* sets out the arguments). Whichever date is accepted, the number of men from Egypt is relatively high and has been taken as an indication that more localized recruitment of legionaries, and increasing recruitment of the sons of soldiers (empire-wide trends) developed earlier in Egypt than elsewhere (Mann 1983: 44–5).

This impression is reinforced by an AD 194 inscription from Alexandria (*CIL* III, 6580) that lists the origins of 41 men of *II Traiana* who would have been recruited some 25 years earlier. They include eight men from Egypt and 24 *castris*. If we assume that these recruits' fathers had served in specifically Egyptian legions, this suggests a very high degree of local recruitment. On the other hand, a dedication of AD 157 from Alexandria by 130 men recruited to *II Traiana* in AD 132–3 (*AE* 1955: 238 + *AE* 1969: 633) shows an overwhelming predominance (two-thirds) of men from Africa. Mann (1983: 46–7) argues that this evidence is unrepresentative, reflecting emergency recruitment relating to the Bar-Kochva revolt in Judaea, while

Alston (1998: 44–8) advances an argument that this reflects normal recruitment, and that the importance of Africa as a recruiting ground for the Egyptian legions has been underestimated.

Auxiliaries

Strabo (17.1.12) is also our earliest source for the auxiliary component of Egypt's Roman garrison. He records that, in the reign of Augustus, there were nine cohorts, three of them in Alexandria, three in the *chora* and three at Syene (Aswan) on the border with "Aithiopia" to defend that region. He also mentions three cavalry units, with a similar pattern of deployment. Beyond this, ancient literary sources do not provide much information about the cohorts and *alae* deployed in Egypt, and our best sources for an overall picture of the auxiliary garrison of the province are military diplomas. These were bronze certificates issued by the Roman authorities to auxiliary soldiers on their discharge, confirming the legal rights granted to them as a result of their service. Typically these provide not only the name and unit of the soldier to whom the diploma was granted but also list some or all of the other units stationed in the province. Fortunately we have a good spread of diplomas from Egypt, dating to AD 83 (*CIL* XVI 29), AD 105 (Roxan 1978: 40–1, no. 9 = *RMD* 9), AD 156–61 (*CIL* XVI 184) and AD 179 (Roxan 1994: 311–2 = *RMD* 185, see Römer 1990), providing a listing of most of the units based in Egypt over the years. A few more units are known from other documentary evidence. Alston (1998: 24–7) provides a useful summary and tables of the data provided.

The AD 83 diploma records three *alae* and seven cohorts, that of AD 105 three *alae* and nine cohorts. The AD 156–61 document, while fragmentary, appears to list four *alae* and 12 cohorts (see the reconstruction of Römer 1990: 150), and that of AD 179 four *alae* and nine cohorts. If we draw all the evidence together, the number of units known changes over time, but not dramatically so, ranging from nine (in Strabo's time) to thirteen (in AD 105). This represents a total ranging from c.4,500 auxiliaries (on paper at least) at a time when there were about 15000 legionaries, to c.6,500 with, probably, two legions (c.10,000 men) in AD 105.

The identities of the auxiliary units change somewhat, although there is a fairly high degree of continuity. To take the AD 105 diploma as an example, the units named are: *alae: Augusta, Apriana, Vocontiorum*; cohorts: *I Augusta Lusitanorum, I Pannoniorum, I Flavia Cilicum, II Thracum, I Thebaeorum, II Thebaeorum, II Ituraeorum, III Ituraeorum, I Hispanorum*. Typically the unit names include an ethnic that indicates where the unit was first raised. For example, this list includes units composed nominally at least of Vocontii from Gaul, Spaniards and Lusitanians (modern Portugal) from the Roman west, Pannonians and Thracians from the Balkan provinces, Ituraeans from modern Lebanon and Thebans from Egypt itself. However, as nominally foreign units moved away from their place of recruitment, they tended to draw on a wider range of manpower, including (in this case) Egypt itself (Holder 1980: 109–39, esp. 121), and so lose any ethnic distinctiveness they may once have had. Some of the units named here were based in Egypt for a very long time, the *ala Apriana*, and cohort *II Ituraeorum* being attested in there in the first century AD and also in the late fourth century *Notitia Dignitatum* (discussed below), and one

imagines that they were substantially Egyptian from a fairly early date. We also know from other inscriptions that a high proportion of the cohorts in Egypt (six in the AD 105 list) were part-mounted ones, probably reflecting the nature of potential enemies and the paramilitary patrolling performed by soldiers (Maxfield 1996: 17).

Strabo's account suggests that some of the auxiliary units in Egypt were deployed in discrete concentrations. A Latin dedication to the emperor Trajan of AD 99 (*CIL* 14147.2 = *ILS* 8907) records construction work at Syene (Aswan) by three of the cohorts named in the AD 105 diploma, namely *I Hispaniorum*, *II Ituraeorum equitata* and *I Thebaeorum equitata*. This represents a regular concentration of three cohorts in that area, as suggested by Strabo's account of the Augustan situation, although by AD 99 the limits of Roman control lay far to the south (Speidel 1988). However, most of the documentary and archaeological evidence we have emphasizes a pattern of dispersed deployment of auxiliaries similar to that attested for Britain by the Vindolanda tablets and for Syria by papyrus duty rosters from Dura-Europos. Uneven conditions of survival and preservation mean that much of our evidence for this dispersal and out-posting comes from relatively marginal parts of Egypt such as the Eastern Desert, as well as from the *Dodecaschoinos* of Nubia.

The functions of the Roman army in Egypt

Maxfield (1996: 10) has recognized four functions of the Roman army in a province such as Egypt, namely defence of frontiers against external threats, maintaining the internal security of the core of the province, supervision of imperial estates and monopolies, and ensuring the security of travelers. To this one might add, by analogy with the activities of the Ptolemaic armed forces, contribution to imperial military activities beyond Egypt; for the Roman garrison of the province contributed complete units and legionary detachments (vexillations) to actions such as the suppression of the revolt in Judaea in AD 66–70 and the annexation of the province of Arabia in the reign of Trajan, as well as wars of expansion and defence against the Parthian Persian empire (summarized in Alston 1998: 72–3).

Defence of the frontiers against external attack was a relatively unimportant function of the Roman army in Egypt, as external threats were limited for almost all of the Principate. The only conflict of any significance took place in the south at the very beginning of the period, in 25–22 BC. Strabo (17.1.53–4 = Eide et al. 1998, no. 190) records that the "Aethiopians" attacked the Thebaid, defeated the three Roman cohorts based at Syene (Aswan), and captured that town along with Philae and Elephantine. In response, the prefect C. Cornelius counter-attacked with 10,000 infantry and 800 cavalry against 30,000 enemy, leading his army into enemy territory. If Strabo's account is to be believed, the Aethiopians did not provide significant opposition for Roman legionaries. He describes them as poorly armed and led. He also describes (17.1.53) the nomads of the region as "neither numerous nor warlike."

As a result of Petronius' activities, Roman control subsequently extended c.130 km into Lower Nubia, the territory known as the *Dodekaschoinos*. This control took the form of detachments out-posted from the cohorts at Syene, stationed at important centers such as Talmis/Kalabsha, Pselkis/Dakka and Hierasykaminos/al-Maharaqqa

(and, more briefly, at Primis/Qasr Ibrim). The presence of these detachments is attested primarily by dedicatory inscriptions set up by their members in the first and second centuries AD, including a series at the temple of Mandulis at Talmis, although there are some relatively insubstantial remains of military installations too (Speidel 1988; Alston 1998: 202–3).

The internal security role of the Roman army in Egypt is emphasized by the great concentration of forces at Alexandria throughout the Principate. As already noted, for much of this period the entire legionary presence in the province was located there, along with a number of auxiliary units. Unrest in Alexandria and beyond, requiring military intervention, is mentioned by ancient writers on a number of occasions. For example, Josephus (*BJ* 2.487–498) records that the AD 66–70 revolt in Judaea provoked even worse conflict than usual between Alexandria's Jewish, Greek, and Egyptian populations, and that the prefect Tiberius Alexander unleashed the city's two legions against the Jews. Other major disturbances in Egypt in the Principate included the *diaspora* Jewish revolt in Trajan's reign and the *boukoloi* revolt of c.AD 171/2. At a much lower level of internal security and policing, in the villages of the *chora*, we see a good deal of papyrological evidence for Roman centurions as recipients of petitions relating to local disputes and crimes, many of them entirely lying in the civil sphere (Alston 1998: 86–96). Here the army is effectively acting as the lowest level of imperial control.

The roles of the Roman army in guarding and supervising imperial possessions and monopolies, and in providing security for travelers are best exemplified by the wealth of evidence from the Eastern Desert, much of it obtained in the course of fieldwork conducted over the last two decades. Evidence from the quarry sites at Mons Claudianus and Mons Porphyrites, including installations, inscriptions, and ostraka, provides vivid evidence for relatively small garrisons (Maxfield 1996: 18–19, on the basis of ostraka relating to water supply) on detached duty from the major auxiliary units, guarding the installations and supervising the civilian labor force (Maxfield 1996: 18–19; Maxfield and Peacock 1997; 2001a; 2001b; 2006; Bingen and Cuvigny 1992–2000). The written evidence ranges from the formal dedication of a temple to Isis by an officer of the *ala Vocontiorum* at Mons Porphyrites in AD 113 (*AE* 1936, 60) to a *dipinto* on an amphora shoulder by a cavalryman of *cohors I Flavia Cilicum* (Maxfield and Peacock 2006: 180–1, no. 9).

While the roads to the quarry sites provide evidence of the army's role in policing the routes through the Eastern Desert, these duties are best demonstrated by the evidence from the roads from Koptos to the Red Sea ports of Myos Hormos (Qoseir el-Qadim) and Berenike. Again, the evidence is partly archaeological, with numerous relatively well-recorded fortlets and *hydreumata* (watering-places) along the routes, and partly written, with a selection of formal inscriptions as well as ostraka recovered in the course of fieldwork (for a recent study with references to past work, see Cuvigny 2003; selected earlier works include Maxfield 1996; Zitterkopf and Sidebotham 1989; Golvin and Reddé 1987). As already noted, the inscription from Koptos (*ILS* 2483 = *CIL* III 6627) mentioned above shows legionary and auxiliary troops engaged in the construction of cisterns and forts on the Berenike route in the first century AD. On a more personal level a rock-cut inscription from el-Mweih on the Myos Hormos road by a cavalryman of the *ala Vocontiorum* (a unit well-attested

in ostraka from sites on this route) records his five months' duty at the fort there (*ILS* 9142). Undoubtedly the Roman state's involvement in these activities was motivated by revenue protection rather than altruism toward the merchants who used the roads, since the provision of protection and infrastructure on well-defined routes not only prevented goods from being stolen but also ensured that they remained within the lucrative imperial regime for taxation of imported goods.

The Roman navy in Egypt

While the major bases of the Roman fleet lay at Misenum and Ravenna in Italy, the importance of securing Egyptian grain supplies and of supporting Roman forces along the Nile Valley meant that there was a component of the fleet based at Alexandria in the Principate, as the *classis Alexandriae* or *Alexandrina* (Saddington 2007: 215).

3   The Roman Period: Late Antiquity, AD 284–c.AD 400

Introduction

The second half of the third century AD, a time of broader political and military upheaval in the Roman Empire, saw a number of threats to the security of Roman Egypt emerge. One of these factors was the first external invasion of Egypt for three centuries, undertaken from the north-east by independent Palmyra in AD 270–2 – although much of the evidence relating to this attack suggests that it was made with the collusion of Roman officials in the province. A second issue was that of large-scale internal revolt in Upper Egypt (AD 293) and throughout the whole province (AD 297–8), the latter suppressed in person by the emperor Diocletian. The third problem was conflict in frontier areas with nomadic peoples, particularly the Blemmyes in the south, leading Diocletian to abandon the *Dodekaschoinos* of Lower Nubia in (probably) AD 298. As a result of these, and other, empire-wide, problems and reforms, the Roman military presence in Egypt in the fourth and fifth centuries AD was somewhat different from that of the earlier period, although some common themes remained, notably the importance of internal policing duties.

The size, structure, and deployment of the Roman garrison in Late Antiquity

The most comprehensive source for the late Roman army in Egypt, or, indeed, anywhere in the Roman empire at that time, is the *Notitia Dignitatum*. This document, preserved in the medieval manuscript tradition, lists military units (and Roman officials) throughout the empire on a region-by-region and province-by-province basis. In the case of military units it indicates the type and title of the unit and its place of deployment. The document as a whole was probably compiled c.AD 429,

with the eastern (*Oriens*) sections, including Egypt, being finalized somewhat earlier, probably c.AD 395 (Carrié 1986: 451). However, the changes which saw the emergence of the "late Roman army" began amid the military and political crises of the mid-third century AD, nearly two centuries before the final compilation of the *Notitia*, and intensified in the reigns of emperors like Diocletian and Constantine. In order to view the changes that took place through that period, it is necessary to extrapolate backwards from the *Notitia Dignitatum* with the aid of contemporary (but less comprehensive) documents such as the Diocletianic papyri from Panopolis (*P. Beatty Panop.* – Skeat 1964). The *Notitia* divides the garrison of Egypt into two sections, troops under the command of the *comes limitis Aegypti* in Aegyptus (essentially Lower Egypt – *Or.* XXVII) and those under the *dux Thebaidos* (Upper Egypt – *Or.* XXXI). In addition to the regular garrison set out in these sections of the document, other units, from regional and central field armies (*comitatus*), might be deployed in Egypt for a particular campaign or on a longer term basis. For example, documentary sources attest to the presence of *comitatenses* (troops from the field armies) at Oxyrhynchos and Antinöe (Carrié 1986: 458–9).

Some of the unit types appear familiar from the Principate, for example, there are units termed legions and lower status units called *alae* and cohorts, clearly the notional (at least) descendants of the legionary and auxiliary units of earlier Roman history. However, there are also new unit types, notably those titled *equites*, high-status cavalry units, reflecting the increased importance of that element of the Roman army from the third century AD. However, it is clear from careful reading of the documentary evidence as well as from the sizes of military bases that most, if not all, late Roman units were much smaller than their namesakes of the Principate. Legionary units typically may have had 1000 men at most, and legionary detachments (vexillations) recorded in the Diocletianic Panopolis papyri probably were about 500 strong. Duncan-Jones' (1990) interpretation of the same document reveals auxiliary cohorts and *alae* of c.160 and 120 men respectively. Thus, while the *Notitia* lists significantly more units in Egypt in late antiquity than in the Principate (12 "legions," nine *equites*, 32 *alae*, 19 cohorts and three other units, compared to three legions and 12 auxiliary units under Augustus, or a single legion with 16 auxiliary units in the mid-second century AD), it is quite possible that the late Roman army of Egypt was of similar size to that of the Principate, perhaps c.20,000 men strong. This estimate, based on the work of Duncan-Jones (1990), contrasts with the views of Skeat (1964, the principal edition of the Panopolis papyri) and A. H. M. Jones (1964: 679–84), who assumed that late antique units were comparable in size to those of the Principate and came up with an estimate of c.64,000 late Roman soldiers in Egypt.

As noted above, the *Notitia Dignitatum* provides us with a picture of the late Roman army as it evolved over a century and more. Some units have imperial titles such as *Theodosiana*, *Arcadiana*, *Valentiniana* and (*equites*) *Honoriani* that show they were raised in the later fourth century AD. However, it is clear that the reign of Diocletian (AD 284–305) was a time of significant reform, when, in many respects, the late Roman army of Egypt was "created." Not only do we have literary evidence for Diocletian's presence in Egypt and his personal interest in its defence, along with archaeological evidence of military construction in, or close to, his reign

(both discussed below), but also the titles of several of the units in Egypt in the *Notitia Dignitatum* suggest tetrarchic origins. For example, there are multiple elements of the two legions *III Diocletiana* (*ND Or.* XXXI.37) and *I Maximiana* (*ND Or.* XXVIII.18; XXXI.31, 33, 38), named after Diocletian and his tetrarchic colleague, and some auxiliary units titled *Herculia* (*ND Or.* XXXI 50, 54), after Maximian's patron deity Hercules.

With regard to the general character of the late Roman army in Egypt, it is clear from the unit titles that infantry, both legionary and auxiliary, remained an important component. However, cavalry units were more numerous than in the Principate, and, despite the relatively small size of these late-antique cavalry formations, it seems likely that overall numbers were somewhat greater too. There is also some evidence of local specialization, especially in Upper Egypt. Of particular note is the large number of units described as *equites sagittarii indigenae* on both sides of the Nile on and around the Koptos bend, at sites such as Tentyra (Dendera), Koptos itself, Diospolis Parva (Hiw), Latopolis (Esna), and Maximianopolis/Kaine (Qena). Presumably such troops would have been particularly well suited to controlling nomadic peoples such as Blemmyes (but see Barnard 2005 on the problem of Blemmye identity) and may well have been recruited from them. There are also a number of specialized camel units (*alae dromedariorum*), including one at Qena, again, of particular value in policing desert areas. There is only one unit of heavy armored cavalry (*catafractarii*) attested in the *Notitia,* in the Thebaid, (although a papyrus also refers to such a unit of the *comitatus* at Antinoe – Carrié 1986: 458–9), probably reflecting the lack of suitable enemies for such troops in Egypt, in contrast to the Persian frontier.

Many auxiliary units bear ethnic names, although typically (again) these reflected the units' origins rather than necessarily continued recruitment from those peoples. A number of titles reveal at least a nominal connection with units already in Egypt in the Principate. These include the *ala Apriana* (*ND Or.* XXVIII.32) *ala veterana Gallorum* (XXVIII.28), *cohors II Ituraeorum* (XXVIII.44), *cohors II Thracum* (XXVIII.45) in Aegyptus and the *cohors scutata civium Romanorum* (XXX.59) and *cohors I Apamenorum* (XXXI.60) in Upper Egypt. Other ethnic titles suggest recruitment from among Germanic peoples including the *cohors IX Alamannorum* (*ND Or.* XXVIII.63), *cohors VII Francorum* (XXVIII.67) and *cohors IV Iuthugorum* (XXXI.43). Probably these were raised and moved east during the reigns of fourth-century emperors like Constantine and Constantius II, although presumably they began recruiting more locally after their arrival and eventually lost any ethnic distinctiveness they once may have possessed.

On the surface, the deployment of the Roman garrison of Egypt in late antiquity appears more balanced and dispersed than that seen through much of the Principate, with the latter's heavy concentration of troops (legionary and auxiliary) in and around Alexandria. The *Notitia Dignitatum* reveals a substantial concentration of all troop types on the southern frontier, a significant presence in the strategically important Cairo (Babylon-Memphis) area, and dispersed bases throughout the Nile Delta, along the major route to Syro-Palestine, down the Nile valley and in outlying locations such as the Fayum and the western oases. This pattern of dispersal is confirmed by the evidence of excavated late-antique military bases (discussed below). However, this apparent change from the earlier situation may be more

illusory than real. As noted above, the army of the Principate was actually more dispersed than the purely literary evidence suggests, and the later imperial situation depicted in the *Notitia Dignitatum* is probably a formal recognition and crystalliza- tion of the *de facto* dispersed deployment of the Principate (I am grateful to Valerie Maxfield for this suggestion). In some cases sites named as military bases in the *Notitia Dignitatum* also provide evidence for military deployments in the Principate, even beyond the major concentrations of troops like Alexandria, Babylon, and the Thebaid. For example, Latopolis (Esna) is named as the base of a unit of horse archers in the *Notitia* (*Or.* XXXI.28), but there is also evidence for the presence of a part-mounted detachment there in the second century AD (Bagnall 1975).

Military bases in Late Antique Egypt

On the whole, the archaeological evidence for major military bases in Egypt is much better for late antiquity than for the earlier periods, but not without its problems. Most of the known examples provide evidence of origins during the reign of Diocletian or close to it, emphasizing that the tetrarchic period was one of military reform in Egypt.

Legionary fortresses

There are three legionary bases of this period known from archaeological evidence. Perhaps the most impressive is the legionary camp created in the Luxor temple at Thebes (El-Saghir et al. 1986). The fabric of the temple was incorporated into a slightly trapezoidal, largely mudbrick, wall circuit, with projecting square corner towers and horseshoe-shaped interval towers (typical features of later Roman fortifications). We know relatively little about the internal arrangements of the fortress, but there are remains of two monumental tetrastyles marking street crossings, dated by dedica- tory inscriptions to AD 301 and AD 308/9 respectively (El-Saghir et al. 1986: 20–21; 122). The origins of the camp as a whole may lie a little earlier, perhaps in AD 298, when Diocletian himself was in Egypt. Diocletian's *adventus* (procession of arrival) may be what is depicted by the paintings in the temple ante-chamber, which was converted into a chapel for military standards when it was incorporated into the camp (Deckers 1973; Kalavrezou-Maxeiner 1975). The total area enclosed by the walls is 3.72 ha. comparable to other late Roman legionary bases but small compared to the fortresses of the Principate, which, as discussed above, housed larger legions. The late Roman legionary fortress at Babylon (Old Cairo) was similar in size to that of Luxor, and there are also some similarities of plan, such as the horseshoe-shaped towers and gates. Standing remains of the camp have long been visible, but more intensive investigation and recording of the walls took place in the 1990s (Lambert 1994; Grossmann et al. 1994; 1998; Sheehan 1996), and study of the sub-surface remains more recently still (Sheehan, forthcoming). The visible evidence and the similarities to Luxor suggest a tetrarchic date. Finally, the remains of the Roman legionary base at Nikopolis (Alexandria), which survived until the late nineteenth century, clearly belonged to a late antique structure, as is made clear by contemporary descriptions of its plan and construction (Murray 1880, 141, cited and discussed in Alston 1998: 192–3).
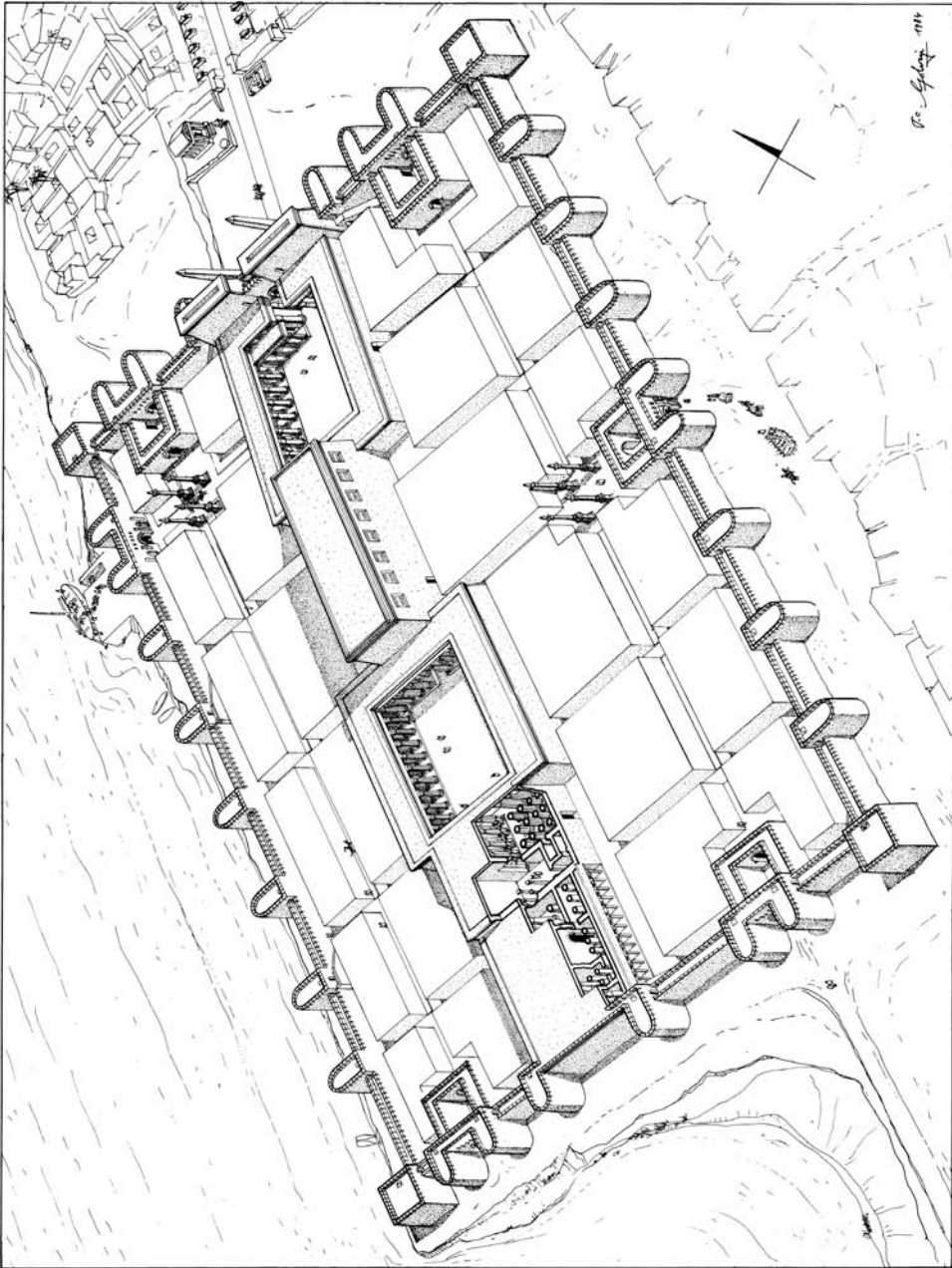
Figure 24.1 Reconstruction of the Roman military camp at Luxor incorporating the Pharaonic temple of Amun which was no longer in use. After El-Saghir et al. 1986: pl. xx. Courtesy IFAO Cairo.

Auxiliary forts

Construction of auxiliary forts in AD 287–8 (Diocletian's third year) at el- Kantarah (Silē) on the Suez Canal and Deir el-Gebrawi (Hierakon) in Upper Egypt, for *ala I Thracum Mauretana* and *cohors I Augusta praetoria Lusitanorum* respectively, is attested by inscriptions from those sites (*CIL* III 13578 and *CIL* III 22– see *CIL* III 6626 n.22), perhaps reflecting a general reform of Egypt's defences in or about that year. In addition, there are more substantial archaeological remains from other sites, notably Dionysias (Qasr Qārūn) in the Fayum, and Abu Shaar on the Red Sea coast of the Eastern Desert. The former has a largely mud-brick rectangular wall circuit c.94 m by c.80 m, with projecting square corner towers and semi-circular bastions at gateways and on curtain walls (Schwartz and Wild 1950; Schwartz et al. 1969). The internal plan, with barracks and a central command/administrative block, has been recovered, although its chronological development is uncertain, and the excavators' views that it represented a single construction of the reign of Diocletian have been challenged by Carrié (1974: 839–840) who (not entirely convincingly) redates it to the period of Palmyrene occupation of Egypt in AD 270–2, on the basis of architectural parallels. It is very likely that this fort was the one occupied for much of the fourth century by the cavalry unit the *ala V Praelectorum*, known very well, along with its commander Abinnaeus, from an archive of documents found at Philadelphia (discussed below – Bell et al. 1962; Schwartz et al. 1969: 2).

The fort at Abu Shaar was excavated in 1990–1 by a group from the University of Delaware, directed by Steven Sidebotham (Sidebotham 1994). It had a roughly rectangular wall circuit c.77.5 m by 64 m, constructed primarily of local cobbles, with baked- and unbaked brick and gypsum employed in the towers and gates. Like the other late Roman fortifications discussed, Abu Shaar had numerous projecting towers, at the corners and on the curtain walls, and catapult balls were found in one of them, emphasizing their importance as artillery platforms at this period. The internal arrangements were broadly similar to those of Dionysias. A fragmentary inscription found in the course of excavation suggests a tetrarchic date (c.AD 309–11) for the primary military occupation of the site and provides evidence for the garrison as an *ala] nova Maximi[ana*, an auxiliary cavalry unit, and Sidebotham characterizes the installation as a satellite of the legionary fortress at Luxor (Sidebotham 1994: 143, 157–8; Bagnall and Sheridan 1994: 159–63). Neither the fort nor its garrison can be identified in the *Notitia Dignitatum*.

The functions of the Roman army in Late Antique Egypt

As noted above, Egypt was invaded from the north-east in AD 270 by Palmyra, which had temporarily broken away from the Roman Empire in the aftermath of the defeat and capture of the emperor Aurelian by the Sassanian Persians. The ancient sources (SHA *Divus Claudius* 11.1–2; *Probus* 9.5; Zosimus 1.44.1–2) present rather confused accounts of the Palmyrene takeover as a foreign military invasion, although there is a good deal of evidence of continuity and collusion between the Roman and Palmyrene administrations (see Potter 2004 : 167, 170). Whatever its exact nature, this was the last external attack on Egypt from the north until the Arab invasions, and,
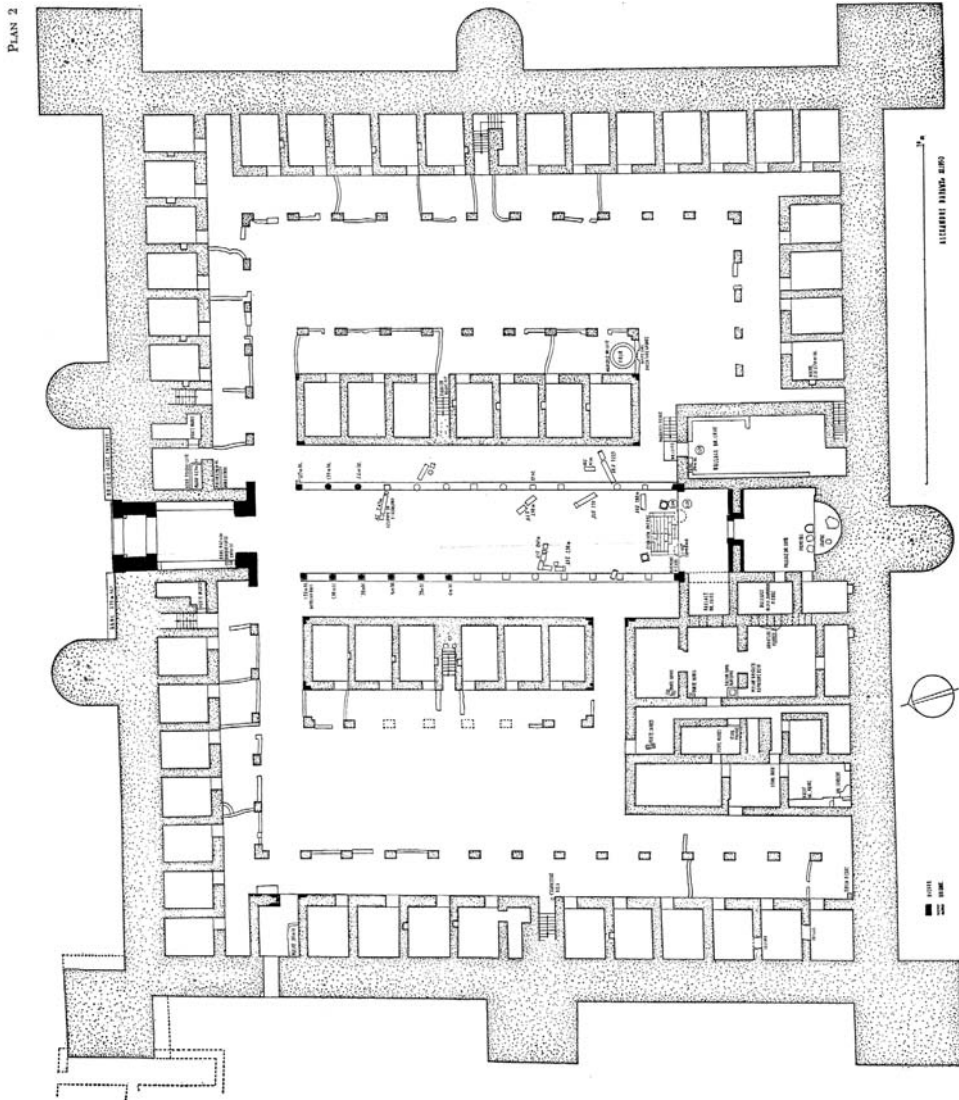
Figure 24.2 The Roman fort in the settlement of Dionysias, built or reactivated in the Tetrarchic Period. After Schwartz 1969. Courtesy IFAO, Cairo.

as in the Principate, repelling external invasion was not required of the late Roman army in Egypt. Nevertheless, concern about invasion from the north may have influenced the deployment of the units named in the *Notitia Dignitatum* for Aegyptus (Lower Egypt), with bases on routes from Syro-Palestine, along the east and west sides of the Nile Delta and major routes across it, and at centers of strategic importance such as Babylon and Alexandria (Price 1976).

Conflict with nomadic peoples on the borders of the Egyptian provinces was more significant. There is only limited and scattered evidence for such conflict with nomads from the west (*P. Princeton* II, 29, ll. 5–7 on the Fayum, AD 258 ; *P.Oxy.* 46.3292 on

the Oxyrhynchite Nome, AD 259–64 ; see Wagner 1987, 394–400 on these, and attacks on the western oases). However, the situation in the south was much more serious, as significant conflict with the peoples known to Graeco-Roman writers as Blemmyes and Nobotai seems to have developed in the mid-third century AD (SHA *Probus* 17.2, 6 = Eide et al. 1998, no. 284. Zosimus 1.71.1 = Eide et al. 1998, no. 323, all discussed in detail in Eide et al. 1998: 1052–66), to the point where Diocletian was forced to abandon the Roman presence in the *Dodekaschoinos* and establish the Roman frontier at Syene (Aswan) (Procopius, *Wars* 1.19.27–37 = Eide et al. 1998 : no. 328). Continuing threats from the south and the Eastern Desert provided one rationale for the concentration of troops in the Late Roman Thebaid and cavalry units deployed along the eastern Nile Valley.

Another rationale for the dispositions of troops in the Thebaid and, indeed, throughout Egypt, was internal security. Diocletian's reforms took place in the aftermath of two major revolts, the first apparently restricted to Upper Egypt, perhaps in AD 293–4 (Jerome, *Chronicle* ed. Helm 226a mentioning Koptos and ''Busiris''/ Boresis ; Barnes 1976 : 180–1; 1982 : 62; 1996 : 542; Bowman 1978 : 26–7; 1984; 2005 : 316). The second was the revolt of L. Domitius Domitianus throughout Egypt, probably in AD 297/8, and brought to an end by a siege of Alexandria commanded by Diocletian himself (Jerome, *Chronicle* ed. Helm 226e; Thomas 1976; 1977; Bowman 1978 ; 2005 : 316; Barnes 1982 : 54–5; 1996 : 543–4). As in the Principate, Egypt remained a potentially turbulent part of the empire in late antiquity, and the *Notitia Dignitatum*'s picture of an army spread through Egypt with concentrations in strategically important locations such as Alexandria, Babylon, and the Thebaid probably reflects that perception.

On an even lower level, the day-to-day activities of the *ala V Praelectorum* and its commanding officer, Flavius Abinnaeus, based at Dionysias in the Fayum, are described in considerable detail for the years AD 342–51 by the papyrus documents of the Abinnaeus archive (Bell et al. 1962). Many of these documents show the army performing basic administrative tasks, such as administration of the tax system and low-level policing. Abinnaeus himself is shown judging disputes between civilians as well as cases involving civilians and soldiers. On the basis of this and similar evidence, Van Berchem (1952 : 69–71, and also in Bell et al. 1962) argued that the primary functions of the auxiliary *alae* and cohorts in Egypt at this time were essentially non-military, and only the higher status legionary and cavalry units were actually intended to engage major threats to the security of the provinces. In fact, the absence of major external enemies over much of Egypt throughout the Roman Period probably enabled units to take on a range of functions that they were not originally intended to perform. As in the Principate and the Ptolemaic Period, control of Egypt itself, its population and resources, was always perhaps the most important role played by the army.

FURTHER READING

There are no comprehensive modern monographs on either the Ptolemaic or Roman armed forces to rival the scope of Lesquier's (1911; 1918) work, and the French scholar's work still includes much of value, as does Van Berchem's (1952 ; 1971) subsequent work on late

antiquity. Besides addressing the theme of soldier-civilian relations, Alston (1998) provides a valuable introduction to the Roman army in Egypt, with some consideration of most major issues. Various sections of the *Cambridge History of Greek and Roman Warfare* (de Souza 2007a; 2007b; Sekunda 2007; Serrata 2007) provide very general but useful background on Ptolemaic issues, and Van't Dack (1977) an overview of the development of Ptolemaic military institutions. Otherwise there are specialist studies, with Clarysse and Thompson (2006) providing fascinating detail on kleruchy, and the work of Cuvigny, Maxfield, Sidebotham and others supplying new perspectives on the Eastern Desert. For a broad-ranging survey account of the Egyptian frontier areas see Jackson 2002.

PART IV

The Social Order

CHAPTER 25

Social Structure
and Daily Life: Pharaonic

Elizabeth Frood

1   Introduction

Questions relating to social interaction and individual experience are at the heart of all work on ancient societies and material culture, from history and geography to linguistics and religion. In this chapter I offer a specific range of perspectives, but this entire handbook is relevant to the topic. I sketch some of the "macro-worlds" (structures and institutions) and "micro-worlds" (personal lived experience, "daily life") of social life (Berger and Berger 1976: 21), emphasizing their mutual dependence, as well as the potential for tension and conflict. I review sources and approaches, focusing on core questions relating to social structure, social process, and social reality. For such a vast topic discussion and references cannot be comprehensive; it is possible only to present a sample of issues and perhaps to point in some new directions.

Material culture is integral to and constitutive of social relations and practices. It does not simply provide a setting for them or reflect them; "everything is infused with the social" (Hodder 2004: 38). Egyptian material culture offers a rich and diverse range of evidence for social organization and experience. Approaches using it extend from philological treatments of texts, which have historically been the focus and are themselves material objects, to the study of house structures and settlement patterns (cf. Mumford ch.18; Moeller 2007), categories of artefacts (e.g. Dubiel 2008), and human skeletal remains (e.g. Zakrzewski 2007). The settlements of Middle Kingdom Lahun and New Kingdom Deir el-Medina in particular offer rich opportunities to reconstruct aspects of everyday life and social structure through archaeological and textual sources (e.g. McDowell 1999; Andreu (ed.) 2002; Szpakowska 2008). Thus the potential of studies which integrate different domains of evidence is considerable; examples include Stephan Seidlmayer's (2007) treatment of textual, iconographic, and archaeological material from Middle Kingdom Beni Hasan, and Janet Richards' (2005) analysis of necropolis and votive evidence from a range of Middle Kingdom sites.

It is necessary to be aware of limitations and agendas both of the sources and of our approaches, and to draw distinctions between normative projections of ideologies

and more complex social realities (Eyre 2000). Most Egyptian material exhibits a centralizing, elite bias. Written sources and monumental, iconographic contexts of tomb and temple are most explicit in this respect, but the analysis of much non-discursive data such as burial goods and settlement patterns is also often more revealing for elite culture than other social levels. In light of this, studies increasingly explore approaches to lower levels and domains of interaction between elites and others (e.g. Richards and Van Buren 2000; Moreno García 2001; Quirke 2007; Baines in press). However, as Seidlmayer (2001a: 206) observes, although idealizing contexts such as burials may not map directly onto "true" patterns of social organization, ideal or ideological frameworks and representations are culturally "true" and meaningful.

Treatments of social themes tend to be shaped by the character of the data-sets for different periods, in addition to the interpretive frameworks adopted. Studies of social structure have tended to focus on third millennium and, more recently, second millennium material, while discussions of "daily life" have centered on the New Kingdom, especially the workmen's village at Deir el-Medina. For the Old Kingdom, questions relating to lived experience need to be approached differently, as is true also for the Third Intermediate and Late Periods, which have hardly been approached for social questions; Christopher Eyre's studies of a range of social topics which integrate material across broad temporal ranges are notable exceptions (e.g. 1984; 2004; 2007). Overviews, such as this chapter, necessarily blur no doubt considerable changes.

Theoretical frameworks developed in disciplines such as anthropology and archaeology additionally open up the material to new questions. Gender, "the cultural interpretation of sexual difference" (Gilchrist 1999, 1), is an explicit example that has been a recent focus. Egyptian society was strongly gendered in terms of position and representation (Robins 1993; 1994) and, although inequality was at the core of this distinction, status and role could vary considerably. Recent studies examine how far such distinctions play out in material culture, both domestic and mortuary (e.g. Meskell 1999; Seidlmayer 2001a: 235–40). Women have been the primary focus of gender study, although masculinities are beginning to be explored (e.g. Parkinson 1995; Robins 2008), as is the idea that gender was a fixed dichotomy of male and female (Depauw 2003). Comparable issues can be investigated for other categories of social identity, notably ethnicity, age, and rank. How far each maps onto the ancient actors' categories can be questioned (e.g. Baines 1996).

Crucial to all work on social structure and daily life is diversity, from the modeling of local, rural life to high-cultural forms – there can be no single model and no single experience (Trigger 2004: 51). Where possible, I emphasize this diversity and the corresponding value of plural approaches.

2   Social Structures

The self is social: personhood and identity are constructed through relationships and maintained and developed within them: "Beware of the selfish man's deed (*sp n ʿwn-ib*)! It is a painful disease of an incurable. The man who catches it cannot survive: it alienates fathers and mothers, and even the closest brothers; it drives apart

husband and wife. It is the compound of all evil; it is a sum of all that is detested" (*Teaching of Ptahhotep*: Parkinson 1997: 256). This passage, which is addressed to elites, stresses kinship, but hierarchical and occupational structures would have been vital for most individuals. "[E]veryday life is crisscrossed by patterns that *regulate* the behavior of its inhabitants with each other and that, at the same time, relate this behavior to much larger contexts of meaning" (Berger and Berger 1976, 20). In Egypt, these contexts include kingship (cf. Morris ch. 11), religion (cf. Szpakowska ch. 27), and ideals of perfect order, justice, and vertical solidarity embodied in the concept of *maat* (Assmann 1989; 1990). Mechanisms of connection and mediation operate within and between institutions and individuals, including patronage, economic ties, legal systems and traditions, hospitality, and friendship, as well as coercion and violence.

Kinship and households

At the core of social structure are family and household, the latter a more expansive and inclusive institution. In Egypt, as in all state-level societies, kinship was not the dominant mode of connection and articulation of social modes of being. Rank and role usually determined social position, and most people had to relate to non-kin in order to function within the society as a whole. But kinship was a primary structuring mechanism in communities and was vital for the individual. Kin are represented on elite monuments from the Old Kingdom onward (e.g. Whale 1989; Lustig 1997; Baud 1999), while extended genealogies became characteristic components of textual self-presentation in the Third Intermediate and Late Periods (e.g. Bierbrier 1975; Leahy and Leahy 1986; Jansen-Winkeln 2006b).

Kinship terms reflect wider patterns of social interaction that are difficult to model. Egyptian terminology does not fit any of the broad types developed by anthropologists (Franke 1983: 161–6; 2001, 246), while the range of application of specific terms and their development over time is not well understood (overviews: Franke 2001; Campagno 2009). Primary sources for studying these problems include non-royal stelae and tomb scenes which display kin (Robins 1979; Franke 1983; Willems 1983), as well as references to kin relationships in documentary material such as administrative and legal texts, and letters. This material is from the elite, literate sphere and was created for purposes only partly related to kinship that shaped how it was represented and described (Kóthay 2001: 350).

Six basic kinship terms form the core of the Egyptian system, locating the individual in ascendant and descendant (vertical) or collateral (horizontal) relationships: father (*it*), mother (*mwt*), son (*s3*), daughter (*s3t*), brother (*sn*) and sister (*snt*). Additional terms describe affinal (non-blood) kin relationships, notably husband (*h3y*) and wife (*ḥmt*). The distinction between ascendant and collateral relationships may point to the existence of separate patterns of kin category (Campagno 2009). Ascendant terms have both restricted and extended meanings in terms of generation and lines of descent: *it* "father" can also mean grandfather and spouse's father, as well as male ancestors more generally; "mother" has a similar frame of reference. *it* can extend metaphorically to the role of "guardian" or "teacher." Such usages illuminate the behaviors and responsibilities associated with particular relationships (Assmann 1991).

The range of meanings encompassed by the collateral terms, *sn* and *snt*, is wider. *sn* can designate an individual as brother, mother's brother, father's brother, sister's husband, mother's sister's son, brother's son, sister's son, or brother by marriage. The terms also extend to non-kin colleagues, friends, or rivals. From the New Kingdom, *sn* and *snt* are terms for lovers in love poetry and for husband and wife in tomb contexts, suggesting that they may signify "[a] relationship essentially based on reciprocity" (Revez 2003: 127).

Although the six main terms can be used in compounds that specify non-nuclear kin relationships more precisely, for example, *sn n mwt.f* "brother of his mother," such compounds are not common. The range of possible extended meanings of the basic terms causes difficulties for those who attempt to reconstruct genealogies (e.g. Willems 1983: 154–6, 163–5). In monumental contexts, most attention is given to delineating parent–child relationships through expressions of filiation, notably X *ir(t). n* Y ("X made by Y," Y being either father or mother) or X *ms(t).n* Y ("X born of Y," primarily for mother–child relationships). Changes in filiation formulae in terms of frequency, patterns of expression, and emphasis (e.g. to mother or father) from the Middle Kingdom to the New Kingdom (Robins 1979: 198–9) may speak to broader changes either in kin structures or in priorities for display.

In the context of stelae depicting large numbers of kin, precise specification of relations may have been unimportant and space a significant constraint, while the group creating the composition would have known who everyone was. Such display is also primarily concerned with the owner's status, siting him at the center of kin, community, and patronage (e.g. Simpson 1974; Willems 1983, 163–5) rather than presenting detailed maps of these networks. They also provide access to a written death for those who could not otherwise afford or acquire one.

At the heart of Egyptian kinship terminology is the parent–child relationship. Although the social realities of kin group and household were probably more extended and complex, the image of the nuclear family was potent for monumental display, mobilizing continuity, legitimacy, and adherence to social norms. The dominance of images of husband and wife in mortuary contexts (cf. Roth 1999) and the range of affinal terms that refer to their relationship (Toivari-Viitala 2001: 15–48) display the importance of marriage as an institution. The most detailed evidence relating to marriage within a single community comes from Deir el-Medina. As Jaana Toivari-Viitala (2001: 49–50) observes, "marriage" should not be understood as signifying a single, formalized relationship, cohabiting, monogamous, with specific legal obligations and behavioral expectations. The variety of terms used in Deir el-Medina to refer to marriage suggests that in the later New Kingdom it encompassed a range of relationships. Some of these seem to have included conjugal property rights for women and expectations of sexual exclusivity (Johnson 2003; Eyre 2007). Although there is no clear evidence for marriage ceremonies, texts from Deir el-Medina that refer to marriage payments and gifts (Toivari-Viitala 2001: 61–9) indicate that the significance of marriage was acknowledged socially.

There is little evidence for rules governing the choice or prohibition of partners. Kin groups were probably influential in the negotiation of a first marriage. Outside the royal sphere, marriages between close kin are not attested (e.g. Toivari-Viitala 2001: 57–9). Among elites marriage contributed to the creation and maintenance of

political networks (e.g. Polz 1998: 284–8, fig. 6). Class, rank, and family affiliation no doubt affected partner choice at lower social levels as well. Men and women could remarry after divorce (Toivari-Viitala 2001: 90–5) or the death of a spouse, although the position of the second wife, especially in relation to property ownership and inheritance, could be problematic; evidence for polygyny is variable and often ambiguous (Eyre 2007).

Eyre suggests (2007: 225) that marriage only became meaningful once children were born, and that the institution focused around the maintenance of property within the core family group. Individuals without children were socially lacking (e.g. *Teaching of Ptahhotep*: Parkinson 1997: 253). Adoption was one possible resolution; in one case a man adopted his wife in order to ensure his property would be retained within the immediate family (Eyre 1992). Children could inherit from both parents. Eldest sons ideally received the largest share, in keeping with their responsibility for the funeral and mortuary cult of their parents, as well as duties of care for siblings (Lippert in press). A daughter or collateral (brother or uncle) could undertake this role if there was no son, if he was deemed unsuitable, or if circumstances favored other divisions (Eyre 1992: 215–17; 2007: 234–5). Parents could disinherit children; the will of the woman Naunakhte from Deir el-Medina excludes some of her children because they had neglected her (McDowell 1999: 38–40).

Although the nuclear family is at the center of inheritance patterns, kinship terminology, and the display of social groups, extended families and households (including non-kin dependants) would have constituted social reality for most individuals and would have governed the practicalities of property management. The numerous terms for extended kin and household groups, many of which are first attested from the Middle Kingdom, point in this direction. Examples include *mhwt* and *wḥyt*, which can refer to extended kin groups (perhaps "clans"). Both terms, especially *wḥyt*, often link the group with spatial settings, village communities, and settlements. Detlef Franke's survey (1983: 178–301; cf. 2001: 246–7) remains the most detailed study of these terms. Changes in their use and meaning over time and within different contexts, as well as their relationships to concepts of place (e.g. *wḥyt*) and time (e.g. *ḥt* meaning "body" and "corporation" as well as "generation") are potentially significant for the interpretation of networks of kin within and beyond communities.

A household is a cohesive, yet fluid, social group normally bound by kinship and other close ties of dependence with the most senior male at its head. Co-residency is implied, although this may encompass single residences or "estates" (Lehner 2000: 278–80). The size of the group probably increased relative to the status of the head of the household. Wealth, status, and available space would similarly affect whether newly married couples lived in a parent's house or set up their own (Toivari-Viitala 2001: 86–7; Eyre 2007: 224, 230–1). Much lived experience was focused around the household, which was not only "the social and material bedrock of private relations" (Meskell 2002: 94), but also a fundamental organizing principle for wider social structures (Lehner 2000). Letters from the Twelfth Dynasty farmer Heqanakhte show that his household, defined as those receiving rations, included at least eighteen people, among whom were his sons, a second wife, his mother, several others whose relationships to him are uncertain, including possibly an aunt or sister, as well as

non-kin staff and servants (Allen 2002: 107–17). The incorporation of potentially vulnerable unmarried or widowed female kin into households of their male relatives is attested in late Twelfth Dynasty household registration lists (*wpwt*) belonging to a single family at Lahun (Kóthay 2001: 353–5; Kemp 2006: 221, fig. 79). The significance of non-kin for the household is illustrated by wet-nurses who were sometimes depicted among kin on stelae and tomb walls (e.g. *HT* II, pl. 42, second and third rows, far right; pl.44).

Local community

Outside the household, the immediate social context of an individual's life was the local community (Berger and Berger 1976: 120). Sense of place was a motif in biographical phraseology from the Old Kingdom onwards and is vividly expressed in texts of the First Intermediate and Late Periods: "[The ruler's son (the tomb-owner Khety) reached his town, and entered] his father's [territory. He] brought the refugees back into their houses … and the people of the town were in a good state forever, and prosperity endured. How [your city-]god loves you, Khety, son of [Iti-ibi]!" (El-Khadragy 2008: 225, fig. 1). Ubiquitous statements of adherence to a local god (*nṯr niwty*), as well as the liminal status of exiles or those "from outside" (e.g. *Teaching of Ani;* Lichtheim 1976: 137; see Fischer-Elfert 2005), reinforce the salience of local identity for individuals and groups.

Egypt was a village society; the majority of the population was scattered across a landscape much emptier than now. It is difficult to model rural settlements, which were probably compact, on areas of higher ground because of the annual inundation, and articulated by the family as the primary social and economic unit (Eyre 1999: esp. 37–8, 52; Moreno García 2001). Large villages and small provincial towns can be imagined as networks of interdependent households, with more substantial households supporting smaller ones through employment. Indirect evidence for this can be found in the patterning of local elite display in late Old Kingdom tombs at Elephantine (Vischak 2007; and see Lehner 2000).

Urban environments were more complex, socially stratified networks of institutions (Berger and Berger 1976: 124). How far provincial and central city-dwellers experienced their lives as distinct from rural populations is uncertain. Such questions relate to how the social spaces of cities were defined and conceptualized in relation to the rural ideals often presented in elite sources such as tomb decoration (figure 25.1; see Franke 1994b; Verhoeven 2004). Social life within cities was probably subdivided into neighborhoods. Such clusters of association and connection have been identified in the settlement pattern at Amarna, where smaller houses group around the large compounds of patrons on whom they probably depended economically (Kemp 1977). A Nineteenth Dynasty widower's letter to his deceased wife describes him returning to Memphis to undertake funerary preparations "and I and my people (*rmṯ*) wept sorely for you in my quarter (*iwyt*)" (Wente 1990: 217).

The most visible interdependency within communities, village or city, is economic, such as the complex relations of debt, credit, and gift-giving attested from Deir el-Medina (Janssen 1982; 1997a; McDowell 1999: 74–8). Distinctions in status and levels of personal relationship are probably embedded in such transactions.
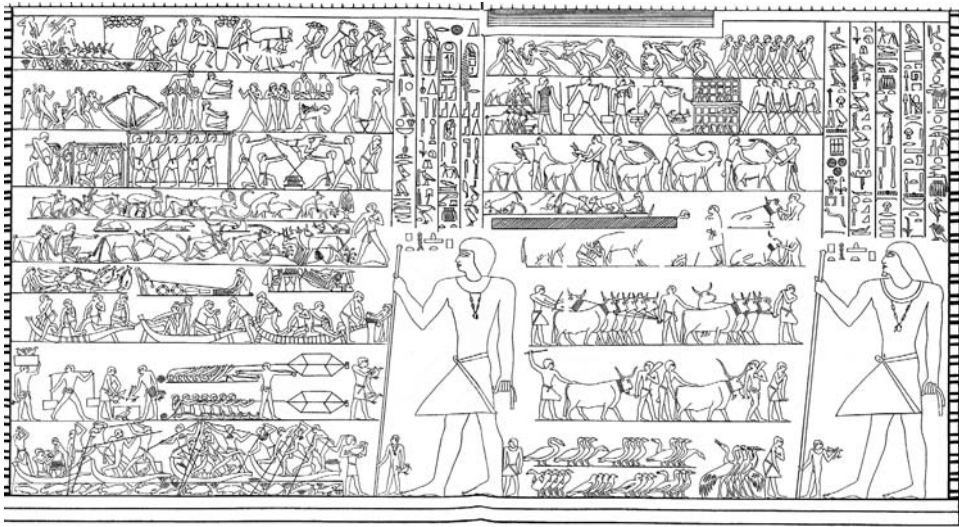
Figure 25.1 East wall of the Fifth Dynasty chapel of Ptahhotep II at Saqqara. After Davies 1900: pl. 21.

The Twelfth Dynasty farmer Heqanakhte, when instructing his sons about the renting of land, made clear whom he considered the most appropriate people to mediate the transactions (Allen 2002: 15–16, 117; Eyre 1999: 49). Markets for produce would have been focal points of interaction both within and between local communities (Eyre 1998). Disputes could be managed in households or through local courts (McDowell 1999: 165–94). Other, less formal, mechanisms for binding a community include hospitality, which is a motif in wisdom literature (e.g. *Teaching of Ptahhotep*: Parkinson 1997: 252–53), and friendship, the clearest evidence for which is found in letters (Sweeney 1997; 1998; McDowell 1999: 28–32). Friendships would have been particularly crucial for women who were not necessarily integrated into non-kin social relationships through role (Eyre 2007: 238–9). Heqanakhte warns his sons not to let his second wife become lonely: "Do not keep a friend (*ḫnmst*) of Hetpet away from her, whether her hairdresser or *prt*" (Allen 2002: 17; the latter term may designate a servant, or possibly a neighbor).

Awareness of interdependence in the community is vividly expressed: "You should not ignore your neighbors (*s3ḥw*) on the days of their need, and they will surround you in [your moment (of need)?]. You should not celebrate your festival without your neighbors, and they will surround you, mourning, on the day of burial … You should not be hard-headed in fighting with your neighbors" (Hagen 2005: 136–8, 144). In the Eighteenth Dynasty tomb of Paheri, the man at the end of a procession bears the caption: "neighbor (*s3ḥ*), his beloved, possessor of his affection, Ipunefer" (Tylor 1895: pl. 9).

How far individual communities varied in material culture and custom may become clearer once syntheses appear from the rapidly advancing work on settlement sites (Mumford ch. 18). Variations in funerary practice are visible in certain contexts (e.g. Robins (ed.) 1990; Seidlmayer 1990), and differences in dialect and other

aspects of culture may be alluded to in literary texts: Sinuhe describes the confusion of his flight from Egypt being "like a Delta man seeing himself in Elephantine" (Parkinson 1997: 38).

Hierarchies

Complex societies and states are articulated by relations of power. It is crucial to study how these relations are created, maintained, projected, legitimized, and enforced. Hierarchy and rank determine access to power. All societies have systems of social differentiation and ranking (Berger and Berger 1976: 139–40), defined by Janet Richards (2005: 15) for Egypt as "differential access to and/or control of economic, productive, and symbolic resources" (see also Baines and Yoffee 1998). Crucial to this definition is that power is not a simple concomitant of wealth; it encompasses privileged access to restricted knowledge, literacy, and control of key symbols and aesthetic forms (Baines 1990; 2007).

Hierarchies of rank, status, and position focused around proximity and relationship to the king. A basic model of social structure for early complex societies is a pyramid with the king at the top and levels of elite and non-elite groups below (Trigger 2004: 53). The term "inner elite" (Baines and Yoffee 1998) describes the small, decision-making group at the top of this pyramid, closest to and headed by the king, which was the primary driver in creating and projecting ideology and hierarchy. The broader term "elite" describes "the non-producing population in a society supported by surplus" (Richards 2005: 16), including all titled individuals and specialists at levels below the inner elite, from lower-ranking court officials, central and regional administrators, to military personnel and scribes. A non-titled group with its own sources of wealth, a "middle class," becomes visible from the late Old Kingdom onwards (Richards 2005) and was important in the development of social organization. The largest and poorest parts of the population, eighty to ninety percent, were peasants and local craft specialists. The organization of this often archaeologically invisible group is difficult to assess but was probably based on kinship and types of work and land tenure. Also near the bottom of society were slaves, a fluid, diverse category ranging from prisoners of war to servants within households; the size of this group is difficult to estimate (Loprieno 1997; Moreno García 1998; 2000; Hofmann 2005). Criminals, exiles and others excluded from normal social relations through force, circumstance, or choice were another significant group (e.g. Fischer-Elfert 2005). The most detailed evidence for rank and hierarchy comes from elite contexts and is both archaeological and textual, including mortuary landscapes, titles, and biographies. These sources for structures and delineations can also be related to non-elites.

Patterns and material culture identified by settlement archaeology are revealing for social structure and differentiation (ch. 18). Relative house sizes have been one focus (e.g. Shaw 1992; Kemp 2006: 311–13, fig. 109). Other types of material may open up different possibilities. For example, one of the few excavated non-elite settlements, the Old Kingdom site of Kom el-Hisn in the Delta, provides insights into lived environments, especially agricultural practices that do not correspond to conventional models of peasant subsistence farming (Moens and Wetterstrom 1988).

Mortuary evidence, from the organization of cemeteries to burial goods, is relevant to these issues (e.g. Seidlmayer 2001b; 2003; Richards 2005). The expression of hierarchy through proximity to the king is salient in the manipulation of landscapes of the dead. In the Fourth Dynasty Giza necropolis streets of non-royal mastaba tombs are organized around the pyramids seemingly according to relationship to the king (Roth 1993a: 48–55; cf. O'Connor 1974: 19–22). Regional necropolis sites not centered on the king's tomb display a comparable hierarchical patterning and reveal the complexities of interconnections among elite groups. Thus, the largest rock-cut tombs set high in the escarpment of Beni Hasan belong to Middle Kingdom regional governors, while smaller, mostly undecorated chambers in the same area seem to belong to their high officials (Seidlmayer 2007, 355). Further down the escarpment, a necropolis of smaller, but often richly furnished, shaft tombs seems to represent a lower level of household and staff; these hierarchies of landscape correspond with the representation of social worlds within the governors' tombs (Seidlmayer 2007). Comparable patterns are visible at, for example, Naga ed-Deir (Reisner 1932; Baines in press) and el-Bersha (Willems et al. 2005: 181–5; cf. Willems 2007). The burials of non-elites have not been located for many of these areas (cf. Richards 2005).

Burial goods relate in part to status, rank, and differential access to economic resources (e.g. Meskell 1999; Seidlmayer 2001a; Richards 2005; see Wason 1994). Although an individual's professional or working identity are at the core of social identity and hierarchy, mortuary material hardly relates to matters of occupation (Seidlmayer 2001a; 2007: 354, tables 2–3). Elite occupations are depicted in occasional tomb scenes (e.g. Hartwig 2004: 73–9), but the primary evidence for them is textual, for example in royal and bureaucratic texts that set out the functions of individuals and groups (e.g. Strudwick 2005: 97–127), biographies that give details of career, and especially title strings, which have been central both to studies of occupation and for mapping vertical and horizontal relationships.

Titles are the most basic and crucial form of elite self-presentation, alongside statements of filiation. They occur singly or in strings in front of an individual's name and provide information about his (occasionally her) role and position. Titles are among the most problematic vocabulary to interpret; obtaining meaningful translations is often difficult as is understanding how they relate to a person's rank, affiliation, and occupation (Quirke 2004: 1–13). A core category is that of ranking titles, which locate the individual in hierarchical structures, particularly in relation to the king (Baer 1960). Titles from "member of the *pat*, count (*iry-pˁt ḥȝty-ˁ*)" to "sole companion (*smr wˁty*)" designate members of the inner elite. Individuals without such titles usually held lower positions (but see Lichtheim 1988: 35; Frood 2007: 166). Most female titles, such as "lady of the house (*nbt-pr*)" or "royal ornament (*ḫkrt nsw*)," seem to express affiliation and marital or social status rather than occupation (cf. Ward 1986; Fischer 1989; Quirke 1999). Titles can lay claim to place: in his Theban tomb, the Eighteenth Dynasty overseer of works and overseer of the treasury, Djehuty, bears titles associating him with Hermopolis in Middle Egypt, suggesting he was a native of, or connected to, that city (Galán 2007: 779).

Titles standing immediately before the name in a string usually designate the individual's occupation(s) and source(s) of income. These can range from specifically occupational titles such as "sculptor" to those that refer to broad duties and relations

between people in an administrative structure, such as overseer titles (Quirke 2004, 3). Seidlmayer (2007) examines how functional titles correspond to depictions of role in Middle Kingdom tomb scenes at Beni Hasan. For example, people shown undertaking manual labor are equivalent to those carrying items in the rows of offering bearers, while the supervisors in each domain are also equivalent. Individuals with broad managerial or military titles are often depicted closest to the tomb owner and were probably the owners of nearby shaft tombs. Such integrated analyses of text, iconography, and archaeology bring us closer to "who these people actually were or could have been during their lives" (Seidlmayer 2007: 352).

A key textual source for how elite rank and position may shape experience at a personal level is biography. Although idealized, biographies offer insights into the duties, expectations, and obligations of different offices, as well as interactions with other groups. An Eleventh Dynasty biography of an "overseer of the enclosure (*ḥnrt*) of the great doorway" thematizes restricted access, social delineation, and ritualized behaviors in the court context: "Favorite of the king in his palace, in keeping commoners (*rḫyt*) distant from him, to whom grandees (*wrw*) come bowing at the gates of the palace, ruler of personnel, controller of office-holders, one whom grandees greet, who is in front of the courtiers (*šnwt*) who approach the palace, who knows [what is secret] on the day the courtiers speak, incense-laden, possessor of dignity on the day the poor (*tw3*) may enter, one who reports to the king in privacy, whose seat is near (him) on the day of assembly" (Fischer 1960; Lichtheim 1988: 50). This text signals the complex internal hierarchies of the royal court (see Quirke 1990: 9–121; Raedler 2006) through accoutrement, physical position and proximity, and regulation of behavior and speech.

The foundation of elite power was wealth and legitimacy (Baines and Yoffee 1998). Wealth was based mainly on landholdings, ultimately granted by the king (Moreno García 2008). Legitimacy depended on the king, as manifest in titles. Access to both was determined by birth, indicated by the stress placed on filiation, alongside titles, when an individual is named. The designation "son of a gentleman (*s3 (n) s*)" in biography, wisdom literature, and tales refers to nobility of blood (Parkinson 1996: 141–2). This contrasts with the motif of meritocracy and social mobility in some biographies: "I was a minor one of my family, a lesser one in his town, (but) the lord of the Two Lands knew me and I was greatly esteemed in his heart ... so that he exalted me above the courtiers" (Frood 2007: 126; cf. Lichtheim 1988: 68–9). Although such claims are often fictional (see Richards 2002), they show how personal skills could be valued alongside, or in preference to, family connection. Actual social mobility probably depended on patronage or the acquisition of wealth. The Sixth Dynasty inscription of Henqu at Deir el-Gabrawi claims: "those who had been dependants (*mrw*) therein (in their previous nomes), I made them officials (*srw*)" (Strudwick 2005: 367). From the New Kingdom onward, military service seems to have been a major route to status and wealth (Gnirs 1996; Spalinger 2005: 70–80). How far a self-made man would be considered a man of true rank, or how long it would take his descendants to be considered so, is unclear. This probably depended, in part, on historical context and on royal and elite perspectives and interventions. The *Teaching of Ptahhotep* instructs that such a man should not be disregarded: "Do not acknowledge to yourself that he was little before. You should not be proud

against him because you knew about him before. Respect him because of what has happened to him, for no property comes by itself" (Parkinson 1997: 253).

Vertical networks of social connection and competition outside kin relationships are crucial to the articulation of institutional hierarchies. Patron–client dependencies are set out in the Beni Hasan material discussed above and are a theme in Middle Kingdom literature and biographies (Gnirs 2000). A later example is the stela group relating to the Nineteenth Dynasty viceroy of Nubia, Setau, found in the second court of the Ramessid temple at Wadi es-Sebua. His large stela was set up along the north wall, surrounded by smaller stelae of his soldiers and staff, thus a striking display of a network in a temple (Raedler 2003: 157–9; Frood 2007: 206–12). Broader patterns of dependency are expressed particularly in formulaic statements, attested from the Old Kingdom to Late Period, that the protagonist cared for the poor (hungry, naked), socially isolated (orphans, widows), and weak. As Franke (2006a) observed, such statements first appeared in the late Old Kingdom in association with the duty of high officials to maintain order, rather than being directly related to notions of compassion and ideals of proper moral and ethical behavior. Such practical, expedient motives may have shaped their use in later texts as well (Franke 2006b).

People and groups outside the elite are, for the most part, largely invisible in terms of material culture (Baines and Lacovara 2002: 12–14; Seidlmayer 2003). Seidlmayer (2007: 364–6, table 10) notes that, at Beni Hasan, burials of "ordinary" people, the anonymous laborers represented on tombs walls, are missing. Examples of non-elite cemeteries include Haraga (Richards 2005) and the south cemetery at Amarna (Kemp 2007). Outside such contexts we depend on elite sources such as administrative and legal texts concerned primarily with production and control, as well as elite high-cultural products such as literary texts and "daily life" scenes in tombs, in which the subordinate position of non-elites is emphasized (cf. Baines in press). The most explicit text is the Middle Kingdom *Teaching of Khety* that characterizes laboring non-elites as dirty, bestial, and failing to conform to norms of social behavior: "And the field-worker laments more than the guinea fowl, his voice louder than the ravens, with his fingers swollen and with all sorts of excessive stinks" (Parkinson 1997: 277).

Another Middle Kingdom wisdom text, the *Loyalist Teaching*, presents a more nuanced view of relations between elites and non-elites in terms of mutual dependency and social solidarity: "Care for men (*rmt*), organize people ("human cattle": *wndw*), that you may secure servants who are active! It is mankind (*rmt*) who creates all that exists; one lives on what comes from their hands. They are lacking, and then poverty prevails" (Parkinson 1997: 240). Awareness of the need to treat subordinates well displays elite awareness of potential for social conflict: "You ruin him (the laborer), and then he plans to turn vagabond" (Parkinson 1997: 241). Conflict is a theme in such Middle Kingdom literature as the discourses of Ipuuer and Neferti (Parkinson 1997: 131–43, 166–99) and can be compared with evidence for dissent in registers of fugitives from forced labor (Parkinson 1991, 99–101) and execration texts (Borghouts 1978: 11–12). Middle Kingdom sources have been central to exploring tensions between individual agency and the institutions that enable, shape, and restrict those actions (e.g. Parkinson 1996; 2002). Such studies offer models that can be tested in future work on other evidence.

3   Personal Biography

Ancient conceptions of "daily life" are difficult to model. Reconstructions of lived experience depend not only on generally elite-focused sources but also on decisions about social identity, such as class, gender, and age. Productive approaches to private life and the "everyday" use the model of the life-cycle (Toivari-Viitala 2001; Meskell 2002; Szpakowska 2008), which focuses around the embodied individual while allowing for a diversity of social identity and experience (Gilchrist (ed.) 2000; cf. Berger and Berger 1976; for other aspects of this topic see chs. 16, 18, and 27).

Early transitions

Although the liminal, transitional processes of pregnancy and birth largely lie outside the decorum of visual representation, especially in temples, they are potent motifs and metaphors in religious and literary sources and are at the heart of temple and mortuary rituals such as the "Opening of the Mouth" (Roth 1992; 1993b). Low fertility rates coupled with high mortality rates for mothers and infants (Robins 1994/5: 27–8; Toivari-Viitala 2001: 170–1, 184 n.13) go some way toward explaining the central position of fertility and birth at all levels of cultural expression and social experience. Birth, like death, was both dangerous and transformational.

A rich material culture associated with procreation is attested from a range of archaeological contexts from the Middle Kingdom onwards: wall paintings of "birthing bowers" are attested in houses at Amarna and similar scenes are found in paintings and figured ostraca from Deir el-Medina (see figure 25.2; Pinch 1983), while objects such as birthing bricks, female figurines, and amulets have been found in domestic, temple, and funerary contexts (Pinch 1993; Roth and Roehrig 2002; Waraksa 2008). Concerns with fertility and successful birth are expressed in some letters (Wente 1990: 213) and texts on intermediary statues in temples (Clère 1995: 110–11; Eyre 2007: 231 n. 46). The prominence of spells and instructions relating to fertility, conception, pregnancy, and birth in medico-magical texts shows that the female body was incorporated into elite, male domains of knowledge (e.g. Collier and Quirke 2004: 58–64; cf. Meskell 2002: 65).

Much of the discussion of conceptions of childhood has centered on the treatment of children in mortuary contexts, which has been seen as evidence both for and against their integration into adult society (Meskell 1995; 1999; Patch 2007). In her study of child coffins Cathie Spieser (2008) emphasizes variability of status and other factors in determining burial treatment. Children were generally depicted with adult proportions, their youth signalled by smaller scale, nakedness, and sidelocks (Harrington 2007). Textual evidence, from terminology used for children (Feucht 1995: 503–57) to an Eighteenth Dynasty letter objecting to the removal of a servant girl from a household because she was still a child and should be treated as such (Toivari-Viitala 2001: 192), shows that childhood was a distinct social state.

There was, however, no simple dichotomy between childhood and adulthood. Biographical texts thematize stages of development for boys: "I was excellent as a weanling, clever as a child, discerning as a boy, intelligent as a humble youth. I was a

Figure 25.2 Ostracon from late New Kingdom Deir el-Medina showing a nursing woman (IFAO 2344). After Vandier d'Abbadie 1937: pl. 53.

humble youth who sat upright in the school room" (Frood 2007: 109). It is not known how far transitions from youth to maturity were marked symbolically. The cutting of the sidelock may have been a significant event and there is ambiguous and variable evidence for male circumcision (Janssen and Janssen 2007: 76–82). Transitions for girls were perhaps even less distinct. The potent New Kingdom image of an adolescent girl and its close links with fertility, for which there is no male equivalent (Harrington 2007, 54), may point to girls "being sexual beings from an early age onwards" (Meskell 2002: 89).

A first marriage was probably a crucial socialization process for young men and women. For men and in some cases women, training for and taking up an occupation or office was also a marker of social maturity. Most evidence for training processes relates to scribal education (overviews: Fischer-Elfert 2001; Lazaridis in press) and apprenticeships among craft specialists (e.g. Bryan 2001; Cooney 2006), although some level of training should be assumed for all productive individuals. Occupations were usually inherited; normally a parent or older household member would be responsible for training whether in agricultural work or a particular skill or craft (Eyre 1987a: 195). For example, fathers and sons are attested among the fishermen and potters who worked for the Deir el-Medina community (Janssen 1997b: 40; Frood 2003a: 41). Father–son/master–apprentice training is presented as the ideal model for scribal education. Wisdom texts and teachings are often addressed from father to son, while dedications to teachers in scribal exercises from Deir el-Medina often indicate kinship or other linear master–apprentice

relationships (McDowell 2000). In her study of a corpus of figured ostraca, probably from Deir el-Medina, Kathlyn Cooney (forthcoming) suggests a more diffuse model of training for artists and craftsmen. Repetitions of motifs in these ostraca point to a "community of practice" among a wider group of individuals, whose diverse skills advance the training of more junior members.

A similar model of community practice could apply to scribal education. "Schools" (lit. "rooms of instruction" or "rooms of writing") where groups of boys were taught together are referred to in literary and biographical texts (e.g. Frood 2007: 43, 109, 144, 208), and possibly attested archaeologically (Gasse 2000; Leblanc 2005). There is little evidence for beginning stages (McDowell 2000: 221–3), which may have used ephemeral media. The late New Kingdom papyri termed the "Late Egyptian Miscellanies," which bring together a wide range of text-types (Caminos 1954), as well as some comparable material from Deir el-Medina (McDowell 1995; 2000), may derive from advanced stages of education when a student was apprenticed to a master (but see Hagen 2006; 2007). Other allusions to formal teaching include a First Intermediate Period biography where the protagonist is taught to swim with royal children (Lichtheim 1988: 29) as well as scattered references to priestly training. The Nineteenth Dynasty High Priest of Amun, Bakenkhons, claims that, after leaving scribal school, he "was taught to be a *wab*-priest in the domain of Amun, as a son under the guidance of his father. He favored me, he perceived me because of my character, I followed him truthfully, I was initiated to (the position of) god's father and I saw all his manifestations" (Frood 2007: 43–5). Here the father could refer to Bakenkhons' biological father or to Amun. Comparable allusions to sacred training are found in biographies of master sculptors and craftsmen (von Lieven 2007: esp. 147–8). Initiation and access to advanced secret knowledge are crucial to personal advancement in such contexts (Kruchten 1989: 175–93).

There is little such evidence for the training or education of women. Most girls were probably trained in necessary domestic skills and crafts by older women in the household. The transmission of knowledge among women is perhaps evoked in Late Period texts concerning the adoption of girls by God's Wives of Amun, a process which presumably resulted in training (Caminos 1964; Leahy 1996; Teeter 1999: 409–12). Evidence for female literacy is scattered and limited (Sweeney 1993; Toivari-Viitala 2001: 189–92), but some elite women were probably literate.

Body

Experience of the world is grounded in the sensory reality of the body, ranging from external forms of presentation and elaboration to internal feelings and perceptions, all of which contribute to a "sense of self." Egyptian concepts of the self and the body are an increasing focus of research (e.g. Hornung 1992: 167–84; Meskell and Joyce 2003; Moers 2005; Meyer-Dietrich 2006).

The ideal body was youthful, clean, and unblemished. There is minimal evidence of bodily manipulation in comparison with, for example, the transformation of the Mayan body (Meskell and Joyce 2003: 33–43). Bodily care and treatment is occasionally depicted in Old Kingdom tombs, including scenes of manicuring and possibly depilation (Harpur 2006: theme 13). Numerous titles related to care of the royal

body, including manicurists and hairdressers (e.g. Moussa and Altenmüller 1977). Such scenes and titles largely disappear from later repertoires, but the inclusion of recipes to improve skin quality and cure baldness in the New Kingdom medico-magical text P Ebers (Ebbell 1937: 78–79, 101–102; Grapow 1958: 497–98, 510–514) and finds of "tweezer sets" in domestic contexts (Giddy 1999: 167–76) indicate that aesthetics of the body remained crucial.

Dress, including clothing, sandals and items of adornment, was a means of extending and elaborating the embodied self. In tomb scenes, dress signalled hierarchies, from the elaborately complex or artfully simple clothing of the tomb-owner to minimally dressed or naked servants and workers. Clothing is depicted as strongly gendered. New Kingdom iconography of dress and undress seems laden with sexual meaning (Robins 1996; cf. Sweeney and Asher-Greve 2006). Such representations relate only minimally to what has been recovered archaeologically (e.g. Schiaparelli 1927; Hall and Pedrini 1984). A rich New Kingdom vocabulary associated with dress is difficult to align either with recovered material or with status and gender (Janssen 2008). Clothing was also imbued with symbolism in religious and funerary contexts (Hall 1985; Bochi 1996), while bare feet could signal one's access to and purity within sacred space (e.g. Kampp and Seyfried 1995: 338, fig. 27). Items of adornment too expressed values and socio-economic status, as well as being instruments of magical protection and defence. Widespread restrictions on display of amulets and other forms of ornament are particularly visible for the Old Kingdom (Baines 2006) and seem apparent in some later contexts as well. Changes in adornment practices over time, correlations between ornamentation, age, and gender, as well as context-dependent distinctions remain to be studied (cf. Meskell 2002: 163–8). All areas of dress and bodily manipulation afford insights into how the body was conceptualized in different contexts in terms of status, gender, vulnerability, and its ritual, magical potency.

The treatment of the body at moments of crisis lies at the border between concrete and subjective embodied experience. Medico-magical texts show not only how illness and injury were treated but also how the anatomy of the body and its physiology were conceptualized (Bardinet 1995; Walker 1996). A category of texts known from the Third Intermediate Period, the oracular amuletic decrees, thematizes the range of negative experiences that could be encountered in a life, from physical injury to psychological distress. They are formulated in terms of oracles of protection and reassurance pronounced by deities: "We shall keep her safe from the collapse of a wall and from the fall of a thunderbolt. We shall keep her safe from leprosy, from blindness ... We shall keep her safe from every death, from every illness, from every accusation, from every wrong, from every disorder, from every frustration, from every unpleasant word, from every harsh word, from every mean word, and from every kind of mockery ... We shall keep her safe from a wrecking of the heart and from a sinking of the heart" (Edwards 1960: 2–6). Here, the individual is protected from physical harm caused by a variety of agents, as well as emotionally from hurt and, perhaps, heartbreak or madness. James Walker's (1996) study of anatomical terminology in medical texts suggests that some of the symptoms described, especially those concerning the movement of the heart, may relate to emotional or psychological disturbance (esp. 174–5).

Emotion is vividly expressed in sources ranging from the crisis thematized in the Middle Kingdom poem *Dialogue of a Man and his Soul* (Parkinson 1997: 151–65) to the anguished mourners depicted in tomb scenes (Werbrouck 1938; Lüddeckens 1943; Meskell 2002: 190–93). However, despite the interest in senses and emotion for other ancient cultures (e.g. Houston and Taube 2000; Tarlow 2000; Houston 2001), these aspects of embodied experience are only beginning to be examined for Egypt (e.g. Finnestad 1999; Verbovsek 2009); sexuality remains the most discussed aspect of subjective experience (Wilfong 2007).

Activity

Houses, their architecture and material culture, not only provide settings for individual and group activities but also shape the social interactions and experiences of their inhabitants, as well as cosmological conceptions. For Egypt, studies have ranged from the possible gendering of space and activity (e.g. Wilfong 1999; Wegner 2004) to lived practices represented by categories of objects such as boxes and querns (e.g. Samuel 1999; Szpakowska 2008: 72–3; see further Koltsida 2007 and chs. 16 and 18).

Food production and consumption are sites of socially and culturally encoded meaning and value (e.g. Moers 2006), illustrated for Egypt by the fact that although food and food production are central components of tomb scenes throughout the Pharaonic period, representations of people eating and drinking are largely outside pictorial decorum; one exception is material from the Amarna period (e.g. Davies 1905: pls. 4, 6). Wisdom texts set out etiquettes of consumption and restraint when in the company of equals or superiors: ''If you sit with many people, scorn the bread you love! Restraining the heart is a little moment … A man who is free from reproach about food – no words can prevail against him'' (*Teaching of Kagemni*: Parkinson 1997: 297, cf. p. 252). The motif of eating or drinking with the king as a way to express intimacy with him is known from late New Kingdom and Third Intermediate Period biographies (Frood 2007: 127, 208; Lichtheim 1980: 15). Consumption was also central to religious practices and at festivals, where excess was expected and celebrated (Meskell 2002: 173–7). Some Eighteenth Dynasty banquet scenes show guests vomiting (e.g. figure 25.3), while drunkenness aided ritual communication with the divine sphere (Depauw and Smith 2004: 86–9). The centrality of feasting practices is indicated by banqueting scenes, pits containing feasting debris in tomb forecourts (Hartwig 2004: 12–13), and large storage vessels bearing drinking songs that imply communal, celebratory contexts (Jansen-Winkeln 1989).

All foods, including the staple bread and beer, were socially and symbolically significant (e.g. Samuel 1999: 125–6). Meat was a signifier of class distinction: only the wealthy could afford to regularly slaughter cattle, as indicated by the value placed on slaughtering scenes (see figure 25.4; Ikram 1995). Alongside dairy products a vital source of protein was fish. Although fish is prominent in ration lists and scenes of food-production, it is rarely included in offering scenes or festival lists, suggesting restrictions associated with cleanliness and smell (Baines in press; cf. Troy 1989: 137; but see figure 25.4). The same probably applies to pigs, which are well attested archaeologically (Hecker 1982; Miller 1990). Although layered with social meaning, food was also aesthetic and pleasurable. The late Ptolemaic stela of Taimhotep, which
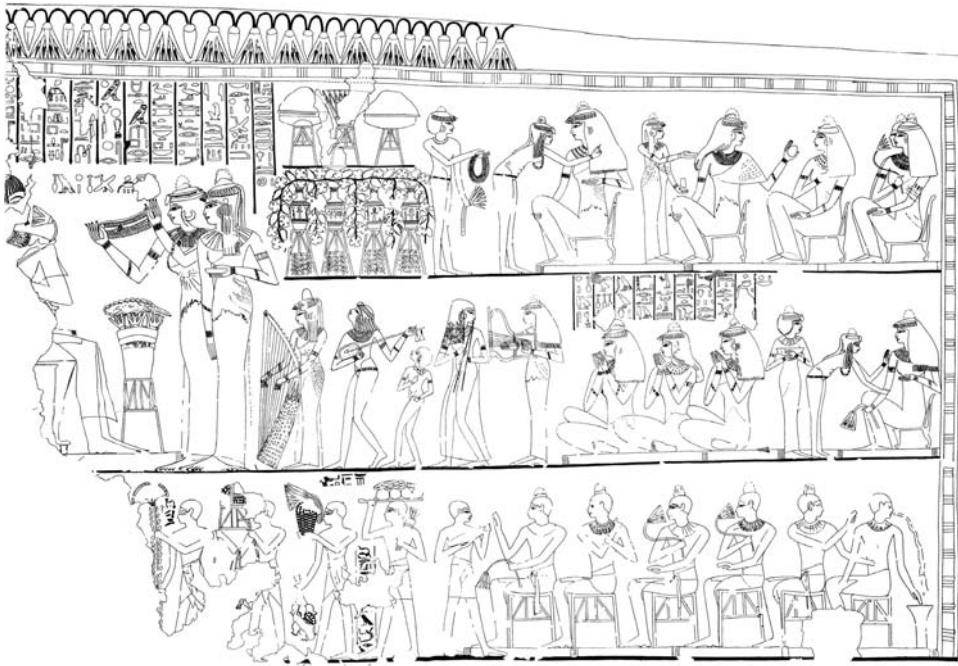
Figure 25.3 Banqueting scene from the Eighteenth Dynasty tomb of the scribe and grain-counter of the Granary of the Divine offerings of Amun Djeserkareseneb (Theban tomb 38). After Davies 1963: pl. 6. Courtesy the Griffith Institute, Oxford.

addresses the deceased's husband, expresses this succinctly and echoes harpists' songs of earlier periods: "Do not let your heart grow weary of drinking, eating, being drunk, and making love. Celebrate the happy day!" (Lichtheim 1980: 62–3).

Work and play, which are basic categories of human experience (Berger and Berger 1976: 258–9), were differently conceptualized in ancient societies, as is exemplified by the religious associations of Egyptian activities that might now be categorized as "recreation." One of the richest sources for reconstructing details of work and play are the so-called daily life scenes in tombs (e.g. figure 25.1). The household was a primary context of work for most, as illustrated by Heqanakhte's letters which instruct his sons, among others, in the management of his estate (Allen 2002). Groups of workers for large-scale state or temple projects seem often to have been recruited by and organized through local communities. Documents from Middle Kingdom Lahun discuss arrangements for mustering labor forces (e.g. Wente 1990: 76). These groupings were probably maintained throughout the duration of work: marks on blocks from Middle Kingdom royal building sites indicate teams of workmen from many towns, districts, and territories (Arnold 1990). Distinctive working identities are also indicated by the names of work-crews in the Old Kingdom, such as "drunkards of Menkaure" (Eyre 1987b: 12). Large working groups had their own internal divisions and structures, often based on naval metaphors (Eyre 1987b: 11–12; Roth 1991), and internal hierarchies that can be mapped, especially for temple organization (see Spencer ch. 14).

Figure 25.4 Early Middle Kingdom stela of Sobekaa showing a range of production and offering scenes (British Museum EA 1372). © Trustees of the British Museum.

Other factors such as age, gender, and ethnicity were also organizing factors for work. The term *nfrw* refers to groups of young men in military, labor, and expeditionary contexts (Eyre 1987b: 19). At Deir el-Medina, younger men (*mnḥw*) were listed separately in documents and paid at a lower rate (Černý 1973: 113–17). Groups of working women are shown in scenes and models of food preparation, harvest, and markets (e.g. figure 25.4; Eyre 1987b: 37–8). Weaving is the craft most closely associated with women: a Middle Kingdom letter from Lahun (Collier and Quirke 2002: 114–17) and a New Kingdom letter from the ''harem'' at Gurob (Wente 1990: 36) attest to large-scale textile operations employing women with women managers (cf. Kemp and Vogelsang-Eastwood 2001: 433–6). Other contexts of female occupation are more obscure. ''Houses of nurses'' are known from Lahun (Szpakowska 2008: 36), while New Kingdom texts and images referring to settlements of women and female slaves in the New Kingdom (Eyre 1987a: 201; Loprieno 1997) can be compared to prisoner-of-war labor camps (Kemp 2006: 28–31). Labor was occasionally organized in terms of ethnicity among craftsmen (e.g. Eyre 1987a: 194–5; Wente 1990: 36) and especially military and security forces (Eyre 1987b: 36–7), such as the Medjay who seem to retain a level of distinct ethnic identity throughout the New Kingdom (Andreu 1982).

Respite from work was vital, even if just in evenings. The two-day weekend allotted at Deir el-Medina was used for court sessions, administration, and religious festivals (Eyre 1987a: 177; Vleeming 1982), and such activities would have enhanced community cohesion. Evidence for entertainments and performances, such as music, dance, and physical and intellectual games, comes mainly from religious and funerary contexts: "[in] preindustrial societies, most play activities were institutionally structured through ritual and ceremony" (Berger and Berger 1976: 272). Scenes of musicians and dancers are a core component of non-royal tomb decoration, often linked to funerary processions and banqueting scenes (e.g. figure 25.3; Harpur 2006: theme 12.1–7; Hartwig 2004: 101–3; Pérez Arroyo 2003: 245–376). Physical games, such as wrestling and stick fighting, were sometimes depicted in tombs and temples (e.g. Harpur 2006: theme 12.10; see Decker 1992: 60–103) and have been associated with ritual performances, apotropaeic function, and ideology of kingship (Piccione 1999). Images of people playing board-games are common in tomb decoration, and game-boards and game-pieces are attested among grave goods throughout the Pharaonic period. Two of these games, *mehen* and *senet*, are explicitly associated with communication with and transition to the next world, both in religious texts and in iconography and context of use (Piccione 1990; 2007).

Evidence for play and performances in secular contexts is less solid. The form of these activities no doubt depended on status. Some musical performances may have been restricted to the elite. Harpists are known to have been in the employ of particular officials (e.g. Ward 1977; see von Lieven 2006: 357–8), while one of the model boats from the early Middle Kingdom tomb of Meketre has musicians seated near the tomb owner (Winlock 1955: pl. 39). The narrative frames of several literary tales thematize their performance within royal and elite settings (Parkinson 2002: 78–81; 2009: 30–40). Story-telling, however, like music and dance, is central to human experience and was probably more widely performed and experienced. Fragments of rattles, sistra, and games were found in the New Kingdom settlement of Kom Rabia (Giddy 1999: 317–24). Gaming squares were also carved into temple roofs, presumably for the entertainment of priests during watch periods (e.g. Jacquet-Gordon 2004: 12–13, 30–1), and are attested in other "graffito" contexts (Piccione 2007: 55). The secular pleasures of music and dance are vividly evoked in a *Late Egyptian Miscellany* text which abjures a young scribe for his lack of discipline: "I am told that you have abandoned writing and whirl around in pleasures, that you go from street to street, and it stinks of beer each time you leave (?) . . . You have been taught to sing to the pipe, to chant to the *war*-flute, to recite to the lyre, and to sing to the *netjekh*. And then you are seated in the square among the harlots, and then you are standing and bouncing" (Caminos 1954: 182).

Aging and death

Egyptian perspectives on age were ambivalent. Life expectancy was low – most would not live much past their 30s – so for an individual to attain any considerable age was probably rare. Although the ideal age was expressed as 110, and a number of officials are known to, or claim to, have lived past their 70s (Hornung 1992: 59–60), the idea of what constituted old age was probably fluid. Individuals who had adult children

(Toivari-Viitala 2001: 207), those with a reduced capacity for work, and/or those physically weakened may have been considered old (Sweeney 2006: 135–6; Janssen and Janssen 2007: 139–41). Old age is desirable in monumental discourse and teachings; prayers and funerary wishes express the hope for a good old age (*i3w nfr*) with the wisdom and authority of advanced years without associated weakness. Although the *Teaching of Ptahhotep* expresses conventional ideals of a good old age, it also gives a striking description of age as frailty and illness: "what age does to people is evil in every respect; the nose is blocked and cannot breathe, because of the difficulty of standing and sitting" (Parkinson 1997: 250). A similar ambivalence is evident in representation. Although the image of corpulent maturity expressed an elite male ideal of wealth and authority, more advanced markers of old age such as white hair are uncommon, and often associated with non-elites (exceptions include: Sourouzian 1991; Andreu (ed.) 2002: 49, fig. 25; cf. Janssen and Janssen 2007: 151–61). For women, there was no equivalent mature ideal, and images of elderly women are even rarer (Sweeney 2004).

Old age, especially once it reduced the ability to work, entailed a transformation of social position. Those of advanced age became dependent on others and risked social isolation. This could be mitigated for some office-holders through the appointment of a son or assistant as a "staff of old age" to assist in their duties. Evidence for income through pensions or endowments includes the legal text inscribed in the tomb of the Nineteenth Dynasty temple official Samut which bequeaths his property to Mut in return for a type of pension (Frood 2007: 89; see McDowell 1998). Most, however, probably depended on their family or community, although, as Sweeney (2006) argues for women at Deir el-Medina, some avenues for ongoing productivity and contribution may have remained open.

Of all human transitions, death is the one for which we have the greatest material evidence and which appears the most highly ritualized (see Szpakowska ch. 27). Death tears apart social structures and relationships. Such impacts were contained and mitigated through funerary preparation, rituals, and the mortuary cult, all of which are manifest, mainly for the elite, in the materiality of bodily practices, burial goods, and the tomb. All of these had economic costs, both in the short term for mortuary equipment (e.g. Cooney 2007) and in the longer term for maintenance of the mortuary cult, for which elaborate endowments could be made (e.g. Reisner 1918; Spalinger 1985). Social management of death has been viewed cross-culturally and for Egypt in three key stages: separation, recovery, and maintenance (Lloyd 1989: 124–31; Meskell 2002: 182). The first phase centered on the preparation of the body and the assimilation of loss through public expression of grief: "I and my people wept sorely for you in my quarter. I donated clothing of fine linen to wrap you in and had many clothes made" (Wente 1990: 217). Grief is most powerfully expressed, usually by women, in tomb scenes of mourners and in laments. Such images and texts are among the few components of tomb decoration which focus on the experience of the living in relation to the dead.

The funeral and the ritual performances surrounding it began to heal the rift among the living and effected the transfiguration and "recovery" of the deceased (e.g. Szpakowska 2008: 182–99; Wilson 1944). This recovery enabled the integration of the deceased into a new social world comparable to that on earth

(Assmann 2005: 58–63): a late Old Kingdom letter to a deceased father evokes the city of the dead where the recipient is imagined as having scribes at hand to assist in litigation on behalf of his surviving family (Gardiner and Sethe 1928: 4; Wente 1990: 212). The final phase, the mortuary cult, ensured both the afterlife of the deceased and the maintenance of social memory, if only for a generation or two (Baines and Lacovara 2002; Meskell 2002: 202–7). Traditions and norms of inheritance were also mechanisms for reordering a shattered world, but they remained flexible and open to dispute. The recent dead remained part of the ordered cosmos through the cult and could intervene both malevolently and positively in the world of the living, as evidenced by letters to the dead (Wente 1990: 210–20) which often deal with inheritance issues. As Meskell (2002: 203) notes, "the dead kept the living in line."

4   Conclusion

Numerous studies have engaged with the intricacies of social life, its relations, dependencies, and obligations. Detailed studies of social topics and themes, as well as particular artefacts, groups of data, contexts and sites are crucial, such as, for example, the material culture and experience of the home. However, the wealth and diversity of data now available, as well as the richness of existing scholarship, also open up possibilities for wide-ranging synthesizing and interpretive social histories that would integrate different types of evidence across periods. Such work could address questions of development and change over time and would undoubtedly reveal new areas of research.

FURTHER READING

One of the best treatments of core groups of evidence for social structure and organization for all periods is Kemp 2006. The most comprehensive study of kinship terminology remains Franke 1983; summary in English: 2001; see Campagno 2009 for subsequent approaches. For the family and household, see Whale 1989. Much ground-breaking work on social institutions has centered on developments in the third millennium, e.g. Baer 1960; Baines and Yoffee 1998; Lehner 2000; Moreno García 2001; O'Connor 1974; 2000. Important exceptions in terms of time period include Richards 2000; 2005; Seidlmayer 2001a; 2007. Models of rural village life and landscape have been developed by Moreno García 1999; 2001; Eyre 1999; 2004. On non-elites more generally see Baines in press. A study of groups excluded from normal social interaction is Fischer-Elfert 2005. Various aspects of social life have been treated in detail by Eyre 1984; 1992; 1998; 2000; 2007, while approaches to identity and personhood have been examined by Meskell 1999. Janssen and Janssen 2007 offers a rich range of evidence for phases of life. Many popular books on "daily life" are not properly grounded in evidence or source-critical. Two accessible studies which are theoretically informed and draw comprehensively on primary data are Meskell 2002; Szpakowska 2008. Collections of relevant primary textual sources in translation include: Lichtheim 1988; Wente 1990; Parkinson 1991; 1997;

McDowell 1999; Strudwick 2005. Excavation reports which give a sense of the material culture of settlements include Czerny 1999; Giddy 1999. Exhibition and museum catalogues, often with valuable essays, are also excellent sources for social implications of material culture, e.g. Brovarski *et al.* (eds.) 1982; Donadoni Roveri (ed.) 1987; Capel and Markoe (eds.) 1996; Andreu (ed.) 2002.

Social Structure and Daily Life: Graeco-Roman

Eugene Cruz-Uribe

The dilemma for the peoples and rulers of Ptolemaic and Roman Egypt resided in a dilemma itself. We find ourselves looking at a geographic area (the Nile Valley) which is bordered on the east and west by remarkable desert regions. Life in the valley was considered a boon to the ancients because of the systematic life-giving renewal of the Nile's yearly inundation separating fertile agricultural areas from the barren and desolate desert. Throughout Pharaonic times, the Egyptians faced the dilemma of how to interact with this potential paradise. In other chapters you will have investigated how the civilization of Egypt arose and produced the many monuments in stone. Temples were built and magnificent royal tombs were excavated in the hillsides.

The Egyptians living in the valley were the center of a new world order. Their thoughts literally defined how they were adapting to their geographic milieux. Theirs was an age of growth, adventure, rise, and fall. When the Egyptians reached the time period after the conquest of Alexander the Great in 332 BC, they faced new challenges. The dilemma was: how would they react? For centuries the Egyptians knew of, and utilized, the trade potential along the Red Sea coast, but it was not until the Ptolemaic and Romans Periods that they systematically expanded upon their potential use of that area. The inundation may have flowed every year, but simply because the geography was the same does not mean that the Egypt which resided within those boundaries was the same as before. Climatically we know that the time period covered in this chapter was a comparatively wet phase in the eastern Mediterranean. Does that mean Ptolemaic and Roman Egypt were successful simply because of the weather?

Earlier studies have shown that the Egyptians were very cognizant of the happenings in the Greek world (see ch. 8). One only needs to see the close interactions between the Pharaohs and priestly families of the Twenty-eighth–Thirtieth Dynasties to see how life in Egypt had become entwined with the Greek experience before the rise of Alexander. Was the Egypt going into the Ptolemaic and Roman Periods one that was tied down to an overbearing past, or was it a dynamic culture? Or was it

a new country with new people and new rules? Was it a homogenous society, or was it made up of a diverse population? In this chapter we will examine a series of dilemmas that confronted the Egyptians and their rulers. In many cases resolutions to those dilemmas were found, but not in all cases. The questions we must ask may not have answers but hopefully will allow for much thought. As historians can we second-guess with impunity the actions of the Ptolemaic kings or Roman emperors? Or should we sit back and wait respectfully for them to tell us their stories?

1   The Ptolemaic Period

The Ptolemaic kings, as foreign conquerors of Egypt, wanted to have some mechanism in which both the Greek newcomers and the local Egyptians might find some common ground within the religious sphere and unite the country despite their divergent backgrounds and cultural viewpoints. Out of this was conceived the cult of the god Serapis with its accompanying Serapeum in the Greek city of Alexandria. This was to be a parallel Serapeum to the older Serapeum of Saqqara located near Memphis, the main administrative city of Egypt before the construction of Alexandria. The dilemma was that the Serapeum at Saqqara was a cult of Osiris-Apis: the Apis bull. For the Egyptians, this cult, symbolizing the importance of the divine king, was just that, a mainly local cult of another deity. It had some significance with its connection with traditional Egyptian approaches to religious/cultural practices, but was it the same deity that the Greeks worshipped in Alexandria? Or was the Alexandrian version an anthropomorphic version suitable only to the Greek minions in the capital? We must remember that the Greeks did have this abhorrence to worshipping animals (Stambaugh 1972; Merkelbach 1995).

The next dilemma played itself out in the process of Hellenization. Egypt was one of the main testing grounds for the unbridled spread of Greek culture to the eastern Mediterranean sphere. Alexander's bold move to be accepted as a god by the oracle at Siwa and his coronation as Pharaoh, following traditional Pharaonic practices (Hölbl 2001: 6), was more than simply a move for political legitimacy. It was the opening salvo in a cultural struggle that would go on for a millennium. Egypt developed into a land of Greeks and non-Greeks, rather than a land of Egyptians and Greeks. The moniker, "a Greek in Egypt," underscored the potential division. Were the Greeks truly natives of the land they lived in? What of the native Egyptian population? What were their roles? Were they active participants in the development of the state, or were they simply "subjects" with all of the connotations which that term implied?

One way Hellenization expressed itself was in language. Greek was imposed as a language of power. Everyone understood that concept. For the average Egyptian, his/her native tongue had the potential for justifiable discrimination. People learned the languages that they needed to survive, and Greek became as vital as Egyptian. Functional bilingualism would have been the term which best described what happened to Egypt, both in the countryside and in the urban areas (Clarysse, 1998, 1–13). Power was reflected in language as well. Egyptian as a spoken and written

language was still available and would continue for another 1000 years, but when and where one used Demotic Egyptian versus Greek addressed serious issues related to power and how it was expressed. Could one control an Egyptian population using Greek? Could one interact with the ruling classes in Alexandria knowing only Egyptian? The Greek rulers would co-opt the traditional priesthood where wealth and power had lain for many centuries (Manning 2003: 238f.). This had additional aspects related to language as the priesthood controlled the traditional scripts (Hieroglyphic and Hieratic), necessary parts of the manner in which many Egyptians worshipped their local deities. What would happen to the traditional religious practices would be interwoven with the need and justification for a new language and the preservation of an old (Thompson 1994b). Demotic as a script would not disappear, rather it was channeled into specific avenues. Contracts remained one area, and we have a burgeoning of surviving Demotic texts from this period. An enormous number of Demotic ostraca, serving as tax receipts, letters, and oaths, all expand in use with the influx of Hellenization. Is this a reaction to the new rulers or is this a case of manipulation by the rulers of an unresisting public? Over time it is clear that Greek was *the* administrative language. Yes, a second system of courts was established in which documents written in Demotic could be used, but, if the case involved both Greek and Demotic items, the Greek court system prevailed. It is a telling thing that for Kleopatra VII, the one Ptolemaic ruler who supposedly actually learned Egyptian (Plutarch *Anthony* 27.4), we have only one item which has been shown to have been written in her own hand, and it is written in Greek (Jones 2006, 202f.). The question begs to be asked: was Kleopatra's supposed multilingualism real, or was it a manipulation by contemporary authors for other political purposes? I would argue that all the Ptolemaic rulers were functionally bilingual, at least, given the numbers of non-Greek subjects they ruled, but, as the Ptolemaic Period progressed, the tendency would certainly have been to be less functionally bilingual as more of the Egyptian population acquiesced in the demands of Hellenization. We do know that Demotic contracts were required to be registered (for a fee, of course) in a Greek government agency. This involved the removal of that task from the Egyptian temples (an issue I will deal with more below). Maybe Kleopatra's crime was that she attempted a short-sighted reversion to traditional practices (i.e., speaking Egyptian), and this reversion interfered with a developing Hellenistic cultural framework. If so, Kleopatra was doomed to failure, regardless of her military tactics.

Another aspect of the dilemma of the times was that of money. Egypt was a culture that seemed to ignore the rest of the Near East when it came to using coined money for economic affairs. Egypt was functionally a barter system (Bleiberg 1995: 1373ff.). Clear values were known for all goods and services, and these had been developed over time. Yes, inflation and market forces were understood, but, as an agricultural economy from day one, Egypt's reliance upon external market forces only remained a vital force when it attempted to involve itself with the rest of the Near East. Granted they had been doing such activities for several millennia, but this waxed and waned as political and economic forces waxed and waned. The conquests, first by the Nubians, then the Assyrians, and then the Persians, made it clear that, regardless of what they may want, the Egyptians had to interact with others, and often this interaction came at a cost. We have a few surviving Pharaonic minted coins from the later

dynasties (28–30), but essentially the Greeks came in and imposed a system. Again the dilemma: how do you rule effectively and invoke massive change? Coinage was introduced, but how and when the requirement for payment in coin for taxes, etc., was enforced is uncertain. Over time it was certain that normal payments for specialty taxes, the Ptolemaic versions of multiple capitation taxes, were required in coin. The extensive payments for rents on agricultural land were normally done in kind (percentage of crop) as limited specie was always a Ptolemaic concern. In addition, the sale of grain by the state and its agents was a major foreign specie generator, and, thus, the state always had a need for in-kind produce (Thompson 1999b).

Subject to the above comments, the next aspect of the dilemma of Egypt in Ptolemaic times was administration. For the Greek rulers it is not the question of who could be in it. Obviously from a theoretical perspective, only Greeks could be in it (or those prepared to become Greek). To run an effective government power elites had to be addressed. When Alexander left to conquer the rest of the Persian Empire, he left both Greeks and Egyptians in control of Egypt. When Ptolemy Soter finally came back to take over the regime, he inherited an existing structure where local elites had been and continued to be a significant aspect of the administration of the country. In Persian times Darius I had instructed the scribes, priests, and soldiers of Egypt to define for him the existing power structures in Egypt. When these *hpw*, "customs," had been documented, he proceeded to rule Egypt effectively for many years (or so say the Greek historians). With the advent of Ptolemaic rule, the same efficient system appears to have been implemented.

The issue of native military involvement is mostly a non-issue. What remained of a native military force would have been subsumed into the mercenary system so efficiently used by the Persians for centuries. The Ptolemies continued this structure, and the military was dominated mostly by Greeks, but with members from many other cultural groups from around the eastern Mediterranean. The scribal classes would represent those who were literate in Egyptian and performed the day to day management of the entire system. The priesthood had been for millennia the lynchpin of Egyptian society. They had defined and maintained Egypt as a culture through maintenance of tradition but were themselves often in control of many aspects of Egyptian life, culture, power, and the holding of property. For the Ptolemies the scribes ran the administration, and they remained at their tasks. They were the day-to-day functionaries. They held property, but they administered rather than formulated policy. For the most part the priesthood continued in the role of leaders of Egyptian society. While the major political offices were defined as Greek, the local elites, led by the priests of the local cults, maintained their positions in Egyptian society. The priesthood may have had no specific love for the new Greek rulers, but initially they were better off as the earlier Ptolemies did not levy extra taxes on the temples as did the Nectanebos of the Thirtieth Dynasty. What stress the priesthood did have was the reduction in their control of significant temple estates. Land held by temples for generations now passed into state control. The state leased them, and bit by bit all control held by the priesthood as estate managers passed away. This gradual shift in power left the priesthood with a lessening amount of political and economic power, but it did not shut them out of the system. The significant change was the status of free Egyptians who had been the dependants of temple

estates. Now they became wards of the state only to the extent that they performed leasehold duties on the land. For many this changed little in their day-to-day subsistence existence. For others it meant a different approach to how they dealt with society and to whom they reported vis-à-vis personal and religious connections. The god/priesthood was technically not their go-between, or did he still maintain that role? (Manning 2003, passim.)

The Ptolemies understood the importance of the priesthood in maintaining order within the Egyptian system. The state completely subsidized the priesthood. Temples could in certain circumstances take advantage of the state monopolies that were established, and temples adjusted their income strategies. We see at this time the rapid expansion of animal cults: ibis, fish, crocodiles, baboons, cats, dogs, geese, etc. The presentation of these animals (or rather the mummified remains thereof) became commonplace aspects of religious practice and statements of personal piety. The priesthood did not invent these practices, but they elaborated on existing structures to reflect the economic and religious needs for the present (Johnson, 1986, 1987).

The dilemma for the priesthood, then, became one of whom did they represent? Were they guardians of Egyptian culture, i.e., religious practices? Or were they symbols of a new, foreign, perhaps oppressive, political regime camped out in Alexandria? There is no simple answer to that question as we see them acting in both roles. On the one hand they maintained cultic practices, but we see a marked difference in temple decoration. We often find Pharaoh not as a specific individual, but as Horus. Cartouches of Pharaoh were often left blank. Did this mean the temples did not recognize a foreign king? Absolutely not. Rather, it was a practice found going back at least to the Saite period (see Hibis temple as an example), and the blank cartouches probably represented the theoretical idea of the king as Horus, or better, Horus as the king. The individual was religiously not as important as the knowledge that there was a legitimate king, and the specific name within the temple context was not as relevant as it was to some New Kingdom kings (Spieser, 2002).

The civil disturbances at the end of the third century BC and later placed the priesthood in a difficult position. The revolts against the Ptolemies for the most part were economic in basis. Revolts at Edfu saw the temple marked as a symbol of state interference and that helps explain the large amount of time it took to complete that structure, even long after the revolts were settled. The king did use the priesthood for political reasons. After calling a synod of Egyptian priests, royal decrees were issued to increase the benefits of priests as well as to expand the priesthood from four to five phyles. Such actions were clear efforts at coopting the priesthood to support the central regime. Not all such actions were implemented. The issuance of the addition of a leap year was needed as part of practical calendrical reform and was promulgated as part of the Canopus Decree but sadly was never really implemented until the Roman Period. Sometimes cultural practices overrode a different culture's reality (Clagget 1989, 47).

Another dilemma for the priesthood remained in the mortuary cults. A normative role within Egyptian society from the earliest dynasties was the part played by priests in private mortuary cults. In the Ptolemaic Period this continued as the existence of private mortuary cults became better documented than in earlier periods. The private mortuary cults clearly were seen as religious businesses. Income was generated, and

the income was treated like any other business where shares in the income were purchased, leased, bartered, or used as collateral for loans. But did these practices simply reflect an impoverishment of a priesthood and a lessening of their role in Egyptian culture? Or was it simply one more means by which the priesthood tried to remain as a preeminent leader in Egyptian culture (Johnson 1986).

The acquisition of new land for the state was a primary focus for the Ptolemaic regime. Land was needed for the Greek immigrants, and land resources were needed for payment to Ptolemy's troops. The king faced a serious dilemma since most of the agricultural land was already occupied by native Egyptians, and their claims to the land were long documented. Allotting land from temples in Upper and Middle Egypt was not practical if the troops were called up for quick deployment in the many wars the Ptolemaic kings carried out, or planned to carry out. The solution was the exploitation of the Fayum. Through relatively simple, but large-scale irrigation projects, enormous tracts of rich land became almost overnight available for the kings. This they distributed as reserved payment to the Greek troops. Ownership of this cleruchic land was given to troops who benefited from permanent ownership of large tracts of farmland (Verhoogt 1998a). The state benefited from having a permanent base of manpower to staff the army. Large estates were established and an experiment in Graeco-Egyptian amalgamation took place. Soldiers were off to war, but their estates provided a safe haven for their families. Numerous Egyptians moved into the Fayum as tenant farmers and many intermarried with the soldiers or their families. Numerous towns developed, but we do not have the formal Greek *polis* status given as seen with other sites. Cultural lines were much blurred in the Fayum as opposed to the *polis.* In some ways the Fayum became an alphabetic soup of cultural groups, clearly dominated by Greeks, but beginning to reflect the diverse populations found in both Memphis and Alexandria (Clarysse and Thompson 2006: 123ff.).

Was the Fayum a success for the Ptolemaic dynasty? Of the many programs attempted by the Ptolemies, this one was in general a total success. Large amounts of land were brought into production. Taxes were collected. Estates were provided for former mercenary troops who became fast supporters of the state. Large amounts of excess labor from around Egypt were put to profitable work. Cultural exchange occurred. Like Deir el-Medina from New Kingdom times, the state provided a unique experience for a limited segment of their supporters, and the documentation of that experiment continues to be explored and interpreted. The dilemma for the state was that over time the land, once considered by the state as *quid pro quo* for military service, started to be treated as personal private property and a disconnect began. Did that mean the experiment failed? Hardly, but it did mean that even the Greeks had to adapt to changing times and economic demands (Manning 2003: 178–81).

A final aspect of the dilemma of the Ptolemaic regime was the advent of the "Associations." These associations were of a religious nature and are evidenced as far back as the Saite period (Monson 2005). They were mutual beneficial organizations often formed by groups of men who sought stability in what may have been an unstable society. These men gathered together and provided common funds for the maintenance of widows and children of the deceased members as well as providing funerary services. On the one hand, these associations were commonsensical. They provided a benefit where one was needed. They were an adaptation of

existing customs. That they proliferated (if I may use that term) during the Ptolemaic Period suggests that there was a need for communal support no longer provided by the state in the guise of the Pharaoh and the priests of the temples. Did the state become uncaring for its citizens? Or was something else to blame for this institution rearing its head (Muhs, 2001)?

2 The Roman and Byzantine Period

Many view the advent of the Roman state mostly as an extension of the Ptolemaic state. J. Manning has noted that this is by far an incorrect approach (Manning 2003: 236ff.). We need to contrast the efforts of the Roman state from the earlier Ptolemaic state. The best way to begin this examination of the Roman dilemma is to quote the Biblical source from the trial of Christ where Pontius Pilate, a good Roman, inquires of the Pharisees about issues of loyalty. They loudly proclaimed: "We have no king but Caesar!" For the Egyptians of this period this could not be more true. They had no king, but they did have a distant Caesar who ruled their land.

Rome of the first century AD might be called a city of bread and circuses. Egypt was one of the principal means that allowed for that luxury. The foodstuffs grown in Egypt helped feed the populations of Rome. The hard stone quarries throughout the Nile Valley and Eastern Desert provided the quality stones to decorate the numerous public structures in Rome and later Constantinople, but that only superficially explains the use of Egypt by Rome itself. The Roman military Prefect assumed the overall role of governor of the new province. Utilizing many of the existing Greek speaking bureaucrats a relatively structured approach was taken to exact the needed revenues from the wealthy countryside (see ch. 10 above, and Ritner 1998).

For the average Egyptian, his/her existence changed little with the advent of Roman rule. Yes, there were some new organizational changes. There was the systematic head tax. There was the imposition of the leap year, i.e., calendrical reform. And the state increased work, at least temporarily, on infrastructure concerns. This lead to the cleaning of canals and repairs on major irrigation works. We also find during the first century an attempt at times for the emperor to spend small amounts on refurbishing traditional temple structures (Arnold 1999). For the Roman rulers these were simply the necessary tasks required for Egypt to produce resources on behalf of the emperor.

Initially the state retained support for the priesthood. This allowed a certain amount of *status quo* for their maintenance of political and social power within the system, but Rome had a problem. The Ptolemaic dynasty was the longest reigning dynasty in Egyptian's three plus millennia of history. The influence of what they had done to Egypt was clear. It was now a Hellenized country. That does not mean that the native Egyptian culture disappeared. Rather it means that culturally the Romans placed less importance on the native culture and more on the maintenance of the Greek/Hellenized Graeco-Egyptian situation. Egyptians were in a sense segregated in their own country. Definitions of what it was to be a member of the priesthood became defined and limiting. Egyptians could not normally become

citizens even through military service. Their principal duty was to produce revenue for the Roman state.

The dilemma of language reared its ugly head again. We have a sudden increase in two separate ways for Demotic texts. On the one hand numerous tax receipts in Demotic are found (until 50 AD when they mostly disappear), but of more significance is the sudden development of numerous Demotic texts of a religious nature, both cosmological treatises, as well as scientific texts (magical, medical, and astronomical texts). Does this mean there was a renaissance in Egyptian culture or are we looking at a last gasp attempt to assert cultural identity? The fact that Greek continued its headlong absorption of most written aspects of the culture argues for the latter rather than the former. We should note that the Egyptian language developing during this time period (expressed as the Coptic stage of the language) was written using Greek letters (with a few extra alphabetic signs developed to deal with sounds not found in Greek) (Dielmann 2005: 47ff.). However, the dominance of Greek written material does not equate to conquest (Fewster 2002; Hopkins 1991). Rather we see Egypt once again adjusting itself to a new reality. It is in the area of the religious sphere that this finds its clearest expression, especially since religion was Egyptian culture from a Western perspective. What appears to happen is a reliance again upon the local temple as the center of the Egyptian community. To understand this change we have to note that from earliest times Egyptian culture centered around the notion that the world was created locally. The local deity was the creator god, and one's local temple was where creation took place. It was in the later periods that this was developed further with the clear documentation of numerous creation myths from around Egypt.

So what was the difference? In traditional Egyptian practice, we have a temple where the local deity was worshipped. This deity was set off from the people in a sacred temple from which the deity may venture forth on periodic occasions, notably local festivals. Essentially people did not go to the temple to worship as an integral part of personal religious piety (see Chs 14, 15). With the Roman Period it seems that this changes. We now get a greater reliance upon local temples as places of congregation. Yes, the ''state''-supported, larger stone temples still continued to hold their place of importance. However, we see more examples of local temples in mud brick surviving (the documentation for this is skewed towards the oases). These temples also act as centers for communities (Frankfurter 1998). The difference is that people could go inside these temples. They were built as centers with the idea that people could enter, and community activities (including communal worship) would take place immediately in front of the deity.

The dilemma for us is to determine, with the present state of the archaeological remains, whether this is a new situation in Egypt or whether there always was the dichotomy between larger state-supported and state-funded ''big'' stone edifices with large priesthood and the much more extensive and larger number of smaller, local, mud-brick edifices in local communities. Until we can uncover more of the smaller edifices from earlier times, we can never be certain. What we can say is that it was in the Roman Period when this phenomenon became clearly articulated. The local traditional Egyptian communities needed to rely more upon themselves when confronted with the hegemony of Roman rule. Essentially what Egypt did was to

adopt the traditional Near Eastern format of integration of the temple into daily affairs. (I want to thank Wolfgang Müller for his comments on this approach.) Thus Egypt became more like other parts of the Near East in that the temple was more integrated into community life as a center for worship, not like previously, where the temple was a center for community life but mainly as an area for the remembrance of the creation point.

A complicating factor in the slow development of this community-based religious worship scheme was the introduction of Christianity into Egypt (see ch. 28). For the first century or so of Roman rule in Egypt we know little on the specifics of when, where, and how Christianity developed in Egypt. We hypothesize that, like much of the rest of the eastern Mediterranean, Christianity was an urban-based institution, and the earlier adherents to this radical sect were based primarily in the cities. What does become clear is that the dilemma of religious practice is complicated by the arrival of Christianity, and its development appears to be in parallel to the development of community-based, congregational worship in the local community temples. Thus the dilemma of Roman rule faces not a single unified group of cultural adherents, but a diverse range of adherents to a changing landscape in the area of religious proponents (complementing the diverse nature of the population of Egypt as a whole).

That the Caesars were facing similar dilemmas across the empire was only fitting and they did not initially need to deal with its expression in Egypt as a unique situation. We know, however, that what happened in Egypt was unique for a number of reasons. First is the way Christianity and the traditional cults faced each other. It would appear that peaceful co-existence was the norm for centuries. In a way the dilemma in Egypt was who was going to win the hearts and minds of the people. Some (including myself) have considered this time period as one where there was literally a cultural conflict with the winner taking the souls of all the inhabitants as the prize. I now think that it is much more complicated as Frankfurter has shown in his study of religion in Egypt during the Roman Period (Frankfurter 1998: chs. 4 and 5). There are two excellent examples of how this was played out in the archaeological record. The sites of Beleida (about 3 km west of Kharga) and Deir el-Medina (west bank at Luxor) share a common characteristic, and that is the nature of their temples. At the site of Beleida (unexcavated) we have a town site occupied from the first to the fifth centuries AD (on the basis of surface pottery finds examined by the local inspectorate and IFAO pottery specialists). The town has a temple area on the west side of the village, and it contains a parallel set of temples standing side by side. It is likely that the southern one (slightly smaller in size) was constructed after the northern one. At the site of Deir el-Medina, the stone temple dedicated to the goddess Hathor is well known, but equally important is the mud brick temple juxtaposed on the southern side. This mud-brick temple shares a wall with the Hathor temple, and holes for ceiling beams were chiselled into the stone structure.

How should we interpret these two structures? One scenario is to see two competing sects out to capture the souls of the locals with each claiming that the truth was to be found within. One could picture in that scenario priests from each sect out in front preaching side by side trying to get the populace into their structure.

Figure 26.1   Twin temples at the site of Beleida, Kharga Oasis. Photograph by the Egyptian Expedition, the Metropolitan Museum of Art. Courtesy the Metropolitan Museum of Art.

Figure 26.2   The twin temples at Deir el-Medina. Courtesy E. Cruz-Uribe.

A second scenario would be to see two religious institutions established. The traditional Egyptian cults had precedence and were founded earlier. They were at the center of the town's cultural establishment (literally and figuratively). Thus people congregated for all aspects of life in the village around the temple. Now we get a new religion, Christianity. It likewise preaches eternal life, resurrection of the dead in the hereafter, and a promotion of values for the common good. The appearance of the new cult's temple is not to be seen as an attempt to gain prominence by claiming land next to the traditional temple and thus gaining some of its sacredness by physical association (a common viewpoint up until now). Rather, we need to see this as simply an expression of the common good. The Christians were stating that they also were part of the community and, as such, they needed to be placed in the center of the community (Ward-Perkins 2003). It was not a competition for souls but a simple statement that they were part of the community, and their place of worship was to be found along with that of the traditional cults. Thus, as Frankfurter has already shown, Christianity and the traditional sects in Egypt co-existed peacefully for many years. A change did not come until much later when we have the expansion of Christianity and the zealot groups (personified in Egypt by the likes of Apa Shenoute) in the third and fourth centuries. As Christianity became a dominant sect, traditional cults did not simply fade away quietly. We know that the Neo-Platonic movement spearheaded numerous attempts to maintain the traditional cults, but over time these lost out to the zealots. The triumph of Christianity was in reality an act related to power and in that manner reflected the dilemma of the Roman Empire: what to do with this upstart religion (Cruz-Uribe 2002).

One aspect of this dilemma which appeared with the expansion of Christianity is the expansion in the hermetic movement. We find large scale monasteries for both men and women appearing across the countryside of Egypt. As professions of their Christian faith these monastic adherents separated themselves in communal groups away from society in some cases. While these groups purged themselves of sin and prepared for the afterlife (as well as the second coming), they acted in a manner similar to that found with the associations prevalent during the Ptolemaic Period. Their movement reflected something about society that was problematic. Was the government not caring enough about its subjects? Were there difficulties in the economies that forced what apparently were average citizens to change their economic situation and better themselves? One could argue that the growth of monastic groups paralleled periods of the fiscal malaise within the empire, especially in the fourth century AD.

Another dilemma for the state was how they would handle support for religious practices. It became clear that, over time, state support for temples and their local priesthood was dramatically reduced. In addition, state expenses to build new large-scale stone edifices, or to repair existing structures, withered as other parts of the economy suffered. We find the development of liturgies as one stop-gap mechanism to bridge this short fall in state support. The liturgy was simply a forced public contribution. If your local community held a major festival each year for its local deity, a local member of the elite would be chosen by the state to perform a liturgical service, such as paying for the entire cost of a festival, or building a way station for the bark of the deity. Who benefited from such a system? Clearly the state

gained as it was relieved of supporting a religious function paid for out of the public purse. The local community gained as local rituals or other celebrations were maintained, and thus public order was preserved. Did the local elite benefit? Of course, local prestige matters to local elites. Yes, they suffered a financial loss, but they acquired significant social benefits for themselves and their family. This does not mean the state did not directly interfere in a negative fashion *vis-à-vis* local religious practices. In 359 AD the emperor ordered an investigation into oracular proceedings from the oracle of Bes at the temple of Abydos. Oracle records were provided to the emperor detailing the replacement of the emperor by an adversary. That the oracle was willing to risk its existence to promote such an announcement indicated that there was either little support given for the cult, and little was to be lost by the action, or that the proclamation of the oracle reflected again a malaise within the countryside towards the state. The expression of such problems then would have been required of the oracle, despite potential negative consequences (Frankfurter 1998: 169ff.).

Earlier I noted that Egypt was one of Rome's (and later Constantinople's) sources of grain. The dilemma for Rome was to acquire additional land resources from which to extract revenue. They needed a new "Fayum" with all of its untapped wealth and available resources. They found it in the oases of the western desert. Areas in and around Kharga, Dakhla, Farafra, and Bahriya each experienced expansion of populations and recovery of desert lands for agriculture. How was this possible? Was there some new technology acquired? No, on the contrary it was simply an administrative decision accompanied by an influx in revenue for infrastructure. The main infrastructure expansion was the digging of wells in the desert depressions around the oases, tapping into the local existing ground-water supplies (Kaper, 1998). One might ask why was this not done earlier, and we can answer that it was. We saw during the Saite and Persian Period a similar expansion (albeit on a much smaller scale 600 years earlier). In that case *qanats* (underground aqueduct systems) were engaged. This was a decision by the state to expand the area's agricultural means, but during the Ptolemaic Period this process was not continued. The reason lay with the focus of the state. For the Ptolemies attention was paid to the interactions with the rest of the Hellenic states in the eastern Mediterranean. There was little incentive to view the oases as an area of potential wealth, especially in light of other issues as noted above. For the Romans it was clear that Egypt was not going to be interacting militarily or politically with the other Hellenic areas. It was now a part of the Roman Empire, and, in that situation, economic resources and their extraction were prioritized (Cruz-Uribe, 2003).

The development of agricultural resources and expanding populations was a clear goal of the Roman state. It wanted to expand trade. It needed outposts to foster that. It found these in the oases. Sources suggest that items such as grain, wine, alum (for bleaching), and dates, were among the products produced for export to the valley. Moving foodstuffs like grain (versus dates which are more compact) across any distance overland is uneconomical. Therefore, what was the purposes of expanding agricultural areas in the desert? I believe it was a simple matter of Rome's encouragement of trade. If there were sufficient desert outposts that could provide traders with water and foodstuffs, then trade with distant sources for exotic goods (always a need for the empire) would be encouraged, made practical, and would become

beneficial. Since the cost to the state involved principally labor and could be paid with land allotments in the desert oases, then it was a low-risk venture for the state and it supported a strategic initiative (Bingen 1998).

Thus the Roman rulers addressed the dilemma of new lands in a manner similar to the Ptolemies, but locationally a bit more severe. When dealing with marginal lands, it is always a risk, but in this case it was a successful one. Estimates for population size suggest that they reached levels not seen again until modern times, and they maintained these levels of population up until at least the fifth century AD (Scheidel 2001). At that point it appears the water table dropped to such a level that it was no longer possible to extract easily large amounts of water. Areas were abandoned, and the desert began to reclaim its own. In addition, there were some political problems with Nubian groups, such as the Blemmyes, who raided Kharga Oasis.

Some scholars have suggested that Egyptian culture was strong enough to be able to withstand the cultural inroads of the numerous conquerors during the first millennium BC and through the Roman Period (Dielmann 2005: 285ff.). To support this it has been noted that the latest inscriptions and evidence of continuation of the traditional cultic practices continue all the way up into the sixth century AD (Cruz-Uribe 2002; Dijkstra 2004). It is also pointed out that many aspects of traditional Egyptian culture were adopted by, and infused within, Coptic Christian Egypt. Let us take the example of the "Fayum portraits." These funerary masks were developed in Egypt, with many examples coming from the Fayum province (Riggs 2005: 95ff.). They replaced the traditional heads found on coffins and represent a bright light amongst the mostly dreary artistic features of the Roman Period. Painted on wood, they provide outstanding, idealized, yet lifelike, portraits of the deceased. The dilemma for Roman Egypt comes to the fore when we ask for whom were these portraits made? Were they made for local native elites or were they exclusively for Greek elites? Or were they manufactured for both? In all cases they represent the high point of Hellenistic artistic achievement in Egypt. If they were used by the Egyptian elite, then they illustrate how the Egyptians had become assimilated into the Hellenistic world. If they were used only by the Greek elites, then that would suggest that the Egyptians did not try to find social advancement. That scenario goes against the written documentation of numerous contacts and intermarriages among the elites in Egypt. If the Fayum portraits were used by the Egyptian elites, it would show how strongly they had been assimilated into the Hellenic world. I think the reality was somewhere in between, where we find the cultural conflict permeating all aspects of society. That Hellenization, through the Hellenized Christians, eventually dominated Egyptian society in many ways overshadows the numerous traditional practices that we do find in later times.

At the same time the Egyptian population during the Roman Period did adapt. In the face of the expansion of the liturgy system (see above), the Egyptians adapted earlier practices, such as flight from agricultural areas toward urban centers, joining of hermetic Christian groups and consanguineous (brother-sister) marriages. This last is a well known practice in the Graeco-Roman Period followed by certain portions of the society in order to prevent the fragmentation of family property. The Romans were mostly disturbed by the practice and specifically outlawed it for any Roman citizen residing in Egypt. That the Egyptians had to resort to a practice that was

viewed with disdain by most of the Mediterranean world suggests that the culture was attempting anything to mark itself off from others (Hopkins 1980). If it was an act of resistance to Hellenism or to Roman economic practices, history showed that it was in the end a futile effort.

Another dilemma for the Egyptian population revolved around the fact that Egypt was not the center of activity, but rather a distant frontier (Bingen 1998). The Roman emperors saw Egypt as a personal estate dedicated to providing revenue. They had little care for local/national Egyptian sensitivities. Rather, the Romans were more concerned with political stability. Such places like Kharga Oasis were not the front line of the border, but rather a distant backwater where political and religious exiles were sent to get them out of public view.

One interesting practice that did expand during the Roman Period was the long-distance pilgrimage routes. We have evidence that Greeks, mostly from the *poleis* in Egypt, traveled to three main sites in Upper Egypt. The first site was the temple of Abydos with its temple dedicated to Osiris as well as the oracle to the god Bes. The second was to visit the statues known as the colossi of Memnon located in Thebes. While visiting those statues many of the visitors also took a side trip to the Valley of the Kings to visit the royal tombs, but known to the Greeks as the tombs of the Memnonia. The last stage was to visit the temple of Isis at Philai Island. In some ways these sites mirror parts of imperial travel holidays in Egypt as evidenced by Caesar and Kleopatra's romantic travels up river (especially for the first two sites). A dilemma evolved in this pilgrimage practice as the sites themselves were "sacred" to multiple groups. Let us look at the temple of Isis at Philai. It was a traditional temple dedicated to the worship of the goddess Isis and lay near one of the traditional burial grounds of the god Osiris (on the nearby island of Bigga). As the temple developed in the Roman Period, it became the Roman administrative center, displacing the earlier areas in the town of Syene (Aswan) on the north side of the first cataract. It was also a destination site for pilgrims coming out of Nubia. The Meroitic kings had adopted Isis into their pantheon, and yearly visitation to the site became a central part of Meroitic court actions. It is certain that many of the disputes between the Romans and the Meroitic kingdom centered around access to and control of the area around Philai island.

Thus we have Greeks, Egyptianized Greeks, local Egyptians, perhaps Egyptians from other parts of Egypt, Egypto-Nubians, and Nubians all converging on the island of Philai (Vassilika 1989; Bowman 2000; Cruz-Uribe 2002, and n.d.). The issue was further complicated with the development of Christianity as the temple became a symbol of "pagan" practices. The Romans struggled to mediate and oversee the area while maintaining their international commitments (treaties with the Meroitic kingdom), economic commitments (trade routes through Syene), religious commitments (traditional temple priesthood versus Christian zealots), and security commitments (large numbers of Nubians living in Egypt especially around Syene). All of these competing areas were then complicated by the pilgrimage "trade" where you often have elite members of society visiting for a variety of differing reasons. When the Christians decided to build a Christian church on Philai island, the Roman rulers faced a serious dilemma. On the one hand, after 378 AD all traditional temples were ordered closed by Theodosius. Philai temple was

exempted by treaty with the Nubians. The Christians dedicated their church to St. Stephen and it also became a pilgrimage site. The "sacred" space of Philai became a challenge especially as each group involved had a legitimate interest in maintaining a *status quo*.

3   Conclusion

Within this discussion there were many aspects of Ptolemaic and Roman society I have not begun to address that are relevant to my theme. Issues such as: what was the composition of the state bureaucracy, what were the specific changes in the demography of the country beginning in the Ptolemaic Period (if any), what was the nature of the social elite structure during Ptolemaic and Roman times (gymnasia class), how did north-south trade route expansion affect social structure, or how did bilingualism reflect or contrast with biculturalism, have not been adequately addressed, but may be ones the reader needs to follow-up for a more complete understanding of the period (see chs. 13, 17, 19).

At the beginning of this discussion I suggested that the Egyptians were part of a new world order, and I wondered how they would react to the situation. Perhaps the millennium of time until the Arab conquest can be best understood by looking at the manner of organization of the villages in Kharga oasis at the end of our time period. Greek and Coptic graffiti from the area tell us that the local villages were supervised by a village headman with the title *kephalotes*. The headman was assisted by two subordinates titled the *lamashe* and the *lashane* (Cruz-Uribe, n.d.). It is interesting to note that the headman's title is a purely Greek word with the implications that a Greek administrative approach was taken towards administration. The subordinate's titles are purely Egyptian. The *lamashe* title derives from the earlier *imy-r mšꜥ*, "general," and the *lashane* derives from the earlier *imy-r šn*, "lesonis" or temple administrator. So the local administrative structure reflected a hodgepodge of titles ultimately derived from earlier political, religious, and social structures and adapted for local usage. The lesson we might learn from this scenario is that the Egyptian society was dynamic during this stage and learned to adapt to new systems.

This situation can show how Egypt, albeit a part of the Roman Empire as a whole, could delineate certain dilemmas for the Roman rulers. Egypt, after it was subjugated and entered the Roman sphere, came to discover that it no longer was the center but had become relegated to the far periphery of a major kingdom. It no longer self-regulated its society. It was a major break from Ptolemaic times when the foreign rulers had an interest in maintaining the semblance of caring for the native population. For the Romans, the Egyptians were servants to an emperor. For the Egyptians, they had a king, but he was the Caesar, and not necessarily to be seen as a traditional Pharaoh. Perhaps it is fitting that the Coptic Christians described at times life as subjects of Rome as amnte, "Hades," ironically derived from the earlier Egyptian concept "*Imnt*, the (blessed) West," the Land of the Dead.

FURTHER READING

A clear understanding of the Ptolemaic and Roman Periods in Egypt, especially on the social, religious, political and cultural experience is difficult to acquire from a single volume and is the subject of intense re-evaluation by numerous scholars. I am particularly impressed with the works of Manning (2003) on the role of land ownership and social status. Most recently we also have the work on populations by Clarysse (2006). I would also recommend Scheidel (2001), Hoffmann (2000), Leitz (2004), Quack (2005), Frankfurter (1998), Kaper (1998), Willems (2000), van Minnen (2001b), Rutherford (1998, 2003), Dietze (1994), Johnson (1998), Manning (2002), Bowman and Rogan (eds.) (1999), Hopkins (1980), Derchain (2000), and Clarysse (1998). A recent article by Bowman (2006) is worth examining as well. I have discussed the issue of pilgrimage and cultural change at Philai in an article (Cruz-Uribe 2002; and n.d.).

Religion in Society: Pharaonic

Kasia Szpakowska

1   History

The idiosyncratic features of Ancient Egyptian culture were its inclusiveness, adaptation to change, and apparently paradoxical conservatism. These characteristics combined to create one of the longest-running religions of humankind. Although it is often left out of discussions concerning the great religions of mankind, Ancient Egyptian religion lasted for well over three millennia and in fact it continues to engage many spiritually and intellectually. Changes did occur during Pharaonic times, but the fundamental themes and values that can be recognized as quintessentially Egyptian continued from the Predynastic Period through the Roman Period (see Frankfurter ch. 28) and survivals can even be found in Coptic Christianity. These included the emphasis on the need for continual maintenance of order over chaos – a balance known as *maat*, the belief in the numinous nature of the world, and the hope of living for eternity in the afterlife. These religious beliefs were embedded in Pharaonic society and affected life for all Egyptians, from the poorest to the divine king himself.

The earliest religious beliefs of the Egyptians are unclear, but it is clear that religion was firmly rooted in the culture and society even before the Pharaonic period. Male, female, and animal figurines made from stone, clay, wood, ivory, and even gold found in domestic and funerary have been variously interpreted by scholars as representations or representatives of deities or royalty, devices to encourage fertility, or votive offerings. The earliest ceremonial shrine found in the Predynastic site of Hierakonpolis incorporates most of the same architectural elements that would appear in later temples through the centuries. Although we cannot know for certain, it is likely that its main function was also the same as that of later temples – and that was not to serve as a place of worship for the general populace, but rather as a dwelling place for the god as well as the nexus for economic activity for the entire community (see Spencer ch. 14). The site has also revealed the remains of rituals

likely associated with deities such as Hathor that are well known from later times, as well as evidence for early mummification.

The concept of an afterlife epitomized by the Osirian cycle of myths became well-established in the Old Kingdom, as did the notion of the king being the son of the sun-god Re. Throughout Egyptian history, the Osirian cycle worked in tandem with the Solar cycle to provide models for the fundamental elements of Egyptian culture and religion (Quirke 1992). The myth of the death of Osiris at the hands of his brother Seth, and his subsequent mummification and resurrection with the help of his sister-wife Isis offered the hope to all Egyptians that they too could perform the same rituals and be resurrected. The journeys of Isis with Horus, the infant son that she had conceived with her newly-resurrected husband Osiris, and her constant fearless protection of him from the many dangers provided a model for the king's own protection of Egypt, as well as for healing in general. Once Horus as royal heir had grown, his battles against Seth over the rulership of Egypt and his final ascendency over the deity of chaos provided an explanation for the nature of kingship. The cyclical nature of the world as well as the constant threat of chaos was elucidated by the repeated rising of the triumphant sun-god, his journey in the day to provide light and air to all people, his setting in the west during the night where he would wage battle with chaos, and his regular reappearance once again in the morning.

In the Old Kingdom through most of the Middle Kingdom, formal representations of worship featured the king in the role of worshipper to the god and intermediary for his people. The dead could also be approached through letters and perhaps rituals. While material evidence shows that gods were also approached, this was not expressed formally in texts. Aside from the Calendars of Days, there is also little evidence of divination through this time. However, it is clear that by the time of the New Kingdom, oracles were in use by royalty and commoners alike. From this time on, prayers also abound that provide written expression of direct appeals from individuals to the state gods in a format that had previously been restricted to formal royal texts. Many of these were directed to the god Amun as one's personal savior and guide, a champion of personal justice, mercy, and benefaction. The perception that the god was in charge of individual destiny perhaps also helps to explain the increased use of divination that was to become increasingly widespread. But personal worship and prayer to other deities also continued, and private shrines, figurines, votive offerings, amulets, spells, and hymns abound. Even during the Amarna period, although the pharaoh Akhenaten may have promoted the worship of the Aten and himself over other gods, material remains attest to the continuation of popular religious beliefs and practices directed to many of the same gods who had been the focus of appeals for centuries. The Ramesside Age gave rise to new forms of expressions of devotion to the gods and new methods of divination that continued. By the time of the Late Period the impact and reliance on the main gods for matters ranging from royal legitimation to micro-management of an individual's everyday safety was manifest in the abundance of popular cults.

Egyptian religion was not monolithic, and changes occurred in both practices and beliefs that are manifest both in the textual and non-textual archaeological remains. Nevertheless, the core principles remained steady through the millennia, and it is these which are the focus of the rest of this chapter.

2   Religion and the Relationships with the Divine

The inhabitants of the divine or supernatural world were an ever-present reality in the earthly lives of the Egyptians of Pharaonic Egypt; the entire cycle of life – from birth to eternal life in the afterlife – was numinous. A successful birth was attributed to a combination of the benign influence of the gods and the repulsion of hostile entities through the use of magic, or what the Egyptians called *heka*. This was a power that was available and accessible to all Egyptians as a gift from the gods to all of mankind in order to keep away the blow of events and to watch over them night and day, as described in the *Instructions of Merikare*. The gods themselves were imbued with innate *heka*, as was the king, while some priests were particularly skilled in its use. *Heka* itself was neutral – there was no concept of black or white magic – and it could be used for both positive and negative purposes. Indeed, *heka* and *maat* (order) can be considered as complementary forces underpinning the ordered functioning of the Egyptian cosmos. The key to the use of *heka* and the practice of religion was knowledge of the proper words, gestures, and materials necessary to achieve the desired aims. This knowledge could be acquired through various means. Some of the more complex and state related rituals were restricted to the use of selected priests and literate individuals who had access to texts stored probably in the scriptorium called the House of Life. For everyday applications, such as those associated with successful childbirth or emergency treatments for choking, the knowledge of proper practice would be transmitted orally and by example. Unfortunately, these leave little trace in the archaeological record. In either case, *heka* functioned in both the private and public spheres, and at both an individual and state level, within the context of religion. It also played a role in one of the most important functions of religion in Egyptian society, and that was to aid Egyptians in negotiating their relationships with the inhabitants of the afterlife.

Much of religious activity focused on negotiating relationships between humans and supernatural beings. Pharaonic Egyptians believed that there were basically three types of entities inhabiting the afterlife: the gods (*netjeru*), the justified dead (*akhu*), and the un-justified (*mwt*). At first glance there seem to be a virtually unlimited number of gods in Ancient Egypt, but this is in part an illusion created by the Egyptian practice of syncretism, combined with the practice of representing gods as theriomorphic entities. Specific animals represented specific attributes, and a deity could be represented with different forms to emphasize different facets of its personality. For example, the lioness represented rage and destructive power, and therefore when Ra sent out his daughter Hathor to destroy mankind, she took the form of the lioness-headed Sekhmet (meaning "the powerful female one"). Once pacified, the goddess could appear with the head of a cat as Bastet, emphasizing her gentle nurturing qualities. Both Bastet and Sekhmet also had cults of their own, and as appropriate either could be appealed to in times of need. Distinct deities could also be represented with the same iconography. A headdress of cow horns was used to stress the maternal aspect of a goddess, and was worn by both Hathor or Isis. Indeed, in the tomb of Nefertari, for example, both goddesses are depicted identically – they are distinguishable only by their names written in hieroglyphs before them.

The deities were not gods of the animals, so Hathor did not represent cows, nor were the animals themselves worshipped. An exception can be found in the worship of the Apis, Mnevis, and Bucchis bulls, each of whom was believed to embody the essence of the gods (respectively) Ptah and Osiris, Re and Min, and Montu, Re and Osiris. In each case a specific bull was recognized through its markings as the incarnation of the associated deity, and it lived out its life as the focus of cult worship even to the extent of being afforded full mummification rituals after its death. Nevertheless, it was not the bull itself that was worshipped but rather the essence of the god temporarily incarnating the bull as its avatar – bulls as a species were not accorded any special favors. Although certain goddesses could be represented in the form of cows, and the king himself was described as a bull, cattle were slaughtered for rituals and for food offerings. Indeed animal cults, and the widespread use of animals as votive offerings and messengers to the gods did not begin until the Late Period. During that time, the animals were likely considered as closer to the gods, and therefore animals associated with specific deities such as the cat (Bastet) or ibis (Thoth) were raised by the thousands not to be worshipped, but to be sacrificed and provided to petitioners as votives.

The use of animals (and occasionally objects) to emphasize attributes also allowed the Egyptians to visually represent deities who were the product of syncretism. Syncretism consists of the temporary merging of one god with another to emphasize either the attributes of both, or more commonly, a specific aspect of one of the gods. The fusion is often reflected in the imagery, as well as the name. The particular aspect of the deities that is thus formed can have its own character and even its own cult, but the merging is temporary – the gods also retain their own identity. For example, the god Amun ("Hidden One"), originally a minor god with little power, merged with Re, the sun-god who was the preeminent deity through all of Egypt's history from the Fifth Dynasty onwards, and was known as "Amun-Re" representing the hidden power of the sun-god. Eventually, Amun-Re took on many of the roles previously held only by Ra and his priesthood became the most powerful institution of the middle Eighteenth Dynasty. Even Akhenaten took advantage of the benefits of syncretism, promoting not only the Aten (the visible sun disk), but Aten-Re.

The flexibility that the Egyptians evinced regarding their deities is readily apparent in their easy acceptance of those of a foreign origin. If a specific foreign deity had attributes or elements that resonated with the Egyptian worldview but for which there was not an exact Egyptian counterpart, that deity could be incorporated into the Egyptian pantheon and receive an Egyptian-style cult. An example can be found in the Canaanite-Phoenician god Reshep, who was associated with plague and lightning. Attested mostly from the time of Amenhotep II onward, he became particularly popular in the Ramesside village of Deir el-Medina. There, he became known as "lord of heaven" and "one who listens to prayers." Another example of the inclusion of foreign deities to reflect changing times is the goddess Astarte represented as a naked woman riding on horseback (see Hoffmeier 2007 for an unusual representation of Reshep together with Astarte). Because horses were a late introduction to Egypt, there were no "native" deities associated with them. Astarte, the female counterpart of Baal (also welcome in Egypt and associated with the god Seth) became a popular deity in the New Kingdom, and appears in her unique form on stelae and ostraka.

In the Near East, however, she was also associated with the fierce goddess Anat who also appeared naked, often standing on lions (Stuckey 2003) – the iconography of the "Mistress of Animals." The association between the deities is so close that it is often impossible to determine which goddess, Astarte, Anat, Hathor, or Baalat is meant to be represented in the absence of accompanying inscriptions. Identification is even more difficult and perhaps unwarranted in cosmopolitan cities and areas such as military garrisons and administrative units where there was intense interaction between peoples of differing cultures living in intimate proximity to each other.

The deities varied in the nature and extent of their interaction with mankind. A divine being such as Re was considered to be omnipresent and universal, a god who was acknowledged by all. Other deities were appealed to throughout Egypt for particular purposes, such as Hathor, to whom petitions for fertility were addressed. Others were more localized, such as Satet and her partner Anuket, who were mostly associated with Elephantine which was believed to be the source of the annual inundation of the Nile. Some, known only by their attributes (such as "Swallower of Shadows"), played a specific role only in the afterlife but had little to no impact on the society of the living. A number of the gods could be approached directly by all, but others could only be reached indirectly through the king, priests, or their avatars.

Besides the gods, the other supernatural entities included the justified dead and the damned. The justified dead were those who been successfully reborn into the afterlife by having gone through the proper funerary rituals, and having the correct knowledge required to navigate through the perilous ways of the afterlife. The damned were those who had failed to have the proper funerary rituals carried out, who had been forgotten, or who had transgressed against the gods or the king in some way. The latter in particular were considered enemies of the king, Re, or Osiris, and were doomed to be punished and tortured for eternity or even to die the second death (which consisted of utter and irrevocable annihilation). These convictions that were transmitted through the religious and funerary rituals helped to regulate society by instilling in each individual a particular set of values, ethics, and ways of behavior according to one's place in society. The ingrained belief in the afterlife served a critical function in maintaining social mores, for a failure to uphold *maat* relegated one to the side of the forces of chaos – a fate that most Egyptians wanted to avoid. For some of course, poverty or greed outweighed religious convictions and beliefs, as is well-attested by the physical and textual evidence for tomb-robbery.

3   Temple Interaction

Religion was also integrated into all facets of life – there was no artificial division between the secular and religious spheres. The king was also a god, while a temple functioned as a proclamation of his power, a home for the god(s) associated with it, and an economic institution. Even the space upon which a temple was built was sacred, while rituals provided further purification at every stage, including the burial of a foundation deposit. In the Middle Kingdom these deposits included food offerings, vessels, jewelery, building materials and model tools. The temple, with its

architectural grandeur and multitude of reliefs, was perhaps the most obvious physical manifestation of religious beliefs and practice. As is discussed later (see Spencer ch. 14), temples played a crucial role as centers of economic administration, storage, and distribution, as vehicles for the proclamation of the king's power and unique relationship with the gods, and as homes for the major gods with the priesthood in attendance upon them literally as servants of god (*hemu-netjer*). They were not generally the center of worship for the general populace, and access was likely restricted. The icon of the deity affiliated with the temple was housed deep inside, in an area only accessible to the high priest, while the people were allowed no deeper than the first forecourt. That distance between the gods and mankind was alleviated by the many festivals which afforded people an opportunity to view the deities and partake in rituals as well as to receive the largesse of the bounty of goods that had been offered to temples.

A list from the Middle Kingdom Fayum settlement of Lahun keeping track of the attendance of singers and dancers who were to work at the festivals provides us with details of some of the ones that were scheduled in one particular year. Although the list is incomplete, it includes no less than 33 festivals, which can be considered indicative of the types of festivals that would be celebrated by the inhabitants of settlements throughout Egypt. Some festivals appear only once, while others are repeated. Other texts mention festivals associated with the new moon, full moon, ''wag'' festival (a festival associated with Osiris and the dead), Thoth, Sobek, and Anubis (Luft 1992). Many of these could be considered as national festivals that were celebrated all over Egypt; others were regional, yet others seem to have been local to Lahun and would not be expected to be celebrated elsewhere. For example, the festival of ''cloth of Khakheperre'' (Senwosret II) who was the founder of the town of Lahun would have had less relevance for the rest of Egypt. Others were not related to any particular deity, but were rather seasonal or timely, such as festivals of the month, half-month, and year. Attendance lists from Deir el-Medina reveal that workmen were given time off to attend many of the festivals – some of which would last for days – as well as their own private group rituals. Presumably, they would be attended by the women, children, and elders as well. The festivals thus also fostered and strengthened the overall sense of community as a whole.

Particularly important national festivals that were held in a specific location would draw Egyptians with the means for travel from all over Egypt. The celebration of the Mysteries of Osiris that were held on an annual basis in Middle Kingdom Abydos is an example of these. Along with cemeteries, private chapels, and the temple to the god Osiris, an area was set aside for the votive dedications testifying to the involvement of Egyptians in the festivities. Participation guaranteed the participant an opportunity to witness the god and people flocked from different areas of Egypt to attend the event. To commemorate their visit, Egyptians would erect stelae with an image of the participant, hymns or offering formulae, or prayers, as well as often the names or images of spouses, children, and other relatives, co-workers and even the sculptor of the stele itself. Having one's name forever marked in stone at the sacred site offered one permanent access to the event, and a brush with divinity, even if one had not actually attended the event (Leprohon 1978).

Figure 27.1 New Year's flask in faience (EC733) 17 cm high. New Kingdom-Third Intermediate Period. These two-handled flasks, often called "pilgrim flasks," begin in the mid-Eighteenth Dynasty. Courtesy the Egypt Centre, Swansea.

While for the most part the interior of major temples were not accessible for the populace, local chapels may have provided more opportunities for closer direct access to the divine. These have been found at small settlements such as the New Kingdom workmen's villages of Deir el-Medina and Amarna. Architecturally they incorporated the main features of the large temples, but they were built of mud-brick rather than stone. Many had benches in them; some at Deir el-Medina were seemingly reserved for specific individuals who recorded their names, while the benches in the sanctuary area of the Amarna chapels might have supported images. Some of the chapels also included ovens and there are signs that food was consumed there. That the chapels were a nexus for interaction between the living and supernatural beings is clear. In some cases these were gods, which at Deir el-Medina included Hathor, Ptah, Amun, and the agricultural goddess Renenutet, and at Amarna Amun, Isis, Shed, and Aten (Bomann 1991), while in other cases, the divine entities also included the revered dead.

The need to commune with the divine also led to the consecration of sacred spaces that were less formally constructed but that took advantage of natural environments that must have seemed particularly numinous. A prime example of this can be found on a barren desert hillside lying between Deir el-Medina and the Valley of the Queens. A rocky outcropping there was carved out by the villagers to form a series

of rough chapels ideally suited for solitary communion with the divine. Their need for privacy combined with their desire for public expression of their piety led to them carving small stelae right in the rock itself – some on the outside of the chapels, some deep inside. Some of the hymns of praise here were dedicated to the god Ptah, the patron of craftsmen. Ptah was also popular in Memphis, where indeed he was the main god, but as many of the villagers of Deir el-Medina worked as craftsmen, it is no surprise that he enjoyed immense popularity there as well.

Many were directed to the deity Meretseger, "Lover of Silence," a goddess who was often either wholly or partially represented as a snake. The multivalent nature of Egyptian deities was exemplified by Meretseger as she shared her snake iconography with Renenutet, a goddess of the harvest and grain, and on some stelae both deities were worshipped in tandem as Meretseger-Renenutet. Meretseger was a more local goddess than Ptah, and she was closely associated with the harsh bleak landscape, as indicated by one of her epithets was "Mistress of the Peak." In this guise she was known to be swift in retaliating against transgressors who were stricken with anguish or blindness. The readers of the stela of a man named Neferabu are also warned that "she strikes with the strike of a fierce lion when she is after the one who transgresses against her" (McDowell 1999). In the typical Egyptian fashion of not emphasizing one's own negative or anti-social conduct, the nature of the transgressions was not revealed on the stelae, but instead the texts focused on extolling her virtue and mercy for healing those afflicted. Modern visitors to the site have noted the distinct resemblance that the peak has to the head of a lioness, and if it had the same shape 4000 years ago, one can readily see why this particular barren silent location in the desert was selected as the area to erect votive stelae to the goddess who loved silence, and whose wrath was like that of a lioness when her peace was disturbed.

Active appeals to the gods through ritual and prayer took place in a variety of environments. At the west end of the Valley of the Queens (called by the Egyptians the "*ta set neferw*" "Place of the Beautiful Ones") there was a natural grotto down which the torrential rain water would have poured during rare cloudbursts and storms (Vernus 2000; Leblanc 1989). A retaining wall was built there in the Ramesside period to protect the tombs from flooding, but it would also have acted as dam to collect water into a pool. The grotto, with its 22 m-high ceiling of stone and waters cascading via two levels into a natural pool would have been imbued with sanctity and resonated with divine power. Its strategic location at the far west end of the valley meant that it would have served as a natural boundary, not only on the physical earthly level as the end of the landscape of the valley, but also as a boundary between the valley as a liminal area that housed the tombs of the queens and princes, and the *Duat*, the divine landscape that was also called the Beautiful West and was inaccessible to mortals. In particular, the cascade grotto was linked to the Lady of the West, the goddess Hathor who is represented there in graffiti. This is likely the area that is described by the scribe, Qenherkhopshef the Younger, who recounts a series of five sacred rituals he performed for the goddess Hathor that included walking in the Valley of the Queens, ritual breakage (possibly of red pots), watering of reeds and lilies, spending the night in the shadow of the goddess herself within the natural sanctuary, and finally erecting stelae near Deir el-Bahri to exalt her magnificence (Szpakowska 2003a; Vernus 2000).

The force of personal piety was strong and recent research is just beginning to give us an idea of the extent of the freedom which even the non-elite had to express and make manifest the depth of their devotion to a deity outside of the carefully controlled temple environment. One dramatic example is the trove of over 500 votive stelae and about 50 figurines that were found in the Salakhana tomb at Asyut, in Middle Egypt (DuQuesne 2007a; 2007b). The tomb itself was the final resting place of the nomarch Djefaihap III who lived during the Middle Kingdom, but the rock-cut tomb clearly garnered a hallowed reputation over time, for the objects found within it date from the New Kingdom to Third Intermediate Period. Made of limestone, sandstone, alabaster, and (unusually for stelae) clay, the stelae are dedicated primarily to the gods Wepwawet and Anubis, whose cult was prominent in that area from the time of the Middle Kingdom. Other gods such as Hathor of Medjed (the consort of Wepwawet), Amun-Re, Osiris-Khentiamentiu, Reshep, Ptah, Taweret, Sobek, Hathor, Harsaphes, and Re-Harakhty (DuQuesne 2007a: 468) also appear. While many of the stelae are inscribed with divine epithets of the dedicatee, the name of the donor, hymns, prayers, and the offering formula, others have no inscriptions at all. The titles that do appear reflect class levels spanning the lowly to the elite – a spectrum that is also supported by the range in quality, style, and material. While an alabaster stela was certainly commissioned by a more wealthy individual, there are many examples of uninscribed ones made of clay that would have been readily available even to the poorer members of society. In their very simplicity, however, these stelae reveal a deep piety and reverence for the gods and confirm that neither the desire to interact with the divine nor access to the gods was restricted to the literate or the wealthy. Both men and women are represented, including women who seem to have no affiliation to any man, and can be considered to have acted independently. Finds such as these testify to the impact of religion on Egyptians of all walks of life and regions, regardless of gender or class.

Some of the clay stelae had holes in the top, suggesting that they were meant to be hung either in the tomb, or perhaps in a household shrine. Perhaps the most common sacred spaces were those found in the everyday dwelling places of the Egyptians. Homes had a practical use of course, but their very construction also incorporated religious beliefs and elements that activated *heka*. Front doors, which act as barriers between the safe interior space and the unpredictable outside world, were often painted red – a color that represented not only the potent energy of the sun, but had apotropaic potential as well, and thus helped to repel uninvited entities whether they were earthly creatures such as humans or snakes, or demons crossing over from the other world. Even furniture and household items such as headrests, legs of beds or chairs, chests, mirrors, spoons, could be decorated with apotropaic or protective divine entities. Towns such as Amarna, Deir el-Medina, Elephantine, Lahun, and Tell el-Daba reveal that religious emplacements, furnishings, libation basins and reliefs were a part of many homes, whether they were elite estates or simple workers' homes (Stevens 2006). Stepped platforms that have been interpreted as altars made of stone and mud-brick were integrated as architectural features in some of the larger homes. Across the range of homes small shrines or niches have been found embedded in walls or columns.
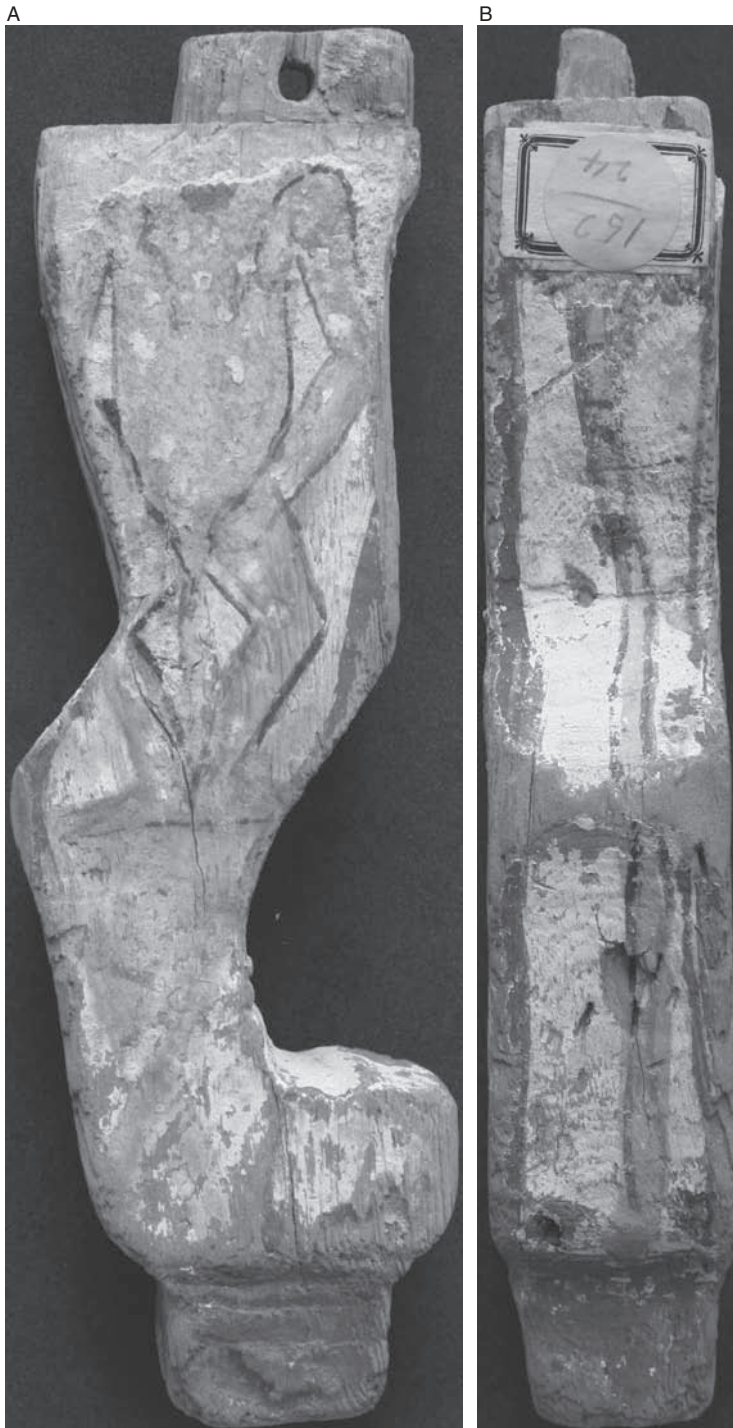
Figure 27.2a and b Decorated leg from a bed with Bes, painted blue (a), and snakes (b), probably from Akhmim. Bes appears to be standing on a *sa*-sign. Household objects were often designed with reference to religious beliefs appropriate to their function. It is possible that the leg is part of a "woman's bed" upon which a woman would have given birth and/or rested shortly after birth (W2052a). Courtesy the Egypt Centre, Swansea.

Nevertheless, whether large or small, it is clear that the niches, shrines, and altars would have held stelae, ancestor busts, or figurines that were the focus of domestic worship and prayer. This is confirmed by a household shrine in Askut which was found in situ with its accompanying stela still intact (Smith 2003). That particular shrine contained a funerary stela, suggesting that rituals for the dead could be carried out in the home and were not exclusive to cemeteries. The presence of ancestor busts and *akh iqr en Re* stelae within the homes confirm that even after the dead were buried, they were remembered and revered. That these icons were the focus of formal rituals is also confirmed by the discovery of a small stela depicting a woman, the Lady of the Estate, offering libations to an ancestor bust. The figures and stelae were not hidden, but would be exposed and visible, and there is no reason to suggest that all members of the family – men, women, children, and the elderly would not have participated in the rites. The objects may have acted as a conduit for communication with recently deceased relatives and community figures. In the New Kingdom, clay and limestone figurines of females in association with beds (type 6, according to Pinch 1993, 207–9; 218) may also have served as foci for remembering the dead. Some of the figurines were found attached to a model bed, some were represented with a child, and some had separate beds, but most are depicted as nude and wearing heavy wigs, often with a cone on top. These have been found mostly in homes, though some also in tombs (rarely in chapels or temples) and it may be that these were meant to commemorate the loss of a woman (and perhaps her child) during childbirth.

A wide range of deities were represented in the form of figurines or depicted and named on household stela including deities that also enjoyed cults on a larger scale such Amun, Ptah, Hathor, Thoth, and Min, deities whose presence was rare in the temple sphere such as Bes, Taweret, Meretseger, Shed, and Renenutet, as well as deities whose origins lay outside of Egypt such as Reshep, Qadesh, and Astarte. Other figures may have been generic or polyvalent. A particular class of stelae featured representations of ears, suggesting that the petitioner hoped that his prayer would be heard. Some were dedicated to specific deities, but others featured ears only and could have been used to amplify petitions to any deity. Certain types of female figurines may also have been meant to represent goddesses. Throughout the Ancient Near East, figures are found of a naked goddess who may be, but is not necessarily, associated with fertility – the warrior goddesses Anat, Astarte, Qadesh, and Baalat, are also depicted this way. As in the rest of the Near East, it is likely that the Egyptian female figurines served a multitude of purposes from being used to pray for or in gratitude for a successful birth, as icons of the female dead, or as a goddess. Male figurines and phalluses have also been found, as well as ones of animals such as rams, donkeys, canines, birds, and hippopotami. A variety of snake figurines remain, some at the bottom of bowls that may have been filled with oil and used for divination, some freestanding with their own offering stands attached, others were simple coils of clay. Their use probably varied according to type, location, and time (Szpakowska 2003b). Some could have been presented as votive offerings, some could have been used in conjunction with apotropaic spells, while others may have formed a decorative and sacred frieze above a shrine. They were likely associated with any number of goddesses who could be represented in serpent form such as Meretseger, Renenutet, Wadjet, Neith, or Weret-Hekau. Divine figures also appeared

Figure 27.3   Red pottery figurine of a nude female (EC446). Similar to examples from Kom Rabia. Clay figures of women lying on beds have been found in domestic, temple, and grave sites. They may have been used to ensure fertility. Courtesy Egypt Centre, Swansea.

in homes as depictions on ostraka and amulets. Whether they took the form of large statues or tiny amulets, the presence of these objects reflects the intensity and integration of religion in all areas of life in Pharaonic Egypt.

    All of these religious artefacts, ranging from chapels to amulets, were also embedded in life at Egypt's borders. Military installations, fortified centers, and administrative complexes from Egypt's southern outposts in Nubia to those running along the Mediterranean from Libya up the Levantine Coast include within their enclosure walls clear signs of the integration of religious beliefs and practices (Szpakowska forthcoming). Some of these take the form of temples dedicated by the Pharaoh, but cult emplacements as well as small religious artefacts such as figurines of clay and wood, remarkably similar to those found in settlements, are also found. These include ubiquitous clay balls, figurines shaped into the form of male and female humans, as well as animals such as ducks, rams and snakes, as well as artefacts associated with domestic life such as spinning bowls, whorls, pendants and scarabs. While some seem to have been transported from Egypt, others were clearly fashioned abroad. An example of these are the clay cobra figurines found at Beth Shan, whose shape combines that of the figures found in Egypt with the iconography prevalent in the local

Figure 27.4 New Kingdom limestone stela from Deir el-Medina depicting a woman presenting offerings to Thoth as a baboon (W1326). Courtesy the Egypt Centre, Swansea.

goddess cults. This reflects not only an integration of different methods of technology, but also the intermingling of Egyptian beliefs with those of the local region to create a new icon that could be readily embraced by both cultures. It is seems that while religious beliefs were deeply embedded in their culture and self-identity, to the extent that the Egyptians brought them with them and continued to engage in the same religious practices associated with their native homes, the syncretistic nature of Egyptian religion allowed for its peaceful co-existence with foreign faiths.

4   Communication with the Divine

Supernatural beings were appealed to for a variety of reasons in Ancient Egypt, with the most obvious perhaps being for healing, fertility, and to gain knowledge. For the most part, help in these realms was sought from deities, but especially in the earliest eras of Egypt's history, help was sought from the dead as well. Through the Middle Kingdom, the living could try to contact dead relatives and friends by writing them letters and leaving them in or near the tomb. Although the letters could be written on papyrus, they were often written on pottery vessels, and left in the tombs. The very

fact that the Egyptians left these letters at all reveals their belief in the continuation of ordinary life in the next world, and the possibility of direct communication with the dead. Some of these letters, particularly the earliest ones, were written on bowls or vases, that may have originally been filled with offerings for the deceased, both out of respect and as further encouragement for the dead to help the living. The letters usually consisted of requests to the dead for personal favors either in this world – such as the settling of household quarrels, or property disputes, or the defending of an inheritance, or perhaps the birth of a healthy child – or direct intercessions on the behalf of the living, within the afterlife itself.

Healing could also be requested from the dead, but it was the power of the gods that was called upon for most of Pharaonic history. Religious and medical practice were fully integrated, with myths playing a major role and acting as a model for successful cures. Spells were composed that beseeched various powerful deities such as Re, Atum, Thoth, Sekhmet, even the entire Ennead, to come to the aid of the patient. In many spells, Isis was specifically named as the healer while the patient played the role of her child Horus. The actual gender of the healer and patient were irrelevant – what was important was that the treatment was set within the mythical plane and that those involved temporarily embodied deities in order to re-enact those mythic episodes wherein the goddess successfully protected her young divine son from assaults and cured his ailments and injuries.

The spells could likewise be successfully employed as preventive defences or as counter-agents against the adverse effects of disease, animal assaults, sickness, disorders of the stomach, eyes, and teeth, burns, splinters, aches and pains, as well as injuries caused by accidental trauma or inter-personal violence. Many of the disorders, diseases, and sicknesses were blamed on aggressive supernatural beings. While the invaders mentioned in the spells shared a common source as they all resided in the afterlife, their specific roles and attributes varied. The ones that were labeled as enemies (*kheftju*), or adversaries (*djay*) – those that represented the enemies of the great gods Osiris and Re – or those who were simply referred to as the host of dead (*mutu*), were those who had threatened or transgressed against the gods, and for whom the proper rituals were not carried out. They were therefore doomed to eternal punishment and unrest – predisposed to intimidate the living in whatever way they could. But the spells also mention the *akhw*, the "transfigured dead." The irony is that a so-called demon could include an Egyptian who had worked very hard to become an *akh*, one of the blessed dead who were not only allowed unrestrained travel throughout the many regions of the afterlife, but also free passage into the land of the living. It seems that these *akhu* who could appear as benevolent ghosts, also had the power and the will to potentially harm the living in the same manner as the generic enemies and unjustified dead. These pugnacious beings, who inhabited the farworld, like the gods, were able to step through the permeable membrane between the worlds and attack the living. Their presence could manifest itself in the form of bodily pains and illnesses, or even mental anguish such as nightmares. This is the flip side of a belief in the numinous, of living in constant potential contact with the divine. While one could petition the gods and plead for their attention and intervention, the hostile dead and malignant entities were equally close at hand.

Most of the Egyptian spells also included a physical component, that needed to be produced and applied in order for the healing to be effective. Many concoctions used

to repel the malignant intruder worked because the affect of the ingredients on the demonic entity was opposite to the one it would have had on the living. The damned were believed to live a life reversed in the afterlife – even their posture was described as being backwards. Thus a common food such as onions, which the Egyptians recognized as being beneficial to the living, were harmful to the damned, while honey, sweet and healing for the righteous, was bitter for the demons. This again reflects the core Egyptian belief in the concept of *maat* – that there was a fundamental and correct order in the world that needed to be properly maintained. But *isfet* "wrongness," the antithesis of *maat*, was also a constant threat and had to be kept at bay, often by applying the theory that what was good for the upright citizen would be harmful to those who were "un-*maat*."

Much of the healing was the responsibility of priests, many of whom concurrently bore titles marking them not only as priests, but also as physicians, and specialists in *heka*, thus reflecting the melding of religion and medicine that was a hallmark of Egyptian treatments. Indeed, certain treatments seem to have been restricted only to literate priests. Not only were some individual incantations explicitly specified as inaccessible to commoners, but some of the major compositions (such as Papyrus Edwin Smith and Papyrus Ebers) were introduced by "beginning of the secret knowledge of a physician," to emphasize the carefully regulated nature of the knowledge contained therein. Only those who were literate and who had sanctioned access to copies of the papyri, likely housed in the House of Life, were in theory able to successfully treat the ailments and injuries that these texts catalogued.

In everyday life, however, many more individuals must have practiced the art and science of medicine. Birth attendants and wet-nurses must have played a significant role at the least in the recognition of pediatric ailments. Although gynecological issues appear in numerous documents, the actual process of giving birth was likely considered a natural event – part of the ordered world as opposed to the ailments and diseases that stemmed from the chaotic realm. It was not necessary, therefore, to record any instructions. Unless there were serious complications, it is unlikely that doctors were needed, and experienced midwives may have been equipped to deal with many of the unforeseen problems. Other remedies would have required swift and immediate implementation if they were to be effective at all. For example, a person choking on a fish bone would not have had time to find a sanctioned doctor or priest for help. At least two spells have survived that provide the remedy that included reciting a short religious invocation and swallowing a piece of cake to force the bone down the throat (Borghouts 1978: 23). That the appropriate treatment for such a common emergency was transmitted in writing does not necessarily imply that its use was restricted only to the literate few. On the contrary, it is probable that a remedy such as this should be considered a part of that nebulous assortment of lore that was known by many, and that is often referred to as folk medicine. This kind of knowledge derives from a variety of sources and the patterns of transmission are often impossible to detect. In Ancient Egypt, with the exception of certain incantations that were specifically described as being classified information, there are few indications that physicians treated their patients in utmost secrecy. In most cases there would have been others who would have seen and heard the process, and possibly kept it in mind for the future. In other cases, simple trial and error would have been the source. In all of these cases,

whether a priest was used as an intermediary, or whether the gods were appealed to directly, both the source of the ill-health and the cure were attributed to beings who inhabited the supernatural realm, but whose presence was clearly felt in the land of the living.

The gods were also responsible for the fertility of the land of Egypt and its people. Part of the duties of the king was to carry out rituals whose purpose was to ensure proper levels of inundation and continued fecundity of the earth, and part of the role of the temple and its priesthood was to administer the storage and redistribution of the resulting grain to the people of Egypt. The task of ensuring personal fertility, however, fell to all individuals. In any society with a high infant and maternal mortality rate, the divine world is appealed to in an effort to maximize the chances of not only successful conception, but also a safe pregnancy that leads to the birth of a healthy child. Newborns were especially vulnerable to any number of natural risks and parents or care-givers would have taken advantage of every means possible to ensure the infant's survival into childhood. These means included petitions to deities particularly associated with fertility such as the ithyphallic Min, the hippopotamus goddess Taweret, and especially the goddess Hathor, whose was represented with the features of a cow to emphasize her maternal qualities.

Although Egyptians were well aware that the physical act of copulation was required for impregnation, it was believed that appeals to the gods could help the odds of successful conception. These often took the form of votive offerings in the form of figurines of naked women, phalli, and animals such as cows and cats, as well as beads and jewelery (especially of turquoise, the stone most associated with Hathor), amulets, textiles and stelae. These have been found in small chapels and sacred shrines throughout Egypt, as well as in domestic contexts, and would have been offered either as supplications for or in gratitude for successful conception.

Spells were composed specifically for the purpose of protecting mothers and their infants from the same demonic forces that caused other ailments, but artefacts could also be used. It is likely that vulnerable individuals would have been surrounded by carved hippopotamus tusks (sometimes called ''wands'' or ''knives'') incised with depictions of apotropaic deities, ivory rods carved with the forms of turtles, frogs, lions and other animals associated with those deities responsible for primeval creation according to various cosmogonies. Expectant mothers would gave birth while squatting on bricks made of mud and decorated with deities such as Hathor, and the same apotropaic and protective deities that appeared on tusks and rods. That these supernatural beings could also be used to protect individuals other than infants is suggested by their appearance on objects such as headrests, (sleepers were in a particularly vulnerable state), as well as small cups with pouring spouts that could have been used for the feeding of infants, the aged, and the ill.

5 Divination

Deities could also provide information to individuals regarding issues such as healing, fertility, increasing wealth, promotions in terms of social status, and even the settling of disputes via divinatory techniques. The evidence for divination is firmly attested from the New Kingdom onwards, and by the Late Period a wide range was used

(von Leiven 1999). The most common method of obtaining knowledge from divine beings was through the use of oracles. Powerful Pharaohs, such as Hatshepsut and Thutmose III, publicly proclaimed the guidance they were given by the main state deity through oracles, but other members of society from the elite to workers were afforded the same opportunity, most commonly during festivals. While the statue of a major divinity, such as Amun, was usually housed deep within the sanctuary of the temple, during festivals the icon would be placed with a shrine and carried on a barque by priests through the temple and outside along the prescribed processional route. For many, this would have been their only chance to come close to the usually inaccessible god, and they made the most of the opportunity. Questions related to a wide assortment of concerns, ranging from whether the dreams that the sleeper will have will be good ones, to ones related to the settling of legal disputes, were written on pottery ostraka, and presented to the deity. One method for answering the question seems to have been by the priests moving the icon forwards for "yes," or backwards for "no."

By the Third Intermediate Period, "oracular decrees" were also worn in cylinders around the neck as amulets (Edwards 1960). The content of the decrees was a divine promise to keep the owner safe from a variety of problems and difficulties which could affect the living. These included a variety of diseases and health problems, dangers which could be met both while travelling and on a daily basis, both foreign and domestic practitioners of *heka*, the wrath of other gods, hostile demons and malignant entities, and dreams. Designed for the use of both male and female children, the papyri were prepared in advance with a space left blank ready for insertion of the name of the deities who would ultimately be responsible for the oracle. The parents or guardian of the child would take the papyrus to the shrine of the preferred deities who would convey the assurances to an intermediary, and the names of those deities would be inserted into the appropriate sections of the papyrus. The deities most often consulted included the Theban triad of Mut, Khonsu, and Amun, but the deities Montu-Re, Thoth, Isis and Horus were also consulted. The papyrus would be further personalized by including the child's name and that of at least one parent (often the mother).

A variety of other divinatory practices are attested by textual remains. A Ramesside compendium of dreams and their interpretations (Gardiner 1935; Szpakowska 2003a), as well as a papyrus now thought to date to the Saite period provide evidence for the practice of oneiromancy (Quack 2006), while fragments of a papyrus in the Turin museum testify to the practice of lecanomancy (divination based on the interpretation of shapes caused by oil in bowls of water, see Demichelis 2003). Recent exegesis of demotic texts reveals that the Egyptians also practiced divination through animal omens, throwing dice, and casting lots (Quack 2006). Calendars of days were used as a sort of almanac to predict the auspiciousness of a particular day (*hemerology*). The earliest known calendar of this kind was found in Middle Kingdom Lahun. This hieratic papyrus features a neat vertical column consisting of the word "day," followed by either the word good (*nefer*) in black, or the word bad (*dju*) in red (UC32192 in Collier and Quirke 2004: 26-7). Three of the days are listed as both good and bad. It is an unfinished papyrus, and even the other side remains blank. However, the large spaces left on either side of the column indicates that it would

have been filled in with more details. Later versions inform us that the formulas would have read something like, Day 1: Favorable today, till the coming forth of the moon. Day 4: Bad. Do not offer to your god today (Troy 1989). The question remains as to who would have used these. These are mostly found in temple contexts, suggesting that rather than having been consulted by the general populace, their use might have been restricted to that of priests (Troy 1989). Literate priests may also have been responsible for oneiromancy and lecanomancy, as well as for the other divinatory practices that were in use in the Late Period such as the interpretation of animal omens (Quack 2006).

6   Religion and Death

Much of our knowledge of Egyptian religion derives from physical and textual evidence from the mortuary sphere. The belief in some sort of afterlife is readily apparent already in the Predynastic cemeteries where individuals from all walks of life were placed consistently in a particular position and direction within their graves, often accompanied by carefully arranged goods such as pottery or figurines. But just as there were differences in religious practices based on rank, gender, and wealth so too mortuary practices varied greatly in terms of tomb structure, preparation of the body, rituals, grave goods, and inclusion of texts. Generally speaking however, the goal was to enjoy eternal life in the *Duat*, the afterlife inhabited by the gods and the dead. The structures were therefore built to last forever and placed in the dry desert environment, allowing far greater preservation of their contents than the architecture of daily life. Much of our knowledge of daily Egyptian religion therefore stems from the representations on tomb walls that feature representations of many of the deities, as well as festivals and offering rituals.

   Aside from spells and hymns, mortuary compositions are our greatest source for uncovering Egyptian myths. Narrative mythology in the Pharaonic period was rare, and thus our understanding is based on piecing together single episodes or scenes from a variety of sources. The Pyramid Texts, written on the interior walls of pyramids, provided the king with the words and knowledge he would use in order to become one with the gods. In contrast to the sky-oriented Pyramid Texts, the texts written on First Intermediate Period and Middle Kingdom elite coffins reflect a chthonic dimension to the afterlife. Available for both men and women, these texts reflect a more universal yet more difficult access to previously restricted realms. Many of the Pyramid and Coffin Texts continued to be used in the New Kingdom as sections of the Book of the Dead. This collection of compositions was initially geared towards the non-royal dead, and its popularity is attested by its continued use through the Roman Period.

   Compositions on the walls of tombs of the New Kingdom pharaohs provide a glimpse of the afterlife from a completely different point of view – that of the sun-god as he journeyed through the hours of the night. As in all aspects of life in Ancient Egypt, here maintenance of order was of primary concern, with the focus of many of the compositions being the victory of the sun-god (Re) over the serpent of chaos

(Apep). It was believed that this was re-enacted each and every night after the sun-god sank in the west with his entourage of other gods and the king. As the god passed through, the dead would awaken and acclaim in joy at being granted the vision of the sun god. They were provided by the god with food, clothing, and the ability to use their senses, and in return they would join the battle against his enemies. At the crux of the night, the aged Re (represented as an old ram) merged with Osiris, the god of the dead, in a perfect conjunction – a syncretism that sparked the rebirth of the sun-god in a rejuvenated youthful state, represented now as the scarab beetle. Through the use of *heka* and knowledge Re succeeded in suppressing the constant movement of Apep every night, and to emerge triumphantly every dawn in a revitalized state. This constant yet cyclical maintenance of *maat* was central to Egyptian religious ideology, and re-enacted on another scale not only by the pharaoh who was responsible for maintaining order in the Egyptian empire, but also by all Egyptians within the sphere of their own lives, no matter how humble.

FURTHER READING

The literature on Ancient Egyptian religion is enormous. The following works are particularly recommended to build on issues raised in this discussion: Allen 1989; Assmann 2001; Clarysse, Schoors, and Willems 1998; Hornung 1992, 1996; Pinch 1994, 2004; Quirke 1992; Ritner 1993; Stevens 2006; Szpakowska 2006; and Wilkinson 2003.

Religion in Society: Graeco-Roman

David Frankfurter

1   Introduction

There is a display-case somewhere towards the end of every museum's Egyptian collection in which ten or twenty terracotta figurines are displayed. Many are nude or display genitalia; their crudely sculpted faces grimace, while their bodies are mottled with the remains of red and white paint. These are the images of the gods that Egyptians of the Graeco-Roman Period bought at temple festivals and kept in their houses and buried with their dead: Isis, voluptuous as Aphrodite or demurely robed as Demeter; Horus as Harpokrates, a pudgy infant with a pot or a goose at his side; Bes, a grimacing dwarf with a sword or a torch; the proudly bearded bust of Sarapis. Museum-goers generally have little idea what to do with these popular interpretations of the great gods, the same ones that in prior galleries had been displayed in monumental scale on thrones or reliefs. And yet each terracotta, studied carefully, reveals the earnest engagement of a local artisan in the meaning and function of the temple gods for everyday life. What is more, each reveals the multiple uses to which *Hellenistic* style – the approach to the human figure inherited from Greek and Roman tradition – was put in every workshop to draw out the meanings of gods.

Let us take three examples: the child Harpokrates stands, nude, holding a pot, his finger to his mouth, his hair shaved but for a sidelock. If the finger position and sidelock were traditional features in the iconography of the child, visible in relief on most temples that celebrated child gods, here his body stands naturally, casually, and most importantly in a frontal position. Hellenistic style contributes an infantile fleshiness to his body and a sexuality, signified in the clearly visible penis between his legs. He is child and masculinity in combination. He is also, apparently, celebration, for the pot holds something sweet and delicious – a festival food that children enjoy at the *Harpokrateia* each year? The figure beckons the viewer to taste and participate, to behold and enjoy the many aspects and powers of his body. He is Harpokrates the child sprung off the temple relief, and he is a real child in the round;

Figure 28.1 Harpokrates figurine (Dunand 1990: no. 134). © Musée du Louvre/Pierre et Maurice Chuzeville.

he is male potency, and he is the child born of male potency. Some workshop brought together both Egyptian and Greek conceptualizations of divinity to make an image that conveyed the fullness of Harpokrates' meaning.

The goddess Isis, in traditional crown and holding the traditional accoutrements of uraeus and situlus, stands looking at us from a pedestal, her centrally gathered Egyptian dress open on one side to expose her right breast. In this frontal pose what impresses us are the roundness of her body – belly and face – and the directness of her gaze, a powerful iconographic strategy once reserved almost exclusively for the protective deities Hathor and Bes. This is Isis as radiating protector, as watcher, but what immediately draws the modern museum-goer's eyes is not Isis's woman's body; it is the snake's tail that coils demurely from beneath her dress. This striking elision of Isis and serpent – in some related terracottas the snake's body dominates, with only a crowned bust of Isis appearing on top – would immediately have marked this image as a combination of Isis and Thermouthis, the Fayumic goddess Renenutet, commonly portrayed in serpentine form. In three-dimensional terracottas, then, Thermouthis becomes Isis, and Isis – great goddess of kingship and borders, of cosmos and fortune – becomes localized as Thermouthis. A foreign technique allows the identification of a regional goddess and a national, even cosmic goddess.

Figure 28.2   Isis-Thermouthis figurine (Dunand 1990: no. 388). © Musée du Louvre/Pierre et Maurice Chuzeville.

   With his traditional grimace, beard, and feathered crown, the god Bes stands on a pedestal holding a shield and raised sword. His origins obscure, his status peripheral to official temples, Bes pertained to sleep and dreams, to sexuality and fertility, and to protection of children and home. Here we see him in his protective guise, but, if once he could repel the forces of danger simply through his grimacing face and squat, nude posture (suggesting a lion), here his ancient features have been augmented with sword, shield, warrior costume, and a helmet beneath his feather crown. He is Bes the soldier, reflecting a new *Egyptian* image of protective power developed through the centuries of Greek and Roman rule, but also an image of Bes rendered familiar to people of Greek or Roman heritage living and seeking protection for their homes in an Egyptian environment. His shield is Galatian, however, not Roman, suggesting a Barbarian from the Roman perspective instead of the southern tribes that Bes had traditionally recalled. His strength comes from this new frontier.
   Much like Internet, billboards, and the English language in the contemporary third world, Hellenism was not so much a new culture in Egypt as a way for Egypt and Egyptians to understand their culture. In the case of the terracottas, Hellenism's representational technologies and idioms allowed new ways of interpreting and directing the powers of the gods. While temples adhered – through the Roman Period – to archaic traditions of representing gods and rulers on their walls, the

Figure 28.3 Bes Militant figurine (Dunand 1990: no. 31). © Musée du Louvre/Pierre et Maurice Chuzeville.

religious world beyond those walls, the workshops and markets, festivals and processions, and village and urban cultures increasingly imagined their gods through the multiple dimensions and poses that Hellenism provided. Local deities came to assume the guise of cosmic rulers, and that cosmos embraced the whole Mediterranean world and the stars. National deities assumed imperial guise, radiating the authority of rulership that Roman military hegemony articulated. The mysteriously archaic iconographies cultivated by local temples and craftsmen assumed an updated, familiar guise, available and relevant for the increasingly multicultural society of the Graeco-Roman era.

It is for these reasons that any attempt to understand Egyptian religion in the Graeco-Roman Period, especially that beyond the temple walls, must take Hellenism as part of the picture. From the use of Greek to communicate with gods to the depictions of the gods themselves, Egyptian was a bilingual and multicultural society in which the use of Greek words or iconographic forms gave traditional forms of worship an expanded authority and meaning. Yet at the same time it was an Egyptian society, in which traditional temples, gods, processions, conceptions of death, and the Nile itself dominated the landscape and the people's lived experience. The excitement of this period for the scholar, reader, and museum-goer lies in the discovery of both elements at play (see Bowersock 1990).

2   Historical Overview

With a priestly institution devoted to interpreting and sacralizing power, Egypt embraced Alexander and the Ptolemies from the outset, proclaiming them as rightful Pharaohs, instruments of cosmic order and opponents of rebellion and chaos, as the Rosetta Stone celebrates. The full creativity of the Egyptian scribal enterprise was put to legends of Alexander's own divine birth (the *Alexander Romance*), to recasting Egyptian priestly wisdom in Greek (as the revelations of "Thrice-great Hermes"), and to developing new hybrid forms of Egyptian gods, such as the bearded Serapis (from Osiris in his avatar as the Apis bull, with an iconography inherited from the Greek Asklepios) and the civic god Shai as Agathos Daimon, supernatural patron of urban fortune. So thoroughly had priesthoods embraced Hellenism by the second century BC that the propaganda for a rebellion in support of a native, Theban king in the 130s was composed and subsequently reedited in Greek, despite prophesying the Greeks' departure and Alexandria's collapse (*Oracle of the Potter*: Kerkeslager 1998; Koenen 2002).

In response to such engaged priestly support Ptolemaic kings lavished support on the religious infrastructure, such that the great temples that the modern visitor beholds in Kom Ombo, Philai, and Edfu include many Ptolemaic buildings. This infusion of resources and temples also popularized new cult centers for Serapis and Isis where local cults had prevailed in earlier times. The new cults and the assimilation of Hellenism did not in any way reduce or suppress those local gods and cults distinctive to the various nomes and villages. Kom Ombo still hosted the twin gods Sobek and Haroeris; Saqqara remained a center for Thoth in his Ibis form; and people in the Dakhla oasis still invoked Seth as their protector from chaos.

While the beginning of Roman administration saw a renewed cultivation of the Egyptian priesthoods' favor and propaganda, the emperors quickly sought the complete control of every aspect of priestly service and temple administration. Dress, function, and hierarchy were all specified in Greek in the official *Gnomon of the Idios Logos*, and temple inventories and calendars had to be submitted to Roman administrators. Thus rendered administratively responsible to the Roman authorities, the temples were then made financially dependent on Roman munificence, so when the empire suffered economic catastrophes in the third century AD the temples were dragged down as well, their lands and purses dwindling considerably. Inscriptions show little building or cultic activitiy after the third century. Yet religion hardly vanished. Both literary sources (like Roman historians and saints' lives) and scattered inscriptions show continuing cults from Alexandria in the north to Philae in the south. We also find evidence for a centrifugal shift in the practice of Egyptian religion. As the centers dwindled, important traditions became the responsibility of village, confraternity, and home (Frankfurter 1998: 97–144).

The Roman Period saw ever new Hellenistic syntheses of Egyptian religion: the Roman Dioskouroi, for example, as "modern" anthropomorphic versions of the crocodile god Sobek in his twin form and the establishment of the military rider as an attribute of royal gods. The ancient priestly vision of a divinely renewed and purified Egyptian landscape, preserved in the Greek *Oracle of the Potter,* assumed new resonance in the tumultuous third century, with multiple papyrus copies and

even influence on Christian texts. The continuing evolution of Roman religion itself led to some phenomena that stood at odds with Egyptian traditions, such as the empire-wide edicts to sacrifice publicly, demanded by the emperor Decius in 250, or the various shrines to the divinity of the emperor himself. Meanwhile, for the wider Mediterranean world, Greek and Roman novels (Apuleius's *Metamorphoses*, Heliodoros's *Aithiopika*), magical incantation manuals, and exported versions of the cult of Isis all presented Egypt and Egyptian religion as an exotic world of mysterious powers and resident wizards, inspiring spiritual tourists to visit the old Egyptian cult centers in search of both attractions. Numerous inscriptions and literary narratives attest to this rise in spiritual tourism in the Roman era, while the Greek *Hermetic Corpus* and the various Greek and Demotic magical papyri testify to Egyptian priests' own creative engagement with this ready market (Betz 1986; Frankfurter 1998: 198–230).

The rise of Christianity in Egypt over the fourth and fifth centuries involved fundamental shifts in the practice of religion, but also some important continuities. Like Hellenism, Christianity presented itself as an authoritative, global idiom for imagining and dealing with supernatural powers. Its ecclesiastical structure and elevation of the holy book together represented new ideas of ritual administration, economic patronage, and ideological authority – a transformation of the entire notion of religion. Yet sources from inside the Christian movement – saints' lives and teachings, for example – show that Christianity was at least as perceptible in its new landscape of saints' shrines and charismatic holy men as in the church, its Bible, and sacraments. The popularity and authority of the saints in people's lives owed much to indigenous sensibilities about earthly powers, ritual expertise, and the mediating powers of the dead (Frankfurter 1994; 2003).

Of course, Christianity brought with it an ideological intolerance that soon, from the late fourth century into the fifth century, assumed a zeal for iconoclastic destruction even celebrated in Christian legend. That iconoclastic zeal remains visible today in the mutilated images and crosses incised in Egyptian temples. Monasteries and Christian confraternities even more than villages were caught up in these mobilizations to purify a Satanic heathendom from the landscape. Indeed, by the fifth century the public face of Christianity was often open violence among monks, bishops, and imperial authorities, aligned variously as partisans of one or another theological or political position (Haas 1997).

Such radical disruptions in religious life and topography notwithstanding, much did continue in the realm of popular religious practice, from mummification to the ritual negotiation of dangerous and beneficial spirits, to the celebration and mythologization of the Nile's annual cycles. The powers of writing and of holy places, the sense that local shrines could be linked through procession and festival, all allowed Christianity to be assimilated to a broader Egyptian religious tradition. (Frankfurter 2003; 2005; Dunand and Zivie-Coche 2004: 311–38).

3   Temples and People

The Egyptian temple was a place fundamentally set off from the outside, whose rituals of invoking gods, processing images, execrating the forces of chaos, making formal offerings to specific gods, and divining their will were conducted only by

"pure" priests. Through their literacy and by their utterances ritual words assumed efficacy and – as villagers probably saw it – the world ran in an orderly and generative way, but the separation of main temple rituals did not mean that Egyptian religion, broadly conceived, was restricted to priesthoods. Ordinary people would approach the temples for the touch of (or sand from) the hieroglyphs and reliefs, to avail themselves of potent stelae and images accessible to the public, to leave votive expressions and appeals, to request written answers to questions, and to participate in festivals and processions, when the god in his image would emerge and, perhaps, respond publicly to questions of civic importance.

Many temples constructed during the Ptolemaic and early Roman Periods included features designed for non-priestly, popular devotion. At Kom Ombo, begun under Ptolemy VI and further developed under Domitian and Trajan, a cult relief of the gods surrounding a set of divine eyes and ears, which represented the divinities' ability to hear human appeals, was placed just on the outside of the inner shrines to the twin gods Sobek and Haroeris (Gutbub 1984; Bagnall and Rathbone 2004: 234). At the Dendera temple of Hathor, a project of the late Ptolemaic and early Roman Periods, an enormous relief of the goddess was built into the rear wall, adjacent to the site inside the temple where the goddess's holiest image would have been stored. Covered by wooden doors, the image was a place of enthusiastic popular supplication, as we can infer from the vehemence of Christian monks' mutilation of the image during the fifth century (Frankfurter 2008). An iconographic phenomenon that gained particular popularity in the Ptolemaic Period, the Horus *cippus*, also served as a way for temples to accommodate popular needs for healing substances. These stelae, ranging in size from several centimetres to a metre or more, portrayed Harpokrates standing frontally atop crocodiles, a selection of dangerous animals clutched in each hand, his head surmounted by a mask of Bes. It is an iconography of manifestly apotropaic meaning, collecting symbols of everything dangerous and submitting it all to images of protection: Horus, Bes, and various hieroglyphic spells that invoke Isis and other great gods to protect a person from scorpion venom. The larger cippi were erected on bases that allowed the collection of water poured over them. The water picked up the efficacy of the inscribed spells and could be preserved for healing and protection (Ritner 1989; 1992). Some temples seem to have expanded these popular features during the Ptolemaic and early Roman Periods. At the temple of Dendera, for example, a structure with numerous chambers was erected in the Roman Period that some archaeologists interpret as a kind of sanatorium, in which a hydraulic system evidently functioned to distribute magically charged water to the different rooms (Daumas 1957).

The appeal of certain temples and temple precincts as healing centers – not only Dendera but Menouthis and Canopus near Alexandria and Deir el-Bahri in Thebes – involved the institutionalization of such archaic traditions of the temple as a source of magical power and the site of appeals for divine intervention. Many temples opened up or constructed spaces for visitors to sleep, dream, and have their dreams professionally interpreted (Dunand 1991; 2006; Frankfurter 1998: 46–52; Łajtar 2006: 50–6; and below on dream incubation).

That central drama of temples in society, the procession of the shrine image beyond the temple doors to traverse village and countryside, had probably always been the

occasion for popular festival. Viewing the image and its priests, celebrating the god's radiation of generative powers to people and plants, and hearing sacred words altogether made the procession and festival the chief occasion in public religion. Festivals also had important social implications, bringing together people from the surrounding region, inviting personal appeals for the god's attentions, reinforcing the popular sense of a religious landscape through the processional integration of shrines, and allowing various types of frivolity. (At one festival, for the god Min at Mendes, Herodotos claimed that a woman would ritually copulate with a goat – 2.46). Materials and witnesses from the Graeco-Roman Period indicate the preparation and enjoyment of special foods, the shouting of special slogans, the lighting of special lamps, and certainly the selling of religious images and souvenirs like those described at the beginning of this essay. Considering the obvious priestly influences on the terracotta workshops and the participants' traditional investment in festival foods and collective feasting, we can see in the festival a rich and complex interchange between temple and village worlds, where populace accepts the performative authority of priests and their rituals while also asserting their own traditions, like dancing, and expectations, like fertility (Frankfurter 1998: 52–8). We also see this interchange in local temple traditions at Saqqara, Bubastis, and elswhere, in which devotees had animals associated with the god killed and mummified as emissaries and votive offerings – hence the large numbers of slaughtered ibises, cats, ichneumons, and other animals that have been excavated and placed in museums (Charron 1990; Ikram 2005b; Rutherford 2005: 144–6).

Even before Alexander's arrival, Herodotos describes at least one festival receiving crowds of a size far exceeding what we would expect of the immediate regional population (2.58–60). It seems that, at some temples already in the Persian period the spectacle of the image procession and the accompanying festival was growing in extravagance, incorporating public theatre (at Edfu, for example), celebrations of civic patronage (like games), and a host of carnivalesque activities and markets. We should understand this development as the temples' deft acknowledgment of patronage, whether royal (in the Ptolemaic Period) or that of local elites (in the Roman Period), and eventually the festivals' reflection of Hellenistic identity and pride, beyond the purely religious element of the god's appearance. (Frankfurter 1998: 58–65). Still, however, many local temples and shrines maintained smaller-scale processions with meaning specifically for the local landscape. One such procession is remembered in connection with a Christian holy man still in the fourth century AD. Apa Apollo magically halts the priests with their image, and they cannot move for a whole afternoon (*Historia monachorum* 8.25–6).

Clearly Hellenism brought changes in the ways that temples presented their powers to people and cultivated piety at temple precincts. At many temples Greek itself came to dictate the very formulation of people's contact with temple traditions, both in the area of votive inscriptions (*proskynemata*) and in the priestly expropriation of temple rituals for domestic healing, protection, and personal success. Most of what we now call the "Greek Magical Papyri" are, in fact, Egyptian priests' translations and reformulations of temple rites and traditions for healing and for inviting visions of gods, but now for a paying public. Spells that once referred back to Egyptian texts and esoteric temple traditions now presented gods as both cosmic and as directly

available to the outsider. Thoth-Hermes of Hermopolis, for example, can be invoked for a shop's prosperity simply by reciting his attributes and shaping his image out of wood (*PGM* VIII.1–63; see Betz 1986). Other spells mention the temple as the site to procure magical dirt (*PGM* IV.2129), keep an amulet hidden (*PGM* IV.3125–71), or steal the linen off a statue of Harpokrates (*PGM* IV.1071–75), but they shift the actual rites and their efficacy away from the temple, towards spaces that an entrepreneurial ritual expert designates himself. In this way Hellenism and the priests' engagement with Hellenism led to a dislocation and mutation of temple rituals for the laity (See J. Smith 1995 and Assmann 1997; on the *PGM/PDM* see Ritner 1995 and Dielemann 2005) – and not just Egyptian laity. In their correspondence with novelistic portrayals of Egyptian priests as wizards current in the Mediterranean world, the magical papyri reflect Egyptian priests' own appropriation of the exotic stereotypes Greeks and Romans held of them. By the third century AD this stereotype appropriation would have had quite lucrative possibilities for priests (Frankfurter 1998: 210–37; 2000: 166–83).

The inscribed Greek *proskynemata* on temples (and other pilgrimage and tourist sites) are remarkable for their abundance across Egypt and for their wording, which ranges from the simple name or earnest appeal to the lengthy metrical composition that celebrates the god's cosmic character and salvific capacities (Bernand 1994). The dedicants comprise not only priests and others with Egyptian names but, quite often, visitors from elite, often non-Egyptian backgrounds. At the same temples we find appeals to gods in their Greek forms – Asklepios at Deir el-Bahri, Helios at Kalabsha – and in their Egyptian forms – Imouthes, Mandulis. Here again it would seem that many Egyptian cult centers – Abydos, Thebes, Philae, Saqqara – had become destinations for foreign visitors, not just regional folk, transforming sites of regional, priestly significance into what we might call pilgrimage centers (Bernand 1988; see also Elsner and Rutherford 2005).

In their individualized character, *proskynemata* reflect a personal desire to visit and behold a site and its god, not simply a village group's arrival for a festival. One third-century AD visitor came to the frontier temple of Kalabsha to "venerate the Divine, sacrifice to all the gods, [and] visit every temple to make an act of devotion [*proskynōn*]" (Bernand 1969, no. 165). Here is an impulse surely more pious than the word "tourism" captures, while the sense that piety involves travel to a multitude of shrines suggests more sightseeing than we typically (if incorrectly) ascribe to "pilgrimage." We see then a new phenomenon of the Hellenistic Period that revolves around *individual* experience of temple sites and their gods, whether or not the visitors travelled in groups, and a conceptualization of the *entire* land of Egypt as a network of important shrines, rather than the preeminence of those with which one is affiliated by local and family tradition. (Bernand 1988; Volokhine 1998). Of course, for most people the impulse to visit and to leave votive signs at the regional temple represented primarily family tradition.

Still, the very custom of inscribing, or paying a local professional to inscribe, *proskynemata* on temple buildings and other sites points also to a new kind of piety. From such traditional expressions of supplicatory presence as leaving some iconic token or some mark of one's visit – often images of ears or feet – or simply taking sand or water from the temple site, the *proskynema* can communicate self-definition – as

a Hellenized individual, even as cultured. It shows a mode of piety that is both individualized and public, where temple walls offer not only the physical proximity to a god or a source of healing sand but also a slate for self-memorialization. Hellenism becomes a mode of representing oneself before others and before gods (see Nock 1972).

The rise in devotees' interest in healing shrines during this period also seems to reflect this construction and representation of the self according to Hellenistic *mores*. Whether in search of private dreams at Deir el-Bahri or secluded healing in the enclosures of the Dendera sanatorium, the supplicant comes to experience the temple deity through his members, even the lens of his own psyche in the case of incubation (Dunand 2006). Dream and personal health become the routes to defining a religious self separate from family and locale, and a piety of direct personal experience (see Stroumsa 2009: 23–46).

If these spiritual tendencies arose in Hellenistic culture through its encounter with Egyptian temple religion, they certainly influenced Egyptians in every way. Many of the names in *proskynemata* are Egyptian (although we cannot talk about a pure Greek ethnicity behind Greek names), and these inscriptions show that Egyptians too accepted the new vision of Egypt as a network of devotional sites, and of the individual self as bearer of piety and recipient of gods' benefits. The occurrence of priestly names at, e.g., Philae (Rutherford 1998: 40–2), suggests that the Egyptian engagement with this Hellenistic piety may have arisen with priestly efforts to translate Egyptian gods and their manifestations into Hellenistic forms, whether as mobile spells or in priestly accounts of personalized theophanies. In one such account, preserved in a second-century Greek fragment, an author laments his inability to translate a book about Deir el-Bahri's patron god Imouthes-Asklepios, but then he describes his ecstatic and transformative dream-vision of the god himself (P. Oxy. XI.1381). Imouthes-Asklepios emerges as a god with whom the earnest priest can cultivate a pious relationship evocative of Hellenistic ideals.

The new Hellenistic "pilgrims' economy" at Egyptian temples thus affected Egyptian religion in many ways. Workshops loosely affiliated with temples produced new, popular interpretations of the gods that certainly impacted the meaning of a local Horus, Bes, or Isis for visitors local and distant. At Saqqara, a thriving temple complex dedicated to Thoth, Serapis, and several other gods, a veritable arcade of shrines sprang up along the pilgrims' way, one of which was apparently dedicated to Bes in an erotic manifestation – so we infer from the voluptuous reliefs discovered there (Quibell 1907, with Derchain 1981). In this case the pilgrims' economy seems to have led to the regional centralization of a cult hitherto mostly domestic. So also the new spectacle culture that developed around temple festivals gave a "global" significance to local religion – a novel importance and exotic excitement, as local Egyptians and Greek tourists interacted around the same event, or simply visited the same shrine, some seeking ancestral gods and others Egyptian versions of cosmic gods (see Bernand 1988: 53–4; Rutherford 1998). Religious specialties developed in temples to serve the individual hopes and fantasies of visitors from afar: here a healing cult; there a place to behold the god of the heavens; and there a place known to give true advice.

A   B
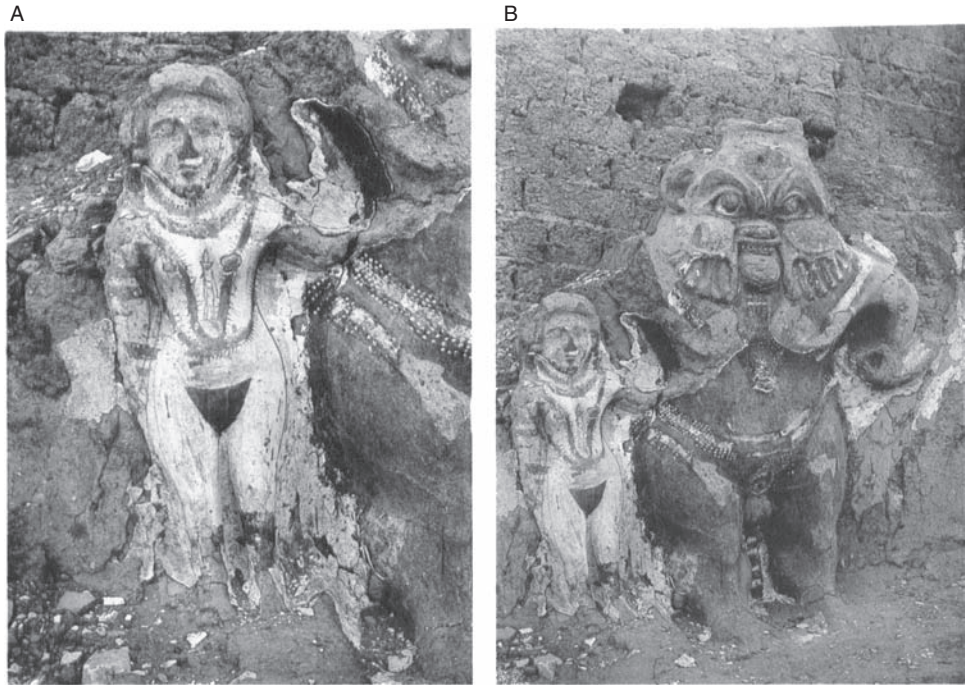
Figure 28.4   Saqqara Bes-room, photograph from Quibell, 1907.

4   Oracles and Divination

Along with the manifestation and procession of the god from the temple to bless fields and communities and repel disorder, the most vital interaction between temple and society took place in the course of divination. As the previous chapter described, based on numerous inscriptions, papyri, and ostraca that extend back to the New Kingdom, the processional barque on the shoulders of priests would halt at some point in the god's journey through his lands. With an audience present and often with a priest's mediation, lay people would ask questions of the god on his barque: ''Is Pemou the one who stole my clothing? Is Soeris possessed by a god?'' Then the barque would be felt to move on the priests' shoulders in such a way as to imply the god's answer – according to the interpretations of the observing priest. In this way communities experienced justice itself through the medium – and the theatre – of the temple god and his priests, while the divine image gained *social* significance beyond the plain magic of its appearance. Priests became essential, dramatic mediators of the god's authority over social and legal issues, and the temple gained authority as the site, or the topographical source, of the oracle event. Divination, as we see it in the processional oracle or in any of the numerous other forms of oracle that developed in the Late and Graeco-Roman Periods, served as the central performance of temple religion as it impacted religion in society (see Frankfurter 2005).
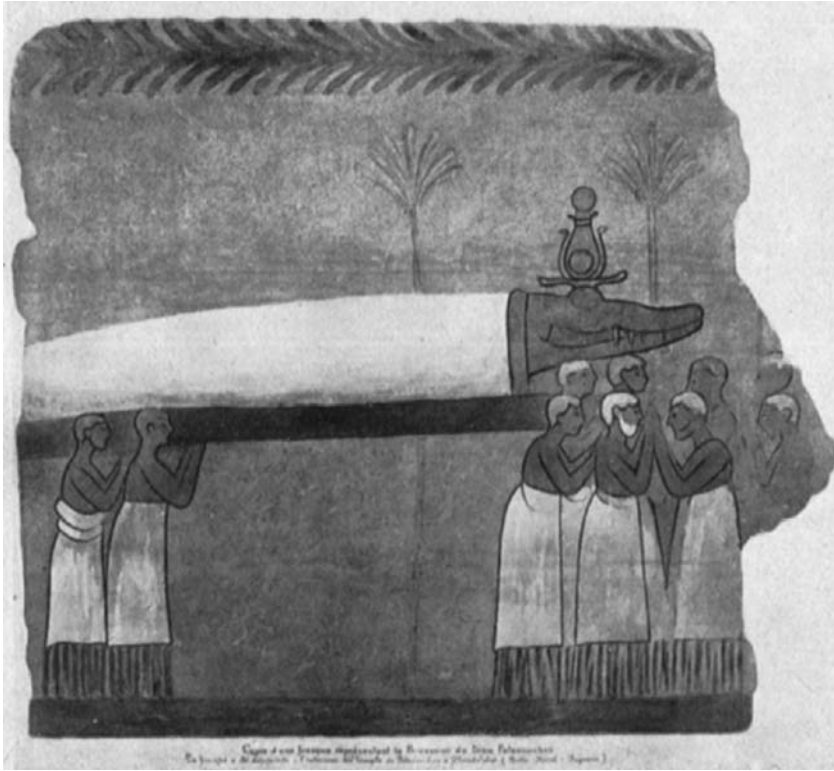
Figure 28.5 Theadelphia wall-painting of an oracular crocodile-mummy procession, from Frankfurter 1998: pl. 19 (originally from Breccia, 1926).

There are numerous witnesses to the continuity of the processional oracle throughout Egypt into the later Roman Period. For example, a late second-century AD Roman edict attempted to proscribe all oracles, whether "in writings as it were divinely delivered" – like the ticket oracle, to be discussed shortly – "or through the procession of images" (P. Yale 299, 12–15). Also from the second century, a wall-painting in the crocodile god Pnepheros's temple in Theadelphia (Fayum) shows a procession of priests carrying a mummified crocodile on a bier and stopped before other priests for interpretation of the god's movements. And still in the fourth century historians and inscriptions attest to an oracular barque of Isis housed at her temple at Philai (Frankfurter 1998: 145–56).

What is especially remarkable in the Graeco-Roman Period, however, is the very diversification of divination practices: through writing, through incubation, through moving and speaking statues, and through new systematized rites for gaining oracles beyond the temple. In these ways divination shifted from the public omen occurring during the course of a festival to a regular service at a temple. As a mother writes to her son in the second century AD, "Do not suppose that I have neglected you. Every ten days I consult the oracle about you on each occasion. So, because I found that good opportunities did not serve you in the present quarter I did not write you for this reason." In fact, when she pursued further one question with the oracle, a priest

informed her, ''It is no longer the concern of the gods'' (P. Merton II.81). Clearly this temple's personalized oracle had become a regular part of some people's lives.

One of the most intriguing developments of the temple oracle was the moving or speaking statue. During processions, of course, the god's image became an oracular palette of sorts, attracting all eyes to its bobs and shifts atop the barque (as the Roman author Strabo describes, 17.1.43). In the same way that the shape of a bull's liver, bird formations in a part of the noon sky, or animal tracks across a metre of sand each might vary ominously and thus stimulate oracular interpretation, so the god's message would here be extracted from those ritually ominous movements. It is thus quite understandable that temples would develop statues that moved, apparently on their own accord, in their *naoi* or on pedestals before audiences on a more occasional basis than a festival procession. Evidence for one such moving statue, of a baboon, has been found at Saqqara (H. Smith 2002: 369), while a good number of stone images carved to rock on their bases have been found from early dynastic times (''Nodding Falcon,'' 1967/68). Even more archaeological evidence exists for speaking statues: crypts beneath the stone plinths in temples to hold cult statues or, at Karanis, crocodile mummies; *naoi* with holes bored in their lower sides; pipes that stretch from statue plinths out to adjoining rooms. All these contrivances allowed priests to hide and deliver, in the voice of a god, oracular sounds and messages to interpreters and audiences. A temple with such a facility would thus be able to offer oracles at many times beyond processions and festivals. (Frankfurter 1998: 150–2, with some mechanisms described by the fifth-century Christian writer Theodoret in his *Church History* 5.22).

The mother who writes her son about her regular oracular consultations may have attended such audiences before a speaking statue or, more likely in the second century, one of the many ''ticket oracles'' known to have existed in Egypt at this time (and to have been proscribed in the edict mentioned above, P. Yale 299). This procedure, attested in some form as far back as the New Kingdom, involved having one's question written in both positive and negative form and submitting it to the priest for the god's decision: ''If Psnepheros should go to his brother's house, send out this ticket; if Psnepheros should not go to his brother's house, send out this ticket.'' By means of a moving statue, a live animal, or some other oracular technique the ''correct'' answer is chosen and delivered to the client, who might then keep it with him as an assurance and an amulet. The largest caches of these oracular tickets have come from local temples of the crocodile god Sobek in the Fayum, written in both Demotic and Greek, but other temples maintained such oracles as well: Abydos, for example, whose Bes oracle received queries from all over the Mediterranean world, only to be shut down in 359 AD by imperial order (Ammianus Marcellinus 19.12; see Frankfurter 1998: 159–62).

What is so remarkable about the ticket oracles, beyond their privatization of the divination process, is their elevation of writing as a medium for deciphering the god's communication. The god does not communicate through writing, but the written word allows his omens that much more precision: from an image's mere nod to, for example, the prognosis for one's father's illness or the instruction to go to Alexandria, and, while Greek allowed a certain ecumenism in clientele, the many cults that operated predominantly through Demotic – indeed, the very antiquity of this ticket

procedure in Egyptian writing – show us that writing itself rather than a particular script was associated with the interpretation of divine intentions. In fact, in the fifth century AD, long after the closing of temples' ticket oracles, the same procedure arose again in order to gain the Christian god's advice through the shrines of his saints. St. Colluthus of Antinoë, St. Philoxenus of Oxyrhynchos, and St. Leontius in Hermopolis all sponsored such oracles – so we learn from the many papyri found that address the God of these saints in Greek and Coptic and are likewise phrased in positive and negative formulations (Papaconstantinou 1994; Frankfurter 1998: 193–95; 2005).

Incubation, mentioned above in relationship to healing cults, required that space be set off for lay visitors near some inner sanctum or sometimes within a section of the temple no longer used for priestly service. To sleep in such spaces put one's body and psyche in immediate physical proximity to the god, so he could appear to the dreaming supplicant, sometimes obliquely, sometimes in full theophany, to instruct about queries or to reveal ineffable truths. Mantic incubation originated in Egypt primarily as a priestly pursuit (Sauneron 1959; Szpakowska 2003a: 123–57). The Demotic archives of the Thoth priest Hor, from Saqqara, record his regular consultation with gods through dreams, some of which involved quite spectacular theophanies (Ray 1976). Priests in the fictional Egyptian Setne-Khamwas romance sleep to behold the "mysterious forms" of gods like Osiris and Thoth (Setne 2, 2.4; 5:10). These uses of incubation to behold gods and to learn from them truths of a more esoteric nature consequently became a ritual commodity that priests of the Graeco-Roman Period could market for popular pursuit. Both literary sources (Apuleius, Thessalos of Tralles) and *proskynemata* on temple walls testify to an incubation tradition taken beyond simple queries to a quest for theophany itself (Nock 1972: 368–74). One visitor to the Bes oracle of Abydos celebrated this folk god in such exalted terms as "all-truthful, dream-giver and oracle-giver, sincere, invoked throughout the whole world, celestial God" (Perdrizet and Lefebvre 1919: #500). Further south, at the frontier temple of Talmis, the local god Mandulis was said to have revealed himself as "the Sun, all-seeing ruler, king of all, all-powerful Eternity" (Nock 1972: 366; see Bernand 1969: 576–83).

These devotional celebrations of local temple deities as actually cosmic in scope in many ways follow the archaic priestly tradition of identifying and linking gods: Sobek and Re, Amun and Re, Renenutet with Isis, and even, in the "Isis aretalogies" of the Graeco-Roman Period, all the goddesses of the world as mere names for the one true goddess Isis (e.g., *P. Oxy* XI.1380). This priestly strategy also explains the phenomenon of the Bes oracle at Abydos. The elevation of this folk god as oracle-giver certainly owed its success partly to the Bes's popularity, but priests seem to have derived Bes's authority from the god's ancient mythical role as guardian of the head of Osiris, the original god of Abydos. The cosmicizing of such gods thus followed from priestly ingenuity and tradition, not just Hellenistic predilection.

These esoteric roots to the Bes oracle also explain another phenomenon of the Graeco-Roman Period: the proliferation of "mobile" incubation and revelation spells. A series of such spells invoke Bes in his connection with Osiris: "I call upon you, the headless god … you are the one lying on a coffin of myrrh, having resin and asphalt as an elbow cushion … You are not a *daimon* but the blood of the two falcons who chatter and watch before the head of Osiris. You are the oracle-giving god"

(*PGM* VIII.64–110; cf. VII.222–49, CII.1–17). These spells must have been formulated by priests affiliated with the Abydos oracle on the basis of older Egyptian texts (Dunand 1997; Frankfurter 1998: 169–74). In these ways oracular incubation in Egypt maintained a traditional character, even when sought by foreign pilgrims. As much as the quest for private visionary experiences reflected a Hellenistic interest in the self as medium for the Divine, the interpretations with which priests aided the pilgrims for identifying and celebrating gods drew on local traditions and mythologies for the representation of divinities.

This multiplication of divination rites and services – incubation, ticket-oracles, talking statues, often at the same shrines – served temples' efforts to promote themselves as sacred centers, especially after the second century AD, when state sponsorship of temples ceased, and priesthoods and towns were forced to find other means of financing the religious infrastructure. Through various procedures for contacting gods people gained a more personalized relationship to temple divinities, while the temples maintained their importance in the landscape – and often well beyond it, like the cult of Bes at Abydos.

Those mobile Bes spells, however, represent a more centrifugal trend in the religion of Graeco-Roman Egypt as well. A large portion of the spell manuals in Greek and Demotic compiled in the Roman Period in fact sought to reformulate, for popular, often Greek-speaking clienteles, traditional Egyptian priestly rites for gaining instructive visions of gods: e.g., "Spell for a divine revelation. Invoke the great name in a time of great stress, in major and pressing crises . . . Say three times the "IAO," then the great name of God. "I call upon you . . . let there be depth, breadth, length, brightness . . . Come in, lord, and reveal." The serpent-faced god will come in and answer you. When you dismiss [him], make an offering of the skin of a serpent" (*PGM* XII.153–60, Betz 1986: 159). Some of these rites pertain to dreams, while others use bowls of water, mirrors, or pure young boys as "lenses" into the divine world. Thus, through a priestly expert's instruction, authentic and awesome visions of gods might be had in chambers far from central temples (Ritner 1995; Frankfurter 2000: 180–2).

Another centrifugal trend in the practice of divination appears with s*ortes* books – self-contained texts from which answers to typical oracular questions could be extracted. Inquiry of the gods here took place not by means of tickets ritually deposited at a temple but rather from a series of questions and answers, a special procedure, and an oracle-monger well-versed in endowing that procedure with mystery and authority. The client would ask her question and think of a number. The question would be found in the book with a number assigned, which, when combined with the client's special number, would lead to an answer like: "If you sail soon, you will be in danger." The *sortes* books were presented as the mysterious composition of an Egyptian priestly sage, Astrampsychos, or (later) the Christian saints, and they circulated alongside guides for the oracular use of Homer and even of gospel texts (tr. Stewart and Morrell 1998; see Frankfurter 1998: 179–84; Van der Horst 1998). The entire procedure imparted a numinous power to the book itself as mysterious repository of truth, and to some extent to the oracle monger as technician of the book, and in this way the type of personal consultation with gods that many temples were proffering could be had simply through the ministrations of a ritual expert and his book.

In these ways some historians have seen a larger shift from temple to ritual expert (J. Smith 1978), a shift that would reach its apogee in the Christian holy man of the fourth and fifth centuries – those "desert fathers" celebrated in dramatic *Vitae* like Athanasius's on St. Antony or the *History of the Monks of Egypt*. These *Vitae* certainly celebrated their subjects as new oracles, answering by the power of the Christian god the same issues traditionally brought to temples to resolve (Frankfurter 1998: 184–93; 2003; see also Brown 1982), but it is important to realize that evidence for centrifugal *tendencies* like the ritual manuals and *sortes* books, and propaganda for the oracles' replacement by wizards and holy men, do not in themselves imply or require the historical demise of temple oracles or of the cultural desire for ancient centers that those temples met. The fact that the Bes oracle of Abydos, the Isis temple of Philai (with its processional oracle), and even a smaller Isis oracle in Menouthis, just east of Alexandria, all continued to function with much renown well after Christianity's rise shows that temples and their cults retained their meaning for society, even in an age of dwindling funds and "freelance" competition (Frankfurter 2005).

5   Religion of the Home

The materials, practices, and sites of religion we have seen thus far inevitably refer back to the health and good fortune of the domestic world whence come the devotees and pilgrims, and so it would be misleading to conjure a domestic religion entirely separate from religion around temples. Religion consists of the *interaction among* a domestic or private sphere of ritual activity; a local culture of traditions that transcends the home; and what the anthropologist Robert Redfield called the "great tradition": that is, the literate (yet historically mutable) formulation of system and authority, in both ritual and mythology, that centralizing institutions pursued. Yet we can still talk about the domestic sphere of religion as involving some basic conceptual and ritual parameters. Even allowing for a range of domestic structures and living arrangements, we can (for example) perceive an inevitable refraction between the sense of family as a procreative unit that passes on traditions and the physical structure – the house – that contains that family: antechambers and bedrooms, altars and thresholds. The religion of the home will thus first involve the recognition of these boundaries as forms of protection, which are extended and articulated through threshold rituals and the invocation of protective deities (Frankfurter 1998: 111–42; J. Smith 2003).

If we have little evidence from the Graeco-Roman Period for threshold rituals, the abundant terracotta images of Bes, such as the one with which this essay opened, show a common and concerted effort on ordinary Egyptians' parts to protect the home from the many hostile spirits that lurked in the landscape. (In fact, we know something about the range of hostile spirits from a remarkable series of amuletic "decrees" by temple gods that some priesthoods devised in the New Kingdom to provide protection as well as to consolidate the deities' power. Each decree lists a great range of ghosts, gods, and demonic and foreign spirits from which the bearer should consider himself protected, and thus they offer a convenient picture of the

supernatural dangers Egyptians imagined: Edwards 1960). Images of the armored Horus, such as the famous window lattice in the Louvre (Frankfurter 1998: 3–4), or of the conglomerate sphinx-god Tutu also served this apotropaic function in domestic environments, much as warrior saints would in the Christian period.

The religion of the home also affirms generational continuity, both through procreation and through ancestors, whose presence and contact are cultivated in diverse ways. The importance of procreation in Graeco-Roman Egypt is abundantly illustrated in the many images of Isis that emphasize her sexuality – drawing her dress up to expose her vulva, for example – and of so-called Baubo figurines, females seated with legs apart, one hand pointing to the vulva. Harpokrates and Bes, too, were modelled to radiate fertility in its phallic mode, as was the ithyphallic god Min, who even appears in Hellenistic garb and pose (but still holding his enlarged phallus) in a panel painting from early Roman Tebtunis (Rondot 1998). Finally, nude images of priestesses and cult servants must have signified the procreative power in festival processions themselves (Dunand 1979: 60–81).

These images, as we have seen, represented both an *appropriation* of great gods for the domestic realm and *interpretations* – through the graphic media of Hellenism – of those gods in ways quite distinct from their temple iconographies. Yet, placed as they were in niches or on altars or by windows, perhaps rearranged according to the local festival calendar, – we have no ancient witnesses to the uses of these images – they contained the temple cult, its gods and processions, in miniature. Here Isis would dwell as surely as in her main shrine, but here specifically as bringer of fertility. Indeed, during festival times the home served as an extension of the local temple. Many of the terracotta lamps found in Graeco-Roman Egypt seem to have been bought and lit in connection with festivals. Even in the late fourth or fifth century AD the formidable Christian abbot Shenoute of Atripe complained about people lighting lamps in celebration of the *Shai* – the god of civic fortune – of the village and the home (see Frankfurter 1998: 63–4). The consuming of festival foods, described in some detail by the Greek writer Plutarch, reflected not only popular participation at temples and along processions; their very preparation integrated that principal activity of the domestic sphere, food production, with the sacred calendar and the processing gods (*De Iside et Osiride* 30, 50, 68). Terracotta images of the baby Harpokrates enjoying some sweet food from a bowl would thus refer back to and sanctify the sweets the family might consume at the Harpokrateia festival (see Török 1995: 119; cf. Dunand 1979: 74–6). In the case of Bes, who had little official presence in temples, the home may have represented the principal cult-site, even during festivals like the *Besia*. Not only did many Bes images actually function as lamps, but a remarkable object of the Graeco-Roman Period, the Bes jug, seems to have served as a container for some festival drink in the home. A terracotta image in the Budapest museum portrays Bes flanked by a jug and two bread-loaves, signifying domestic offerings (Castiglione 1957; Török 1995, no. 11; Frankfurter 1998: 126–8, pl. 13). Whether with cakes stamped with a god's image, sweet drinks, or fruits, the culinary world of the home became a microcosm of festival activity (Frankfurter 1998: 53–4).

Ancestors and the dead are equally the purview of domestic religion: both their memory and their supernatural abilities to intervene for good or ill in the lives of family-members. One obvious way of assuring harmony across the generations was

proper mortuary preparation, mummification and entombment by experts. In this way the deceased would become functionally assimilated to Osiris or Hathor, deities of considerable procreative powers. In the early Roman Period, however, a new preference developed in this regard in some parts of Egypt: to have the deceased represented as in life, hence the many mummy "portraits" visible today in museum collections. Whatever the larger significance of this new style, which did not affect every part of Egypt nor among all classes, we can understand it as one of the many options that developed for maintaining fruitful contact with the dead. Indeed, several Greek writers of the Roman Period claimed that Egyptians placed their dead in chambers adjoining their houses, allowing family members to gaze on them regularly (Diodoros 1.19.6; Athanasios, *v. Ant.* 90; see Borg 1997, Montserrat 1997). Although there is little archaeological evidence to confirm these claims, a wooden cabinet from the Roman Period, now in the Berlin Egyptian Museum, was designed for the purpose of storing a single mummy in a domestic context (inv. 17039, 32).

How important such contact should be for family life emerges in a late (first-century AD) example of the letters Egyptians had long used to communicate with their dead, asking them to intervene in this-worldly crises. In this late version, communicated to the local Osiris, a young woman asks for ancestral aid in getting her husband to impregnate her, "I having no power, I having no protector-son" (Satzinger 1975). Thus we see, behind the diverse forms of mortuary preparation and representation that developed in the Graeco-Roman Period and drew both Greeks and Egyptians, families' basic efforts to maintain productive contact with the dead, partly through ensuring their safe, happy, and productive afterlife and partly through these forms of ritual communication (Dunand and Zivie-Coche 2004: 319–31). Where the former efforts lay essentially in the hands of local professionals and burial guilds, ritual communication remained a principal function of the domestic world.

Overall, the home and its altar or its set-apart spaces served as the location *to which* family members would bring back images, sanctified water or sand, promising oracle tickets, or other materials from regional shrines and festivals, and the location *from which* family members would take messages and hopes that could be inscribed as *proskynemata* or signified through votive images bought at the shrine.

6   Religious Societies and Hybrids of Egyptian Religion

Between the home and the temple arose a new phenomenon in the Graeco-Roman Period, the religious confraternity – s*nt* or *synodos*. In their Egyptian forms, confraternities developed around the support of local cults like Sobek of Tebtunis, Amun of Opet, and Isis of Khemmis to supply offerings, maintain buildings, and participate in processions, and they seem to have consisted mostly of local priests, but they also involved a collective dedication to the local deity, gathering to drink wine, make libations, and affirm social bonds specified in rules. Such rules have been discovered among Egyptian papyri, written in both Greek and Demotic (De Cenival 1972; Muszynski 1977). One cult association in Koptos was responsible for erecting, in

the third century AD, a stela of the protective god Tutu, with obvious benefits for all visitors to the temple (Sauneron 1960).

However, over the course of the Graeco-Roman Period, we find more Hellenized forms of the religious confraternity: a *synodos* dedicated to Zeus Hypsistos, for example, from somewhere in the Fayum, that reflects many of the same social features as the Egyptian confraternities, yet to a god who might be imported or might be a Greek form of an Egyptian god like Amun (Roberts/Skeat/Nock 1972). Some of these more Hellenistic confraternities certainly functioned to support particular temple cults, even if reflecting culturally an interest in more cosmic, salvific dimensions of the temple's god (see Bowersock 1990: 22–8). A number of *proskynemata* at the temple of Imouthes at Deir el-Bahri mention just such a confraternity regularly dining "in the second precinct" – that is, showing a commitment to the place itself (Łajtar 2006: 67–9). Others, reflecting Greek and Roman models of cult association – the *thiasos* or *kline*, which focused more exclusively on such ritualized meals – developed separately from temples, yet still in celebration of a god and a sense of religious community.

It is from this range of religious confraternities, both temple-based and delocalized, that we find many of the popular religious innovations of the late Hellenistic and early Roman Period in Egyptian religion. The development of a Hermetic corpus, writings of philosophy and cosmology attributed to the god Thoth in his Greek form, occurred among priests and interested, mystically inclined intellectuals devoted to Thoth, yet ultimately independent of Thoth temples (see Fowden 1986; Jasnow and Zauzich 2005). The promulgation throughout Mediterranean world of cults to Isis certainly came about through the patronage of such confraternities, which might eventually have had only token Egyptian memberships in some places (see, e.g., Apuleius's *Metamorphoses*). Indeed, confraternities offered lay-folk in and beyond Egypt opportunities to gain and express status as patrons and participants in religious spectacle itself as we might gather, for example, from an elaborate gold crown with religious motifs found at the Serapis temple at Kysis (Kharga oasis). Inappropriate head-gear for an Egyptian priest, it must have been designed for some prominent citizen allowed to parade both his patronage and his devotion in religious procession (Reddé 1992).

These kinds of religious societies represented a distinctly new formation of piety itself in the ancient world. In the words of the historian of religions Jonathan Z. Smith they represented a "religion of Anywhere" (J. Smith 2003). Increasingly loosed from their moorings in temple activities, these confraternities and cult associations developed ritual forms that substituted for priestly rites and revolved around symbolic meals, prayers, and even group hierarchy, and they cultivated images of the gods that were not localized or bound to traditional images but cosmic: Isis as ruler of the heavens, Horus as the Sun, gods capable of *saving* devotees from the hostile forces of fate. The community of devotees itself became the site of religious communication, and in its declarations of kinship and gatherings for sacred meals the community drew much valuable religious symbolism from the world of domestic religion.

These "religions of Anywhere" were a pan-Mediterranean phenomenon, not restricted to Egypt, and they multiplied through the Roman Period in such forms as Mithraism, Dionysos-devotion, and even rabbinic Judaism and Christianity.

In Egypt, however, we see their profusion against the backdrop of thriving temples. Christianity, for example, developed here first among small study-groups that traced their identity to Jewish scriptures and values but had now embarked on the interpretation of diverse gospels and apocalypses – pursued collectively or through the inspired insights of some prophet. As in the Hermetic conventicles, Christian groups' focus on texts allowed them both a mobility and a receptivity to new forms of itinerant leadership. As the Egyptian confraternities had developed modes of conduct for insiders, so Christians were defining rigid new systems for group morality and ritual. Some, as the Christian writer Eusebius describes in third-century AD Arsinoë, exerted themselves in interpretation and purification with an eye towards some imminent millennium, which itself would have recalled Egyptian prophecies like the *Potter's Oracle* (*Church History* 7.24), while other groups like the so-called "Gnostics" cultivated a heavenly identity around their texts and insights (Frankfurter 1996: 142–70; Pearson 2007). Influencing these kinds of study groups in the third century came Manichaeans, with more texts, rites, and terminology for members. The excavations of Manichaean communities in places like Medinet Madi (Fayum) and the Dakhla Oasis show a highly literary religion based in domestic spaces, yet communicating internationally – developing a sense of revelation and status that would transcend place and cultivate holiness through the individual body (Lieu 1994: 61–105). In these ways we can see the continuing importance and appeal of a religious form that evolved beyond temple and home, from earliest Hellenistic times through late antiquity, yet which combined in its structure the fictive family relations of the home with the sense of divine immanence and cosmos-sustaining ritual of the temple.

Yet the cultivation of such placeless groups of the wise and elect remained always the privilege of some in society – a rarefied piety disengaged from the landscape. As Egyptian Christianity itself became rapidly a religion of landscape, holy men, and saints' shrines over the fourth century, so the last phases of Egyptian religion too continued to revolve around shrines and holy places. In the early fourth century AD we find a confraternity from Hermonthis, all iron-workers, who have come to the now-decrepit temple of Imouthes-Asklepios at Deir el-Bahri to dine together, to slaughter a donkey (an archaic apotropaic rite), and to make ritual devotions to "the great god" (Łajtar 2006: 94–104). They did these things and left *proskynemata* with all their names. In Egyptian religion, place still mattered.

FURTHER READING

Readers interested in the historical development and character of Egyptian religion over this period should consult Dunand and Zivie-Coche 2004, with Frankfurter 1998 especially on the Roman Period. On the evolution of the priesthood and its roles, especially in the development of magical texts, see Fowden 1986, Ritner 1995, Frankfurter 2000, and Dieleman 2005. On Egyptian temples as sites of pilgrimage, healing, and incubation see the essays by Dunand 1991, 1997, 2006; Rutherford 1998, 2005; Frankfurter 2005. The topic of domestic religion, especially through the lens of terracotta figurines, is covered extensively in Dunand 1979 and Frankfurter 1998; and its extension to mummification and mortuary customs is discussed in

detail in Borg 1997, Montserrat 1997, and Dunand and Zivie-Coche 2004. On the broad religious shifts in the ancient Mediterranean world that frame Egyptian religion and the rise of Christianity one should read Brown 1982, Bowersock 1990, and the essays by J. Z. Smith 1978, 1995, 2003.

DEDICATION

To the memory of Dominic Montserrat: inspiring scholar, generous friend, abysmal driver.

Bibliography

Abd el-Gelil, M., Saadani, A., and Raue, D. 1996. Some inscriptions and reliefs from Matariya. *MDAIK* 52: 143–56.

Abd el-Ghani, M. 2001. The role of Ptolemais in Upper Egypt outside its frontiers. In I. Andorlini, G. Bastianini, M. Manfredi, and G. Menci (eds.), *Atti del XXII Congresso Internazionale di Papirologia, 23–9 August 1998*. I. Florence: 17–33.

Abd el-Maksoud, M. 1998. *Tell Heboua (1981–1991): Enquête archéologique sur la Deuxième Période Intermédiaire et le Nouvel Empire à l'extrémité orientale du Delta*. Paris.

Abd el-Raziq, M., Castel, G., and Tallet, P. 2006. Ayn Soukhna et la mer Rouge. *Egypte, Afrique & Orient* 41: 10–21.

Abd el-Raziq, M., Castel, G., and Tallet, P. 2007a. L'exploration archéologique du site d'Ayn Soukhna. In J.-Cl. Goyon and Chr. Cardin (eds.), *Actes du IXe colloque international des égyptologues*, Sept. 2004. OLA 150. Greenoble: 61–8.

Abd el-Raziq, M., Castel, G., and Tallet, P. 2007b. Ayn Soukhn. *BIFAO* 107: 324–9.

Abd el-Raziq, M., Castel, G., Tallet, P., and Ghica, V. 2002. *Les inscriptions d'Ayn Soukhna*. MIFAO 122. Cairo.

Abush, T., Huehnergard, J., and Steinkeller, P. (eds.) 1990. *Lingering over Words: Studies in Ancient Near Eastern Literature in Honor of William L. Moran*. Atlanta.

Adams, B. 1999. Hierakonpolis. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 371–4

Adams, C. 2007. *Land Transport in Roman Egypt: A Study of Economics and Administration in a Roman Province*. Oxford.

Adams, M. 1997. A textual window on the settlement system in Ancient Egypt. In J. Lustig (ed.), *Anthropology and Egyptology: A Developing Dialogue*. Monographs in Mediterranean Archaeology 8. Sheffield: 90–105.

Adams, M. 1999. Abydos, North. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 97–100.

Adams, W. L. 2006. The Hellenistic kingdoms. In G. R. Bugh (ed.), *The Cambridge Companion to the Hellenistic World*. Cambridge: 28–51.

Adams, Y. 1984. *Nubia: Corridor to Africa*. Princeton.

Aegyptische Inschriften aus den Königlichen Museen zu Berlin; Bd. I: Inschriften von der ältesten Zeit bis zum Ende der Hyksoszeit. 1913. Leipzig.

Agut-Labordère, D. Forthcoming. Darius législateur et les sages de l'Égypte: le contenu du Livre des ordonnances. Proceedings of the colloquium "La XXVIᵉ dynastie : continuités et ruptures" held in Lille, November 2004.

Al-Ayedi, A. Rahman 2006. *The Inscriptions of the Ways of Horus*. Ismailia.

Albersmeier, S. 2002. *Untersuchungen zu den Frauenstatuen des ptolemäischen Ägypten*. Mainz.

Alcock, S., and Cherry, J. 2004. *Side by Side Survey: Comparative Regional Studies in Mediterranean Survey*. Oxford.

Alexanian, N. and Seidlmayer, S. J. 2000. Die Nekropole von Dahshur. Forschungsgeschichte und Perspecktiven. In M. Bárta and J. Krejcí (eds.), *Abusir and Saqqara in the Year 2000*. Prague. *Archiv orientální*, supplement IX: 283–304.

Alexanian, N., Becker, H., Muller, M., and Seidlmayer, S. J. 2006. Die Residenznekropole von Dahschur Zweiter Grabungsbericht. *MDAIK* 62: 7–42.

Allam, S. 1973. *Hieratische Ostraka und Papyri aus der Ramessidenzeit*. Urkunden zum Rechtsleben im Alten Ägypten 1. Tübingen.

Allam, S. 1990. Women as holders of rights in ancient Egypt (during the Late Period). *JESHO* 33: 1–34.

Allam, S. 1991. Egyptian law courts in Pharaonic and Hellenistic times. *JEA* 77: 109–27.

Allam, S. (ed.) 1994. *Grund und Boden im Altägypten*. Tübingen.

Allam, S. 2002. The tax exemption of Horemheb. In Z. Hawass and L. P. Brock (eds.), *Egyptology at the Dawn of the Twenty-first Century: Proceedings of the Eighth International Congress of Egyptology, Cairo, 2000*. Cairo: 2, 97–102.

Allam, S. 2008. Regarding the Eisagogeus at Ptolemaic law courts. *Journal of Egyptian History* 1: 1–19.

Allen, J. P. 1989. *Religion and Philosophy in Ancient Egypt*. New Haven.

Allen, J. P. 2002. *The Heqanakht Papyri*. Publications of the Metropolitan Museum of Art Egyptian Expedition XXVII. New York.

Allen, J. P. 2003. The high officials of the Early Middle Kingdom. In N. Strudwick and J. H. Taylor (eds.), *The Theban Necropolis. Past, Present and Future*. London: 14–29.

Allen, J. P. 2005. *The Art of Medicine in Ancient Egypt*. New York; New Haven; London.

Allen, J. P. 2008. The historical inscription of Khnumhotep at Dashur: preliminary report. *BASOR* 352: 29–39.

Allen, T. G. 1921. The story of an Egyptian politician. *AJSL* 38: 55–62.

Alliott, M. 1949. *Le culte d'Horus à Edfou au temps des Ptolémées*. BdE 20/1. Cairo.

Alston, R. 1998. *Soldier and Society in Roman Egypt: A Social History*.

Alston, R. 2002. *The City in Roman and Byzantine Egypt*. London and New York.

Alston, R. and Alston, R. D. 1997. Urbanism and the urban community in Roman Egypt. *JEA* 83: 199–216.

Altenmüller, H. 1973. Zur Vergöttlichung des Königs Unas im Alten Reich. *SAK* 1: 1–18.

Altenmüller, H. and Moussa, A. 1991. Die Inschrift Amenemhets II. aus dem Ptah-temple von Memphis. Ein Vorbericht. *SAK* 18: 1–48.

Altenmüller, H. 1995. Die Abgaben aus dem 2. Jahr des Userkaf. In D. Kessler and R. Schulz (eds.), *Gedenkschrift für Winfried Barta*. *MÄS* 4: 37–48.

Altenmüller, H. 1998. Die Fahrt der Hathor nach Edfu und die "heilige Hochzeit." In Clarysse, Schoors, and Willems 1998: 753–65.

Altenmüller, H. and Moussa, A. 1991. Die Inschrift Amenemhets II. aus dem Ptah-tempel von Memphis. Ein Vorbericht. *SAK* 18: 1–48.

Amélineau, E. 1899. *Les nouvelles fouilles d'Abydos 1895–1896*. Paris.

Amelotti, M. 1990. L'Egitto augusteo tra novità e continuità. *JJP* 20: 19–24.

Amiran, R. 1974. An Egyptian jar fragment with the name of Narmer from Arad. *Israel Exploration Journal* 24: 4–12.

Amiran, R. 1976. The Narmer jar fragment from Arad: an addendum. *Israel Exploration Journal* 26: 45–6.

Anagnostou-Canas, B. 1991. *Juge et sentence dans l'Égypte romaine.* Paris.

Anagnostou-Canas, B. 2000. La documentation judiciaire pénale dans l'Égypte romaine. *Mélanges de l'Ecole française de Rome. Antiquité* 112.2: 753–79.

Anagnostou-Canas, B. 2007. La réparation du préjudice dans les papyrus grecs d'Égypte. In E. Cantarella (ed.), *Symposion* 2005, *Vorträge zur griechischen und hellenistischen Rechtsgeschichte, Salerno, 14–18 September 2005.* Vienna: 307–26.

Anderson, R. D., Parsons, P. J., and Nisbet, R. G. M. 1979. Elegiacs by Gallus from Qasr Ibrim. *JRS* 69: 125–55.

Anderson, W. 1992. Badarian burials: evidence for social inequality in Middle Egypt during the Early Predynastic Era. *JARCE* 29: 51–80.

Andreu, G. 1982. Polizei. In *LÄ* 4. Wiesbaden: 1068–71.

Andreu, G. (ed.) 2002. *Les artistes de Pharaon: Deir el-Médineh et la Vallée des Rois.* Turnhout.

Anthes, R. 1928. *Die Felseninschriften von Hatnub.* UGAÄ 9. Leipzig.

Anthes, R. 1959. *Mit Rahineh 1955.* Philadelphia.

Anthes, R. 1965. *Mit Rahineh 1956.* Philadelphia.

Argoud, G. (ed.) 1994. *Sciences et vie intellectuelle à Alexandrie (1er–IIIe siècle ap. J.-C.)* Centre Jean-Palerne Mémoires XIV. Saint-Étienne.

Argoud, G. and Guillaumin, J.-Y. (eds.) 1998. *Sciences exactes et sciences appliquées à Alexandrie (IIIe siècle av. J.-C. – 1er siècle ap. J.-C.).* Centre Jean-Palerne Mémoires XVI. Saint-Étienne.

Arjava, A. 1996. *Women and Law in Late Antiquity.* Oxford, Clarendon Press.

Arnold, D. 1971. *Das Grab des Jnj-jtj.f. Die Architektur.* AVDAIK 4. Mainz am Rhein.

Arnold, D. 1974a. *Der Tempel des Königs Mentuhotep in Deir el-Bahari.* I. *Architektur und Deutung.* AVDAIK 8. Mainz am Rhein.

Arnold, D. 1974b. *Der Tempel des Königs Mentuhotep in Deir el-Bahari.* II. *Die Wandreliefs des Sanktuares.* AVDAIK 11. Mainz am Rhein.

Arnold, D. 1976a. *Gräber des Alten und Mittleren Reiches in El Tarif.* AVDAIK 17. Mainz am Rhein: 50–9.

Arnold, D. 1976b. Wandbild und Scherbenfund. Zur Töpfertechnik der alten Ägypter vom Beginn der pharaonischen Zeit bis zu den Hyksos. *MDAIK* 32: 1–34.

Arnold, D. 1979a. *The Temple of Mentuhotep at Deir el-Bahari.* New York.

Arnold, D. 1979b. Das Labyrinth und seine Vorbilder. *MDAIK* 35: 1–9.

Arnold, D. 1979c. *Der Tempel Qasr el-Sagha.* AV 27. Mainz am Rhein.

Arnold, D. 1981. *Der Tempel des Königs Mentuhotep in Deir el-Bahari.* III. *Die königlichen Beigaben.* AVDAIK 23. Mainz am Rhein.

Arnold, D. 1985. *Ceramic Theory and Cultural Process,* Cambridge.

Arnold, D.1987. *Der Pyramidenbezirk des Königs Amenemhat III. in Dahschur.* I. *Die Pyramide. AV* 53. Mainz am Rhein.

Arnold, D. 1988. *The Pyramid of Senwosret I.* New York.

Arnold, Do. 1991a. Amenemhat I and the Early Twelfth Dynasty at Thebes. *Metropolitan Museum Journal* 26: 5–48.

Arnold, D. 1991b. *Building in Egypt.* New York, Oxford.

Arnold, D. 1992a. *Die Tempel Ägyptens. Götterwohnungen, Baudenkmäler, Kultstätten.* Zürich.

Arnold, D. 1992b. *The Pyramid Complex of Senwosret I at Lisht.* New York.

Arnold, D. 1999. *Temples of the last Pharaohs.* New York and Oxford.

Arnold, D. 2002. *The Pyramid Complex of Senwosret III at Dahshur*. New York.

Arnold, D. 2003. *The Encyclopaedia of Ancient Egyptian Architecture*. Tr. S. H. Gardiner and H. Strudwick. London.

Arnold, D. and Bourriau, J. D. (eds.) 1993. *An Introduction to Ancient Egyptian Pottery*. I. Mainz am Rhein.

Arnold, F. 1990. *The Control Notes and Team Marks: The South Cemeteries of Lisht*. 2. New York.

Ashton, S.-A. 2001. *Ptolemaic Royal Sculpture from Egypt: The Interaction between Greek and Egyptian Traditions*. BAR. International Series 923. Oxford.

Ashton, S.-A. 2008. *Cleopatra and Egypt*. Malden.

Assmann, J. 1970. *Der König als Sonnenpriester. Ein kosmographischer Begleittext zur kultischen Sonnenhymnik in thebanischen Tempeln und Gräbern*. ADAIK 7. Glückstadt.

Assmann, J. 1983a. Krieg und Frieden im alten Ägypten: Ramses II. und die Schlacht bei Kadesch. *Mannheimer Forum* 83/4: 175–231.

Assmann, J. 1983b. *Re und Amun. Die Krise des polytheistischen Weltbildes im Ägypten der 18.–20. Dynastie*. OBO 51. Freiburg.

Assmann, J. 1989. *Maât, l'Égypte pharaonique et l'idée de justice sociale*. Paris.

Assmann, J. 1990. *Ma'at. Gerechtigkeit und Unsterblichkeit im alten Ägypten*. Munich.

Assmann, J. 1991. Das Bild des Vaters. In J. Assmann (ed.), *Stein und Zeit: Mensch und Gesellschaft im alten Ägypten*. Munich: 96–137.

Assmann, J. 1992. Ein Gespräch im Goldhaus über Kunst und andere Gegenstände. In I. Gamer-Wallert and W. Helck (eds.), *Gegengabe. Festschrift für Emma Brunner-Traut*. Tübingen: 43–60.

Assmann, J. 1995. *Egyptian Solar Religion in the New Kingdom: Re, Amun and the Crisis of Polytheism*. London.

Assmann, J. 1997. Magic and theology in ancient Egypt. In P. Schäfer and H. G. Kippenberg (eds.), *Envisioning Magic*. Leiden: 1–18.

Assmann, J. 2000. *Moses der Ägypter*. Munich.

Assmann, J. 2001. *The Search for God in Ancient Egypt*. Tr. D. Lorton (1st English-language edition, with revisions and additions). Ithaca.

Assmann, J. 2005. *Death and Salvation in Ancient Egypt*. Tr. D. Lorton (1st edn. 2001). Ithaca and London.

Aston, B. G., Harrell, J. A., and Shaw, I. 2000. Stone. In Nicholson and Shaw (eds.), 2000: 5–77.

Aston, D. A. 1989. Takelot II: a king of the "Theban Twenty-third Dynasty." *JEA* 75: 139–53.

Aström, P. 1989. *High, Middle or Low? Acts of an International Colloquium on Absolute Chronology Held at the University of Gothenburg 20th–22nd August 1987*. Gothenburg 1989.

Atzler, M. 1995. Some remarks on interrelating environmental changes and ecological soco-economic problems in the gradual development of the early Egyptian inundation culture. *Archéo-nil* 5: 7–65.

Aubert, J.-J. 1994. *Business Managers in Ancient Rome: A Social and Economic Study of Institores, 200 B.C.–A.D. 250*. Leiden.

Aubert. J.-J. 1997. Liturgie, lavoro coatto e colonato nell'Egitto tardoromano. In E. Lo Cascio (ed.), *Terre, proprietari e contadini dell'impero romano: Dall'affitto agrario al colonato tardoantico*. Rome: 281–94.

Aubourg, E. 2000. Sirius et le cycle sothiaque. *BIFAO* 100: 37–46.

Aufrère, S. 1999. À propos des ex-libris d'Amenhotep III. In Aufrère (ed.), *Encyclopedie religieuse de l'univers végétal*. I. Montpellier: 219–24.

Aufrère, S. 2001. Le roi Aouibrê Hor. Essai d'interprétation du matériel découvert par Jacques de Morgan à Dahchour (1894). *BIFAO* 101: 1–41.

Aufrère, S. 2001. Thèbes-Victorieuse (*W3st-nḫt*). Allégorie de la guerre et de la science. Histoire d'un concept. *Méditerranées* 28: 13–40.

Aufrère, S. and Golvin, J.-Cl. 1997. *L'Égypte restituée, Tome 3: Sites, temples et pyramides de Moyenne et Basse Égypte*. Paris.

Aufrère, S., Golvin, J.-Cl., and Goyon, J.-Cl. 1994. *L'Égypte restituée, Tome 2: Sites et temples des déserts*. Paris.

Aufrère, S., Golvin, J.-Cl., and Goyon, J.-Cl. 1997. *L'Égypte restituée, Tome 1: Sites et temples de Haute Égypte* (2nd edn.). Paris.

Austin, M. M. 1981. *The Hellenistic World from Alexander to the Roman Conquest: A Selection of Ancient Sources in Translation*. Cambridge.

Awady, T. el-. 2006a. The royal family of Sahure: new evidence. In M. Bárta, F. Copens, and J. Krejčí (eds.), *Abusir and Saqqara in the Year 2005*. Prague: 31–45.

Awady, T. el-. 2006b. King Sahura with the precious trees from Punt in a unique scene! In M. Bárta (ed), *The Old Kingdom Art and Archaeology: Proceedings of the Conference held in Prague, May 31–June 4, Czech Institute of Egyptology*. Prague: 37–44.

Badawy, A. 1965. *Le dessin architectural chez les anciens égyptiens*, Cairo (1st pub. 1948).

Badawy, A. 1966. *A History of Egyptian Architecture: The First Intermediate Period, the Middle Kingdom, and the Second Intermediate Period*. Berkeley and Los Angeles.

Badawy, A. 1968. *A History of Egyptian Architecture: The Empire (the New Kingdom) From the Eighteenth Dynasty to the End of the Twentieth Dynasty 1580–1085 B.C.* Berkeley and Los Angeles.

Badawy, A. 1990. *A History of Egyptian Architecture, Vol. I: From the Earliest Times to the End of the Old Kingdom*. London (1st edn. 1954).

Badian, V. E. 1972. *Publicans and Sinners*. Oxford.

Baer, K. 1960. *Rank and Title in the Old Kingdom: The Structure of the Egyptian Administration in the Fifth and Sixth Dynasties*. Chicago.

Baer, K. 1962. The low price of land in ancient Egypt. *JARCE* 1: 25–45.

Bagnall, R. S. 1975. The Roman garrison of Latopolis. *BASP* 12: 135–44.

Bagnall, R. S. 1976. *The Administration of the Ptolemaic Possessions outside Egypt*. Columbia Studies in the Classical Tradition 4. Leiden.

Bagnall, R. S. 1984. The origins of Ptolemaic cleruchs. *BASP* 21: 7–20.

Bagnall, R. S. 1989. Official and private violence in Roman Egypt. *BASP* 26: 201–216.

Bagnall, R. S. 1992. Landholding in Late Roman Egypt: the distribution of wealth. *JRS* 82: 128–49.

Bagnall, R. S. 1993. *Egypt in Late Antiquity*. Princeton.

Bagnall, R. S. 1995. *Reading Papyri, Writing Ancient History: Approaching the Ancient World*. London.

Bagnall, R. S. 2000. *P.Oxy.* 4527 and the Antonine plague in Egypt: death or flight? *JRA* 13: 288–92.

Bagnall, R. S. 2002. The effects of plague: model and evidence. *JRA* 15: 114–20.

Bagnall, R.S. 2003. *Later Roman Egypt: Society, Religion, Economy and Administration*. Variorum Collected Studies. Aldershot and Burlington.

Bagnall, R. S. (ed.) 2007. *Egypt in the Byzantine World, 300–700*. Cambridge.

Bagnall, R.S. (ed.) 2009. *The Oxford Handbook of Papyrology*. Oxford.

Bagnall, R. S. and Cribiore, R. 2006. *Women's Letters from Ancient Egypt 300 BC–AD 800*. Ann Arbor.

Bagnall, R. S. and Derow, P. (eds.) 2004. *The Hellenistic Period: Historical Sources in Translation*. Oxford.

Bagnall, R. S. and Frier, B. W. 1994. *The Demography of Roman Egypt*. Cambridge.

Bagnall, R. S. and Rathbone, D. (eds.) 2004. *Egypt from Alexander to the Copts: An Archaeological and Historical Guide*. London.

Bagnall, R. S. and Sheridan, J. A. 1994. Greek and Latin documents from ''Abu Sha'ar, 1990–1991.'' *JARCE* 31: 159–68.

Bagnall, R. S., Frier, B. W., and Rutherford, I. C. 1997. *The Census Register* P.Oxy. *984: The Reverse of Pindar's Paeans*. Papyrologica Bruxellensia 29. Brussels.

Bagnall, R. S., Davoli, P., Kaper, O. E., and Whitehouse, H. 2006. Roman Amheida: excavating a town in Egypt's Dakhleh Oasis. *Minerva: The International Review of Ancient Art & Archaeology* 17.6: 26–9.

Bagnall, R. S., with contributions from Hope, C. A., Jenkins, R. G., Mills, A. J., Sharpe, J. L. II, Thanheiser, U. and Wagner, G. 1997. *The Kellis Agricultural Account Book (P.Kell. IV Gr. 96)*. Oxford.

Bailey, D. M. 1990. Classical architecture in Roman Egypt. In M. Henig (ed.), *Architecture and Architectural Sculpture in the Roman Empire*. Oxford: 121–37.

Bailey, D. M. 1991. *Excavations at El-Ashmunein. IV. Hermopolis Magna: Buildings of the Roman Period*. London.

Baines, J. 1974. The inundation stela of Sebekhotpe VIII. *Acta Orientalia* 36: 39–54.

Baines, John 1987. The stela of Khusobek: private and royal military narrative values. In Osing and Dreyer 1987: 43–61.

Baines, J. 1990a. Aspects du symbolisme royal et divin des temps archaïques. *BSFE* 118: 5–37.

Baines, J. 1990b. Restricted knowledge, hierarchy, and decorum: modern perceptions and ancient institutions. *JARCE* 27: 1–23.

Baines, J. 1995a. Kingship, definition of culture, and legitimation. In D. B. O'Connor and D. P. Silverman (eds.), *Ancient Egyptian Kingship*. PÄ 9. New York: 3–47, 95–156.

Baines, J. 1995b. Origins of Egyptian kingship. In D. B. O'Connor and D. P. Silverman (eds.), *Ancient Egyptian Kingship*. New York: 95–156.

Baines, J. 1996. Contextualizing Egyptian representations of society and ethnicity. In J. S. Cooper and G. M. Schwartz (eds.), *The Study of the Ancient Near East in the Twenty-first Century: The William Foxwell Albright Centennial Conference*. Indiana: 339–84.

Baines, J. 1997. Kingship before literature: the world of the king in the Old Kingdom. In R. Gundlach and Chr. Raedler (eds.), *Selbstverständnis und Realität, Beiträge zur ägyptischen Königsideologie*. 1. ÄAT 36/1. Wiesbaden: 125–74.

Baines, J. 1999. Prehistories of literature: performance, fiction, myth. In G. Moers (ed.), *Definitely: Egyptian Literature*. Lingua Aegyptiaca Studia Monographica 2. Göttingen: 17–41.

Baines, J. 2006. Display of magic in Old Kingdom Egypt. In K. Szpakowska (ed.), *Through a Glass Darkly: Magic, Dreams, and Prophecy in Ancient Egypt*. Swansea: 1–32.

Baines, J. 2007. *Visual and Written Culture in Ancient Egypt*. Oxford.

Baines, J. In press. Modelling the integration of the elite with other social groups in the Old Kingdom. In J. Carlos Moreno Garcia (ed.), *Élites et pouvoir dans l'Égypte ancienne*. CRIPEL 28.

Baines, J. and Lacovara, P. 2002. Burial and the dead in ancient Egyptian society: respect, formalism, neglect. *Journal of Social Archaeology* 2: 5–36.

Baines, J. and Malek, J. 2000. *Cultural Atlas of Ancient Egypt*. New York.

Baines, J. and Yoffee, N. 1998. Order, legitimacy, and wealth in ancient Egypt and Mesopotamia. In G. M. Feinman and J. Marcus (eds.), *Archaic States*. Santa Fe: 199–260.

Baines, J., James, T. G. H., Leahy, A., and Shore, A. F. (eds.) 1988. *Pyramid Studies and Other Essays*. London.

Bakir, Abd el-Mohsen. 1952. *Slavery in Pharaonic Egypt*. ASAE Cahier 18. Cairo.

Bakr, M. 1988. New excavations at Ezbet et-Tell, Kufr Nigm: the first season, 1984. In E. van den Brink (ed.), *The Archaeology of the Nile Delta: Problems and Priorities*. Amsterdam: 49–62.

Balconi, C. 1994. Rabirio Postumo *dioiketes* d'Egitto: prima testimonianza papiracea. *Proceedings of the 20th International Congress of Papyrologists, Copenhagen 23–29 August, 1992*: 219–22.

Ballet, P. 1999. *La vie quotidienne à Alexandrie 331–30 av. J.-C.* Paris.

Ballet, P. 2000. La ville de Coptos à l'époque romaine. In *Coptos. L'Égypte antique aux portes du désert*. Lyon: 176–87.

Balout, L. et al. 1985. *La momie de Ramsès II: contribution scientifique à l'égyptologie*. Paris.

Banaji, J. 2001. *Agrarian Change in Late Antiquity: Gold, Labour and Aristocratic Dominance*. Oxford.

Barber, E. J. W. 1991. *Prehistoric Textiles*. Princeton.

Barbotin, C. and Clère, J. J. 1991. L'inscription de Sésostris Ier à Tôd. *BIFAO* 91: 1–32.

Barclay, J. M. G. 1996. *Jews in the Mediterranean Diaspora*. Edinburgh.

Bard, K. A. 1987. The geography of excavated predynastic sites and the rise of complex society in Egypt. *JARCE* 24: 81–93.

Bard, K. A. 1994. *From Farmers to Pharaohs. Mortuary Evidence for the Rise of Complex Society*. Sheffield.

Bard, K. 1999. Natural resources. In K. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 558–61.

Bard, K. A. 2008. *An Introduction to the Archaeology of Ancient Egypt*. Oxford.

Bard, K. A. and Carneiro, R. L. 1989. Patterns of predynastic settlement location, social evolution, and the circumscription theory. *CRIPEL* 11: 15–23.

Bard, K. A. and Fattovich, R. (eds.) 2007. *Harbor of the Pharaohs to the Land of Punt*. Naples.

Bardinet, T. 1995. *Les papyrus médicaux de l'Égypte pharaonique: Traduction intégrale et commentaire*. Paris.

Barguet, P. 1962a. *Le papyrus n. 3176 (s) du Musée du Louvre*. BdE 37. Cairo.

Barguet, P. 1962b. *Le temple d'Amon-Rê à Karnak. Essai d'exégèse*. RAPH 21. Cairo.

Barker, A. 2000. *Scientific Method in Ptolemy's* Harmonics. Cambridge.

Barnard, H. 2005. *Sire, il n'y a pas de Blemmyes*: a re-evaluation of historical and archaeological data. In J. C. M. Starkey (ed.), *People of the Red Sea. Proceedings of the Red Sea Project II, Held in the British Museum, October 2004*. Society for Arabian Studies Monograph No. 3. BAR International Series 1395. Oxford: 23–40.

Barnes, R. 2004. Cloistered bookworms in the chicken-coop of the Muses. In R. MacLeod (ed.), *The Library of Alexandria*. London: 61–77.

Barnes, T. D. 1976. Imperial campaigns, AD 285–311. *Phoenix* 30: 174–93.

Barnes, T. D. 1981. *Constantine and Eusebius*. Cambridge.

Barnes, T. D. 1982. *The New Empire of Diocletian and Constantine*. Cambridge, MA, and London.

Barnes, T. D. 1996. Emperors, panegyrics, prefects, provinces and palaces. *JRA* 9: 532–52.

Barns, J. W. B. 1956. *Five Ramesseum Papyri*. Oxford.

Barocas, C., Fattovich, R. and Tosi, M. 1989. The Oriental Institute of Naple's expedition to Petrie's south town (upper Egypt), 1977–1983: an interim report. In L. Krzyzaniak and M. Kobusievicz (eds.), *Late Prehistory of the Nile Basin and the Saharah*. Poznan: 297–315.

Barta, M. 2005. Architectural innovation in the development of the non-royal tomb during the reign of Nyuserra. In P. Jánosi (ed.), *Structure and Significance: Thoughts on Ancient Egyptian Architecture*. Vienna: 105–25.

Barta, M. 2006. The transitional type of tombs in Saqqara North and Abusir South. In W. Schenkel and S. Seidlmayer (eds.), *Texte und Denkmäler des ägyptischen Alten Reiches*. Thesaurus Linguae Aegyptiae 3. Berlin: 1–22.

Barta, M. and Bruna, V. 2005. Satellite imaging in the pyramid fields. *EA* 26: 3–7.

Barta, W. 1975. *Untersuchungen zur Göttlichkeit des regierenden Königs: Ritus und Sakral-königtum nach Zeugnissen der Frühzeit und des Alten Reiches*. MÄS 32. Berlin.

Barta, W. 1980. Königsnamen und -titel. In *LÄ* 3: 540–56.

Barta, W. 1981. *Die Bedeutung der Pyramidentexte für den Verstorbenen König*. MÄS 37.

Barzel, Y. 2002. *A Theory of the State: Economic Rights, Legal Rights, and the Scope of the State*. Cambridge.

Baud, M. 1990. La représentation de l'espace en Égypte ancienne: cartographie d'un itinéraire d'expédition. *BIFAO* 90: 51–63.

Baud, M. 1998. Une épithète de Rêdjedef et la prétendue tyrannie de Chéops. Étude sur la statuaire de Rêdjedef, II. *BIFAO* 98: 15–30.

Baud, M. 1999. *Famille royale et pouvoir sous l'Ancien Empire égyptien*. 2 vols. BdE 126. Cairo.

Baud, M. 2000. Le palais en temple. Le culte funéraire des rois d'Abousir. In M. Bárta and J. Krejcí (eds.), *Abusir and Saqqara in the Year 2000*. Prague. Archiv orientální, supplement IX: 347–60.

Baud, M. 2002. *Djéser et la IIIe dynastie*. Paris.

Baud, M. and Dobrev, V. 1995. De nouvelles annales de l'Ancien Empire égyptien. Une "Pierre de Palerme" pour la VIe dynastie. *BIFAO* 95: 23–92.

Baud, M., Farout, D., Gourdon, Y., Moeller, N., and Schenk, A. 2003. Le cimetière F d'Abou Rawach, nécropole royale de Rêdjedef (IVe dynastie). *BIFAO* 103: 17–71.

Baumgartel, E. J. 1955. *The Cultures of Prehistoric Egypt I*. London.

Baumgartel, E. J. 1960. *The Cultures of Prehistoric Egypt II*. London.

Beaucamp, J. 2007. Byzantine Egypt and imperial law. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700*, Cambridge: 271–85.

Beaux, N. 1990. *Le Cabinet de curiosités de Thoutmosis III*. Leuven.

Becker, H. and Fassbinder, J. 1999. In search of Piramesses: the lost capital of Ramesses II in the Nile Delta (Egypt) by caesium magnetometry. In J. Fassbinder and W. Irlinger (eds.), *Archaeological Prospection*. Arbeitshefte des Bayerischen Landesamtes für Denkmalpflege 108: 146–50.

Beckerath, J. von. 1965. *Untersuchungen zur politischen Geschichte der Zweiten Zwischenzeit in Ägypten*. ÄF 23. Glückstadt and New York.

Beckerath, J. von. 1997. *Chronologie des pharaonischen Ägypten. Die Zeitbestimmung der ägyptischen Geschichte von der Vorzeit bis 332 v. Chr.* MÄS 46. Mainz.

Beckerath, J. von 1999. *Handbuch der ägyptischen Königsnamen*, MÄS 49.

Beinlich, H. 1991. *Das Buch vom Fayum. Zum religiösen Eigenverständnis einer ägyptischen Landschaft*. ÄA 51. Wiesbaden.

Bell, H. I., Martin, V., Turner, E. G., and van Berchem, D. 1962. *The Abinnaeus Archive*. Oxford.

Bell, L. D. 1985. Luxor temple and the cult of the Royal Ka. *JNES* 44/4: 251–94.

Bell, L. D. 1997. The New Kingdom "divine temple": the example of Luxor. In B. E. Shafer (ed.), *Temples of Ancient Egypt*. London and New York: 127–84.

Bellemore, J. 1984. *Nicolaus of Damascus: Life of Augustus*. Bristol.

Belzoni, G. 1822. *Narrative of the Operations and Recent Discoveries within the Pyramids, Temples, Tombs, and Excavations, in Egypt and Nubia*. 2 vols. London.

Ben-Tor, D., Allen, S. J., and Allen, J. P. 1999. Seals and kings. *BASOR* 315: 47–74.

Berger, P. L. and Berger, B. 1976. *Sociology: A Biographical Approach*. Middlesex and New York.

Berlev, O. 1967. The Egyptian navy in the Middle Kingdom. *Palestinskij Sbornik* 80: 1–20.

Berlev, O. 1971. Les prétendus "citadins" au Moyen Empire. *RdE* 23: 23–48.

Berman, L. M. 1992. Amenhotep III and his times. In A. P. Kozloff, B. M. Bryan, and L. M. Berman (eds.), *Egypt's Dazzling Sun: Amenhotep III and His World*. Cleveland: 33–66.

Bernand, A. 1995. *Alexandrie des Ptolémées*, Paris.

Bernand, É. 1965. *Les Inscriptions grecques et latines de Philae*. Paris.

Bernand, É. 1969. *Inscriptions métriques de l'Égypte gréco-romaine*. Paris.

Bernand, É. 1988. Pèlerins dans l'Égypte grecque et romaine. In M.-M. Mactoux and E. Geny (eds.), *Mélanges Pierre Lévêque, 1: Religion*. Besançon: 49–63.

Bernand, É. 1994. Réflexions sur les proscynèmes. In D. Conso, N. Fick, and B. Poulle (eds.), *Mélanges François Kerlouégan*. Besançon: 43–60.

Bettles, E., Clarke, J., Dittmer, J., Duhig, C., Ikram, S., Mathieson, I., Smith, H. and Tavares, A. 1995. *National Museums of Scotland Saqqara Project Report 1995*. Edinburgh.

Betz, H. D. (ed.) 1986. *The Greek Magical Papyri in Translation, Including the Demotic Spells*. Chicago.

Beutler, F. 2004. Der procurator Alexandriae – tatsächlich eine Prokuratur? In H. Heftner and K. Tomaschitz (eds.), *Ad fontes. Festschrift für Gerhard Dobesch zum fünfundsechzigsten Geburtstag am 15. September 2004, dargebracht von Kollegen, Schülern und Freunden*. Vienna: 509–14.

Beutler, F. 2007a. Der procurator usiacus. *Acta XII congressus internationalis Epigraphiae Graecae et Latinae, Barcelona September 2002*. Barcelona: 147–54.

Beutler, F. 2007b. Der procurator ad Mercurium. *Akten des 23. Internationalen Papyrologenkongresses Wien Juli 2001*. Vienna: 53–56.

Bevan, E. 1968. *The House of Ptolemy: A History of Egypt under the Ptolemaic Dynasty*. Chicago.

Bey, M. 1872. *Mémoire sur l'Ancienne Alexandrie*. Copenhagen.

Beylage, P. 2002. *Aufbau der königlichen Stelentexte vom Beginn der 18. Dynastie bis zur Amarnazeit*. ÄAT 54. Wiesbaden.

Bianchi, A. 1983. Aspetti della politica economico-fiscale di Filippo l'Arabo. *Aegyptus* 63: 185-98.

Bickel, S. and Jaritz, H. 1997. *Untersuchungen im Totentempel des Merenptah in Theben*, Bd. 3, *Tore und andere wiederverwendete Bauteile Amenophis III*. Beiträge zur ägyptischen Bauforschung und Altertums-kunde 16. Stuttgart.

Bickel, S. 1998. Commerçants et bateliers au Nouvel Empire. Mode de vie et statut d'un groupe social. In Grimal and Menu (eds.) 1998: 157–72.

Bierbrier, M. 1975. *The Late New Kingdom in Egypt (c. 1300–664 B.C.): A Genealogical and Chronological Investigation*. Liverpool Monographs in Archaeology and Oriental Studies. Warminster.

Bierbrier, M. 1982. *The Tomb-Builders of the Pharaohs*. Cairo.

Bietak, M. 1966. *Ausgrabungen in Sayala-Nubien 1961–1965. Denkmäler der C-Gruppe und der Pan-Gräber Kultur*. Vienna.

Bietak, M. 1968. *Studien zur Chronologien der nubischen C-Gruppe: Ein Beitrag zur Frühgeschichte Unternubiens zwischen 220 und 1500 vor Ch.*, Vienna.

Bietak, M. 1975. *Tell el-Dab'a II, Der Fundort im Rahmen einer archäologisch-geographischen Untersuchung über das ägyptische Ostdelta*. Vienna.

Bietak, M. 1979a. The present state of Egyptian archaeology. *JEA* 65: 156–60.

Bietak, M. 1979b. Urban archaeology and the "town problem" in Ancient Egypt. In K. Weeks (ed.), *Egyptology and the Social Sciences*. Cairo: 97–144.

Bietak, M. 1981. Eine Stele des ältesten Königssohnes des Hyksos Chajan. *MDAIK* 37: 63–73.

Bietak, M. 1985. Zu den nubischen Bogenschützen aus Assiut. In Posener-Kriéger 1985: 87–97.

Bietak, M. 1988. Zur Marine des Alten Reiches. In Baines, Leahy, and Shore 1988: 35–40.

Bietak, M. 1996. *Avaris, the Capital of the Hyksos: Recent Excavations at Tell el-Dabʿa*. London.

Bietak, M. 1999. Tell ed-Dabʿa, Second Intermediate Period. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*, New York: 778–82.

Bietak, M. 2005. The Tuthmoside stronghold of Perunefer. *EA* 26: 13–17.

Bietak, M. and Dorner, J. 1998. Der Tempel und die Siedlung des Mittleren Reiches bei ʿEzbet Ruschdi. Grabungsvorbericht 1996. *Aegypten & Levante* 8: 9–40.

Bietak, M. and Höflmayer, F. 2007. Introduction: high and low chronology. In M. Bietak and E. Czerny (eds.), *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium B.C.* III. Vienna: 13–23.

Bietak, M. and Schwarz, M. (eds.) 2002. *Krieg und Sieg. Narrative Wanddarstellungen von Altägypten bis ins Mittelalter*. Vienna.

Biezuṇska-Małowist, I. 1974–7. *L'esclavage dans l'Égypte gréco-romain*. I–II. Warsaw.

Bingen, J. 1978. *Le Papyrus Revenue Laws. Tradition grecque et adaptation hellénistique*. Rheinisch-Westfälische Akademie der Wissenschaften. Vorträge G 231. Opladen.

Bingen, J. 1998. Life on the fringe: some conclusions. In Kaper 1998: 287–300.

Bingen J. 2007. *Hellenistic Egypt: Monarchy, Society, Economy, Culture*, Edinburgh.

Bingen, J. and Cuvigny, H. 1992–2000. *Mons Claudianus: Ostraca Graeca et Latina*. 3 vols. FIFAO 29, 32, 38. Cairo.

Birley, A. 1997. *Hadrian: The Restless Emperor*. London.

Birley, A. 1998. *Septimius Severus: The African Emperor*. London.

Blackman, A. M. 1924. *The Rock Tombs of Meir*. IV: *The Tomb-Chapel of Pepiʿonkh the Middle Son of Sobkhotpe and Pekhernefret (D, No. 2)*. ASE 25. London.

Blackman, A. M. 1941. The stela of Shoshenk, great chief of the Meshwesh. *JEA* 27: 83–95.

Blasius, A. 2010. Antiochos IV. in Ägypten – Ptolemaios VI. in Syrien. Die späte Rache des Pharao?! In Quack-Jördens 2010.

Bleiberg, E. 1995. The economy of ancient Egypt. In J. Sasson et al. (eds.), *Civilizations of the Ancient Near East*. 3. New York: 1373–86.

Bloxam, E. and Storemeyr, P. 2002. Old Kingdom basalt quarrying activities at Widan el Faras, northern Fayum deserts. *JEA* 88: 23–36.

Blumenthal, E. 1970. *Untersuchungen zum ägyptischen Königtum des Mittleren Reiches I: Die Phraseologie*. Berlin.

Blyth, E. 2006. *Karnak: Evolution of a Temple*. London.

Boak, A. E. R. and Youtie, H. C. 1957. Flight and oppression in fourth-century Egypt. *Studi in Onore di A. Calderini e R. Paribeni*. Milan: 325–37.

Boak, A. E. R. and Youtie, H. C. 1960. *The Archive of Aurelius Isidorus in the Egyptian Museum, Cairo, and the University of Michigan*. Ann Arbor.

Boatwright, M. T. 2000. *Hadrian and the cities of the Roman Empire*. Princeton.

Bochi, P. A. 1996. Of lines, linen, and language: a study of a patterned textile and its interweaving with Egyptian beliefs. *CdE* 71: 221–53.

Bogaert, R. 1994. *Trapezitica aegyptiaca*. Papyrologica Florentina 25. Florence.

Bomann, A. H. 1991. *The Private Chapel in Ancient Egypt: A Study of the Chapels in the Workmen's Village at El-Amarna with Special Reference to Deir el-Medina and Other Sites*. Studies in Egyptology. London.

Bonneau, D. 1993. *Le Régime administratif de l'eau du Nil dans l'Égypte grecque, romaine et byzantine*. Leiden; New York; Cologne.

Bonnet, C. and Valbelle, D. 2005. *Des Pharaons venus d'Afrique*. Paris.

Boorn, G. P. F. van den. 1988. *The Duties of the Vizier. Civil Administration in the Early New Kingdom*. Studies in Egyptology. London and New York.

Borg, Barbara. 1997. The dead as a guest at table? Continuity and change in the Egyptian cult of the dead. In M. Bierbrier (ed.), *Portraits and Masks: Burial Customs in Roman Egypt*. London: 26–32.

Borghouts, J. F. 1978. *Ancient Egyptian Magical Texts*. Nisaba 9. Leiden.

Boswinkel, E. and Pestman, P. W. 1982. *Les Archives privées de Dionysios, fils de Kephalas: textes grecs et démotiques*. Papyrologica Lugduno-Batava 22. Leiden.

Bothmer, B. V. and De Meulenaere, H. 1986. The Brooklyn statuette of Hor, son of Pawen. In L. H. Lesko (ed.), *Egyptological Studies in Honor of Richard A. Parker*. Hanover and London: 1–15.

Bouché-Leclercq, A. 1963. *Histoire des Lagides*. Culture et civilisation. Brussels.

Bourriau, J. 1981. *Umm el Ga'ab: Pottery from the Nile Valley before the Arab Conquest*. Cambridge.

Bourriau, J. 1991a. Patterns of change in burial customs during the Middle Kingdom. In S. Quirke (ed.), *Middle Kingdom Studies*. New Malden: 1–20.

Bourriau, J. 1991b. Relations between Egypt and Kerma during the Middle and New Kingdoms. In W. V. Davies (ed.) 1991: 129–44.

Bourriau, J. 2000. The Second Intermediate Period (c. 1650–1550 BC). In Shaw 2000: 185–217.

Bourriau, J., Nicholson, P. T., and Rose, P. 2000. Pottery. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology*. Cambridge: 121–47.

Bovot, J.-L., Ledain, C., and Roussel, D. 2000. Un aménagement du temple d'Amon sous la XXXe Dynastie. Le bâtiment aux papyrus et son secteur. In P. Brissaud and C. Zivie-Coche (eds.), *Tanis. Travaux récents sur le tell Sân el-Hagar*. 2. Paris: 243–320.

Böwe, Ch. 2004. Vergleichende Datierung der Objekte der Kirche des Isi in Edfu anhand der Objekte des Kirche des Heqaib auf Elephantine. *GM* 203: 11–27.

Bowersock, G. W. 1990. *Hellenism in Late Antiquity*. Ann Arbor.

Bowman, A. K. 1970. A letter of Avidius Cassius? *JRS* 60: 20–6.

Bowman, A. K. 1971. *The Town Councils of Roman Egypt*, Am. Stud. Pap. 11. Toronto.

Bowman, A. K. 1978. The military occupation of Upper Egypt in the reign of Diocletian. *BASP* 15: 25–38.

Bowman, A. K. 1984. Two notes. *BASP* 21: 33–8.

Bowman, A. K. 1992a. Le Gymnase d'Alexandrie: centre administratif de la province romaine d'Égypte. *BCH* 116: 345–73.

Bowman, A. K. 1992b. Public buildings in Roman Egypt. *JRA* 5: 495–503.

Bowman, A. K. 1996a. Egypt. In A. K. Bowman, E. Champlin, and A. W. Lintott (eds.), *The Cambridge Ancient History* (2nd edn.). 10. Cambridge: 676–702.

Bowman, A. K. 1996b. *Egypt after the Pharaohs: 332 BC–AD 642 from Alexander to the Arab Conquest* (revd. edn; older edns. 1986, 1990). Berkeley.

Bowman, A. K. 2000. Urbanization in Roman Egypt. In E. Fentress (ed.), *Romanization and the City: Creation, Transformations and Failures. Proceedings of the conference held at the American Academy at Rome to Celebrate the 50th Anniversary of the Excavations at Cosa. JRA*, supplement 38. Portsmouth: 173–88.

Bowman, A. K. 2005. Egypt from Septimius Severus to the Death of Constantine. In A. K. Bowman, P. Garnsey, and A. Cameron (eds.), *The Cambridge Ancient History* (2nd edn.). 12: *The Crisis of Empire AD 193–337*. Cambridge: 313–28.

Bowman, A. 2006. Recolonising Egypt. In T. P. Wiseman (ed.), *Classics in Progress: Essays on Ancient Greece and Rome*. Oxford: 193–195.

Bowman, A. K. 2007. Egypt in the Greco-Roman world: from Ptolemaic kingdom to Roman province. In H. Crawford (ed.), *Regime Change in the Ancient Near East and Egypt. From Sargon of Agade to Saddam Hussein*. PBA 136. Oxford: 165–81.

Bowman, A. K. 2008. Oxyrhynchus in the early fourth century: "Municipalization" and prosperity. *BASP* 45: 31–40.

Bowman, A. K., and Rathbone, D. 1992. Cities and administration in Roman Egypt. *JRS* 82: 107–27.

Bowman, A. K. and Rogan, E. 1999. *Agriculture in Egypt: From Pharaonic to Modern Times.* PBA 96. Oxford.

Bowman, A. K., Coles, R. A., Gonis, N., Obbink, D., and Parsons, P. J. (eds.) 2007. *Oxyrhynchus: A City and Its Texts.* London.

Brand, P. 1999. Secondary restaurations in the Post-Amarna period. *JARCE* 36: 113–34.

Brandl, B. 1992. Evidence for Egyptian colonization of the southern coastal plain and lowlands of Canaan during the Early Bronze I Period. In E. C. M. van den Brink (ed.), *The Nile Delta in Transition: 4th.–3rd. Millennium B.C.* Tel Aviv: 441–76.

Breasted, J. H. 1906. *Ancient Records of Egypt.* Chicago.

Breasted, J. H. 1930. *The Edwin Smith Surgical Papyrus.* Chicago.

Breasted, J. H. 1988a. *Ancient Records of Egypt I: The First to the Seventeenth Dynasties* (repr.). London.

Breasted, J. H. 1988b. *Ancient Records of Egypt II: The Eighteenth Dynasty* (repr.). London.

Breccia, E. 1926. *Le rovine e i monumenti di Canopo, Teadelfia e il tempio di Pneferôs.* Bergamo.

Bresciani, E. 1983. Registrazione catastale e ideologia politica nell'Egitto tolemaico. A completamento di "La spedizione di Tolomeo II in Siria in un ostrakon demotico inedito da Karnak." *EVO* 6: 15–31.

Bresciani, E. 1994. Nuovi statuti demotici di 'confraternite' dalla necropoli dei coccodrilli a Tebtynis (P. Vogl. demot. Inv. 77 e Inv. 78). *EVO* 17: 49–67.

Brewer, D. 2005. *Ancient Egypt: Foundations of a Civilization.* Harlow.

Brewer, D. and Friedman, R. F. 1989. *Fish and Fishing in Ancient Egypt: The Natural History of Egypt.* 2. Warminster.

Briant, P. 1996. *Histoire de l'empire perse de Cyrus à Alexandre.* Paris.

Briant, P. 1997. *Bulletin d'histoire achéménide I. Topoi* Supplément 1: 5–127.

Briant, P. 2001. *Bulletin d'histoire achéménide II.* Paris.

Briant, P. and Descat, R. 1988. Un registre douanier de la satrapie d'Égypte à l'époque achéménide. *TAD* C3.7. In Grimal and Menu 1998: 59–102.

Brissaud, P. 2000. Aerial photography at Tanis. *EA* 16: 9–11.

Bröckelmann, D. (ed.) 2006. *In Pharaos Staat. Festschrift für Rolf Gundlach zum 75. Geburtstag.* Wiesbaden.

Brodersen, K. 2001. The presentation of geographical knowledge for travel and transport in the Roman world: *itineraria non tantum adnotata sed etiam picta.* In C. Adams and R. Laurence (eds.), *Travel and Geography in the Roman Empire.* London and New York: 7–21.

Brovarski, E. 1981. Ahanakht of Bersheh and the Hare Nome in the First Intermediate Period and Middle Kingdom. In W. K. Simpson and W. M. Davis (eds.), *Studies in Ancient Egypt, the Aegean, and the Sudan.* Boston: 14–30.

Brovarski, E. 1985. Akhmim in the Old Kingdom and First Intermediate Period. In P. Posener-Kriéger (ed.), *Mélanges Gamal Eddin Mokhtar.* I. Cairo: 117–53.

Brovarski, E., Doll, S. K. and Freed, R. (eds.) 1982. *Egypt's Golden Age: The Art of Living in the New Kingdom 1558–1085 B.C.* Boston.

Brown, P. 1982. The rise and function of the holy man in late antiquity. In P. Brown, *Society and the Holy in Late Antiquity.* London: 103–52.

Brumfiel, E. and Earle, T. (eds.) 1987. *Specialization, Exchange, and Complex Societies.* Cambridge.

Brun, J.-P. 2003. Chronologie de l'équipement de la route à l'époque gréco-romaine. In H. Cuvigny (ed.), *La route de Myos Hormos. L'armée romaine dans le désert oriental d'Égypte.* I. Cairo: 187–205.

Brunner, H. 1937. *Die Texte aus den Gräbern der Herakleopolitenzeit von Siut.* ÄF 5. Glückstadt.

Brunner, H. 1980. König – Gott – Verhältnis. In *LÄ* 3. Wiesbaden: 461–4.

Brunt, P. A. 1990. The administrators of Roman Egypt. In P. A. Brunt, *Roman Imperial Themes.* Oxford: 215–54 (first published in *JRS* 65 (1975)).

Brunton, G. and Caton-Thompson, G. 1928. *The Badarian Civilisation and Prehistoric Remains near Badari.* London.

Bryan, B. M. 2001. Painting techniques and artisan organization in the tomb of Suemniwet, Theban tomb 92. In W. V. Davies (ed.), *Colour and Painting in Ancient Egypt.* London: 63–72.

Bryce, T. 1998. *The Kingdom of the Hittites.* New York.

Bubenzer, O. and Bolten, A. 2003. In Egypt, Sudan and Namibia, GIS helps compare human strategies of coping with arid habitats. *ArchNews* 25: 2.

Buchez, N. and Midant-Reynes, B. 2007. Le site prédynastique de Kom el-Khilgan (Delta oriental). Données nouvelles sur les processus d'unification culturelle au IVᵉ millénaire. *BIFAO* 107: 43–70.

Bugh, G. R. (ed.) 2006. *The Cambridge Companion to the Hellenistic World.* Cambridge.

Bulmer-Thomas, I. 1981. Pappus of Alexandria. In *Dictionary of Scientific Biography.* 10. New York: 293–304.

Bülow-Jacobsen, A. 1979. The archiprophetes. In *Actes du XVe congrès international de papyrologie.* IV. Papyrologica Bruxellensia 19. Brussels.

Bunbury, J. and Graham, A. 2005. The ancient landscapes and waterscapes of Karnak. *EA* 27: 17–19.

Buraselis, K. A. 2009. Lively "Indian summer": remarks on the Ptolemaic role in the Aegean under Philometor. In Quack-Jördens 2009.

Burkard, G. and Fischer-Elfert, H.-W. 1994. *Ägyptische Handschriften.* IV. Stuttgart.

Burkard, G. and Thissen, H. J. 2003. *Einführung in die altägyptische Literaturgeschichte.* I. *Altes und Mittleres Reich.* Münster.

Burkhalter, F. 1985. Le mobilier des sanctuaires d'Égypte et les "listes des prêtres et du cheirismos." *ZPE* 59: 123–34.

Burkhalter, F. 1990. Archives locales et archives centrales en Égypte romaine. *Chiron* 20: 191–216.

Burnett, A., Amandry, M., and Ripollès, P. P. 1992. *Roman Provincial Coinage I (44 BC–AD 69).* London and Paris.

Burstein, S. M. 1985. *The Hellenistic Age from the Battle of Ipsos to the Death of Kleopatra VII.* Cambridge.

Burstein, S. M. 1996. Ivory and Ptolemaic exploration of the Red Sea: the missing factor. *Topoi* 6: 799–807.

Bussi, S. 2008. *Le élites locali nella provincia d'Egitto di prima età imperiale.* Milan.

Bussmann, R. 2007. Pepi I and the temple of Satet at Elephantine. In R. Mairs and A. Stevenson (eds.), *Current Research in Egyptology 2005. Proceedings of the Sixth Annual Symposium Oxford.* 16–21.

Butler, A. J. 1978 [1902]. *The Arab Conquest of Egypt and the Last Thirty Years of the Roman Dominion* (2nd edn., rev. P. M. Fraser). Oxford.

Butzer, K. W. 1976. *Early Hydraulic Civilization in Egypt: A Study in Cultural Ecology.* Chicago.

Butzer, K. W. 1998. Late Quaternary problems of the Egyptian Nile: stratigraphy, environments, prehistory. *Paleorient* 23/2: 151–73.

Butzer, K. W. 1999. Demography. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*, New York: 250–2.

Cabrol, A. 2001. *Les Voies processionnelles de Thèbes*. OLA 97. Leuven.

Cadell, H. 1998. À quelle date Arsinoé II Philadelphe est-elle décédée. In Melaerts (ed.) 1998: 1–3.

Cameron, A. 1995. *Callimachus and His Critics*. Princeton.

Cameron, A. 2007. Poets and pagans in Byzantine Egypt. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700*. Cambridge: 21–46.

Caminos, R. A. 1954. *Late-Egyptian Miscellanies*. Brown Egyptological Studies 1. London.

Caminos, R. A. 1958. *The Chronicle of Prince Osorkon*. Pontificium Institutum Biblicum. Rome.

Caminos, R. A. 1964. The Nitocris adoption stela. *JEA* 50: 71–100.

Campagno, M. 2002. On the predynastic ''proto-states'' of Upper Egypt. *GM* 188: 49–60.

Campagno, M., 2004. In the beginning was the war: conflict and the emergence of the Egyptian state. In S. Hendrickx et al. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the international conference ''Origin of the State. Predynastic and Early Dynastic Egypt.''* Leuven: 689–703.

Campagno, M. 2009. Kinship and family relations. In E. Frood and W. Wendrich (eds.), *UCLA Encyclopedia of Egyptology*. Los Angeles: http://repositories.cdlib.org/nelc/uee.

Cannuyer, C. and Kruchten, J.-M. (eds.) 1993. *Individu, société et spiritualité dans l'Égypte pharaonique et copte. Mélanges égyptologiques offerts au Professeur Aristide Théodoridès*. Athens; Brussels; Mons.

Capasso, M. 2003. *Il ritorno di Cornelio Gallo*. Naples.

Capel, A. K., and Markoe, G. E. (eds.) 1996. *Mistress of the House, Mistress of Heaven: Women in Ancient Egypt*. New York.

Capponi, L. 2005. *Augustan Egypt: The Creation of a Roman Province*. London and New York.

Capponi, L. 2009. Spaces of justice in Roman Egypt. In F. De Angelis (ed.), *Spaces of Justice in the Roman World*, *A Conference held at Columbia University, New York, 15–17 November 2007*.

Capron, L. 2008. Déclarations fiscales du temple de Soknopaiou Nesos: éléments nouveaux. *ZPE* 165: 133–60.

Carl, P. 2000. Viewpoint: were cities built as images? City-image versus topography of praxis. *CAJ* 10.2: 327–35.

Carrez-Maratray, J.-Y. 2005. Psammétique le tyran: pouvoir, usurpation et alliances en Méditerranée orientale au IVᵉ siècle av. J.-C. *Transeuphratène* 30: 37–63.

Carrié, J.-M. 1974. Les *Castra Dionysiados* et l'evolution de l'architecture militaire romaine tardive. *Mélanges d'archéologie et d'histoire de l'École française de Rome* 86: 819–50.

Carrié, J.-M. 1986. L'esercito: trasformazioni funzionali ed economie locali. In A. Giardina (ed.), *Società romana e impero tardoantico. Istituzioni, ceti, economie*. Rome: 450–88.

Casson, L. 1989. *The Periplus Maris Erythraei*. Princeton.

Casson, L. 1990. New light on maritime loans: P.Vindob. G 40822. *ZPE* 84: 195–206.

Casson, L. 2001. *Libraries in the Ancient World*. New Haven.

Castiglione, L. 1957. Griechisch-ägyptische Studien: Beitrag zu dem griechisch-ägyptischen Privatkult. *Acta antiqua hungarica* 5: 220–7.

Castle, E. W. 1992. Shipping and trade in Ramesside Egypt. *JESHO* 35: 239–77.

Caton Thompson, G. 1928. The predynastic settlement: North Spur Hemamieh. In G. Brunton and G. Caton-Thompson (eds.), *The Badarian Civilisation and Prehistoric Remains near Badari*. London: 69–113.

Caton-Thompson, G. and Gardner, E. W. 1934. *The Desert Fayum*. London.

Cauville, S. 1987. Les statues cultuelles de Dendera d'après les inscriptions pariétales. *BIFAO* 87: 73–117.

Cauville, S. 1997. *Le Zodiaque d'Osiris*. Leuven.

Cavillier, G. 2002. *Il carro e le armi del Museo Egiziano di Firenze*. Florence.

Cénival, F. de. 1972. *Les Associations religieuses en Égypte d'après les documents démotiques*. BdE 46. Paris.

Černý, J. 1973. *A Community of Workmen at Thebes in the Ramesside Period*. Cairo (2nd edn. 2001).

Chaban, M. 1906. Sur le tombeau romain de Tell el Sebakha. *ASAE* 7: 17–18.

Chace, A. B., Bull, L., and Manning, H. P. 1929. *The Rhind Mathematical Papyrus*. Oberlin.

Chalon, G. 1965. *L'Édit de Tiberius Julius Alexander: étude historique et exégétique*. Biblioth. Helv. Romana 5. Olten.

Charron, A. 1990. Massacres d'animaux à la Basse Époque. *RdE* 41: 209–13.

Chauveau, M. 1996. Les archives d'un temple des oasis au temps des Perses. *BSFE* 137: 32–47.

Chauveau, M. 1997. *L'Égypte au temps de Cléopâtre: 180–30 av. J.-C.* La vie quotidienne. Antiquité. Paris.

Chauveau, M. 2000. *Egypt in the Age of Cleopatra*. Tr. D. Lorton. Ithaca and London.

Chauveau, M. 2002. *Cleopatra: Beyond the Myth*. Tr. D. Lorton. Ithaca and London.

Chauveau, M. 2004. Inarôs, prince des rebelles. In F. Hoffmann and H. J. Thissen (eds.), *Res severa verum gaudium*, *Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004*. Leuven; Paris; Dudley: 39–46 and pl. IV.

Chauveau, M. and Thiers, C. 2006. L'Égypte en transition: des Perses aux Macédoniens. In P. Briant and Fr. Joannès (eds.), *La Transition entre l'empire achéménide et les royaumes hellénistiques (vers 350–300 av. J.-C.)*, *Actes du colloque organisé au Collège de France les 22–23 novembre 2004*. Paris: 375–404.

Chevereau, P.-M. 1985. *Prosopographie des cadres militaires égyptiens de la Basse Époque*. Paris.

Chevereau, P.-M. 1987. Contribution à la prosopographie des cadres militaires de l'Ancien Empire et de la Première Période Intermédiare. *RdE* 37: 13–47.

Chevereau, P.-M. 1989. Contribution à la prosopographie des cadres militaires de l'Ancien Empire et de la Première Période Intermédiare. *RdE* 40: 3–36.

Chevereau, P.-M. 1991. Contribution à la prosopographie des cadres militaries du Moyen Empire. *RdE* 42: 43–88.

Chevereau, P.-M. 1992. Contribution à la prosopographie des cadres militaries du Moyen Empire. *RdE* 43: 11–34.

Chłodnicki, M. 2004. Tell el-Farkha and explorations of the central Kom 1987–2002. In S. Hendrickx et al. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt."* Leuven: 357–70.

Chłodnicki, M. and Ciałowicz, K. 2002. Polish excavations at Tell el-Farkha (Ghazala) in the Nile Delta. *Archaeologia* 53: 63–119.

Chłodnicki, M. and Ciałowicz, K. 2006. Polish excavations at Tell el-Farkha (Ghazala) in the Nile Delta. *Archaeologia* 57: 71–128.

Ciałowicz, K. M. 2004. Tell el-Farkha 2001–2002: excavations at the western Kom. In S. Hendrickx et al. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt."* Leuven: 371–88.

Ciałowicz, K. M. 2006. From residence to early temple. In K. Kroeper, M. Chłodnicki, and M. Kobusiewicz (eds.), *Archaeology of Early Northeastern Africa*. Studies in African Archaeology 9. Poznan: 917–34.

Cialowicz, K. M. 2008. The nature of the relation between Lower and Upper Egypt in the Protodynastic Period: a view from Tell el-Farkha. In B. Midant-Reynes, Y. Tristant, J. Rowland, and S. Hendrickx (eds.), *Egypt at its Origins 2. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt", Toulouse (France), 5th–8th September 2005.* Leuven.

Cialowicz, K. and Jucha, M. 2003. Tell el-Farkha 1998–2000: stratigraphy and chronology of the western Kom. In J. Popielska-Grzybowska (ed.), *Proceedings of the Second Central European Conference of Young Egyptologists.* Warsaw: 29–35.

Cichocki, O. 2003. Dendrochronological Investigations on cedar objects of ancient Egypt. In M. Bietak (ed.), *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millellnium B.C.* II. *Proceedings of the SCIEM 2000-Euroconference, Haindorf, 2nd of May–7th of May 2001.* Vienna: 43–6.

Claessen, H. J. M. and Skalník, P. 1978. *The Early State.* Studies in Social Sciences 32. The Hague.

Clagett, M. 1989. *Ancient Egyptian Science: A Source Book.* 1: *Knowledge and Order.* Memoirs of the American Philosophical Society 184. Philadelphia.

Clagett, M. 1999. *Ancient Egyptian Science: A Source Book.* 3: *Ancient Egyptian Mathematics*, Phildelphia.

Clarke, S. and Engelbach, R. 1990. *Ancient Egyptian Construction and Architecture*, New York (repr. of 1930 edn.).

Clarysse, W. 1985. Greeks and Egyptians in the Ptolemaic Army and Administration. *Aegyptus* 65: 57–66.

Clarysse, W. 1987. Greek loan-words in Demotic. In S. P. Vleeming (ed.), *Aspects of Demotic lexicography, Acts of the Second International Conference for Demotic Studies, Leiden, 19–21 September 1984.* Studia Demotica 1: 9–33.

Clarysse, W. 1988. A Demotic self-dedication to Anubis. *Enchoria* 16: 7–10.

Clarysse, W. 1993. Egyptian scribes writing Greek. *CdE* 68: 186–201.

Clarysse, W. 1998. Ethnic diversity and dialect among the Greeks of Hellenistic Egypt. In A. Verhoogt and S. P. Vleeming (eds.), *The Two Faces of Graeco-Roman Egypt: Greek and Demotic and Greek-Demotic Texts and Studies Presented to P.W. Pestman.* Papyrologica Lugduno-Batava 30. Leiden: 1–13.

Clarysse, W. 2000a. Ptolémées et temples. In D. Valbelle and J. Leclant (eds.), *Le Décret de Memphis. Colloque de la Fondation Singer-Polignac à l'occasion de la célébration du bicentenaire de la découverte de la Pierre de Rosette, Paris 1er juin 1999.* Paris: 41–65.

Clarysse, W. 2000b. The Ptolemies visiting the Egyptian chora. In Mooren (ed.) 2000: 29–53.

Clarysse, W. 2000c. The Ptolemies visiting the Egyptian chora. In Mooren (ed.) 2000: 29–53.

Clarysse, W. 2003. The archive of the praktor Milon. In K. Vandorpe and W. Clarysse (eds.), *Edfu: An Egyptian Provincial Capital in the Ptolemaic Period.* Brussels: 17–27.

Clarysse, W. 2006. *Counting the People in Hellenistic Egypt.* 2: *Historical Studies.* Cambridge.

Clarysse, W. 2007a. A bilingual archive from the Cynopolite nome. In J. Frösén, T. Purola, and E. Salmenkivi (eds.), *Proceedings of the 24th International Congress of Papyrology, Helsinki, 1–7 August, 2004. Volume I.* Commentationes Humanarum Litterarum 122. Helsinki: 185–189.

Clarysse, W. 2007b. Toponymy of Fayyum villages in the Ptolemaic Period. In M. Capasso and P. Davoli (eds.), *New Archaeological and Papyrological Researches on the Fayyum. Proceedings of the International Meeting of Egyptology and Papyrology Lecce, June 8th–10th 2005.* Papyrologica Lupiensia 14: 67–81.

Clarysse, W. and Thompson, D. J. 2006. *Counting the People in Hellenistic Egypt.* 2 vols. Cambridge.

Clarysse, W. and Van der Veken, G. 1983. *The Eponymous Priests of Ptolemaic Egypt: Chrono-logical Lists of the Priests of Alexandria and Ptolemais with a Study of the Demotic Transcriptions of their Names*. Papyrologica Lugduno-Batava 24. Leiden.

Clarysse, W. and Vandorpe, K. 1995. *Zénon, un homme d'affaires grec à l'ombre des pyramides*. Tr. S. Héral. Ancorae 14. Leuven.

Clarysse, W. and Vandorpe, K. 1998. The Ptolemaic apomoira. In H. Melaerts (ed.), *Le Culte du souverain dans l'Égypte ptolémaïque au IIIe siècle avant notre ère. Actes du colloque international, Bruxelles, 10 mai 1995*. Studia Hellenistica 34. Leuven: 5–42.

Clarysse, W., Schoors, A., and Willems, H. 1998. *Egyptian Religion: The Last Thousand Years*. Studies Dedicated to the Memory of Jan Quaegebeur. II. OLA 85. Leuven.

Clère, J. J. 1995. *Les chauves d'Hathor*. OLA 63. Leuven.

Clère, J. J. and Vandier, J. 1948. *Textes de la Première Période Intermédiaire et de la XIe dynastie*. Brussels.

Cline, E. H. and O'Connor, D. (eds.) 2006. *Thutmose III: A New Biography*. Ann Arbor.

Cockle, W. E. H. 1984. State archives in Graeco-Roman Egypt from 30 BC to the reign of Septimius Severus. *JEA* 70: 106–22.

Colin, F. 1998. Les fondateurs du sanctuaire d'Amon à Siwa. In *Egyptian Religion: The Last Thousand Years. Studies Dedicated to the Memory of Jan Quaegebeur*. I. OLA 84. Leuven: 329–55.

Colin, F. 2002. Prêtresses indigènes dans l'Égypte hellénistique et romaine. In H. Melaerts (ed.), *Le Rôle et le statut de la femme en Égypte hellénistique, romaine et byzantine. Actes du colloque international Bruxelles–Leuven 27–29 novembre 1997*. Studia Hellenistica 37. Paris and Leuven: 41–122.

Colin, F. 2004. Qasr Allam: A Twenty-sixth Dynasty settlement. *EA* 24: 30–3.

Colin, F. and Labrique, F. 2002. Semenekh oudjat à Bahariya. In Fr. Labrique (ed.), *Religions méditerranéennes et orientales de l'antiquité, Actes du colloque des 23–24 avril 1999 à Besançon*. BdE 135. Cairo: 45–78.

Collier, M. and Quirke, S. 2002. *The UCL Lahun Papyri: Letters*. BAR International Series 1083. Oxford.

Collier M. and Quirke, S. 2004. *The UCL Lahun Papyri: Religious, Literary, Legal, Mathematical, and Medical*. BAR International Series 1209. Oxford.

Collombert, P. 2000. Religion égyptienne et culture grecque. L'exemple de Dioskouridès. *CdE* 75: 47–63.

Compagnoni, B. and Tosi, M. 1978. The camel. In R. H. Meadow and M. E. Zeder (eds.), *Approaches to Faunal Analysis in the Middle East*. Cambridge, MA.

Cooney, J. D. 1965. *Amarna Reliefs from Hermopolis in American Collections*. Brooklyn.

Cooney, K. M. 2000. The edifice of Taharqa by the sacred lake: ritual function and the role of the king. *JARCE* 37: 15–47.

Cooney, K. M. 2006. An informal workshop: textual evidence for private funerary art production in the Ramesside period. In A. Dorn and T. Hofmann (eds.), *Living and Writing in Deir el-Medine: Socio-historical Embodiment of Deir el-Medine Texts*. Aegyptiaca Helvetica 19: 43–55.

Cooney, K. M. 2007. *The Cost of Death: The Social and Economic Value of Ancient Egyptian Funerary Art in the Ramesside Period*. Leiden.

Cooney, K. M. 2008. Profit or exploitation? The production of private Ramesside tombs within the West Theban funerary economy. *JEH* 1.1: 79–115.

Cooney, K. M. forthcoming. Informal apprenticeship: sketching on figured ostraca in the Los Angeles County Museum of Art. In W. Wendrich (ed.), *Archaeology and Apprenticeship: Acquiring Body Knowledge of the Ancient World*.

Corteggiani, J.-P. 1973. Documents divers (I–VI). *BIFAO* 73: 143–53 and pls. XII–XIII.

Costin, C. L. 1991. Craft specialization: issues in defining, documenting, and exploring the organization of production. In M. Schiffer (ed.), *Archaeological Method and Theory*. Tucson: 1–56.

Coulon, L. 2001. Quand Amon parle à Platon. La statue Caire JE 38033. *RdE* 52: 85–112.

Coulon, L., Leclère, F., and Marchand, S. 1995. ''Catacombes Osiriennes'' de Ptolémée IV à Karnak. Rapport préliminaire de la campagne de fouilles 1993. *Karnak* 10: 205–51.

Crawford, D. J. 1971. *Kerkeosiris: An Egyptian Village in the Ptolemaic Period*. Cambridge.

Crawford, D. J. 1978. The good official of Ptolemaic Egypt. In H. Maehler and V. M. Strocka (eds.), *Das ptolemäische Ägypten. Akten des internationalen Symposions 27.–29 Sept. 1976 in Berlin*, Mainz am Rhein: 195–202.

Crawford, D. J., Quaegebeur, J., and Clarysse, W. 1980. *Studies on Ptolemaic Memphis*. Studia Hellenistica 24. Leuven.

Cribiore, R. 2001. *Gymnastics of the Mind: Greek Education in Hellenistic and Roman Egypt*. Princeton.

Cribiore, R. 2007. Higher education in early Byzantine Egypt. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700*. Cambridge: 47–66.

Cruz-Uribe, E. 1987. Hibis Temple project: preliminary report, 1985–1986 and summer 1986 field seasons. *VA* 3: 215–30.

Cruz-Uribe, E. 1994. A model for the political structure of ancient Egypt. In D. P. Silverman (ed.), *For His Ka: Essays Offered in Memory of Klaus Baer*. Studies in Ancient Oriental Civilization 55. Chicago: 45–53.

Cruz-Uribe, E. 2002. The death of Demotic at Philae: a study in pilgrimage and politics. In T. Bács (ed.), *A Tribute to Excellence: Studies in Honor of Ernö Gaál, Ulrich Luft and Láslo Török*. Budapest: 163–84.

Cruz-Uribe, E. 2003. Qanāts in the Achaemenid Empire. *BiOr* 60: 537–44.

Cruz-Uribe, E. 2008. Review of S. Lippert & M. Schentuleit, *Quittungen*. *JAOS* 128.2: 362–4.

Cumming, B. 1984. *Egyptian Historical Records of the Later Eighteenth Dynasty*. 2. Warminster.

Cunningham, A. 1988. Getting the game right: some plain words on the identity and invention of science. *Studies in History and Philosophy of Science* 19: 365–89.

Cuomo, S. 2001. *Ancient Mathematics*. London and New York.

Cuomo, S. 2007. *Technology and Culture in Greek and Roman Antiquity*. New York and Cambridge.

Cuomo, S. 2008. Ancient written sources for engineering and technology. In J. P. Oleson (ed.), *Oxford Handbook of Technology and Engineering in the Classical World*. Oxford: 15–34.

Cuvigny, H. (ed.) 2003. *La Route de Myos Hormos: L'armee romaine dans le désert oriental d'Égypte. Vol I*. Praesidia *du desert de Berenice*. FIFAO 48. Cairo.

Czerny, E. 1999. *Tell el-Dabʿa IX: Eine Plansiedlung des frühen Mittleren Reiches*, Untersuchungen der Zweigstelle Kairo des Österreichischen Archäologischen Institutes 15. Österreichische Akademie der Wissenschaften. Denkschriften der Gesamtakademie 16. Vienna.

Dabrowski, L. 1972. La topographie d'Athribis à l'époque romaine. *ASAE* 57: 19–31 and pls. I–II.

Daressy, G. 1906. Calculus égyptiens du Moyen Empire. *Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes* 28: 62–72.

Daressy, G. 1912. A Travers les Koms du Delta. *ASAE* 12: 169–213.

Daris, S. 1985. I villaggi dell'Egitto nei papiri greci. In *Egitto e società antica. Atti del Convegno Torino 1984*. Milan: 211–31.

Darnell, J. 1995. Hathor returns to Medamûd. *SAK* 22: 47–94.

Darnell, J. 1997a. New inscriptions of the Late First Intermediate Period from the Theban western desert and the beginnings of the northern expansion of the Eleventh Dynasty. *JNES* 56: 241–58.

Darnell, J. 1997b. The message of King Wahankh Antef II to Khety, Ruler of Heracleopolis. *ZÄS* 124: 101–8.

Darnell, J. 2002. *Theban Desert Road Survey in the Egyptian Western Desert. Volume 1. Gebel Tjauti Rock Inscriptions 1–45 and Wadi el-Hôl Rock Inscriptions 1–45.* Chicago.

Darnell, J. 2003. The rock inscriptions of Tjehemau at Abisko. *ZÄS* 130: 31–48.

Darnell, J. 2004. The route of the Eleventh Dynasty expansion into Nubia: an interpretation based on the rock inscriptions of Tjehemau at Abisko. *ZÄS* 131: 23–37.

Daszewski, W. A. 1995. Témoignage de l'urbanisation de la côte méditerranéenne de l'Egypte à l'époque hellénistique et romaine à la lumière des fouilles de Marina el Alamein. *BSFE* 132: 11–29.

Daumas, F. 1957. Le sanatorium de Dendara. *BIFAO* 56: 35–57.

David, A. R. 1999. Lahun, town. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 430–2.

David, R. 1973. *Religious ritual at Abydos (c.1300 BC).* Warminster.

David, R. 1986. *The Pyramid Builders of Ancient Egypt: A Modern Investigation of Pharaoh's Workforce.* London.

Davies, J. K. 2006. Hellenistic economies. In G. R. Bugh (ed.), *The Cambridge Companion to the Hellenistic World.* Cambridge: 73–92.

Davies, N. de G. 1900. *The Mastaba of Ptahhetep and Akhethetep at Saqqareh*, I: *The Chapel of Ptahhetep and the Hieroglyphs.* ASE 8. London.

Davies, N. de G. 1902. *Deir el-Gebrâwi.* II: *The Tomb of Zau and Tombs of the Northern Group.* ASE 12. London.

Davies, N. de G. 1903. *The Rock Tombs of El Amarna.* I. *The Tomb of Meryra.* ASE 13. London.

Davies, N. de G. 1905. *The Rock Tombs of El Amarna.* III: *The Tombs of Huya and Ahmes.* ASE 15. London.

Davies, N. de. G. 1928–9. The town house in Ancient Egypt. *Metropolitan Museum Studies* 1: 233–55.

Davies, N. de G. 1943. *The Tomb of Rekh-mi-Rêʿ at Thebes.* 2 vols. MMA. New York.

Davies, N. de G. 2002. *The Tomb of Rekh-mi-re at Thebes.* I. North Stratford (repr.).

Davies, N. de G. and Faulkner, R. O. 1947. A Syrian trading venture to Egypt. *JEA* 33: 40–6.

Davies, N. M. 1963. *Scenes from Some Theban Tombs.* Oxford.

Davies, S. 2007. Bronzes from the Sacred Animal Necropolis at North Saqqara. In Hill 2007: 174–87.

Davies, W. V. 1982. The origin of the blue crown. *JEA* 68: 69–76.

Davies, W. V. (ed.) 1991. *Egypt and Africa: Nubia from the Prehistory to Islam.* London.

Davies, W. V. 2003. Sobeknakht of Elkab and the coming of Kush. *EA* 23: 3–6.

Davis, Whitney 1992. *Masking the Blow: The Scene of Representation in Late Prehistoric Egyptian Art.* Berkeley.

Davoli P. 1998. *L'archeologia urbana nel Fayyum di età ellenistica e romana.* Naples.

Davoli, P. 2001. Aspetti della topografia del Fayyum in epoca ellenistica e romana. In I. Andorlini, G. Bastianini, M. Manfredi, and G. Menci (eds.), *Atti del XXII Congresso Internazionale di Papirologia, Firenze 23–29 agosto 1998.* I. Florence: 353–359 and tables XV–XVI.

Davoli, P. 2005. Examples of town planning in the Fayyum. *BASP* 42: 213–33.

Davoli, P. and Kaper, O. 2006. A new temple for Thoth in the Dakhleh Oasis. *EA* 28: 12–4.

Davoli, P. and Nahla, M. A. 2006. On some monuments from Kiman Fares (Medinet el-Fayyum). *Studi di Egittologia e di Papirologia* 3: 81–109.

de Buck, A. 1938. The building inscription of the Berlin leather roll. *Studia Aegyptiaca* I. Analecta orientalia 17. Rome: 49–57.

de Jong, T. 2006. The heliacal rising of Sirius. In E. Hornung, R. Krauss, and D. A. Warburton (eds.), *Ancient Egyptian Chronology.* Handbook of Oriental Studies. Section 1: The Near and Middle East 83: 432–8.

De Meulenaere, H. 1956. Trois personnages saïtes. *CdE* 31: 249–56.

De Meulenaere, H. 1959. Les stratèges indigènes du nome Tentyrite à la fin de l'époque ptolémaique et au début de l'occupation romaine. *Rivista degli Studi Orientali* 34: 1–25.

De Meulenaere, H. 1963. La famille royale des Nectanébo. *ZÄS* 90: 90–3.

De Meulenaere, H. 1964. De vestiging van de Saïtische dynastie. *Orientalia Gandensia* 1: 95–103.

De Meulenaere, H. 1968. La famille du roi Amasis. *JEA* 54: 183–7 and pl. XXIX.

De Meulenaere, H. 1973. Apries. *LÄ* 1: 358–60.

De Meulenaere, H. 2003. Thèbes et la renaissance saïte. *Égypte Afrique & Orient* 28: 61–8.

De Meyer, M. 2008. Old Kingdom tombs at Dayr al-Barshā: archaeological evidence of their use and reuse in zones 4 and 7. Dissertation. Leuven.

De Morgan, J. 1895. *Fouilles à Dahchour, mars-juin 1894.* Vienna.

De Morgan, J. 1896. *Recherches sur les origines de l'Égypte* I. Paris

de Putter, Th. 2000. Les routes vers les mines et les carrières: Coptos, la ville du ''Souverain à la tête des mines.'' In P. Ballet *Coptos. L'Égypte antique aux portes du désert.* Lyon: 144–56.

Debono, F. 1979. In J. Leclant et al., (eds.), *Ägypten I. Universum der Kunst* 26. Munich.

Debono, F. and Mortensen, B. 1990. *El Omari. A Neolithic Settlement and Other Sites in the Vicinity of Wadi Hof, Helwan.* AV 82. Mainz am Rhein.

Decker, W. 1992. *Sports and Games of Ancient Egypt.* Tr. A. Guttmann. New Haven and London.

Deckers, Johannes G. 1973. Die Wandmalerei des tetrarchischen Lagerheiligtums im Ammon-Tempel von Luxor. *Römische Quartalschrift für christliche Altertumskunde und für Kirchengeschichte* 68: 1–34.

Delia, D. 1991. *Alexandrian Citizenship during the Roman Principate.* Atlanta.

Demichelis, S. 2003. La divination par l'huile à l'époque ramesside. In Y. Koenig (ed.), *La Magie en Égypte: à la recherche d'une définition.* Paris: 149–65.

Demidchik, A. E. 1998. The ''region of the northern residence'' in Middle Egyptian literature. In Eyre (ed.), 1998b: 325–30.

Demidchik, A. E. 2003. The reign of Merikare Khety. *GM* 192: 25–36.

Demougin, S. 2007. Archiereus Alexandreae et totius Aegypti: un office profane. In A. Vigourt, X. Loriot, A. Bérenger-Badel, and B. Klein (eds.), *Pouvoir et religion dans le monde romain. En hommage à Jean-Pierre Martin.* Collection Passé/Présent. Paris: 513–19.

Depauw, M., 1997. *A Companion to Demotic Studies.* Papyrologica Bruxellensia 28. Brussels.

Depauw, M. 1998. The isionomos or *in-wwy.* In Clarysse, Schoors, and Willems 1998: 1131–53.

Depauw, M. 2000. *The Archive of Teos and Phabis from early Ptolemaic Thebes.* Monographies Reine Élisabeth 8. Brussels.

Depauw, M. 2003a. Autograph confirmation in Demotic private contracts. *CdE* 78: 66–111.

Depauw, M. 2003b. Notes on transgressing gender boundaries in ancient Egypt. *ZÄS* 130: 49–59.

Depauw, M. and Smith, M. 2004. Visions of ecstasy: cultic revelry before the Goddess Ai/Nehemanit. Ostraca Faculteit Letteren (K. U. Leuven) dem. 1–2. In F. Hoffmann and H. J. Thissen (eds.), *Res Severa Verum Gaudium: Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004,* Leuven: 67–93.

Depuydt, L. 1988. Ancient Egyptian star clocks and their theory. *BiOr* 55: 5–44.

Der Manuelian, P. 1987. *Studies in the Reign of Amenophis II*. Hildesheim.

Der Manuelian, P. 1994. *Living in the Past: Studies in Archaism of the Egyptian Twenty-sixth Dynasty*. London.

Derchain, P. 1981. Observations sur les erotica. In G. Martin (ed.), *The Sacred Animal Necropolis at North Saqqâra*. London: 166–70.

Derchain, P. 2000. *Les Impondérables de l'hellénisation. Littérature d'hiérogrammates*. Turnhout.

Derda, T. 1991. Necropolis workers in Graeco-Roman Egypt in the light of the Greek papyri. *JJP* 2: 13–36.

Derda, T. 2006. *ΑΡΣΙΝΟΙΤΗΣ ΝΟΜΟΣ. Administration of the Fayum under Roman Rule*. JJP supplement 7. Warsaw.

Desroches-Noblecourt, C. 1947. Une coutume égyptienne méconnue. *BIFAO* 45: 185–232.

Devauchelle, D. 1995a. Le sentiment anti-perse chez les Égyptiens. *Transeuphratène* 9: 67–80.

Devauchelle, D. 1995b. Réflexions sur les documents égyptiens datés de la Deuxième Domination perse. *Transeuphratène* 10: 35–43.

Dieleman, J. 2005. *Priests, Tongues, and Rites. The London-Leiden Magical Manuscripts and Translation in Egyptian Ritual (100–300 CE)*. Leiden.

Dietze, G. 1994. Philae und die Dodekaschoinos in ptolemäischer Zeit. Ein Beitrag zur Frage ptolemäischer Präsenz im Grenzland zwischen Ägypten und Afrika an Hand der architektonischen und epigraphischen Quellen. *Ancient Society* 25: 63–110.

Dietze, G. 2000. Temples and soldiers in southern Ptolemaic Egypt. In Mooren 2000: 77–89.

Dijkstra, J. 2004. A cult of Isis at Philae after Justinian? Reconsidering P. Cair.Masp. I 67004. *ZPE* 146: 137–54.

Dils, P. 1995. Les *ꜣj (nꜣ) nṯr.w* ou θεαγοί. Fonction religieuse et place dans la vie civile. *BIFAO* 95: 153–71.

Dixon, D. M. 1958. The land of Yam. *JEA* 44: 40–55.

Dixon, D. M. 1972. The disposal of certain personal, household and town waste in Ancient Egypt. In P. J. Ucko, R. Tringham, and G. W. Dimbleby (eds.), *Man, Settlement and Urbanism*. London: 647–50.

Dobrev, V. 1993. Considérations sur les titulatures des rois de la IVe dynastie égyptienne. *BIFAO* 93: 179–204.

Dobrev, V. 1997. À propos d'une statue fragmentaire du roi Menkaourê trouvée à Abou Rawash. In C. Berger and B. Mathieu (eds.), *Études sur l'Ancien Empire et la nécropole de Saqqâra dédiées à Jean-Philippe Lauer I*. Orientalia Monspeliensia 9. Montpellier: 155–66.

Dodson, A. 1987. The tombs of the Kings of the 13th Dynasty in the Memphite Necropolis. *ZÄS* 114: 36–45.

Dodson, A. 1996. The mysterious 2nd Dynasty. *KMT* 7.2: 19–31.

Dodson, A. 2001. Third Intermediate Period. In D. B. Redford (ed.), *The Oxford Encyclopaedia of Ancient Egypt*. 3. Oxford: 388–94.

Dodson, A. and Hilton, D. 2004. *The Complete Royal Families of Ancient Egypt: a Genealogical Sourcebook of the Pharaohs*. London and New York.

Dodson, A. and Ikram, A. 2008. *The Tomb in Ancient Egypt: Royal and Private Sepulchres from the Early Dynastic Period to the Romans*. Cairo.

Dolphin, L., Moussa, A., and Mokhtar, G. 1977. *Applications of Modern Sensing Technology to Egyptology*. Menlo Park.

Donadoni Roveri, A. M. 1987. *Egyptian Civilization*. III: *Daily Life*. Turin.

Donner, H. 2008. *Geschichte des Volkes Israel und seiner Nachbarn in Grundzügen, Teil 2. Von der Königszeit bis zu Alexander dem Großen. Mit einem Ausblick auf die Geschichte des Judentums bis Bar Kochba*. Grundrisse zum Alten Testament, ATD-Ergänzungsreihe 4/2. 4. Auflage. Göttingen.

Doresse, M. 1979. Le dieu voilé dans sa châsse et la fête du début de la decade. *Revue d'Egyptologie* 31: 36–65.

Dorman, P. F. 2006. The early reign of Thutmose III: an unorthodox mantle of coregency. In E. H. Cline and D. O'Connor (eds.), *Thutmose III. A New Biography*. Ann Arbor: 39–68.

Dorn, A. 2005. Les objets d'un dépôt de sanctuaire (ḥwt-k3) à Eléphantine et leur utilisation rituelle. In L. Pantalacci and C. Berger-el Naggar (eds.), *Des Néferkarê aux Mentouhotep, travaux archéologiques en cours sur la fin de la VIe dynastie et la Première Période inter-médiaire*. Travaux de la Maison de l'Orient et de la Méditerranée 40. Lyon: 129–43.

Dorner, J. 1981. Die Absteckung und astronomische Orientierung ägyptischer Pyramiden. Dissertation. Innsbruck.

Dothan, T. 1993. Deir el-Balah. In E. Stern, A. Lewinson-Gilboa, and J. Aviram (eds.), *The New Encyclopedia of Archaeological Excavations in the Holy Land*. I. Jerusalem: 343–7.

Drenkhahn, R. 1976. *Die Handwerker und ihre Tätigkeiten im Alten Ägypten*. ÄA 31. Wiesbaden.

Dreyer, G. 1987. Ein Siegel der frühzeitlichen Königsnekropole von Abydos. *MDAIK* 43: 33–43.

Dreyer, G. 1990. Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof. 3./4. Vorbericht. *MDAIK* 46: 53–90.

Dreyer, G. 1993. Horus Krokodil, ein Gegenkönig der Dynastie 0. In R. Friedman and B. Adams (eds.), *Followers of Horus*. Oxford: 259–63.

Dreyer, G. 1998a. Der erste König der 3. Dynastie. In H. Guksch and D. Polz (eds.), *Stationen: Beiträge zur Kulturgeschichte Ägyptens, Rainer Stadelmann gewidmet*. Mainz am Rhein: 31–4.

Dreyer, G. 1998b. *Umm el-Qaab I. Das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse*. Mainz am Rhein.

Dreyer, G. and Kaiser, W. 1980. Zu den kleinen Stufenpyramiden Ober- und Mittelägyptens. *MDAIK* 36: 43–59.

Dreyer, G. et al. 1993. Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof, 5./6. Vorbericht. *MDAIK* 49: 23–61.

Dreyer, G. et al. 1996. Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof, 7./8. Vorbericht. *MDAIK* 52: 11–81.

Dreyer, G. et al. 1998. Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof, 9./10. Vorbericht. *MDAIK* 54: 77–167.

Dreyer, G. et al. 2000. Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof, 11./12. Vorbericht. *MDAIK* 56: 43–129.

Dreyer, G. et al. 2003. Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof, 13.-15. Vorbericht. *MDAIK* 59: 67–138.

Dubiel, U. 2008. *Amulette, Siegel und Perlen: Studien zu Typologie und Tragesitte im Alten und Mittleren Reich*. OBO 229. Fribourg and Göttingen.

Dücker, B. and Roeder, H. (eds.) 2005. *Text und Ritual. Kulturwissenschaftliche Essays and Analysen von Sesostris bis Dada*. Heidelberg.

Dunand, F. 1977. L'oracle du Potier et la formation de l'apocalyptique en Égypte. In M. Philonenko and M. Simon (eds.), *L'Apocalyptique*. Paris: 39–67.

Dunand, F. 1979. *Religion populaire en Égypte romaine*. Leiden.

Dunand, F. 1983. Culte royal et culte impérial en Égypte. Continuités et ruptures. In *Das römisch-byzantinische Ägypten. Akten des internationalen Symposions 26–30. September in Trier*. Aegyptiaca Treverensia 2. Mainz am Rhein: 47–56.

Dunand, F. 1990. *Catalogue des terres cuites gréco-romaines d'Égypte*. Paris.

Dunand, F. 1991. Miracles et guérisons en Égypte tardive. In N. Fick and J.-C. Carrière (eds.), *Mélanges Étienne Bernand*. Paris: 235–50.

Dunand, F. 1997. La consultation oraculaire en Égypte tardive: L'Oracle de Bès à Abydos. In J.-G. Heintz (ed.), *Oracles et prophéties dans l'antiquité*. Paris: 65–84.

Dunand, F. 2006. La guérison dans les temples (Égypte, époque tardive). *Archiv für Religionsgeschichte* 8: 4–24.

Dunand, F, and Zivie-Coche, C. 2004. *Gods and Men in Egypt, 3000 BCE to 395 CE*. Tr. D. Lorton. Ithaca and London.

Duncan-Jones, R. P. 1990. *Structure and Scale in the Roman Economy*. Cambridge.

Duncan-Jones, R. P. 1996. The impact of the Antonine plague. *JRA* 9: 108–36.

Dunham, D. 1937. *Naga-ed-Dêr Stelae of the First Intermediate Period*. Oxford.

Dunham, D. and Janssen, J. M. A. 1960. *Semna Kumma*. Second Cataract Forts 1. Boston.

Dupont-Sommer, A. 1978. Les dieux et les hommes en l'île d'Éléphantine, près d'Assouan, au temps de l'empire des Perses. *CRAIBL*: 756–72.

DuQuesne, T. 2007a. The Salakhana stelae: a unique trove of votive objects from Asyut. In J.-C. Goyon and C. Cardin (eds.), *Proceedings of the Ninth International Congress of Egyptologists: Actes du Neuvième Congrès International des Égyptologues. Grenoble, 6–12 septembre 2004*. OLA 150: 461–74.

DuQuesne, T. 2007b. Private devotion and public practice: aspects of Egyptian art and religion as revealed by the Salakhana stelae. In T. Schneider and K. Szpakowska (eds.), *Egyptian Stories: A British Egyptological Tribute to Alan B. Lloyd on the Occasion of His Retirement*. Münster: 55–73.

Eaton-Krauss, M. 1997. Two masterpieces of early Egyptian statuary. *OMRO* 77: 7–21.

Eaton-Krauss, M. 1980. Zur Koregenz Amenemhets I und Sesostris I. *MDOG* 112: 35–51.

Ebbell, B. 1937. *The Papyrus Ebers: The Greatest Egyptian Medical Document*. Copenhagen and London.

Eck, W. 1997. Avidius Cassius. *Der Neue Pauly* 2: 370.

Eckstein, Arthur M. 2008. *Rome enters the Greek East: From Anarchy to Hierarchy in the Hellenistic Mediterranean, 230–170 BC*. Oxford.

Edel, E. 1955. Inschriften des Alten Reiches. In O. Firchow (ed.), *Ägyptologische Studien*. Berlin: 51–75.

Edel, E. 1978. Amasis und Nebukadrezar II. *GM* 29: 13–20.

Edel, E. 1980. Die alten Belege für den Titel ⟨hieroglyphs⟩ *ḥȝtj-pʿt* und sein Weiterleben bis in die römische Zeit hinein. *Serapis* 6: 41–6.

Edel, E. 1997. *Der Vertrag zwischen Ramses II. von Ägypten und Hattušili III. von Hatti*. Berlin.

Edgar, C. 1907. Notes from the Delta. *ASAE* 8: 154–9.

Edgar, C. (ed.) 1931. *Zenon Papyri*. Ann Arbor.

Edwards, D. N. 2004. *The Nubian Past: An Archaeology of the Sudan*. London and New York.

Edwards, I. E. S. 1960. *Oracular Amuletic Decrees of the Late New Kingdom*. 2 vols. Hieratic Papyri in the British Museum 4. London.

Edwards, I. E. S. 1993. *The Pyramids of Egypt* (revd. edn.). London.

Eide, T., Hägg, T., Holton Pierce, R., and Török, L. (eds.) 1994. *Fontes Historiae Nubiorum: Textual Sources for the History of the Middle Nile Region between the Eighth Century BC and the Sixth Century AD. I. From the Eighth to the Mid-Fifth Century BC*. Bergen.

Eide, T., Hägg, T., Pierce, R. H., and Török, L. 1998. *Fontes Historiae Nubiorum. Vol. III: From the First to the Sixth Century AD*. Bergen.

Eigner, D. 1999. Late Period private tombs. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 432–8.

Eigner, D. 2000. Tell Ibrahim Awad: divine residence from Dynasty 0 until Dynasty 11. *A&L* 10: 17–36.

Eiwanger, J. 1984. *Merimde – Benisalame I. Die Funde der Urschicht*. Mainz am Rhein.

Eiwanger, J. 1992. *Merimde – Benisalame II. Die Funde der jüngeren Merimdekultur*. Mainz am Rhein.

Eiwanger, J. 1999. Merimde Beni-salame. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 50–1.

El-Baghdadi, S. G. 2003. Proto- and Early Dynastic necropolis of Minshat Ezzat, Dakahlia Province, Northeast Delta. *Archéo-Nil* 13: 143–52.

El-Gamily, H., Nasr, S., and E-Raey, M. 2001. An assessment of natural and human-induced changes along Hurgada Ras Abu Soma coastal area, Red Sea. *International Journal of Remote Sensing* 22: 2999–3014.

El-Khadragy, M. 2006. The northern soldiers tomb at Asyut. *SAK* 35: 147–64.

El-Khadragy, M. 2008. The decoration of the rock-cut chapel of Khety II at Asyut. *SAK* 37: 219–41.

El-Saghir, M., Golvin, J.-C., Reddé, M., El-Sayed, H. and Wagner, G. 1986. *Le Camp romain de Louqsor*. MIFAO 83. Cairo.

Elsner, J. and Rutherford, I. 2005. Introduction. In J. Elsner and I. Rutherford (eds.), *Pilgrimage in Graeco-Roman and Christian Antiquity: Seeing the Gods*. Oxford: 1–38.

Emery, W. B. 1938. *Excavations at Saqqara: The Tomb of Hemaka*. Cairo.

Emery, W. B. 1949–58. *Great Tombs of the First Dynasty*. 3 vols. Cairo and London.

Emery, W. B. 1961. *Archaic Egypt*. Harmondsworth.

Emery, W. B. 1963. Egypt Exploration Society: preliminary report on the excavations at Buhen, 1962. *Kush* 11: 116–20.

Emmel, S. 2007. Coptic literature in the Byzantine and early Islamic world. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700*. Cambridge: 83–102.

Empereur, J.-Y. 1998a. *Alexandria Rediscovered*. London.

Empereur, J.-Y. 1998b. *Le Phare d'Alexandrie. La Merveille retrouvée*. Paris.

Engelbach, R. 1923. *Harageh*. London.

Engelbach, R. 1934. A foundation scene of the Second Dynasty. *JEA* 20: 183–4.

Endesfelder, E. 1979. Zur Frage der Bewässerung im pharaonischen Ägypten. *ZÄS* 106: 37–51.

Engsheden, Å. 2006. La parenté des Nectanébo. *CdE* 81: 62–70.

Enmarch, R. 2005. *The Dialogue of Ipuwer and the Lord of All*. Oxford.

Erdkamp, P. 2001. Beyond the limits of the ''consumer City'': a model of the urban and rural economy in the Roman world. *Historia* 50.3: 332–56

Errington, R. M. 2008. *A History of the Hellenistic World 323–30 BC*. Malden.

Erskine, Andrew. (ed.) 2003. *A Companion to the Hellenistic World*. Oxford.

Evans, J. A. S. 1961. A social and economic history of an Egyptian temple in the Greco-Roman period. *Yale Classical Studies* 17: 143–283.

Eyre, C. J. 1984. Crime and adultery in ancient Egypt. *JEA* 70: 92–105.

Eyre, C. J. 1987a. Work and the organization of work in the New Kingdom. In M. A. Powell (ed.), *Labor in the Ancient Near East*. American Oriental Series 68. New Haven: 167–221.

Eyre, C. J. 1987b. Work and the organization of work in the Old Kingdom. In M. A. Powell (ed.), *Labor in the Ancient Near East*. American Oriental Series 68. New Haven: 5–47.

Eyre, C. J. 1992. The adoption papyrus in social context. *JEA* 78: 207–21.

Eyre, C. J. 1994a. Feudal tenure and absentee landlords. In Schafik Allam (ed.), *Grund und Boden in Altägypten*. Tübingen: 107–33.

Eyre, C. J. 1994b. The water regime for orchards and plantations in pharaonic Egypt. *JEA* 80: 57–80.

Eyre, C. J. 1994c. Weni's career and Old Kingdom historiography. In C. Eyre, A. Leahy, and L. Leahy (eds.), *The Unbroken Reed Studies in the Culture and Heritage of Ancient Egypt in Honour of A. F. Shore*. London: 107–24.

Eyre, C. J. 1995. The agricultural cycle, farming and water management in the Ancient Near East. In J. M. Sasson (ed.), *Civilizations of the Ancient Near East*. 1. New York: 175–89.

Eyre, C. J. 1997. Peasants and "modern" leasing strategies in Ancient Egypt. *JESHO* 40/4: 367–390, esp. 371.

Eyre, C. J. 1998a. The market women of Pharaonic Egypt. In N. Grimal and B. Menu (eds.), *Le Commerce en Égypte ancienne*. BdE 121. Cairo: 173–91.

Eyre, C. J. (ed.) 1998b. *Proceedings of the Seventh International Congress of Egyptologists, Cambridge, 3–9 September 1995*. Leuven.

Eyre, C. J. 1999. The village economy in Ancient Egypt. In A. K. Bowman and E. Rogan (eds.), *Agriculture in Egypt: From Pharaonic to Modern Times*. PBA 96. Oxford: 33–60.

Eyre, C. J. 2000. Pouvoir central et pouvoirs locaux: problèmes historiographiques et méthodologiques. In B. Menu (ed.), *Égypte pharaonique: déconcentration, cosmopolitisme*. Paris: 15–39.

Eyre, C. J. 2004. How relevant was personal status to the functioning of the rural economy in Pharaonic Egypt? In B. Menu (ed.), *La Dépendance rurale dans l'Antiquité égyptienne et proche-orientale*. BdE 140. Cairo: 157–86.

Eyre, C. J. 2007. The evil stepmother and the rights of a second wife. *JEA* 93: 223–43.

Fabre, D. 2004–5. *Seafaring in Ancient Egypt*. London.

Fairman, H. W. 1949. Town planning in pharaonic Egypt. *The Town Planning Review* 20: 32–51.

Fairman, W. 1958. The kingship rituals of ancient Egypt. In S. H. Hooke (ed.), *Myth, Ritual and Kingship*. Oxford: 74–104.

Fakhry, A. 1950. *Bahria Oasis*, II. Cairo.

Falivene, M. R. 1991. Government, management, literacy: aspects of Ptolemaic administration in the early Hellenistic period. *Ancient Society* 22: 203–27.

Farag, S. 1980. Une inscription Memphite de la XIIe dynastie. *RdE* 32: 75–81.

Fattovich, R. 1999a. Towns, planned. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 841–2.

Fattovich, R. 1999b. Urbanism. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 857–9.

Faulkner, R. O. 1969. *The Ancient Egyptian Pyramid Texts*. Warminster.

Faulkner, R. O. 1976. *Concise Dictionary of Middle Egyptian*. Oxford.

Faulkner, R. O. 1986. *The Ancient Egyptian Pyramid Texts*. Warminster

Faulkner, R. O. 1990. *The Ancient Egyptian Book of the Dead*. Ed. C. Andrews. Austin.

Fecht, G. 1984. Ramses II. und die Schlacht bei Qadesch (Qidša). Ergänzende Überlegungen im Anschluß an meinen Aufsatz in der Fs Helck (SAK). *GM* 80: 23–53.

Feucht, E. 1995. *Das Kind im alten Ägypten: Die Stellung des Kindes in Familie und Gesellschaft nach altägyptischen Texten und Darstellungen*. Frankfurt and New York.

Fewster, P. 2002. Bilingualism in Roman Egypt. In J. Adams et al. (eds.), *Bilingualism in Ancient Society. Language Contact and the Written Word*. Oxford: 220–45.

Finkelberg, M. 2006. Regional texts and the circulation of books: the case of Homer. *Greek, Roman and Byzantine Studies* 46: 231–48.

Finnestad, R. B. 1999. Enjoying the pleasures of sensation: reflections on a significant feature of Egyptian religion. In E. Teeter and J. A. Larson (eds.), *Gold of Praise: Studies on Ancient Egypt in Honor of Edward F. Wente*. SAOC 58. Chicago: 111–19.

Fiore Marochetti, E. 2005. The Temple of Nebhepetre Mentuhotep at Gebelein: preliminary report. In L. Pantalacci and C. Berger-el-Naggar (eds.), *Des Néferkarê aux Mentouhotep*.

Travaux archéologiques en cours sur la fin de la VIe dynastie et la Première Période Inter-médiaire. Actes du Colloque CNRS-Université Lumière-Lyon 2, tenu le 5–7 juillet 2001. Lyon: 147–63.

Firchow, Otto (ed.) 1955. *Festschrift für Hermann Grapow zum 70. Geburtstag.* Berlin.

Firneis, M. G. and Rode-Paunzen, M. 2003. Progress report on Egyptian astrochronology. In M. Bietak (ed.), *The Synchronization of Civilisations in the Eastern Mediterranean in the Second Millennium B.C.* II. Vienna: 47–85.

Fischer, H. 1958. Eleventh Dynasty relief fragments from Deir el Bahri. *Yale University Art Gallery Bulletin* 24.2: 28–35.

Fischer, H. 1960. The inscription of 'In-it.f Born of Tfi'. *JNES* 19: 258–68.

Fischer, H. 1961. The Nubian mercenaries of Gebelein during the First Intermediate Period. *Kush* 9: 44–80.

Fischer, H. 1962a. Further remarks on the Gebelein Stelae. *Kush* 10: 333–4.

Fischer, H. 1962b. The archer as represented in the First Intermediate Period. *JNES* 21: 50–2.

Fischer, H. 1964. *Inscriptions from the Coptite Nome. Dynasties VI–XI.* Rome.

Fischer, H. 1968. *Dendera in the Third Millennium B.C. down to the Theban Supremacy of Upper Egypt.* Locust Valley.

Fischer, H. 1976. Some early monuments from Busiris, in the Egyptian delta. *MMJ* 11: 5–23.

Fischer, H. 1989. *Egyptian Women of the Old Kingdom and of the Heracleopolitan Period.* New York.

Fischer, H. 1991. Sur les routes de l'Ancien Empire. *CRIPEL* 13: 59–64.

Fischer, H. 1993. Two new titles of the Old Kingdom. In Limme and Strybol 1993: 91–102.

Fischer, H. 2002. *Rwty* "Drummer." *GM* 189: 33–9.

Fischer-Elfert, H.-W. 2001. Education. In D. B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt.* I. Oxford: 438–42.

Fischer-Elfert, H.-W. 2005. *Abseits von Ma'at: Fallstudien zu Außenseitern im alten Ägypten*, Wahrnehmungen und Spuren Altägyptens – Kulturgeschichtliche Beiträge zur Ägyptologie 1. Würzburg.

Fitzenreiter, M. (ed.) 2007. *Das Heilige und die Ware. Zum Spannungsfeld von Religion und Ökonomie.* Intern-Beiträge zur Ägyptologie und Sudanarchäologie VII. London.

Fleury, P. 1998. Les sources alexandrines d'un ingénieur romain au début de l'Empire. In G. Argoud and J.-Y. Guillaumin (eds.), *Sciences exactes et sciences appliquées à Alexandrie.* Saint-Étienne: 103–14.

Foraboschi, D. 1988. Movimenti e tensioni sociali nell'Egitto romano. In H. Temporini (ed.), *ANRW.* II. 10.1: 807–40.

Forbes, D. 1993. The Ramses II legacy. *KMT* 4: 52–9.

Forbes, D., Ikram, S., and Kamrin, J. 2007. Tutankhamen's missing ribs. *KMT* 18.1: 50–6.

Forbes, R. J. 1965. *Studies in Ancient Technology.* III. Leiden.

Fowden, G. 1986. *The Egyptian Hermes: An Historical Approach to the Late Pagan Mind.* Cambridge.

Foxhall L. 1990. The dependent tenant: land leasing and labour in Italy and Greece. *JRS* 80: 97–114.

Foxhall, L, and Forbes, H. A. 1982. *Sitometreía*: the role of grain as a staple food in classical antiquity. *Chiron* 12: 41–90.

Franke, D. 1983. *Altägyptische Verwandtschaftsbezeichnungen im Mittleren Reich.* Hamburg.

Franke, D. 1988. Zur Chronologie des Mittleren Reiches (12.–18. Dynastie). Teil I: Die 12. Dynastie. *Or.* 57: 113–38.

Franke, D. 1990. Erste und Zweite Zwischenzeit: Ein Vergleich. *ZÄS* 117: 119–29.

Franke, D. 1991. The career of Khnumhotep III of Beni Hasan and the so-called "decline of the Nomarchs." In S. Quirke (ed.), *Middle Kingdom Studies.* New Malden: 51–67.

Franke, D. 1994a. *Das Heiligtum des Heqaib auf Elephantine. Geschichte eines Provinzheiligtums im Mittleren Reich*. SAGA 9. Heidelberg.

Franke, D. 1994b. Zur Bedeutung der Stadt in altägyptischen Texten. In M. Jansen, J. Hoock, and J. Jarnut (eds.), *Städische Formen und Macht*. Veröffentlichungen der Interdisziplinären Arbeitsgruppe Stadtkulturforschung 1. Aachen: 29–51.

Franke, D. 2001. Kinship. In D. B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt*. II. Oxford: 245–8.

Franke, D. 2006a. Arme und Geringe im Alten Reich Altägyptens: ''Ich gab Speise dem Hungernden, Kleider dem Nackten . . .'' *ZÄS* 133: 104–20.

Franke, D. 2006b. Fürsorge und Patronat in Ersten Zwischenzeit und im Mittleren Reich. *SAK* 34: 159–85.

Franke, D. 2007. The good shepherd Antef (Stela BM EA 1628). *JEA* 93: 149–74.

Frankfort, H. 1933. *The Cenotaph of Seti I at Abydos*. London.

Frankfort, H. 1978. *Kingship and the Gods: A Study of Ancient Near Eastern Religion as the Integration of Society and Nature*. Chicago (repr.).

Frankfurter, D. 1994. The cult of the martyrs in Egypt before Constantine: the evidence of the Coptic *Apocalypse of Elijah*. *Vigiliae Christianae* 48: 25–47.

Frankfurter, D. 1996. The legacy of the Jewish apocalypse in early Christian communities: two regional trajectories. In J. C. VanderKam and W. Adler (eds.), *The Jewish Apocalyptic Heritage in Early Christianity*. Assen and Maastricht: 129–200.

Frankfurter, D. 1998. *Religion in Roman Egypt: Assimilation and Resistance*. Princeton.

Frankfurter, D. 2000. The consequences of Hellenism in late antique Egypt: religious worlds and actors. *Archiv für Religionsgeschichte* 2.2: 162–94.

Frankfurter, D. 2003. Syncretism and the holy man in late antique Egypt. *Journal of Early Christian Studies* 11.3: 339–85.

Frankfurter, D. 2005. Voices, books, and dreams: the diversification of divination media in late antique Egypt. In S. Johnston and P. Struck (eds.), *Mantikē: Studies in Ancient Divination*. Religions in the Graeco-Roman World 155. Leiden: 233–54.

Frankfurter, D. 2008. The vitality of Egyptian images in late antiquity: Christian memory and response. In Y. Eliav, E. Friedland, and S. Herbert (eds.), *The Sculptural Environment of the Roman Near East: Reflections on Culture, Ideology, and Power*. Leuven: 659–78.

Fraser, P. M. 1970. Aristophanes of Byzantion and Zoilus Homeromastix in Vitruvius. *Eranos* 68: 115–22.

Fraser, P. M. 1972. *Ptolemaic Alexandria*. 3 vols. Oxford.

Frazer, J. G. 2006. *The Golden Bough* (digital repr.).

Frey, Rosa A. and Knudstad, J. E. 2007. The re-examination of selected architectural remains at El-Lahun. *JSSEA* 34: 23–65.

Friedman, R. 1994. Predynastic settlement ceramics of Upper Egypt: a comparative study of the ceramics of Hemamieh, Nagada, and Hierakonpolis. Unpublished doctoral dissertation. Berkeley.

Friedman, R. (ed.) 2002. *Egypt and Nubia: Gifts of the Desert*. London.

Friedman, R. 2008. The Cemeteries at Hierakonpolis. *Archéo-Nil* 18: 9–29.

Frier, B. W. 2000. Demography. In A. K. Bowman, P. Garnsey, and D. Rathbone (eds.), *The Cambridge Ancient History*. XI. *The High Empire, A.D. 70–192*. Cambridge: 787–816 (2nd. edn.).

Frood, E. 2003a. The potters: organisation, delivery, and product of work. In J. J. Janssen, E. Frood, and M. Goecke-Bauer (eds.), *Woodcutters, Potters and Doorkeepers: Service Personnel of the Deir el-Medina Workmen*. Leiden: 29–62.

Frood, E. 2003b. Ritual function and priestly narrative: the stelae of the high priest of Osiris, Nebwawy. *JEA* 89: 59–81.

Frood, E. 2007. *Biographical Texts from Ramessid Egypt*. SBL Writings from the Ancient World 26. Atlanta.

Gaballa, G. A. 1977. *The Memphite Tomb-Chapel of Mose*. Warminster.

Gabolde, M. 1998. *D'Akhenaton à Toutânkhamon*. Paris.

Gabra, G. 1976. Preliminary report on the stela of *ḥtpi* from Elkab from the time of Wahankh Inyotef II. *MDAIK* 32: 45–56 (1 map, 1 fig., 1 pl.).

Gagarin, M. 2008. *Writing Greek Law*. Cambridge.

Gagos, T. and Sijpesteijn, P. J. 1996. Towards an explanation of the typology of the so-called "orders to arrest." *BASP* 33: 77–97.

Gagos, T., and van Minnen, P. 1994. *Settling a Dispute: Toward a Legal Anthropology of Late Antique Egypt*. Ann Arbor.

Galán, J. M. 2007. The tombs of Djehuty and Hery (TT 11–12) at Dra Abu el-Naga. In J.-C. Goyon and C. Cardin (eds.), *Proceedings of the Ninth International Congress of Egyptologists, Grenoble, 6–12 Septembre 2004* I. OLA 150. Leuven: 777–787.

Gale, R., Gasson, P., Hepper, N., and Killen, G. 2000. Wood. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology*, Cambridge: 334–71.

Galimberti, A. 2007. *Adriano e l'ideologia del principato*. Rome.

Gallo, P. 2006. Ounamon, roi de l'oasis libyenne d'El-Bahrein. *BSFE* 166: 11–30.

Gamilli, M. and Shaalan, F. 1988. Tracing buried channels in the northwest Daklia Governerate, North Delta, using hammer seisomograph and electric resistivity profiling. In E. Van den Brink (ed.), *The Archaeology of the Nile Delta: Problems and Priorities*. Amsterdam: 223–43.

Garbrecht, G. 1990. *Untersuchung antiker Wasserspeicher im Fayum/Ägypten*. Cairo.

Gardiner, A. H. 1935. *Hieratic Papyri in the British Museum, Third Series: Chester Beatty Gift*. 2 vols. London.

Gardiner, A. H. 1938. The house of life. *JEA* 24: 157–79.

Gardiner, A. H. 1941. Ramesside texts relating to the taxation and transport of corn. *JEA* 27: 19–73.

Gardiner, A. H. 1947. *Ancient Egyptian Onomastica*. 2 vols. Oxford.

Gardiner, A. H. 1948. *The Wilbour Papyrus II Commentary*. London.

Gardiner, A. H. 1957. *Egyptian Grammar*. Oxford (3rd. edn.).

Gardiner, A. H. 1961. *Egypt of the Pharaohs*. Oxford.

Gardiner, A. H. *The Inscription of Mes: A Contribution to the Study of Egyptian Judicial Procedure*. Hildesheim (2nd. edn.).

Gardiner, A. H. and Sethe, K. 1928. *Egyptian Letters to the Dead Mainly from the Old and Middle Kingdoms*. London.

Garnsey, P. 2004. Roman citizenship and Roman law in the Late Empire. In S. Swain and M. Edwards (eds.), *Approaching Late Antiquity: The Transformation from Early to Late Empire*. Oxford: 133–55.

Gascou, J. 1983. Les grands domaines, la cité et l'état en Égypte byzantine. *Traxaux et mémoires* 9: 1–90.

Gascou, J. 2008. *Fiscalité et société en Égypte Byzantine*. Paris.

Gasse, A. 2000. Le K2, un cas d'école? In R. J. Demarée and A. Egberts (eds.), *Deir el-Medina in the Third Millennium AD: A Tribute to Jac. J. Janssen*. Egyptologische Uitgaven 14. Leiden: 109–20.

Gauthier, H. 1916. *Le Livre des Rois d'Égypte*, IV. MIFAO 20: 66–155.

Gauthier, H. 1931. *Le Personnel du dieu Min*. Cairo.

Gautier, A. 1999. Fauna, domesticated. In K. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 300–6.

Geller, M. J. and Maehler, H. (eds.) 1995. *Legal Documents of the Hellenistic World: Papers from a Seminar*. London.

Geraci, G. 1983. *Genesi della provincia romana d'Egitto*. Bologna.

Geraci, G. 1989. L'Egitto romano nella storiografia moderna. In L. Criscuolo and G. Geraci (eds.), *Egitto e storia antica dall'Ellenismo all'età araba. Bilancio di un confronto, Atti del Colloquio internazionale. Bologna, 31 agosto–2 settembre 1987*. Bologna: 55–88.

Geraci, G. 1994. L'Egitto provincia frumentaria. In *Le Ravitaillement en blé de Rome et des centres urbains, Actes du Colloque international de Naples 1991*. Naples: 279–94.

Germer, R. 1993. Ancient Egyptian pharmaceutical plants and the eastern Mediterranean. In I. Jacob and W. Jacob (eds.), *The Healing Past*. Leiden.

Gerisch, R. 2004. *Holzkohleuntersuchungen an pharaonischem und byzantinischem Material aus Amarna und Umgebung: ein Beitrag zur Identifizierung von Hölzern unter Berücksichtigung des Gebrauches von Holz als Brennmaterial und seiner Rolle bei der Rekonstruktion der lokalen Vegetation; mit einem anthrakologischen Atlas in Deutsch und Englisch*. MÄS 53. Mainz.

Gestermann, L. 1987. *Kontinuität und Wandel in Politik und Verwaltung des frühen Mittleren Reiches in Ägypten*. GOF IV, 18. Wiesbaden.

Gestermann, L. 2004. Sargtexte aus Dair al-Biršā. Zeugnisse eines historischen Wendepunktes? In S. Bickell and B. Mathieu (eds.), *D'un monde à l'autre. Textes des Pyramides et Textes des Sarcophages*. BdE 139. Cairo: 201–17.

Gestermann, L. 2008. Die Datierung der Nomarchen von Hermopolis aus dem frühen Mittleren Reich – eine Phantomdebatte? *ZÄS* 135: 1–15.

Ghaliounghui, P. 1983. *The Physicians of Pharaonic Egypt*. Cairo.

Ghandour, M. el- and Alexanian, N. 2005. An Old Kingdom cemetery in southern Dahshur. *MDAIK* 61: 191–206.

Giammarusti, A. 2006a. La città. In E. Bresciani, A. Giammarusti, R. Pintaudi, and F. Silvano (eds.), *Medinet Madi. Venti anni di esplorazione archeologica. 1984–2005*. Pisa: 252–61.

Giammarusti, A. 2006b. Il tempio "B". In Bresciani et al. op.cit.: 58–65.

Giddy, L. 1987. *Egyptian Oases: Bahariya, Dakhla, Farafra and Kharga during Pharaonic Times*. Warminster.

Giddy, L. 1999. *The Survey of Memphis II – Kom Rabiʿa: The New Kingdom and Post-New Kingdom Objects*. Excavation Memoir 64. London.

Giddy, L. and Jeffreys, D. 1992. Memphis 1991. *JEA* 79: 1–11.

Giddy, L. and Jeffreys, D. 1993. The people of Memphis. *EA* 3: 18–20.

Gilchrist, R. 1999. *Gender and Archaeology: Contesting the Past*. London and New York.

Gilchrist, R. (ed.) 2000. *Human Lifecycles. World Archaeology* 31.3.

Gilliam, E. 1947. *The Archives of the Temple of Soknobraisis at Bacchias*. Yale Classical Studies 10. New Haven.

Gillings, R. J. 1972. *Mathematics at the Time of the Pharaohs*. Cambridge, MA.

Ginter, B. and Kozłowski, J. K. 1994. *Predynastic Settlement near Armant*. Heidelberg.

Gitton, M. 1984. *Les Divines Épouses de la 18e dynastie*. Centre de recherches d'histoire ancienne 61. Paris.

Giveon, R. 1978. *The Impact of Egypt on Canaan: Iconographical and Related Studies*. Freiburg and Göttingen.

Glanville, S. R. K. 1927. The mathematical leather roll in the British Museum. *JEA* 13: 232–8.

Gnirs, A. 1989. Haremhab – Ein Staatsreformator? Neue Betrachtungen zum Haremhab-Dekret. *SAK* 16: 83–110.

Gnirs, A. 1996. *Militär und Gesellschaft: Ein Beitrag zur Sozialgeschichte des Neuen Reiches*. SAGA 17. Heidelberg.

Gnirs, A. 2000. The language of corruption: on rich and poor in the Eloquent Peasant. In A. Gnirs (ed.), *Reading the Eloquent Peasant: Proceedings of the International Conference on The Tale of the Eloquent Peasant at the University of California, Los Angeles, March 27–30, 1997*. LingAeg 8. Göttingen: 125–55.

Gnirs, A. 2004. Die 18. Dynastie: Licht und Schatten eines internationalen Zeitalters. In A. Brodbeck and A. Wiese (eds.), *Tutanchamun. Das goldene Jenseits. Grabschätze aus dem Tal der Könige*. Basel: 27–44.

Goddio, F. and Clauss, M. (eds.) 2006. *Egypt's Sunken Treasures*. Berlin.

Goebs, K. 2007. Kingship. In T. Wilkinson (ed.), *The Egyptian World*. Abingdon and New York: 275–95.

Goedicke, H. 1960a. *Die Stellung des Königs im Alten Reich*. Wiesbaden.

Goedicke, H. 1960b. The inscription of *Dmi*. JNES 19: 288–91.

Goedicke, H. 1963. The alleged military campaign in southern Palestine in the reign of Pepi I (VIth Dynasty). *RSO* 38: 187–97.

Goedicke, H. 1967. *Königliche Dokumente aus dem Alten Reich*. ÄA 14.

Goedicke, H. 1976. *Königliche Dokumente aus dem Alten Reich*. ÄA 14.

Goedicke, H. 1981. Harkhuf's travels. *JNES* 40: 1–20.

Goedicke, H. 1982. The unification of Egypt under Mentuhotep Neb-hepet-Re (2022 B.C.). *JSSEA* 12: 157–64.

Goedicke, H. (ed.) 1985. *Perspectives on the Battle of Kadesh*. Baltimore.

Goedicke, H. 1991. Egyptian military actions in "Asia" in the Middle Kingdom. *RdE* 42: 89–94.

Goedicke, H. 1993. Ankhtyfy's threat. In Cannuyer and Kruchten 1993: 111–21.

Goedicke, H. 1995. Administrative notions in the First Intermediate Period. *CdE* 70: 41–51.

Goedicke, H. 1998a. Khu-u-Sobek's fight in "Asia." *Ä&L* 7: 33–7.

Goedicke, H. 1998b. Ankhtyfy's fights. *CdE* 73: 29–41.

Goelet, O. 1999. "Town" and "country" in Ancient Egypt. In M. Hudson and B. Levin (eds.), *Urbanization and Land Ownership in the Ancient Near East*. Peabody Museum Bulletin 7, Harvard; 65–103.

Golden, J. 2002. The origins of the metals trade in the eastern Mediterranean: social organisation of production in the early copper industries. In Th. E. Levy and E. C. M van den Brink (eds.), *Egypt and the Levant*. London and New York: 225–38.

Goldwasser, O. 1992. The Narmer palette and the "triumph of metaphor." LingAeg 2: 67–85.

Golvin, J.-Cl. and Reddé, M. 1987. Du Nil à la mer Rouge: documents anciens et nouveaux sur les routes du désert oriental d'Égypte. *Karthago* 21: 5–64.

Gopher, A. 1998. Diffusion processes in the pre-pottery Neolithic Levant: the case of the Helwan point. In I. Hershkovitz (ed.), *People and Culture in Change*. Oxford: 91–105.

Gophna, R. 1990. The Early Bronze I settlement at 'En Besor Oasis. *Israel Exploration Journal* 40: 1–11.

Gophna, R. 1992. The contacts between 'En Besor Oasis, southern Canaan, and Egypt during the late Predynastic and the threshold of the First Dynasty: a further assessment. In E. C. M. van den Brink (ed.), *The Nile Delta in Transition: 4th.–3rd. Millennium B.C.* Tel Aviv: 385–94.

Gophna, R. 1995. Early Bronze Age Canaan: some spatial and demographic observations. In T. E. Levy (ed.), *The Archaeology of Society in the Holy Land*. New York: 269–80.

Gophna, R. and Gazit, D. 1985. The First Dynasty Egyptian residency at 'En Besor. *Tel Aviv* 12: 9–16.

Gorre, G. 2009. *Les Relations du clergé égyptien et des Lagides d'après les sources privées*. Studia Hellenistica 45. Leuven.

Gorzo, D. 1999. Gurob. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 358–62.

Gosselin, L. 2000. *Les Divines Épouses d'Amon dans l'Égypte de la XIXe à la XXIe dynastie*. Études et mémoires d'égyptologie 6. Paris.

Gosselin, L. 2007. *Les divines épouses d'Amon dans l'Egypte de la XIXème à la XXIème dynastie*. Paperback edn. Paris.

Goyon, G. 1949. Le papyrus de Turin dit "des Mines d'Or" et le Wadi Hammamat. *ASAE* 49: 337–92.

Goyon, J.-C. 1975. Textes mythologiques. II. "Les Révélations du Mystère des Quatre Boules." *BIFAO* 75: 349–99.

Gozzoli, R. B. 1995. The Kushite war texts of Psammetichus II: an essay of explication. *JSSEA* 25: 46–9.

Gozzoli, R. B. 1997. La campagna nubiana di Psammetico II e i testi di frontiera saitici. *DE* 38: 5–16.

Gozzoli, R. B. 2000. The statue BM EA 37891 and the erasure of Necho II's names. *JEA* 86: 67–80 and pls. IX–XI.

Gozzoli, R. B. 2006. *The Writing of History in Ancient Egypt during the First Millennium BC (ca. 1070–180 BC): Trends and Perspectives*. London.

Graefe, E. 1981. *Untersuchungen zur Verwaltung und Geschichte der Institution der Gottesge-mahlin des Amun vom Beginn des Neuen Reiches bis zur Spätzeit*. ÄA 37. Wiesbaden.

Graham, A. and Bunbury, J. 2005. The ancient landscapes and waterscapes of Karnak. *EA* 27: 17–19.

Grajetski, W. 2000. *Die höchsten Beamten der ägyptishcen Zentralverwaltung zur Zeit des Mittleren Reiches. Prosopographie, Titel und Titelreihen*. Achet. Schriften zur Ägyptologie A2. Berlin.

Grajetzki, W. 2006. *The Middle Kingdom of Ancient Egypt*. London.

Grandet, P. 1993. *Ramsès III: Histoire d'un règne*. Paris.

Grandet, P. 1994. *Le Papyrus Harris I*. BdE 109. Cairo.

Grandet, P. 2002. The state and administration. In C. Ziegler (ed.), *The Pharaohs*. New York: 113–27.

Grant, E. 2007. *A History of Natural Philosophy*. Cambridge.

Grapow, H. 1958. *Die Medizinischen Texte in hieroglyphischer Umschreibung autographiert*. Grundriss der Medizin der Alten Ägypten 5. Berlin.

Grapow, H. et al. 1954–73. *Grundriss der Medizin der alten Ägypter*. Berlin.

Gratien, B. 1995. La Basse Nubie à l'Ancien Empire: Égyptiens et autochtones. *JEA* 81: 43–56.

Greene, K. 2006. Evolutionary metaphors and the Roman economy. In E. Lo Cascio (ed.), *Innovazione tecnica e progresso economico nel mondo romano*. Bari: 271–302.

Greiss, E. A. M. 1957. *Anatomical Identification of some Ancient Egyptian Plant Materials*, Mémoires de l'Institut d'Égypte 55, Cairo.

Grenfell, B. P., Hunt, A. S., and Hogarth, D. G. 1900. *Fayúm Towns and Their Papyri*. London.

Griffith, F. L. 1889. *The Inscriptions from Siût and Dêr Rîfeh*. London.

Griffith, F. L. 1898. *The Petrie Papyri: Hieratic Papyri from Kahun and Gurob*. 2 vols. London.

Griffiths, J. G. 1966. *The Origins of Osiris*. Berlin.

Grimal, N.-C. 1981. *La Stèle triomphale de Pi(ankh)y au Musée du Caire. JE 48862 et 47086–9.* Études sur la propagande royale égyptienne I. MIFAO 105. Cairo.

Grimal, N. 1992. *A History of Egypt.* Tr. Ian Shaw. Oxford and Cambridge, MA.

Grimal, N. and Menu, B. (eds.) 1998. *Le Commerce en Égypte ancienne.* Cairo.

Grimal, P. 1986. Auguste et Athénodore. In *Rome. La Littérature et l'histoire.* II. Rome: 1147–76.

Grimm, G. 1998. *Alexandria: Die erste Königsstadt der hellenistischen Welt.* Mainz am Rhein.

Groddek, D. 2008. Ägypten sei dem hethitischen Lande Bundesgenosse! Zur Textherstellung zweier Paragraphen des Kuruštama-Vertrages. *GM* 218: 37–43.

Grossmann, P., Le Quesne, C., and Sheehan, P. 1994. Zur römischen Festung von Babylon - Alt-Kairo. *Archäologischer Anzeiger*: 271–87.

Grossmann, P., Jones, M., Noeske, H.-C., Le Quesne, C., and Sheehan, P. 1998. Zweiter Bericht über die britisch-deutschen Grabungen in der römischen Festung von Babylon - Alt-Kairo. *Archäologischer Anzeiger*: 173–205.

Grottanelli, C. 1987. Kingship: an overview. In M. Eliade et al. (eds.), *The Encyclopedia of Religion.* VIII. New York: 313–17.

Gruen, E. 2003. Kleopatra in Rome: facts and fantasies. In D. Braund and C. Gill (eds.), *Myth, History and Culture in Republican Rome. Studies in Honour of T. P. Wiseman.* Exeter: 257–74.

Grzybek, E. 1990. *Du calendrier macédonien au calendrier ptolémaïque: problèmes de chronologie hellénistique.* Schweizerische Beiträge zur Altertumswissenschaft 20. Basel.

Guermeur, I. 2006. *Les cultes d'Amon hors de Thèbes: Recherches de géographie religieuse.* Turnhout.

Gundlach, R. 1998. *Der Pharao und sein Staat – Die Grundlegung der ägyptischen Königsideologie im 4. und 3. Jahrtausend.* Darmstadt.

Gutbub, A. 1978. Eléments ptolémaïques préfigurant le relief cultuel de Kom Ombo. In H. Maehler and M. V. Strocka (eds.), *Das ptolemäische Ägypten. Akten des Internationalen Symposions. Berlin, 27.–29. September 1976*, Mainz am Rhein: 165–76.

Gutbub, A. 1984. Kom Ombo et son relief cultuel. *BSFE* 101: 21–48.

Haas, C. 1997. *Alexandria in Late Antiquity: Topography and Social Conflict.* Baltimore and London.

Haase, M. 2004. *Eine Stätte für die Ewigkeit. Der Pyramidenkomplex des Cheops aus baulicher, architektonischer und kulturhistorischer Sicht.* Mainz am Rhein.

Habachi, L. 1940. The monument at Biyahmū. *ASAE* 40: 721–39.

Habachi, L. 1963. King Nebhepetre Mentuhotp: his monuments, place in history, deification and unusual representations in the form of gods. *MDAIK* 19: 16–52.

Habachi, L. 1969. *Features of the Deification of Ramesses II.* Glückstadt.

Habachi, L. 1974. Psammétique II dans la région de la première cataracte. *Oriens Antiquus* 13: 317–26 and pls. xix–xx.

Habermann, W. 1997. *Zur Wasserversorgung einer Metropole im kaiserzeitlichen Ägypten: Neuedition von P. Lond. III 1177.* Vestigia 53. Munich.

Hadji-Minaglou, G. 2007. *Tebtynis IV. Les Habitations à l'est du temple de Soknebtynis.* Cairo.

Haensch, R. 1997. Zur Konventsordnung in Aegyptus und den übrigen Provinzen des römischen Reiches. *Akten XXI Internationalen Papyrologenkongresses, Berlin 1995.* Berlin: 320–91.

Haeny, G. 1997. New Kingdom "mortuary temples" and "mansions of millions of Years." In B. E. Shafer (ed.), *Temples of Ancient Egypt.* Ithaca: 86–126.

Hagedorn, D. 1985. Zur Amt des διοικητής im römischen Ägypten. *Yale Classical Studies* 28: 167–210.

Hagedorn, D. 2007. The emergence of municipal offices in the nome-capitals of Egypt. In A. K. Bowman, R. Coles, N. Gonis, D. Obbink, and P. J. Parsons (eds.), *Oxyrhynchus: A City and its Texts (Proceedings of a British Academy Symposium to celebrate the Centenary of* The Oxyrhynchus Papyri, *1898–1998)*. London: 194–204.

Hagen, F. 2005. *The Prohibitions*: A New Kingdom didactic text. *JEA* 91: 125–64.

Hagen, F. 2006. Literature, transmission, and the Late Egyptian Miscellanies. In R. Dann (ed.), *Current Research in Egyptology 2004: Proceedings of the Fifth Annual Symposium, University of Durham January 2004*. Oxford: 84–99.

Hagen, F. 2007. Ostraca, literature, and teaching at Deir el-Medina. In R. Mairs and A. Stevenson (eds.), *Current Research in Egyptology 2005: Proceedings of the Sixth Annual Symposium, University of Cambridge 2005*. Oxford: 38–51.

Häggmann, S. 2002. *Directing Deir el-Medina: The External Administration of the Necropolis*. Uppsala Studies in Egyptology 4. Uppsala.

Haider, P. W. 2001. Epigraphische Quellen zur Integration von Griechen in die ägyptische Gesellschaft der Saïtenzeit. In U. Höckmann and D. Kreikenbom (eds.), *Naukratis: Die Beziehungen zu Ostgriechenland, Ägypten und Zypern in archaischer Zeit*. Akten der Table Ronde in Mainz, 25.–27. November 1999. Möhnesee: 197–215.

Halioua, B. and Ziskind, B. 2005. *Medicine in the Days of the Pharaohs*. Tr. M. B. DeBevoise. Cambridge, MA, and London.

Hall, E. S. 1986. *The Pharaoh Smites His Enemies*. MÄS 44. Berlin.

Hall, R. 1985. "The cast-off garment of yesterday": dresses reversed in life and death. *BIFAO* 85: 235–44.

Hall, R. and Pedrini, L. 1984. A pleated linen dress from a Sixth Dynasty tomb at Gebelein now in the Museo Egizio, Turin. *JEA* 70: 136–9.

Hannig, R. 1995. *Grosses Handwörterbuch Ägyptisch-Deutsch*. Mainz.

Hansen, D. 1999. Mendes, dynastic evidence. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 497–8.

Hanson, A. E. 1988. The keeping of records at Philadelphia in the Julio-Claudian period and the "economic crisis under Nero." *Proceedings of the XVIII International Congress of Papyrology, Athens 25–31 May 1986*. Athens: 261–78.

Haring, B. 1997. *Divine Households: Administrative and Economic Aspects of the New Kingdom Royal Memorial Temples in Western Thebes*. Egyptologische Uitgaven 12. Leiden.

Haring, B. 1998. Access to land by institutions and individuals in Ramesside Egypt (Nineteenth and Twentieth Dynasties; 1294–1070 BC). In B. Haring and R. de Maaijer (eds.), *Landless and Hungry? Access to Land in Early and Traditional Societies*. Leiden: 74–89.

Haring, B. 2003. From oral practice to written record in Ramesside Deir el-Medina. *JESHO* 46: 249–72.

Harker, A. 2008. *Loyalty and Dissidence in Roman Egypt: The Case of the* Acta Alexandrinorum. Cambridge.

Harpur, Y. 2006. *Oxford Expedition to Egypt: Scenes Database*, Linacre College and Arts and Humanities Research Council: http://ads.ahds.ac.uk/catalogue/archive/oee_ahrc_2006.

Harrell, J. and Brown, V. M. 1992. The oldest surviving topographical map from ancient Egypt (Turin Papyri 1879, 1899 and 1969). *JARCE* 29: 81–105.

Harrell, J. and Brown, M. 1999. A late-period quarry for naoi in the eastern desert. *EA* 14: 18–20.

Harrington, N. 2007. Children and the dead in New Kingdom Egypt. In R. Mairs and A. Stevenson (eds.), *Current Research in Egyptology 2005: Proceedings of the Sixth Annual Symposium, University of Cambridge 2005*. Oxford: 52–65.

Harris, W. V. 2006. A revisionist view of Roman money. *JRS* 96: 1–24.

Harris, W. V. and Ruffini, G. (eds.) 2004. *Ancient Alexandria between Egypt and Greece.* Leiden.

Hartung, U. 1994. Bemerkungen zur Chronologie der Beziehungen Ägyptens zu Südkanaan in spätprädynastischer Zeit. *MDAIK* 50: 107–13.

Hartung, U. 1998. Zur Entwicklung des Handels und zum Beginn wirtschaftlicher Administration im prädynastischen Ägypten. *SAK* 26: 35–50.

Hartung, U. 2001. *Umm el-Qaab II. Importkeramik aus dem Friedhof U in Abydos (Umm el-Qaab) und die Beziehungen Ägyptens zu Vorderasien im 4. Jahrtausend v. Chr.* Mainz am Rhein.

Hartung, U. et al. 2003. Vorbericht über neue Untersuchungen in der prädynastischen Siedlung von Maadi. *MDAIK* 59: 149–98.

Hartwig, M. 2004. *Tomb Painting and Identity in Ancient Thebes, 1419–1372 BCE.* Monumenta Aegyptiaca 10. Série Imago 2. Turnhout.

Hartwig M. 2008. Between predynastic palettes and dynastic relief: the case of Cairo JE 46148 & BMA 66.175. In E. M. Engel (ed.), *Zeichen aus dem Sand.* Wiesbaden. 2008: 195–209.

Harvey, Stephen P. 1998. The cults of King Ahmose at Abydos. Ph.D. University of Pennsylvania.

Hassan, F. 1980. Prehistoric settlements along the main Nile. In M. A. Williams and H. Faure, (eds.), *The Sahara and the Nile.* Rotterdam: 421–50.

Hassan, F. 1993. Town and village in ancient Egypt: ecology, society and urbanization. In T. Shaw et al. (eds.), *The Archaeology of Africa: Food, Metals and Towns.* London: 551–69.

Hassan, F. 1999a. Epi-paleolithic cultures, overview. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 15–16.

Hassan, F. 1999b. Nagada (Naqada). In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 555–7.

Hauben, H. 2001. Das Expeditionsheer Psamtiks II. in Abu Simbel (593/592 v.Chr.). In K. Geus and K. Zimmermann (eds.), *Punica – Libyca – Ptolemaica, Festschrift für Werner Huß zum 65. Geburtstag, Studia Phoenicia* XVI. OLA 104. Leuven; Paris; Sterling: 53–77.

Hawass, Z. 1995. Programs of the royal funerary complexes of the Fourth Dynasty. In D. O'Connor and D. P. Silverman (eds.), *Ancient Egyptian Kingship.* PA 9. Leiden: 221–62.

Hawass, Z. 1999a. Giza, Khufu pyramid complex. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 347–50.

Hawass, Z. 1999b. Giza, workmen's community. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 353–60.

Hawass, Z. 2000. Recent discoveries in the pyramid complex of Teti at Saqqara. In M. Bárta and J. Krejcí (eds.), *Abusir and Saqqara in the Year 2000.* Archiv orientální, supplement ix. Prague: 413–44.

Hawass, Z. (ed.), 2003. *The Treasures of the Pyramids.* White Star.

Hawass, Z. 2005a. Khufu's national project: The Great Pyramid of Giza in the year 2528 B.C. In P. Jánosi (ed), *Structure and Significance: Thoughts on Ancient Egyptian Architecture.* Vienna: 305–30.

Hawass, Z. 2005b. *Tutankhamun and the Golden Age of the Pharaohs.* Washington.

Hawass, Z. New discovery from Dynasty 1. Published online at www.guardians.net/hawass/articles/new_discovery_from_dynasty_1.htm.

Hayes, W. C. 1955. *A Papyrus of the Late Middle Kingdom in the Brooklyn Museum (Papyrus Brooklyn 35.1446).* Brooklyn.

Hecker, H. M. 1982. A zooarchaeological inquiry into pork consumption in Egypt from prehistoric to New Kingdom times. *JARCE* 19: 59–71.

Hein, I. 1991. *Die Ramessidische Bautätigkeit in Nubien.* Wiesbaden.

Heinen, H. 1966. Rom und Ägypten von 51 bis 47 v.C. Untersuchungen zur Regierungszeit der 7. Kleopatra und des 13. *Ptolemäers*, Diss. Tübingen.

Heinen, H. 1995. Vorstufen und Anfänge des Herrscherkultes im römischen Ägypten. *ANRW* II. 18.5: 3144–80.

Heinen, H. 2000. Boéthos, fondateur de poleis en Égypte ptolémaïque (OGIS I 111 et un nouveau papyrus de la collection de Trèves). In Mooren 2000: 123–53.

Heinen, H. 2009. *Kleopatra-Studien. Gesammelte Schriften zur ausgehenden Ptolemäerzeit.* Xenia: Konstanzer althistorische Vorträge und Forschungen 49. Konstanz.

Helck, W. 1954a. Bemerkungen zum Ritual des Dramatischen Ramesseumspapyrus. *Or* 23: 383–411.

Helck, W. 1954b. *Untersuchungen zu den Beamtentiteln des ägyptischen Alten Reiches.* Glückstadt.

Helck, W. 1968. Ritualszenen in Karnak. *MDAIK* 23: 117–37.

Helck, W. 1971. *Die Beziehungen Ägyptens zu Vorderasien im 3. und 2. Jahrtausend v. Chr.* Wiesbaden.

Helck, W. 1974a. *Die altägyptischen Gaue.* Beihefte zum Tübinger Atlas des Vorderen Orients Reihe B, 5. Wiesbaden.

Helck, W. 1974b. Die Bedeutung der Felsinschriften J. Lopez. *Inscripciones rupestres* 27 und 28. *SAK* 1: 215–25.

Helck, W. 1975a. *Zur Verwaltung des Mittleren und Neuen Reichs.* PÄ 3. Leiden and Cologne (1st edn. 1958).

Helck, W. 1975b. *Wirtschaftsgeschichte des Alten Ägypten im 3. und 2. Jahrtausand vor Chr.*, HdO I, 1.5. Leiden.

Helck, W. 1977a. Das Verfassen einer Königsinschrift. In J. Assmann, et al. (eds.), *Fragen an die altägyptische Literatur. Studien zum Gedenken an Eberhard Otto.* Wiesbaden: 241–56.

Helck, W. 1977b. Die ''Weihinschrift'' aus dem Taltempel des Sonnenheiligtums des Konigs Neussere bei Abu Gurob. *SAK* 5: 47–77.

Helck, W. 1983. *Historisch-biographische Texte der 2. Zwischenzeit und neue Texte der 18. Dynastie.* KAT 6.1. Wiesbaden (2nd edn.).

Helck, W. 1984. Heliopolis und die Sonnenheiligtümer. In R. Holthoer and T. Linders (eds.), *Sundries - in Honour of Torgny Säve-Söderbergh.* Boreas 13. Uppsala: 67–72.

Helck, W. 1987a. Ägypten im frühen Neuen Reich, Grundzüge einer Entwicklung. In A. Eggebrecht (ed.), *Ägyptens Aufstieg zur Weltmacht.* Hildesheim and Mainz: 11–28.

Helck, W. 1987b. *Untersuchungen zur Thinitenzeit.* Wiesbaden. ÄA 45.

Hendrickx, S. 1995. *Analytical Bibliography of the Prehistory and the Early Dynastic Period of Egypt and Northern Sudan.* Leuven.

Hendrickx, S. 1996. The relative chronology of the Naqada culture: problems and possibilities. In J. Spencer (ed.), *Aspects of Early Egypt.* London: 36–69.

Hendrickx, S. 1999a. La Chronologie de la préhistoire tardive et des débuts de l'histoire de l'Égypte. *Archéo-Nil* 9: 13–81.

Hendrickx, S. 1999b. Elkab. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 289–93.

Hendrickx, S. 2006. Predynastic – Early Dynastic chronology. In E. Hornung et al. (eds.), *Ancient Egyptian Chronology. Handbook of Oriental Studies, Section I.* Leiden and Boston: 55–93.

Hendrickx, S. and Friedman, R. F. 2003. Gebel Tjauti rock inscription 1 and the relationship between Abydos and Hierakonpolis during the Early Naqada III period. *GM* 196: 95–110.

Hendrickx, S. and van den Brink, E. C. M. 2002. Inventory of Predynastic and Early Dynastic cemetery and settlement sites in the Egyptian Nile Valley. In Th. E. Levy and E. C. M van den Brink (eds.), *Egypt and the Levant*. London and New York: 346–99.

Hendrickx, S., Midant-Reynes, B., and Van Neer, W. 2001. *Mahgar Dendera 2 (Haute Egypte), un site d'occupation Badarien*. Leuven.

Hendrickx, S., Friedman, R., Ciałowicz, K., and Chłodnicki, M. (eds.) 2004. *Egypt at its Origins. Studies in Memory of Barbara Adams*. OLA 138. Leuven.

Herbich, T. 2003. Archaeological geophysics in Egypt: the Polish contribution. *Archaeologia Polonia* 41: 13.

Herbich, T. and Hartung, U. 2004. Geophysical investigations at Buto (Tell el-Farain). *EA* 24: 14–17.

Herbich, T. and Spencer, J. 2006. Geophysical survey at Tell el-Balamun. *EA* 29: 16–19.

Herklotz, F. 2007. *Prinzeps und Pharao. Der Kult des Augustus in Ägypten*. Oikumene. Studien zur antiken Weltgeschichte, 4. Frankfurt am Main.

Herodotus. 1960. *Histories,* Book II. Tr. A. D. Godley. London and Cambridge, MA.

Herodotus. 2003. *The Histories*. London.

Hikade, Th. 2001. Silex-Pfeilspitzen in Ägypten. *MDAIK* 57: 109–25.

Hikade, Th. 2003. Getting the ritual right: fishtail knives in Predynastic Egypt. In S. Meyer (ed.), *Egypt – Temple of the Whole World. Studies in Honour of Jan Assmann*. Leiden and Boston: 137–51.

Hikade, Th. 2008. Does burning make stone tools special? A possible pit deposit at Hierakonpolis. In E.-M. Engel, U. Hartung, and V. Müller (eds.), *Zeichen aus dem Sand. Streiflichter aus Ägyptens Geschichte zu Ehren von Günter Dreyer*. Wiesbaden: 273–82.

Hill, M. (ed.). 2007. *Gifts for the Gods: Images from Egyptian Temples*. New York.

Hillier, J, Bunbury, J., and Graham, A. 2007. Monuments on a migrating Nile, *Journal of Archaeological Science* 34: 1011–15.

Hintze, F. and Reineke, W. F. 1989. *Felsinschriften aus dem sudanesischen Nubien*. Berlin.

Hirst, A. and Silk, M. (eds.) 2004. *Alexandria, Real and Imagined*. Aldershot.

Hobson, D. W. 1993. The impact of law on village life in Roman Egypt. In B. Halpern and D.W. Hobson (eds.), *Law, Politics and Society in the Ancient Mediterranean World*. Sheffield: 193–219.

Hodder, I. 2004. The "social" in archaeological theory: an historical and contemporary perspective. In L. Meskell and R. W. Preucel (eds.), *A Companion to Social Archaeology*, Oxford: 23–42.

Hoffman, M. A., 1979. *Egypt before the Pharaohs: The Prehistoric Foundations of Egyptian Civilization*. New York.

Hoffman, M.A., 1980. A rectangular Amratian house from Hierakonpolis and its significance for Predynastic research. *JNES* 39: 119–37.

Hoffman, M. A. 1984. *Egypt before the Pharaohs*. London.

Hoffman, M. A., Hamroush, H. A., and Allen, R. O. 1986. A model of urban development for the Hierakonpolis region from Predynastic through Old Kingdom times. *JARCE* 23: 175–87.

Hoffmann, F. 2000. *Ägypten Kultur und Lebenswelt in griechisch-römischer Zeit. Eine Darstellung nach den demotischen Quellen*. Berlin.

Hoffmann, F. and Thissen, H.-J. (eds.) 2004. *Res severa verum gaudium. Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004*. Studia Demotica 6. Leuven; Paris; Dudley.

Hoffmeier, J. K. and Abd el-Maksoud, M. 2003. A new military site on "the ways of Horus" – Tell el-Borg 1999–2001: a preliminary report. *JEA* 89: 169–97.

Hoffmeier, J. K. and Kitchen, K. 2007. Reshep and Astarte in North Sinai: a recently discovered stela from Tell el-Borg. *Ä&L* 17: 127–36.

Hofmann, T. 2005. *Zur sozialen Bedeutung zweier Begriffe für «Diener»:* bꜣk *und* ḥm: *untersucht an Quellen vom Alten Reich bis zur Ramessidenzeit.* AH 18. Basel.

Hölbl, G. 2000. *Altägypten im römischen Reich, Der römische Pharao und seine Tempel I. Römische Politik und altägyptische Ideologie von Augustus bis Diocletian. Tempelbau in Oberägypten.* Mainz am Rhein.

Hölbl, G. 2001. *A History of the Ptolemaic Empire.* London and New York.

Hölbl, G. 2004. *Altägypten im römischen Reich, Der römische Pharao und seine Tempel II. Die Tempel des römischen Nubien.* Mainz am Rhein.

Hölbl, G. 2005. *Altägypten im römischen Reich, Der römische Pharao und seine Tempel III. Heiligtümer und religiöses Leben in den ägyptischen Wüsten und Oasen.* Mainz am Rhein.

Holder, P. A. 1980. *Studies in the Auxilia of the Roman Army from Augustus to Hadrian.* BAR International Series 70. Oxford.

Holladay, Jr., J. S. 1982. *Cities of the Delta, Part III: Tell el-Maskhuta. Preliminary Report on the Wadi Tumilat Project 1978–1979.* American Research Center in Egypt Reports 6. Malibu.

Holladay, Jr., J. S. 1999a. Tell el-Maskhuta. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 787–9.

Holladay, Jr., J. S. 1999b. Wadi Tumilat. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 878–81.

Holmes D. L. 1988. The Predynastic lithic industries of Badari, Middle Egypt: new perspectives and interregional relations. *World Archaeology* 20.1: 70–86.

Holmes, D. L. 1989. *The Predynastic Lithic Industries of Upper Egypt. A Comparative Study of the Lithic Traditions of Badari, Naqada and Hierakonpolis.* Oxford.

Holmes, D. L., 1993. Archaeological investigations in the Badari region, Egypt: a report on the 1992 season. *Nyame Akuma* 39: 19–25.

Holmes, D. L. and Friedman, R. F. 1994. Survey and test excavations in the Badari region, Egypt. *Proceedings of the Prehistoric Society* 60: 105–42.

Holthoer, R. 1977. *New Kingdom Pharaonic Sites: The Pottery.* Scandinavian Joint Expedition to Sudanese Nubia, vol. 5.1. Stockholm.

Hölz, C. 1999. Thebes, el-Tarif, *saff*-tombs. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt,* New York: 826–8.

Honoré, T. 2004. Roman law AD 200–400: from Cosmopolis to Rechtstaat? In S. Swain and M. Edwards (eds.), *Approaching Late Antiquity: The Transformation from Early to Late Empire.* Oxford: 109–32.

Hope, C. 1981. Two ancient Egyptian potter's wheels. *JSSEA* 2: 127–33.

Hope, C. 1997. The find context of the Kellis Agricultural Account Book. In R. S. Bagnall (ed.), *The Kellis Agricultural Account Book (P. Kell. IV Gr. 96).* Oxford: 5–16 and figs. 1–2.

Hope, C. and McFarlane, A. 2006. *Akhmim in the Old Kingdom.* II: *The Pottery, Decoration Techniques, and Colour Conventions.* ACE Studies 7. Sydney.

Hope, C. and Whitehouse, H. 2006. A painted residence at Ismant el-Kharab (*Kellis*) in the Dakhleh Oasis. *JRA* 19: 312–28.

Hopkins, K. 1980. Brother–sister marriage in Roman Egypt. *Comparative Studies in Society and History* 22: 303–54.

Hopkins, K. 1991. Conquest by book. In M. Beard, et al. (eds.), *Literacy in the Roman World.* Ann Arbor: 132–58.

Horden, P. and Purcell, N. 2000. *The Corrupting Sea: A Study of Mediterranean History.* Oxford and Malden.

Hornblower, S. 1982. Hekatomnid Sister-Marriage. In Hornblower, *Mausolus.* Oxford: 358–63.

Hornbostel W. 1973. *Sarapis: Studien zur Überlieferungsgeschichte, den Erscheinungsformen und Wandlungen der Gestalt eines Gottes.* EPRO 32. Leiden.

Hornung, E. 1992. *Idea into Image: Essays on Ancient Egyptian Thought.* Tr. E. Bredeck. New York.

Hornung, E. 1996. *Conceptions of God in Ancient Egypt: The One and the Many.* Ithaca.

Hornung, E. 1997. The pharaoh. In S. Donadini (ed.), *The Egyptians.* Chicago: 283–314.

Hornung, E. and Staehelin, E. 2006. *Neue Studien zum Sedfest.* AH 20. Basel.

Hornung, E., Krauss, R., and Warburton, D. A. (eds.) 2006. *Ancient Egyptian Chronology.* HdO 83. Leiden and Boston.

Horster, M. 2009. Geistesleben in Alexandria im 2. Jh. v. Chr. und die sogenannte Gelehrten-vertreibung. In Quack-Jördens 2010.

Houlihan, P. 1986. *The Birds of Ancient Egypt.* The Natural History of Egypt, vol. 1, Warminster.

Houlihan, P. 1996. *The Animal World of the Pharaohs.* Cairo.

Houston, S. 2001. Decorous bodies and disordered passions: representations of emotion among the classic Maya. *World Archaeology* 33.2: 206–19.

Houston, S. and Taube, K. 2000. An archaeology of the senses: perception and cultural expression in ancient Mesoamerica. *CAJ* 10: 261–94.

HT = British Museum. 1912. *Hieroglyphic Texts from Egyptian Stelae in the British Museum.* London.

Huebner, S. R. 2007. Brother–sister marriage in Roman Egypt: a curiosity of humankind or a widespread family strategy? *JRS* 97: 21–49.

Hughes, G. R. 1986. An astrologer's handbook in Demotic Egyptian. In L. H. Lesko (ed.), *Egyptological Studies in Honor of Richard A. Parker.* Hanover and London: 53–69.

Hunt, A. S. and Edgar, C. C. 1932–4. *Select Papyri.* 1–2. Cambridge, MA, and London.

Huss, W. 1994. *Der makedonische König und die ägyptischen Priester, Studien zur Geschichte des ptolemäischen Aegypten.* Historia Einzelschriften 85. Stuttgart.

Huss, W. 2001. *Ägypten in hellenistischer Zei. 332–30 v. chr.* Munich.

Husselman, E. M. 1979. *Karanis: Excavation of the University of Michigan in Egypt 1928–1935. Topography and Architecture.* Ann Arbor.

Husson, G. 1983. OIKIA. *Le Vocabulaire de la maison privée en Égypte d'après les papyrus grecs.* Paris.

Ikram, S. 1996. *Choice Cuts: Meat Production in Ancient Egypt.* OLA 69. Leuven.

Ikram, S. 2000. Meat processing. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology.* Cambridge: 505–36.

Ikram, S. 2005a. The loved ones: Egyptian animal mummies as cultural and environmental indicators. In H. Buitenhuis, A. M. Choyke, L. Martin, L. Bartosiewicz, and M. Mashkour (eds.), *Archaeozoology of the Near East.* ARC. Groningen: 240–8.

Ikram, S. (ed.). 2005b. *Divine Creatures: Animal Mummies in Ancient Egypt.* Cairo.

Ikram, S. and Dodson, A. 1998. *The Mummy in Ancient Egypt.* London.

Ikram S. and Rossi, C. 2002. Surveying the North Kharga Oasis. *KMT* 13.4: 72–9.

Ikram, S. and Rossi, C. 2004. A new Early Dynastic *serekh* from the Kharga Oasis. *JEA* 189: 211–15.

Imhausen, A. 2002. The algorithmic structure of the Egyptian mathematical problem texts. In J. M. Steele and A. Imhausen (eds.), *Under One Sky: Astronomy and Mathematics in the Ancient Near East.* Münster: 147–61.

Imhausen, A. 2003. *Ägyptische Algorithmen.* ÄA 65. Wiesbaden.

Ingham, M. F. 1969. The length of the Sothic cycle. *JEA* 55: 36–40.

Insley-Green, C. 1987. *The Temple Furniture from the Sacred Animal Necropolis at North Saqqâra. 1967–76.* Excavation Memoir 53. London.

Isler, M. 2001. *Sticks, Stones and Shadows: Building the Egyptian Pyramids.* Norman.

Iversen, E. 1939. *Papyrus Carlsberg, no VIII*. Copenhagen.

Jackson, R. B. 2002. *Empire's Edge: Exploring Rome's Egyptian Frontier*. New Haven and London.

Jacquet-Gordon, H. K. 2004. *The Graffiti on the Khonsu Temple Roof at Karnak: A Manifestation of Personal Piety*. The Temple of Khonsu 3. Chicago.

James, T. G. H. 1984. *Pharaoh's People: Scenes from Life in Imperial Egypt*, London.

James, T. G. H. 1991. Egypt: The Twenty-fifth and Twenty-sixth Dynasties. In J. Boardman et al. (eds.), *The Cambridge Ancient History* (2nd edn.). III[2]. *The Assyrian and Babylonian Empires and other States of the Near East, from Eighth to the Sixth Centuries B.C.* Cambridge: 708–38.

Jameson, S. 1968. Chronology of the campaigns of Aelius Gallus and C. Petronius. *JRS* 58: 71–84.

Jánosi, P. 2005. *Giza in der 4. Dynastie, 1: Die Mastabas des Kernfriedhöfe und die Felsgräber*. Vienna.

Jánosi, P. 2006. Old Kingdom tombs and dating – problems and priorities: the cemetery in Echelon at Giza. In M. Bárta (ed.), *The Old Kingdom Art and Archaeology: Proceedings of the Conference held in Prague, May 31–June 4, Czech Institute of Egyptology*. Prague: 175–83.

Jansen-Winkeln, K. 1989a. Zu einigen ''Trinksprüchen'' auf ägyptischen Gefässen. *ZÄS* 116: 143–53.

Jansen-Winkeln, K. 1989b. Zur Schiffliste aus Elephantine. *GM* 109: 31.

Jansen-Winkeln, K. 2000. Die Fremderherrschaft im 1. Jahrtausend v. Chr. *Or* 69: 1–19.

Jansen-Winkeln, K. 2001a. Bild und Charakter der ägyptischen 26. Dynastie. *Altorientalische Forschungen* 28: 165–82.

Jansen-Winkeln, K. 2001b. Der Thebanische ''Gottesstaat.'' *Or* 70: 153–82.

Jansen-Winkeln, K. 2006a. The chronology of the Third Intermediate Period: Dyns. 22–24. In E. Hornung, R. Krauss, and D. A. Warburton (eds.), *Ancient Egyptian Chronology*. Leiden: 234–64.

Jansen-Winkeln, K. 2006b. The relevance of genealogical information for Egyptian chronology. *Ä&L* 16: 257–73.

Jansen-Winkeln, K. 2007. *Inschriften der Spätzeit. Teil I: Die 21. Dynastie*. Wiesbaden.

Janssen, J. J. 1975a. *Commodity Prices from the Ramessid Period*. Leiden.

Janssen, J. J. 1975b. Prolegomena to the study of Egypt's economic history during the New Kingdom. *SAK* 3: 127–85.

Janssen, J. J. 1982. Gift-giving in Ancient Egypt as an economic feature. *JEA* 68: 253–8.

Janssen, J. J. 1990. On the scent of a fox. *DE* 16: 43–51.

Janssen, J. J. 1991. *Late Ramesside Letters and Communications*. Hieratic Papyri in the British Museum 6. London.

Janssen, J. J. 1994. The cost of Nile transport. *BSEG* 18: 41–7.

Janssen, J. J. 1997a. Women and gifts. In J. Janssen, *Village Varia: Ten Studies on the History and Administration of Deir el-Medina*. Egyptologische Uitgaven 11. Leiden: 55–86.

Janssen, J. J. 1997b. Fish and fisherman. In J. Janssen, *Village Varia: Ten Studies on the History and Administration of Deir el-Medina*. Egyptologische Uitgaven 11, Leiden: 37–54.

Janssen, J. J. 2003. The woodcutters. In J. Janssen, E. Frood, and M. Goecke-Bauer (eds.), *Woodcutters, Potters and Doorkeepers: Service Personnel of the Deir el-Medina Workmen*. Leiden: 1–28.

Janssen, J. J. 2004. *Grain Transport in the Ramesside Period: Papyrus Baldwin (BM EA 10061) and Papyrus Amiens*. Hieratic Papyri in the British Museum VIII. London.

Janssen, J. J. 2005. *Donkeys at Deir el-Medína*. Leiden.

Janssen, J. J. 2008. *Daily Dress at Deir el-Medı́na*: *Words for Clothing*. London.

Janssen, R. M. 1992. *The First Hundred Years: Egyptology at University College London 1892–1992*. London.

Janssen, R. M. and Janssen, J. J. 2007. *Growing Up and Getting Old in Ancient Egypt*. London.

Jaroš-Deckert, B. 1984. *Das Grab des Jnj-jtj.f. Die Wandmalereien der XI. Dynastie*. AVDAIK 12. Mainz am Rhein.

Jasnow, R. 2003. Old Kingdom and First Intermediate Period, Middle Kingdom and Second Intermediate Period, New Kingdom, Third Intermediate Period. In R. Westbrook (ed.), *A History of Ancient Near Eastern Law*. (Handbook of Oriental Studies, Section One: The Near and Middle East 72). 2 vols. Leiden and Boston: 93–140, 255–359, 777–818.

Jasnow, R. and Zauzich, K.-T. 2005. *The Ancient Egyptian Book of Thoth*. Wiesbaden.

Jeffreys, D. 1999. Memphis. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 488–90.

Jeffreys, D. 2003. Introducing 200 years of ancient Egypt: modern history, ancient archaeology. In D. Jeffreys (ed.), *Views of Ancient Egypt since Napoleon Bonaparte: Imperialism, Colonialism and Modern Appropriation*. London: 1–3.

Jeffreys, D. 2007. The Nile Valley. In T. Wilkinson (ed.), *The Egyptian World*. Abingdon and New York: 7–14.

Jeffreys, D. and Giddy, L. 1992. Toward archaic Memphis. *EA* 2: 6–7.

Jeffreys, D. and Giddy, L. 1993. The people of Memphis. *EA* 3: 18–20.

Jelinkova-Reymond, E. 1956. *Les Inscriptions de la statue guérisseuse de Djed-Hor – ‘‘le Sauveur.’’* BdE 23. Cairo.

Jenkins, M. 2000. Notes on the tomb of Setka at Qubbet el-Hawa, Aswan. *BACE* 11: 67–81.

Jenkins, N. 1980. *The Boat beneath the Pyramid*. London.

Jennerstraße 8 (eds.) 2002. *Tides of the Desert – Gezeiten der Wüste*. Cologne.

Johnson, J. 1986. The role of the Egyptian priesthood in Ptolemaic Egypt. In L. Lesko (ed.), *Egyptological Studies in Honor of Richard A. Parker*. Hanover, NH: 70–84.

Johnson, J. 1987a. Ptolemaic bureaucracy from an Egyptian point of view. In M. Gibson and R. Biggs (eds.), *The Organization of Power: Aspects of Administration in the Ancient, Medieval and Ottoman Middle East, a Symposium Held at the University of Chicago, Spring, 1983*. SAOC 46. Chicago: 141–9.

Johnson, J. 1987b. Review. *JNES* 46: 323–4.

Johnson, J. 1998. Women, wealth and work in Egyptian society of the Ptolemaic period. In W. Clarysse, A. Schoors, and H. Willems (eds.), *Egyptian Religion The Last Thousand Years. Studies Dedicated to the Memory of Jan Quaegebeur*. 2. Leuven: 1393–1421.

Johnson, J. 2003. Sex and marriage in Ancient Egypt. In N. Grimal, A. Kamel, and C. Sheikholeslami (eds.), *Hommages à Fayza Haikal*. BdE 138. Cairo: 149–59.

Johnson, W. R. 1990. Images of Amenhotep III in Thebes: styles and intentions. In L. M. Berman (ed.), *The Art of Amenhotep III. Art Historical Analysis. Papers Presented at the International Symposium Held at the Cleveland Museum of Art, Cleveland, Ohio, 20–21 november 1987*. Cleveland: 26–46.

Johnson, W. R. 1992. An Asiatic battle scene of Tutankhamun from Thebes: a late Amarna antecedent of the Ramesside battle-narrative tradition. Ph.D. Chicago.

Jomard, R. 1820. *Description de l'Égypte*. Paris.

Jonckheere, F. 1947. *Le Papyrus Médical Chester Batty*. Brussels.

Jones, A. H. M. 1964. *The Later Roman Empire 284–602: A Social, Economic and Administrative Survey*. Oxford.

Jones, D. 1990. *Model Boats from the Tomb of Tutankhamun*. Oxford.

Jones, D. 1995. *Boats*. London.

Jones, D. 1999. Saqqara, Serapeum and animal necropolis. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 712–16.

Jones, J. 2007. New perspectives on the development of mummification and funerary practices during the Pre-and Early Dynastic Periods. In J.-C. Goyon and C. Cardin (eds.), *Proceedings of the Ninth International Congress of Egyptologists*. Leuven: 979–89.

Jones, M. 1999. Memphis, Apis bull embalming house. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 491–3.

Jones, P. 2006. *Cleopatra: A Sourcebook*. Norman.

Jördens, A. 2008. Judentum und Karriere im antiken Alexandria. In A. Jördens, H. A. Gärtner, H. Görgemanns, and A. M. Ritter (eds.), *Quaerite faciem eius semper. Studien zu den geistesgeschichtlichen Beziehungen zwischen Antike und Christentum. Dankesgabe für Albrecht Dihle zum 85. Geburtstag aus dem Heidelberger "Kirchenväterkolloquium"*. Studien zur Kirchengeschichte 8. Hamburg: 116–33.

Jördens, A. 2009. *Statthalterliche Verwaltung in der römischen Kaiserzeit. Studien zum* praefectus Aegypti. Historia Einzelschriften 175. Stuttgart.

Junge, Fr. 1987. Elephantine XI : Funde und Bauteile. AV 49. Mainz am Rhein.

Kaenel, Fr. von 1980. Les mésaventures du conjurateur de Serket Onnophris et de son tombeau. *BSFE* 87–8: 31–45.

Kahl, J. 2007. *Ancient Assiut: The First Synthesis after 300 Years of Research*. Wiesbaden.

Kahn, D. 2004. Taharqa, King of Kush and the Assyrians. *JSSEA* 31: 109–28.

Kahn, D. 2005. Royal succession in the Twenty-fifth Dynasty. *MittSAG* 16: 143–63.

Kahn, D. 2006. The Assyrian invasions of Egypt (673–663 B.C.) and the final expulsion of the Kushites. *SAK* 34: 251–67.

Kaiser, W. 1956. Stand und Probleme der ägyptischen Vorgeschichtsforschung. *ZÄS* 81: 87–109.

Kaiser, W. 1957. Zur inneren Chronologie der Naqadakultur. *Archaeologia Geographica* 6: 69–77.

Kaiser, W. 1964. Einige Bemerkungen zur ägyptischen Frühzeit. *ZÄS* 91: 86–125.

Kaiser, W. 1985 Zur Südausdehnung der vorgeschichtlichen Deltakulturen und zur frühen Entwicklung Oberägyptens. *MDAIK* 41: 61–87.

Kaiser, W. 1987. Zum Friedhof der Naqada-kultur von Minshat Abu Omar. *ASAE* 71: 119–26.

Kaiser, W. 1989. Vor- und Frühgeschichte. *LÄ* VI: 1069–76.

Kaiser, W. 1990. Zur Entstehung des gesamtägyptischen Staates. *MDAIK* 46: 287–99.

Kaiser, W. 1995. Trial and Error. *GM* 149: 5–14.

Kaiser, W. 1998. *Elephantine, the Ancient Town: Official Guidebook of the German Institute of Archaeology, Cairo*. Tr. M. Eaton-Krauss. Cairo.

Kaiser, W. 1999. Elephantine. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 283–9.

Kaiser, W. et al. 1999. Stadt und Tempel von Elephantine. 25./26./27. Grabungsbericht. *MDAIK* 55: 63–236.

Kalavrezou-Maxeiner, I. 1975. The imperial chamber at Luxor. *Dumbarton Oaks Papers* 29, 225–51.

Kampp, F. and Seyfried, K. J. 1995. Eine Rückkehr nach Theben: Das Grab des Pa-ren-nefer, Hoherpriester des Amun zur Zeit Tutanchamuns. *Antike Welt* 26.5: 325–42.

Kampp-Seyfried, F. 1999a. Qurnet Murai. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 811–12.

Kampp-Seyfried, F. 1999b. Thebes, Dra' Abu el-Naga. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 804–6.

Kampp-Seyfried, F. 1999c, Thebes, el-Asasif. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 802–4.

Kampp-Seyfried, F. 1999d. Thebes, New Kingdom private tombs. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 8, 9, 11.

Kampp-Seyfried, F. 1999e. Thebes, Sheikh Abd el-Qurna. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 822–4.

Kamrin, J. 1999. *The Cosmos of Khnumhotep II at Beni Hasan*. London.

Kanawati, N. 1981. *Governmental Reforms in Old Kingdom Egypt*. Warminster.

Kanawati, N. 1992. *Akhmim in the Old Kingdom*. I *Chronology and Administration*. ACE 2. Sydney.

Kanawati, N. 1993. *The Tombs of el-Hagarsa*. I–II. ACE 4, 6. Sydney.

Kanawati, N. 2003. *Conspiracies in the Egyptian Palace: Unis to Pepy I*. London and New York.

Kansa, E. and Levy, T. E. 2002. Ceramics, identity, and the role of the state: the view from Nahal Tillah. In E. C. M. van den Brink and T. E. Levy (eds.), *Egypt and the Levant. Interrelations From the 4th Through the Early 3rd Millennium B.C.E.* London and New York: 190–212.

Kantorowitz, E. H. 1957. *The King's Two Bodies: A Study in Medieval Political Theology*. Princeton.

Kaper, O. (ed.) 1998. *Life on the Fringe: Living in the Southern Egyptian Deserts during the Roman and early-Byzantine Periods*. Proceedings of a Colloquium Held on the Occasion of the 25th Anniversary of the Netherlands Institute for Archaeology and Arabic Studies in Cairo 9–12 December 1996. Leiden.

Kaper, O. 1998. Temple building in the Egyptian deserts during the Roman period. In Kaper (ed.), 1998: 139–58.

Kaper, O. 2001. Two decorated blocks from the temple of Seth in Mut el-Kharab. *BACE* 12: 71–8 and pls. 22–3.

Kaper, O. and Willems, H. 2002. Policing the desert: Old Kingdom activity around the Dakhleh Oasis. In Friedman 2002: 79–94.

Kaplony, P. 2002. The 'En Besor Seal Impressions – Revised. In E. C. M. van den Brink and T. E. Levy (eds.), *Egypt and the Levant: Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London and New York: 487–98.

Kaplony-Heckel, U. 1963. *Die demotischen Tempeleide*. ÄA 6. Wiesbaden.

Karkowski, J. et al. 1983. Amenhotep, son of Hapu, and Imhotep at Deir el-Bahari: some reconsiderations. *MDAIK* 39: 93–105.

Keel, O. 1996. Ein weiterer Skarabäus mit einer Nilpferdjagd, die Ikonographie der sogenannten Beamtenskarabäen und der ägyptische König auf Skarabäen vor dem Neuen Reich. *Ä&L* 6: 119–36.

Keenan, J. G. 2000. Egypt. *Cambridge Ancient History*. 14. Cambridge: 612–37 (2nd edn.).

Keenan, J. G. 2007 Byzantine Egyptian villages. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700*. Cambridge: 226–43.

Keenan, J. G., Manning, J. G., and Yiftach-Firanko, U. (eds.) forthcoming. *Law and Society in Greek and Roman Egypt*. Cambridge.

Kees, H. 1953–8. *Das Priestertum im ägyptischen Staat vom neuen Reich bis zur Spätzeit*. Leiden and Cologne.

Kehoe, D. P. 1992. *Management and Investment on Estates in Roman Egypt during the Early Empire*. PTA 40. Bonn.

Kehoe, D. P. 2003. Aristocratic dominance in the Late Roman agrarian economy. Review of Jairus Banaji, *Agrarian Change in Late Antiquity: Gold, Labour and Aristocratic Dominance*. *JRA* 16: 711–21.

Kemp, B. J. 1972a. Fortified towns in Nubia. In P. J. Ucko, R. Tringham, and G. W. Dimbleby (eds.), *Man, Settlement and Urbanism*. London: 651–6.

Kemp, B. J. 1972b. Temple and town in ancient Egypt. In P. Ucko, R. Tringham, and G. Dimbleby (eds.), *Man, Settlement and Urbanism*. London: 657–80.

Kemp, B. J. 1977a. The early development of towns in Egypt. *Antiquity* 51: 185–200.

Kemp, B. J. 1977b. The city of el-Amarna as a source for the study of urban society in ancient Egypt. *World Archaeology* 9.2: 123–41.

Kemp, B. J. 1977c. The Palace of Apries at Memphis. *MDAIK* 33: 101–8.

Kemp, B. J. 1981. The character of the South Suburb at Tell el-'Amarna. *MDOG* 113: 81–9.

Kemp, B. J. 1982–95. *Amarna Reports*. I–VI. London.

Kemp, B. J. 1986. Large Middle Kingdom granary buildings (and the archaeology of administration). *ZÄS* 113.2: 120–36.

Kemp, B. J. 1987. The Amarna workmen's village in retrospect. *JEA* 73: 21–50.

Kemp, B. J. 1991. Explaining ancient crises. *CAJ* 1: 239–44.

Kemp. B. J. 1995. How religious were the ancient Egyptians? *CAJ* 5.1: 25–54.

Kemp. B. J. 1997. Why empires rise. *CAJ* 7: 125–31.

Kemp, B. J. 2000a. Soil (including mud-brick architecture). In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology*. Cambridge: 78–103.

Kemp, B. J. 2000b. Viewpoint: were cities built as images? Bricks and metaphor. *CAJ* 10.2: 335–45.

Kemp, B. J. 2004. Egypt's invisible walls. *CAJ* 14.2: 259–88.

Kemp, B. J. 2006. *Ancient Egypt: Anatomy of a Civilization*. London and New York (1st edn. 1989).

Kemp, B. J. 2007. The orientation of burials at Tell el-Amarna. In Z. Hawass and J. Richards (eds.), *The Archaeology and Art of Ancient Egypt: Essays in Honor of David B. O'Connor*. II. ASAE Cahier 36. Cairo: 21–32.

Kemp, B. J. and Garfi, S. 1993. *A Survey of the Ancient city of El-'Amarna*. London.

Kemp, B. J. and O'Connor, D. 1974. An ancient Nile harbour: University Museum excavations at the "Birket Habu." *International Journal of Nautical Archaeology and Underwater Exploration* 3.1: 101–36.

Kemp B. J. and Vogelsang-Eastwood, G. 2001. *The Ancient Textile Industry at Amarna*. London.

Kemp, B. J. et al. 2006. Tell el-Amarna, 2005–06. *JEA* 92: 21–56.

Kerkeslager, A. 1998. The apology of the potter: a translation of the potter's oracle. In I. Shirun-Grumach (ed.), *Jerusalem Studies in Egyptology*. Wiesbaden: 67–79.

Kessler, D. 1981. *Historische Topographie der Region zwischen Mallawi und Samalut*. Beihefte zum Tubinger Atlas des vorderen Orients 30. Wiesbaden.

Keyser, P. and Irby-Massie, G. 2006. Science, medicine and technology. In G. R. Bugh (ed.) *Cambridge Companion to the Hellenistic World*. Cambridge: 241–64.

Kienitz, F. K. 1953. *Die politische Geschichte Ägyptens vom 7. bis zum 4. Jahrundert vor der Zeitwende*. Berlin.

Kiss, Z. 2007. Alexandria in the fourth to seventh centuries. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700*. Cambridge: 187–206.

Kitchen, K. A. 1962. *Suppiluliuma and the Amarna Pharaohs: A Study in Relative Chronology*. Liverpool.

Kitchen. K. A. 1982. *Pharaoh Triumphant: The Life and Times of Ramesses II, King of Egypt*. Warminster.

Kitchen, K. A. 1984. Ramses V–XI. In *LÄ* 5. 124–8.

Kitchen, K. A. 1986. *The Third Intermediate Period in Egypt (1100–650 BC)*. Warminster (2nd rev. edn.).

Kitchen, K. A. 1990. The arrival of the Libyans in Late New Kingdom Egypt. In Leahy 1990: 15–27.

Kitchen, K. A. 1993. *Ramesside Inscriptions Translated and Annotated: Notes and Comments.* I. Oxford and Cambridge, MA.

Kitchen, K. A. (tr.) 1996. *Ramesside Inscriptions Translated and Annotated II: Ramesses II, Royal Inscriptions.* Oxford.

Kitchen, K. A. 1997. *Pharaoh Triumphant: The Life and Times of Ramesses II – King of Egypt.* Warminster (2nd edn.).

Klasens, A. 1961. The excavations of the Leiden Museum of Antiquities at Abu-Roash. Report of the third season: 1959. II. Cemetery M. *OMRO* 42: 108–28.

Kleiner, D. E. E. 2005. *Cleopatra and Rome.* Cambridge, MA.

Klemm, R. 1988. Vom Steinbruch zum Tempel: Beobachtungen zur Baustruktur einiger Felstempel der 18. und 19. Dynastie im ägyptischen Mutterland. *ZÄS* 115: 41–51.

Klemm, R. and Klemm, D. D. 1993. *Steine und Steinbrüche im Alten-Ägypten.* Berlin.

Klemm, R. and Klemm, D. D. 1994. Chronologischer Abriss der antiken Goldgewinnung in der Ostwüste Ägyptens. *MDAIK* 50: 189–222.

Klodt, C. 1992. *Ciceros Rede* Pro Rabirio Postumo: *ein Einleitung und Kommentar.* Stuttgart.

Kloth, N. 2002. *Die (auto-) biographischen Inschriften des ägyptischen alten Reiches: Untersuchungen zu Phraseologie und Entwicklung.* SAK Beihefte 8.

Koenen, L. 1994. The Ptolemaic king as a religious figure. In A. Bulloch, E. S. Gruen, A. A. Long, and A. F. Stewart (eds.), *Images and Ideologies: Self-definition in the Hellenistic World.* Hellenistic Culture and Society 12. Berkeley; Los Angeles; London: 25–115.

Koenen, L. 2002. Die Apologie des Töpfers an König Amenophis oder das Töpferorakel. In A. Blasius and B. U. Schipper (eds.), *Apokalyptik und Ägypten: Eine kritische Analyse der relevanten Texte aus dem griechisch-römischen Ägypten.* Leuven: 139–87.

Koenig, Y. 1997. *Les Ostraca hiératiques inédits de la Bibliothèque nationale et universitaire de Strasbourg.* DFIFAO 33. Cairo.

Köhler, E. C. 1995. The state of research on late Predynastic Egypt: new evidence for the development of the Pharaonic state. *GM* 147: 79–92.

Köhler, E. C. 1996a. Evidence for interregional contacts between Late Prehistoric Lower and Upper Egypt: a view from Buto. In L. Krzyżaniak, K. Kroeper, and M. Kobusiewicz (eds.), *Interregional Contacts in the Later Prehistory of Northeastern Africa.* Poznań: 215–26.

Köhler, E. C. 1996b. Die Keramik. In D. Faltings and E. C. Köhler (eds.), Vorbericht über die Ausgrabungen des DAI in Tell el-Fara'in/Buto 1993 bis 1995. *MDAIK* 52: 100–14.

Köhler, E. C. 1997. Socio-economic aspects of early pottery production in the Nile delta. *BACE* 8: 81–9.

Köhler, E. C. 1998. *Tell el-Fara'in - Buto III. Die Keramik von der späten Naqada-Kultur bis zum frühen Alten Reich (Schichten III bis VI).* Mainz am Rhein.

Köhler, E. C. 1999. Re-assessment of a cylinder seal from Helwan. *GM* 168: 49–56.

Köhler, E. C. 2002. History or ideology? New reflections on the Narmer palette and the nature of foreign relations in Pre- and Early Dynastic Egypt. In E. C. M. van den Brink and T. E. Levy (eds.), *Egypt and the Levant: Interrelations From the 4th Through the Early 3rd Millennium B.C.E.* London and New York: 499–513.

Köhler, E. C. 2003. Zum Grab und Totenkult in der Frühzeit. In H. Guksch et al. (eds.), *Grab und Totenkult.* Munich: 11–26.

Köhler, E. C. 2004. On the origins of Memphis. In S. Hendrickx et al. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference* "*Origin of the State. Predynastic and Early Dynastic Egypt.*" Leuven: 295–315.

Köhler, E. C. 2008. The interaction between and the roles of Upper and Lower Egypt in the formation of the Egyptian state - another review. In B. Midant-Reynes and Y. Tristant (eds.),

Egypt at its Origins 2. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt", Toulouse, 5th–8th September 2005. Leuven: 513–41.

Köhler, E. C. in press. Theories of state formation. In W. Wendrich (ed.), *The Archaeology of Egypt.* Blackwell Studies in Global Archaeology. Oxford.

Köhler, E. C., Birrell, M., Casey, I., Hikade, T., Smythe, J., and St. Clair, B. 2005. *Helwan I. Excavations in the Early Dynastic Cemetery. Season 1997–98.* SAGA 24. Heidelberg.

Kolataj, W. 1992. *Imperial Baths at Kom el-Dikka.* Alexandrie VI. Warsaw.

Koltsida, A. 2007. *Social Aspects of Ancient Egyptian Domestic Architecture*, BAR International Series 1608. Oxford.

Konig, J. and Whitmarsh T. 2007. *Ordering Knowledge in the Roman Empire.* Cambridge.

Kóthay, K. A. 2001. Houses and households at Kahun: bureaucratic and domestic aspects of social organization during the Middle Kingdom. In H. Győry (ed.), *Mélanges offerts à Edith Varga: "le lotus qui sort de terre."* Budapest: 349–68.

Krauss, R. 1985. *Sothis- und Monddaten. Studien zur astronomischen und technischen Chronologie Altägyptens.* HÄB 20. Hildesheim.

Krauss, R. 1993. Was wäre, wenn der altägyptische Kalendertag mit Sonnenaufgang begonnen hätte? *BSEG* 17: 63–71.

Krauss, R. 1994. Zur Chronologie des Mittleren Reiches. *OLZ* 89: 5–18.

Krauss, R. 2000. Akhenaten: Monotheist? Polytheist? *BACE* 11: 93–101.

Krauss, R. 2003. Arguments in favor of a low chronology for the Middle and New Kingdom in Egypt. In M. Bietak (ed.), *The Synchronization of Civilisations in the Eastern Mediterranean in the Second Millennium B.C.* II. Vienna: 175–97.

Krauss, R. 2006. Lunar Dates. In E. Hornung, R. Krauss, and D. A. Warburton (eds.), *Ancient Egyptian Chronology.* Handbook of Oriental Studies. Section 1: the Near and Middle East 83: 395–431.

Kroeper, K., 2004. Minshat Abu Omar: aspects of the analysis of a cemetery. In S. Hendrickx et al. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt."* Leuven: 859–80.

Kroeper, K. and Wildung, D. 1985. *Minshat Abu Omar. Münchner Ostdelta-Expedition. Vorbericht 1978–1984.* Munich.

Kroeper, K. and Wildung, D. 1994. *Minshat Abu Omar. Ein vor- und frühgeschichtlicher Friedhof im Nildelta. I. Gräber 1–114.* Mainz am Rhein.

Kroeper, K. and Wildung, D. 2000. *Minshat Abu Omar II. Ein vor- und frühgeschichtlicher Friedhof im Nildelta. Gräber 115–204.* Mainz am Rhein.

Kruchten, J.-M. 1981. *Le Décret d'Horemheb. Traduction, commentaire épigraphique, philologique et institutionnel.* Brussels.

Kruchten, J.-M. 1986. *Le Grand Texte oraculaire de Djehoutymose, intendant du domaine d'Amon sous le pontificat de Pinedjem II.* MRE 5. Brussels.

Kruchten, J.-M. 1989. *Les Annales des prêtres de Karnak (XXI–XXIIImes dynasties) et autres textes contemporains relatifs à l'initiation des prêtres d'Amon.* OLA 32. Leuven.

Kruse, T. 2002. *Der königliche Schreiber und die Gauverwaltung: Untersuchungen zur Verwaltungsgeschichte Ägyptens in der Zeit von Augustus bis Philippus Arabs (30.v.Chr.–245 n.Chr.).* Archiv Beiheft 11. Munich and Leipzig.

Kubisch, S. 2000. Die Stelen der Ersten Zwischenzeit aus Gebelein. *SAK* 56: 239–65.

Kuhlmann, K. P. 2002. The "oasis bypath" or the issue of desert trade in Pharaonic times. Jennerstraße 8: 125–70.

Kuhlmann, K. P. 2005. Der Wasserberg des Djedefre (Chufu 01/1) – Ein Lagerplatz mit Expeditionsinschriften der 4. Dynastie im Raum der Oase Dachla. *MDAIK* 61: 243–89.

Kuhrt, A. 1995. *The Ancient Near East: c. 3000–330 BC.* 2. New York.

Kuper, R. 2003. The Abu Ballas trail: Pharaonic advances into the Libyan desert. In Z. Hawass and L. Pinch Brock (eds.), *Proceedings of the Eighth International Congress of Egyptologists (2000).* 2. Cairo: 372–6.

Kuper, R. and Förster, F. 2003. Khufu's "mefat" expeditions into the Libyan desert. *EA* 23: 25–8.

La'da, C. A. 1994. Ethnicity, occupation and tax-status in Ptolemaic Egypt. *EVO* 17: 183–9.

Labouri, D. 1998. *La Statuaire de Thoutmosis III. Essai d'interprétation d'un portrait royal dans son contexte historique.* Liège.

Labouri, D. 2006. Royal portrait and ideology: evolution and signification of the statuary of Thutmose III. In E. H. Cline and D. O'Connor (eds.), *Thutmose III: A New Biography.* Ann Arbor: 260–91.

Labrousse, A. 1994. Les reines de Téti, Khouit et Ipout Ire, recherches architecturales. In C. Berger, G. Clerc, and N. Grimal (eds.), *Hommages* à Jean *Leclant I.* Cairo: 231–43.

Labrousse, A. 1997. Un bloc décoré du temple funéraire de la mère royale Néferhétephès. In C. Berger and B. Mathieu (eds.), *Études sur l'Ancien Empire et la nécropole de Saqqâra dédiées à Jean-Philippe Lauer.* Orientalia Monspeliensia 9. Montpellier: 263–70.

Labrousse, A. 2000. Une épouse du roi Mérenrê Ier: la reine Ankhesenpépy II. In M. Bárta and J. Krejcí (eds.), *Abusir and Saqqara in the Year 2000.* Archiv orientální, supplement ix. Prague: 485–90.

Labrousse, A. 2005. L'architecture des pyramides de reines à la fin de la VIe dynastie. In L. Pantalacci and C. Berger-el Naggar (eds.), *Des Néferkarê aux Mentouhotep, travaux archéologiques en cours sur la fin de la VIe dynastie et la Première Période intermédiaire.* Travaux de la Maison de l'Orient et de la Méditerranée 40. Lyon: 203–14.

Labrousse, A. and Leclant, J. 2006. Neue Entdeckungen der MAFS in Sakkara-Süd. *Sokar* 13: 33–7.

Lacau, Pierre. 1933. *Une stèle juridique de Karnak.* Cairo.

Lacovara, P. 1990. *Deir el-Ballas. Preliminary Report on the Deir el-Ballas Expedition, 1980–1986.* RCE. Cairo.

Lacovara, P. 1997. *The New Kingdom Royal City.* London and New York.

Lacovara, P., Quirke, S., and Podzorski, P. V. 1989. A Third Intermediate Period fortress at El-Ahaiwah. *CRIPEL* 11: 59–68.

Ladynin, I. A. 2005. "Adversary *ḫšryš(3)*": his name and deeds according to the Satrap stela. *CdE* 80: 87–113.

Ladynin, I. A. 2006. The Elephantine stela of Amasis: some problems and prospects of study. *GM* 211: 31–53.

Łajtar, A. 2006. *Deir el-Bahari in the Hellenistic and Roman Periods: A Study of An Egyptian Temple Based on Greek Sources.* Warsaw.

Łajtar, A. 2008. The cult of Amenhotep son of Hapu and Imhotep. In A. Delattre and P. Heilporn (eds.), *"Et maintenant ce ne sont plus que des villages …" Thèbes et sa région aux époques hellénistique, romaine et byzantine. Actes du colloque tenu à Bruxelles les 2 et 3 décembre 2005.* Papyrologica Bruxellensia 34. Brussels: 113–23.

Lallemand, J. 1964. *L'Administration civile de l'Égypte de l'avènement de Dioclétien à la création du diocèse (184–382).* Brussels.

Lambert, P. 1994. *Fortifications and the Synagogue: The Fortress of Babylon and the Ben Ezra Synagogue, Cairo.* London.

Lampela, A. 1998. *Rome and the Ptolemies of Egypt: The Development of Their Political Relations, 273–80 B.C.* Commentationes humanarum litterarum 111. Helsinki.

Lampl, P. 1968. *Cities and Planning in the Ancient Near East*. Planning and Cities. New York.

Lanciers, E. 1991. Die ägyptischen Priester des ptolemäischen Königskultes. *RdE* 42: 117–45.

Landgràfovà, R. 2006. *Faience Inlays*. Abusir XIV. Prague.

Landström, B. 1970. *Ships of the Pharaohs*. London.

Lansing, A. and Hayes, W. C. 1937. The Egyptian expedition 1935–6. *BMMA* 32.2: 4–31.

Lauer, J.-P. 1936–9. *Fouilles à Saqqarah. La Pyramide à Degrés*. 3 vols. Cairo.

Lauer, J.-P. 1977. *Saqqarah, la nécropole royale de Memphis*. Paris.

Lawton, B. 2004. *Various and Ingenious Machines*. 2 vols. Leiden.

Le Saout, F., Ma'arouf, A. el-H., and Zimmer, T. 1987. Le Moyen Empire à Karnak: Varia I. In *Karnak VIII 1982–1985*. Cairo: 294–7.

Leach, B. and Tait, J. 2000. Papyrus. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology*. Cambridge: 227–53.

Leahy, A. 1979. Nespamedu, "King" of Thinis. *GM* 35: 31–9.

Leahy, A. 1985. The Libyan period in Egypt: an essay in interpretation. *Libyan Studies* 16: 51–65.

Leahy, A. 1988. The earliest dated monuments of Amasis and the end of the reign of Apries. *JEA* 74: 183–99 and pl. xxv.

Leahy, A. (ed.) 1990. *Libya and Egypt c.1300–750 B.C.* London.

Leahy, A. 1996. The adoption of Ankhnesneferibre at Karnak. *JEA* 82: 145–65 and pl. xii.

Leahy, A. 2000. Ethnic diversity in ancient Egypt. In J. Sasson (ed.), *Civilizations of the Ancient Near East*. Peabody: 225–34.

Leahy, A. 2001. Libya. In D. B. Redford (ed.), *The Oxford Encyclopaedia of Ancient Egypt*. Oxford: 290–3.

Leahy, A. and Tait, J. (eds.) 1999. *Studies on Ancient Egypt in Honour of H. S. Smith*. London.

Leahy, L. M. and Leahy, A. 1986. The genealogy of a priestly family from Heliopolis. *JEA* 72: 133–47.

Leblanc, C. 1989. *Ta Set neferou, une nécropole de Thèbes-Ouest et son histoire*. I. Cairo.

Leblanc, C. 2005. L'école du temple (ât-sebait) et le per-ankh (maison de la vie): À propos des récentes découvertes effectuées dans le contexte du Ramesseum. *Memnonia* 15: 93–110.

Leclant, J. 1961. *Montouemhat (Quatrième Prophète d'Amon)*. BdE 35. Cairo.

Leclant, J. and Labrousse, A. 2001. *Les Reines Ânkhesenpépy II et III (fin de l'Ancien Empire): campagnes 1999 et 2000 de la MAFS. CRAIBL*: 367–84.

Leclère, F. 2003. La ville de Saïs à la Basse Époque. *Égypte Afrique & Orient* 28: 13–38.

Leclère, F. 2007. An Egyptian temple at Tell Dafana? *EA* 30: 14–17.

Lefebvre, G. 1929a. *Histoire des grands prêtres d'Amon de Karnak jusqu'à la XXIe dynastie*. Paris.

Lefebvre, G. 1929b. *Inscriptions concernant les grands prêtres d'Amon, Romê-Roÿ et Amenhotep*. Paris.

Legrain, G. and Naville, E. 1902. *L'aile nord du pylône d'Aménophis III à Karnak*. Annales du Musée Guimet. Paris.

Lehner, M. 1985. The development of the Giza Necropolis: the Khufu project. *MDAIK* 41: 109–144.

Lehner, M. 1997. *The Complete Pyramids*. London.

Lehner, M. 2000. Fractal house of Pharaoh: ancient Egypt as a complex adaptive system, a trial formulation. In T. A. Kohler and G. J. Gumerman (eds.), *Dynamics in Human and Primate Societies: Agent-based Modeling of Social and Spatial Processes*. New York and Oxford: 275–353.

Lehner, M. 2002. The pyramid age settlement of the Southern Mount at Giza. *JARCE* 39: 27–74.

Leitz, C. 1994. Der Mondkalender und der Beginn des ägyptischen Kalendertages. *BSEG* 18: 49–60.

Leitz, C. 2004. *Quellentexte zur ägyptischen Religion I Die Tempelinschriften der griechisch-römischen Zeit*. Münster.

Lemaire, A. 1987. Les Phéniciens et le commerce entre la mer Rouge et la mer Méditerranée. In E. Lipinski (ed.), *Phoenicia and the East Mediterranean in the First Millennium B.C.*, *Proceedings of the Conference held in Leuven from the 14th to the 16th of November 1985*. Studia Phoenicia V. OLA 22. Leuven: 49–60.

Lemaire, A. 1995. La fin de la première période perse en Égypte et le chronologie judéenne vers 400 av. J.-C. *Transeuphratène* 9: 51–61.

Lenger, M.-Th. (ed.) 1980. *Corpus des ordonnances des Ptolémées*. Brussels (2nd edn.).

Lenger, M.-Th. (ed.) 1990. *Corpus des ordonnances des Ptolémées. Bilan des additions et corrections*. Papyrologica Bruxellensia 24. Brussels.

Lenney, M., Woodcock, C., Collins J., and Hamdi, J. 1996. The status of agricultural lands in Egypt: the use of multispectral NDVI features derived from Landsat TM. *Remote Sensing of the Environment* 56: 8–20.

Leonard, A. 1999. Naukratis. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. London and New York: 561–4.

Leprohon, R. J. 1978. The personnel of the Middle Kingdom funerary stelae. *JARCE* 15: 33–8.

Leprohon, R. J. 1985. The reign of Akhenaten seen through the later royal decrees. *BdE* 97.2: 93–103.

Leprohon, R. J. 1991. A vision collapsed: Akhenaten's reforms viewed through decrees of later reigns. *Amarna Letters* 1: 66–73.

Leprohon, R. J. 1995. Royal ideology and state administration in Pharaonic Egypt. In J. M. Sasson et al. (eds.), *Civilizations of the Ancient Near East*. I. New York: 273–87.

Leprohon, R. J. 1999. Middle Kingdom, overview. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 47–53.

Lepsius, K. 1849–59. *Denkmaeler aus Aegypten und Aethiopien*. Berlin. Abth. I: 64.

Lesko, L. H. (ed.) 1994. *Pharaoh's Workers: The Villagers of Deir El-Medina*. Ithaca.

Lesquier, J. 1911. *Les Institutions militaires de l'Égypte sous les Lagides*. Paris.

Lesquier, J. 1918. *L'Armée romaine d'Égypte d'Auguste à Dioclétien*. Cairo.

Levy, T. E., van den Brink, E. C. M., Goren, Y., and Alon, D. 1995. New light on King Narmer and the Protodynastic Egyptian presence in Canaan. *Biblical Archaeologist* 58.1: 25–35.

Lewis, M. J. T. 1997. *Millstone and Hammer*. Hull.

Lewis, N. 1986. *Greeks in Ptolemaic Egypt. Case Studies in the Social History of the Hellenistic World*. Oxford.

Lewis, N. 1993. The demise of the Demotic document: when and why. *JEA* 79: 276–81.

Lewis, N. 1995a [1970]. Greco-Roman Egypt: fact or fiction? *Proceedings of the 12th International Congress of Papyrology*, Toronto (1970), 3–14 = *On Government and Law in Roman Egypt: Collected Papers of Naphtali Lewis*. ASP 33. Atlanta: 138–49.

Lewis, N. 1995b. The Romanity of Roman Egypt: a growing consensus. *Atti del XVII Congresso internazionale di papirologia, Napoli 1983* [1984], 1077–84 = *On Government and Law in Roman Egypt: Collected Papers of Naphtali Lewis*. ASP 33. Atlanta: 298–305.

Lewis, N. 1997. *The Compulsory Services of Roman Egypt*. Pap. Flor. 28. Florence (2nd edn.).

Lewis, N. 2000. Judiciary routines in Roman Egypt. *BASP* 37: 83–93.

Lewis, N. 2001. *Greeks in Ptolemaic Egypt: Case Studies in the Social History of the Hellenistic World*. Oxford (repr. Oakville, 2001).

Lichtheim, M. (tr.) 1975. *Ancient Egyptian Literature I. The Old and Middle Kingdoms.* Berkeley; Los Angeles; London.

Lichtheim, M. 1976. *Ancient Egyptian Literature.* II. *The New Kingdom.* Berkeley; Los Angeles; London.

Lichtheim, M. 1980. *Ancient Egyptian Literature: A Book of Readings.* III. *The Late Period.* Berkeley; Los Angeles; London.

Lichtheim, M. 1988. *Ancient Egyptian Autobiographies Chiefly of the Middle Kingdom: A Study and an Anthology.* OBO 84. Fribourg and Göttingen.

Lienhard, J. H. 2006. *How Invention Begins.* Oxford.

Lieu, S. N. C. 1994. *Manichaeism in Mesopotamia and the Roman East.* Leiden.

Lieven, A. van. 1999. Divination in Ägypten. *Altorientalische Forschungen* 26: 77–126.

Limme, L. and Strybol, J. (eds.) 1993. *Aegyptus Museis Rediviva: Miscellanea in honorem Hermanni de Meulenaere.* Brussels.

Lipke, P. 1984. *The Royal Ship of Cheops.* Oxford.

Lippert, S. 2010. Inheritance. In E. Frood and W. Wendrich (eds.). *UCLA Encyclopedia of Egyptology.* Los Angeles: http://repositories.cdlib.org/nelc/uee.

Lippert, S. and Schentuleit, M. (eds.). 2005. *Tebtynis und Soknopaiu Nesos. Leben im römerzeitlichen Fajum.* Wiesbaden.

Lippert, S. and Schentuleit, M. 2006. *Quittungen. Demotische Dokumente aus Dime, II.* Wiesbaden.

Littauer, M. A. and Crouwel, J. H. 1985. *Chariots and Related Equipment from the Tomb of Tutankhamun.* Oxford.

Liverani, M. 1990. *Prestige and Interest: International Relations in the Near East ca. 1600–1100 B.C.* Padua.

Lloyd, A. B. 1975. *Herodotus Book II*: *Introduction.* EPRO 43. Leiden.

Lloyd, A. B. 1977. Necho and the Red Sea: some considerations. *JEA* 63: 142–55.

Lloyd, A. B. 1983. The Late Period, 664–323 BC. In B. G. Trigger, B. J. Kemp, D. O'Connor, and A. B. Lloyd, *Ancient Egypt: A Social History.* Cambridge: 279–348.

Lloyd, A. B. 1988. *Herodotus Book II: Commentary 99–182.* Leiden.

Lloyd, A. B. 1989. Psychology and society in the ancient Egyptian cult of the dead. In W. K. Simpson (ed.), *Religion and Philosophy in Ancient Egypt.* Yale Egyptological Studies 3. New Haven: 117–33.

Lloyd, A. B. 1994. Egypt: 404–332 BC. In D. M. Lewis, et al. (eds.), *The Cambridge Ancient History.* VI: *The Fourth Century BC.* Cambridge: 337–45 (2nd edn.).

Lloyd, A. B. (ed) 1998. *Gods, Priests and Men: Studies in the Religion of Pharaonic Egypt by Aylward M. Blackman.* London.

Lloyd, A. B. 2002a. The Egyptian elite in the early Ptolemaic Period: some hieroglyphic evidence. In Ogden (ed.), 2002: 117–36.

Lloyd, A. B. 2002b. The Late Period. In I. Shaw (ed.), *The Oxford History of Ancient Egypt.* Oxford: 369–94.

Locher, J. 1999. *Topographie und Geschichte der Region am ersten Nilkatarakt in griechisch-römischer Zeit.* APF 5. Stuttgart.

Loftus, A. 1999. A weaving factory in third century Memphis. In D. Cardon and M. Feugère (eds.), *Archéologie des textiles des origines au Ve siècle (Actes du colloque des Lattes, oct. 1999).* Monographies Instrumentum 14: 165–78.

Loprieno, A. 1996. The "king's novel." In Loprieno (ed.), *Ancient Egyptian Literature: History and Forms.* Boston: 277–95.

Loprieno, A. 1997. Slaves. In S. Donadoni (ed.), *The Egyptians.* Chicago: 185–219.

Lorton, D. 1994. The invocation hymn at the temple of Hibis. *SAK* 21: 159–217.

Lucas, A. 1926. *Ancient Egyptian Materials and Industries.* London (1st edn.).

Lucas, A. 1962. *Ancient Egyptian Materials and Industries*. London (4th edn., revd. J. R. Harris).

Lüddeckens E. 1943. Untersuchungen über religiösen Gehalt, Sprache, und Form der ägyptischer Totenklagen. *MDAIK* 11: 1–188.

Luft, U. 1987. Der Tagesbeginn in Ägypten. *Altorientaliszche Forschungen* 14: 3–11.

Luft, U. 1989. Illahunstudien IV. Zur chronologischen Verwertbarkeit des Sothisdatums. *SAK* 16: 217–33.

Luft, U. 1992. *Die chronologische Fixierung des ägyptischen Mittleren Reiches nach dem Tempelarchiv von Illahun*. ÖAW Phil.-hist. Kl. 598. Vienna.

Luft, U. 2003. Priorities in absolute xhronology. In M. Bietak (ed.), *The Synchronization of Civilisations in the Eastern Mediterranean in the Second Millennium B.C.* II. Vienna: 199–204.

Luft, U. 2006. Rund um den Beginn des ägyptischen Tages. In E. Czerny, I. Hein, H. Hunger, D. Melman, and A. Schwab (eds.), *Timelines. Studies in Honour of Manfred Bietak* I. OLA2 149: 207–15.

Lukaszewicz, A. 1994. Remarques sur les rapports entre les élites urbaines de l'Égypte et la dynastie des Sévères. *JJP* 24: 87–95.

Lupo, S. 2004. The inscription of Amenemhet II in the temple of Ptah in Memphis: was there a real control of the Egyptian state over Kush during the Middle Kingdom? *GM* 198: 43–54.

Lustig, J. 1997. Kinship, gender and age in Middle Kingdom tomb scenes and texts. In J. Lustig (ed.), *Anthropology and Egyptology: A Developing Dialogue*, Monographs in Mediterranean Archaeology 8. Sheffield: 43–65.

Macadam, M. F. 1949. *The Temples of Kawa*. I. *The Inscriptions*. Oxford.

MacLeod, R. (ed.) 2000. *The Library of Alexandria*. London.

Maehler, H. 2004. Alexandria, the Mouseion, and cultural identity. In Hirst and Silk 2004: 1–14.

Majcherek, G. 2003. Mosaic floors from Roman *Triclinia* in Alexandria: evolution of techniques and design. In Z. Hawass (ed.), *Egyptology at the Dawn of the Twenty-first Century. Proceedings of the Eighth International Congress of Egyptologists Cairo, 2000*. I. Cairo and New York: 319–27.

Majcherek, G. 2007. The auditoria of Kom el-Dikka. In T. Derda, T. Markiewicz, and E. Wipszycka (eds.), *Alexandria: the auditoria of Kom el-Dikka and Late Antique Education*. Warsaw: 11–50.

Malek, J. 1986. *In the Shadow of the Pyramids: Egypt during the Old Kingdom*. Norman.

Malek, J. 1992. A meeting of the old and new: Saqqâra during the New Kingdom. In: A. B. Lloyd (ed.), *Studies in Pharaonic Religion and Society in Honour of J. Gwyn Griffiths*. EES Occasional Publications 8, London: 57–76.

Malek, J. 1993. *The Cat in Ancient Egypt*. London.

Malek, J. 1994. King Merykare and his pyramid. In C. Berger, G. Clerc, and N. Grimal (eds.), *Hommages à Jean Leclant* IV. BdE 106/4. Cairo: 203–14.

Malek, J. 2000. Old-Kingdom rulers as ''local saints'' in the Memphite area during the Middle Kingdom. In M. Bárta and J. Krejcí (eds.), *Abusir and Saqqara in the Year 2000*. Archiv orientální, supplement ix. Prague: 241–58.

Malinine, M. 1961. Taxes funéraires égyptiennes. *BIFAO* 32: 146–52.

Manassa, C. 2003. *The Great Karnak Inscription of Merneptah: Grand Strategy in the 13th Century BC*. New Haven.

Mann, J. C. 1983. *Legionary Recruitment and Veteran Settlement during the Principate*. University of London Institute of Archaeology Occasional Publication 7. London.

Manniche, L. 1989. *An Ancient Egyptian Herbal*. London.

Manning, J. G. 2002. Irrigation et État en Égypte antique. *Annales Histoire, Sciences Sociales* 57.3: 611–23.

Manning, J. G. 2003a. Demotic law. In R. Westbrook (ed.), *A History of Ancient Near Eastern Law*. Handbook of Oriental Studies, Section 1: The Near and Middle East 72. 2 vols. Leiden and Boston: 819–62.

Manning, J. G. 2003b. Edfu as a central place in Ptolemaic history. In K. Vandorpe and W. Clarysse (eds.), *Edfu, an Egyptian Provincial Capital in the Ptolemaic Period*. Brussels: 61–73.

Manning, J. G. 2003c. *Land and Power in Ptolemaic Egypt: The Structure of Land Tenure*. Cambridge.

Manning, J. G. and Morris, I. (eds.) 2005. *The Ancient Economy: Evidence and Models*. Stanford.

Manning, J. G. 2007. Hellenistic Egypt. In W. Scheidel, I. Morris, and R. Saller (eds.), *The Cambridge Economic History of the Greco-Roman World*. Cambridge: 434–59.

Manning, J. G. 2009. *The Last Pharaohs: Egypt under the Ptolemies, 305–30 BC*. Princeton.

Manning, S. 2006. Radiocarbon dating and Egyptian chronology. In E. Hornung, R. Krauss, and D. A. Warburton (eds.), *Ancient Egyptian Chronology*. Handbook of Oriental Studies. Section 1: The Near and Middle East 83: 327–55.

Maravelia, A.-A. 2003. The stellar horizon of Khufu: on archaeoastronomy, Egyptology... and some imaginary scenaria. In S. Bickel and A. Loprieno (eds.), *Basel Egyptology Prize 1: Junior Research in Egyptian History, Archaeology and Philology*. Basel: 55–74.

Marchand, S. 1996. La céramique du IVe siècle av. J.-C. découvert à Tebtynis. *CCE* 4: 171–88.

Marchand, S. and Baud, M. 1996. La céramique miniature d'Abou Rawash. Un dépôt à l'entrée des enclos orientaux. *BIFAO* 96: 255–88.

Marcus, E. 2007. Amenemhet II and the sea: maritime aspects of the Mit Rahina (Memphis) inscription. *Ä&L* 17: 137–90.

Marochetti, E. F. 2005. The temple of Nebhepetre Mentuhotep at Gebelein: preliminary report. In Pantalacci and Berger-El-Naggar 2005: 145–63.

Martin, C. 2004. Questions to the gods: Demotic oracle texts from Dimê. In Hoffmann and Thissen 2004: 413–26.

Martin, G. T. 1981. *The Sacred Animal Necropolis at North Saqqara: The Southern Dependencies of the Main Complex*. Excavation Memoir 50. London.

Martin, G. T. 1989. *The Memphite Tomb of Horemheb: Commander-in-Chief of Tut'ankhamun*. London.

Martin-Pardey, E. 1976. *Untersuchungen zur ägyptischen Provinzialverwaltung bis zum Ende des Alten Reiches*. HÄB 1. Hildesheim.

Massart, A. 1957. The Egyptian Geneva Papyrus MAH 15274. *MDAIK* 15: 172–85.

Masson, O. and Yoyotte, J. 1988. Une inscription ionienne mentionnant Psammétique Ier. *Epigraphica Anatolica* 11: 171–9 and pl. 25.

Mathieson, I. 2000. The National Museums of Scotland Saqqara Survey Project, 1990–2000. In M. Bárta and J. Krejcí (eds.), *Abusir and Saqqara in the Year 2000*. Archiv Orientální supp. 9: 27–39.

Mathieson, I. and Tavares, A. 1993. Preliminary report on the National Museums of Scotland Saqqara Survey Project, 1990–91. *JEA* 79: 17–31.

Mathieson, I., Tavares, A. et al. 1997. Saqqara Survey Project 1993–1995. *JEA* 83: 27–53.

Mathieu, B. 1997. La signification du serdab dans la pyramide d'Ounas. L'architecture des appartements funéraires royaux à la lumière des Textes des Pyramides. In C. Berger C. and B. Mathieu (eds.), *Études sur l'Ancien Empire et la nécropole de Saqqâra dédiées à Jean-Philippe Lauer*. Orientalia Monspeliensia 9. Montpellier: 284–304.

Mattha, G. and Hughes, G. R. 1975. *The Demotic Legal Code of Hermopolis West*. 2 vols. BdE 45. Cairo.

Matzker, I. 1986. *Die letzten Könige der 12. Dynastie*. Europäische Hochschulschriften III. Geschichte und ihre Hilfswissenschaften Bd 297. Frankfurt; Bern; New York.

Maxfield, V. A. 1996. The eastern desert forts and the army. In D. M. Bailey (ed.), *Archaeological Research in Roman Egypt. JRA*. Supplementary Series 19. Ann Arbor: 9–19.

Maxfield, V. 2001. Stone quarrying in the eastern desert with particular reference to Mons Claudianus and Mons Porphyrites. In D. J. Mattingly and J. Salmon (eds.), *Economics Beyond Agriculture in the Classical World*. London and New York: 143–70.

Maxfield, V. A. and Peacock, D. P. S. 1997. *Mons Claudianus: Survey and Excavation, 1987–1993. Vol. 1. Topography and Quarries*. FIFAO 37. Cairo.

Maxfield, V. and Peacock, D. P. S. 1998. The archaeology of an industrial landscape: an interim report on the work of the imperial quarries (Mons Porphyrites) project. In O. E. Kaper (ed.), *Life on the Fringe*. Leiden: 181–94.

Maxfield, V. A. and Peacock, D. P. S. 2001a. *Mons Claudianus: Survey and Excavation, 1987-1993. Vol. 2. Excavations Part 1*. FIFAO 43. Cairo.

Maxfield, V.A. and Peacock, D. P. S. 2001b. *The Roman Imperial Quarries: Survey and Excavation at Mons Porphyrites, 1994–1998*. London.

Maxfield, V. A. and Peacock, D. P. S. 2006. *Mons Claudianus: Survey and Excavation, 1987-1993. Vol. 3. Ceramic Vessels and Related Objects*. FIFAO 54. Cairo.

Mazza, R. 2001. *L'archivio degli Apioni: Terra, lavoro e proprietà senatoria nell'Egitto tardoantico*. Bari.

McAdams, R. 1981. *Heartland of Cities: Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates*. Chicago.

McDowell, A. G. 1990. *Jurisdiction in the Workmen's Community of Deir el-Medîna*. Egyptologische Uitgaven 5. Leiden.

McDowell, A. G. 1995. Student exercises from Deir el-Medina: the dates. In P. der Manuelian (ed.), *Studies in Honor of William Kelly Simpson*. II. Boston: 601–8.

McDowell, A. G. 1998. Legal aspects of care of the elderly in Egypt to the end of the New Kingdom. In M. Stol and S. P. Vleeming (eds.), *The Care of the Elderly in the Ancient Near East*. Studies in the History and Culture of the Ancient Near East 14. Leiden and Boston: 199–221.

McDowell, A. G. 1999. *Village Life in Ancient Egypt: Laundry Lists and Love Songs*. Oxford.

McDowell, A. G. 2000. Teachers and students at Deir el-Medina. In R. J. Demarée and A. Egberts (eds.), *Deir el-Medina in the Third Millenium AD: A Tribute to Jac. J. Janssen*. Egyptologische Uitgaven 14: 217–33.

McGing, B. 1997. Revolt Egyptian style: internal opposition to Ptolemaic rule. *APF* 43: 273–314.

McHugh W., Schaber, G., Breed C., and McCauley J. 1989. Neolithic adaptation and the Holocene functioning of Tertiary palaeodrainages in southern Egypt and northern Sudan. *Antiquity* 63: 320–36.

McHugh W., Breed C., Schaber G., McCauley J., and Szabo, B. 1988a. Acheulian sites along the "Radar rivers," southern Egyptian Sahara. *Journal of Field Archaeology* 15: 361–79.

McHugh W., McCauley, J., Haynes, C., Breed, C., and Schaber, G. 1988b. Paleorivers and geoarchaeology in the southern Egyptian Sahara. *Geoarchaeology* 3.1: 1–40.

McKenzie, J. 2007. *The Architecture of Alexandria and Egypt: 300 BC–AD 700*. New Haven and London.

McKenzie, J., Gibson, S., and Reyes, A. T. 2004. Reconstructing the Serapeum in Alexandria from the Archaeological Evidence. *JRS* 94: 73–121.

McNamara, L. 2008. The revetted mound at Hierakonpolis and early kingship: a re-interpretation. In B. Midant-Reynes and Y. Tristant (eds.), *Egypt at its Origins II. Proceedings of the*

International Conference "*Origins of the State: Predynastic and Early Dynastic Egypt.*" *Toulouse, 5th–8th September 2005.* OLA. Leuven.

Méasson, A. 1994. Alexandria ad Aegyptum. In Argoud (ed.), 1994: 9–52.

Meats, C. 1996. An appraisal of the problems involved in the three-dimensional ground penetrating radar imaging of archaeological features. *Archaeometry* 38: 359–81.

Meats, C., and Tite, M. 1995. A ground penetrating radar survey at Rowbury Copse Banjo enclosure. *Archaeological Prospection* 2: 229–36.

Mebs, D. and Schaefer, C. 2008. Kleopatra und der Kobrabiß - das Ende eines Mythos? *Klio* 90: 347–59.

Meeks, D. 1972. *Le Grand Texte des donations au temple d' Edfou.* BdE 59. Cairo.

Meeks, D. 2003. À propos du prêt de céréales en période de disette. In N. Kloth. K. Martin, and E. Pardey (eds.), *Es werde niedergelegt als Schriftstück: Festschrift für Hartwig Altenmüller zum 65. Geburtstag.* BSAK 9. Hamburg.

Meeks, D. 2006. *Mythes et légendes du Delta d'après le papyrus Brooklyn 47.218.84.* MIFAO 125. Cairo.

Melaerts, H. (ed.) 1998. *Le Culte du souverain dans l'Égypte ptolémaïque au IIIe siècle avant notre ère: actes du colloque international, Bruxelles, 10 mai 1995.* Studia Hellenistica 34. Leuven.

Mélèze-Modrzejewski, J. 1975. Chrématistes et Laocrites. In J. Bingen, G. Cambier, and G. Nachtergael (eds.), *Le Monde grec. Pensée, histoire, documents: Hommages à Claire Préaux.* Brussels: 699–708.

Mélèze-Modrzejewski, J. 1984. Dryton le Crétois et sa famille ou les mariages mixtes dans l'Égypte hellénistique. In H. Van Effenterre (ed.), *Aux origines de l'hellénisme. La Crète et la Grèce. Hommage à Henri Van Effenterre.* Publications de la Sorbonne. Histoire ancienne et médiévale 15. Paris: 353–77.

Mélèze-Modrzejewski, J. M. 1988. "La loi des Égyptiens": le droit grec dans l'Égypte romaine. *Proceedings of the XVIII International Congress of Papyrology, Athens 25–31 May 1986, vol. II.* Greek Papyrological Society. Athens: 383–99 (repr. in his *Droit imperial et traditions locales dans l'Égypte romaine.* Aldershot1990: ch. 9).

Mélèze-Modrzejewski, J. 1995. *The Jews of Egypt: From Ramses II to Emperor Hadrian.* Edinburgh (2nd edn.).

Mengoli, P. 1989. La clessidra di Karnak: L'orologio ad aqua di Amenphis III. *Oriens Antiquus* 28: 227–71.

Menu, B. 1998. *Recherches sur l'histoire juridique, et sociale de l'ancienne Égypte* II. Cairo: 173–82.

Menu, B. 2000–1. La Question de l'esclavage dans l'Égypte pharaonique. In *De l'esclavage hier et aujourd'hui. Actualité de Louis Dumont = Droit et Cultures* 39: 59–79.

Menu, B. 2001. La Monnaie des Égyptiens de l'époque pharaonique. In A. Testart (ed.), *Aux Origines de la monnaie.* Paris: 75–108.

Menu B. (ed.) 2004. *La Dépendance rurale dans l'Antiquité égyptienne et proche-orientale.* Cairo.

Merkelbach, R. 1995. *Isis Regina – Zeus Serapis. Die griechisch-ägyptische Religion nach den Quellen dargestellt.* Stuttgart and Leipzig.

Meskell, L. 1994. Dying young: the experience of death at Deir el-Medina. *Archaeological Review from Cambridge* 13.2: 35–45.

Meskell, L. 1999. *Archaeologies of Social Life: Age, Sex, Class et cetera in Ancient Egypt.* Oxford.

Meskell, L. 2002. *Private Life in New Kingdom Egypt.* Princeton and Oxford.

Meskell, L. and R. Joyce. 2003. *Embodied Lives: Figuring Ancient Maya and Egyptian Experience.* London and New York.

Meyer, C. 1999. Wadi Hammamat. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 868–71.

Meyer-Dietrich, E. 2006. *Senebi und Selbst: Personenkonstituenten zur rituellen Wiedergeburt in einem Frauensarg des Mittleren Reiches*. OBO 216. Göttingen.

Meyers, E. M. (ed.) 1997. *The Oxford Encyclopedia of Archaeology in the Near East*. 1–5. New York.

Midant-Reynes, B. 2000. *The Prehistory of Egypt: From the First Egyptians to the First Pharaohs*. Oxford.

Midant-Reynes, B. 2003. *Aux Origines de l'Égypte. Du Néolithique à l'émergence de l'état*. Paris.

Midant-Reynes, B. and Buchez, N. 2002. *Adaïma. 1. Économie et habitat*. Cairo.

Midant-Reynes, B. and Tristant, Y. 2008. *Egypt at its Origins*. 2. OLA 172. Leuven.

Middleton, R. 1962. Brother–sister and father–daughter marriage in Ancient Egypt. *American Sociological Review* 27.5: 603–11.

Miller, J. L. 2007. Amarna Age chronology and the identity of Nibhururiya in the light of a newly reconstructed Hittite text. *AOF* 34: 252–93.

Miller, R. L. 1990. Hogs and hygiene. *JEA* 76: 125–40.

Miller, R. L. 1991. Counting calories in Egyptian ration texts. *JESHO* 34: 257–69.

Mills, A. 1999. Dakhleh Oasis, Dynastic and Roman sites. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. London and New York: 220–2.

Mills, A. and Symons, S. 2000. The Karnak clepsydra: an ancient scientific instrument. *Bulletin of the Scientific Instrument Society* 66: 18–20.

Minas, M. 1998. Die Kanephoros. Aspekte des ptolemäischen Dynastiekults. In Melaerts 1998: 43–60.

Minas, M. 2000. *Die hieroglyphischen Ahnenreihen der ptolemäischen Könige. Ein Vergleich mit den Titeln der eponymen Priester in den demotischen und griechischen Papyri*. Aegyptiaca Treverensia 9. Mainz am Rhein.

Minas, M. 2005. Macht und Ohnemacht. Die Representation ptolemäischer Königinnen in ägyptischen Tempeln. *APF* 51: 127–54.

Minas, M. 2010. Cleopatra II and III: the queens of Ptolemy VI and VIII as guarantors of kingship and rivals for power. In Quack-Jördens 2010.

Miroschedji, P. de, 1998. Les Égyptiens au Sinaï du nord et en Palestine au Bronze ancien. In *Le Sinaï durant l'Antiquité et le Moyen Age, 4000 ans d'histoire pour un désert, Actes du colloque Unesco septembre 1997*. Paris: 20–32.

Moeller, N. 2005a. The First Intermediate Period: a time of famine and climatic change? *Ä&L* 15: 153–67.

Moeller, N. 2005b. Les nouvelles fouilles de Tell Edfou. *BSFE* 164: 29–46.

Moeller, N. 2007. Urban life. In T. Wilkinson (ed.), *The Egyptian World*. London and New York: 57–72.

Moens, M.-F. and W. Wetterstrom. 1988. The agricultural economy of an Old Kingdom town in Egypt's west delta: insights from the plant remains. *JNES* 47: 159–73.

Moers, G. 2005. Ägyptische Körper-Bilder in physischen, visuellen und textuellen Medien. *Imago Aegypti* 1: 9–26.

Moers, G. 2006. ''Jene Speise der Asiaten'': zur bisher unbekannten Vorgeschichte spätzeitlicher Speisetabus. In R. Rollinger and B. Truschnegg (eds.), *Altertum und Mittelmeerraum die antike Welt diesseits and jenseits der Levante: Festschrift für Peter W. Haider zum 60. Geburtstag*. Oriens et Occidens 12. Stuttgart: 507–16.

Monson, A. 2005a. The Ethics and Economics of Ptolemaic Religious Associations. Princeton/Stanford Working Papers in Classics: www.princeton.edu/~pswpc/pdfs/monson/110511.pdf.

Monson, A. 2005b. Sacred land in Ptolemaic and Roman Tebtynis In Lippert and Schentuleit 2005: 79–91.

Monson, A. 2008. The fiscal regime in transition: private land from Ptolemaic to Roman Egypt. Oral presentation. American Philological Association. Chicago. Jan. 5.

Montet, P. 1964. Le rituel de fondation des temples égyptiennes. *Kêmi* 17: 74–100.

Montevecchi, O. 1970. Nerone a una polis e ai 6475. *Aegyptus* 50: 4–33.

Montevecchi, O. 1981. Vespasiano acclamato dagli Alessandrini. Ancora su P.Fouad 8. *Aegyptus* 61: 155–70.

Montevecchi, O. 1988. Note sull'applicazione della Constitutio Antoniniana in Egitto. *Quaderni Catanesi* 10: 17–35 = *Scripta selecta*. Milan: 355–69.

Montserrat, D. 1997. Death and funerals in the Roman Fayum. In M. L. Bierbrier (ed.), *Portraits and Masks: Burial Customs in Roman Egypt*. London: 33–44.

Mooren, L. 1975. *The Aulic Titulature in Ptolemaic Egypt: Introduction and Prosopography*. Verhandelingen van de Koninklijke Academie voor Wetenschappen. Letteren en Schone Kunsten van België. Klasse der Letteren; jaarg. 37, nr. 78. Brussels.

Mooren, L. 1977. *La Hiérarchie de cour ptolémaïque: contribution à l'étude des institutions et des classes dirigeantes à l'époque hellénistique*. Studia Hellenistica 23. Leuven.

Mooren, L. 1984. On the jurisdiction of the nome strategoi in Ptolemaic Egypt. *Atti del XVII Congresso Internazionale di Papirologia*. III. Naples: 1217–25.

Mooren, L. (ed.) 2000. *Politics, Administration and Society in the Hellenistic and Roman World. Proceedings of the international colloquium, Bertinoro 19–24 July 1997*. Studia Hellenistica 36. Leuven.

Moran, W. L. (tr.) 1992. *The Amarna Letters*. Baltimore.

Moreno García, J. C. 1998. La population mrt: une approche du problème de la servitude dans l'Égypte du IIIe millénaire (I). *JEA* 84: 71–83.

Moreno García, J. C. 1999. *Ḥwt et le milieu rural égyptien du IIIe millénaire: économie, administration et organisation territoriale*. Bibliothèque de l'Ecole des Hautes Etudes Sciences Historiques et Philologiques 337. Paris.

Moreno García, J. C. 2000. Acquisition de serfs durant la Première Période Intermédiaire: une étude d'histoire sociale dans l'Égypte du IIIe millénaire. *RdE* 51: 123–39.

Moreno García, J. C. 2001. L'organisation sociale de l'agriculture dans l'Égypte pharaonique pendant l'Ancien Empire (2650–2150 avant J.-C.). *JESHO* 44: 411–50.

Moreno Garcia, J. C. 2004. *Egipto en el Imperio Antiguo (2650–2150 antes de Cristo)*. Bellaterra arqueologia. Barcelona.

Moreno Garcia, J. C. 2005. Élites provinciales, transformations sociales et idéologie à la fin de l'ancien empire et à la première période intermédiaire. In L. Pantalacci and C. Berger-el Naggar (eds.), *Des Néferkarê aux Mentouhotep, travaux archéologiques en cours sur la fin de la VIe dynastie et la Première Période intermédiaire*. Travaux de la Maison de l'Orient et de la Méditerranée 40. Lyon: 215–28.

Moreno Garcia, J. C. 2006a. Les temples provinciaux et leur rôle dans l'agriculture institutionnelle de l'Ancien et du Moyen Empire. In Moreno Garcia (ed.), 93–124.

Moreno Garcia, J. C. 2006b. Deux familles de potentats provinciaux et les assises de leur pouvoir: Elkab et El-Hawawish sous la VIe dynastie. *RdE* 56: 95–128.

Moreno Garcia, J. C. 2006c. La tombe de *Mhw* à Saqqara. *CdE* 81: 128–35.

Moreno Garcia, J. C. (ed.) 2006d. *L'Agriculture institutionnelle en Égypte ancienne: état de la question et perspectives interdisciplinaires*. CRIPEL 25.

Moreno García, J. C. 2008. Estates (Old Kingdom). In E. Frood and W. Wendrich (eds.), *UCLA Encyclopedia of Egyptology*, Los Angeles: http://repositories.cdlib.org/nelc/uee.

Morenz, L. D. 1996. *Beiträge zur Schriftlichkeitskultur im Mittleren Reich und in der Zweiten Zwischenzeit*. ÄAT 29. Wiesbaden.

Morenz, L. D. 1998. Versorgung mit Getreide: Historische Entwicklungen und intertextuelle Bezüge zwischen ausgehenden Alten Reich und Erster Zwischenzeit aus Achmim. *SAK* 26: 81–117.

Morenz, L. D. 1999a. Das Lese-Bild von Königskartusche, Löwe und Stier versus vier Heuschrecken – Königspropaganda und Selbstindoktrinierung der ägyptischen Elite. *ZÄS* 126: 132–41.

Morenz, L. D. 1999b. Zur ursprünglich heliopolitanischen Herkunft zweier Fragmente *Ppy* I. aus Bubastis. *DE* 45: 61–4.

Morenz, L. D. 2000. Personennamen und eine familiäre Gottesbeziehung in der Zeit der Regionen (Erste Ziwschenzeit). *Biblische Notizen* 101: 22.

Morenz, L. D. 2002. Die Götter und ihr Redetext: Die ältestbelegte Sakral-Monumentalisierung von Textlichkeit auf Fragmenten der Zeit des Djoser aus Heliopolis. In H. Beinlich, J. Hallof, H. Hussy, and C. von Pfeil, C. (eds.), *5. Ägyptologische Tempeltagung, Würzburg 23.-26. September 1999*. ÄAT 33.3: 137–58.

Morenz, L. D. 2005. Ein Text zwischen Ritual(ität) und Mythos. Die Inszenierung des Anchtifi von Hefat als Super-Helden. In Dücker and Roeder 2002: 123–47.

Morenz, L. D. 2006. Em-habs Feldzugsbericht: Bild-textliche Inszenierung von ''großer Geschichte'' im Spiegel der Elite. *Ä&L* 15: 169–80.

Morenz, L. D. 2008a. Wortwitz – Ideologie – Geschichte: »Israel« im Horizont Mer-en-ptahs. *ZAW* 120: 1–13.

Morenz, L. D. 2008b. *Sinn und Spiel der Zeichen. Visuelle Poesie im Alten Ägypten*. Cologne; Weimar; Vienna.

Morenz, L. D. Forthcoming b. Frühe Spuren vom Sammeln.

Morenz, L. D. Forthcoming a. Soldatenkönige, Königsakklamation und eine neue Göttin. Zum Beginn des zweiten thebanischen Kleinstaates im 17. Jh. v.Chr.

Moret, A. 1902. *Le rituel du culte divine journalier en Égypte*. Paris.

Morkot, R. G. 1990. *NB-M3ʿT-Rʿ-United-with-Ptah*. *JNES* 49: 323–37.

Morkot, R. G. 1999. Kingship and kinship in the empire of Kush. In S. Wenig (ed.), *Studien zum Antiken Sudan. Akten der 7. Internationalen Tagung für meroitische Forschungen vom 14. bis 19. September 1992 in Gosen/bei Berlin*. Wiesbaden: 180–229.

Morkot, R. G. 2000. *The Black Pharaohs: Egypt's Nubian Rulers*. London.

Morkot, R. G. 2005. *The Egyptians: An Introduction*. London and New York.

Morley, N. 2007. The early Roman Empire: distribution. In W. Scheidel, I. Morris, and R. Saller (eds.), *The Cambridge Economic History of the Greco-Roman World*. Cambridge: 570–91.

Morris, E. F. 2005. *The Architecture of Imperialism: Military Bases and the Evolution of Foreign Policy in Egypt's New Kingdom*. PÄ 22. Leiden.

Mortensen, B. 1991. Change in the settlement pattern and population in the beginning of the historical period. *Ä&L* 2: 11–37.

Moshier, S. and El-Kalani, A. 2008. Late Bronze Age paleogeography along the ancient Ways of Horus in Northwest Sinai, Egypt. *Geoarchaeology* 23.4: 450–73.

Mostafa, M. F. 1985. Erster Vorbericht über einen Ersten Zwischenzeit Text aus Kom el-Koffar – Teil I. *ASAE* 70: 419–29.

Mostafa, M. F. 1987. Kom el-Koffar. Teil II: Datierung und historische Interpretation des Textes B. *ASAE* 71: 170–84.

Moursi, M. I. 1972. *Die Hohenpriester des Sonnengottes von der Frühzeit Ägyptens bis zum Ende des Neuen Reiches*. MÄS 26. Munich.

Moussa, A. M. and Altenmüller, H. 1977. *Das Grab des Nianchchnum und Chnumhotep. Old Kingdom Tombs at the Causeway of King Unas at Saqqara Excavated by the Department of Antiquities 3*. AV 21. Mainz am Rhein.

Mueller, K. 2003. Mastering matrices and clusters: locating Graeco-Roman settlements in the Meris of Herakleides (Fayum/Egypt) by Monte-Carlo-Simulation. *APF* 49: 218–54.

Mueller, K. 2006. *Settlements of the Ptolemies: City Foundations and New Settlement in the Hellenistic World*. Studia Hellenistica 43. Leuven.

Muhs, B. 2001. Membership in private associations in Ptolemaic Tebtunis. *JESHO* 44:1–21.

Muhs, B. 2005a. The grapheion and the disappearance of Demotic contracts in early Roman Tebtynis and Soknopaiou Nesos. In S. Lippert and M. Schentuleit (eds.), *Tebtynis und Soknopaiu Nesos: Leben im römerzeitlichen Fajum, Akten des Internationalen Symposions von 11. bis 13. Dezember 2003 in Sommerhausen bei Würzburg*. Wiesbaden: 93–104.

Muhs, B. 2005b. *Tax Receipts, Taxpayers and Taxes in Early Ptolemaic Thebes*. University of Chicago Oriental Institute Publications 126. Chicago.

Müller, M. 2001. Re and Re-Horakhty. In D. B. Redford (ed.), *Oxford Encyclopedia of Ancient Egypt*. III, NewYork and Oxford: 123–6.

Müller, M. 2004. Der Turiner Streikpapyrus (pTurin 1880). In *TUAT, Neue Folge, Bd. 1, Texte zum Rechts- und Wirtschaftsleben*. Gütersloh: 165–84.

Müller-Wollermann, R. 1986. Krisenfaktoren im ägyptischen Staat des ausgehenden Alten Reichs. Dissertation Tübingen.

Müller-Wollermann, R. 2004. *Vergehen und Strafen. Zur Sanktionierung abweichenden Verhaltens im alten Ägypten*. PÄ 21. Leiden.

Müller-Wollermann, R. 2007. Ägypten auf dem Weg zur Geldwirtschaft. In J.-C. Goyon and C. Cardin (eds.), *Proceedings of the Ninth International Congress of Egyptologists*. II. Leuven: 1351–9.

Mumford, G. D. 1998. International relations between Egypt, Sinai and Syria–Palestine in the Late Bronze Age to Early Persian Period (Dynasties 18–26: c.1550–525 BC). Toronto: Ph.D. dissertation.

Mumford, G. D. 1999a. Serabit el-Khadim. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 722–5.

Mumford, G. D. 1999b. Wadi Maghara. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 875–8.

Mumford, G. 2004. A preliminary reconstruction of the temple and settlement at Tell Tebilla (East Delta). In G. Knoppers and A. Hirsch (eds.), *Egypt, Israel and the Ancient Mediterranean World: Studies in Honor of Donald B. Redford*. Leiden: 267–86.

Mumford, G. D. 2005. Beyond Egypt's frontiers: a late Old Kingdom fort in South Sinai. *Minerva* 16.3: 24–6.

Mumford, G. D. 2006. Tell Ras Budran (Site 345): defining Egypt's eastern frontier and mining operations in South Sinai during the Late Old Kingdom (Early EB IV / MBI). *BASOR* 342: 13–67; see also www.deltasinai.com/sepe-10.htm.

Mumford, G. D. 2007. Egypto-Levantine relations during the Iron Age to early Persian periods (Dynasties late 20 to 26). In T. Schneider and K. Szpakowska (eds.), *Egyptian Stories: A British Egyptological Tribute to Alan B. Lloyd on the Occasion of His Retirement*. Alter Orient und Altes Testament 347. Münster: 225–88.

Mumford, G. D. and Parcak, S. 2002. Satellite image analysis and archaeological fieldwork in El-Markha Plain (South Sinai). *Antiquity* 76: 353–4.

Mumford, G. D. and Parcak, S. 2003. Pharaonic ventures into South Sinai: el-Markha Plain Site 346. *JEA* 89: 83–116.

Munro, P. 1993a. *Der Unas-Friedhof Nord-West I. Topographisch-historische Einleitung. Das Doppelgrab der Königinnen Nebet und Khenut*. Mainz am Rhein.

Munro, P. 1993b. Report on the work of the Joint Archaeological Mission Free University Berlin/University of Hannover during their 12th campaign (15th March until 14th May, 1992) at Saqqâra. *DE* 26: 47–58.

Murnane, W. J. 1977. *Ancient Egyptian Coregencies*. SAOC 40. Chicago.

Murnane, W. J. 1980. *United With Eternity: A Concise Guide to the Monuments of Medinet Habu*. Cairo.

Murnane, W. J. 1985. *The Road to Kadesh*: *A Historical Interpretation of the Battle Reliefs of King Sety I at Karnak*. Chicago.

Murnane, W. J. 1995. *Texts from the Amarna Period in Egypt*. Writings from the Ancient World 5. Atlanta.

Murnane, W. J. 1997. Overseer of the northern foreign countries: reflections on the upper administration of Egypt's empire in western Asia. In J. Van Dijk (ed.), *Essays on Ancient Egypt in Honour of Herman te Velde*. Egyptological Memoirs 1. Groningen: 251–8.

Murnane, W. J. 1999. Medinet Habu. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 481–5.

Murray, G. W. 1942. The gold mine of the Turin papyrus. *BIE* 24: 81–6.

Murray, J. 1880. *A Handbook for Travellers in Lower and Upper Egypt*. London.

Murray, M. A. 2000a. Cereal production and processing. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology*. Cambridge: 505–36.

Murray, M. A. 2000b. Fruits, vegetables, pulses and condiments. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology*. Cambridge: 609–55.

Murray, M. A., Boulton, N., and Heron, C. 2000. Viticulture and wine production. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology*. Cambridge: 577–608.

Museum of Fine Arts, Boston. 1982. *New Kingdom 1558–1085 B.C.* Boston.

Musurillo, H. A. 1954. *The Acts of the Pagan Martyrs: Acta Alexandrinorum*. Oxford.

Muszynski, M. 1977. Les ''associations religieuses'' en Egypte d'après les sources hiéroglyphiques, démotiques et grecques. *OLP* 8: 145–74.

Mysliwiec, K. 2001. Atum. In D. B. Redford (ed.), *Oxford Encyclopedia of Ancient Egypt*. I. NewYork and Oxford: 158–60.

Mysliwiec, K. 2005. Reading a statue of a statue: a testimony of three-dimensional cryptography. *Imago Aegypti* 1: 79–85.

Na'aman, N. 1975. The political disposition and historical development of Eretz-Israel according to the Amarna letters. Ph.D. dissertation. Tel Aviv.

Na'aman, N. 1990. Praises to the Pharaoh in response to his plans for a campaign in Canaan. In Abush, Huehnergard, and Steinkeller (eds.), 1990: 397–405.

Naguib, S.-A. 1990. *Le Clergé feminin d'Amon thebain*. OLA 38. Leuven.

Naville, E. 1894–1908. *The Temple of Deir el Bahari*. 4 vols. London.

Naville, E. 1907–13. *The XIth Dynasty Temple at Deir el-Bahari* I–III. London.

Needler, W. 1984. *Predynastic and Archaic Egypt in The Brooklyn Museum*. Brooklyn.

Negro, G., de Michele, V., and Piacenza, B. 2005. The lost ochre quarries of King Cheops and Djedefre in the Great Sand Sea (western desert of Egypt). *Sahara* 16: 121–7.

Neugebauer, O. and Parker, R. A. 1960. *Egyptian Astronomical Texts*. I. *The Early Decans*. Providence and London.

Neugebauer, O. and Parker, R. A.1964. *Egyptian Astronomical Texts*. II. *The Ramesside Star Clocks*, Providence and London.

Neugebauer, O. and Parker, R. A. 1969. *Egyptian Astronomical Texts.* III. *Decans, Planets, Constellations and Zodiacs.* Providence and London.

Newberry, P. E. 1893. *Beni Hasan.* I. London.

Nicholson, P. T. 1995. The potters of Deir Mawas, an ethnoarchaeological study. In B. J. Kemp (ed.), *Amarna Reports.* VI. London: 279–308.

Nicholson, P. T. and Henderson, J. 2000. Glass. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology.* Cambridge: 195–224.

Nicholson, P.T. and Peltenburg, E. 2000. Egyptian faience. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology.* Cambridge: 177–94.

Nicholson, P. T. and Shaw, I. (eds.). 2000. *Ancient Egyptian Materials and Technology.* Cambridge.

Niwinski, A. 1996. Les périodes de *wḥm mswt* dans l'histoire de l'Égypte: un essai comparatif. *BSFE* 136: 5–26.

Nock, A. Darby. 1972. A vision of Mandulis Aion. In Nock, *Essays on Religion and the Ancient World.* 1. Ed. Z. Stewart. Oxford: 365–400.

The Nodding Falcon of the Guennol Collection at the Brooklyn Museum. 1967–8. *Brooklyn Museum Annual* 9: 69–87.

Nord, D. 1981. The term *ḫnr*: "harem" or "musical performers"? In W. K. Simpson and W. M. Davis (eds.), *Studies in Ancient Egypt, the Aegean and the Sudan. Essays in Honor of Dows Dunham on the Occasion of his 90th birthday, June 1, 1980.* Boston: 137–45.

Norden, F. 1757. *Travels in Egypt and Nubia.* 2 vols. London.

Nordström, H.-A. 1972. *Neolithic and A-group Sites.* Scandinavian Joint Expedition to Sudanese Nubia. 3.1. Stockholm.

Nörr, D. 1969. *Die Entstehung der longi temporis praescriptio: Studien zum Einfluß der Zeit im Recht und zur Rechtspolitik in der Kaiserzeit.* Arbeitsgemeinschaft für Forschung des Landes Nordrhein-Westfalen, Geisteswissenschaften, Heft 156. Cologne and Opladen.

Nunn, J. F. 1996. *Ancient Egyptian Medicine,* London.

Nuzzolo, M. 2007. The sun temples of the Vth Dynasty: a reassessment. *SAK* 36: 217–47.

O'Connor, D. 1972. The geography of settlement in ancient Egypt. In P. J. Ucko, R. Tringham, and G. W. Dimbleby (eds.), *Man, Settlement and Urbanism.* London: 681–98.

O'Connor, D. 1974. Political systems and archaeological data in Egypt: 2600–1780 B.C. *World Archaeology* 6.1: 15–38.

O'Connor, D. 1986. The locations of Yam and Kush and their historical implications. *JARCE* 23: 27–50.

O'Connor, D. 1987. The location of Irem. *JEA* 73: 99–136.

O'Connor, D. B. 1989a. City and palace in New Kingdom Egypt. *CRIPEL* 11: 73–87.

O'Connor, D. 1989b. New funerary enclosures (*Talbezirke*) of the Early Dynastic Period at Abydos. *JARCE* 26: 51–86.

O'Connor, D. 1990. The nature of Tjemhu (Libyan) society in the later New Kingdom. In Leahy (ed.), 1990: 29–113.

O'Connor, D. 1991a. Boat graves and pyramid origins. *Expedition* 33.3: 5–17.

O'Connor, D. 1991b. Mirror of the cosmos: the palace of Merenptah. In E. Bleiberg and R. Freed (eds.), *Fragments of a Shattered Visage: The Proceedings of the International Symposium on Ramesses the Great.* Monographs of the Institute of Egyptian Art and Archaeology 1. Memphis: 167–98.

O'Connor, D. 1993. *Ancient Nubia: Egypt's Rival in Africa.* Philadelphia.

O'Connor, D. 1995a. Beloved of Maat, the horizon of Re: the royal palace in New Kingdom Egypt. In D. B. O'Connor and D. P. Silverman (eds.), *Ancient Egyptian Kingship.* New York: 263–300.

O'Connor, D. 1995b. The social and economic organization of ancient Egyptian temples. In J. M. Sasson (ed.), *Civilizations of the Ancient Near East*. I. New York: 319–29.

O'Connor, D. 1999. The Dendereh Chapel of Nebhepetre Mentuhotep: A New Perspective. In Leahy and Tait 1999: 215–20.

O'Connor, D. 2000. Society and individual in early Egypt. In J. Richards and M. Van Buren (eds.), *Order, Legitimacy, and Wealth in Ancient States*. New Directions in Archaeology. Cambridge: 21–35.

O'Connor, D. 2003. The royal boat burials at Abydos. In B. Manley (ed.), *The Seventy Great Mysteries of Ancient Egypt*. London: 38–41.

O'Connor, D. 2009. *Abydos: Egypt's First Pharoahs and the Cult of Osiris*. London.

O'Connor, D. and Silverman, D. P. (eds.) 1995. *Ancient Egyptian Kingship*. New York.

O'Rourke, P. F. 2001. Khnum. In D. B. Redford (ed.), *Oxford Encyclopedia of Ancient Egypt*. II. NewYork and Oxford: 231–2.

Obsomer, C. 1995. *Sésostris 1er. Étude chronologique et historique du règne*. Brussels.

Obsomer, C. 2007. Les expéditions d'Herkhouf (VIe dynastie) et la localisation de Iam. In M.-C. Bruwier (ed.), *Pharaons noirs. Sur la piste des quarante jours*. Musée royal de Mariemont: 39–52.

Ochsenschlager, E. L. 1999. Thmuis. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. London and New York: 836–8.

Ogden D. (ed.) 2002. *The Hellenistic World: New Perspectives*. London.

Ogden, J. 1977. Platinum group metal inclusions in ancient gold artefacts. *Journal of Historical Metallurgy* I2.2: 53–72.

Ogden, J. 1992. Gold in antiquity. *Interdisciplinary Science Review* 17.3: 261–70.

Ogden, J. 1993. Aesthetic and technical considerations regarding the colour and texture of ancient goldwork. In S. La Niece and P. T. Craddock (eds.), *Metal Plating and Patination: Cultural, Technical and Historical Developments*. London: 39–49.

Ogden, J. 2000. Metals. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology*. Cambridge: 149–76.

Oleson, J. P. 2008. *Oxford Handbook of Engineering and Technology in the Classical World*. Oxford.

Oliver, J. H. 1989. *Greek Constitutions of Early Roman Empire from Inscriptions and Papyri*. Philadelphia.

Omar, S. 1979. *Das Archiv des Soterichos*. Opladen.

Onishi, H. 2005. A Kushite temple in a western oasis? In K. Piquette and S. Love (eds.), *Current Research in Egyptology 2003, Proceedings of the Fourth Annual Symposium which took place at the Institute of Archaeology, University College London 18–19 January 2003*. London: 121–33.

Oppenheim, L. 1973. Towards a history of glass in the ancient Near East. *JOAS* 93: 259–66.

Oren, E. D. (ed.) 1997a. *The Hyksos: New Historical and Archaeological Perspectives*. Philadelphia.

Oren, E. D. 1997b. The "Kingdom of Sharuhen" and the Hyksos problem. In Oren 1997a: 253–83.

Oren, E. D. (ed.) 2000. *The Sea Peoples and Their World: A Reassessment*. Philadelphia.

Oren, E. D. and Yekutieli, V. 1990. North Sinai during the MB I period: pastoral nomadism and sedentary settlement. *Eretz-Israel* 21: 6–22.

Oren, E. D. and Yekutieli, Y. 1992. Taur Ikhbeineh: earliest evidence for Egyptian Interconnections. In E. C. M. van den Brink (ed.), *The Nile Delta in Transition*. Tel Aviv: 361–84.

Orrieux, C. 1983. *Les Papyrus de Zénon*. Paris.

Orrieux, C. 1985. *Zénon de Caunos, parépidémos, et le destin grec.* Annales littéraires de l'Université de Besançon 320. Paris.

Osborn, D. J. and Osbornová, J. 1998. *Mammals of Ancient Egypt.* The Natural History of Egypt 4. Warminster.

Osing, J. 1998. *Hieratische Papyri aus Tebtynis I: The Carlsberg Papyri 2.* CNI Publications 17. Copenhagen.

Osing, J. and Dreyer, G. (eds.) 1987. *Form und Mass. Beiträge zur Literatur, Sprache und Kunst des alten Ägypten.* Wiesbaden.

Otto, W. 1905–8. *Priester und Tempel im hellenistischen Aegypten.* 2 vols. Leipzig-Berlin. To be read with the important review by M. Rostovtzeff, *Göttingische Gelehrte Anzeigen* 171 (1909): 603–42.

Otto, E. 1954. *Die biographischen Inschriften der ägyptischen Spätzeit. Ihre geistesgeschichtliche und literarische Bedeutung.* PÄ 2. Leiden.

Padró J. and Molina, F. 1986. Un vase de l'époque des Hyksos trouvé à Almuñécar (Province de Grenade, Espagne). In Hommages à François Daumas. 2 vols. Montpellier: 517–24.

Palme, B. 2007. The imperial presence: government and army. In Bagnall 2007: 244–70, 491–555.

Panagiotopoulos, D. 2000. Tributabgaben und Huldigungsgeschenke aus der Levante. Die ägyptische Nordexpansion in der 18. Dynastie aus strukturgeschichtlicher Sicht. *Ä&L* 10: 139–58.

Pantalacci, L. and Berger-El-Naggar, C. (eds.) 2005. *Des Néferkarê aux Montouhotep. Actes du colloque CNRS-Université Lumière-Lyon 2, tenu le 5–7 juillet 2001.* Lyon.

Papaconstantinou, A. 1994. Oracles chrétiens dans l'Égypte byzantine: Le témoignage des papyrus. *ZPE* 104: 281–66.

Parássoglou, G. 1978. *Imperial Estates in Roman Egypt.* ASP 18. Amsterdam.

Parcak, S. 2003. New methods for archaeological site detection via satellite image analysis: case studies from Sinai and the Delta. *Archaeologia Polonia* 41: 243–5.

Parcak, S. 2004. Egypt's Old Kingdom "empire" (?): a case study focusing on South Sinai. In G. N. Knoppers and A. Hirsch (eds.), *Egypt, Israel, and the Ancient Mediterranean World.* Studies in Honor of Donald B. Redford. Leiden and Boston: 41–60.

Parcak, S. 2004a. Finding new archaeological sites in Egypt using satellite remote sensing: case studies from Middle Egypt and the Delta. In C. Wang (ed.) *International Conference on Remote Sensing Archaeology.* Beijing.

Parcak, S. 2004b. Satellite remote sensing resources for Egyptology. *GM* 198: 63–78.

Parcak, S. 2005. Satellites and survey in Middle Egypt. *EA* 29: 28–32.

Parcak, S. 2007a. Going, going, gone: towards a satellite remote sensing methodology for monitoring archaeological tell sites under threat in the Middle East. *Journal of Field Archaeology* 42: 61–83.

Parcak, S. 2007b. The Middle Egypt Survey Project: 2005/6 season report. *JEA* 92: 3–8.

Parcak, S. 2008. Survey in Egyptology. In R. Wilkinson (ed.), *Egyptology Today.* Cambridge.

Parcak, S. 2009a. The skeptical remote senser. In S. Ikram and A. Dodson (eds.), *Beyond the Horizon: Studies in Egyptian Art, Archaeology and History in Honour of Barry J. Kemp.* Cairo.

Parcak, S. 2009b. *Satellite Remote Sensing for Archaeology,* London.

Pardey, E. 2001. Provincial administration. In D. B. Redford (ed.), *The Oxford Encyclopaedia of Ancient Egypt.* 1. Oxford: 16–20.

Parker, R. A. 1950. *The Calendars of Ancient Egypt.* SAOC 26. Chicago.

Parker, R. A. 1952. Sothic dates and calendar "adjustment." *RdE* 9: 101–8.

Parker, R. A. 1978. Egyptian astronomy, astrology and calendarical reckoning. In *Dictionary of Scientific Biography.* 15, supplement I. New York: 706–27.

Parkinson, R. 1991. *Voices from Ancient Egypt: An Anthology of Middle Kingdom Texts.* London.

Parkinson, R. 1995. "Homosexual desire" in Middle Kingdom literature. *JEA* 81: 57–76.

Parkinson, R. 1996. Individual and society in Middle Kingdom literature. In A. Loprieno (ed.), *Ancient Egyptian Literature: History and Forms*. PÄ 10. Leiden: 137–55.

Parkinson, R. 1997. *The Tale of Sinuhe and Other Ancient Egyptian Poems, 1940–1640 BC*. Oxford.

Parkinson, R. 2002. *Poetry and Culture in Middle Kingdom Egypt: A Dark Side to Perfection*. Studies in Egyptology and the Ancient Near East. London and New York.

Parkinson, R. 2009. *Reading Ancient Egyptian Poetry: Among Other Histories*. Oxford.

Parsons, P. J. 1967. Philippus Arabs and Egypt. *JRS* 57: 134–41.

Parsons, P. 2007. *City of the Sharp-Nosed Fish*. London.

Partridge, R. B. 1996. *Transport in Ancient Egypt*. London.

Partridge, R. B. 2002. *Fighting Pharaohs: Weapons and Warfare in Ancient Egypt*. Manchester.

Pasquali, S. 2007. Une nouvelle stèle de Parthénios fils de Paminis de Coptos. *RdE* 58: 187–92.

Patch, D. C. 2007. Third Intermediate Period burials of young children at Abydos. In Z. Hawass and J. Richards (eds.), *The Archaeology and Art of Ancient Egypt: Essays in Honor of David B. O'Connor* II. ASAE Cahier 36. Cairo: 237–55.

Patch, D. C. and Haldane, C. W. 1990. *The Pharaoh's Boat at the Carnegie*. Pittsburgh.

Pavlish, L. 2004. Archaeometry at Mendes, 1990–2002. In G. Knoppers and A. Hirsch (eds.), *Egypt, Israel and the Ancient Mediterranean World: Studies in Honor of Donald B. Redford*. Leiden: 61–112.

Payne, J. C. 1993. *Catalogue of the Predynastic Egyptian Collection in the Ashmolean Museum*. Oxford.

Payne. P. 2006. In B. J. Kemp et al., Fieldwork 2005–6: Tell el-Amarna. *JEA* 92: 21–56.

Peacock, D. P. S. and Blue, L. 2006. *Myos Hormos – Quseir al-Qadim. Roman and Islamic Ports on the Red Sea. Survey and Excavations 1999–2003*. Oxford.

Peacock, D. P. S. and Maxfield, V. A. 1997. *Survey and Excavation. Mons Claudianus 1987–1993*. I. Cairo.

Pearce, N. J. G. et al. 2007. Reinterpretation of Greenland ice-core data recognises the presence of the late Holocene Aniakchak tephra (Alaska), not the Minoan tephra (Santorini), at 1645 BC. In M. Bietak and E. Cerny (eds.), *The Synchonisation of Civilisations in the Eastern Mediterranean in the Second Millenium B.C.* Bd. III. ÖAW Denkschriften 37: 139–47.

Pearl, O. 1985. Apprentice contract. *BASP* 22: 255–9.

Pearson, B. 2007. Earliest Christianity in Egypt: further observations. In James Goehring and J. Timbie (eds.), *The World of Egyptian Christianity: Language, Literature, and Social Context*. Washington: 97–112.

Peet, E. T. 1923a. *The Rhind Mathematical Papyrus*. Liverpool and London.

Peet, E. T. 1923b. Arithmetic in the Middle Kingdom. *JEA* 9: 91–5.

Peet, E. T. 1924. A historical document of Ramesside age. *JEA* 10: 116–27.

Peltenburg, E. J. 1987. Early faience: recent studies, origins and relations with glass. In M. Bimson and I. C. Freestone (eds.), *Early Vitreous Materials*. British Museum Occasional Papers 56. London: 5–29.

Pendlebury, J. D. S. 1951. *The City of Akhenaten*. III. London.

Pensabene, P. 1991. Elementi di architettura alessandrina. In S. Stucchi and M. Bonanno Aravantinos (eds.), *Giornate di studio in onore di Achille Adriani, Roma 26–27 novembre 1984*. StMisc. 28. Rome: 29–85.

Pensabene, P. 1993. *Repertorio d'arte dell'Egitto greco-romano. Elementi architettonici di Alessandria e di altri siti egiziani*. Rome.

Perdrizet, P. and Lefebvre, G. 1919. *Les Graffites grecs du Memnonion d'Abydos*. Nancy; Paris; Strasbourg.

Perdu, O. 1986. Prologue à un corpus des stèles royales de la XXVIe dynastie. *BSFE* 105: 23–38.

Perdu, O. 1987. Les stèles du Sérapéum et l'histoire dynastique. In *Tanis: L'or des pharaons* (exhibition catalogue). Paris: 152–62.

Perdu, O. 1992. Une statue saïte d'un prêtre de la province de l'occident. *RdE* 42: 183–7.

Perdu, O. 1998. Le directeur des scribes du conseil. *RdE* 49: 175–94.

Perdu, O. 2002. De Stéphinatès à Néchao ou les débuts de la XXVIᵉ dynastie. *CRAIBL*: 1215–43.

Perdu, O. 2003a. Psammétique Ier restaurateur de l'unité nationale et initiateur du renouveau saïte. *Égypte Afrique & Orient* 28: 3–11.

Perdu, O. 2003b. Des pendentifs en guise d'ex-voto. *RdE* 54: 155–66.

Perdu, O. 2004. La chefferie de Sébennytos de Piankhi à Psammétique Ier. *RdE* 55: 95–111.

Perdu, O. 2006a. Documents relatifs aux gouverneurs du Delta au début de la XXVIᵉ dynastie. *RdE* 57: 151–88 and pls. xix–xxiii.

Perdu, O. 2006b. Psammétique-séneb: un vizir d'Héliopolis avant la conquête d'Alexandre. *Égypte Afrique & Orient* 42: 41–52.

Perdu, O. forthcoming. Les ''blocs de Piankhi'' après un siècle de discussions. In the proceedings of the colloquium ''La XXVIᵉ dynastie: continuités et ruptures,'' held in Lille in November 2004.

Pérez Arroyo, R. 2003. *Egypt: Music in the Age of the Pyramids*. Madrid.

Pérez Die, M. 2005. *Ehnasya el Medina. Heracléopolis Magna. Egipto. Excavaciones 1984–2004*. Madrid.

Pernigotti, S. 1996. Les rapports entre les Grecs et l'Égypte à l'époque saïte: les aspects juridiques et institutionnels. *Méditerranée* 6/7: 87–101.

Pestman, P. W. 1961. *Marriage and Matrimonial Property in Ancient Egypt: A Contribution to Establishing the Legal Position of the Woman*. Papyrologica Lugduno-Batava 9. Leiden.

Pestman, P. W. 1978. L'agoranomie: un avant-poste de l'administration grecque enlevé par les égyptiens. In H. Maehler and V. Strocka (eds.), *Das ptolemäische Ägypten*. Mainz am Rhein: 203–10.

Pestman, P. W. 1981. *A Guide to the Zenon Archive*. 2 vols. Papyrologica Lugduno-Batava 21. Leiden.

Pestman, P. W. 1983. L'origine et l'extension d'un manuel de droit égyptien. Quelques réflexions à propos du soi-disant Code de Hermoupolis. *JESHO* 26: 14–21.

Pestman, P. W. 1985a. Registration of Demotic contracts in Egypt. P. Par. 65; 2nd cent. B.C. In J. A. Ancum, J. E. Spruit, and F. B. J. Wubbe (eds.), *Satura Roberto Feenstra sexagesimum quintum annum aetatis complenti ab alumnis collegis amicis oblata*. Fribourg: 17–25.

Pestman, P. W. 1985b. The competence of Greek and Egyptian tribunals according to the decree of 118 B.C. *BASP* 22: 265–9.

Pestman, P. W. 1995. Haronnophris and Chaonnophris: two indigenous pharaohs in Ptolemaic Egypt (205–186 B.C.). In S. P. Vleeming (ed.), *Hundred-gated Thebes: Acts of a Colloquium on Thebes and the Theban Area in the Greco-Roman Period*. Papyrologica Lugduno-Batava 27. Leiden: 101–37.

Petrie, W. M. F. 1898. *Deshasheh*. London.

Petrie, W. M. F. 1890. *Kahun, Gurob and Hawara*. London.

Petrie, W. M. F. 1894. *Tell el-Amarna*. London.

Petrie, W. M. F. 1899. *Hawara, Biahmu and Arsinoe*. London.

Petrie, W. M. F. 1900. *Dendereh 1898*. London.

Petrie, W. M. F. 1901. *Diospolis Parva: The Cemeteries of Abadiyeh and Hu*. EEF Memoir 20. London.

Petrie, W. M. F. 1909. *Qurneh*. BSA 16. London.

Petrie, W. M. F. 1920. *Prehistoric Egypt*. British School of Archaeology and Egyptian Research Account Publication 31. London.

Petrie, W. M. F. 1921. *Corpus of Prehistoric Pottery and Palettes*. London.

Petrie, W. M. F. and Brunton, G. 1924. *Sedment* I. London.

Petrie, W. M. F. and Griffith, F. L. 1888. *Tanis Part II: 1886; Nebesheh (AM) and Defenneh (Tahpanhes)*. EEF Memoir 4. London.

Petrie, W. M. F. and Griffith, F. L. 1898. *The Petrie Papyri: Hieratic Papyri from Kahun and Gurob*. London.

Petrie, W. M. F. and Quibell, J. E. 1896. *Naqada and Ballas*. London.

Petrie, W. M. F., Wainwright, G. A., and Mackay, E. 1912. *The Labyrinth, Gerzeh, and Mazghuneh*. London.

Petrie, W. M. F., Brunton, G., and Murray, M. A. 1923. *Lahun*. II. BSAE 26. London.

Petrie, W. M. F. with Murray. A. S. and Griffith, F. L. 1888. *Tanis*. II. EES Memoir 4. London.

Pfeiffer, S. 2008. *Herrscher- und Dynastiekulte im Ptolemäerreich: Systematik und Einordnung der Kultformen*. Münchener Beiträge zur Papyrusforschung und antiken Rechtsgeschichte 98. Munich.

Pfeiffer, S. 2010. Die Politik Ptolemaios' VI. und VIII. im Kataraktgebiet: Die ''ruhigen'' Jahre von 163 bis 136 v. Chr. In Quack-Jördens 2010.

Philip, G. 2006. *Tell ed Dab'a XV. Metal Work and Metalworking Evidence of the Late Middle Kingdom and the Second Intermediate Period*. Vienna.

Piccione, P. A. 1990. Mehen, mysteries, and resurrection from the coiled serpent. *JARCE* 27: 43–52.

Piccione, P. A. 1999. Sportive fencing as a ritual for destroying the enemies of Horus. In E. Teeter and J. A. Larson (eds.), *Gold of Praise: Studies on Ancient Egypt in Honor of Edward F. Wente*, SAOC 58. Chicago: 335–49.

Piccione, P. A. 2007. The Egyptian game of senet and the migration of the soul. In I. L. Finkel (ed.), *Ancient Board Games in Perspective*. London: 54–63.

Pinch, G. 1983. Childbirth and female figurines at Deir el-Medina and el-'Amarna. *Orientalia* 52: 405–14.

Pinch, G. 1993. *Votive Offerings to Hathor*. Oxford.

Pinch, G. 1994. *Magic in Ancient Egypt*. London.

Pinch, G. 2004. *Egyptian Myth: A Very Short Introduction*. Oxford.

Pirelli, R. 1999. Deir el-Bahari, Mentuhotep II complex. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 239–42.

Pirritano, A. 1979. Interim Report of the Akhenaten Temple Project: excavations in East Karnak (to 1979). Unpublished manuscript.

Pococke, R. 1743. *A Description of the East, and Some other Countries*. London.

Polz, D. 1998. The Ramsesnakht Dynasty and the fall of the New Kingdom: a new monument in Thebes. *SAK* 25: 257–93.

Polz, D. 2006. Die Hyksos-Blöcke aus Gebelên. Zur Präsenz der Hyksos in Oberägypten. In E. Czerny, I. Heim, H. Hunger, D. Melman, and A. Schwab (eds.), *Timelines: Studies in Honour of Manfred Bietak II*. OLA 149.1. Leuven: 239–47.

Pomeroy, S. B. 1990. *Women in Hellenistic Egypt: From Alexander to Cleopatra*. Detroit.

Pomey P. and Tchernia, A. 2006. Les inventions entre l'anonymat et l'exploit: le pressoir à vis et la Syracusia. In E. Lo Cascio (ed.), *Innovazione tecnica e Progresso Economico nel Mondo Romano*. Bari: 81–99.

Poole, F. 1999. Tanis, royal tombs. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 757–9.

Popko, L. 2006. *Untersuchungen zur Geschichtsschreibung der Ahmosiden- und Thutmosiden-zeit ... damit man von seinen Taten noch in Millionen von Jahren sprechen wird*. WSA 2. Würzburg.

Porten, B. 1996. *The Elephantine Papyri in English: Three Millennia of Cross-cultural Continuity & Change*. Studies in Near Eastern Archaeology and Civilisation 22. Leiden.

Porter, B. and Moss, R. 1960–99. *Topographical Bibliography*. Oxford (2nd edn.).

Posener, G. 1936. *La Première Domination perse en Égypte*. BdE 11. Cairo.

Posener, G. 1947. Les douanes de la Méditerranée dans l'Égypte saïte. *Revue de Philologie* 21: 117–31.

Posener, G. 1956. *Littérature et politique dans l'Égypte de la XIIe dynastie*. Paris.

Posener, G. 1957. Le conte de Neferkarê et du général Siséné. *RdE* 11: 119–37.

Posener, G. 1960. *De la divinité du pharaon*. Cahiers de la Société Asiatique 15. Paris.

Posener, G. 1988. Le vizir Antefoqer. In J. Baines, T. G. H. James, A. Leahy, and A. F. Shore (eds.), *Pyramid Studies and Other Essays Presented to I.E.S. Edwards*. EES Occasional Publications 7: 73–77.

Posener-Kriéger, P. 1975. Les papyrus de Gébélein. Rémarques préliminaires. *RdE* 27: 211–21.

Posener-Kriéger, P. 1976. *Les Archives du temple funéraire de Néferirkare-Kakaï*. 2 vols. BdÉ 65. Cairo.

Posener-Kriéger, P. (ed.) 1985. *Mélanges Gamal Eddin Mokhtar*. Cairo.

Posener-Kriéger, P. 1997. "News from Abusir," in S. Quirke (ed.), *The Temple in Ancient Egypt: New Discoveries and Recent Research*. London: 17–23.

Posener-Kriéger, P. and de Cenival, J.-L. 1968. *The Abu Sir Papyri*. Hieratic Papyri in the British Museum. 5th series. London.

Postel, L. 2004. *Protocole des souverains égyptiens et dogme monarchique au début du Moyen Empire*. MRE 10. Turnhout.

Postgate, N., Wang, T., and Wilkinson, T. 1995. The evidence for early writing: utilitarian or ceremonial? *Antiquity* 69: 459–80.

Potter, D. S. 1994. *Prophets and Emperors: Human and Divine Authority from Augustus to Theodosius*. Cambridge.

Potter, D. S. 2004. *The Roman Empire at Bay, AD 180–395*. London.

Powell, C. 1995. The nature and use of ancient Egyptian potter's wheels. In B. J. Kemp (ed.), *Amarna Reports VI*. London: 309–35.

Préaux, C. 1939. *L'Economie royale des Lagides*. Brussels.

Price, R. M. 1976. The *limes* of Lower Egypt. In R. Goodburn and P. Bartholemew (eds.), *Aspects of the* Notitia Dignitatum. BAR Supplementary Series 15. Oxford: 143–54.

Pucci Ben Zeev, M. 2005. *Diaspora Judaism in Turmoil, 116/117 CE: Ancient Sources and Modern Insights*. Leuven.

Purcell, N. 1985. Wine and wealth in ancient Italy. *JRS* 75: 1–19.

Purpura, G. 2002. Passaporti romani. *Aegyptus* 82: 131–55.

Pusch, E. 1990. Metallverarbeitende Werkstätten in Qantir/Piramesse-Nord. *Ä&L* 1: 75–113.

Pusch, E. and Herold, A. 1999. Qantir/Pi-Ramesses. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 647–9.

Quack, J. 1992. *Studien zur Lehre für Merikare*. GOF IV: 23.

Quack, J. 2000. *Das Buch vom Tempel und Verwandte Texte. Ein Vorbericht*. Archiv für Religionsgeschichte 85: 1–20.

Quack, J. 2003. Le manuel du temple. Une nouvelle source sur la vie des prêtres égyptiens. *Égypte, Afrique & Orient* 29: 11–18.

Quack, J. 2005. *Einführung in die altägyptische Literaturgeschichte III. Die demotische und gräko-ägyptische Literatur*. Münster.

Quack, J. 2006. A black cat from the right, and a scarab on your head: new sources for ancient Egyptian divination. In K. Szpakowska (ed.), *Through a Glass Darkly: Magic, Dreams and Prophecy in Ancient Egypt*. Swansea: 175–87.

Quack, J. 2010. Ist der Meder an allem schuld? Zur Frage des realhistorischen Hintergrundes der gräkoägyptischen prophetischen Literatur. In Quack-Jördens 2010.

Quack, J. and Jördens, A. (eds.) 2010. *Ägypten zwischen innerem Zwist und äußerem Druck. Die Zeit Ptolemaios' VI. bis VIII.* Wiesbaden.

Quaegebeur, J. 1977. Les "saints" égyptiens préchrétiens. OLA 8: 129–43.

Quaegebeur, J. 1978. Reines ptolémaïques et traditions égyptiennes. In H. Maehler and V. M. Strocka (eds.), *Das ptolemäische Ägypten. Akten des internationalen Symposions, 27.–29. September 1976 in Berlin*. Mainz am Rhein: 245–62.

Quaegebeur, J. 1979. Documents égyptiens et rôle économique du clergé en Égypte hellénistique. In E. Lipinski (ed.), *State and Temple Economy in the Ancient Near East*. II. OLA 6. Leuven: 707–29.

Quaegebeur, J. 1980–1. Sur la "loi sacrée" dans l'Égypte gréco-romaine. *Ancient Society* 11/12: 227–40.

Quaegebeur, J. 1993. La justice à la porte des temples et le toponyme Premit. In C. Cannuyer and J.-M. Kruchten (eds.), *Individu, société et spiritualité dans l'Égypte pharaonique et copte. Mélanges égyptologiques offerts au Professeur A. Théodoridès*. Ath; Bruxelles; Mons: 201–20.

Quaegebeur, J. 1998. Documents égyptiens anciens et nouveaux relatifs à Arsinoé Philadelphe. In H. Melaerts (ed.), *Le Culte du souverain dans l'Égypte ptolémaïque au IIIe siècle de notre ère*. Studia Hellenistica 34. Leuven: 73–108.

Quaegebeur, J. and Wagner, G. 1973. Une dédicace grecque au dieu égyptien Mestasytmis de la part de son synode. *BIFAO* 73: 41–60.

Quibell, J. E. 1898. Slate palette from Hierakonpolis. *ZÄS* 36: 81–4.

Quibell, J. E. 1907. *Excavations at Saqqara (1905–1906)*. Cairo.

Quibell, J. E. and Hayter, A. G. K. 1927. *Excavations at Saqqara: Teti Pyramid, North Side*. Cairo.

Quirke, S. 1986. The regular titles of the Late Middle Kingdom. *RdE* 37: 107–30.

Quirke, S. 1990. *The Administration of Egypt in the Late Middle Kingdom: The Hieratic Documents*. New Malden.

Quirke, S. 1991. Royal power in the 13th Dynasty. In S. Quirke (ed.), *Middle Kingdom Studies*. New Malden: 123–39.

Quirke, S. 1992. *Ancient Egyptian Religion*. London.

Quirke, S. 1997. Gods in the temple of the King: Anubis at Lahun. In S. Quirke (ed.), *The Temple in Ancient Egypt: New Discoveries and Recent Research*. London: 24–48.

Quirke, S. 1999. Women in ancient Egypt: temple titles and funerary papyri. In A. Leahy and J. Tait (eds.), *Studies on Ancient Egypt in Honour of H. S. Smith*. Occasional Publications 13. London: 227–35.

Quirke, S. 2001. *The Cult of Ra*, London.

Quirke, S. 2004. *Titles and Bureaux of Egypt 1850–1700 BC*. GHP Egyptology 1. London.

Quirke, S. 2005. *Egyptian Sites: Lahun. A Town in Egypt 1800 BC, and the History of Its Landscape*. London.

Quirke, S. 2007. Labour at Lahun. In Z. Hawass and J. Richards (eds.), *The Archaeology and Art of Ancient Egypt: Essays in Honor of David B. O'Connor*. II. ASAE Cahier 36. Cairo: 273–88.

Raedler, C. 2003. Zur Repräsentation und Verwirklichung pharaonischer Macht in Nubien: der Vizekönig Setau. In R. Gundlach and U. Rössler-Köhler (eds.), *Das Königtum der Ramessidenzeit: Voraussetzungen - Verwirklichung - Vermächtnis: Akten des 3. Symposiums*

zur ägyptischen Königsideologie in Bonn 7.– 9. 6. 2001. ÄAT 36. Beiträge zur altägyptischen Königsideologie 3. Wiesbaden: 129–73.

Raedler, C. 2006. Zur Struktur der Hofgesellschaft Ramses' II. In R. Gundlach und A. Klug (eds.), *Der ägyptische Hof des Neuen Reiches: Seine Gesellschaft und Kultur im Spannungsfeld zwischen Innen- und Außenpolitik. Akten des Internationalen Kolloquiums von 27.–29. Mai 2002 an der Johannes Gutenberg Universität Mainz*. Königtum, Staat und Gesellschaft früher Hochkulturen 2. Wiesbaden: 39–87.

Rainey, A. F. 1996. *Canaanite in the Amarna Tablets: A Linguistic Analysis of the Mixed Dialect Used by Scribes from Canaan*. 1–4. Leiden; New York; Cologne.

Rathbone. D. 1990. Villages, land and population in Graeco-Roman Egypt. *Proceedings of the Cambridge Philosophical Society*. 36: 103–42.

Rathbone, D. 1991. *Economic Rationalism and Rural Society in Third-Century A.D. Egypt: The Heroninos Archive and the Appianus Estate*. Cambridge.

Rathbone, D. 1993. Egypt, Augustus and Roman taxation. *CCGG* 4: 81–112.

Rathbone, D. 2000. The ''Muziris'' papyrus (SB XVIII 13167): financing Roman trade with India. *Alexandrian Studies II in Honor of Mostafa el Abbadi, Bulletin de la Société archéologique d'Alexandrie*. 4–6: 39–50.

Rathbone D. 2001. Mapping the south-west Fayyum: sites and texts. In I. Andorlini, G. Bastianini, M. Manfredi, and G. Menci (eds.), *Atti del XXII Congresso Internazionale di Papirologia. Firenze, 23–29 agosto 1998*. II. Florence: 1109–17.

Rathbone, D. 2007. Roman Egypt: In W. Scheidel, I. Morris, and R. Saller (eds.), *The Cambridge Economic History of the Greco-Roman World*. Cambridge: 698–719.

Ratié, S. 1979. *La Reine Hatchepsout: Sources et problèmes*. Orientalia Monspeliensia 1. Leiden.

Raue, D. 1999. Heliopolis und das Haus des Re. Eine Prosopographie und ein Toponym im Neuen Reich. ADAIK 16.

Ray, J. D. 1976. *The Archive of Hor*. London.

Ray, J. D. 1987. A pious soldier: stele Aswan 1057. *JEA* 73: 169–80.

Ray, J. D. 1988. Egypt 525–404 B.C. In J. Boardman et al. (eds.), *The Cambridge Ancient History*. IV. *Persia, Greece and the Western Mediterranean c. 525–479 B.C.* Cambridge: 254–86 (2nd edn.).

Ray, J. D. 1992. Jews and other immigrants in Late Period Egypt. In J. H. Johnson (ed.), *Life in a Multi-cultural Society: Egypt from Cambyses to Constantine and Beyond*. Chicago: 273.

Reddé, M. 1992. *Le Trésor de Douch (Oasis de Kharga)*. Cairo.

Reddé, M. 1999. Sites militaires romains de l'oasis de Kharga. *BIFAO* 99: 377–96.

Reden, S. V. 2007. *Money in Ptolemaic Egypt: From the Macedonian Conquest to the End of the Third Century BC*. Cambridge.

Redford, D. B. 1970. The Hyksos invasion in history and tradition. *Or* 39: 1–51.

Redford, D. B. 1982. The sun-disk in Akhenaten's program: its worship and its antecedents. II. *JARCE* 17: 21–38.

Redford, D. B. 1986a. Egypt and western Asia in the Old Kingdom. *JARCE* 23: 125–43.

Redford, D. B. 1986b. *Pharaonic King-lists, Annals and Day-books: A Contribution to the Study of the Egyptian Sense of History*. SSEAP 4. Mississauga.

Redford, D. B. 1987. The Tod inscription of Senwosret I and early 12th Dynasty involvement in Nubia and the south. *JSSEA* 17: 36–57.

Redford, D. B. 1992. *Egypt, Canaan, and Israel in Ancient Times*. Princeton (2nd edn. 1995).

Redford, D. B. 1997. Textual sources for the Hyksos period. In E. Oren (ed.), *The Hyksos*: 1–44.

Redford, D. B. 1998. Report on the 1993 and 1997 seasons at Tell Qedwa. *JARCE* 35: 45–9.

Redford, D. B. (ed.) 2001a. *The Oxford Encyclopedia of Ancient Egypt*. 1–3. New York.

Redford, D. B. 2001b. Report on the 11th season of excavations at Tel er-Rub'a (Mendes). *Akhenaten Temple Project Newsletter* 3: 1–3.

Redford, D. B. 2003 *The Wars in Syria and Palestine of Thutmose III*. Leiden and Boston.

Redford, D. B. 2004a. *Excavations at Mendes*. I. *The Royal Necropolis*. Leiden and Boston.

Redford, D. B. 2004b. *From Slave to Pharaoh: The Black Experience of Ancient Egypt*. Baltimore and London.

Redford, D. B. 2005. Mendes: city of the ram-god. *EA* 26: 8–12.

Redford, S. and Redford, D. B. 2005. The cult and necropolis of the sacred ram at Mendes. In S. Ikram (ed.), *Divine Creatures: Animal Mummies in Ancient Egypt*, Cairo: 164–98.

Rees, L. 1929. The Transjordan desert. *Antiquity* 3: 389–406.

Reeves, C. 1992. *Egyptian Medicine*. Shire Egyptology 15. Princes Risborough (2nd edn., revd. 2001).

Reisner, G. A. 1918. The tomb of Hepzefa, Nomarch of Siût. *JEA* 5: 79–98.

Reisner, G. A. 1932. *A Provincial Cemetery of the Pyramid Age: Naga-ed-Dêr*. University of California Publications in Egyptian Archaeology 6. Oxford.

Remijsen, S. 2009. Challenged by Egyptians. Greek sports in the third century BC. *International Journal of the History of Sport* 26.2: 246–71.

Remijsen, S. and Clarysse, W. 2008. Incest or adoption? Brother–sister marriage in Roman Egypt revisited. *JRS* 98: 53–61.

Revez, J. 2003. The metaphorical use of the kinship term I. "brother." *JARCE* 40: 123–31.

Reymond, E. A. E. 1981. *From the Records of a Priestly Family from Memphis*. ÄÄ 38. Wiesbaden.

Riccobono, S. 1950. *Il Gnomon dell'Idios Logos*. Palermo.

Riccobono, S. 1957. *Das römische Reichsrecht und der Gnomon des Idios Logos*. Erlangen.

Richards, J. 2000. Modified order, responsive legitimacy, redistributed wealth: Egypt, 2260–1650 BC. In J. Richards and M. Van Buren (eds.), *Order, Legitimacy, and Wealth in Ancient States*. New Directions in Archaeology. Cambridge: 36–45.

Richards, J. 2002. Text and context in late Old Kingdom Egypt: the archaeology and historiography of Weni the elder. *JARCE* 39: 75–102.

Richards, J. 2005. *Society and Death in Ancient Egypt: Mortuary Landscapes of the Middle Kingdom*. Cambridge.

Richards, J. and Van Buren, M. (eds.) 2000. *Order, Legitimacy, and Wealth in Ancient States*, New Directions in Archaeology. Cambridge.

Riggs, C. 2005. *The Beautiful Burial in Roman Egypt: Art, Identity, and Funerary Religion*. Oxford.

Rigsby, K. J. 1996. *Asylia: Territorial Inviolability in the Hellenistic World*. Berkeley; Los Angeles; London.

Rihll, T. E. 2003. Teaching and learning in classical Athens. *Greece and Rome* 50: 168–90.

Rihll, T. E. 2007. *The Catapult: A History*. Yardley, PA.

Ritner, R. K. 1989. Horus on the crocodiles: a juncture of religion and magic in Late Dynastic Egypt. In W. K. Simpson (ed.), *Religion and Philosophy in Ancient Egypt*. New Haven: 103–16.

Ritner, R. K. 1990a. O. Gardiner 363: a spell against night terrors. *JARCE* 27: 25–41.

Ritner, R. K. 1990b. The end of the Libyan anarchy in Egypt: P. Rylands IX. Cols. 11–12. *Enchoria* 17: 101–8.

Ritner, R. K. 1992. Religion vs. magic: the evidence of the magical statue bases. In U. Luft (ed.), *The Intellectual Heritage of Egypt: Studies Presented to László Kákosy*. Budapest: 495–501.

Ritner, R. K. 1993. *The Mechanics of Ancient Egyptian Magical Practice*. Studies in Ancient Oriental Civilization 54. Chicago.

Ritner, R. K. 1994. Denderite temple hierarchy and the family of Theban High Priest Nebwenenef: Block Statue OIM 10729. In D. P. Silverman (ed.), *For His Ka: Essays offered in Memory of Klaus Baer*. SAOC 55. Chicago: 205–26.

Ritner, Robert K. 1995. Egyptian magical practice under the Roman empire: the Demotic spells and their religious context. *ANRW* II, 18.5: 3333–79.

Ritner, R. K. 1998. Egypt under Roman rule: the legacy of ancient Egypt. In C. Petry (ed.), *The Cambridge History of Egypt*. Cambridge: 1–33.

Ritter, J. 2000. Egyptian mathematics. In H. Selin (ed.), *Mathematics across Cultures: The History of Non-western Mathematics*. Dordrecht; Boston; London: 115–36.

Ritterling, E. 1925a. *Legio*. II. Traiana. *PWRE* 12: cols. 1484–93.

Ritterling, E. 1925b. *Legio*. III. Cyrenaica. *PWRE* 12: cols.1506–17.

Ritterling, E. 1925c. *Legio*. XXII. Deiotariana. *PWRE* 12: cols. 1791–7.

Rizkana, I. and Seeher, J. 1987. *Maadi. I. The Pottery of the Predynastic Settlement*. Mainz am Rhein.

Rizkana, I. and Seeher, J. 1988. *Maadi. II. The Lithic Industries of the Predynastic Settlement*. Mainz.

Rizkana, I. and Seeher, J. 1989. *Maadi. III. The Non-Lithic Small Finds and the Structural Remains of the Predynastic Settlement*. AV 80. Mainz am Rhein.

Roberts, C., Skeat, T. C., and Nock, A. Darby. 1972. The gild of Zeus Hypsistos. In Nock, *Essays on Religion and the Ancient World*. 2. Ed. Z. Stewart. Oxford: 414–43.

Robins, G. 1979. The relationships specified by Egyptian kinship terms in the Middle and New Kingdoms. *CdE* 54.108: 197–217.

Robins, G. (ed.) 1990. *Beyond the Pyramids: Egyptian Regional Art from the Museo Egizio, Turin*. Atlanta.

Robins, G. 1993. *Women in Ancient Egypt*. London.

Robins, G. 1994. Some principles of compositional dominance and gender hierarchy in Egyptian art. *JARCE* 31: 33–40.

Robins, G. 1994–5. Women and children in peril: pregnancy, birth, and infant mortality in ancient Egypt. *KMT* 5.4: 24–35.

Robins, G. 1996. Dress, undress, and the representation of fertility and potency in New Kingdom Egyptian art. In N. Boymel Kampen (ed.), *Sexuality in Ancient Art*. Cambridge: 27–40.

Robins, G. 2008. Male bodies and the construction of masculinity in New Kingdom Egyptian art. In S. H. D'Auria (ed.), *Servant of Mut: Studies in Honor of Richard A. Fazzini*. PÄ 28. Leiden: 208–15.

Robson, E. 1999. *Mesopotamian Mathematics, 2100–1600 BC: Technical Constants in Bureaucracy and Education*. Oxford.

Roccati, A. 1982. *La Littérature historique sous l'Ancien Empire égyptien*. Paris.

Rochberg, F. 2004. *The Heavenly Writing: Divination, Horoscopy, and Astronomy in Mesopotamian Culture*. Cambridge.

Roeder, G. 1914. *Naos*. CG. Cairo.

Roero, C. S. 1994. Egyptian mathematics. In I. Grattan-Guinness (ed.), *Companion Encyclopedia of the History and Philosophy of the Mathematical Sciences*. 1: 30–45.

Rogan, E. 1999. See Bowman and Rogan (eds.), 1999.

Rogge, E. with Harrauer, H. 1999. *Statuen der 30. Dynastie und der ptolemäisch-römischen Epoche*. Corpus Antiquitatum Aegyptiacarum, Kunsthistorisches Museum Wien. Aegyptisch-Orientalische Sammlung 11. Mainz am Rhein.

Römer, C. 1990. Diplom für einen Fusssoldaten aus Koptos vom 23 März 179. *ZPE* 82: 137–53.

Römer, M. 1992. Der Handel und die Kaufleute im alten Ägypten. *SAK* 19: 257–84.

Römer, M. 1998. Geld/Silber/Kupfer - Geld oder nicht? Die Bedeutung der drei Metalle als allgemeine Äquivalente im Neuen Reich mit einem Anhang zu den Geldtheorien der Volkswirtschaftslehre. *SAK* 26: 119–42.

Römer, M. 2007. Die Aussagekraft der Quellen für das Studium ägyptischer Wirtschaft und Verwaltung 1 & 2. *ZÄS* 134: 66–81 and 83–106.

Rommerlaere, Catherine. 1991. *Les Chevaux du Nouvel Empire égyptien: origines, races, harnachement.* Brussels.

Rondot, V. 1998. Min, maître de Tebtynis. In W. Clarysse, A. Schoors, and H. Willems (eds.), *Egyptian Religion: The Last Thousand Years*, 2. OLA 84. Leuven: 241–54.

Rondot, V. 2004. *Tebtynis II. Le temple de Soknebtynis et son dromos.* Cairo.

Rossi, C. 2004. *Architecture and Mathematics in Ancient Egypt.* Cambridge.

Rossi, C. 2009. Mixing, building, and feeding: mathematics and technology in ancient Egypt. In E. Robson and J. Stedall (eds.), *Oxford Handbook on History of Mathematics*. Oxford: 407–28.

Rostovtzev, M. I. 1922. *A Large Estate in Egypt in the Third Century B.C.: A Study in Economic History.* University of Wisconsin Studies in the Social Sciences and History 6. Madison.

Rostovtzev, M. I. 1941. *The Social and Economic History of the Hellenistic World.* 3 vols. Oxford.

Roth, A. M. 1991. *Egyptian Phyles in the Old Kingdom: The Evolution of a System of Social Organization.* SAOC 48. Chicago.

Roth, A. M. 1992. The *psš-kf* and the "Opening of the Mouth" ceremony: a ritual of birth and rebirth. *JEA* 78: 113–47.

Roth, A. M. 1993a. Social change in the Fourth Dynasty: the spatial organization of pyramids, tombs, and cemeteries. *JARCE* 30: 33–55.

Roth, A. M. 1993b. Fingers, stars, and the "opening of the mouth": the nature and function of the *ntrwj*-blades. *JEA* 79: 57–79.

Roth, A. M. 1995. *A Cemetery of Palace Attendants.* Giza Mastabas 6. Boston.

Roth, A. M. 1999. The absent spouse: patterns and taboos in Egyptian tomb decoration. *JARCE* 36: 37–53.

Roth, A. M. and Roehrig. C. H. 2002. Magical bricks and the bricks of birth. *JEA* 88: 121–39.

Roth, H. L. 1951. *Ancient Egyptian and Greek Looms.* Halifax.

Roth, S. 2001. *Die Königsmütter des Alten Ägypten von der Frühzeit bis zum Ende der 12. Dynastie.* ÄAT 46.

Roughley, C. 2001. Understanding the Neolithic landscape of the Carnac region: a GIS approach. In Z. Stancic and T. Veljanovski (eds.), *Proceedings of the Computer Applications and Quantitative Methods in Archaeology Conference.* BAR International Series 931. Oxford.

Rowland, I. D. and Howe, T. N. 1999. *Ten Books on Architecture: Vitruvius.* Cambridge.

Rowlandson, J. 1996. *Landowners and Tenants in Roman Egypt: The Social Relations of Agriculture in the Oxyrhynchite Nome.* Oxford Classical Monographs. Oxford.

Rowlandson, J. (ed.) 1998. *Women and Society in Greek and Roman Egypt: A Sourcebook.* Cambridge.

Rowlandson, J. 2007a. Oxyrhynchus and its hinterland. In A. K. Bowman, R. Coles, N. Gonis, D. Obbink, and P. J. Parsons (eds.), *Oxyrhynchus: A City and its Texts.* Proceedings of a British Academy Symposium to celebrate the Centenary of *The Oxyrhynchus Papyri*, 1898–1998). Graeco-Roman Memoirs 93. London: 205–17.

Rowlandson, J. 2007b. The character of Ptolemaic aristocracy: problems of definition and evidence. In T. Rajak, S. Pearce, J. Aitken, and J. Dines (eds.), *Jewish Perspectives on Hellenistic Rulers.* Berkeley and Los Angeles: 29–49.

Roxan, M. M. 1978. *Roman Military Diplomas 1954–1977.* Institute of Archaeology Occasional Publications 2. London.

Roxan, M. M. 1994. *Roman Military Diplomas 1985–1993.* Institute of Archaeology Occasional Publications 14. London.

Rupprecht, H.-A. 1994. *Kleine Einführung in die Papyruskunde.* Darmstadt.

Rupprecht, H.-A. 2005. Greek law in foreign surroundings: continuity and development. In M. Gagarin and D. Cohen (eds.), *The Cambridge Companion to Ancient Greek Law.* Cambridge: 328–42.

Rutherford, I. 1998. Island of the extremity: space, language and power in the pilgrimage traditions of Philae. In D. Frankfurter (ed.), *Pilgrimage and Holy Space in Late Antique Egypt.* Leiden: 229–56.

Rutherford, I. 2003. Pilgrimage in Greco-Roman Egypt: new perspectives on graffiti from the Memnonion at Abydos. In R. Matthews and C. Roemer (eds.), *Ancient Encounters with Egypt.* London.

Rutherford, I. 2005. Downstream to the cat-goddess: Herodotus on Egyptian pilgrimage. In J. Elsner and I. Rutherford (eds.), *Pilgrimage in Graeco-Roman and Christian Antiquity: Seeing the Gods.* Oxford: 131–49.

Ryholt, K. 1997. *The Political Situation in Egypt during the Second Intermediate Period c. 1800–1550 B.C.* CNI Publications 20. Copenhagen.

Ryholt, K. 2000. The Late Old Kingdom in the Turin king-list and the identity of Nitocris. ZÄS 127: 87–100.

Ryholt, K. 2004a. Demotic receipts for temple-tax on property transfer. In Hoffmann and Thissen 2004: 509–33.

Ryholt, K. 2004b. The Turin King List. *Ä&L* 14: 135–55.

Ryholt, K. 2008. King Seneferka in the king-lists and his position in the Early Dynastic Period. *JEH* 1.1: 159–73.

Saad, Z. Y. 1951. *Royal Excavations at Helwan.* Cairo.

Saddington, D. B. 2007. *Classes*: the evolution of the Roman imperial fleets. In P. Erdkamp (ed.), *A Companion to the Roman Army.* Oxford: 201–7.

Said, R. 1988. *Geological Evolution of the Nile Valley.* New York.

Said, R. 1990. *The River Nile: Geology, Hydrology and Utilization.* New York.

Salmon, P. 1985. Les relations entre la Perse et l'Egypte du VIe au IVe siècle av. J.-C. In E. Lipinski (ed.), *The Land of Israel: Cross-roads of Civilizations.* OLA 19. Leuven: 147–68.

Samuel, D. 1997. Fermentation technology 3,000 years ago: the archaeology of ancient Egyptian beer. *Society for General Microbiology Quarterly* 24.1: 3–5.

Samuel, D. 1999. Bread making and social interactions at the Amarna workmen's village, Egypt. *World Archaeology* 31.1: 121–44.

Samuel, D. 2000. Brewing and baking. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology.* Cambridge: 537–76.

Sasson, J. M. (ed.) 1995. *Civilizations of the Ancient Near East.* I–IV. Peabody.

Satzinger, Helmut. 1975. The Old Coptic Schmidt papyrus. *JARCE* 12: 37–50.

Sauneron, S. 1957. *Les Prêtres de l'ancienne Egypte.* Paris.

Sauneron, S. 1959. *Les songes et leur interprétation dans l'Égypte ancienne.* Les Songes et leur interprétation. Sources orientales 2. Paris: 17–61.

Sauneron, S. 1960. Le nouveau sphinx composite du Brooklyn Museum et le rôle du dieu Toutou-Tithoès. *JNES* 19: 269–87.

Sauneron, S. 1962. Les conditions d'accès à la fonction sacerdotale à l'époque gréco-romaine. *BIFAO* 61: 55–7.

Sauneron, S. 2000. *The Priests of Ancient Egypt*. Tr. David Lorton. Ithaca (new edn.).

Sauneron, S. and Yoyotte, J. 1952. Sur la politique palestinienne des rois saïtes. *VT* 2: 131–6.

Sayed, A. M. A. H. 1999. Wadi Gasus. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 866–8.

Schacht, I. 2003. A preliminary survey of the ancient Qanat systems of the northern Kharga oasis. *MDAIK* 59: 411–23.

Schack-Schackenburg, H. 1900. Der Berliner Papyrus 6619. *ZÄS* 38: 135–40.

Schack-Schackenburg, H. 1902. Das kleinere Fragment des Berliner Papyrus 6619. *ZÄS* 40: 65–6.

Schaefer, C. 2006. *Kleopatra*. Darmstadt.

Schäfer, H. 1902. *Ein Bruchstück altägyptischer Annalen*. Abhandlungen der Königlichen Preußischen Akademie der Wissenschaften zu Berlin, philosophisch-historische Klasse. Berlin.

Scharff, A. 1926. *Das Vorgeschichtliche Gräberfeld von Abusir el-Meleq*. Leipzig.

Scharff, A. 1927. *Grundzüge der ägyptischen Vorgeschichte*. Leipzig.

Scheel, B. 1989. *Egyptian Metalworking and Tools*. Shire Egyptology 13. Aylesbury.

Scheidel, W. 2001. *Death on the Nile, Disease and the Demography of Roman Egypt*. Leiden.

Scheidel, W. 2002. A model of demographic and economic change in Roman Egypt after the Antonine plague. *JRA* 15: 97–114.

Scheidel, W 2004. Creating a metropolis. In Harris and Ruffini 2004: 1–31.

Schenkel, W. 1962. *Frühmittelägyptische Studien*. Bonn.

Schenkel, W. 1965. *Memphis-Heracleopolis-Theben. Die epigraphischen Zeugnisse der 7–11. Dynastie*. ÄA 12. Wiesbaden.

Schenkel, W. 1976. Bemerkungen zu den wichtigsten Inschriften der 11. Dynastie aus dem Königsfriedhof von El-Târif. In Arnold 1976a: 50–9.

Schenkel, W. 1978. *Die Bewässerungsrevolution im Alten Ägypten*. Mainz am Rhein.

Schenkel. W. 1999. Littérature et politique. Fragestellung oder Antwort? Zwei Diskussionsbeiträge. In J. Assmann and E. Blumenthal (eds.), *Literatur und Politik im pharaonischen und ptolemäischen Ägypten. Vorträge der Tagung zum Gedenken an Georges Posener 5.–10. September 1996 in Leipzig*. BdE 127. Cairo: 63–74.

Schiaparelli, E. 1927. *La tomba intatta dell'architetto Cha nella necropoli di Tebe*. Relazione sui lavori della Missione archeologica italiana in Egitto, Anni 1903–1920. II. Turin.

Schiefsky, M. J. 2005. Technical terminology in Greco-Roman treatises on artillery construction. In T. Fögen (ed.), *Antike Fachtexte*. Berlin: 253–70.

Schiestl, R. 2008. Locating the cemetery of the residential elite of the 13th dynasty at Dahshur. In P. Kousoulis (ed.), *Tenth International Congress of Egyptologists. Abstracts of Papers. University of the Aegean. Rhodes 22–29 May 2008*. Rhodes: 217–18.

Schiff-Giorgini, M. 1998. *Soleb*. V. *Le Temple. Bas-reliefs et insciptions*. Cairo.

Schlott-Schwab, A. 1981. *Die Ausmasse Ägyptens nach altagyptischen Texte*. ÄAT 3. Wiesbaden.

Schmitz. B. 1976. *Untersuchungen zum Title s3-njswt "Königssohn."* Habelts Dissertationsdrucke. Reihe Ägyptologie 2. Bonn.

Schneider, H. 1999. Saqqara, New Kingdom private tombs. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 694–700.

Schneider, H. 2007. Technology. In W. Scheidel, I. Morris, and R. Saller (eds.), *The Cambridge Economic History of the Greco-Roman World*. Cambridge: 144–71.

Schneider, T. 1998. *Ausländer in Ägypten während des Mittleren Reiches und der Hyksoszeit. Teil 1: Die ausländischen Könige*. ÄAT 42, 1. Wiesbaden.

Schneider, T. 2003a. *Ausländer in Ägypten während des Mittleren Reiches und der Hyksoszeit. Teil 1: Die ausländische Bevölkerung*. ÄAT 42,2. Wiesbaden.

Schneider, T. 2003b. Die Periodisierung der ägyptischen Geschichte. In T. Hofmann and A. Sturm (eds.), *Menschen-Bilder/Bilder-Menschen. Kunst und Kultur im Alten Ägypten.* Norderstedt: 241–56.

Schneider, T. 2008. Das Ende der kurzen Chronologie: Eine kritische Bilanz der Debatte zur absoluten Datierung des Mittleren Reiches und der Zweiten Zwischenzeit. *Ä&L* 18: 275–313.

Schott, S. 1952. *Das schöne Fest vom Wüstentale. Festbräuche einer Totenstadt.* Wiesbaden.

Schuller, W. 2006. *Kleopatra, Königin in drei Kulturen. Eine Biographie.* Reinbek bei Hamburg.

Schulman, A. 1982. Battle scenes of the Middle Kingdom. *JSSEA* 12: 165–83.

Schulz, R. 2002. Der Sturm auf die Festung. Gedanken zu einigen Aspekten des Kampfbildes im alten Ägypten vor dem Neuen Reich. In Bietak and Schwarz 2002: 19–41.

Schwartz, J., Badawy, A., Smith, R., and Wild, H. 1969. *Qasr-Qārūn/Dionysias 1950. Fouilles Franco-Suisses, Rapports.* Cairo.

Schwartz, J. and Wild, H. 1950. *Qasr-Qārūn/Dionysias 1948. Fouilles Franco-Suisses, Rapports.* II. Cairo.

Schwartz, V. J. 1975. *L. Domitius Domitianus. Étude numismatique et papyrologique.* Papyrologica Bruxellensia 12. Brussels.

Seeger, J.-Sidebotham, S. 2005. Marsa Nakari: an Ancient Port on the Red Sea. *EA* 26: 18–20.

Seeher, J. 1990. Maadi – eine prädynastische Kulturgruppe zwischen Oberägypten und Palästina. *Praehistorische Zeitschrift* 65: 123–56.

Seeher, J. 1991. Gedanken zur Rolle Unterägyptens bei der Herausbildung des Pharaonenreiches. *MDAIK* 47: 313–18.

Seeher, J. 1992. Burial customs in Predynastic Egypt: a view from the Delta. In E. C. M. van den Brink (ed.), *The Nile Delta in Transition: 4th.–3rd. Millennium B.C.* Tel Aviv: 225–34.

Seidlmayer, S. 1987. Wirtschaftliche Situation und gesellschaftliche Entwicklung im Übergang vom Alten zum Mittleren Reich. Ein Beitrag zur Archäologie der Gräberfelder der Region Qau-Matmar in der Ersten Zwischenzeit. In J. Assmann (ed.), *Problems and Priorities in Egyptian Archaeology.* London: 175–217.

Seidlmayer, S. 1990. *Gräberfelder aus dem Übergang vom Alten zum Mittleren Reich: Studien zur Archäologie der Ersten Zwischenzeit.* Studien zur Archäologie und Geschichte Altägyptens 1. Heidelberg.

Seidlmayer, S. 1996a. Town and state in the early Old Kingdom: a view from Elephantine. In J. Spencer (ed.), *Aspects of Early Egypt.* London: 108–27.

Seidlmayer, S. 1996b. Die staatliche Anlage der 3. Dyn. in der Nordweststadt von Elephantine. Archäologische und historische Probleme. In M. Bietak (ed.), *Haus und Palast im alten Ägypten/House and Palace in Ancient Egypt.* Vienna: 195–214.

Seidlmayer, S. 1997. Zwei Anmerkungen zur Dynastie der Herakleopoliten. *GM* 157: 81–90.

Seidlmayer, S. 1999. Aswan. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 152–7.

Seidlmayer, S. 2000. The First Intermediate Period. In I. Shaw (ed.), *The Oxford History of Ancient Egypt.* Oxford: 118–47.

Seidlmayer, S. 2001a. Die Ikonographie des Todes. In H. Willems (ed.), *Social Aspects of Funerary Culture in the Egyptian Old and Middle Kingdoms.* OLA 103. Leuven: 205–52.

Seidlmayer, S. 2001b. *Historische und moderne Nilstände.* Berlin.

Seidlmayer, S. 2001c. Necropolis. In D. B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt.* II. New York: 506–12.

Seidlmayer, S. 2003. Vom Sterben der kleinen Leute: Tod und Bestattung in der sozialen Grundschicht am Ende des Alten Reiches. In H. Guksch, E. Hofmann, and M. Bommas (eds.), *Grab und Totenkult im Alten Ägypten.* Munich: 60–74.

Seidlmayer, S. 2006. First Intermediate Period. In E. Hornung, R. Krauss, and D. A. Warburton (eds.), *Ancient Egyptian Chronology.* Handbook of Oriental Studies. Section 1: The Near and Middle East, 83: 159–67.

Seidlmayer, S. 2007. People at Beni Hassan: contributions to a model of ancient Egyptian rural society. In Z. A. Hawass and J. Richards (eds.), *The Archaeology and Art of Ancient Egypt. Essays in Honor of David B. O'Connor.* II. Annales du Service des Antiquités de l'Egypte. Cahier 36. Cairo: 351–68.

Sekunda, N. 2001. *Hellenistic Infantry Reform in the 160s BC.* Oficyna Naukowa MS. Lodz.

Sekunda, N. 2007. Land forces. In P. Sabin, H. van Wees, and M. Whitby (eds.), *The Cambridge History of Greek and Roman Warfare.* I. *Greece, the Hellenistic World and the Rise of Rome.* Cambridge: 325–57.

Selin, H. (ed.). 2000. *Mathematics across Cultures: The History of Non-western Mathematics.* Dordrecht; Boston; London.

Serpico, M. and White, R. 2000a. Oil, fat and wax. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology.* Cambridge: 390–429.

Serpico, M. and White, R. 2000b. Resins, amber and bitumes. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology.* Cambridge: 430–74.

Serrata, John. 2007. Warfare and the state. In P. Sabin, H. van Wees, and M. Whitby (eds.), *The Cambridge History of Greek and Roman Warfare.* I. *Greece, the Hellenistic World and the Rise of Rome.* Cambridge: 461–97.

Sethe, K. 1896. *Die Thronwirren unter den Nachfolgern Königs Thutmoisis' I., ihr Verlauf und ihre Bedeutung.* UGAÄ 1. Leipzig.

Sethe, K. 1928. *Dramatische Texte zu den altägyptischen Mysterienspielen.* 2 Teile. Leipzig.

Sethe, K. 1935. *Historisch-biographische Urkunden des Mittleren Reiches.* Urkunden des Aegyptischen Altertums VII. Leipzig.

Shafer, B. E. (ed.). 1997. *Temples of Ancient Egypt.* London and New York: 127–84.

Shafer, B. E. 1997. Temples, priests and rituals: an overview. In B. E. Shafer (ed.), *Temples of Ancient Egypt.* London and New York: 1–30.

Sharp, M. 1999a. Shearing sheep: Rome and the collection of taxes in Egypt, 30 BC–AD 200. In W. Eck (ed.), *Lokale Autonomie und römische Ordnungsmacht in den kaiserzeitlichen Provinzen vom 1. bis 3. Jahrhundert.* Munich: 213–41.

Sharp, M. 1999b. The village of Theadelphia in the Fayum: land and population in the second century. In A. K. Bowman and E. Rogan (eds.), *Agriculture in Egypt from Pharaonic to Modern Times.* PBA 96. Oxford: 159–92.

Shaw, I. 1985. Egyptian chronology and the Irish oak calibration. *JNES*: 295–317.

Shaw, I. 1991. *Egyptian Warfare and Weapons.* Princes Risborough.

Shaw, I. 1992. Ideal homes in ancient Egypt. *CAJ* 2.2: 147–66.

Shaw, I. 1998. Exploiting the desert frontier: the logistics and politics of ancient Egyptian mining expeditions. In B. Knapp (ed.), *Social Approaches to an Industrial Past: The Archaeology and Anthropology of Mining.* London: 242–58.

Shaw, I. 1999. Wadi el-Hudi. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 871–2.

Shaw, I. 2000. Khafra's quarries in the Sahara. *EA* 16: 28–30.

Shaw, I. (ed.). 2000a. *The Oxford History of Ancient Egypt.* Oxford.

Shaw. I. 2001. Egyptians, Hyksos and military technology: causes, effects or catalysts?. In A. J. Shortland (ed.), *The Social Context of Technological Change: Egypt and the Near East, 1650–1550 DC: Proceedings of a Conference held at St Edmund Hall, Oxford, 12–14 September 2000.* Oxford: 59–71.

Shaw, I. 2003. *Exploring Ancient Egypt.* Oxford.

Shaw, I. 2004. *Ancient Egypt: A Very Short Introduction*. Oxford.

Shaw, I. and Bloxam, E. 1999. Survey and excavation at the ancient pharaonic gneiss quarrying site of Gebel el-Asr, Lower Nubia. *Sudan and Nubia: Bulletin of the Sudan Archaeological Research Society* 3: 13–20.

Sheehan, P. 1996. The Roman fortress of Babylon in Old Cairo. In D. M. Bailey (ed.), *Archaeological Research in Roman Egypt. The Proceedings of the Seventeenth Classical Colloquium of the Department of Greek and Roman Antiquities, British Museum. Journal of Roman Archaeology* Supplement. Ann Arbor: 95–7.

Sheehan, P. (forthcoming). *The Making of Old Cairo*.

Sherwin White, A. N. 1966. Review of G. Chalon. *JRS* 56: 241–2.

Shortland, A. J. (ed.) 2001. *The Social Context of Technological Change: Egypt and the Near East 1650–1550 BC*. Oxford.

Sidebotham, S. E. 1994. Preliminary report on the 1990–1991 seasons of fieldwork at ''Abu Sha'ar (Red Sea coast).'' *JARCE* 31: 133–58.

Sidebotham, S. E. 1997. The Roman frontier in the eastern desert of Egypt. In *Roman Frontier Studies 1995. Proceedings of the XVIth International Congress of Roman Frontier Studies*. Oxford: 503–9.

Siegemund, R. H. 1999. *A Critical Review of Theories about the Origin of the Ancient Egyptian State (Cultural Evolution)*. Los Angeles.

Sijpesteijn, P. M. 2007. The Arab conquest of Egypt and the beginning of Muslim rule. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700*. Cambridge: 437–59.

Silverman, D. 1975. Fractions in the Abu Sir Papyri. *JEA* 61: 248–9.

Silverman, D. 1995. The nature of Egyptian kingship. In D. B. O'Connor and D. P. Silverman (eds.), *Ancient Egyptian Kingship*. New York: 49–92.

Simpson, W. K. 1963. *Papyrus Reisner. I*. Boston.

Simpson, W. K. 1972. A tomb chapel relief of the reign of Amunemhet III and some observations on the length of the reign of Sesostris III. *CdE* 47.93: 45–54.

Simpson, W. K. 1974. *The Terrace of the Great God at Abydos: The Offering Chapels of Dynasties 12 and 13*. Publications of the Pennsylvania–Yale Expedition to Egypt 5. New Haven and Philadelphia.

Simpson, W. K. 2001a. Studies in the Twelfth Egyptian Dynasty III: year 25 in the era of the Oryx Nome and the famine years of Early Dynasty 12. *JARCE* 38: 7–8.

Simpson, W. K. 2001b. Studies in the Twelfth Dynasty IV: the early Twelfth Dynasty false door/stela of Kheti-ankh/Heni from Matariya/Ain Shams (Heliopolis). *JARCE* 38: 9–20.

Simpson, W. K. 2003. The story of Sinuhe. In W. K. Simpson (ed.), *The Literature of Ancient Egypt: An Anthology of Stories, Instructions, Stelae, Autobiographies, and Poetry*. Cairo: 54–66.

Skeat, T. C. 1964. *Papyri from Panopolis in the Chester Beatty Library Dublin*. Chester Beatty Monographs 10. Dublin.

Smith, H. S. 1972. Society and settlement in ancient Egypt. In P. J. Ucko, R. Tringham, and G. W. Dimbleby (eds.), *Man, Settlement and Urbanism*. London: 698–719.

Smith, H. S. 1976. *The Fortress of Buhen: The Inscriptions*. London.

Smith, H. S. 2002. The Saqqara papyri: oracle questions, pleas and letters. In K. Ryholt (ed.), *Acts of the Seventh International Conference of Demotic Studies. Copenhagen, 23–27 August 1999*. CNI Publications 27. Copenhagen: 367–75.

Smith, H. S. and Smith, Alexandrina. 1976. A reconsideration of the Kamose texts. *ZÄS* 103: 48–76.

Smith, J. Z. 1978. The temple and the magician. In Smith, *Map Is Not Territory: Studies in the History of Religions*. Leiden: 172–89.

Smith, J. Z. 1995. Trading places. In M. Meyer and P. Mirecki (eds.), *Ancient Magic and Ritual Power*. Leiden.

Smith, J. Z. 2003. Here, there, and anywhere. In S. Noegel, J. Walker, and B. Wheeler (eds.), *Prayer, Magic, and the Stars in the Ancient and Late Antique World*. Pennsylvania: 21–36.

Smith, S. 1928. *Early History of Assyria to 1000 BC*. London.

Smith, S. T. 1995. *Askut in Nubia: The Economics and Ideology of Egyptian Imperialism in the Second Millennium B.C.* London and New York.

Smith, S. T. 2003. *Wretched Kush: Ethnic Identities and Boundaries in Egypt's Nubian Empire*. London and New York.

Smith, W. S. and Simpson, W. K. 1998. *The Art and Architecture of Ancient Egypt*. New Haven. (3rd edn.).

Soukiassian, G. 1997. A governor's palace at 'Ayn Asil, Dakhla Oasis. *EA* 11: 15–17.

Soukiassian, G. et al. 1990. *Balat III: Les Ateliers de Potiers d'Ayn-Asil*. Cairo.

Soukiassian, G., Wuttmann, M., and Pantalacci, L. 2002. *Balat VI. Le Palais des gouverneurs de l'époque de Pépy II. Les sanctuaires de ka et leurs dépendances*. FIFAO 46.

Sourouzian, H. 1991. La statue d'Amenhotep fils de Hapou, âgé, un chef-d'oeuvre de la XVIIIe dynastie. *MDAIK* 47: 341–55.

Souza, P. de 2007a. Naval forces. In P. Sabin, H. van Wees, and M. Whitby (eds.), *The Cambridge History of Greek and Roman Warfare. I. Greece, the Hellenistic World and the Rise of Rome*. Cambridge: 357–67.

Souza, P. de. 2007b. Naval battles and sieges. In P. Sabin, H. van Wees, and M. Whitby (eds.), *The Cambridge History of Greek and Roman Warfare. I. Greece, the Hellenistic World and the Rise of Rome*. Cambridge: 434–60.

Spalinger, A. 1976. Psammetichus, King of Egypt, I. *JARCE* 13: 133–47.

Spalinger, A. 1977. Egypt and Babylonia: a survey (c. 620 B.C.–550 B.C.). *SAK* 5: 221–44.

Spalinger, A. 1978a The concept of the monarchy during the Saite epoch: an essay of synthesis. *Or* 67: 12–36.

Spalinger, A. 1978b. Psammetichus, King of Egypt, II. *JARCE* 15: 49–57.

Spalinger, A. 1979a. Some notes on the Libyans of the Old Kingdom and later historical reflexes. *JSSEA* 9.3: 125–60.

Spalinger, A. 1979b. The civil war between Amasis and Apries and the Babylonian attack against Egypt. In W. F. Reineke (ed.), *First International Congress of Egyptology. Acts*. Schriften zur Geschichte und Kultur des Alten Orients 14. Berlin: 593–604.

Spalinger, A. 1985. A redistributive pattern at Assiut. *JAOS* 105: 7–20.

Spalinger, A. 1991. Some revisions of temple endowments in the New Kingdom. *JARCE* 28: 21–39.

Spalinger, A. 1996. *The Private Feast Lists of Ancient Egypt*. ÄA 57. Wiesbaden.

Spalinger, A. 2002. *The Transformation of an Ancient Egyptian Narrative. P. Sallier III and the Battle of Kadesh*. Wiesbaden.

Spalinger, A. 2005. *War in Ancient Egypt: The New Kingdom*. Malden; Oxford; Carlton.

Spalinger, A. 2006. *Five Views on Egypt*. Göttingen.

Spalinger A. 2008. Chauvinism in the First Intermediate Period. In Vymazalovà and Bárta 2008: 240–60.

Speidel, M. P. 1982. Augustus' deployment of the legions in Egypt. *CdE* 57: 120–4.

Speidel, M. P. 1988. Rome's Nubian garrison. In *Aufstieg und Niedergang der römischen Welt*. II.10.1. Berlin: 767–98.

Speidel, M. A. 1990. *Die Friseure des ägyptischen Alten Reiches. Eine historisch-prosographische Untersuchung zu Amt und Titel* (*jr-šn*). Constance.

Spence, K. 2000. Ancient Egyptian chronology and the astronomical orientation of pyramids. *Nature* 408: 320–4.

Spencer, A. J. 1979. *Brick Architecture in Ancient Egypt*. Warminster.

Spencer, A. J. 1993a. *Excavations at El-Ashmunein*. III. *The Town*. London.

Spencer, A. J. 1993b. *Early Egypt: The Rise of Civilization in the Nile Valley*. London.

Spencer, N. 2000. Sustaining Egyptian culture: royal and private construction initiatives in the First Millennium BC. Cambridge University, Ph.D. thesis.

Spencer, N. 2006. *A Naos of Nekhthorheb from Bubastis. Religious Iconography and Temple Building in the 30th dynasty*. London.

Spieser, C. 2002. Les cartouches divins. *ZÄS* 129: 85–95.

Spieser, C. 2008. Cercueils d'enfants dans l'Egypte ancienne et tardive. In F. Gusi et al. (eds.), *Nasciturus, Infans, Puerulus Vobis Mater Terra. La Muerte en la Infancia*. Barcelona: 501–38.

Spruytte, J. 1983. *Early Harness Systems: Experimental Studies*. London.

Stadelmann, R. 1991. *Die ägyptischen Pyramiden. Vom Ziegelbau zum Weltwunder*. Mainz am Rhein.

Stadelmann, R. 1994. König Teti und der Beginn der 6. Dynastie. In C. Berger, G. Clerc, G., and N. Grimal (eds.), *Hommages* à Jean *Leclant*. I. Cairo : 327–35.

Stadelmann, R. 2000. Userkaf in Saqqara und Abusir. Untersuchungen zur Thronfolge in der 4. und frühen 5. Dynastie. In M. Bárta and J. Krejcí (eds.), *Abusir and Saqqara in the Year 2000*. Archiv orientální, supplement ix. Prague: 529–42.

Stadelmann, R. 2006. Riding the donkey: a means of transportation for foreign rulers. In E. Czerny et al. (eds.), *Timelines: Studies in Honour of Manfred Bietak*. II. OLA 149. Leuven: 301–4.

Staden, H. von. 1989. *Herophilos: The Art of Medicine in Early Alexandria*. Cambridge.

Staden, H. von. 1998. Andréas de Caryste et Philon de Byzance: médecine et mécanique à Alexandrie. In G. Argoud and J.-Y. Guillaumin (eds.), *Sciences exactes et sciences appliquées à Alexandrie*: 147–72.

Staden, H. von. 2004. Galen's Alexandria. In Harris and Ruffini 2004: 179–215.

Stambaugh, J. 1972. *Sarapis under the Early Ptolemies*. EPRO 25. Leiden.

Stanley J., Krom, M., Cliff, R., and Woodward, J. 2002a. Short contribution: Nile flow failure at the end of the Old Kingdom, Egypt: strontium isotopic and petrologic evidence. *Geoarchaeology* 18.3: 395–402.

Stanley J., Krom, M., Cliff, R., and Woodward, J. 2002b. Nile river fluctuations over the past 7000 years and their key role in sapropel development. *Geology* 30: 71–4.

Stanley, J. 2002c. Configuration of the Egypt-to-Canaan coastal margin and north Sinai byway in the Bronze Age. In E. C. M. van den Brink and W. Levy (eds.), *Egypt and the Levant: Interrelations from the 4th through the Early 3rd Millenium BCE*. London: 98–117.

Stanley, J. and Jorstad,T. 2006. Short contribution: buried Canopic channel identified near Egypt's Nile Delta coast with radar (SRTM) imagery. *Geoarchaeology* 21.5: 503–14.

Stanley, J. and Warne, A. 1993. Nile Delta: recent geological evolution and human impact. *Science* 269: 628–34.

Stefanovic, D. 2006. *The Holders of Regular Military Titles in the Period of the Middle Kingdom: Dossiers*. Padstow.

Stern, E., Lewinson-Gilboa, A., and Aviram, J. (eds.) 1993. *The New Encyclopedia of Archaeological Excavations in the Holy Land*. 1–4. Jerusalem.

Stern, M. 1974–84. *Greek and Latin Authors on Jews and Judaism. Edited with Introductions, Translations and Commentary by Menahem Stern*. Jerusalem.

Stern R. and Abdel Salam, M. 1996. The origin of the great Nile bend from Sir-C/X-Sar imagery. *Science* 274: 1696–8.

Stevens, A. 2006. *Private Religion at Amarna: The Material Evidence*. BAR International Series 1587. Oxford.

Stevens, J. M. 1975. Gynaecology from ancient Egypt: the Papyrus Kahun. *Medical Journal of Australia* 2: 949–52.

Stewart, A. 2006. Hellenistic art. In G. Bugh (ed.), *Cambridge Companion to the Hellenistic World*. Cambridge: 158–85.

Stewart, R. and Morrell, K. 1998. Anonymous, *The Oracles of Astrampsychus*. In William Hansen (ed.), *Anthology of Ancient Greek Popular Literature*. Bloomington and Indianapolis: 291–324.

Stockfisch, D. 2003. Untersuchungen zum Totenkult des ägyptischen Königs im Alten Reich. Die Dekoration der königlichen Totenkultanlagen. ANTIQUITATES - Archäologische Forschungsergebnisse 25. Hamburg.

Stolte, B. H. 2003. The *Corpus Iuris Civilis*: codification and the encyclopedia of legal knowledge. In A. A. MacDonald, M. W. Twomey, and G. J. Reinink (eds.), *Learned Antiquity: Scholarship and Society in the Near-East, the Greco-Roman world, and the Early Medieval West*. Leuven; Paris; Dudley: 81–99.

Strano, G., 2004. Glass and heavenly spheres: astronomic refraction in Ptolemy's *Optics*. In M. Beretta (ed.), *When Glass Matters: Studies in the History of Science and Art from Greco-Roman Antiquity to the Early Modern Era*. Florence: 121–34.

Straus, J. A. 2004. *L'Achat et la vente des esclaves dans l'Égypte romaine: contribution papyrologique à l'étude de l'esclavage dans une province orientale de l'Empire romain*. APF 14. Munich.

Strouhal, E. and Jungwirth, J. 1984. *Die Anthropologische Untersuchung der C-Gruppen- und Pan-Gräber-Skelette aus Sayala, Ägyptisch-Nubien*. Vienna.

Stroumsa, G. 2009. *The End of Sacrifice: Religious Transformations in Late Antiquity*. Tr. S. Emanuel. Chicago and London.

Strudwick, N. 1985. *The Administration of Egypt in the Old Kingdom: The Highest Titles and Their Holders*. London and New York.

Strudwick, N. 1995. The population of Thebes in the New Kingdom: some preliminary thoughts. In J. Assmann, E. Dziobek, H. Guksch, and F. Kampp (eds.), *Thebanische Beamtennekropolen: Neue Perspektiven archäologischer Forschung. Internationales Symposion Heidelberg 9.-13.6. 1993*. SAGA 12. Heidelberg: 97–105.

Strudwick, N. 2005. *Texts from the Pyramid Age*. SBL Writings from the Ancient World 16. Leiden.

Strudwick, N. and Strudwick, H. 1999. *Thebes in Egypt: A Guide to the Tombs and Temples of Ancient Luxor*. Ithaca.

Strudwick, N. and Taylor, J. H. (eds.) 2003. *The Theban Necropolis: Past, Present and Future*. London.

Struve, W. W. 1930. *Mathematischer Papyrus des Staatlichen Museums der Schönen Künste in Moskau*. Quellen und Studien zur Geschichte der Mathematik, Astronomie und Physik. Abteilung A. Band 1. Berlin.

Stuckey, J. H. 2003. The great goddesses of the Levant. *JSSEA* 30: 127–57.

Swarney, P. R. 1970. *The Ptolemaic and Roman Idios Logos*. American Studies in Papyrology 8. Toronto.

Sweeney, D. 1993. Women's correspondence from Deir el-Medineh. In G. M. Zaccone and T. Ricardi di Netro (eds.), *Sesto Congresso Internazionale di Egittologia: Atti*. II. Turin: 523–9.

Sweeney, D. 1997. Offence and reconciliation in ancient Egypt: a study in Late Ramesside letter no. 46. *GM* 158: 63–79.

Sweeney, D. 1998. Friendship and frustration: a study in Papyri Deir el-Medina IV–VI. *JEA* 84: 101–22.

Sweeney, D. 2004. Forever young? The representation of older and ageing women in ancient Egyptian art. *JARCE* 41: 67–84.

Sweeney, D. 2006. Women growing older in Deir el-Medina. In A. Dorn and T. Hofmann (eds.), *Living and Writing in Deir el-Medine: Socio-historical Embodiment of Deir el-Medine Texts*. Aegyptiaca Helvetica 19. Basel: 135–53.

Sweeney, D. and Asher-Greve, J. 2006. On nakedness, nudity, and gender in Egyptian and Mesopotamian art. In S. Schroer (ed.), *Images and Gender: Contributions to the Hermeneutics of Reading Ancient Art*. OBO 220. Fribourg and Göttingen: 125–76.

Swelim, N. 1988. The dry moat of the Netjerykhet complex. In J. Baines, T. G. H. James, A. Leahy, and A. F. Shore (eds.), *Pyramid Studies and Other Essays Presented to I.E.S. Edwards*. London: 12–24.

Swelim, N. and Dodson, A. 1998. On the pyramid of Ameny-Qemau and its canopic equipment. *MDAIK* 54: 319–34.

Syme, R. 1988. Avidius Cassius: his age, rule and quality. *BHAC* 1984/5 (1987) 207–22 = Badian, E. and A. Birley (eds.), *Roman Papers*. 5. Oxford: 689–701.

Symons, S. 2000. Accuracy issues in ancient Egyptian timekeeping. In A. McDonald and C. Riggs (eds.), *Current Research in Egyptology 2000*. BAR International Series 909. Oxford: 111–14.

Symons, S. 2002. The ''transit star clock'' from the Book of Nut. In J. M. Steele and A. Imhausen (eds.), *Under One Sky: Astronomy and Mathematics in the Ancient Near East*. Alter Orient und Altes Testament 297. Münster: 429–46.

Symons, S. 2007. A star's year: the annual cycle in the ancient Egyptian sky. In J. M. Steele (ed.), *Calendars and Years: Astronomy and Time in the Ancient World*. Oxford: 1–33.

Szpakowska, K. 2003a. *Behind Closed Eyes: Dreams and Nightmares in Ancient Egypt*. Swansea.

Szpakowska, K. 2003b. Playing with fire: initial observations on the religious uses of clay cobras from Amarna. *JARCE* 40: 113–22.

Szpakowska, K. (ed.) 2006. *Through a Glass Darkly: Magic, Dreams, and Prophecy in Ancient Egypt*. Swansea.

Szpakowska, K. 2008. *Daily Life in Ancient Egypt: Recreating Lahun*. Oxford.

Szpakowska, K. forthcoming. Snake cults and military life in New Kingdom Egypt. In D. W. J. Gill, E. Morris and G. Mumford (eds.), *Walls of the Ruler: Fortifications, Police Beats, and Military Checkpoints in Ancient Egypt*. Leiden.

Taagepera, R. 1979. Size and duration of empires: growth–decline curves, 600 BC-600 AD. *Social Science History* 3: 115–38.

Tacoma, L. E. 2006. *Fragile Hierarchies: The Urban Elites of Third-Century Roman Egypt*. Leiden.

Takamiya, I. H. 2004a. Development of specialisation in the Nile Valley during the 4th Millennium BC. In S. Hendrickx et al. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the international conference* ''*Origin of the State. Predynastic and Early Dynastic Egypt*.'' Leuven: 1027–39.

Takamiya, I. H. 2004b. Egyptian pottery distribution in A-Group cemeteries, Lower Nubia: towards an understanding of exchange systems between the Naqada Culture and the A-Group culture. *JEA* 90: 35–62.

Tallet. P. 1998. Quelques aspects de l'économie du vin en Égypte ancienne, au Nouvel Empire. In Grimal and Menu 1998: 241–67.

Tallet, P. 2005. *Sésostris III et la fin de la XIIe Dynastie*. Paris.

Tallet, P. 2006. Six campagnes archéologiques sur le site d'Ayn Soukhna, golfe de Suez. *BSFE* 165: 10–31.

Tarlow, S. 2000. Emotion in archaeology. *Current Anthropology* 41.5: 713–45.

Taub, L. 2002. Instruments of Alexandrian astronomy. In C. Tuplin and T. E. Rihll (eds.), *Science and Mathematics in Ancient Greek Culture*. Oxford: 133–49.

Taubenschlag, R. 1955. *The Law of Graeco-Roman Egypt in the Light of the Papyri (332 BC–640 AD)*. Warsaw (2nd edn.).

Tavares, A. 1998. The Saqqara Survey Project. In C. J. Eyre (ed.), *Proceedings of the Seventh International Congress of Egyptologists*. OLA 82. Leuven: 1135–42.

Tawfik, S. 1976. Religious titles on blocks from the Aten temple(s) at Thebes. In R. W. Smith and D. B. Redford (eds.), *The Akhenaten Temple Project I: Initial Discoveries*. Warminster: 95–101.

Taylor, J. 2000. The Third Intermediate Period (1069–664 BC). In I. Shaw (ed.), *The Oxford History of Ancient Egypt*. Oxford: 330–68.

Te Velde, H. 1980. A few remarks upon the religious significance of animals in ancient Egypt. *Numen* 27: 76–82.

Teeter, E. 1997. *The Presentation of Maat: Ritual and Legitimacy in Ancient Egypt*. SAOC 57. Chicago.

Teeter, E. 1999. Celibacy and adoption among the God's wives of Amun: a revaluation of the evidence. In E. Teeter and J. A. Larson (eds.), *Gold of Praise: Studies on Ancient Egypt in Edward F. Wente*. SAOC 58. Chicago: 405–14.

Théodoridès, A. 1995. *Vivre de Maât. Travaux sur le droit égyptien ancien*. Acta Orientalia Belgica I–II. Ed. J.-M. Kruchten. Brussels.

Thiers, C. 2006. Stèle de Ptolémée VIII Évergète. II. In F. Goddio (ed.), *Trésors engloutis d'Égypte* (Exhibition Catalogue). Paris: 108–9.

Thiers, C. 2007. *Ptolémée Philadelphe et les prêtres de Tjékou: nouvelle edition commentée de la "stele de Pithom." CGC 22183*. Montpellier.

Thijs, A. 1998. Piankh's second Nubian campaign. *GM* 165: 99–103.

Thijs, A. 2001. Reconsidering the end of the Twentieth Dynasty, part I, *GM* 167 (1998), 95–108; part II, *GM* 170 (1999), 83–99; part III, *GM* 173 (1999), 175–191; part IV, *GM* 175 (2000), 99–102; part V, *GM* 179 (2000), 69–82; part VI, *GM* 181 (2001), 95–103; part VII, *GM* 184 (2001), 65–73.

Thijs, A. 2005. In search of King Herihor and the penultimate ruler of the 20th Dynasty. *ZÄS* 132: 73–91.

Thomas, A. P. 1981. *Gurob: A New Kingdom Town: Introduction and Catalogue of Objects in the Petrie Collection*. Egyptology Today 5.1. Warminster.

Thomas H. L. 1992. Historical chronologies and radiocarbon dating. *Ä&L* 3: 143–51.

Thomas, J. D. 1975a. The introduction of Dekaprotoi and Comarchs into Egypt in the third century A.D. *ZPE* 19: 111–19.

Thomas, J. D. 1975b. *The Epistrategos in Ptolemaic and Roman Egypt*. 1. *The Ptolemaic Epistrategos*. Opladen.

Thomas, J. D. 1976. The date of the revolt of L. Domitius Domitianus. *ZPE* 22: 253–79.

Thomas, J. D. 1977. A family dispute from Karanis and the revolt of Domitius Domitianus. *ZPE* 24: 233–40.

Thomas, J. D. 1982. *The Epistrategos in Ptolemaic and Roman Egypt*. II. *The Roman Epistrategos*. Opladen.

Thomas, J. D. 1995. Strategos and exactor in the fourth century: one office or two? *CdE* 70: 230–9.

Thomas, J. D. 2001. The administration of Roman Egypt: a survey of recent research and some outstanding problems. In *Atti del XXII Congresso internazionale di papirologia, Firenze 1998*, Florence, Istituto Papirologico "G. Vitelli." II: 1245–54.

Thomas, J. D. and Clarysse, W. 1977. A projected visit of Severus Alexander to Egypt. *Ancient Society* 8: 195–207.

Thompson, D. J. 1988. *Memphis under the Ptolemies*. Princeton.

Thompson, D. J. 1990. The high priests of Memphis under Ptolemaic rule. In M. Beard and J. North (eds.), *Pagan Priests: Religion and Power in the Ancient World*. London: 95–116.

Thompson, D. J. 1992a. Literacy and the administration in early Ptolemaic Egypt. In J. H. Johnson (ed.), *Life in a Multi-cultural Society: Egypt from Cambyses to Constantine and Beyond*. SAOC 51. Chicago: 323–6.

Thompson, D. J. 1992b. Language and literacy in early Hellenistic Egypt. In P. Bilde et al. (eds.), *Ethnicity in Hellenistic Egypt*. Aarhus: 39–52.

Thompson, D. J. 1994a. Egypt 146–31 B.C. *The Cambridge Ancient History*. 9. Cambridge: 310–26 (2nd edn.).

Thompson, D. J. 1994b. Literacy and power in Ptolemaic Egypt. In A. Bowman and G. Woolf, (eds.), *Literacy and Power in the Ancient World*. Cambridge: 67–83.

Thompson, D. J. 1997. Policing the Ptolemaic countryside. In *Akten des 21. internationalen Papyrologenkongresses*. II. Stuttgart and Leipzig: 961–6.

Thompson, D. J. 1999a. Irrigation and drainage in the early Ptolemaic Fayyum. In A. K. Bowman, and E. Rogan (eds.), *Agriculture in Egypt: From Pharaonic to Modern Times*. Proceedings of the British Academy 96. Oxford: 107–22 (2nd edn. 2001).

Thompson, D. J. 1999b. New and old in the Ptolemaic Fayyum. In Bowman and Rogan 1999: 123–38.

Thompson, D. J. 2000. Philadelphus' procession: dynastic power in a Mediterranean context. In Mooren 2000: 365–88.

Thompson, D. J. 2002. Families in Early Ptolemaic Egypt. In Ogden 2002: 137–56.

Thompson, D. J. 2009. The multilingual environment of Persian and Ptolemaic Egypt: Egyptian, Aramaic, and Greek documentation. In Bagnall 2009: 395–417.

Thompson, H. 1934. *A Family Archive from Siut from Papyri in the British Museum including an Account of a Trial before the Laocritae in the Year B.C. 170*. Oxford.

Tkaczow, B. 1993. *The Topography of Ancient Alexandria (an Archaeological Map)*. Varsovie.

TLA: Thesaurus Linguae Aegyptiae, http://aaew2.bbaw.de/tla/index.html.

Tobin, V. A. 2003. The Tale of the Eloquent Peasant. In W. K. Simpson (ed.), *The Literature of Ancient Egypt: An Anthology of Stories, Instructions, Stelae, Autobiographies, and Poetry*. Cairo: 25–44.

Toepel, L. R. 1973. Studies in the administrative and economic history of Tebtunis in the first century A.D. Dissertation. Duke University.

Toivari-Viitala, J. 2001. *Women at Deir el-Medina: A Study of the Status and Roles of the Female Inhabitants in the Workmen's Community During the Ramesside Period*. Egyptologische Uitgaven 15.

Toivari-Viitala, J. O. 2003. DeM 764: a note concerning property rights. *GM* 195: 87–96.

Tomoum, N. 2006. *The Sculptors Models of the Late Ptolemaic Periods: A Study of the Type and Function of a Group of Ancient Egyptian Artefacts*. Cairo.

Toomer, G. J. 1981. Ptolemy. In *Dictionary of Scientific Biography*. 11. New York: 186–206.

Török, L. 1995. *Hellenistic and Roman Terracottas from Egypt*. Rome.

Török, L. 1997a. Some comments on the social position and hierarchy of priests in the Karanog inscriptions. In E. Endesfelder et al. (eds.), *Ägypten und Kush*. Berlin: 401–20.

Török, L. 1997b. *The Kingdom of Kush: Handbook of the Napatan-Meroitic Civilisation*. Leiden.

Trapani, M. 2004. Un cas d'abus de pouvoir dans l'administration rurale. P. Turin 1882. In B. Menu (ed.), *La Dépendance rurale dans l'Antiquité égyptienne et proche-orientale*. BdE 140: 211–15.

Traunecker, C. 1979. Essai sur l'histoire de la XXIXᵉ dynastie. *BIFAO* 79: 395–436.

Traunecker, C. 1982. Un exemple de rite de substitution: une stèle de Nectanébo Ier. *Cahiers de Karnak* 7: 339–54.

Traunecker, C. 1987a. Les ''temples hauts'' de Basse Époque: un aspect du fonctionnement économique des temples. *RdE* 38: 147–62.

Traunecker, C. 1987b. Une pratique de magie populaire dans les temples de Karnak. In A. Roccatti and A. Siliotti (eds.), *La magia in Egitto ai tempi dei faraoni. Atti Convegno internazionale di studi, Milano 29–31 Octobre 1985*. Milan: 221–42.

Traunecker, C. 1989. Le ''Château de l'Or'' de Thoutmosis III et les magasins nord du temple d'Amon. *CRIPEL* 11: 89–111.

Traunecker, C. 1993. Les résidents des rives du Lac Sacré. Le cas d'Ankhefenkhonsu. *CRIPEL* 15: 83–93.

Traunecker, C. 2002. The ritualist Pharaoh: the religious cult. In C. Ziegler (ed.), *The Pharaohs*. New York: 143–57.

Traunecker, C. 2008. Les deux enfants du temple de Teudjoï (à propos du P. Rylands IX). In L. Gabolde (ed.), *Hommages à Jean-Claude Goyon*. BdE 143. Cairo.

Trigger, B. G. 2003. *Understanding Early Civilizations*. Cambridge.

Trigger, B. G. 2004. Cross-cultural comparison and archaeological theory. In L. Meskell and R. W. Preucel (eds.), *A Companion to Social Archaeology*. Oxford: 43–65.

Trigger, B. J. 1985. The evolution of pre-industrial cities: a multilinear perspective. In F. Geus and F. Thill (eds.), *Mélanges Offerts à Jean Vercoutter*. Paris: 343–53.

Tringham, R. and Dimbleby, G. W. (eds.) 1972. *Man, Settlement and Urbanism*. London.

Troy, L. 1986. *Patterns of Queenship in Ancient Egyptian Myth and History*. Uppsala.

Troy, L. 1989. Have a nice day! Some reflections on the calendars of good and bad days. In G. Englund (ed.), *The Religion of the Ancient Egyptians: Cognitive Structures and Popular Expressions. Proceedings of Symposia in Uppsala and Bergen 1987 and 1988*. Boreas: Uppsala Studies in Ancient Mediterranean and Near Eastern Civilizations 20. Uppsala: 127–47.

Tuplin, C., and Rihll, T. E. (eds.) 2002. *Science and Mathematics in Ancient Greek Culture*. Oxford.

Turnbull, D. 2000. Rationality and the disunity of the sciences. In H. Selin (ed.), *Mathematics across Cultures: The History of Non-western Mathematics*. Dordrecht; Boston; London: 37–54.

Turner, E. G. 1980. *Greek Papyri: An Introduction*. Oxford.

Tylor J. J. 1895. *The Tomb of Paheri: Wall Drawings and Monuments of El Kab I*. London.

Uebel, F. 1968. *Die Kleruchen Ägyptens unter den ersten sechs Ptolemäern*. Abhandlungen der Deutschen Akademie der Wissenschaften zu Berlin. Klasse für Sprachen, Literatur und Kunst; Jahrg. 1968, Nr. 3. Berlin.

Ullmann, M. 2007. *Architektur und Dekorationsprogramm der ägyptischen Tempel des Neuen Reiches in Nubien – Eine Untersuchung zu Morphologie und Genese der Kultlandschaft Nubien, I. Nördliches Nubien, von Beit el-Wali bis Abu Oda*. Munich.

Uphill, E. 1965. The Egyptian Sed-festival rites. *JNES* 24: 365–83.

Uphill, E. 1972. The concept of the Egyptian palace as a 'ruling machine.'' In P. J. Ucko, R. Tringham, and G. W. Dimbleby (eds.), *Man, Settlement and Urbanism*. London: 721–34.

Uphill, E. 1988. *Egyptian Towns and Cities*. Shire Egyptology 8. Princes Risborough.

Valbelle, D. 1987. Les recensements dans l'Égypte pharaonique des troisième et deuxième millénaires. *CRIPEL* 9 : 33–49.

Valbelle, D. 2004. In D. Welsby and J. R. Anderson (eds.), *Sudan: Ancient Treasures. An Exhibition of Recent Discoveries from the Sudan National Museum*. London.

Valbelle, D. and Husson, G. 1998. Les questions oraculaires d'Égypte. Histoire de la recherche, nouveautés et perspectives. In Clarysse, Schoors, and Willems 1998: 1055–71.

Vallance, J. 2004. Doctors in the library. In MacLeod 2000: 95–113.

Valloggia, M. 1994. Le complexe funéraire de Radjedef à Abou Roasch: état de la question et perspectives de recherches. *BSFE* 130: 5–17.

Valloggia, M. 2001. Fouilles archéologiques à Abu Rawash (Égypte): Rapport préliminaire de la campagne 2001. *Genava* 49: 235–49.

Van Berchem, D. 1952. *L'armée de Dioclétien et la réforme constantinienne*. Institut Français D'Archéologie de Beyrouth. Bibliothèque archéologique et historique LVI. Paris.

Van Berchem, D. 1971. 'L'occupation militaire de la Haute Egypte sous Dioclétien. In S. Applebaum (ed.), *Roman Frontier Studies, 1967: The Proceedings of the Seventh International Congress held at Tel Aviv*. Tel Aviv: 123–7.

Van den Brink, E. C. M. 1989. A transitional Late Predynastic–Early Dynastic settlement site in the northeastern Nile Delta. *MDAIK* 45: 55–108.

Van den Brink, E. C. M. 2002. An Egyptian presence at the end of the Late Early Bronze Age I at Tel Lod, central coastal plain, Israel. In E. C. M. van den Brink and T. E. Levy (eds.), *Egypt and the Levant: Interrelations from the 4th Through the Early 3rd Millennium B.C.E.*, 286–305. London and New York.

Van den Brink, E. C. M. and Levy, T. E. (eds.) 2002. *Egypt and the Levant: Interrelations From the 4th through the Early 3rd Millennium B.C.E.* London and New York.

Van der Horst, Pieter W. 1998. *Sortes*: sacred books as instant oracles in late antiquity. In L. V. Rutgers, P. W. Van der Horst, H. W. Havelaar, and L. Teugels (eds.), *The Use of Sacred Books in the Ancient World*. Leuven: 143–73.

Van Dijk, J. 1993. The New Kingdom Necropolis at Memphis. Ph.D. Rijksuniversiteit. Groningen.

Van Dijk, J. 2008. New evidence on the reign of Horemheb. In P. Kousoulis (ed.), *Tenth International Congress of Egyptologists. Abstracts of Papers*. l: 253–4.

Van Minnen, P. 1987. Urban craftsmen in Roman Egypt. *Münstersiche Beiträge zur antiken Handelsgeschichte* 6.1: 31–88.

Van Minnen, P. 1998. Boorish or bookish? Literature in Egyptian villages in the Fayum in the Graeco-Roman period. *JJP* 28: 99–184.

Van Minnen, P. 2000. An official act of Kleopatra (with a subscription in her own hand). *Ancient Society* 30: 29–34.

Van Minnen, P. 2001a. Further thoughts on the Kleopatra Papyrus. *APF* 47: 74–80.

Van Minnen, P. 2001b. Dietary Hellenization or ecological transformation? Beer, wine, and oil in later Roman Egypt. *Atti del XXII Congresso Internazionale di papyrologia, Firenze 1998*: 1265–80.

Van Minnen, P. 2003. Dioscorus and the law. In A. A. MacDonald, M. W. Twomey, and G. J. Reinink (eds.), *Learned Antiquity: Scholarship and Society in the Near-East, the Greco-Roman world, and the Early Medieval West*. Leuven; Paris; Dudley: 115–33.

Van Minnen, P. 2006. Saving history? Egyptian hagiography in its space and time. In J. Dijkstra and M. van Dijk (eds.), *The Encroaching Desert: Egyptian Hagiography and the Medieval West*. Leiden and Boston: 57–91.

Van Minnen, P. 2007. The other cities in later Roman Egypt. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700*. Cambridge: 207–25.

Van Minnen, P. and Worp, K. A. 1989. Proceedings of the Council of Hermopolis. *ZPE* 78: 139–42.

Van Wetering, J. 2004. The royal cemetery of the Early Dynastic Period at Saqqara and the Second Dynasty royal tombs. In S. Hendrickx, R. Friedman, K. Ciałowicz, and M. Chłodnicki (eds.), *Egypt at its Origins: Studies in Memory of Barbara Adams*. OLA 138. Leuven: 1055–80.

Van't Dack, E. 1977. Sur l'évolution des institutions militaires lagides. In *Armées et fiscalité dans le monde antique*. Colloques nationaux du CNRS, Éditions du CNRS. Paris: 77–105.

Van't Dack, E. 1988a. Les commandants de place lagides à Théra. In *Ptolemaica Selecta: Études sur l'armée et l'administration lagides*. Studia Hellenistica 29. Leuven: 124–45.

Van't Dack, E. 1988b. La problème des commandants de place lagides à Théra réexaminé. In *Ptolemaica Selecta: Études sur l'armée et l'administration lagides*. Studia Hellenistica 29. Leuven: 146–56.

Vandier d'Abbadie, J. 1936. *Catalogue des ostraca figurés de Deir el Médineh (Nos. 2001–2733)*. DFIFAO. Cairo.

Vandier, J. 1950. *Moʻalla. La tombe d'Ankhtifi et la tombe de Sébekhotep*. BdE 18. Cairo.

Vandiver, P. 1982. Technological change in Egyptian faience. In J. S. Olin and A. D. Franklin (eds.), *Archaeological Ceramics*. Washington: 167–79.

Vandorpe, K. 1991. Les villages des ibis dans la toponymie tardive. *Enchoria* 18: 115–22.

Vandorpe, K. 1995. City of many a gate, harbour for many a rebel: historical and topographical outline of Greco-Roman Thebes. In S. P. Vleeming (ed.), *Hundred-gated Thebes: Acts of a Colloquium on Thebes and the Theban Area in the Greco-Roman period*. Papyrologica Lugduno-Batava 27. Leiden: 203–39.

Vandorpe, K. 2000. The Ptolemaic epigraphe or harvest tax (shemu). APF 46: 165–228.

Vandorpe, K. 2002. *The Bilingual Family Archive of Dryton, His Wife Apollonia and Their Daughter Senmouthis (P. Dryton)*. Collectanea Hellenistica 4. Brussels.

Vandorpe, K. 2004. The Henet of (the town of) Moeris and the ancient administrative division of the Fayum in two parts. APF 50: 61–78.

Vandorpe, K. 2008. Persian soldiers and Persians of the Epigone: social mobility of soldiers-herdsmen in Upper Egypt. APF 54: 87–108.

Vandorpe, K. 2009. Archives and dossiers. In Bagnall 2009: 216–55.

Vandorpe, K. 2010. A successful, but fragile biculturalism: the hellenization process in the Upper-Egyptian town of Pathyris under Ptolemy VI and VIII. In Quack-Jördens 2010.

Vassilika, E. 1989. *Ptolemaic Philae*. Orientalia Lovaniensia Analecta 34. Leuven.

Veïsse, A.-E. 2004. *Les "révoltes égyptiennes." Recherches sur les troubles intérieurs en Égypte du règne de Ptolémée III à la conquête romaine*. Studia Hellenistica 41. Leuven.

Veïsse, A.-E. 2009. L'"ennemi des dieux" Harsièsis. In Quack-Jördens 2009.

Venit, M. 2002. *Monumental Tombs of Ancient Alexandria: The Theater of the Dead*. Cambridge.

Verbovsek, A. 2009. "Er soll sich nicht fürchten...!": Zur Bedeutung und Funktion von Angst in der Erzählung des Sinuhe. In D. Kessler, R. Schulz, M. Ullmann, A. Verbovsek, and S. Wimmer (eds.), *Texte-Theben-Tonfragmente: Festschrift für Günter Burkard*. ÄAT 76. Wiesbaden: 421–33.

Vercoutter, J. 1959. The Gold of Kush. *Kush* 7: 20–53.

Vercoutter, J. 1976. *Mirgissa I*. Paris.

Vercoutter, J. 1992. *L'Égypte et la vallée du Nil, 1: Des Origines à la fin de l'Ancien Empire*. Paris.

Verhoeven, U. 2004. Literarische Ansichtskarten aus dem Norden versus Sehnsucht nach dem Süden. In G. Burkhard, A. Grimm, S. Schoske, and A. Verbovsek (eds.), *Kon-Texte: Akten des Symposions "Spurensuche – Altägypten im Spiegel seiner Texte", München, 2. bis 4. Mai 2003*. ÄAT 60. Wiesbaden: 65–80.

Verhoogt, A. 1998a. Land tenure in Late Ptolemaic Egypt: the case of Kerkeosiris. In B. Haring and R. DeMaaijer (eds.), *Landless and Hungry? Access to Land in Early and Traditional Societies. Proceedings of a Seminar held in Leiden, 20 and 21 June, 1996*. 1. Leiden: 103–11.

Verhoogt, A. 1998b. *Menches, Komogrammateus of Kerkeosiris: The Doings and Dealings of a Village Scribe in the Late Ptolemaic Period (120–110 B.C.)*. Pap. Lugd.-Bat. 29. Leiden; New York; Cologne.

Verhoogt, A. 2005. *Regaling Officials in Ptolemaic Egypt: A Dramatic Reading of Official Accounts from the Menches Papers*. Pap. Lugd.-Bat. 32. Leiden; New York; Cologne.

Vermeersh, P. M. 1983. Belgian Middle Egypt Prehistoric Project 1982. *Nyame Akuma* 22: 4–5.

Verner, M. 1987. Remarques sur le temple solaire Ḥtp-rᶜ et la date du mastaba de Ti. *BIFAO* 87: 293–7.

Verner, M. 1995. *Abusir III: The Pyramid Complex of Khentkaus*. Prague.

Verner, M. 1999. Khentkaus I, Khentkaus II and the title mwt nswt bity nswt bity (or: nswt bity mwt nswt bity. *GM* 173: 215–18.

Verner, M. 2002. *Abusir: Realm of Osiris*. Cairo and New York.

Verner, M. 2006. *Abusir IX: The Pyramid Complex of Raneferef. The Archaeology*. Prague.

Verner, M. 2008. Recent explorations in the Abusir Pyramid field. *Ancient Egypt* 48: 23–32.

Verner, M., Vymazalová, H., and Posener-Kriéger, P. 2006. *Abusir X: The Pyramid Complex of Raneferef. The Papyrus Archive*. Prague.

Vernus, P. 1982. La stèle du roi Sekhemsankhtaourê Neferhotep Iykhernofret et la domination Hyksôs (stele Cairo JE 59635). *ASAE* 68: 129–35.

Vernus, P. 1989. La stèle du Pharaon Mnṯw-ḥtpj à Karnak: Un nouveau témoignage sur la situation politique et militaire au début de la D.P.I. *RdE* 40: 145–61.

Vernus, P. 1993. *Affaires et scandales sous les Ramsès. La crise des valeurs dans l'Égypte du Nouvel Empire*. Paris.

Vernus, P. 1995. *Essai sur la conscience de l'histoire dans l'Égypte pharaonique*. Paris.

Vernus, P. 2000. La grotte de la vallée des Reines dans la piété personnelle des ouvriers de la tombe (BM 278). In R. J. Demarée and A. Egberts (eds.), *Deir el-Medina in the Third Millennium AD: A Tribute to Jac. J. Janssen*. Leiden: 331–6.

Vinson, S. 1994. *Egyptian Ships and Boats*. Princes Risborough.

Vischak, D. 2007. Identity in/of Elephantine: the Old Kingdom Tombs at Qubbet el Hawa. In Z. Hawass and J. Richards (eds.), *The Archaeology and Art of Ancient Egypt: Essays in Honor of David B. O'Connor* II. ASAE Cahier 36. Cairo: 443–57.

Vittmann, G. 1978. *Priester und Beamte in Theben der Spätzeit*. Beiträge zur Ägyptologie 1. Vienna.

Vittmann, G. 1997. Das demotische Graffito vom Satettempel auf Elephantine. *MDAIK* 53: 263–281.

Vittmann, G. 1998. *Der demotische Papyrus Rylands 9*. ÄAT 38. Wiesbaden.

Vittmann, G. 2002. Der große Priesterstammbaum in Karnak. *SAK* 30: 351–71.

Vittmann, G. 2003. *Ägypten und die Fremden im ersten vorchristlichen Jahrtausend*, Mainz am Rhein.

Vleeming, S. P. 1982. The days on which the ḳnbt used to gather. In R. J. Demarée (ed.), *Gleanings from Deir el-Medína*. Egyptologische Uitgaven 1. Leiden: 183–92.

Vleeming, S. P. 1992. The tithe of the scribes (and) representatives. In J. H. Johnson (ed.), *Life in a Multi-cultural Society: Egypt from Cambyses to Constantine and Beyond*. SAOC 51. Chicago: 343–50.

Vleeming, S. P. 1995. The office of a Choachyte in the Theban area. In S. P. Vleeming (ed.), *Hundred-Gated Thebes: Acts of a Colloquium on Thebes and the Theban Area in the Graeco-Roman Period*. Papyrologica Lugduno-Batava 27. Leiden: 241–55.

Vleeming, S. P. 2001. *Some Coins of Artaxerxes and Other Short Texts in the Demotic Script Found on Various Objects and Gathered from Many Publications*. Studia Demotica 5. Leuven; Paris; Sterling.

Vogel, C. 2003. Fallen heroes? – Winlock's "Slain Soldiers" reconsidered. *JEA* 89: 239–245.

Vogel, C. 2006. Hieb- und stichfest? Überlegungen zur Typologie des Sichelschwertes im Neuen Reich. In Bröckelmann 2006: 271–86.

Vogel, C. 2004. *Ägyptische Festungen und Garnisonen bis zum Ende des Mittleren Reiches*. Hildesheim.

Vogelsang-Eastwood, G. 2000. Textiles. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology.* Cambridge: 268–98.

Volokhine, Y. 1998. Les déplacements pieux en Égypte pharaonique. In D. Frankfurter (ed.), *Pilgrimage and Holy Space in Late Antique Egypt.* Religions in the Graeco-Roman World 134. Leiden; Boston; Cologne: 51–97.

Von Beckerath, J. 1968. Die ''Stele der Verbannten'' im Museum des Louvre. *RdE* 20: 7–36.

Von Beckerath, J. 1980. Königsbezeichnung. In *LÄ* 3: 475–81.

Von Beckerath, J. 1997. *Chronologie des pharaonischen Ägypten. Die Zeitbestimmung der ägyptischen Geschichte von der Vorzeit bis 332 v.Chr.* MÄS 46. Mainz am Rhein.

Von der Way, T. 1984. *Die Textüberlieferung Ramses II. zur Qadeš-Schlacht. Analyse und Struktur.* HÄB 22. Hildesheim.

Von der Way, T. 1991. Die Grabungen in Buto und die Reichseinigung. *MDAIK* 47: 419–24.

Von der Way, T. 1992. Excavations at Tell el-Fara'in/Buto in 1987–1989. In E. C. M. van den Brink (ed.), *The Nile Delta in Transition: 4th.–3rd. Millennium B.C.* Tel Aviv: 1–10.

Von der Way, T. 1993. *Untersuchungen zur Spätvor- und Frühgeschichte Unterägyptens.* Heidelberg.

Von der Way, T. 1996. Early Dynastic architecture at Tell el-Fara'in-Buto. In M. Bietak (ed.), *Haus und Palast im alten Ägypten/House and Palace in Ancient Egypt.* Vienna: 247–52.

Von der Way, T. 1997. *Tell el-Fara'in/Buto I.* AV 83. Mainz am Rhein.

Von der Way, T. 1999. Buto (Tell el-Fara'in). In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 180–4.

Von Känel, F. 1980. Les mésaventures du conjurateur de Serket Onnophris et de son tombeau. *BSFE* 87–8: 31–45.

Von Känel. F. 1984. *Les Prêtres-ouâb de Sekhmet el les conjurateurs de Serket.* Bibliothèque de l'école des Hautes Études Sciences Religieuses 87. Paris.

Von Lieven, A. 1999. Divination in Ägypten. *Altorientalische Forschungen* 26.1: 77–126.

Von Lieven, A. 2006. The social standing of musicians in ancient Egypt. In E. Hickmann, A. A. Both, and R. Eichmann (eds.), *Studien zur Musikarchäologie V: Musikarchäologie im Kontext, Archäologische Befunde, historische Zusammenhänge, soziokulturelle Beziehungen: Vorträge des 4. Symposiums der Internationalen Studiengruppe Musikarchäologie im Kloster Michaelstein, 19.–26. September 2004.* Orient-Archäologie 20. Rahden: 355–60.

Von Lieven, A. 2007. Im Schatten des Goldhauses. Berufsgeheimnis und Handwerkerinitiation im alten Ägypten. *SAK* 36: 147–55.

Von Pilgrim, C. 1996. *Elephantine* XVIII. *Untersuchungen in der Stadt des Mittleren Reiches und der Zweiten Zwischenzeit.* AV 91. Mainz am Rhein.

Von Pilgrim, C. 1997. The town site on the island of Elephantine. *EA* 10: 16–18.

Von Reden, S. 2007. *Money in Ptolemaic Egypt: From the Macedonian Conquest to the End of the Third Century BC.* Cambridge.

Vörös, G. 1998. *Temple on the Pyramid of Thebes: Hungarian Excavations on Thoth Hill at the Temple of Pharaoh Montuhotep Sankhkara 1995–1998.* Budapest.

Vymazalovà H. and Bárta, M. (eds.) 2008. *Chronology and Archaeology in Ancient Egypt (The Third Millennium B.C.).* Prague: 240–60.

Waddell, W. G. 1940. *Manetho.* Cambridge, MA, and London.

Wagner, G. 1987. *Les oasis d'Égypte à l'époque grecque, romaine et Byzantine d'après les documents grecs.* Cairo.

Walker, J. 1996. *Studies in Ancient Egyptian Anatomical Terminology.* ACE Studies 4. Warminster.

Wallace, S. 1938. *Taxation in Egypt from Augustus to Diocletian.* Princeton (2nd edn.).

Waraksa, E. 2008. Female figurines (Pharaonic Period). In W. Wendrich (ed.), *UCLA Encyclopedia of Egyptology*, Los Angeles: http://repositories.cdlib.org/nelc/uee.

Warburton, D. 1997. *State and Economy in Ancient Egypt. Fiscal Vocabulary of the New Kingdom.* OBO 151. Fribourg and Göttingen.

Ward, W. A. 1977. Neferhotep and his friends: a glimpse at the lives of ordinary men. *JEA* 63: 63–6.

Ward, W. A. 1986. *Essays on Feminine Titles of the Middle Kingdom and Related Subjects.* Beirut.

Ward-Perkins, B. 2003. Reconfiguring sacred space: from pagan shrines to Christian churches. In G. Brand and H.-G. Severin (eds.), *Die spätantike Stadt und ihre Christianisierung.* Wiesbaden: 285–90.

Wason, P. K. 1994. *The Archaeology of Rank.* Cambridge.

Weeks, K. 1972. Preliminary report on the first two seasons at Hierakonpolis. Part II: the Early Dynastic palace. *JARCE* 9: 29–33.

Weeks, K. 1999. *Ramses II. – Das Totenhaus der Söhne.* Munich.

Weeks, K. 2000. *KV 5. A Preliminary Report on the Excavation of the Tomb of the Sons of Rameses II in the Kings Valley.* TMP 2. Cairo.

Wegner, J. 1996a. The nature and chronology of the Senwosret III–Amenemhat III regnal succession. *JNES* 55: 249–79.

Wegner, J. 1996b. The mortuary complex of Senwosret III: a study of Middle Kingdom state activity and the cult of Osiris at Abydos. Dissertation Philadelphia.

Wegner, J. 1998. Excavations at the town of *Enduring-are-the-Places-of-Khakaure-maa-kheru-in-Abydos*: a preliminary report on the 1994 and 1997 seasons. *JARCE* 35: 1–44.

Wegner, J. 1999. Abydos, South. In K. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 106–7.

Wegner, J. 2000. A Middle Kingdom town at south Abydos. *EA* 17: 8–10.

Wegner, J. 2001. The Town of *Wah-sut* at South Abydos: 1999 excavations. *MDAIK* 57: 281–308.

Wegner, J. 2004. Social and historical implications of sealings of the king's daughter Reniseneb and other women at the town of Wah-Sut. In M. Bietak and E. Czerny (eds.), *Scarabs of the Second Millennium BC from Egypt, Nubia, Crete and the Levant: Chronological and Historical Implications. Papers of a Symposium, Vienna, 10th–13th of January 2002.* Vienna.

Wegner, J. 2007a. Reopening the tomb of Senwosret III at Abydos. *EA* 30: 38–41.

Wegner, J. 2007b. *The Mortuary Temple of Senwosret III at Abydos.* New Haven and Philadelphia.

Weill, R. 1958. *Dara. Campagnes de 1946–1948.* Cairo.

Weinstein, J. M. 1973. Foundation deposits in ancient Egypt. Ph.D. thesis. University of Pennsylvania.

Weinstein, J. M. 1984. The significance of Tell Areini for Egyptian–Palestinian relations at the beginning of the Bronze Age. *BASOR* 256: 63.

Weiss, H., and Bradley, R. 2001. What drives societal collapse? *Science* 291: 609–10.

Wendorf, F. and Close, A. 1999. Paleolithic culture, overview. In K. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 6–14.

Wendorf, F. and Schild, R. (eds.) 1976. *Prehistory of the Nile Valley.* New York.

Wendorf, F. and Schild, R. 1980a. *Loaves and Fishes: The Prehistory of Wadi Kubbaniya.* Dallas.

Wendorf, F. and Schild, R. 1980b. *Prehistory of the Eastern Sahara.* New York.

Wendorf, F. and Schild, R. 1986. *The Wadi Kubaniya Skeleton: A Late Paleolithic Burial from Southern Egypt.* Ed. Angela E. Close. Dallas.

Wendorf, F., Close, A., and Schild, R. 1987. A survey of the Egyptian radar channels: An example of applied field archaeology. *Journal of Field Archaeology* 14: 43–63.

Wendrich, W. 2000. Basketry. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technology*. Cambridge: 254–67.

Wengrow, D. 2006. *The Archaeology of Early Egypt: Social Transformations in North-east Africa, 10,000 to 2650 BC*. Cambridge.

Wenke, R. 1999a. Kom el-Hisn. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 415–18.

Wenke, R. 1999b. Neolithic cultures, overview. In K. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 17–22.

Wente, E. 1984. Some graffiti from the reign of Hatshepsut. *JNES* 43: S. 47–54.

Wente, E. 1990. *Letters from Ancient Egypt*. SBL Writings from the Ancient World 1. Atlanta.

Werbrouck, M. 1938. *Les pleureuses dans l'Égypte ancienne*. Brussels.

Westermann, W. L. 1954. *Apokrimata. Decisions of Septimius Severus on Legal Matters*. New York.

Wetterstrom, W. 1993. Foraging and farming in Egypt: the transition from hunting and gathering to horticulture in the Nile Valley. In T. Shaw et al. (eds.), *The Archaeology of Africa: Food, Metals, and Towns*. London: 165–226.

Wetterstrom, W. and Murray, M. A. 2001. Ancient Egyptian agriculture. In D. B. Redford (ed.), *The Oxford Encyclopaedia of Ancient Egypt*. New York: 37–44.

Whale, S. 1989. *The Family in the 18th Dynasty of Egypt: A Study of the Representation of the Family in Private Tombs*. Sydney.

White, D. 1999. Marsa Matruh. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*. New York: 469–73.

Whitehorne, J. 1978. P. Lond. II 359 and Tuscus' list of temple requisites. *CdE* 53: 321–8.

Whitehorne, J. 1987. The hypomnematographus in the Roman period. *Aegyptus* 67: 101–25.

Whitehorne, J. 2004. Petitions to the centurion: a question of locality? *BASP* 41: 155–69.

Widmer, G. 2002. *Pharaoh Maâ-Rê, Pharaoh Amenemhat and Sesostris: Three Figures from Egypt's Past as seen in Sources of the Graeco-Roman Period, Acts of the Seventh International Conference of Demotic Studies. Copenhagen, 23–27 August 1999*. Copenhagen: 377–93.

Wiener, M. H. and Allen, J. P. 1998. Separate lives: the Ahmose Tempest stela and the Theran eruption. *JNES* 57: 1–28.

Wikander, O. 2008. Gadgets and scientific instruments. In J. P. Oleson (ed.), *Oxford Handbook of Technology and Engineering in the Classical World*. Oxford: 785–99.

Wildung, D. 1969. *Die Rolle ägyptischer Könige im Bewußtsein ihrer Nachwelt*, I. MÄS 17.

Wildung, D. 1977a. *Egyptian Saints: Deification in Pharaonic Egypt*. New York.

Wildung, D. 1977b. *Imhotep und Amenhotep. Gottwerdung im alten Ägypten*. MÄS 36. Munich.

Wildung, D. 1984. *Ni-user-Rê, Sonnenkönig-Sonnengott*. Schriften aus der ägyptischen Sammlung 1. Munich.

Wilfong, T. G. 1999. Menstrual synchrony and the "place of women" in ancient Egypt (Oriental Institute Museum Hieratic Ostracon 13512). In E. Teeter and J. A. Larson (eds.), *Gold of Praise: Studies on Ancient Egypt in Edward F. Wente*. SAOC 58. Chicago: 419–34.

Wilfong, T. G. 2007. Gender and sexuality. In T. Wilkinson (ed.), *The Egyptian World*. London and New York: 205–17.

Wilkinson, A. 1998. *The Garden in Ancient Egypt*. London.

Wilkinson, J. 1841. *Manners and Customs of the Ancient Egyptians*. 3 vols. London.

Wilkinson, R. H. 2000. *The Complete Temples of Ancient Egypt*. London.

Wilkinson, R. H. 2003. *The Complete Gods and Goddess of Ancient Egypt*. London.

Wilkinson, T. A. H. 1996. *State Formation in Egypt: Chronology and Society*. BAR International Series 651. Oxford.

Wilkinson, T. A. H. 1999. *Early Dynastic Egypt*. London and New York.

Wilkinson, T. A. H. 2000a. Political unification: towards a reconstruction. *MDAIK* 56: 377–95.

Wilkinson, T. A. H. 2000b. What a king is this: Narmer and the concept of the ruler. *JEA* 86: 23–32.

Wilkinson, T. A. H. 2000c. *Royal Annals of Ancient Egypt: The Palermo Stone and Its Associated Fragments.* London and New York.

Wilkinson, T. A. H. 2002. Reality versus ideology: the evidence for "Asiatics" in Predynastic and Early Dynastic Egypt. In E. C. M. van den Brink and T. E. Levy (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London and New York: 514–22.

Wilkinson, T. A. H. 2003. *Genesis of the Pharaohs.* London and New York.

Wilkinson, T. A. H. 2004. Before the pyramids: early developments in Egyptian royal funerary ideology. In S. Hendrickx, R. Friedman, K. Ciałowicz, and M. Chłodnicki (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams.* OLA 138. Leuven: 1129–42.

Wilkinson, T. A. H. 2007. Egyptian writing. In B. Fagan (ed.), *Discovery!* London and New York: 238.

Wilkinson, T. J. 2003. *Archaeological Landscapes of the Near East.* Tucson.

Willems, H. 1983. A description of Egyptian kinship terminology of the Middle Kingdom c.2000–1650 BC. *Bijdragen tot de Taal-, Land- en Volkenkunde* 139: 152–68.

Willems, H. 1984. The nomarchs of the Hare Nome and Early Middle Kingdom history. *JEOL* 28: 80–102

Willems, H. 1988. *Chests of Life. A Study of the Typology and Conceptual Development of Middle Kingdom Standard Class Coffins.* MVEOL 25. Leiden.

Willems, H. 1989. Review of B. Jaroš-Deckert, *Das Grab des Jnj-jtj.f. Die Wandmalereien der XI. Dynastie* (Mainz am Rhein, 1984). *BiOr* 46: 592–601.

Willems, H. 1996a. A note on the date of the Early Middle Kingdom cemetery at Ihnâsiya al-Madîna. *GM* 150: 99–109.

Willems, H. 1996b. *The Coffin of Heqata (Cairo JdE 36418): A Case Study of Egyptian Funerary Culture of the Early Middle Kingdom.* OLA 70. Leuven.

Willems, H. 1999. Deir el-Bersha. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 246–7.

Willems, H. (ed.). 2000. *Les Empereurs du Nil.* Leuven.

Willems, H. (ed.) 2001. *Social Aspects of Funerary Culture in the Egyptian Old and Middle Kingdoms.* OLA 103. Leuven.

Willems, H. 2007. *The Rock Tombs of Djehutinakht (No. 17K74/1), Khnumnakht (No. 17K74/2), and Iha (No. 17K74/3) With An Essay on the History and Nature of Nomarchal Rule in the Early Middle Kingdom*, Dayr al-Barshā I. OLA 155. Leuven; Paris; Dudley.

Willems, H. 2008. *Les Textes des Sarcophages et la démocratie. Éléments d'une histoire culturelle du Moyen Empire égyptien. Quatre conférences présentées à l'École pratique des hautes études. Section des Sciences religieuses. Mai 2006.* Paris.

Willems, H., Peeters, C., and Verstraeten, G. 2005. Where did Djehutihotep erect his colossal statue? *ZÄS* 132: 173–89.

Williams, B. B. 1986. *Excavations between Abu Simbel and the Sudan Frontier. The A-Group Royal Cemetery at Qustul: Cemetery L.* Chicago.

Williams, B. B. 1999. Nubian forts. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 574–9.

Wilson, C. A. 2002. Distilling, sublimation, and the four elements: the aims and achievements of the earliest Greek chemists. In Tuplin and Rihll, 2002: 306–22.

Wilson, J. A. 1944. Funeral services of the Egyptian Old Kingdom. *JNES* 4: 201–18.

Wilson, J. A. 1969. In praise of the City Ramses. In J. B. Pritchard (ed.), *Ancient Near Eastern Texts Relating to the Old Testament (Third Edition with Supplement)*, Princeton: 470–1.

Wilson, P. 2006. *The Survey of Saïs (Sa el-Hagar) 1997–2002*. London.

Wimmer, S. 1990. Egyptian temples in Canaan and Sinai. In S. Israelit-Groll (ed.), *Studies in Egyptology Presented to Miriam Lichtheim*. Jerusalem: 1065–1106.

Wimmer, S. 1998. (No) more Egyptian temples in Canaan and Sinai. In I. Shirun-Grumach (ed.), *Jerusalem Studies in Egyptology*. ÄAT 40. Wiesbaden: 87–123.

Winlock, H. E. 1921. Excavations at Thebes. *Bulletin of the Metropolitan Museum of Art*. II: 29–53.

Winlock, H. E. 1947. *The Rise and Fall of the Middle Kingdom in Thebes*. New York.

Winlock, H. E. 1955. *Models of Daily Life in Ancient Egypt, from the Tomb of Meket-Rēʿ at Thebes*. Publications of the Metropolitan Museum of Art Egyptian Expedition 18. Cambridge, MA.

Wipszycka E. 1965. *L'Industrie textile dans l'Égypte romaine*. Wroclaw; Warszawa; Cracow.

Wolff, H. J. 1966. Law in Ptolemaic Egypt. In *Essays in Honor of C. Bradford Welles*. Am. Stud. Pap. I. New Haven: 67–77.

Wolff, H. J. 1971. *Das Justizwesen der Ptolemäer*. Munich (2nd edn.).

Wolff, H. J. 1978. *Das Recht der griechischen Papyri Ägyptens in der Zeit der Ptolemäer und des Prinzipats*, II: *Organisation und Kontrolle des privaten Rechtsverkehrs*. Handbuch der Altertumswissenschaft 10.5.2. Munich.

Wolff, H. J. 2002. *Das Recht der griechischen Papyri Ägyptens in der Zeit der Ptolemäer und des Prinzipats*, I: *Bedingungen und Triebkräfte der Rechtsentwicklung* Ed. H.-A. Rupprecht. Handbuch der Altertumswissenschaft 10.5.1. Munich.

Woods, A. J. 1986. Form and function: some observations on the cooking pot in antiquity. In W. D. Kingery (ed.), *Ceramics and Civilization*. 2. Columbus: 157–72.

Worp, K. (1991). Observations on some military camps and place names in Lower Egypt. *ZPE* 87: 291–5.

Wortham, J. 1981. *The Genesis of British Egyptology 1549–1906*. Norman.

Wreszinski, W. 1923–5. *Atlas zur altaegyptischen Kulturgeschichte*. Leipzig.

Wuttmann, M., Coulon, L., and Gombert, F. 2007. An assemblage of bronze statuettes in a cult context: the temple of 'Ayn Manâwir. In Hill (ed.) 2007: 167–73.

Yadin, Y. 1963. *The Art of Warfare in Biblical Lands*. New York; Toronto; London.

Yoshimura, S., Kawai, N. and Kashiwagi, H. 2005. A sacred hillside at northwest Saqqara: a preliminary report on the excavations 2001–2003. *MDAIK* 6: 361–402.

Yoshimura, S., Kondo, J., Hasegawa, S., Sakata, T., Etaya, M., Nakagawa, T., and Nishimoto, S. 1997. A preliminary report of the general survey at Dahshur North, Egypt, Annual Report of the Collegium Mediterranistarum. *Mediterraneus* 20: 3–24.

Youtie, H. C. 1966. Pétaus, fils de Pétaus, ou le scribe qui ne savait pas écrire. *CdE* 41: 127–43 (repr. in *Scriptiunculae* II. Amsterdam. 1973: 677–95).

Youtie, H. C. 1970. Callimachus in the tax rolls. *Proceedings of the Twelfth International Congress of Papyrology*. Am. Stud. Pap. 7. Toronto: 545–51.

Youtie, H. C. 1973. Publicans and sinners. *ZPE* 1 (1967): 1–20 (repr. in *Scriptiunculae*. I. Amsterdam: 554–78).

Youtie, H. C. 1975. APATORES: law vs. custom in Roman Egypt. In J. Bingen, G. Cambier, and G. Nachtergael (eds.), *Le Monde grec. Pensée, histoire, documents: Hommages à Claire Préaux*, Brussels: 723–40 (repr. in *Scriptiunculae Posteriores*. I. Bonn: 17–34).

Yoyotte, J. 1951. Sur le voyage asiatique de Psammétique II. *VT* 1: 140–4.

Yoyotte, J. 1953. Pour une localisation du pay de Iam. *BIFAO* 52: 173–8.

Yoyotte, J. 1960. Néchao ou Néko. In *Supplément au Dictionnaire de la Bible*. VI: 363–93.

Yoyotte, J. 1961. Les principautés du Delta au temps de l'anarchie libyenne. *Mélanges Maspero* I . MIFAO 66: 121–181 and pls. I–III.

Yoyotte, Jean. 1966. Le nome de Coptos durant la Première Période Intermédiare. *Or* 35: 45-58.

Yoyotte, J. 1969. *Bakhthis: religion égyptienne et culture grecque à Edfou, Religions en Égypte hellénistique et romaine. Colloque de Strasbourg 16–18 mai 1967, Bibliothèque des Centres d'Études supérieures spécialisés. Travaux du Centre d'études supérieures spécialisés d'Histoire des Religions de Strasbourg.* Paris: 127–41.

Yoyotte, J. 1989. Le nom égyptien du "Ministre de l'économie." *CRAIBL*: 73–88.

Yoyotte, J. 2001. Le second affichage du décret de l'an 2 de Nekhtnebef et la découverte de Thônis-Héracléion. *Égypte Afrique & Orient* 24: 25–34.

Yoyotte, J. forthcoming a. La statue égyptienne de Darius. Study to appear in J. Perrot *et al.*, *Le palais de Darius à Suse.*

Yoyotte, J. forthcoming b. Les fondements géopolitiques du pouvoir saïte. In the proceedings of the colloquium "La XXVIe dynastie: continuités et ruptures", held in Lille in November 2004.

Yurco, F. J. 1999. Deir el-Medina. In K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt.* New York: 247–50.

Žába, Z. 1953. *L'Orientation astronomique dans l'ancienne Égypte, et la précession de l'axe du monde.* Prague.

Žába, Z. 1974. *The Rock Inscriptions of Lower Nubia: Czechoslovak Concession.* Prague.

Žába, Z., Verner, M., et al. 1976. *Preliminary Report on Czechoslovak Excavation in the Mastaba of Ptahshepses at Abusir.* Prague.

Zakrzewski, S. R. 2007. Gender relations and social organisation in the Predynastic and Early Dynastic Periods. In J.-C. Goyon and C. Cardin (eds.), *Proceedings of the Ninth International Congress of Egyptologists, Grenoble, 6–12 Septembre 2004* II. OLA 150. Leuven: 2005–19.

Zauzich, K.-Th. 1992. Ein Zug nach Nubien unter Amasis. In J. H. Johnson (ed.), *Life in a Multi-Cultural Society : Egypt from Cambyses to Constantine and Beyond.* SAOC 51. Chicago: 361–4.

Zauzich, K.-Th. 2000. Ein antikes demotisches Namenbuch. In P. J. Frandsen and K. Ryholt (eds.), *A Miscellany of Demotic Texts and Studies.* Carlsberg Papyri 3. Copenhagen.

Zdzieblowski, S. 2008. Some remarks on the earliest settlement mudbrick structures in Egypt. *GM* 217: 111–22.

Zelener, Y. 2003. Smallpox and the disintegration of the Roman economy after 165 AD. Dissertation, Columbia University.

Ziegler, C. (ed.) 2002. *The Pharaohs.* New York.

Ziegler, C. 2007. *Fouilles du Louvre à Saqqara.* I. *Le Mastaba d'Akhethetep.* Leuven,

Ziermann, M. 1993. *Elephantine XVI. Befestigungsanlagen und Stadtentwicklung in der Frühzeit und im frühen Alten Reich.* Mainz am Rhein.

Zimmermann, K. 2002. Eine Steuerbefreiung für Q. Cascellius adressiert an Kaisarion. *ZPE* 138: 133–9.

Zitman, M. 2010. *The Necropolis of Assiut.* 2 vols. OLA 180. Leuven.

Zitterkopf, R. and Sidebotham, S. 1989. Stations and towers on the Quseir–Nile road. *JEA* 75 : 155–89.

Zivie, A.-P. 1975. *Hermopolis et le nome de l'ibis: recherches sur la province du dieu Thot en Basse Égypte.* BdE 66. Cairo.

Zivie-Coche, C. M. 2001. Les Statues de Panemerit, Prince de Tanis sous le règne de Ptolémée Aulète. In P. Brissand and C. Zivie-Coche (eds.), *Tanis: Travaux Récents sur le Tell Sân el-Hagar 2.* Paris: 349–439.

Zivie-Coche, C. 2004. *Tanis. Statues et autobiographies de dignitaires. Tanis à l'époque ptolémaïque. Travaux récents sur le Tell Sân el-Hagar 3.* Paris.

Zumla, A. and Lulat, A. 1989. Honey – a remedy rediscovered. *Journal of the Royal Society of Medicine* 82: 384–5.

Zurawski, B. 1993. Low altitude aerial photography in archaeological fieldwork: the case of Nubia. *Archaeologia Polonia* 31: 243–56.

Plate 1 The mud-brick funerary enclosure of King Khasekhemwy at Abydos (Shunet ez-Zebib) (Second Dynasty). © Toby Wilkinson.

Plate 2 A First Dynasty Royal Tomb at Abydos (Djer) with a block of retainer burials in the foreground. Courtesy E.J. Gooding.

Plate 3 The pyramid cemetery of Khufu. Courtesy the author.

Plate 4 The solid gold death mask of Psusennes I. Photograph Robert Partridge. Courtesy the Supreme Council of Antiquities.

Plate 5 Montuemhet in the the Brooklyn Oracle Papyrus, Dynasty 26, fifth day of first month of summer in Year 14 of the reign of Psamtik I. The document records the petition of a man named Pemou on behalf of his father, Harsiese, a priest in the service of Amun-Re at Karnak who wanted to transfer to the priesthood of Montu-Re-Horakhty in his nearby temple. Amun responded favourably, and Pemou had this papyrus drawn up with the autographs of the many witnesses (not all, unfortunately, preserved) and the vignette. Montuemhet is the figure facing the barque with his son behind him and the Kushite High Priest of Amun third, all walking backward. Photograph Courtesy of the Brooklyn Museum.

Plate 6 Luxor temple (New Kingdom), with processional sphinx avenue (Thirtieth Dynasty) in the foreground. This evokes the imposing architecture within which priests operated, while the avenue was a setting where a wider part of the population could have interacted with the divine. Courtesy Neal Spencer.
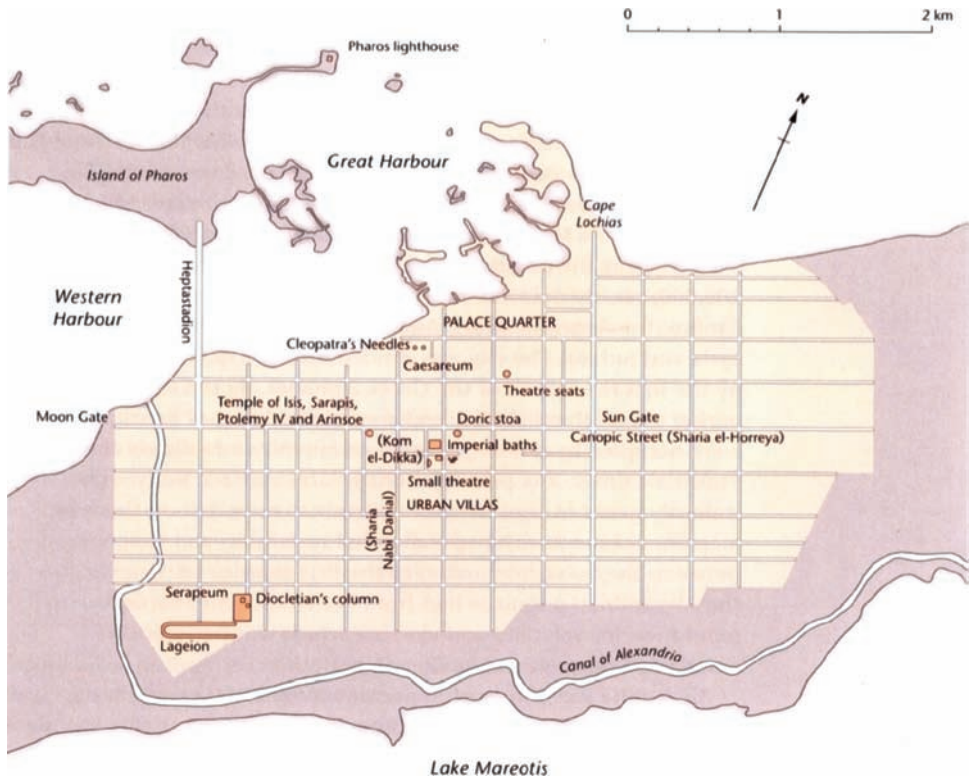
Plate 7   Plan of Alexandria. Courtesy Bagnall and Rathbone 2004: 52, fig. 2.1.1.

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Abbreviations

Abbreviations for papyrological material are too numerous to be listed here. An excellent key entitled 'Checklist of Editions of Greek, Latin, Demotic and Coptic papyri, ostraca and tablets', which is regularly updated, can be conveniently accessed via the website of the American Society of Papyrologists.

ÄA	Ägyptologische Abhandlungen
AAASH	*Acta Archaeologica Academiae Scientiarum Hungaricae*
ÄAT	Ägypten und altes Testament (check)
ACE	Australian Centre for Egyptology
AcOr	*Acta Orientalia*
Acta AArtHist	Acta ad archaeologiam et artium historiam pertinentia
ADAIK	Abhandlungen des Deutschen Archäologischen Instituts. Abteilung Kairo
AE	*L'Année épigrahique*
Aeg Leod	Aegyptiaca Leodiensia
ÄF	*Ägyptologische Forschungen*
AH	Aegyptiaca Helvetica
AIA	Archaeological Institute of America
AIPMA	Association international pour la peinture murale antique
AJA	*American Journal of Archaeology*
AJSL	*American Journal of Semitic Languages and Literatures*

Ä&L	*Ägypten und Levante*
AM	Ashmolean Museum (Oxford)
ÄM	Ägyptisches Museum (Berlin)
Ann.	*Annales* (Tacitus)
ANRW	Augstieg und Niedergang der römischen Welt
ANSE	Associazione Napolitana di Studi Egittologici
Ant.	*Antonius* (Plutarch)
AOF	Altorientalische Forschungen
AOS	American Oriental Series
APAW	Abhandlungen der Preussischen Akademie der Wissenschaften
APF	Archiv für Papyrusforschung und verwandte Gebiete
ARCE	American Research Center in Egypt
ARG	*Archiv für Religionsgeschichte*
ASAE	*Annales du Service des antiquités de l'Égypte*
ASE	Archaeological Survey of Egypt
ASP	American Studies in Papyrology
AV	Archäologische Veröffenlichungen des Deutschen Archäologischen Instituts, Abteilung Kairo
BACE	*Bulletin of the Australian Centre for Egyptology*
BAe	Bibliotheca Aegyptiaca
BAR	British Archaeological Reports
BASOR	*Bulletin of the American Schools of Oriental Research*
BASP	*Bulletin of the American Society of Papyrologists*
BCH	*Bulletin de correspondance hellénique*
BdE	*Bibliothèque d'études, Institut français d'archéologie orientale, Kairo*
BEHE	Bibliothèque de l'École pratique des hautes études (Paris)
Bell.Civ.	*Bella Civilia* (Appian)
Berl.Inschr.	*Aegyptische Inschriften aus den Königlichen Museen zu Berlin*. Hrsg. Von der Generalverwaltung. 2 vols. Leipzig 1913–24.
BHAC	Bonner Historia-Augusta Colloquium

BIE	*Bulletin de l'Institut d'Égypte*
BIFAO	*Bulletin de l'Institut français d'archéologie orientale*
BiOr	*Bibliotheca Orientalis*
BJ	*Bellum Judaicum* (Josephus)
BM	British Museum
BMMA	*Bulletin of the Metropolitan Museum of Art*
BMRAH	*Bulletin des Musées royaux d'art et d'histoire* (Brussels)
BSAC	*Bulletin de la Société d'archéologie copte*
BSAE	British School of Archaeology in Egypt
BSAK	Studien zur altägyptischen Kultur. Beihefte
BSEG	*Bulletin de la Société d'égyptologie de Genève*
BSFE	*Bulletin de l'Institut français d'égyptologie*
CAA	Corpus Antiquitatum Aegyptiacarum
CAJ	*Cambridge Archaeological Journal*
C.Ap.	*Contra Apionem* (Josephus)
CCE	*Cahiers de la céramique égyptienne*
CCGG	*Cahiers du Centre G.Glotz*
CdE	*Chronique d'Égypte*
CG	Catalogue générale des antiquités égyptiennes du Musée du Caire
CIL	*Corpus Inscriptionum Latinarum*. Belin. 1863–
CNI	Carsten Niebuhr Instituttet
CNRS	Centre national de la recherche scientifique
CNWS	Centre of Non-Western Studies
CQ	*Classical Quarterly*
CRAIBL	*Comptes rendus de l'Académie des inscriptions et belles-lettres*
CRIPEL	*Cahiers de Recherches de l'Institut de papyrologie et d'égyptologie de Lille*
DE	*Discussion in Egyptology*
De Alex. Fort.	*De fortuna Alexandri* (Plutarch)

DFIFAO	Documents de fouilles de l'Institut français de archéologie orientale du Caire
Dieg.	*Diegeseis* (M. Norsa and G. Vitelli. Διηγήσεις *di poemi di Callimaco in uno papiro di Tebtunis.* Florence. 1934)
DOP	Dakhleh Oasis Project
EA	Egyptian Antiquities (British Museum)
EA	*Egyptian Archaeology*
EEF	Egypt Exploration Fund
EES	Egypt Exploration Society
Ep.	*Epistulae* (Pliny)
EPM	Egyptian Prehistory Monographs
EPRO	Études préliminaries aux religions orientales dans l'empire romain
ERA	Egyptian Research Account
ET	*Études et Travaux* (Warsaw)
EVO	*Egitto e Vicino Oriente*
FIFAO	Fouilles de l'Institut français d'archéologie orientale
Flacc.	*In Flaccum* (Philo Judaeus)
GGH	*Göttingische Gelehrte Anzeigen*
GHP	Golden House Publications (London)
GIS	Geographic Information System
GM	*Göttinger Miszellen*
GOF	Göttinger Orientforschungen
GRM	Graeco-Roman Museum (Alexandria)
HA	*Historia Animalium* (Aristotle)
HÄB	Hildesheimer Ägyptologische Beiträge
HdO	Handbuch der Orientalistik
Hist.	*Historiae* (Tacitus)
Hist.Eccl.	*Historia Ecclesiastiaca* (Eusebius)
Hist.Eccl.	*Historia Ecclesiastiaca* (Socrates)
I.Akoris	*Inscriptions grecques et latines d'Akoris.* E. Bernand. Cairo. C.1988.

I.Fay.	*Recueil des inscriptions grecques du Fayoum.* E. Bernand. Leiden. 1975–81.
I.Métriques	*Inscriptions métriques de l'Égypte gréco-romaine.* E. Bernand. Paris. 1969.
I.Philae	*Les Inscriptions grecques et latines de Philae.* E. and A. Bernand. Paris. 1969
I.Portes	*Les Portes du desert.* A. Bernand. Besançon. 1984
I. Thèbes Syène	*De Thèbes à Syène.* A Bernand. Paris. 1989.
Id.	*Idylls* (Theokritos)
IFAO	Institut français d'archéologie orientale
Il.	*Iliad*
ILS	*Inscriptiones Latinae Selectae.* H.Dessau. Berlin. 1892–1916
Isthm.	*Isthmian Odes* (Pindar)
JAOS	*Journal of the American Oriental Society*
JARCE	*Journal of the American Research Center in Egypt*
JDAI	*Jahrbuch des Deutschen Archäologischen Instituts* (Berlin)
JE	Journal d'entrée (du Musée du Caire)
JEA	*Journal of Egyptian Archaeology*
JEH	*Journal of Egyptian History*
JEOL	*Jaarbericht van het Vooraziatisch-egyptisch Genootschap Ex Oriente Lux*
JESHO	*Journal of the Economic and Social History of the Orient*
JHS	*Journal of Hellenic Studies*
JJP	*Journal of Juristic Papyrology*
JNES	*Journal of Near Eastern Studies*
Joann.Antioch.	Joannes Antiochus
JRA	*Journal of Roman Archaeology*
JRS	*Journal of Roman Studies*
JSSEA	*Journal of the Society for the Study of Egyptian Antiquities*
KÄT	Kleine Ägyptische Texte
KMT	*KMT: A Modern Journal of Ancient Egypt*

KRI	K.A. Kitchen, *Ramesside Inscriptions*. 8 vols. Oxford. 1975–90.
KV	Kings' Valley
LÄ	*Lexikon der Ägyptologie*. W. Helck, E. Otto, and W. Westendorf (eds.). 7 vols. Wiesbaden, 1972–92.
LCL	Loeb Classical Library
LingAeg	*Lingua Aegyptia*
MÄ	Ägyptisches Museum (Leipzig)
MÄS	Münchner ägyptologische Studien
MDAIK	*Mitteilungen des Deutschen Archäologischen Instituts Kairo*
MDOG	*Mitteilungen der Deutschen Orient-Gesellschaft*
MFA	Museum of Fine Arts (Boston)
MIFAO	*Mémoires publiés par les members de l'Institut français d'archéologie orientale*
MittSAG	*Mitteilungen der Sudanarchäologischen Gesellschaft*
MMA	Metropolitan Museum of Arts
MMJ	*Metropolitan Museum Journal*
MRE	Monographies Reines Elisabeth
MVEOL	*Mededelingen en Verhandelingen Ex Oriente Lux*
ND + Or.	*Notitia Dignitatum (Orientis)*
Nem.	*Nemean Odes* (Pindar)
NH	*Naturalis Historia* (Pliny)
ÖAW	Österreichische Akademie der Wissenschaften
OBO	*Orbis Biblicus et Orientalis*
Od.	*Odyssey*
OGIS	*Orientis Graecae Inscriptiones Selectae*
Ol.	*Olympian Odes* (Pindar)
OLA	Orientalia Lovaniensia Analecta
OLP	Orientalia Lovaniensia Periodica
OLZ	*Orientalistische Literaturzeitung*
OMRO	*Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheiden*

Or	*Orientalia*
P.Sall.	Papyrus Sallier
PÄ	Probleme der Ägyptologie
PAM	*Polish Archaeology in the Mediterranean*
PBA	Proceedings of the British Academy
PBSR	*Papers of the British School at Rome*
PEG	*Poetarum Epicorum Graecorum Testimonia et Fragmenta.* A. Bernabé. Stuttgart. 1996–2007
Praef.	*Praefatio* (Vitruvius)
PTA	Papyrologische Texte und Abhandlungen
PWRE	*Real-Encyclopädie der classischen Altertumswissenschaft* (A. F. Pauly and G. Wissowa (eds.))
Pyth.	*Pythian Odes* (Pindar)
QV	Queens' Valley
RA	*Revue d'assyriologie et d'archéologie orientale*
RAPH	Recherches d'archéologie, de philology et d'histoire (IFAO)
RdE	*Revue d'Égyptologie*
RMD	*Roman Military Diplomas*. M. Roxan (with P. Holder). 4 vols. 1954–2003
RPM	Roemer- und Pelizaeus-Museum (Hildesheim)
RSM	Royal Scottish Museum
RSO	*Rivista degli studi orientali*
SAGA	Studien zur Archäologie und Geschichte Altägyptens
SAK	*Studien zur altägyptischen Kultur*
SAOC	Studies in Ancient Oriental Civilisation
SBL	Society of Biblical Literature
SCA	Supreme Council of Antiquities
SDAIK	*Sonderschriften des Deutschen Archäologischen Instituts Kairo*
SHA + M.Ant. + Avid.Cass.	*Scriptores Historiae Augustae* (Marcus Aurelius Antoninus [Caracalla], Avidius Cassius)
SSEA	*The Society for the Study of Egyptian Antiquities*

SSEAP	The Society for the Study of Egyptian Antiquities Publications
StMisc	*Studi Miscellanei*
Stud.Hell.	Studia Hellenistica
Stud.Pal.	Studien zur Palaeographie und Papyruskunde
Suppl.Hell.	*Supplementum Hellenisticum.* H. Lloyd-Jones and P. Parsons (eds). Berlin and New York. 1983
TMP	Theban Mapping Project
TT	Theban Tomb
TUAT	Texte aus der Umwelt des Alten Testaments
UC	University College (London, The Petrie Museum of Egyptian Archaeology)
UGAÄ	Untersuchungen zur Geschichte und Altertumskunde Ägyptens
Urk.	*Urkunden des ägyptischen Altertums.* 2nd edn. Ed. G. Steindorff. Leipzig. 1927–
VA	*Varia Aegyptiaca*
Vit.	*Vita* (Josephus)
VT	*Vetus Testamentum*
WdO	*Welt des Orients*
WSA	Wahrnehmungen und Spuren Altägyptens
WVDOG	*Wissenschaftliche Veröffentlichungen der Deutschen Orientgesellschaft*
ZÄS	*Zeitschrift für ägyptische Sprache und Altertumskunde*
ZAW	*Zeitschrift für die Alttestamenliche Wissenschaft*
ZDMG	*Zeitschrift der Deutschen Morgenländischen Gesellschaft*
ZPE	*Zeitschrift für Papyrologie und Epigraphik*

PART V

Language and Literature

CHAPTER 29

Language, Scripts, and Literacy

James P. Allen

1   Introduction

Ancient Egyptian is the world's oldest and longest continually spoken language. It is attested as the speech of Egypt from its first appearance in writing, around 3200 BC, until its demise sometime in the Middle Ages, when it was replaced by Arabic; its final stage, known as Coptic, survives in the liturgy of the Christian church of the same name. Its original writing system, attested from 3200 BC until the fifth century AD, provided the basis for the Phoenician script from which our own alphabet is derived.

Egyptian belongs to the family of languages known as Hamito-Semitic or Afroasiatic, which comprises an African branch, including tongues such as Beja, Berber, and Hausa; and an Asiatic one, represented by Ethiopic as well as Near Eastern languages such as Akkadian, Arabic, and Hebrew. Its affinities with both branches extend to phonology, morphology, vocabulary, and grammar. Given the African origin of the human species, these suggest that Egyptian represents the stem from which the African and Asiatic branches both derive.

Egyptian itself had several different dialects. These are best attested in its final stage, Coptic, when its writing system is most transparent, but their earlier existence is reflected in the complaint of a New Kingdom scribe that his correspondent's words "are mixed up in hearing":

> There is no interpreter who can explain them.
> They are like the speech of a Delta man with a man from Elephantine. (Anastasi I, 28, 6)

The language also underwent significant changes in the four millennia of its existence, most notably between its first two phases, known as Old and Middle Egyptian, and its last three, Late Egyptian, Demotic, and Coptic.

2   Language: Phonology

Our understanding of Ancient Egyptian is hindered by the system with which it was written for all but the last millennium of its lifespan, which obscures much of the

language's phonology. Nonetheless, we can be reasonably certain of the phonemes of ancient Egyptian (its distinct consonants and vowels), even though their exact pronunciation may remain uncertain. The phonemes have been identified through a combination of evidence from three kinds of sources:

- internal: primarily Coptic but also historical changes and consonantal relationships in earlier stages of the language;
- correspondent: contemporary renditions of Semitic words in Egyptian and Egyptian words in Semitic languages (Akkadian and Hebrew);
- cognate: comparison of Egyptian words with similar ones from related languages.

Of these, internal evidence carries the most weight. Correspondent evidence is not available for the earliest phase of the language (Old Egyptian) and is diluted by phonological differences between languages (compare, for example, the pronunciation of English *th* by most native speakers of German, and of German *ch* by most English speakers). Cognate evidence is the weakest of all, both because of the same phonological factors and because of uncertainty about the degree to which many words are related: it is reasonably clear, for example, that Egyptian *ḥsb* and Arabic *ḥsb* "count" are cognates, because their consonants and meanings are identical, but less so for Egyptian *dšr* and Arabic *ṣḥr* "red."

   The vowels of Egyptian are not indicated systematically before Coptic, but from Coptic and correspondents they can be reconstructed as the three common to most Afroasiatic languages, *a i u*. Cuneiform renditions of Egyptian words in Middle Babylonian texts, on the one hand, and Neo-Assyrian texts, on the other, show that a vowel shift took place sometime between the New Kingdom and the Late Period, producing *a/A* from *a*, *i/ɪ* from *i*, and *ə/e/ɛ* from *u*, and these eventually developed into the seven vowels of Coptic (*a*, *e/ɛ*, *ɪ*, *o/o*, and *ʊ*).[1]

   Although Egyptian writing did not represent the vowels of the language, scribes in the Middle and New Kingdoms developed an orthography to reflect those of foreign names and loan words. The system, called "group writing," uses combinations of one-syllable Egyptian words for this purpose: for example, New Kingdom *s₃-ꜥ-r-tj* for Semitic *śaꜥarata* "wool," combining the Egyptian words for "back" (*s₃ = *saʾ*), "big" (*ꜥ₃ = *ꜥaʾ*), "mouth" (*r = *raʾ*), and "pestle" (*tj = *ta*) (Hoch 1994: 256 and 487–512). In the New Kingdom, group writing was occasionally used for native Egyptian words as well.

   The consonantal inventory of Egyptian comprised at its largest twenty-five phonemes, conventionally rendered as *₃ j* (or *i*) *y ꜥ w b p f m n r h ḥ ḫ ẖ z* (or *s*) *s* (or *ś*) *š q* (or *ḳ*) *k g t ṯ d ḏ*.[2]

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[1] Small capitals indicate tense vowels; others, their lax counterparts. The difference between *i* and *ɪ*, for example, is similar to that of the *i* in English *quit* and *suite*. *ɪ* and *ʊ* are normally written *ei* and *ou*, respectively, in Coptic except in diphthongs.

[2] Since vowels are not written before Coptic, Egyptologists have developed a convention for pronouncing ancient Egyptian words, by inserting an *e* between most consonants.: *smnt* "to fix," for example, is pronounced *semenet*. The consonants *₃* and *ꜥ* are pronounced as *a* (e.g., *m₃ꜥt* "order," pronounced *maꜥat*); *j* and *y*, as *i* or *y* (e.g., *jnr* "stone" as *iner* or *yener* and *šndyt* "kilt" as *shendit* or *shendeyet*); and *w* as *w* or *u* (e.g., *wb₃* "open," pronounced *weba* or *uba*).

The phonological value of most of these is relatively certain. The pronunciation of *y w m h t* was similar to that of the English sounds represented by these letters, and that of *ḥ* and *š* to their Semitic counterparts.[3] The distinction between *b* and *p* was either voiced/voiceless (as in English *bet* versus *pet*) or unaspirated/aspirated – probably the latter: the Bohairic dialect of Coptic aspirates the descendant of *p*, but not that of *b*, in some words. The Coptic descendant of *b* was often, perhaps regularly, a labial fricative (like the *b* in Spanish *cabo* "cape, piece"), and there is some evidence for the same value earlier in Egyptian. The sound represented by *f* was close to that of its English analogue, although in some words it may have been pronounced as an affricate (like the initial consonant in German *Pferd* "horse"). The consonant *n* usually had a value like that of English *n*, and *r* was normally "tapped" with the tip of the tongue (as in Spanish *pero* "but"); in some words, however, both were pronounced as an *l* of some sort, either globally (*ns* "tongue," Coptic *la*s/les) or dialectically (*rn* "name," Coptic *ran/ren/len*). The phoneme *ḫ* represented a voiceless velar fricative (like the consonant represented by *ch* in German *ach* "oh") from at least the Middle Kingdom onward; arguments that it was originally voiced (like Arabic *ghayin*) have not been widely accepted. Egyptian *s* was probably similar to the English sound represented by that letter, but perhaps with an additional phonological feature of some sort, since cuneiform scribes rendering Egyptian words regularly transcribed it with their *š* rather than *s*: e.g., *namša* for Egyptian *nmst* "jar" (Ranke 1910: 13). The distinction between *k* and *g* was probably either voiceless/voiced (as in English *Kate* versus *gate*) or aspirated/unaspirated – again, probably the latter, as the descendant of *k*, but not that of *g*, is aspirated in some words in Bohairic. Most Coptic descendants of *g* are palatalized (*k* pronounced with a *y* offset, as in English *Kew*), suggesting that it may also have been distinguished from *k* by this feature.[4] Depending on the precise nature of the distinction between *k* and *g*, *q* was either a voiceless uvular (like Semitic *qaf/qoph*), the unaspirated counterpart of *k*, or the unpalatalized counterpart of *g*.[5]

The phonological value of a number of the consonantal phonemes is less clear, and in some cases, highly debated. Most words with *j* show no consonantal trace of this phoneme in Coptic; where there is one, it is usually a glottal stop of some sort, but occasionally *y*. The phoneme's original value has been analyzed alternatively as a glottal stop or *y*, but it was most likely an indication of a syllable beginning with a vowel or a word ending in one. The value of *ˤ* was probably the same as Semitic *ayin*, which it uniformly represents in correspondents. In some words, however, it varies

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[3] *y* consonantal (as in English *yet*), *w* probably representing a vowel rather than consonantal *w* in some cases. Semitic *ḥ* is a uvular *h*, and *š* is the sound represented by the first two letters of English *ship*.

[4] Egyptian *g* becomes Coptic *k̲* (representing a palatalized velar stop in most dialects, like the consonant of English *Kew*) in some 83% of words, and *k* in the remainder; the ratio for Egyptian *k* is approximately 31% → Coptic *k̲*, with the rest remaining *k*.

[5] The consonant behaves like *k* in terms of its Coptic descendants, becoming *k* in most words but Coptic *k̲* in some 29% of cases. In the Bohairic dialect of Coptic, the *k* derived from Egyptian *k* is sometimes aspirated but not the *k* derived from *q* or *g*.

with *d* (e.g., *ꜥb/db* "horn"); it clusters with *d* in its consonantal affinities; and it has some Semitic cognates with *d* as well. These features indicate that ꜥ originally represented a *d* of some sort, which became *ayin* in all but a few words or dialects. The point at which the change occurred is uncertain, though it was in place by the Middle Kingdom.

In that light, the value of *d*, and that of its palatalized counterpart *ḏ*, is questionable and has been the subject of the greatest debate in Egyptian phonology. The phonemes *d* and *ḏ* were originally analyzed as the voiced or unaspirated counterparts of *t* and *ṯ*, respectively.[6] Evidence for the second of these values is strongest, primarily from the Bohairic dialect of Coptic, in which the descendant of *t* or *ṯ*, but not *d* or *ḏ*, is sometimes aspirated (e.g., *ḏrt* "hand" → *tōri* versus *ṯrt* "willow" → *tʰōri*). Some cognates and correspondences associate *d* and *ḏ* with Semitic "emphatic" consonants such as *ṭ* and *ṣ*, and it has been argued that the Egyptian consonants were similarly "emphatic." This has not won universal acceptance in the face of the internal evidence that they were merely unaspirated or voiced (see Loprieno 1995: 32–4; Peust 1999: 80–4).

The value of many consonants changed over time. The phoneme *ꜣ* was originally thought to represent a consonant similar to that of Semitic *aleph* (and is still known by that name), but correspondents and some internal evidence show that it was a liquid of some sort (*r* or *l*) in Old and Middle Egyptian: e.g., *jbwꜣm* for Semitic *Abu-ram* (personal name) and *jsqꜣnw* for *Asqalanu* (Ashkelon, place name) (Hoch 1994: 493 and 495). By the New Kingdom, however, *ꜣ* had either lost its consonantal value or had become a glottal stop in most words. The consonants *ḫ* and *š* became separate phonemes during the course of the Old Kingdom. Both originally represented what is most likely a palatalized counterpart of *ḫ*; *ḫ* retained that value in most words until Late Egyptian, by which time it had merged with *ḫ* and a new phoneme (the digraph *ḫj*) was invented for palatalized *ḫ*. The phoneme *z*, originally representing perhaps a voiceless dental or alveolar fricative (like the *th* of English *think*), is regularly distinguished from *s* only until the early Middle Kingdom, after which it merged with the latter consonant. Old Egyptian also preserves evidence of the derivation of *ṯ* from *k*, probably through a process of palatalization (*k* → *kʸ* → *ṯ*), similar to that which has produced English *church* from *kirk*.

Historically, none of the phases of Egyptian seems to have possessed the full range of these twenty-five consonantal phonemes. Old Egyptian and Middle Egyptian each had twenty-four (*z* and *s* distinguished in Old Egyptian but not *ḫ* and *š*, with the reverse true for Middle Egyptian). The pronunciation of *ꜣ* was largely similar to that of *j* by Late Egyptian. Demotic and many Late Egyptian texts do not distinguish between *t* and *d* in writing, but these consonants retained their phonemic status, since only the former is (sometimes) aspirated in Bohairic. Further loss and coalescence is visible in Coptic, where the major dialects have between sixteen and twenty consonantal phonemes.

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[6] The first distinction can be heard for *d/t* in English *den* versus *ten*, and for *ḏ/ṯ* in the British pronunciation of *dune* versus *tune*. The difference between aspirated and unaspirated *t* can be heard in the British and US pronunciations of *matter*.

3   Language: Vocabulary and Morphology

The lexicon of known ancient Egyptian words is fairly meager, with some ten thousand separate words. Many of these have cognates in other Afroasiatic languages: for example, *nfr* "good," related to Beja *nafir*; and *q3b* "middle," cognate with Akkadian, Hebrew, and Ugaritic *qrb*. A few original words with Semitic affinities seem to have been replaced before the Old Kingdom by other, non-cognate words: the Hieroglyphic sign of a hand, for instance, has the consonantal value *d* (cognate with Semitic *yd* "hand," also reflected in Egyptian *djw* "five"), but the Egyptian word for "hand" is *drt*, related to the root *ndr*, meaning "grasp." Similar changes in vocabulary occurred throughout the history of the language, either through alteration of a word's meaning or through adoption of a new word: examples are *ht* "belly, body" → Coptic *he/ḫe/hi/hiē* "manner" and *m33* "look" → Late Egyptian *nw* → Coptic *nau/neu/no*.

   The basic words of Egyptian belong to seven lexical categories: nouns, pronouns, adjectives, verbs, prepositions, adverbs, and particles. The last three are essentially immutable; words from the other categories undergo changes in form (morphology) when used in utterances. Egyptian shares a number of morphological features with both African and Asian languages. Common to all three branches are consonantal root structures; two genders, masculine and feminine, with the latter marked by a final *t*; plurals formed by the desinence -*w* (preceding the final *t* of feminine nouns); independent and suffix forms of personal pronouns; nouns of place or agency formed by the prefix *m–* (e.g., *msdr* "ear" from *sdr* "lie down"); and causative stems of verbs formed by a root prefix (*s–* in Egyptian: e.g., *shtp* "content" from *htp* "become content"). Non-African features of the language include a predominance of triliteral roots, duals formed by the endings -*wj* and -*tj*, the vocalization pattern of many nouns, and some vocabulary, all of which Egyptian shares in some manner with its Asiatic relatives. Unlike the latter, and in common with its African relatives, Egyptian also has roots of two or four to six radicals (some formed by reduplication: e.g., *sn* "kiss" and *snsn* "fraternize"), passives with a geminated final radical, little evidence of lexical verb-stems other than basic and causative, and some vocabulary.

   The morphology of Old and Middle Egyptian is primarily synthetic: change in meaning is signaled by change in the form of a word. Because of the opacity of the writing system, not all such alterations are always visible. Some verb classes, for example, distinguish two participial forms, perfective and imperfective, by gemination (repetition) of the second-last radical in the latter: for example, perfective *mrt* "she who wanted" versus imperfective *mrrt* "she who wants," from *mrj* "want." Other classes show only a single written form: perfective and imperfective *sdmt* "she who heard/hears," from *sdm* "hear." Such differences are commonly understood to reflect orthographic conventions, at least in part, rather than a lack of particular forms in particular classes. In later stages of the language, words became increasingly immutable and changes in meaning were signaled analytically, by compound constructions: for example, the synthetic plural *drwt* "hands" was replaced by a compound with the singular noun *drt* (Coptic *tōre*) plus the definite or indefinite article: *n3 drt* "the hands" and *nhy n drt* "hands" (Coptic *ntōre/hentōre*).

These characteristics make the grammar of Old and Middle Egyptian less readily perceptible, and therefore the subject of greater debate, than that of the language's final three phases.

4   Language: Egyptian I

The earliest known Egyptian sentence is apparently that from a cylinder seal of Peribsen, near the end of Dynasty II (c.2690 BC): *nbwj d(m)ḏ.n.f tꜣwj n zꜣ.f nswt-bjt pr-jb.snj* "the golden one has united the Two Lands for his son, the Dual King Peribsen" (Kahl 2002–4: 229). The language of the six centuries between the first appearance of Egyptian writing and this text is represented almost exclusively by proper names, titles, and labels, some of the last denoting events such as *zp tpj pḥrr ḥjpw* "first occasion of the Apis running" (Kahl 2002–4: 291). Insofar as can be determined, these sources exhibit essentially the same vocabulary and grammatical forms found in Old Egyptian, the name given to the first well-documented phase of the language. Archaic Egyptian may have possessed a case system similar to that of some Afroasiatic languages, but this seems to have left almost no residue in the historical language (Loprieno 1995: 54).

Old Egyptian can be divided into three stages on the basis of minor differences in morphology and grammar: early (represented by secular inscriptions prior to the middle of Dynasty V and the *Pyramid Texts* of Dynasties V–VI), middle (preserved in secular texts of late Dynasty V and Dynast VI), and late (in texts of late Dynasty VI–XI). Late Old Egyptian exhibits some features of the next phase of the language, Middle Egyptian, in use from the First Intermediate Period until the demise of Hieroglyphic writing. This too can be divided into several stages: classical (primarily represented by texts of the Middle Kingdom), late (in texts of the Second Intermediate Period and New Kingdom), and traditional; the last is an artifice used in monumental and religious texts after the New Kingdom, when Middle Egyptian was no longer spoken. Like the last stage of Old Egyptian, late Middle Egyptian exhibits some features of the subsequent historical phase, Late Egyptian. In many respects, Old and Middle Egyptian represent essentially a single historical stratum, which can be termed Egyptian I. The two phases reflect not only chronological changes but probably also differences between a northern and southern dialect, respectively (Edgerton 1951; Allen 2004).

Egyptian I is characterized in its morphology by a high proportion of synthetic forms, in its verbal system by forms representing primarily aspect rather than tense, and in its syntax by a VSO (verb–subject–object) word order and reliance on parataxis (context) rather than hypotaxis (dedicated morphemes or forms) to signal subordination. Nouns, adjectives, and attributive forms of the verb have six forms in Old Egyptian, denoting gender (masculine or feminine) and number (singular, plural, or dual). All but the masculine singular were marked morphologically by endings: feminine singular *-t*, masculine plural *-w*, feminine plural *-wt*, masculine dual *-wj*, feminine dual *-tj*. These were retained in Middle Egyptian for nouns (with the dual increasingly restricted to natural pairs, such as *jrtj* "eyes") but reduced to three

or four for adjectives and other attributives (masculine singular, masculine plural, feminine singular, and perhaps also feminine plural). Nouns were also distinguished by definition syntactically but not formally (e.g., *zj* "man, a man, the man"); the language had no defined or undefined articles.

Personal pronouns have four separate paradigms: independent, dependent or enclitic, suffix, and stative. Each of these had perhaps fifteen forms in Old Egyptian (1 singular/plural/dual; 2 masculine singular/plural/dual, 2 feminine singular/plural/dual; 3 masculine singular/plural/dual, 3 feminine singular/plural/dual), although not all are attested or visible (gender, for example, was distinguished in the second person plural by vocalization, if at all). These too are reduced in Middle Egyptian, by general loss of the dual and neutralization of gender in the plural.

The verbal system of Egyptian I had some twenty-five separate forms. These can be grouped into five formal categories: infinitival, attributive, imperative, stative, and the suffix conjugation. Infinitival forms include the infinitive, negatival complement, complementary infinitive, and a number of verbal nouns. The eight attributive forms are of two kinds, participles and relatives, the former with an implicit subject and the latter used in attributive clauses whose subject was not identical with the antecedent (e.g., *zꜣt mrrt sw* "the daughter who loves him" and *zꜣt mrrt.f* "the daughter whom he loves"). Participles and relatives both have two forms, perfective and imperfective, the former unmarked and the latter denoting repetitive or multiple actions; participles are also active or passive (*mrrj* "he who loves," *mrrw* "he who is loved"). There is also a distinct prospective participle (*mrtj.fj* "he who will love") and a relative form expressing past or perfect tense (*mrt.n.f* "that which he wanted, that which he has desired").

The imperative may originally have had four forms, singular and non-singular, masculine and feminine, the last distinguished by vocalization. Gender distinction was perhaps eventually lost except for a few irregular forms (preserved in Coptic). In Middle Egyptian, the non-singular imperative is often distinguished from the singular in writing, if at all, only by the sign for "plural" (three strokes), and may also have disappeared over time. The infinitive was ultimately used to express the imperative of all but a few verbs, a change whose beginnings are visible in late Middle Egyptian.

The stative is a single form, distinguished by obligatory pronominal suffixes, which are used even when the form has a nominal subject. It is cognate with the stative of Akkadian, the perfect of Arabic, and analogous forms in other Afroasiatic languages. In Egyptian it denotes essentially a state, often, but not necessarily, implying a prior action that produced the state: e.g., 3 feminine singular *šm.tj* "she is gone." As such, it is regularly used to express the past or perfect of intransitive verbs and the passive of transitive verbs with pronominal subject: 3 feminine singular *šm.tj* "she has gone," 1 singular *rdj.kw* "I was put." In Old Egyptian, the latter combination is also used for the past tense: *qrs.k zj pn m jz.f* (*Urk.* I, 140, 8) "I buried that man in his tomb," perhaps connoting something like "I got that man buried in his tomb." (For that reason, the stative is also known as the "Old Perfective.") As these uses indicate, the stative is neither inherently active or passive. It is also essentially neutral with regard to mood, and can be used for a command or wish as well as a statement of fact: 2 singular *šm.tj* "begone!," 3 feminine singular *ꜥnḫ.tj* "may she be alive."

The suffix conjugation is so called because each of its eleven forms expresses a pronominal subject by means of a suffix pronoun (different from that of the stative). Six forms, known collectively as the *sḏm.f* (from the paradigm verb *sḏm* "hear"), are distinguished primarily by their meaning and uses; their written forms are often identical in many root classes (including *sḏm*). The perfective *sḏm.f* corresponds to the perfective attributive forms and expresses essentially a single action. In Old Egyptian it is used for the past tense of transitive verbs, and the perfect of intransitive verbs, with a nominal subject; these uses survive sporadically in Middle Egyptian, but the form in that phase of the language is primarily attested in the past/perfect negation *nj sḏm.f* "he did not hear, he has not heard." The imperfective *sḏm.f* corresponds to the imperfective attributive forms and has much the same meaning as they. It is used largely for gnomic statements such as *mr sw njwt.f* (*Sinuhe* B 66) "his town loves him" and in dependent clauses denoting concomitant action. The subjunctive *sḏm.f* expresses the action of the verb as contingent, possible, or desirable. It is used in wishes and injunctions (*sḏm.f* "may he hear, he should hear") but can also express the future, particularly in the Middle Egyptian negation *nn sḏm.f* "he will not hear"; in dependent clauses it is used as the object of verbs such as *mrj* "want" and *wḏ* "command" as well as to express purpose (*sḏm.f* "so that he might hear"). The prospective *sḏm.f* has two forms, active and passive, both denoting action subsequent to the moment of speaking (future) or a governing verb. It is primarily a feature of Old Egyptian and is largely replaced by the subjunctive in Middle Egyptian. The passive *sḏm.f* is used mostly with nominal subjects and denotes completed action. It has past or perfect reference in affirmative statements (*sḏm zj* "the man was heard/has been heard") but present or gnomic meaning when negated (*nj sḏm.f* "he is not heard, he cannot be heard"); in dependent clauses it expresses prior circumstance (*sḏm.f* "he having been heard").

Four of the five remaining forms of the suffix conjugation are distinguished by a suffix attached to the verb before any pronominal suffix. The most important of these is the *sḏm.n.f* or perfect, counterpart of the perfect relative form. Like the passive *sḏm.f* (which serves as its passive counterpart), it denotes completed action: *sḏm.n.f* "he heard, he has heard," *nj sḏm.n.f* "he does not hear, he cannot hear." The *sḏm.jn.f* denotes consequent action, often though not exclusively in the past ("then he heard"); the *sḏm.kȝ.f* serves as its future counterpart ("then he will hear"). The *sḏm.ḥr.f* can also express consequent action with gnomic or present reference ("then he hears") but most often denotes necessity ("he has to hear"). The final form, distinguished by its obligatory ending *-t* (*sḏmt.f*), generally serves as alternant of the *sḏm.n.f* in a few limited constructions and is neutral with respect to voice (*nj sḏmt.f* "he not having heard, before he heard," *r sḏmt.f* "until he has heard"); it is perhaps best analyzed as an infinitival form rather than a member of the suffix conjugation. All of these forms, and the non-passive forms of the *sḏm.f*, can be made passive by the suffix *tj/tw* (Old Egyptian/Middle Egyptian) attached before a pronominal suffix: e.g., *sḏm.tj.f* "may he be heard," *sḏm.kȝ.tw.f* "then he will be heard."

One major distinction between Old and Middle Egyptian is the loss of a formal distinction between past and perfect statements in the latter. In Old Egyptian, the transitive *sḏm.n.f* and the perfective *sḏm.f* of intransitive verbs are primarily perfect,

the perfective *sḏm.f* of transitive verbs regularly past, and the stative capable of expressing both tenses. Middle Egyptian uses the transitive *sḏm.n.f* as well as the intransitive stative for both tenses, and the perfective *sḏm.f* of all verbs for both tenses in the negation *nj sḏm.f*.

Tense itself, however, is probably not a primary feature of any verb forms of Egyptian I, despite the regular temporal associations some of them have. The *sḏm.n.f* and passive *sḏm.f* are clearly non-temporal, since they can have present or gnomic as well as past or perfect reference. The prospective forms normally have future reference but probably express action subsequent to the moment of speaking or some other point of reference rather than future tense per se, since they can be used in non-future contexts (for example, expressing a past action as object of a verb that itself has past reference). The perfective *sḏm.f* seems to refer only to past actions, but its attributive counterparts can have gnomic or future reference as well, and the imperfective forms can be used in all temporal contexts as well as for gnomic statements. Rather than tense, the verb forms of Egyptian I express state versus action (the stative versus all other forms), subjunctive versus indicative mood (the subjunctive *sḏm.f* versus all other forms), voice (active or passive), and aspect (perfective, imperfective, prospective, completion, and consequence).

The absence of tense as a primary feature is also visible in non-verbal sentences, which are a feature of Egyptian as well as other Afroasiatic languages. These have a noun, adjective, adverb, or prepositional phrase as predicate and no inherent tense (or mood). The middle stage of Old Egyptian introduced a compound verbal construction based on the last of these, with a preposition governing the infinitive as predicate. Its two main patterns are SUBJECT–*ḥr-sḏm* (literally, "SUBJECT upon hearing"), often called the First Present, and SUBJECT–*r-sḏm* (literally, "SUBJECT to hear," usually preceded by the particle *jw*), known as the Third Future. The first situates the subject within an action and expresses primarily action ongoing at the moment of speaking or at the time of some other action (corresponding to the progressive constructions of English, such as "he is hearing"). The second positions the subject anterior to an action and has same connotations of future or necessary action as English "he is to hear."

Despite their names (adopted from those of their Coptic descendants), neither compound construction is inherently temporal, and examples are attested with past, present, future, or gnomic reference. Early Old Egyptian possessed a verbal counterpart to the First Present, the SUBJECT–*sḏm.f* construction, with the imperfective *sḏm.f*. This had originally the same progresssive meaning as the First Present, but in Middle Egyptian it gradually became restricted to gnomic statements (replacing the simple imperfective *sḏm.f* in that function). The Third Future seems to have had roughly the same sense – though not the same syntactic uses – as the prospective *sḏm.f*, and by Middle Egyptian it had largely replaced the latter as the normal means of expressing an objective future, with the subjunctive *sḏm.f* used as its subjective counterpart (compare English "I shall go" versus "I will go").

The SUBJECT–*sḏm.f* construction, First Present, and Third Future added to the verbal system a means of expressing the aspect of ongoing action. They also added the language's first analytic constructions and introduced the VSO word order. Both of these features became dominant in the succeeding phases of the language.

5   Language: Egyptian II

The final three phases of Egyptian – Late Egyptian, Demotic, and Coptic – are essentially historical evolutions of a single coherent stratum, which can be termed Egyptian II. Differences between these phases are less significant than those between the three as a whole and their predecessor, Egyptian I. In contrast to Old and Middle Egyptian, Egyptian II is characterized by analytic constructions, VSO word order, a verbal system that expresses tense rather than aspect, and primarily hypotactic means of signaling subordination.

Nouns retained the grammatical features of gender and number, but these were marked analytically rather than by changes in the form of a word. Most nouns still had distinct masculine, feminine, and plural forms, but these were increasingly lexicalized in the course of Egyptian II. Late Egyptian often uses a single written form of the noun, despite differences in vocalization, and by Coptic the old synthetic forms could no longer be produced by regular syntactic rules but were instead separate lexical items: for example, the alternation in Egyptian I between feminine singular *ḥjmt* "woman" and its plural *ḥjmwt* "women" is derived from a regular rule for forming the plural of feminine nouns (infixing *w* before the feminine ending), but that between their Coptic descendants – *hime* and *hiome*, respectively – is a matter of separate lexical entries, because Coptic has no regular rule for producing the plural of feminine nouns by infixing *o*. (In the same way, the distinction between masculine and feminine singular was presumably once a syntactic process – adding *t* to the masculine: for example, *sn* "brother" and *snt* "sister" – but had undoubtedly become lexicalized for nouns before Old Egyptian.)

Gender and number, as well as definition, were signaled by articles. Undefined nouns were marked by initial *wʿ (n)* (singular; originally "one of," Coptic *ou*) and *nhy n* (plural; originally "some of," Coptic *hen*): e.g., *wʿ šrj* "a son" (Coptic *oušēre*), *nhy n šrj* "sons" (Coptic *henšēre* or *henšrēu*, the latter with the descendant of the original syntactic plural). Defined nouns were prefixed with *pꜣ*, *tꜣ*, or *nꜣ (n)* (masculine, feminine, and plural, respectively), as in *pꜣ šrj* "the son," *tꜣ šrj* "the daughter," *nꜣ šrj* "the sons/daughters," which became Coptic *pšēre*, *tšeere* (with the descendant of the original feminine *šrjt*), and *nšēre* or *nešrēu*. In essence, these constructions move the expression of gender, number, and definition to the article, with the noun expressing only the lexical component. The older means of expressing possession by means of a pronominal suffix was replaced by a similar analytic construction based on the definite article: thus, Egyptian I *snt.f* "his sister" became Late Egyptian *tꜣy.f sn(t)* and Coptic *tefsōne*. By Late Egyptian, the dual was no longer productive and survived only in a few lexicalized nouns, treated as syntactically singular even though the noun is written as a dual: for example, *pꜣy.j rdwj* (Abbott Papyrus 6, 18–19) "my feet."

For adjectives and other attributives, gender and number concord was probably lost by Late Egyptian as well; most have only a single written form. Adjectives as a whole gradually disappeared over the lifetime of Egyptian II; beginning in Demotic, the language replaced most older NOUN–ADJECTIVE phrases by a genitival construction that treats the original attributive as a noun: thus, *rmṯ sbꜣw* "educated man" becomes

Coptic *rōme nsabe* or *sabe nrōme*. The independent and suffix pronouns survived largely intact, but the dependent forms were lost by the end of Late Egyptian. The stative pronouns were reduced from five at the beginning of Egyptian II (1singular, 2 singular, 3 masculine/feminine singular, 1 plural) to three in Demotic (1 singular, 3 masculine/feminine singular); only the last two survive in Coptic, in lexicalized forms (e.g., 3 masculine singular *ḥqr.w* and 3 femine singular *ḥqr.tj* "hungry," Coptic *hokr* and *hkoeit*). The language created a new set of subject pronouns for the First Present; these first appear in late Middle Egyptian.

The verbal system of Late Egyptian preserves only seven or eight of the older synthetic forms: the infinitive, attributive (used as both participle and relative, with past or perfect and present or gnomic meaning), imperative, stative, *sḏmt.f*, and one or two forms of the *sḏm.f*. The attributive and imperative are regularly prefixed (*j.sḏm*); the same feature appears in Old Egyptian, though less often or regularly, and indicates that the two phases represent a single dialect, or similar ones. The attributive and *sḏmt.f* alternate between synthetic forms and analytic ones using the attributive or *sḏmt.f* of the verb *jrj* "do" plus the infinitive – *j.sḏm* and *sḏmt.f* versus *j.jr sḏm* and *jrt.f sḏm* – with little or no distinction in meaning. The *sḏm.f* is used both to express past or perfect action and like the older subjunctive. These are undoubtedly survivals of the perfective and subjunctive *sḏm.f* of Egyptian I, but it is unclear whether one or two forms are involved, as no discernible written differences accompany the two uses. The passive is regularly expressed by means of the suffix *tw* added to active forms and constructions (*ḏd.tw n.f* "he was told," *jw.tw gmt.j* "I am found"), but Late Egyptian also has sporadic instances of a passive *sḏm.f* and a passive participle, both with past or perfect meaning and probably survivals of the older passive *sḏm.f* and perfective passive participle, respectively. The older imperfective forms have completely disappeared.

The First Present and Third Future are used as tenses – present or gnomic and future, respectively – but both remain atemporal constructions, as they can be used in various temporal contexts. Their prepositions are often omitted in writing, indicating that both have become more grammaticalized than in Middle Egyptian: *tw.j sḏm* "I hear," *jw.j sḏm* "I will hear." The language retained the Middle Egyptian distinction between transitive and intransitive verbs in past or perfect statements, with the *sḏm.f* used for the former and the First Present with the stative as predicate for the latter (*tw.j ḥn.k* "I went, I have gone").

Parataxis is limited to use of the stative to express concomitant state and of the (subjunctive) *sḏm.f* in clauses of purpose or as object of verbs: *jw.tn gmt.f wḏꜣ* (Abbott 6, 2) "and you found it intact," *jmj jn.tw N pꜣy.s bꜣkj jry.f sꜥḥꜥ.s* (BM 10052, 10, 16) "have N, her servant, fetched so that he might make her accusation." Subordination is otherwise signaled either by means of distinct morphemes, known as "converters," or dedicated verbal constructions. Among the former are *jw*, used to mark adverbial or continuative clauses; *r ḏd* "that" (literally, "to say"), introducing noun clauses; and *ntj*, used to convert independent constructions into attributive clauses. Late Egyptian has one major verbal construction used to signal subordination, the Conjunctive. This has the analytic form *mtw*–SUBJECT–(*ḥr*)-*sḏm* and indicates action coordinate with that of another clause: e.g., *jr jw ky jy mtw.f sꜥḥꜥ.k* (BM 10052, 8, 21–2) "if another comes and accuses you." The preference for hypotactic

subordination also characterizes Demotic and Coptic: Demotic retains only the paratactic use of the subjunctive, and Coptic has virtually no paratactic subordination.

The Late Egyptian synthetic and analytic forms appear in Demotic, but with some differences. The attributive has the form *jr-sḏm* or *j.jr-sḏm* in participial use and *r.sḏm.f* as a relative, and past meaning only. Passive forms have disappeared, and the passive of verbs is regularly expressed by the third-person plural suffix (e.g., *jw.w sḏm.f* "he will be heard," literally, "they will hear him"). In addition to its subjunctive use, the *sḏm.f* regular expresses only the past tense in Demotic, for all verbs except *jw* "come," which retains the SUBJECT–stative construction. For the first time since Old Egyptian, the language uses a separate construction to express the perfect, analytic *wꜣḥ*–SUBJECT–*sḏm* (sometimes called the Third Perfect): *wꜣḥ.f sḏm* "he has heard." In the second half of its existence (the Roman Period and later), Demotic also created a new form for gnomic statements, *ḥr sḏm.f* and *ḥr jr.f sḏm*, "he hears." Both tenses already had specific negative forms in Late Egyptian, *bw sḏmt.f* and *bw jrt.f sḏm* "he has not heard" (versus *bwpw.f sḏm* "he did not hear, he has not heard") and *bw sḏm.f* "he does not hear" (versus *bn sw sḏm* "he is not hearing"), both of which are retained as such in Demotic. The Third Future was the regular means of expressing future action in Demotic but was eventually superseded by the First Future, which originally denoted an immediate or anticipatory future. It appeared first in Late Egyptian (rarely) in the form SUBJECT–(*m*)-*nꜥy r sḏm*, literally, "SUBJECT is going to hear," and became common in Demotic in the Roman Period (in the form SUBJECT–*nꜣ sḏm*).

Over the millennium of its existence, Demotic gradually replaced its synthetic forms by analytic constructions using the verb *jrj* "do" plus the infinitive, some of which had already appeared in Late Egyptian: past *sḏm.f* → *jr.f sḏm*, subjunctive *sḏm.f* → *mj sḏm.f* → *mj jr.f sḏm*, aorist *ḥr sḏm.f* → *ḥr jr.f sḏm*, the perfect negation *bw sḏmt.f* of Late Egyptian → *bw jrt.f sḏm*, and the participle *j.sḏm* of Late Egyptian → *jr-sḏm* and *j.jr-sḏm*. This trend culminated in the final stage of Egyptian II, Coptic, where nearly all verb forms are analytic.

Coptic is the first phase of the language in which dialectical differences are clearly and regularly discernible. Six major dialects are known, named after the sites or regions in which they were spoken: Akhmimic, Bohairic, Fayumic, Lycopolitan (originally called Subakhmimic), Oxyrhynchite (also called Mesokemic), and Saidic. These are distinguished primarily by their phonology but also by differences in morphology, syntax, and vocabulary. Bohairic differs from the other dialects in distinguishing between aspirated and unaspirated forms of the consonants *p*, *k*, *t*, and *ṯ*; and Fayumic is characterized by the regular use of *l* in place of *r*. Saidic and Bohairic ultimately became predominant, Saidic as the standard literary dialect from the second to seventh century AD, and Bohairic as its successor, surviving in the rituals of the Coptic church.

In its verbal system, Coptic lost the *sḏm.f*, whose function as a past tense was replaced by the First Perfect *afsōtm*, descendant of Demotic *jr.f sḏm*.[7] This expresses both the past and perfect. The Third Perfect (*hafsōtm*) survived into early Coptic but later coalesced with the First Perfect in most dialects (it is used instead of *afsōtm* in

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[7] *sōtm* is the Coptic descendant of the infinitive *sḏm*. Coptic forms are cited here primarily from the Saidic dialect.

Oxyrhynchite). The subjunctive *sḏm.f* was replaced by the Third Future (*efesōtm*), which has primarily the subjunctive values of a jussive or optative ("he shall hear, may he hear"), and the First Future (*fnasōtm*) became the regular means of expressing the indicative future. The First Present survives with the present and gnomic meanings of its ancestor (*fsōtm* "he is hearing, he hears"), as well as the Demotic aorist construction in the form known as the First Aorist (*šafsōtm*).

The older attributives have left few traces in Coptic, which uses in their place new forms created analytically, by a descendant of the relative converter *ntj* plus the primary form (e.g., *ntafsōtm* "who heard" *ntafsotms* "which he heard"). The imperative has also disappeared (with the exception of a few irregular survivals), replaced by the infinitive. The stative has become lexicalized, usually as the descendant of the older 3ms form, and is used as an alternant of the infinitive to express state in the First Present: *fhokr* "he is hungry" vs. *fhko* "he hungers."

Subordination is marked by hypotaxis in Coptic. In some cases, this is achieved by means of a convertor attached to the verb, such as attributive *nt* (from *ntj*) or adverbial *e* (from *jw*: *eafsōtm*, "he having heard"). In other cases, Coptic has created dedicated verb forms analytically, from older markers of subordination plus a verb form: for example, Late Egyptian *m ḏr sḏm.f* "when he heard" → *nterefsōtm*.

6 Language: Second Tenses

Coptic has a number of forms for its primary tenses. In addition to the First and Third forms noted above, it also has a Second Present (*efsōtm*), Second Aorist (*ešafsōtm*), Second Future (*efnasōtm*), and Second Perfect (*ntafsōtm*), known collectively as the Second Tenses. The significance of these forms was first discovered by H.J. Polotsky (Polotsky 1944), who noted that they occur in utterances in which the interest is not on the verb form itself but on some other element of the sentence, usually an adverb, prepositional phrase, or subordinate clause: for example,

> *ephoson atetnaas noua nneisnēu etsobk ntatetnaas nai.* (Matt. 25:40)
> As long as you did it for one of my little brothers, you did it for me.

which contrasts the First Perfect *atetnaas* and the Second Perfect *ntatetnaas*. Both have the same basic meaning, "you did it," but in the second clause the verb, which repeats the statement of the verb in the first clause, is of less significance than the prepositional phrase *nai* "for me." These forms, and the sentences in which they appear, are commonly called "emphatic," and are often translated with the English construction known as a cleft sentence: "it is for me that you did it." In each case, the Second Tense either supplies information that is already known (as in this example), or information that is of less importance than some other element of the utterance. Second Tenses are particularly common in questions with an interrogative adverb, which is always the focus of interest rather than the verb: e.g., *erenainašōpe tnau* (Mark 13:4) "When will this happen?" (Second Future), in which *nainašōpe* "this will happen" is understood as given.

Polotsky also identified antecedents to the Second Tenses in older phases of the language. In Late Egyptian and Demotic, the primary marker of such verb forms is the morpheme *j.jr*, normally used with the First Present (*j.jr.f sḏm*) but also with non-verbal predicates: *j.jr nȝ ṯb r pȝj ḥḏ ʿȝ* (BM 10052, 5, 22) "It is to that main hoard that the vases (belong)." This Second Tense is essentially unmarked for tense or mood and can be used with past, present, aorist, or future reference, or with subjunctive sense. Egyptian I has one clearly identifiable Second Tense, similarly unmarked. This is characterized by gemination in some verbs, though in others it is formally indistinguishable from non-emphatic forms: for example,

> *ntk ḥmw n tȝ r ḏr.f*
> *sqdd tȝ ḫft wḏ.k. (Eloquent Peasant B1, 298–9)*
> You are the rudder of the entire land:
> it is in accordance with your command that the land sails.

Other Second Tenses have been identified on the basis of comparison with this one and by their occurrence in questions and other emphatic environments. Primary among these is the *sḏm.n.f* of intransitive verbs: this seems to be used as a Second Tense of the SUBJECT–STATIVE construction, which regularly expresses the non-emphatic past or perfect for such verbs. The identification is complicated, however, by clear instances in which the intransitive *sḏm.n.f* has non-emphatic meaning and, vice versa, by others in which non-emphatic constructions such as SUBJECT–STATIVE have emphatic sense: *jw ḫpr.n ḥʿp šr m rnpt-ḥsb 25* (UC 14333, 8) "A small inundation happened in Regnal Year 25"; *jmj sspd.tw tȝ šzpt ntt m pȝ šj m.k wj j.kw r ḥmst jm.s* (Westcar Papyrus 3, 6–8) "Have the pavilion that is in the garden prepared: look, I have come to sit in it." In that light, it is uncertain whether a particular instance of forms such as the intransitive *sḏm.n.f* is in fact a Second Tense or merely a non-emphatic form used with virtual emphatic sense.

In all phases of the language, the Second Tenses are generally identical with a relative form, though most clearly so in Old and Middle Egyptian (with the imperfective relative), Late Egyptian, and Coptic (the Second Perfect/Aorist and relative Perfect/Aorist in Bohairic, Lycopolitan, and Saidic). The Second Tense differs from the relative in having no gender and number endings in Egyptian I. This is because, unlike the relative, it has no antecedent with which it must agree. Instead, it is what Polotsky called an "abstract relative" (Polotsky 1944: 69–73 and 1976: 7).

The existence and purpose of the Second Tenses is universally accepted, but their exact syntax is currently a matter of debate. The identifiable form of Egyptian I is used not only in emphatic sentences but, unlike its counterparts in Egyptian II, also as predicate in some noun clauses: for example, as object of a verb in *jw jt.t šw rḫ mrr.t TTJ* (*Pyramid Texts* 5c) "Your father Shu knows that you love Teti." Coupled with the fact that the focalized element in the emphatic sentence is usually an adverbial of some sort, this led Polotsky to the conclusion that the emphatic sentence consists of a nominal subject (the Second Tense) and adverbial predicate: e.g., *sqdd tȝ ḫft wḏ.k* "that-the-land-sails (is) in accordance with your command." In similar fashion, the imperfective *sḏm.f* was analyzed as an adverbial form, both because of its occasional

appearance as the focalized element in an emphatic sentence and because its use in the SUBJECT-*sḏm.f* construction could be compared with the non-verbal sentence with a nominal subject preceding an adverbial predicate (Polotsky 1965).

This analysis has become known as the "Standard Theory" of Egyptian grammar. Over the past two decades, it has been challenged by some scholars, in part because of its mechanical view of syntax (see Allen 2000: 404–8). They argue that its analysis confuses function with form, that the use of a particular verb form does not necessarily involve the transformation of that form into another part of speech. Thus, the imperfective *sḏm.f* can be used adverbially without being formally adverbial, just as a noun, for example, can be used as an adverb – in Egyptian as well as in English, as in *nj ꜥḥȝ.n.k ḥr.s grḥ hrw* (CG 25375, 3) "you don't fight for her night and day." Although the Second Tense can be analyzed as a nominal form, at least in Egyptian I, this does not negate its syntactic function as predicate in the emphatic sentence: instead, the purpose of the construction is to signal that the normal function of the verbal predicate, to supply new information in the sentence, does not apply. Thus, the verb phrase in the sentence *sqdd tȝ ḫft wḏ.k* contains the syntactic subject (*tȝ* "the land") and predicate (*sqdd* "sails"), but the form of the verb indicates that the sentence is not about the land sailing but about how it sails: *ḫft wḏ.k* "in accordance with your command." A sentence such as *m.k wj j.kw r ḥmst jm.s*, with a non-emphatic form of the verb, shows that Egyptian could rely on context or vocal emphasis alone to achieve the same end, as in English: "look, I have come *to sit in it*," where the purpose is less to convey the information that the speaker has come than the reason she has come.

The debate between proponents of the Standard Theory and those of the post-Polotskyan analysis (which has been termed the "Not-So-Standard Theory") is ongoing and unlikely to be resolved in the near future. It illustrates both how far our understanding of Egyptian grammar has come since the decipherment of hieroglyphs in 1822, and the uncertainty that still attends much of that understanding.

7   Writing

The basis of all Egyptian writing before Coptic is the Hieroglyphic script. In the form found carved or painted on most monuments, this comprises a series of pictures representing items both from the world inhabited by the Egyptians – people, animals, plants, and human artifacts – and from the Egyptian imagination (gods, numbers, and other intellectual constructs). It undoubtedly originated as picture writing, in which an image represented an object of some sort, such as the picture of a hand, meant to record something about a "hand." This stage in the development of writing is not preserved except in prehistoric rock drawings of flora and fauna. The earliest examples of the Hieroglyphic script, labels from Tomb U-j at Abydos (c.3200 BC), already show its three essential components: ideograms, phonograms, and determinatives.

Ideograms are pictures meant to represent objects or actions, such as "hand" or "motion" (walking legs). In most texts they are accompanied by a stroke, indicating that the sign represents what it depicts. Phonograms are signs that represent sounds

Hieroglyph	Represents	Value	Hieroglyph	Represents	Value
	vulture	ꜣ		?	ḫ
	reed-leaf	j		animal's belly	ẖ
	two reed-leaves	y		door-bolt	z
	arm and hand	ꜥ		fold of cloth	s
	quail-chick	w		basin	š
	leg and foot	b		hill	q
	stool	p		basket	k
	horned viper	f		jar-stand	g
	owl	m		bread-loaf	t
	water	n		hobble	ṯ
	mouth	r		hand	d
	building plan	h		cobra	ḏ
	coil of rope	ḥ			

Figure 29.1   Uniliteral Hieroglyphic signs.

rather than the things they are images of: the hand, for example, representing the consonant *d*. This feature, the single most important development in the history of writing, makes it possible to record words that are difficult or impossible to convey by means of a picture, such as *dbḥ* "want, need, require," which is written with three hieroglyphs representing its three consonants: a hand (*d*), a human leg and foot (*b*), and a twist of rope (*ḥ*). In each case, the hieroglyph represents a sound rather than the object it depicts, which is unrelated to the word's meaning. Egyptian phonograms stand for one, two, or three consonants. In the last two cases, uniliteral signs are often added as complements: *dbḥ*, for instance, regularly has the hieroglyph of an animal's horn (*db*) between its first two signs. Determinatives are pictures added to most words spelled with phonograms. In some cases, they merely express a class to which the word belongs; *dbḥ* is usually followed by the sign of a man with hand to mouth, representing the class of words that have to do with the use of the mouth or the mind, such as *wnm* "eat," *mdwj* "speak," or *sḫꜣ* "remember." In others, they serve to distinguish between consonantally homophonous words, such as *db* "horn" (with the determinative of a horn) and *db* "hippopotamus" (determined by a picture of that animal or an animal's skin, representing the class of mammalia).

  Most Egyptian Hieroglyphic texts are written with an inventory of some five hundred signs. Among these are uniliteral phonograms for each of the language's consonants (figure 29.1). In theory, therefore, Egyptian could have been written alphabetically, with only these signs. A few words are, in fact, consistently spelled with them alone, particularly prepositions but also some fairly common verbs such as *ḏd* "say." Such an orthography was evidently felt to be imprecise, however, and the three-element system was retained throughout the script's lifetime. Old Egyptian texts are fairly sparse in their use of determinatives, later ones more lavish. Once invented, the system was not fixed; it was constantly tweaked by the addition of new signs (some representing contemporary versions of older signs) and by the adaptation of signs to new uses. Scribes of the Ptolemaic Period and later added hundreds of new

signs and gave new values to many others, making their texts among the most difficult to read: one inscription consists almost entirely of images of crocodiles.

Hieroglyphs were used primarily for monumental inscriptions (the name comes from the Greek for "sacred carvings," reflecting both this use and the Egyptian term for the script, "god's speech"). The signs were arranged in groups rather than sequentially, and without punctuation. Texts could be written horizontally or vertically, and from right to left or left to right; signs normally face the beginning of the text. The pictorial origin of the script was never completely forgotten. Scenes in temples and tombs are regularly complemented by inscriptions. The hieroglyphs "spell out" the scene depicted, and the figures in the scene serve as large-scale determinatives of the hieroglyphs. In the same manner, a statue is usually inscribed with its subject's name, often without the seated man or woman that determine personal names in texts: in this case, the statue itself served as determinative. The Egyptians did not distinguish between writing and drawing: the same word is used for both skills, and the scribes who drew the hieroglyphs and scenes for sculptors to carve were known as "character scribes."

For more mundane purposes, scribes made use of papyrus, leather, boards with a surface of gesso, or ostraca (potsherds or flakes of limestone) as writing surfaces. Papyrus was made from strips of the papyrus plant's stem, laid perpendicularly (horizontally on the front, or recto, and vertically on the back, or verso) and pressed into sheets, a process that could result in a surface almost as smooth as today's linen paper. The resulting product was expensive, and papyrus was generally reserved for archival documents. Signs were written on these surfaces with a reed pen, its tip chewed and shaped into a fine brush, and ink made of lampblack; metal pens were introduced in the Ptolemaic Period. Scribes made erasures by licking or washing off the signs, and they often reused papyrus by adding new texts on uninscribed surfaces or by washing off an older text (apparently no more than once). In the oases of the western desert, where papyrus was generally unavailable, scribes occasionally made use of clay tablets as writing material, incising the signs into them with a stylus.

Bureaucratic documents were kept in the archives of local and national officials, such as the "office of writings of the vizier." Other papyri were preserved in temple libraries, often for centuries. Egyptian texts record instances of the pharaoh consulting these for religious purposes; in one instance, a document that the king discovered "as something the ancestors had made but worm-eaten and unknowable from beginning to end" was reinscribed on stone, with gaps left for the lost portions of the text (Allen 1988: 42–3). Evidence for private libraries is scarce, but some Middle Egyptian literary texts evidently come from such a source (Parkinson 2002: 69–73).

A few papyri have Hieroglyphic inscriptions, but in most cases the script written with brush and ink uses more cursive forms of the signs. Sometimes these are simplified versions of hieroglyphs, drawn in outline. This script is known as cursive Hieroglyphic (figure 29.2). Early examples of it – ink inscriptions on pots – are nearly contemporaneous with the beginning of Hieroglyphic writing; for the remainder of Egyptian history, it was used almost exclusively in religious papyri, particularly the *Book of the Dead*. Most often, the script is extremely cursive, with ligatures akin to those used in modern handwriting. This form of writing, known as Hieratic
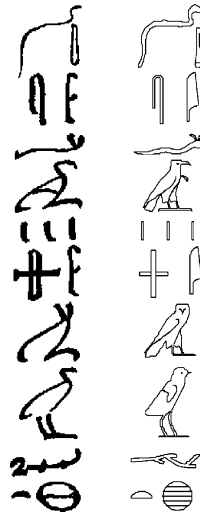
Figure 29.2 A cursive Hieroglyphic text (left) and its Hieroglyphic transcription.

Figure 29.3 A Hieratic text and its Hieroglyphic transcription.

(figure 29.3), is first attested in the Old Kingdom. It is always written right to left, sometimes in columns (in early texts) but most often horizontally. Because of its highly cursive nature, Hieratic is usually less parsimonious than Hieroglyphic in its use of signs; words usually have determinatives, often more than one. Although its name derives from the Greek for ''priestly,'' Hieratic was used during much of its lifetime less often for religious texts than in mundane documents such as letters, accounts, and literary texts. It survived perhaps as long as its Hieroglyphic counterpart, but after the sixth century BC its use was restricted to the religious documents that gave rise to its Greek name. Hieratic was normally written with brush and ink, but a few inscriptions were also carved in it rather than in hieroglyphs. Because of its close relationship with Hieroglyphic, it is often transcribed into hieroglyphs in publications, but this is a modern convention. Hieratic was the primary script of Late Egyptian, and the only one used for the most colloquial form of that phase of the language.

During the Ramesside period, the Hieratic signs of administrative texts became increasingly abstract in form, often unrecognizable as a derivative of the Hieroglyphic
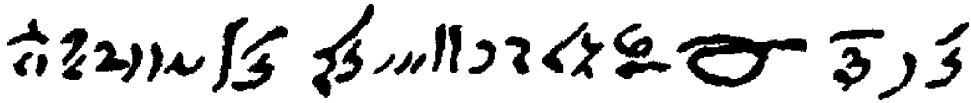
Figure 29.4   A Demotic text (transliteration: *ḏd.f n. w m-jr ḫsf tꜣ ntj jw.y ḏd.s ḏd.w pꜣy.n nb ꜥꜣ*).

prototype. This script is known as late or abnormal Hieratic. It was the ancestor of an even more abstract form of writing, Demotic, which is the name given both to the penultimate phase of the language and the script with which it was exclusively written (figure 29.4). Demotic is written horizontally, right to left. From its first appearance in the mid-seventh century BC until it was supplanted by Coptic, it was the standard script of all but religious texts. Besides being written with pen and ink, like its predecessors, it was also carved in stone for official and monumental inscriptions. Unlike Hieratic, Demotic is usually transliterated (see figure 29.4) rather than transcribed into hieroglyphs; this is in part because it is a derivative of Hieratic rather than Hieroglyphic.

Like its predecessors, Demotic has no system for regularly indicating vowels. Beginning in the first or early second century AD, some Demotic magical texts added glosses in Greek letters to ensure the proper pronunciation of key words of a magic spell. Besides the vowels of the Greek alphabet, these use its consonants for those of Egyptian, complemented by signs taken from Demotic for consonants that did not exist in Greek, such as *š* and *ṯ*. Texts written entirely in this new script, called Old Coptic, appeared at the same time. Both these and the glosses were probably created for the benefit of users whose first language was Greek rather than Egyptian (Satzinger 1991: 171). With the exception of some archaizing features, the texts record essentially the same language as contemporary Demotic documents. The Old Coptic script is the ancestor of the Coptic alphabet (figure 29.5), created in the third–fourth centuries AD for use in recording Christian compositions without the "pagan" taint of Demotic.

The last dated Hieroglyphic inscription was carved in AD 394 and the last in Demotic, fifty-eight years later (both in the temple of Philai); Hieratic had already died out in the third century AD. By the end of the fifth century, Hieroglyphic and Demotic were probably no longer in use or even understood. Already a century or more earlier, an Egyptian or Greek scholar named Horapollo had made an attempt to elucidate Hieroglyphic as a purely symbolic script. His *Hieroglyphica* (preserved in a fifteenth-century copy) reflects some understanding of the script but not of its basic principles: the hare, for example, is explained as a writing of the verb meaning "open" (*wn*, Coptic *ouen/ouon/ouōn*) because of the myth that this animal never closes its eyes; in fact, the hieroglyph was a biliteral phonogram with the value *wn*. Although several scholars realized that the language of hieroglyphs might be related to Coptic, Horapollo's symbolic approach dominated all subsequent attempts to decipher hieroglyphs until the discovery of the Rosetta Stone in 1799.

Letter	Value		Letter	Value
ⲁ	*a*		ⲣ	*r*
ⲃ	*b*		ⲥ	*s*
ⲅ	*k*		ⲧ	*t*
ⲇ	*t*		ⲟⲩ, ⲩ	*u*
ⲉ	*e*		ⲫ	*ph* / *p^h* (B)
ⲍ	*s*			
ⲏ	*ē*		ⲭ	*kh* / *k^h* (B)
ⲑ	*th* / *t^h* (B)		ⲯ	*ps*
			ⲱ	*ō*
ⲓ, ⲉⲓ	*i*		ⲟⲩ	*š*
ⲕ	*k*		ϥ	*f*
ⲗ	*l*		ⳉ	*h*
ⲙ	*m*		ϩ, ⳉ	*ḥ*
ⲛ	*n*		ϫ	*ṯ (t^y)*
ⲝ	*ks*		ϭ	*ḳ (k^y)* / *ṯ^h (t^{hy})* (B)
ⲟ	*o*			
ⲡ	*p*			

Figure 29.5   The Coptic alphabet.

This stela, now in the British Museum, records a decree of 196 BC in honour of the Pharaoh Ptolemy V, written in both Hieroglyphic and Demotic, with a copy in Greek. A number of scholars tried to decipher the Egyptian on the basis of the Greek text, but the final breakthrough was not made until 1822, when Jean-François Champollion demonstrated that hieroglyphs were used not only as ideograms but also as phonograms. The history of Egyptological scholarship since then has seen a continual refinement in our knowledge and understanding of Egyptian and its writing.

Hieroglyphic has also been recognized as the ancestor of the Greek alphabet, thanks to the discovery of inscriptions from the Sinai and, more recently, from Egypt proper. These are written with some twenty-four signs derived from hieroglyphs and record a Semitic tongue rather than Egyptian. The inventors of the script seem to have used the hieroglyphs as alphabetic letters based on the name of the sign in their language: thus, the hieroglyph of a hand (Hieroglyphic *d*) was used as the letter *k* (from Semitic *kap* "palm of the hand"). Although most inscriptions written in this script have yet to be deciphered convincingly, it is generally agreed that it was the ancestor of the Phoenician alphabet (early first millennium BC) and from there, of the Greek alphabet, ancestor of our own. Greek often preserves the original Semitic names of the letters: for example, *kappa* for *k*.

8 Literacy

Education in ancient Egypt consisted primarily of instruction in writing (and by extension, reading). Literacy was, therefore, restricted to the educated, who have been estimated at one to ten percent of the population (see Parkinson 2002: 66–7). Egyptian texts speak exclusively of male students, although there is some sparse evidence for female literacy (Janssen 1992: 89–90).

Schools seem to have been primarily attached to temple libraries, in an area known as the "instruction room." Before the advent of Demotic, scribes were evidently taught to write in Hieratic, the script of nearly all surviving exercises. Examples of schoolboys' writing boards and ostraca indicate that instruction took the form of dictation from works of Middle Egyptian literature, at least in the New Kingdom. Passages were dictated to pupils in short phrases or sentences; these are often marked at their end by a red dot, commonly called a "verse point."

As might be expected, such exercises abound with errors – so much so that it is often impossible to be sure of the original text when a literary work survives only in this form. In some cases, the errors clearly derive from a student's mishearing of the dictated phrase, revealing something of the vocalization of the language: for example, *ʿḥȝ.k r mdt ntt r.s* "you should fight against a matter that is against it" was misheard as *ʿḥʿ kmt nt r.s* "Egypt should stand (against) that which is against it," suggesting an original *ˣʿaḥʾák amáda ntarás* reinterpreted as *ʿaḥʿákumat antarás* (Fecht 1960: 194 n. 546; vocalization reconstructed from Coptic). Some schoolboy exercises show the teacher's corrections in red ink.

School texts included not only works of literature but also more practical genres. One of a scribe's primary responsibilities was the drafting of letters from dictation, even for literate superiors. Epistolary form was taught from a long model letter known as *kmyt* "Compilation," which has survived in schoolboy copies. Reflecting the circumstance of their composition, letters often refer to the sender and recipient obliquely, as "the servant there" and "your scribe," respectively. Once instructed in the essentials of writing, scribes appear to have specialized in areas such as accounts, military records, and temple texts, as reflected in their titles. Presumably instruction in Hieroglyphic was also part of this higher education.

Despite its apparent rarity, literacy was highly prized. Egyptian literary texts routinely encourage young men to become scribes, both as a necessary prerequisite to higher office and as a profession valued in itself:

> You should give your mind only to writing,
> and you will see what will save you from labor …
> Recite from the end of the Compilation
> and you will find this sentence in it:
> "As for the scribe in any place of the capital,
> he cannot become poor in it."
> He makes wisdom for another,
> and there is no one more content than him …
> I will make you love writing more than your mother,

I will bring its perfection to your attention.
Moreover, it is greater than any office:
there is nothing like it on earth. (Khety Iia–IIId; author's translation)

FURTHER READING

For a general survey of Egyptian phonology and grammar in all phases of the language, the best book is Loprieno 1995; this will be complemented in the near future by Allen (forthcoming). The final lesson of Allen's *Middle Egyptian* contains a discussion of the various theories and approaches to Egyptian syntax (a second edition is projected for publication by Cambridge University Press in 2010). An accessible survey of Coptic dialects, phonology, writing, and grammar can be found in vol. 8 of Satzinger 1991. For writing, the reader is referred to Senner (ed.) 1989, which contains essays on the origin of Egyptian hieroglyphs (without, however, the recent discoveries from Tomb U-j at Abydos) and the invention and development of the alphabet. Parkinson 2002 contains an excellent overview of the scribal tradition and literacy.

CHAPTER 30

Middle Kingdom Literature

Roland Enmarch

1 Introduction

The Middle Kingdom was regarded by subsequent Egyptians as one of the high points of their culture: Middle Egyptian, the language stage occurring in Middle Kingdom texts and inscriptions, was seen in later eras as the most prestigious "classical" version of the language, and many monumental and religious texts continued to be written more-or-less accurately in a form of it down into the Graeco-Roman Period, millennia after it had ceased to be spoken. Likewise, the poems of the Middle Kingdom were copied and read for hundreds of years, and Middle Egyptian authors and literary protagonists were honored in eulogies and in lists of the blessed dead (Parkinson 2002: 31–2; Fischer-Elfert 2003: 124–30; Quirke 2004: 33–6). It is therefore perhaps unsurprising that modern scholarship also accords Middle Egyptian texts pride of place in Egyptian literary history, and that the Middle Kingdom is often seen through the prism of the literary texts that it produced.

Unfortunately, the problems of interpreting Middle Egyptian literature are significant: the language is still not perfectly understood, and the Hieratic script in which most literary texts are written only preserves the consonantal skeleton of the living speech it represents; the manuscripts themselves are often fragmentary; and the enormous distance in time and cultural outlook between the creator(s) of an Egyptian work and a modern reader inevitably make it difficult to be certain that a modern interpretation bears any relation to a plausible ancient response. Although the literal meaning of a passage can often be rendered, subtler features such as humor, sarcasm, irony and absurdity are much more difficult to demonstrate. If a text only survives in a single copy, even identifying simple textual errors becomes problematic: modern editors have to decide whether a particularly difficult grammatical construction, or a seemingly out-of-context word, is the result of ancient copying errors, or a deliberately unusual idiom or stylistic effect intended by the ancient composer(s) of the text. For these reasons, modern interpretations of Egyptian literature often differ widely.

Contemporary cultural preconceptions also create complexities in interpretation: modern literary editors are accustomed to think of a hypothetically perfect original text (often known by the German term "*Urtext*") created by an author, which over time gradually becomes corrupted in the process of textual transmission; by comparing surviving textual witnesses, it is thought possible to reconcile the differences and decide what the "original" text said. However, this model of authorship and transmission may not be entirely appropriate for the Ancient Egyptian cultural context: although the standard scribal colophon, "so it ends, from beginning to end, like what was found in writing" (Parkinson 2002: 75) implies that an exact copy of a text was perhaps the ideal, it is clear that in some cases in the Middle Kingdom copyists intervened and actively reshaped the texts. For example, the *Teaching of Ptahhotep* is preserved in two significantly different versions (Parkinson 2002: 314), and it is likely that it was "re-edited" at some point in the Middle Kingdom. Even where textual differences arise through misunderstanding, they can still have the potential to significantly affect the subsequent interpretation of the text: for example, in the Middle Kingdom manuscripts of the *Tale of Sinuhe* the central character is simply a non-royal official in the service of the royal family, but by the later New Kingdom the manuscripts consistently make him into a prince in his own right (Parkinson 2009: 185), a re-interpretation that has significant bearing on the reasons for Sinuhe's flight from Egypt in the plot of the tale. For reasons such as this, it is perhaps more appropriate to talk about "Tales" of Sinuhe in the plural, circulating in differing versions with different horizons of meaning for different audiences at different times.

A more basic problem is the sheer paucity of surviving evidence, and its restriction to a relatively small number of sites. Papyrus is fragile, and does not survive well outside the sheltered context of the tomb. For this reason, the majority of well preserved literary papyri dating to the Middle Kingdom come from a very small number of tombs, though our picture is somewhat augmented by a significant number of fragments recovered from the Middle Kingdom town site of Lahun at the entrance to the Fayum (see Quirke 2004: 11–23). Many more textual witnesses survive from the New Kingdom, but a large proportion of these are restricted to the community of Deir el-Medina, where the builders of the royal tombs lived. Although it is possible to build up a fairly detailed picture of what literary texts this rather atypical community had access to, it is difficult to ascertain whether this was representative of Egypt as a whole at this period.

The largest single find of actual Middle Kingdom papyri comes from a Thirteenth Dynasty tomb constructed at Thebes, in an area where the much later Ramesseum temple was constructed; hence it is known as the "Ramesseum tomb" (see Parkinson 2009: 138–60). This tomb probably belonged to a lector priest, and along with various artefacts of magical significance, it contained a chest full of some 24 papyri. These covered numerous topics: 3 were ritual liturgical texts, another 16 are technical manuals of magical and medical texts and incantations (one of which was a re-used roll that had originally contained administrative records), another 4 contained literary texts, and a final papyrus contained an onomasticon.

If the contents of this tomb had not survived to be discovered in modern times, at least two Middle Kingdom literary texts (the *Discourse of Sasobek* and the

Ramesseum Maxims) would remain entirely unknown, and unsuspected, by modern scholars, since they each survive in only a single copy from this tomb. We would also be considerably the poorer for not having important early witnesses to the textual transmission of the *Tale of Sinuhe* and the *Tale of the Eloquent Peasant.* These accidents of preservation illustrate just how contingent much of the current thinking on Middle Egyptian literature is: a chance discovery at any time could necessitate a major revision of scholarship in the field.

This selection of written material surviving in the Ramesseum tomb does not suggest that the Egyptians made a strong separation between their literary texts and their more functional writings, and the same is generally the case with other finds of papyri from other periods (see Quirke 2004: 14–23). Partly as a result of this, distinguishing Middle Egyptian "literature" from the other culturally valued texts created in the Middle Kingdom is problematic, and no simple modern definition is entirely satisfactory (see Parkinson 2002: 22–9). A broad view would include all texts transmitted within the Egyptian "stream of tradition" (for the term, see Oppenheim 1977: 13) that were not limited to the immediate conveying of factual information; this definition would include some artfully formed texts which were strongly bound to specific functional or situational contexts, such as religious, liturgical and hymnic texts. A more narrow definition would limit Middle Kingdom "literature" to a discrete group of approximately 40 or so texts within the stream of tradition lacking an immediate functional context (Assmann 1974) and characterized by the occurrence of fictional elements. This group of texts is highly self-referential and intertextual in its use and re-use of language and themes, and the individual texts often have an attested transmission and reception over significant times and distances (Loprieno 1996: 39–58). This group of texts can largely by subdivided into the following distinct generic sub-groups:

1 fictional narratives ("tales") and
2 wisdom literature, which is sub-divisible into
   2a "teachings," comprising wise advice delivered by a sage to his children or successors, and
   2b "discourses," comprising dialogues and reflective speeches which are generally pessimistic in tone, and consider problematic areas of the Egyptian world view (see Parkinson 2002: 109–12).

The following discussion focuses first on texts falling within this narrower definition of Middle Egyptian literature, and then moves on to deal with other, more marginally literary genres. Non-literary sources, such as letters, administrative and documentary texts, and technical texts (e.g. magico-medical, mathematical, onomastica) will then be summarized briefly.

The narrow definition of literature is far from perfect, and many texts described below fail the above criteria in some way (for example, several compositions are only attested in a single surviving manuscript). Moreover, the narrow definition excludes many texts, such as commemorative tomb biographies and royal inscriptions (*Königsnovellen*), which demonstrate technical virtuosity in terms of artful verbal composition, rhetorical display, and emotionally affective wording, but which were composed

for a specific occasion and location, and were not intended to be copied and transmitted beyond their immediate functional context.

Little evidence survives to establish the chronology for the creation of individual Middle Egyptian literary texts. Many works claim to have been written in, or at least have as their temporal setting, the Old Kingdom and First Intermediate Period. Although these text-internal attributions used to be taken largely at face value (as for example in Lichtheim 1973), it is now generally agreed based on linguistic and content analysis that they are fictitious inventions of the texts' authors (who are otherwise largely anonymous) intended to imbue their compositions with greater antiquity and cultural authority (see Burkard and Thissen 2003: 72–3). The contemporary archaeological record for the Old Kingdom does not preserve any texts that fit within the "narrow" definition of literature given above, though a number of genres which developed in that period demonstrate verbal artistry and compositional skill (Assmann 1983; Baines 1999a), which may have served as an impetus for the later creation of Middle Egyptian literature.

The earliest actual surviving literary manuscripts date from the late Twelfth Dynasty (probably not much earlier that the reign of Amenemhet III; Quirke 2004: 9), and it is increasingly recognized that the production of literary texts is unlikely to have begun until the Twelfth Dynasty (Parkinson 2002: 45–50). At the other end of the time scale, many texts whose language and themes clearly place them as part of the Middle Egyptian literary corpus are not attested until the New Kingdom or even later, and attempts have been made to revise the compositional date of some of these down into the Eighteenth Dynasty (e.g. Gnirs 2006), though these arguments have not thus far been widely accepted. The current discussion assumes a compositional date for the Middle Egyptian literary corpus within either the Twelfth and Thirteenth Dynasties or the Second Intermediate Period.

The social context in which Middle Kingdom literature was created, disseminated, and received remains the subject of much Egyptological debate (Parkinson 2002: 64–85). The royal court appears constantly in Middle Egyptian literature, both as a locational setting, and as a central topic of ideological and moral discourse; it is therefore the most likely place where literature was created, and from which it was disseminated, though finds of manuscripts in provincial cemeteries demonstrate the wider participation of the elite throughout the country. Many interpretations of Middle Egyptian literature have focused on its political potential, either as propaganda in support of royal and state ideology (Posener 1956), or as dissident protest at these ideologies (e.g. Cruz-Uribe 1987; Simpson 1991; Helck 1992). While some literary compositions, most notably the *Words of Neferti*, do have clear programmatic potential in support of the ruling dynasty, a purely political approach to literature is now seen as overly reductive, and fails to account for the texts' complex and often equivocal juxtapositions of alternating viewpoints (Enmarch 2008: 59–60).

The same objection applies to the characterization of Middle Egyptian literature as a set of "cultural texts," that is, texts central to the self-fashioning of Middle Kingdom cultural identity, learned at school and codifying societal norms (Assmann 1999b). Another frequently drawn opposition is between texts presenting core cultural values (mainly the genre of "teachings"), and those which submit these values to a more or less questioning examination from the standpoint of the individual (mainly

the "discourses" and particularly the narratives; for this opposition, dubbed *topos vs. mimesis*, see Loprieno 1988). Building on this, some scholars have suggested that the concerns of literature in the Middle Kingdom reflect the rise of a class of lower members of the elite (valorized as the *nḏs* "the little man" who is a frequently occurring protagonist type in Middle Egyptian literature) who were relatively independent of royal patronage (Loprieno 1991–2: 14), though the lack of surviving evidence makes it difficult to evaluate this proposal (see Franke 1998).

The identity of the actual writers of Middle Egyptian literary works is unknown, and is deliberately obscured by the texts' pseudepigraphic self-attributions to figures from a more or less distant past. In the New Kingdom, the literary protagonists seem to be treated as if they were the real authors, appearing for example in a list of revered figures from the past in a Ramessid tomb relief from Saqqara known as the "Daressy fragment" (Fischer-Elfert 2003). The only major exception to this general rule is a Ramessid scribal miscellany text that honors an individual named "Khety" as having written the *Teaching of King Amenemhet*, and the name Khety appears later in the same papyrus among a list of Middle Egyptian literary figures (Quirke 2004: 31–6). Attempts have been made to identify this Khety with the writer of the Middle Egyptian *Teaching of Khety* (Derchain 1996: 83–4), but the evidence is circumstantial. Khety was a popular Middle Kingdom name, and so the two individuals could be entirely different (and equally fictitious).

The concerns of Middle Egyptian literature are generally focused on the life of the elite class, particularly the relationship between the king and his officials, and on the behavior of officials towards others above and below them in the social hierarchy; the emphasis on correct social relationships emerges most clearly in the teachings. Lowly members of society occur quite frequently, and are sometimes sympathetically portrayed as in the *Tale of the Eloquent Peasant*, but their concerns when expressed seem to reflect an elite perspective rather than representing a plausibly authentic non-elite voice. Although divine beings occasionally appear as literary protagonists in an earthly context, as is the case with the gods disguised as a troupe of musicians in *The Tale of King Cheops' Court*, there is a dearth of evidence in Middle Egyptian literature for purely mythological narratives; the major possible exception is a late Twelfth Dynasty fragment from Lahun with an episode from the myth of Horus and Seth (Collier and Quirke 2004: 20–5), though this excerpt may instead be part of a magico-medical incantation rather than a fully developed literary narrative. Another Midlde Kingdom fragment, called the *Cairo Mythological Tale*, seems to portray a group of gods in council discussing the fate of a man called Ukhekhiu (Parkinson 2002: 294–5).

One of the most notable features of Middle Egyptian literature is its concentration on problematic aspects of human experience that are generally ignored in other, more culturally central modes of discourse (e.g. temple inscriptions, mortuary texts). For example, the *Tale of the Shipwrecked Sailor* is, in part, a parable of success and failure, and begins with the return of an official from a failed expedition outside Egypt; these topics would probably have been close to the heart of an Ancient Egyptian official (for whom expeditions on royal business would probably have been a part of life), but cultural decorum would never permit a real expedition leader to ever record the ultimate failure of a real expedition.

Some Middle Egyptian literary works are more pervasively "pessimistic" in their portrayal of a dystopian world completely at variance with normative cultural ideology. These texts often lament the breakdown of social order, and sometimes question the core assumptions of Egyptian culture. The *Dialogue of a Man with his Soul*, for example, casts doubt on the utility of building tombs, while the *Dialogue of Ipuwer and the Lord of All* debates whether human beings or the creator god are most to blame for the existence of evil and suffering in the world. Nevertheless, these texts tend ultimately to affirm, albeit somewhat grudgingly, normative ideologies. Rather than being counter-cultural, they present a kind of cathartic exploration of the limitations and problems inherent in core cultural beliefs (Enmarch 2008: 63–4).

What survives is inevitably *written*, and hence part of the elite cultural sphere; there is very little surviving information on the oral traditions which are likely to have been a more widespread feature of Egyptian society, although some of the compositional techniques that occur in the literary texts are clearly related to those found in oral composition (Eyre 2000: 9–10). Indeed, performance has been stressed as a central factor in the creation and dissemination of Middle Egyptian literature (Eyre 1993), and recent stagings of translated Middle Egyptian literary works have revealed features of the texts that fail to emerge from the printed page (Parkinson 2009: 267–70). It is unclear how far down the social hierarchy ancient performances of literature could have reached.

2   Prosody and Style

Most analyses that suggest a political or culturally constitutive role for Middle Egyptian literature underestimate its potential to be enjoyed for purely aesthetic and entertainment reasons. The Egyptians valued *mdt nfrt*, "perfect speech" (Kaplony 1977), and Middle Egyptian literary texts display a consistent concern for linguistic virtuosity. The extraordinary eloquence of a member of the lower social orders forms the central plot device of *The Tale of the Eloquent Peasant*, while another text, the *Words of Khakheperreseneb* begins with a wish for "unknown phrases, strange sayings, new speech which has not passed before, free from repetition, not handed-down sayings spoken by the ancestors!" (recto ll. 2–4). The Middle Egyptian literary dialect was already rather distant from the vulgar speech in the Middle Kingdom (cf. Parkinson 1991: 19), and the range of grammatical constructions frequent in the literary language seems to be a subset of the full range of possibilities evidenced in contemporary letters and other non-literary sources (cf. Allen 2002: 86–101). Furthermore, the rhythms of Middle Egyptian administrative texts and letters are distinct from those of literary texts (Parkinson 2002: 112–17), raising the possibility that the literary texts are composed in a poetic idiom distinct from unpatterned prose.

Middle Egyptian literary manuscripts have very little punctuation, and their layout does not give many clues as to how the texts were read or scanned, though the presence of red ink "verse pointing" already in some late Middle Kingdom manuscripts (Parkinson 2009: 160) is suggestive. Gerhard Fecht proposed a formal metrical analysis of Middle Egyptian poetry as rhythmic, being based on counting the occurrence of stressed word-clusters (called "cola"; Fecht 1982), of which two or

three could occur in a single line of "verse." This approach is applicable to a wide range of Egyptian literary texts, but has not been universally accepted, and looser prosodic analyses based on the "thought couplet" (Foster 1975) and "sense unit" (Burkard 1996) have also been proposed. It is quite possible that multiple metrical schemes may have existed in antiquity.

In terms of literary style, many compositions are organized around repetition and parallelism, with thoughts being built up accretively through restatement in slightly differing terms, often invoking complex webs of metonymy and sound-play (only partially detectable today, due to the absence of vowels from the Egyptian script). In this way individual lines are paired into couplets, or sometimes grouped into triplets, and then these units are often paired up with each other into larger stanzas. These compositional techniques emerge most clearly when use is made of a repeated refrain, as in the following fairly typical laments uttered in the *Dialogue of Ipuwer and the Lord of All* (7.10–13), which decry the impoverishment of the old elite and the corresponding enrichment of the erstwhile poor:

mṯn-nb-ḫt-sḏr jb	Look, the owner of property spends the night thirsty,
dbḥ-n:f tꜣḥw(t):f m-nb-sḫrw	and he who begged his dregs for himself is the owner of beer.
mṯn-nbw-ḏꜣjjwt m-jsjjwt	Look, the owners of linen are in old clothes,
tm-sḫt-n:f m-nb-pꜣḳt	and he who could not weave for himself is the owner of fine linen.
mṯn-tm-mḏḥ-n:f jmw m-nb-ꜥḥꜥw	Look, he who could not hew for himself a boat is the owner of ships;
nb-jrj ḥr-gmḥ-st nn-st-m-ꜥ:f	their (old) owner catches sight of them, (but) they are not his.
mṯn-jwtj-šwjjt:f m-nb-šwjjt	Look, he who had no shade is the owner of shade,
nbw-šwjjt m-wḫ(t) n(t)-ḏꜥw	and the owners of shade are in the darkness of the storm-wind.

This set of laments is just an extract from a much longer series of 50 stanzas all beginning *mṯn* "Look!," and all themed around social inversion. The transliteration in the left hand column represents the phonetic elements retrievable from the Hieratic script. The groups of words joined by hyphens represent a single colon according to Fecht's metrical principles.

The use of repeated refrains, which is frequent in lament passages, seems to have been a fairly elevated stylistic device, and is also found in Egyptian hymnody (Goelet 2001). As is clear in this passage, this compositional style is characterized by the repetition of individual words and sentence structures. The passage also demonstrates the tendency for Egyptian literature to be readily divisible into fairly short self-contained grammatical clauses or sense units. These features probably relate to oral performance: the emphasis is very much on the composer or speaker's choice, juxtaposition and repetition of unusual words and mellifluous sounds, rather than necessarily on the factual content being conveyed. When such laments continue at great length, the effect is somewhat baroque and contrapuntal.

3   Overview of Literary Texts

Tales

There is no clear Egyptian genre term for the literary narrative (though it is possible they might have been described as *sdd(t)*, "tales," "accounts"; see Parkinson 2002: 109), and the surviving examples have quite different opening formulae. Moreover, some texts begin with a narrative frame or setting, but rapidly abandon this and move into a non-narrative mode (an example of this is the *Words of Neferti*), while other narratives such as the *Tale of the Eloquent Peasant* contain lengthy discursive passages. This generic interweaving is characteristic of Middle Egyptian literary texts. The works listed in this section are those where the narrative thread is dominant and continuous throughout the text as preserved.

The *Tale of Sinuhe* is perhaps today the best known Middle Egyptian narrative, and this is undoubtedly related to its popularity in antiquity, to judge from the large number of surviving manuscripts from the Middle and New Kingdoms (Quirke 2004: 70; Parkinson 2009: 172–207). The tale is presented as a copy of an official's tomb biography, though this is very probably a travesty since its contents are unlike any real biography that is known. The "biography" is of a royal official named Sinuhe, who flees Egypt when he hears of the death of King Amenemhet I. Sinuhe eventually establishes himself as a Asiatic tribal strong man in the land of "Retjenu," probably in modern Lebanon. After defeating a rival strong man in single combat, Sinuhe comes to realize that his life outside Egypt, isolated from the royal court, is devoid of meaning. After an exchange of letters with the new king Senwosret I, Sinuhe leaves Retjenu and returns to Egypt, where he is readmitted into the royal presence, and in due course is buried in a tomb within the enclosure of the royal pyramid, a signal favor. A persistent theme throughout the tale is the motivation for Sinuhe's original flight. The setting of the tale around the period of transition from Amenemhet I to Senwosret I is significant: although it is not explicit in the tale, it is likely that the succession was a troubled one, with the old king perhaps being assassinated (Obsomer 1995: 131; these events are dealt with in much more detail in the *Teaching of King Amenemhet*). The ultimate forgiveness accorded to Sinuhe by Senwosret I could therefore be read in political terms as a kind of amnesty. However, this fails to account for the enduring popularity of the tale over several centuries; the main interest of the work perhaps lies instead in its fictional exploration of the possibility of a life outside Egypt and Egyptian cultural values.

Travel is also central to the *Tale of the Shipwrecked Sailor*, in which one official, the "follower," tries to reassure the other, the "count," that all is not lost as a result of the implied failure of an expedition to Nubia. He does this by launching into a story of his own past experiences, designed to illustrate that initial disaster can still lead to a happy conclusion: he is shipwrecked on a supernatural island in the Red Sea, where he meets a divine snake who predicts that he will return home safe. The snake in turn tells his own story of disaster and fortitude, recounting the destruction of his family by a falling star. The "moral" seems to be that if one is stout-hearted, one can survive almost anything, and indeed in due course the "follower" is rescued from the island, returning triumphantly to the royal court laden with exotic gifts from the snake.

However, the optimism of the follower's advice is sharply undercut by the count's curt rejoinder which closes the tale, implying that nothing can save him from his doom: "Don't be clever, friend. Who would give water [to] a bird when the day dawns for its slaughter in the morning?" Although the outward style of the tale is simple, it contains esoteric allegorical allusions to Egyptian religious ideas (Baines 1990: 55–7, 65–7), with the snake representing the creator god, and his island representing the created universe.

In the *Tale of the Eloquent Peasant*, a peasant (or perhaps more accurately a marshman: Quirke 2004: 40–1) sets off to sell his wares at the royal city of Herakleopolis, and his donkey is stolen from him on a deceitful pretext by a corrupt local official called Nemtynakht. The peasant complains to Nemtynakht's superior, the High Steward Rensi. Rensi is so astonished by the peasant's way with words that he reports it to the king, who orders that the peasant be detained so that he can continue making eloquent speeches which the king orders to be recorded for his enjoyment. Over the course of nine petitions, the peasant delivers a lengthy discourse on truth and justice, which gradually becomes more desperate and denunciatory, culminating with the peasant's threat to seek retribution through a higher court in the afterlife. Eventually, Nemtynakht is punished, the peasant's ass is returned, and he is rewarded for his eloquence. It is unclear how an ancient elite audience would have reacted to the distinctly ambivalent portrayal of the king and the High Steward Rensi; the pervasive irony of the plot, where the peasant's very eloquence about justice delays his receipt of it, undercuts any simplistic culturally affirmative reading of this story (see Parkinson 1992).

The *Tale of King Cheops' Court* (also known by the name of the sole surviving manuscript, P. Westcar) is in fact a cycle of stories whose setting is at the court of the Fourth Dynasty king Cheops (Lepper 2008). The king is bored and his sons take turns to amuse him by telling tales of wondrous events from the reigns of his predecessors. One story concerns the adulterous wife of a lector priest, and her lover's demise at the hands of a wax crocodile brought to life by the cuckolded husband. Another story centers upon a lector priest magically dividing up the water of a lake to retrieve a lost pendant from the lake bed. One prince offers to show Cheops a wonder before his very eyes: a sage called Djedi who can reattach a severed head, among other feats. After duly performing these feats, Djedi upsets the king by revealing that his family will eventually be replaced on the throne by the children of a priest of the sun-god Re. The scene then shifts to this priest's household, where his wife Ruddjedet is having a difficult labor. Several deities associated with childbirth disguise themselves as musicians and offer to assist at the birth. Three children are born with marks of divinity (their skin is gold, and their hair is lapis lazuli), and the birth goddesses decree their royal destiny. One of Ruddjedet's maidservants runs away, perhaps to inform Cheops of the births, but she is seized by a crocodile in the final surviving words of the sole surviving manuscript, and it is unclear how the tale may have ended. The style of the tale is again fairly simple and episodic, but it alludes to central cultural ideologies, not least the divine, solar origin of kingship. The tale may also represent the beginning of the negative portrayal of Cheops which is best known from Herodotus' much later description of his tyrannical pyramid building methods: the fact that his dynasty will be replaced would then be a kind of judgement on his conduct.

Several other narratives are attested from the Middle Egyptian literary corpus in a more or less fragmentary condition. In the *Tale of Neferkare and Sasenet*, a king steals away from the palace for night time assignations with his general (Parkinson 1995: 71–4); a man called Tjeti finds out, and perhaps attempts to reveal the scandal at court but is drowned out by musicians. In the *Tale of the Herdsman*, a terrified cowherd encounters a female divinity at a pool in the marshes, and she apparently makes advances to him (Morenz 1996: 124–35). Another fragmentary tale seems to contain a ghost story, with the spirit of a man called ''Khentika's son Snefer'' appearing to a king (Verhoeven 1999b: 261). Of another seven or so Middle Egyptian narratives, only disconnected snatches survive, and the plots cannot be made out clearly (for a set of translations, see Quirke 2004: 179–86, 198).

Teachings

The Ancient Egyptian label for this genre was *sbȝyt,* ''teaching, instruction'' (Parkinson 2002: 110), and examples occur in Middle Egyptian, Late Egyptian and Demotic. The teachings are usually addressed by a wise man to his children, and provide advice on ''the way of living correctly'' (as the *Loyalist Instruction of Kaires* 1.7 puts it), that is, in keeping with the moral norms and expectations of Egyptian society.

The teachings vary in their tone and didactic emphasis, with the most exhortatory being the *Loyalist Instruction of Kaires* (Posener 1976; Verhoeven 2009) and the *Teaching of a Man for his Son* (Fischer-Elfert 1999). These two teachings enjoin above all loyalty towards, and reverence for, the king, who is described in explicitly divine terms as the guarantor of Egypt's prosperity (Loprieno 1996: 404–14). The king is presented as the only possible source of material success for an official, and the only one who can provide an official with a decent burial. The *Teaching of a Man for his Son* 3.1–5.6 even points out that, while the span of a human life may be fixed by fate, what happens within that span is entirely at the whim of the king. Both of these teachings, in their later sections, move away from praising the king, and give more general advice on correct behavior. The *Teaching of a Man for his Son* enjoins truthfulness and courtesy, as well as restraint in speech; the circumspect man does not mock the unfortunate, and the wise man does not sit in judgement on one more powerful than himself. The *Loyalist Instruction of Kaires* stresses the dependence of the elite on their servants and subordinates: field-laborers should not be over-worked lest they run away, and a harsh task-master ultimately undermines his own prosperity.

This earnest expression of ''social solidarity'' (for which, see Assmann 1990: 85–9), the awareness of the reciprocal relationship between the rulers and the ruled, stands in stark contrast to the *Teaching of Khety* (also known as the *Satire of the Trades*; Helck 1970; Foster 1999). In this teaching, a father tries to convince his son that being a scribe is the only worthwhile profession, and he does this by caricaturing with extreme scorn the wretched state of a long sequence of other, more lowly livelihoods: for example, the fingers of a metalworker stink like fish roe and look like those of a crocodile, while worse still is the washerman who has to clean menstrual women's undergarments, and who lives in perpetual fear of crocodile attack. The hyperbolic descriptions are comical, and it is unlikely that many potential trainee scribes would seriously be tempted into these other jobs. It is unsurprising that this text enjoyed

wide popularity in the New Kingdom as a scribal training text, and indeed inspired a large number of imitation exercise texts with a similar "be a scribe" theme in the *Late Egyptian Miscellanies* (for which, see Caminos 1954).

Some teachings are provided with historical settings in the Old Kingdom, such as *The Teaching of Ptahhotep* (Junge 2003), in which an aged vizier petitions the king to be allowed to pass on his office and advice to a successor. The text is extensively concerned with hierarchies, and how to behave with subordinates, equals and superiors in various professional situations. In disputes with others one should exercise silence and discretion, but one should report accurately to ones superiors. When one hears a petitioner, it is more important to let the petitioner have his say than that his petition necessarily be granted: "a good hearing is soothing for the heart" (*Ptahhotep* 276). A man should "follow the heart," pursuing happiness and wealth which come as a divine gift, but one should not be greedy, selfish, arrogant or scornful towards those less fortunate lest god take everything away again. *Ptahhotep* advises that one should marry and produce a family; wives should be controlled, and sons should be made to listen to their father's wisdom. Other men's wives should be avoided, as should sexual deviancy.

The fragmentary *Teaching for Kagemni* contains a number of themes similar to those in *Ptahhotep*. For example, it expands at some length on manners and etiquette, urging restraint when dining so as not to be thought a glutton or to give offence to a host. The *Teaching of Hardedef* is mostly preoccupied with the importance of building a tomb and raising a family while still young. This Prince Hardedef is the son of Cheops, and also features as a protagonist in the *Tale of King Cheops' Court*.

Two Middle Egyptian teachings claim to have been written by kings and differ markedly in tone from other examples of this genre, being much darker and more pessimistic in their subject matter. The *Teaching for King Merikare* (Quack 1992) is spoken by a First Intermediate Period king to his son and successor Merikare. Much of the advice is almost Macchiavellian, focussing on how a king should create and maintain support for himself through eloquence, and how he should destroy without mercy anyone who threatens his authority, though Merikare is also advised "do not kill a man when you know his worth" (*Merikare* E50). A king should enact justice, protect his people, and defend Egypt's borders from foreign encroachment. This teaching also stresses the concept that even a king will be judged for his actions after death, and as the teaching progresses it becomes clear that the king himself has committed a sacrilege for which he will have to answer: under his authority the cemetery of the holy city of Abydos was desecrated. Towards the end of the teaching, the king delivers a long eulogy to the wisdom and care of the creator god, ending with the simple statement "god knows every name" (*Merikare* E140).

This rather human, fallible portrayal of kingship contrasts sharply with normative royal ideology, and it is unclear how Middle Kingdom Egyptians would have interpreted this teaching; it is perhaps significant that King Merikare and his father belonged to the Herakleopolitan dynasty that eventually was defeated in the struggle for the reunification of Egypt at the start of the Middle Kingdom. The *Tale of the Eloquent Peasant* is also set in the Herakleopolitan period, and likewise provides an ambivalent portrayal of Herakleopolitan king's conduct.

The second royal teaching is the *Teaching of King Amenemhet* (Adrom 2006), in which the eponymous king appears to his son and successor Senwosret I and describes an assassination attempt on him. It is likely that Amenemhet I is portrayed as appearing to his son from beyond the grave (Parkinson 2002: 242), and the Ramesside ascription of the authorship of this text to a man named ''Khety'' might conceivably reflect a certain scepticism towards this supernatural context. The teaching is an intensely dramatic monologue expressing the old king's bitterness at the ingratitude of his subjects; a king must have no intimates, and must trust no-one. Amenemhet vividly describes the night time attack on him in his bedchamber (''but no one is strong at night, and no one can fight alone''), before moving on to an enumeration of the achievements of his reign. As Amenemhet departs, he addresses his son and describes his elevation to the throne. It is likely that this literary text in some way relates to the real life troubled transition between the reigns of Amenemhet I and Senwosret I, and it has been suggested that it might have been promulgated by Senwosret I to support his personal and dynastic legitimacy (Blumenthal 1984, 1985). While this is plausible, the moving and intense pessimism of Amenemhet's speech goes far beyond the requirements of simple propaganda.

Several other, more fragmentary teachings are preserved in Middle Egyptian. The *Ramesseum Maxims* preserved on the fragments of P. Ramesseum II are extremely enigmatic, but seem to contain a series of gnomic one-line statements that prefigure the later development of the teachings genre in Late Egyptian and Demotic (Parkinson 2002: 310). Another wisdom fragment, preserved on a writing board in the Ashmolean Museum, Oxford, apparently stresses the relationship between god and the pious man (Barns 1968). It is noteworthy that Middle Egyptian teachings often use the general term *ntr* ''god,'' rather than name any particular divinity (Hornung 2005: 49–60). It is possible that this vagueness was intended to enable the ancient readers and audiences to envisage whichever god was of most importance to them, though in some cases it is clear that the term ''god'' refers to the solar creator god Atum. In other cases, ''god'' refers to the king (Fischer-Elfert 1999: 15–17).

Discourses

This group of texts is the least well defined of the Middle Egyptian literary corpus. It lacks a clear ancient genre label, though it has been suggested that it might have been *mdt*, ''speech, words'' (Parkinson 2002: 110–11). In terms of content, these texts are neither primarily narrative, nor designed to inculcate good advice in the style of a teaching. Instead, these texts take the forms of lengthy monologues and dialogues marked by a strong pessimistic tone (often expressed in the form of laments), in which the speakers often ponder the most fundamental questions of the human condition. This group of texts is the closest thing in Egyptian literature to the philosophical discourse of the Classical world.

The Words of Neferti begins with a narrative frame set, like the *Tales of King Cheops' Court* and the *Teaching of Hardedef*, at the court of the Fourth Dynasty, this time in the reign of Cheops' father Snefru. There exists evidence to suggest that Snefru's reign was perceived in later generations as a kind of golden age (e.g. Graefe 1990). A lector priest named Neferti is summoned to entertain the king, and delivers

a prediction of the future. Neferti describes a land in chaos and disorder, divided by strife, overrun by foreigners, where even nature is turned on its head: the sun fails to shine, and the river has dried up. Neferti predicts the arrival of a future savior king, Ameny, who will re-establish order and protect Egypt's frontiers. *The Words of Neferti* is a kind of prophecy after the event: the savior king Ameny is almost certainly a reference to the Twelfth Dynasty king Amenemhet I (Parkinson 2002: 197), under whom the text may well have been composed. The chaotic state of the land would then represent Middle Kingdom perceptions of the First Intermediate Period (see Morenz 2003), though the chaos descriptions are too schematic and self-contradictory to be read in any simple way as eyewitness accounts of the real conditions of that period.

The Words of Khakheperreseneb is a monologue addressed by the eponymous speaker (who is a priest at Heliopolis, city of the sun god) to his heart, in which he wishes for new language to express the anguish he feels at the terrible state of the world (Moers 2002). It is perhaps ironic that, after praising novelty, the laments that follow are, in fact, very similar to those found in *Neferti*, *Ipuwer*, and other pessimistic texts. *Khakheperreseneb* provides the most explicit evidence for the cathartic emotional impact that such laments may have had on their ancient audiences: he wishes to unburden himself to his heart "so that I might say "Ah!" because of my relief" (recto l. 9). The name "Khakheperreseneb" is compounded with one of the names of Senwosret II, implying that the composition of this text took place in this reign or shortly afterwards. This is a period where surviving evidence indicates Egypt was at peace and prosperous, suggesting that the terrible state of the land being lamented is a literary construct (Enmarch 2008: 20). The laments seem to have been appreciated by the Egyptians as an artistic exploration of their fears and concerns for the cohesion of their society, whilst simultaneously highlighting the manifest imperfection of lived experience even when that society is ordered and stable.

In *The Dialogue of a Man with his Soul* a man debates with his *ba* (*bꜣ*), which in Egyptian religious thought was one of several incorporeal parts of the human being which resides in the tomb of the deceased and which maintains relations with the world of the living after death (Žabkar 1968). The man is disgusted with life, and looks forward to a much better afterlife, when he will be in the company of the gods. Ironically, his *ba* casts doubt on the man's rosy picture of death, pointing out that no-one ever comes back up out of the tomb to see the light of day, and that those who built tombs in the past are no better off now than those who lacked a tomb or even a proper burial. Rather than idealizing death, the *ba* suggests that the man enjoy life, mobilizing the *carpe diem* theme and using parables to illustrate his point. The man retorts with a fine series of laments expressing his indignation at the wretchedness of life, and his optimistic view of death. At the end of the text, man and *ba* resolve to put aside their disagreement and reach a reconciliation: life should be lived to the full, and yet preparations should also still be made for death.

Although the beginning and end of the sole surviving manuscript of *The Dialogue of Ipuwer and the Lord of All* are lost, most of the text appears to be spoken by a man named Ipuwer, who addresses the "Lord of All" (*nb r ḏr*), a term which often refers to the solar creator god, though here it is more likely to denote the king as the creator god's representative on earth (Enmarch 2008: 28). Ipuwer delivers a lengthy series of laments decrying the state of the land: family ties have broken down, there is civil

war, foreign invasion, famine and death everywhere, the gods are nowhere to be seen in the chaos, and royal authority has collapsed. Ipuwer then moves to a more direct confrontation, accusing the king and the creator god of allowing the chaos to arise through their inaction. The brief and poorly preserved responses of the ''Lord of All'' imply that the chaos is the fault of humanity, who have chosen to behave evilly. The dialogue forms a darkly searching theodic exploration of the justice of the gods, and mobilizes an essentially negative view of humanity (as innately predisposed to chaotic action) which was one of the ideological foundations of Egyptian royal and religious ideology: in many ways, Ipuwer's horrifying lamentations portray the state Egypt would be in without a strong divinely appointed king to keep his subjects in order.

Other Middle Egyptian literary discourses are only preserved in fragments, or in the case of the *Words of Renseneb* merely the opening words (Quirke 2004: 176). The fragmentary *Discourse of Sasobek* seems to begin with a narrative introduction relating the eponymous speaker's imprisonment and release, followed by a series of laments uttered by him on the uncertain nature of life and fortune (Parkinson 2002: 305–6). He seems to be addressing an audience, whom he partly denounces and from whom he perhaps seeks redress for the wrongs inflicted on him. The remaining passages from the *Discourse of the Fowler* seem to comprise speeches by a lowly fowler, who appears to be appealing to a higher official for redress of wrongs perhaps related to the destruction of the marshes where he earns his livelihood (Parkinson 2004a).

Other literary texts in Middle Egyptian

There exist a few other texts which are often treated as part of the Middle Egyptian literary corpus, though their compositional date is uncertain, and they cannot be assigned to the categories of narrative, teaching or discourse. The most important of these are the compositions preserved on Eighteenth Dynasty fragments of papyrus now kept in the Pushkin Museum in Moscow (Caminos 1956), several of which describe pleasurable hunting excursions into the marshes, a favorite elite pastime and the Egyptian version of the ''pastoral idyll.'' It is likely that the fragments preserve two distinct compositions on this theme. The first composition, *Pleasures of Fishing and Fowling*, is a lyrical composition, spoken by a retainer to his lord, fondly recalling ''a happy day, when we go down to the countryside'' (section A, page 2, line 1). The text vividly describes several types of hunt, as well as the offerings to the gods that followed their success. The mention of the Fayum, and the style of the language suggest a compositional date in the late Middle Kingdom. The second composition, the *Account of the Sporting King*, presents a royal trip to the marshes (cf. Baines 2003a: 35–42), but is more formal in tone, with courtiers ceremonially addressing the king (who is named as Amenemhet II) and investing him with hunting weapons and items of regalia. The actions of the hunting expedition are extensively linked to divine and mythological symbolism, and the overall effect is of a literary recording of an elaborate royal ritual, perhaps somewhat reminiscent of the court masques popular in early modern Europe. A third composition preserved in the Moscow literary fragments seems to contain the remains of a mythological narrative, but it is too damaged to make out the plot, and its composition has been dated on lexicographical grounds to the Eighteenth Dynasty (Quirke 2004: 206).

4   Middle Kingdom Texts
on the Margins of Literature

Kemyt

The *Kemyt* (literally ''Compendium'') was used as a model letter for scribal training (Parkinson 2002: 322–5), and is quoted as an authority for a trainee scribe already in the *Teaching of Khety*. In many manuscripts, the text is written in an old-fashioned style of Hieratic script reminiscent of the early Middle Kingdom, though it is also found written in cursive hieroglyphs and fully drawn hieroglyphs. It begins with a set of epistolary formulae wishing for divine favor for the letter's recipient; some of these formulae can be paralleled in real letters from the early Twelfth Dynasty. The text then continues with a first person narrative in the voice of a man who has been sent to find a runaway son called Au. After an exchange between Au and a woman (perhaps his wife), the text continues with self-laudatory epithets of the style often found in biographies. The text ends with a section on writing and the excellence of the scribal profession. The texts reads very disjointedly, and it is possible that, instead of being meant to be a coherent narrative, the text's selection of common words and phrases was primarily designed for teaching purposes.

Hymns and Songs

A number of hymns to the gods are preserved from the Middle Kingdom (Franke 2003), often being inscribed on stelae and other funerary monuments. One of the lengthier examples is a hymn to Osiris attested on numerous monuments from the Middle and New Kingdoms, which takes the typical hymnic form of a second person laudatory address to the god (Lichtheim 1973: 202–4). Such hymns tend to invoke a god under a multitude of names and epithets, and often make indirect allusion to mythological episodes connected with the god. Liturgical hymns are also preserved on papyrus, as is probably the case with one Thirteenth Dynasty papyrus from the Ramesseum tomb which contains a cycle of hymns to the crocodile god Sobek (Gardiner 1957).

It is likely that certain hymns came to be transmitted primarily for their aesthetic and literary qualities rather than as functional religious texts: there exist a number of rather corrupt New Kingdom manuscripts of a lengthy *Hymn to the Inundation* whose phrasing suggests a composition date in the Middle Kingdom (van der Plas 1986). This hymn is a eulogy to the personified Nile flood, praising him as the provider of bounty, ''the bringer of food, great of provisions.''

Royal hymns are fairly well attested for the Middle Kingdom, the best known of these being a cycle of hymns in praise of Senwosret III preserved on a papyrus from the town of Lahun (Collier and Quirke 2004: 16–19). These hymns, which make extensive use of repeated refrains, laud the king as the protector of Egypt and its inhabitants. The phrasing of these eulogies is similar to that found in the ''loyalistic'' sections of the teachings, and the same style also occurs in the *Tale of Sinuhe*, when the title character delivers a fulsome paean of praise on behalf of Senwosret I. A fragmentary Second Intermediate Period papyrus contains another royal eulogy

without a specific royal name (Parkinson 1999), while another papyrus of similar date comprises a cycle of hymns to the crowns of the king, associated with the god Sobek (Erman 1911).

Virtually nothing survives that can be identified as "secular songs" from the Middle Kingdom, and there are no love songs preserved from this period, though tomb walls occasionally contain snippets of song praising the tomb owner; for example, singers are depicted singing liturgical praise songs for the tomb owner Sarenput I in his early Twelfth Dynasty tomb at Aswan (Parkinson and Franke 2007), and in the roughly contemporary Theban tomb of Senet mother of Intefiqer, harpists are depicted singing intercessory petitions on behalf of Intefiqer to the goddess Hathor (Parkinson 1991: 126–7), probably an illustration of part of the funerary ritual. A few stelae from the Middle Kingdom contain harpists' songs which extol the fortunate state of the blessed dead provided with a proper tomb: one begins, "O tomb, you were built for festival!" (Sethe 1928: 87.2). These mortuary harpists' songs are likely to be the ancestors of the substantial number of New Kingdom tomb harpists' songs which express doubts about the afterlife. The best known example of this genre is the *Harpist's Song from the Tomb of King Intef* (Fox 1977) whose message echoes the *ba* in the *Dialogue of a Man with his Soul*: no one has ever come back from the next world to reveal what it is like, so human beings should concentrate on enjoying their time on earth by making holiday. The dating of this harpist's song is disputed: if the text's self-attribution to a tomb of a king Antef is in earnest, it could refer to a king of that name from either the Eleventh or Seventeenth Dynasties. However, the language of the song contains certain late features which perhaps make it more likely that it is a later composition, perhaps as late as the late Eighteenth Dynasty.

Other religious texts

The Coffin Texts (Faulkner 1973; 1978a; 1978b) are a large and heterogeneous body of magical utterances that were inscribed on coffins (and other funerary objects) primarily from the Eleventh Dynasty to the late Twelfth Dynasty. They incorporate some material from the Old Kingdom Pyramid Texts corpus, though there is also much that is new. Most of the surviving coffins inscribed with these texts come from the nomarchal cemeteries of Middle Egypt, though examples have been found throughout the country, including the cemeteries clustered around the royal residence at Lisht (Allen 1996). The overall aim of these texts was functional, to ensure the successful burial of the deceased and their subsequent journey to becoming a blessed spirit the afterlife. Some of the utterances relate to the liturgy of the burial of the deceased, while others focus on overcoming the obstacles in the underworld, where the inhabitants try to trap and trick the deceased. A number of these utterances have passages with a marked dramatic and literary flavor, such as the speeches by Isis and Nephthys mourning for the dead Osiris in the mortuary liturgies (e.g. *Coffin Text* utterance no. 51). Another important development within the *Coffin Texts* is the appearance of one of the first illustrated guides to the underworld with its accompanying text, called the *Book of the Two Ways* (Backes 2005). At the climax of this there is an utterance (no. 1130) containing a declaration by the creator god of the

"four good deeds" he did for humanity at the beginning of the universe, to ensure that humanity could thrive: he made the air, the inundation, he made all men equal, and he made men remember death so as to be pious. With lapidary concision, this speech expresses the religious thought underpinning Egyptian concepts about the universe, and it can in some ways be read as a riposte to the kind of theodic questioning expressed in some literary texts such as the *Dialogue of Ipuwer and the Lord of All* (see Sitzler 1995).

While not strictly literary, another ritual text which deserves mention is the "Dramatic Papyrus" from the Ramesseum tomb (Quack 2006h). This contains a series of vignettes illustrating some kind of enthronement ritual enacted for Senwosret I, with each scene accompanied by brief labels explicating the mythological significance of each ritual action.

Royal monumental inscriptions

A significant number of very artfully composed and rhetorically involved royal inscriptions survive from the Middle Kingdom, which saw the genesis of a new genre of royal inscription which is still generally known by its German name of *Königsnovelle* (Loprieno 1996: 277–95; B. Hofmann 2004). These texts are usually set up in a temple context, and record the deeds of the king: in war, he suppresses rebels, and in peacetime he undertakes building activities in the temples. These texts quickly develop a standard form, involving scenes where the king speaks before his courtiers, and his ideas are enthusiastically received and carried out. The *Königsnovelle* tradition probably has its origin in the Eleventh Dynasty, but the best known Middle Kingdom examples date to the reign of Senwosret I. In the inscription he set up in the temple of Tod, he records rebuilding the temple which was laid waste as a result of a rebellion which he suppressed (Barbotin and Clère 1991). Another building inscription of this king, recording his embellishment of the temple of Atum at Heliopolis, survives only in a New Kingdom manuscript copy (de Buck 1938), suggesting that it was admired and circulated beyond its original context in subsequent centuries: an example, perhaps, of a non-literary text crossing into the literary domain (unless the text is a New Kingdom pastiche claiming to be a Middle Kingdom composition, as has been argued by Derchain 1992).

The *Königsnovelle* tradition continued in subsequent periods, with some of the most unusual being produced in the Second Intermediate Period: for example, one king turns the disastrous flooding of the Temple of Karnak into an opportunity for ritual display by wading through the flooded forecourt (Baines 1974). One of the most unusual *Königsnovellen* was composed in the reign of the Seventeenth Dynasty king Kamose, and recounts that king's battles against the Hyksos rulers of northern Egypt.

A slightly different type of royal inscription is represented by the greater Semna stela of Senwosret III (Eyre 1990). This boundary marker was set up at the southern limit of the Egyptian empire in Nubia, and it contains a lengthy speech by the king extolling his own virtues, and his achievements in subduing the Nubians. The text is a rhetorical *tour de force*, notable for its strong ethnocentrism in denigrating the Nubians as "wretches, broken of heart … they are not people to be respected."

It also addresses future Egyptians and urges them to maintain the borders established; Senwosret III even goes so far as to disown any heir of his who abandons it.

A non-literary genre that pre-dates the Middle Kingdom is the royal annals: tabular inscriptions set up in temple contexts recording in labeling format the comings and goings at the royal court. The only Middle Kingdom example dates to the reign of Amenemhet II (Altenmüller and Moussa 1991), and records the departure and return of royal expeditions, the establishment and endowment of cults, and the celebration of festivals. It is intriguing that these annals also contain a passage narrating a royal expedition to the marshes which ties in nicely with the mention of Amenemhet II in the literary text *The Account of the Sporting King*.

Non-royal inscriptions

The tomb biography (Lichtheim 1988; Gnirs 1996), recounting the titles, name, ethical qualities and sometimes the main career events of the tomb owner, has its origins in the Old Kingdom, and it has been suggested that Middle Kingdom literature itself developed out of the tradition of writing biographies (Assmann 1983), which would fit with the *Tale of Sinuhe* masquerading as a biography. The biography tradition saw considerable development in the First Intermediate Period, when local rulers such as Ankhtify of Moalla (Vandier 1950), or Itibi and Khety II of Assiut (Franke 1990: 125–6) created highly wrought descriptions of the unsettled conditions of the time, including descriptions of battle. With the reassertion of royal authority in the Middle Kingdom, non-royal inscriptions tend to focus once again on the individual's relationship with the king. However, several regional governors had lengthy biographies inscribed in their tombs, and these vary widely in emphasis: for example the nomarch Ameny of Beni Hasan records his military service in Senwosret I's expeditions to Nubia, as well as his success in feeding the people of his province during a famine caused by a low inundation (Moreno García 1997: 32–4). A later Beni Hasan nomarch, Khnumhotep II, is more concerned with detailing his family's appointment to various governorates. Another kind of non-royal commemorative text is evidenced by governor Sarenput I of Aswan, who renovated the chapel of the local "patron saint" Heqayib at Elephantine and left a stela commemorating his urban improvements (Franke 1994: 156–7).

The central feature of any non-royal commemorative inscription is the offering formula, which, if read aloud, was believed to conjure up the enumerated offerings (bread, beer, oxen, fowl, alabaster, linen, "everything good and pure") for the benefit of the deceased in the next life. Many non-royal commemorative texts consist of little more than this, plus the deceased's name and titles, and a conventional series of claims that the deceased was an upright individual deserving of a decent afterlife. Often the texts continue with a set of "appeals to the living," trying to induce passers by to recite the offering formula: "O you who love life and hate death, as you wish your local gods to favor you, you should say (the offering formula)." Sometimes the text continues with blandishments to encourage the reader to say the offering formula, occasionally counterbalanced by curses against anyone who disrespects the monument.

By the Middle Kingdom Abydos, the city of Osiris, had become a religious center of national importance, and a large number of officials erected memorials in the vicinity of the temple and processional ways of the god, hoping to partake of his festivals (Simpson 1974a). A string of officials throughout the Middle Kingdom and Second Intermediate Period commemorate their being sent by the king to renovate the Osiris chapel, and to conduct the rituals of Osiris. The most explicit of these is the stela of Ikhernofret from the reign of Senwosret III (Sethe 1928: 70–1). The stela begins with the text of an elaborate royal decree commissioning Ikhernofret to renovate the temple equipment and predicting that "there is none who can do it besides you." Ikhernofret duly refurbishes the temple regalia, and then describes in a somewhat vague and allusive fashion his conduct of the festivals of Osiris, which include a re-enactment of the central events of the Osirian myth cycle.

Another class of inscription, where the boundary between royal and non-royal becomes somewhat blurred, is represented by the inscriptions left in remote places outside the Nile Valley commemorating expeditions undertaken by officials on behalf of the king to procure raw material. As well as factual information, these texts sometimes contain details of difficulties overcome, or prodigious events that occurred during the expedition. One stela, set up in the reign of Amenemhet III at the remote temple of Hathor at Serabit el-Khadim in the Sinai, records how the official Harwerre journeyed there to mine turquoise (though see Iversen 1984). His team were discouraged by being made to prospect for the mineral in the heat of summer, but Harwerre persevered, offered to Hathor and eventually brought back more turquoise "than anyone who had come (before)." Harwerre directly addresses future expedition leaders to heed his example, and not give up hope of finding turquoise. The motif of fortitude, and disaster overcome, is strongly reminiscent of the *Tale of the Shipwrecked Sailor*, and it is a moot point whether the literary text might reflect the expedition inscription tradition, or whether in fact Harwerre's inscription might have been influenced by the *Tale of the Shipwrecked Sailor*.

The last example demonstrates why it is impossible to draw a sharp distinction between the literary and the non-literary texts surviving from the Middle Kingdom. The narrowly "literary" texts make extensive intertextual reference to many of the other written genres of the period, and any interpretation of them requires a knowledge of these other genres. The *Tale of Sinuhe*, for instance, incorporates its narrative within the overall format of a biography, and within the narrative one can find eulogistic praise poetry, an exchange of letters between king and subject, not to mention ritual songs sung by the royal princesses.

5   Non-literary Middle Kingdom Texts

There are several major groups of letters surviving from the Middle Kingdom (Wente 1990: 58–88): the Heqanakhte letters (Allen 2002) date from the early Twelfth Dynasty and vividly portray the business affairs and family quarrels of a gentleman-farmer at Thebes and his family. Mostly from the late Twelfth Dynasty come a significant number of letters, both real and model, from the pyramid town of

Lahun (e.g. Luft 1992; Collier and Quirke 2002), including a number of letters copied into the administrative day-book of the temple. A papyrus from the Ramesseum tomb contained the ''Semna dispatches,'' an administrative document with copies of letters sent between the governors of forts in Nubia (Smither 1945). The tradition of writing ''letters to the dead'' and depositing them in tombs, although not as well attested as in preceding periods, continued in the Middle Kingdom (e.g. Wente 1990: 215–16).

A significant number of technical treatises, mostly magico-medical, survive from the Middle Kingdom from the Ramesseum tomb (Gardiner 1955) and from Lahun (Collier and Quirke 2004: 53–98), and it is possible that some medical texts preserved in early New Kingdom manuscripts were written earlier. Magico-medical texts were designed to confer healing and protection, often mixing magical incantations with medical remedies. An isolated magical text from the late Second Intermediate Period, the *Spells for Mother and Child*, contains some fairly dramatic speeches where the speaker interrogates the illness demons and refuses to let them harm the child (Parkinson 1996: 154). Dramatic, performative speeches of this sort are frequent in magico-medical literature. A magical text genre of a rather different sort is the ''execration text''; these were used in cursing rituals, with the names of the accursed being written on clay figurines and vessels before being ritually destroyed (Posener 1987). Surviving execration texts seem to have been part of the ''official'' magic undertaken by the governing class against enemies of the state.

Other kinds of technical treatise included those on mathematics, evidenced by the Rhind Mathematical Papyrus from the late Second Intermediate Period (Robins and Shute 1987). Another important class of ''knowledge text'' is the list, and it is likely that certain lists (such as king lists) were some of the earliest components of the Egyptian stream of tradition (Baines 1988). The list gives rise to one of the most characteristically Egyptian ways of codifying knowledge, the onomasticon, which consisted of a list of words arranged into various classificatory categories. The Ramesseum tomb contained an early example of this genre (Gardiner 1947: 6–23).

Major sets of Middle Kingdom administrative texts include a set of early Twelfth Dynasty papyri deposited in a tomb at Naga ed-Deir, dealing with shipyard records, accounts and building projects (Simpson 1963, 1965 and 1986). From the later Middle Kingdom come temple-related administrative texts, accounts and private documentary texts from Lahun (e.g. Quirke 1990: 155–73; Collier and Quirke 2004: 99–124 and 2006), a register of forced-labor fugitives from Thebes (Hayes: 1955), and P. Boulaq 18 consisting of palace administrative records from Thebes in the Thirteenth Dynasty (Quirke 1990).

6   The Longevity of Middle Kingdom Literature

The popularity of Middle Egyptian literature in later centuries is well demonstrated by the large number of manuscripts surviving from the New Kingdom. By the

Ramesside period Middle Egyptian literary works had come to be regarded as a kind of classical canon (Baines 1996a), distinct from contemporary literature which was now written in Late Egyptian, a considerably later stage of the language which was much closer to the vernacular. Some Middle Egyptian texts were used as advanced scribal training exercises in the New Kingdom, and the ostraca on which these exercises were inscribed account for a large proportion of surviving manuscripts. Although some of these scribes clearly followed the texts they were copying out, others seem to have had a shakier grasp (Parkinson 2009: 187–207).

Some Middle Egyptian literary texts are much better attested in the New Kingdom than others, and it is likely that this is because the New Kingdom scribal curriculum, insofar as it can be deduced from the village of Deir el-Medina, avoided certain texts. For example, the *Dialogue of a Man with his Soul* and the *Tale of the Eloquent Peasant* are not attested in any New Kingdom manuscripts. While it is possible that the dialogue had dropped out of circulation by this period, the *Tale of the Eloquent Peasant* is probably alluded to in a Ramesside composition from Deir el-Medina, suggesting that it was still known at this time (Morenz 1998).

Some Middle Egyptian texts continued to be read after the New Kingdom: the latest undisputed manuscripts date to the Twenty-Sixth Dynasty and probably come from a temple library at Elephantine (Quack 2003). This context may suggest that, by this date at least, reading Middle Egyptian literature was increasingly a culturally rarefied activity. It is possible that Middle Egyptian literature was being read later still, though the evidence is inconclusive (Jasnow 1999).

FURTHER READING

Anthologies of Middle Kingdom texts in translation: Parkinson 1997 presents the well-preserved literary works with extensive interpretative notes, while Quirke 2004 provides translations of all texts (including the very fragmentary ones) which might possibly be literary. Lichtheim 1973, Parkinson 1991, and Simpson 2003 provide a wider selection of texts from the period, including some of those on the margins of literature. A less literal, but more lyrical, approach to translating Egyptian literature is taken by Foster (2002). A wide range of papyri from the Middle Kingdom pyramid town of Lahun, both literary and non-literary, are published and translated by Collier and Quirke (2002, 2004, and 2006).

Translations of Egyptian texts also appear in general Near Eastern anthologies such as Pritchard 1969 (abbreviated *ANET*); Kaiser 1982–97 and Janowski and Wilhelm 2004– (abbreviated *TUAT*); and Hallo and Younger 1997–2002. More specialist anthologies can also be found for wisdom literature (Brunner 1988), biographies (Lichtheim 1988), hymns and prayers (Assmann 1999a), the Coffin Texts (Faulkner 1973, 1978a–b), and letters (Wente 1990). Major German anthologies include Erman 1923, Brunner-Traut 1985 and Hornung 1990b, and for French there is Lefebvre 1949 and Lalouette 1984–7.

A wide variety of aspects of Middle Kingdom literary culture are studied in depth in Parkinson 2002 and 2009, and both books provide extensive bibliographies on the subject.

Other studies encompassing Middle Egyptian literature include Morenz 1996, Moers 2001, and Baines 2007. Several important collections of papers on Egyptian literature have been published, including Loprieno 1996, Assmann and Blumenthal 1999, Moers 1999, and Burkard et al. 2004. Burkard and Thissen 2003 is a good German language introductory volume, designed for undergraduate students.

New Kingdom Literature

Gerald Moers

1   Introduction

Definitions and criteria

At present there are no studies specifically devoted to Late Egyptian literature comparable to studies on Middle Kingdom literature (Parkinson 2002). As a result definitions of New Kingdom literature implicitly draw on and are guided by aestheticizing criteria used to define Middle Kingdom literature (Baines 2003b: 8; Burkard and Thissen 2008: 1). The fundamental criteria are, therefore, the same: *form* (Burkard 1996; Mathieu 1997) and/or *fictionality* (Baines 1999c; Moers 2001). From a practical perspective, however, it is clear what belongs to the New Kingdom literary corpus. A decisive element in classification is the possibly overrated Egyptological concept of *genre* (Baines 2003b: 11–12), and the investigation of New Kingdom literature proceeds mostly using the genres employed for Middle Kingdom literature: teachings, discourses, and tales (Parkinson 2002). Teachings and tales are still to be found in the New Kingdom, while discourses have apparently disappeared (Fischer-Elfert 2003: 122). However, it seems that the New Kingdom way of incorporating problematic issues into teachings and tales made discourses redundant. On the other hand, new textual types (*Miscellanies, Love Songs*) emerge, which can easily be classified because of their historical uniqueness and their content. Ultimately, the material of the transmission media is regarded as a marker of literary merit: papyri and ostraca are considered literary media in contrast to monumental inscriptions, which are currently excluded from the canon (Burkard and Thissen 2008: 3), despite documented cases of media cross-overs (Spalinger 2002). Given such criteria, a comparatively narrow functional definition has arisen of what constitutes New Kingdom literature as well as Egyptian literature in general: "Literature is *belles lettres*" (Baines 2003b: 4). Broader definitions might well extend the corpus, as is done by Lichtheim (1976) and Simpson (2003).

Borderline cases are the *Miscellanies* used in Ramesside scribal education, which are sometimes excluded from the literary corpus (Quirke 1996: 382–3; but see Burkard

and Thissen 2008: 156–7). Although they can easily be described as a genre, these texts are evidently not classical enough to an eye trained on Middle Kingdom literature, and moreover, given their obvious function as educational tools, it is difficult to treat them as aesthetically pleasing texts. Those Middle Kingdom literary texts which were reutilized in the Ramesside scribal education are also considered borderline, even if these classics add considerably to the complexity of the New Kingdom literary system (Baines 2003b: 13–17).

Dating New Kingdom texts

The criteria for establishing dates of origin are palaeography, language, and content. While only the extant versions of texts can be dated palaeographically, the most reliable dating is provided by their *termini ad quem* or *post quem*. Examples are the *Teaching of Amennakht* or the *Letter of Menna*. It is certain that these texts do not date before the historical period of their authors in the Twentieth Dynasty (*ad quem*), to which they also belong palaeographically. The palaeographical date of the earliest written record of *The Taking of Joppa* and *The Doomed Prince* in P. Harris 500 (early Nineteenth Dynasty) and the reconstructed *terminus post quem* of their origin lie somewhat further apart from each other. The *Taking of Joppa* in the time of Thutmose III is an historical event; in the case of the *Doomed Prince* the cultural implications of the text make a pre-middle Eighteenth Dynasty origin virtually impossible (Helck 1987). This applies similarly to the *Tale of Apophis and Seqenenre*, although the earliest written record in P. Sallier I (late Nineteenth Dynasty) already comes some time later than the historical facts which form the basis of the tale (see below).

   More difficult is the analysis of the date of origin of texts located with certainty to the New Kingdom on a palaeographical basis, but whose subject matter does not clearly refer to this period. As a rule, either their position in language history or the perceived historical implications of their content is analyzed. Recently a general case was made for the merits of linguistic dating methods as against palaeography and historical context (Lieven 2007: 223–54). The discussion is important because it raises the problem of the differentiation of the New Kingdom literary languages into a pre-Amarna "Classical Egyptian," possibly intermingled with Late Egyptianisms, and a post-Amarna "Literary Late Egyptian" (Lieven 2007: 237–8). This distinction has led to the division of New Kingdom literature into a pre-Amarna and a post-Amarna epoch (Baines 1996a), which is correct on the basis of manuscript history but otherwise problematic. That being said, the post-Amarna period with its multitude of new texts composed in "Literary Late Egyptian" is regarded as the heyday of New Kingdom literature, from which all its famous narrative texts and new genres emanate. However, this plethora of post-Amarna material can obscure the true state of our evidence: as a rule the manuscripts originate from agglomerations of findings such as in Deir el-Medina and Memphis (Quirke 1996: 390–1) and exemplify the accidents of discovery rather than the actual distribution of literary texts over time (Baines 1996a: 165). If one considers further that the co-existence of genres such as the *laus urbis* ("Praise of a City"), and the hymns of personal piety, which are recorded later in the *Miscellanies*, is documented as early as the Eighteenth Dynasty (Guksch 1994) and that, furthermore, both genres exhibit close genetic links to the

Love Songs (see below), then a picture emerges of an even development of texts and genres distributed across the whole of the New Kingdom. A pre-Amarna period origin is probable at least for the lyrical genres just mentioned.

2 Genres, Texts, and Their Uses

Genres are modern constructs, even though they are used as a basic category in Egyptology (Baines 2003b: 3, 5, 11–2). Even if adequate generic descriptions can be established for the central texts of a genre, generic borders remain fuzzy. Therefore, it is advisable for the New Kingdom not to assume fixed genres but rather "family resemblances" between texts (for the Middle Kingdom Parkinson 2002: 108–12), which may be combined – with fluid transitions between individual texts – into text clusters which themselves display permeable exterior boundaries.

Collections of texts in single manuscripts such as P. Harris 500 or P. Chester Beatty I also warn us against overrating genre as a fundamental analytical category. Compilations such as these indicate that it can be problematic to regard genres in the modern sense as fixed social institutions (Moers 2001: 101–5; Parkinson 2002: 108–12) with well-defined cultural settings which may imply distinct groups of users for different types of New Kingdom literary texts. The appearance of *Love Songs* and narratives together in P. Harris 500 and P. Chester Beatty I shows that the commonly made distinction in Egyptology between high literary poetry (Baines 2003b: 14) and folklore-style narrative literature (Katary 1994) is hardly sensible. Rather, these manuscript collections should be regarded as proof of the existence of a dominant category of courtly literature to which belonged a mixed repertoire of equally utilized modes, genres, and stylistic levels which reflect the various needs of a relatively uniform elite audience.

3 Education and Wisdom

The problem of genre becomes apparent in the Egyptian word *sbꜣyt* which is commonly regarded as an indicator of the teaching or wisdom genre. However, the Egyptian texts designated by this term would be assigned nowadays to different genres. Thus in the New Kingdom such different types of texts as onomastica (*Onomasticon of Amenemope*, see Gardiner 1947; excluded here for its non-literary, encyclopaedic character), and seemingly "classic" wisdom texts are both described as "teachings" (*Teaching of Amenemope*: *sbꜣyt n ꜥnḫ*; *Teaching of Anii*: *sbꜣyt mtrt*), as are strongly individualized educative texts of merely local significance (*Teaching of Amennakht*; *Teaching of Hori*, all *sbꜣyt mtrt*) and the "epistolary teachings" (*sbꜣyt šꜥt*) of the *Miscellanies*. This means that the Egyptian term *sbꜣyt* does not describe a formal category of texts but is used as a broad, content-related definition of textual types, which are distinguished Egyptologically as "wisdom," "education," and "encyclopaedia texts" (Assmann 1999b: 8–9, fig. 1–2).

At the same time, it is noticeable that, in comparison with the Middle Kingdom, in the introductions to New Kingdom texts the standard term *sbꜣyt* is often combined with the

root *mtr*. Suggestions as to the difference between *sbȝyt* and *mtrt* range from "theoretical vs. practical," to "tradition transmitted in writing vs. orally imparted everyday practical advice" (summary in Dorn 2004: 51–2). As a result, the combined title *sbȝyt mtrt*, e.g. in the *Teaching of Anii* or the *Teaching of Amennakht*, is understood roughly as "educational teachings" (Quack 1994: 83). A further characteristic of the teaching literature of the New Kingdom is that the teachings are probably the product of real authors, unlike the fictitious ones of the Middle Kingdom (Fischer-Elfert 2003: 123).

Miscellanies

Miscellanies are texts which were used in advanced scribal education during the Ramesside period (Gardiner 1937; Caminos 1954; Tacke 2001; Fischer-Elfert 1986b, 1997). This education was not so much a matter of schooling in the conventional sense as a system for the perfection of already existing basic skills (McDowell 1999: 127–64; Goelet 2008). Along with the copying of "classical" teachings from the Middle Kingdom, e.g. *Teaching of Amenemhet* or *Teaching of Khety*, onto ostraca and papyri, this education also involved the production of an extensive para-literary papyrus as a graduation piece in which the young professional could demonstrate his familiarity with various styles of written Hieratic and all the text types which would be important for his future career (Erman 1925). *Miscellanies*, compiled by real individuals, have been obtained from Thebes and Memphis in great quantities and prove that in the Ramesside period there was a fairly standardized textual syllabus for the higher levels of an official's education (Quirke 1996: 382–3). The text types that were imported into the *Miscellanies* range from Middle Kingdom classics to records, lists of articles, and technical manuals, as well as *laus urbis*, hymns, and prayers. Especially frequently used are two types of text which complemented each other: the pieces known as "Be a Scribe," which emphasize the prestige and economic advantages of life as an official and caution disobedient pupils, are complemented by pieces which mock other occupational groups – the military above all ("Satire of Trades"; "Hardships of a Soldiers Life"). Many of these text types are incorporated in the *Miscellanies* by means of an epistolary formula; other parts consist wholly of reused real or fictitious letters (so-called "model-letters," Caminos 1982), which were meant to instruct young professionals in the writing of business letters. The formal integration of the most varied textual types in the *Miscellanies*, organized by means of epistolary formulae, proves the fundamental significance of the epistolary genre as a possible "basic model" for the formation of literary texts (Moers 2001: 169–73; Schad 2006; for the Middle Kingdom see Quirke 1996: 381; Horváth 2007: 81–5).

Extending the Miscellanies: *personalized education from Deir el-Medina*

There are some pieces of individual literary production which are especially close, formally and in terms of literary origins, to the *Miscellanies*, and which are only transmitted on ostraca from Deir el-Medina. They are thus to be interpreted as local formulations of the codes of conduct, known from the *Miscellanies*, for

local officials (Baines 1996a: 167; Fischer-Elfert 2003: 123). The relevance of the epistolary genre for literary production becomes particularly clear in the *Letter of Menna*, which is transmitted on an unusually large ostracon from the first half of the Twentieth Dynasty (Guglielmi 1983). Menna's literary letter-lament at the wayward behavior of his son Pairi can be related with some confidence to Pairi's actual misdeeds which are recorded in other contemporary documents from Deir el-Medina (Fischer-Elfert 2006). Therefore, before the letter shifts into the established phraseology of instruction epilogues towards the end of the text, it shows in long sections more resemblance to a reflective discourse. What makes it notable above all, however, is the implicit literary knowledge of its author. Apart from a reference to an episode of the New Kingdom *Teaching of Anii* (B 16,13–17, Fischer-Elfert 2005: 165–231), the author's knowledge is also exemplified by two quotes from Middle Kingdom texts which were otherwise not transmitted in the New Kingdom (*Shipwrecked Sailor*, *Eloquent Peasant*, Simpson 1958). The text thereby shows exemplarily how real events can be converted into fictional literature through recourse to common literary forms and themes (Moers 2001: 232–42). A further example of local literary production closely related to the *Miscellanies* is the *Teaching of Amennakht* (Dorn 2004). The composer of the text is the scribe Amennakht who is documented in the reigns of Ramesses III to Ramesses IV, and to whom other, smaller *Miscellany*-like texts have also been attributed (Bickel and Mathieu 1993: 37–49). The teaching, a variation of the "Be a Scribe"-theme, is addressed to Amennakht's assistant Hormin, who, for his part, thanks Amennakht for his distinctly rough education. In this respect the teaching displays a peculiarity, as it has already incorporated the teacher's success in the form of the pupil's grateful commentary. This combination identifies the text, despite every possibility of relating it to concrete historical situations, as being fictional.

Other texts with only local distribution in Deir el-Medina are the *Teaching of Hori* and the so-called *Prohibitions*. The *Teaching of Hori* is documented on just one Ramesside ostracon and belongs to the *Miscellanies* sub-type "Be a Scribe" (Fischer-Elfert 1986b: 1–4). The *Prohibitions* (Hagen 2005) are, in contrast, transmitted on five (or six) fragmentary ostraca from the Nineteenth and Twentieth Dynasties. Their characteristic feature lies in their logical and formal (stichic) layout. The text presents loosely connected two-part maxims, all of which begin with a prohibition which is then either justified, or shown with its positive or negative consequences, e.g. A12: "You should not straighten what is crooked, and do what is loved; every man is dragged according to his character like a part of his body" (Hagen 2005: 143). Formally, the Prohibitions may point forward to later Demotic wisdom.

Transcending the Miscellanies: *the* Satirical Letter *of P.Anastasi I*

The *Satirical Letter* of P.Anastasi I (Fischer-Elfert 1983; Fischer-Elfert 1986a) shows what a masterly result a meticulously undertaken training in the system of Ramesside education could lead to. This fictional text is documented in Memphite and Theban traditions and probably originated in the early part of the reign of Ramesses II (Fischer-Elfert 1986a: 251–67). Although the text is regarded as a "unique

specimen'' (Burkard and Thissen 2008: 141), and is not regarded as belonging to the *Miscellanies* genre, it is close to it inasmuch as it takes this basic model as its starting point. Constructed as a letter of the scribe Hori to a recipient addressed as ''whoever,'' the text incorporates different types of literature (Fischer-Elfert 1986a: 271–6); there are mathematical exercises (chs. 12–15), topographical lists, and Near Eastern cultural studies (chs. 16–19a and 20a), as well as texts of the type ''Hardship of a Soldier's Life.'' The text also discusses the educational goals of the *Miscellanies* when, in ch. 8, on the basis of the Middle Kingdom *Teaching of Hardjedef*, there is an argument about the correct use of the classics learned in school. However, the probable aim of Hori's open letter, unlike the simple graduation pieces of the *Miscellanies*, is to criticize, through his own mastery of the conventions of well-established educational genres, the monotonous reproduction of school knowledge which was apparently widespread among the contemporary officials addressed in the text as ''whoever,'' and which, though it was learned off by heart, was not understood (Fischer-Elfert 1986a: 279–90).

Between education and wisdom: the Teaching of Anii

Alongside the personalized teachings from Deir el-Medina two longer texts from the New Kingdom, the *Teaching of Anii* and the *Teaching of Amenemope*, were also current. Despite all their manifest differences, they are commonly mentioned together with the classical wisdom-teachings of the Middle Kingdom (Shupak 1993: 22–3). The *Teaching of Anii* (Quack 1994) is documented in five papyri from Thebes and Saqqara, nine ostraca from Deir el-Medina, and on a wooden writing board, dating from the late Nineteenth Dynasty to the Late Period. The date of the text's origin is assumed, on the basis of linguistic criteria, to be the first half of the Nineteenth Dynasty. The existing manuscripts indicate that there was a standard textual body, despite modifications made in transmission (Quack 1994: 13–23; Moers 2009). However, the history of the text's transmission also shows that *Anii* exhibits a greater closeness to the *Miscellanies* than previously supposed. While direct intertextual connections between *Anii* and the *Miscellanies* may not be detected (Quack 1994: 199–201), the transmission of *Anii* and some *Miscellanies* in the same manuscripts shows that the texts not only descend from a common cultural milieu but also that the Egyptological appraisal of *Anii* as a ''great teaching'' only corresponds to a limited extent to the Egyptian reality. The passage *Anii* B 20,5–7 is transmitted on an ostracon, the title and content of which clearly identify the piece as *Miscellany*. The same goes for the passage documented on another ostracon, *Anii* B 19,1–4, about establishing an allotment, which is also transmitted in the *Miscellanies* of P.Chester Beatty V vso. 2,8–11. These observations support the view that the generic borders between the expanded group of the *Miscellanies* and the ''great'' New Kingdom wisdom texts are, at least in the case of *Anii*, more unstable than previously assumed. Therefore the possibility exists that the *Anii* is a composition which can genetically be included within the *Miscellanies* in their broadest sense.

The text takes the classic form of a teaching of a scribe Anii to his son, Khonsuhotep. It consist of a sequence of maxims which connect through chains of

association and loose thematic groups, and presents a code of conduct, the following of which enables the avoidance of negative sanctions and guarantees individual success. The themes are familiar already from the Middle Kingdom: consideration for others in the course of business and in communication; successful creation and preservation of an extended family; avoidance of law breaking and breaking taboos, as well as the call to follow the scribal profession. Thematically new are demands to keep one's distance from foreigners and the foreign, as well as instructions as to correct behavior in cultic and ceremonial events. Although these themes may be roughly differentiated into worldly and religious maxims, the text generally stands apart through its pragmatic relevance to everyday life. In the *Teaching of Anii* it is no longer argued in abstract terms, as in the Middle Kingdom teachings, how one should behave socially. On the contrary, the text demonstrates from a personal perspective how an individual best behaves in practical contexts to achieve personal success. *Anii* consequently does not present abstract behavioral norms but elevates concrete knowledge of the world into a programme of action, based on pragmatism, which can make the world controllable for individuals. The prerequisite for this is to accept the view of social experience and divine intervention as they are presented in the text and, through skilful adaptation, make it the foundation of one's own success.

Although this utilitarian focus of the text is described as "middle-class ethics," due to the social position of its author, and its implied audience reconstructed as being administrative middle class (Quack 1994: 75, 79–81), it originally displayed an individual ethic which had a successful history of reception. The strong emphasis on economic profit, family-related themes, and warnings against the foreign, asserted in various forms (B 16,13–17; B 18,9–10; B 19,6–7; B 20,1–2; B 20,7), speak in favor of a perception of society as comparatively individualized (Vernus 1993: 159–96), a society in which unfamiliar social situations could no longer be dealt with according to generally accepted and abstract rules but were rather avoided through refusal to participate. This process and the absence of the causal relationship, typical for Middle Kingdom teachings, between one's own good deeds and the resulting success achieved, have generally been explained by the influence of the religious phenomenon of personal piety (Quack 1994: 75, 78). However, it is more probable that personal piety itself is a secondary religious reaction to the contemporary social phenomena.

This might be underlined also by the epilogue of the teaching which is unique in Egyptian literary history and takes the shape of a double rebuttal in which neither father nor son accepts the view of the other. Under the assertion of the god-given character of his own nature, Khonsuhotep questions the relevance of his father's teaching for his case and denies the possibility of developing his character through fatherly education: "Every man is dragged according to his nature" (B 22,15); thus "Tell the god who gave you wisdom: 'Set them on your path!'" (B 23,11). Anii, however, closes the discussion with an image which draws an analogy between the natural development of man from suckling infant to toddler and his ability to grow intellectually, and so rebuts the argument of predestination presented by Khonsuhotep. Although the father thereby maintains the adequacy of his teaching, the presence itself of the epilogue demonstrates the ultimate

irreducibility of an opposite standpoint which can be formulated in religious terms whenever needed. The possibility of holding an opposite standpoint to the proffered teaching is, however, not only prominent in the epilogue of *Anii*, but also pervades the entire extended group of *Miscellanies*. While *Amennakht* refuses to tolerate a sweeping reply wholly out of principle (Dorn 2004: 43), the *Miscellanies* of P.Chester Beatty IV vso. 6,5–7 warn the pupil against relying on the argument of predestination in order to go against the education of his teacher. The *Prohibitions*, for their part, ultimately deny the validity of exactly this position when they state, regarding predestination: "You should not straighten what is crooked, and do what is loved; every man is dragged according to his character like a part of his body" (Hagen 2005: 143). Thereby, they turn the fatherly argumentation of *Anii's* epilogue on its head, which claims, with regard to the character, that it is to be worked on like a crooked piece of wood which is to be straightened (B 23,13–14). Overall, the *Teaching of Anii* is, in its literary origins and intertextual affinities to the *Miscellanies*, the same kind of literary product as the shorter teachings from Deir el-Medina. However, the integration of a wider variety of themes, and the reflection on alternative voices in its epilogue make the text more complex than the purely educational *Miscellanies*, or the personalized teachings from Deir el-Medina. It was probably this ability to adapt controversial themes of overriding social importance which gained the text its successful history of reception and elevated it to the status of "Wisdom Text" which it holds today.

Late Egyptian Wisdom: the Teaching of Amenemope

The achievement of abstraction in the treatment of society emerges more clearly in *The Teaching of Amenemope* (Laisney 2007) than in the *Anii*. However, this is due not so much to a big difference in content to *Anii*, but rather to the clearly recognizable form of the teaching, already visible in the physical layout of the text. As well as being arranged in stanzas, the majority of the manuscripts are written stichically and thus point forward to later Demotic wisdom (Lichtheim 1983). Apart from this poetic form, it is the relation to the Old Testament Proverbs (Römheld 1989) which have given rise to the modern perception of the text as being one of the most significant wisdom texts of the New Kingdom.

Amenemope is transmitted in its entirety in a papyrus from the Twenty-sixth Dynasty (P.BM 10474), as well as in partial copies on another papyrus, four writing boards, and one ostracon which all originate from an educational environment. The ostracon dates perhaps to the Twentieth Dynasty and, if so, is the oldest testimony. The text's date of composition is estimated to be the Twentieth Dynasty. It begins with an extensive prologue, in which the corn-scribe Amenemope states the purpose and goal of his teaching, as well as introducing himself and the addressee, his son, Horemmaakheru, with titles and genealogy. There follow 29 stanzas of teachings, which, unlike *Anii*, uniformly take the shape of admonitions with accompanying justifications, as well as an epilogue-like 30th stanza, which summarizes the worth of the teaching for the person instructed. Although the text may have initially been exactly the same kind of individual product as *Anii*, its implied audience is normally regarded as a large segment of society, which, on the basis of

Amenemope's titles, is identified as the lower and middle provincial official elite (Laisney 2007: 233–4). The themes of the teaching are familiar in Egyptian wisdom: correct exercise of official duties, considered and appropriate speech, avoidance of short-sighted greed and addiction to success, as well as humility in the face of the great and benevolence in the face of the disadvantaged. Although *Amenemope*, in contrast to *Anii*, seems to be more thematically structured and assembles diverse stanzas into smaller thematic blocks (Shirun-Grumach 1991: 224), a clear thematic structure is hard to discern (but see Laisney 2007: 9). The text frequently varies its themes and illuminates one and the same basic statement from different perspectives. Without any clear intertextual dependence on *Anii* (Quack 1994: 201–3), *Amenemope* positions its themes in the same way against the background of personal piety but draws, in part, different conclusions. The central motif in *Amenemope* is the "true silent one," a monument of self-renunciation, who in silent prayer (P.BM 10474 VII,7–8 = ch. 5, 14–16) and conscious inwardness, embraces the fate that god has intended and which remains inexplicable to himself (P.BM 10474 XIX,16–17 and XX,5–6 = ch. 18, 6–7 and 18–19). His opposite is the "ardent one" (*šmm*), described as greedy, unrestrained, and hungry for advancement, to whom every means to success is right, but who also pays the price when judged by god (P.BM 10474 XIX,22 – XX,2 = ch. 18, 12–15). The clearest verbalization of god's omnipotence and the helplessness of the man is found in the image of god as an all powerful potter who creates and destroys as he wishes, poor and powerful alike (P.BM 10474 XXIV,13–18 = ch. 25, 6–10).

In this text, like *Anii*, the causal relationship, familiar from the Middle Kingdom teachings, between one's own actions and the resulting success is uncoupled. Unlike *Anii*, however, *Amenemope* does not opt pragmatically for an individualized utilitarian maximizing of profit suited to the conditions but develops, through the symbol of the "true silent one," a case for a withdrawn and modest handling of individual possibilities. This becomes especially clear in the passages where the apparently commonly used possibility of abusing one's office is specifically argued against. Likewise, there are warnings against the forging of entries in the cadastre or the use of false measures and weights (chs. 6, 13, and 15–17), as well as against the god-like insolence of retrospectively correcting an oracle (ch. 20). In direct opposition to *Anii*, *Amenemope* even warns its audience against excluding foreigners from charity (P.BM 10474 XXVI,11 = ch. 28, 3). Therefore, although *Amenemope* clearly takes the same individualized society as its starting point as *Anii*, it develops for its audience, imagined as being socially isolated, different conclusions which to the modern observer appear more humanitarian and, therefore, "wiser." This appearance of contemplative wisdom may have contributed just as much to the fame of the teachings as their function as a model for Proverbs 22.17–24.22, which have incorporated parts of the teachings (Römheld 1989; Laisney 2007: 239–46). However, the significance of the text is also overrated. *Amenemope* is, in its original Egyptian context, nothing more than a comparatively marginal school text whose treatment in Proverbs should be interpreted not so much as an important intercultural exchange, but rather as drawing on a stock of themes available in a socially common milieu. It is the influence of the Biblical master-narrative which has led to the modern elevation of the text to a position which it did not enjoy in antiquity.

4 Courtly Literature

In the New Kingdom a second group of texts exists alongside these closely interlocked educational and wisdom texts which can be described as "courtly literature." Of course this description is purely a convenience. The term serves as an analytical category which, in the broadest possible sense, perceives affinities with the literary traditions of the European Middle Ages, without in any way implying an identity. "Courtly" does also not only mean "royal" but implies the households of the upper nobility (Assmann 1996b: 78). The following analysis builds on interpretations proposing that the texts in question are entertainment-literature (Assmann 1999b: 12–3) but denies that this implies the texts lack functions beyond that.

Two text types which are frequently incorporated into the *Miscellanies* are the *laus urbis* and the hymns and prayers of personal piety. Although the latter are not the subject of further treatment, on grounds of their religious character, they show, due to their typological relationship with the *laus urbis* and the *Love Songs*, that these text types have the same origin, and that the hymns are the intertextual model of secular poetry (Guglielmi 1996: 335). These interrelations can be explained by the *Miscellanies* of P.Anastasi II (Gardiner 1937: 12–20; Caminos 1954: 37–65) which, apart from one piece "Be a Scribe," exclusively contains hymns of praise to gods, kings, and cities, but which is most remarkable because of an excerpt from an otherwise unknown love song (P.Anastasi II vso. 5, Mathieu 1996: 218–9), with which the teacher expresses appreciation of the graduation piece of his pupil. This conjunction of text types expresses, even in the rather didactic *Miscellanies*, an intuitive feeling of their users for typological relationships. Moreover, it suggests a common milieu for their use, which is also shown by the juxtaposition of *Love Songs* and hymns on two Ramesside ostraca (O.Gardiner 304, Černý and Gardiner 1957: pl. 38; O.Borchardt 1, Mathieu 1996: 113–4, see ahead). That the commonality between these types of text has deep historic roots is shown by the previously addressed Thutmosid ostracon from Thebes, which, alongside a prayer shaped by personal piety, also contains a *laus urbis* (Guksch 1994). The close relations between hymns, *laus urbis*, and *Love Songs* (Ragazzoli 2008: 135–46) is also proved by the artful integration of typological components of all three genres into one love song in P.Harris 500 (P.BM 10060 rto. 2,5–9, Mathieu 1996: pl. 9).

Laus urbis

The *laus urbis* is a lyrical form which is only known from New Kingdom *Miscellanies* and ostraca (Lichtheim 1980b; Verhoeven 2004; Ragazzoli 2008). It appears in two varieties which are different in both form and content, and which can be compared to some degree with sub-genres or motifs in the *Love Songs*. The rather descriptive "Praises of the City" are usually part of fictitious letters. While the city itself is sometimes metaphorically referred to as a young girl (P.Sallier IV vso. 2,4 [Gardiner 1937: 90]), these "Praises" are generally reminiscent of praises in the *Love Songs* describing the beloved's beauty. The other type, known as "Longing for the City," tends to be part of fictive prayers and sometimes resembles the "love as a disease"-motif of the *Love Songs*

(compare e.g. the "Longing for Memphis" in P.Anastasi IV 4,11–5,5: "No task can I accomplish since my heart is sundered from its place. [. . .] My heart is not in my body, evil has seized all my limbs." [Caminos 1954: 150] with love song 7 of group C of P.Chester Beatty I: "Illness has invaded me, my limbs have grown heavy, and I barely sense my own body" [Fox 1985: 55]). The "Praises of a City" contain grandiose descriptions of Memphis in Lower Egypt or Piramesse in the Eastern Delta and empha- size the appeal of these places for people throughout the whole country. Descriptions of architecture and landscape alternate with detailed renderings of festival-scenes, as well as lists of charming products which are presented and consumed on such occasions. Because this variant of the *laus urbis* is, in the *Miscellanies*, frequently interlinked with kings' eulogies, the "Praises of the City" are also interpreted as another expression of praise of the ruler. More difficult is the interpretation of the "Longing for a City" variant, whose theme is the apparently unwanted separation from a (home) city. The fact that its main formal feature as a prayer localizes the text in the field of personal piety is hardly an adequate explanation because this only represents the religious flipside of the phenom- enon, which was described above as being an individualized society. The second variant of the *laus urbis* praises provincial hometowns either of stay-at-home individuals or of dislocated people who, plagued by homesick alienation, are at a loss in the hustle and bustle which clouds the senses, especially in the Delta residence. These voices represent, therefore, those social categories of foreigners who, in precisely the sense of the *Teachings of Amenemope* or *Anii*, are always left out in a town which is foreign to them, regardless of whether they are entirely ignored or receive benevolent treatment. The cultural tension inherent in the very coexistence of both types of the *laus urbis* is, however, paradigmatic insofar as it offers the discrepancy between the mode of life of the Delta residence and other cities as an interpretative model for the perception of any kind of regional and cultural difference inside Egypt (Bommas 2003). A sense of foreignness in the face of one's own culture obviously has become a standard phenom- enon in the New Kingdom.

Love Songs

Love Songs (Schott 1950; Hermann 1959; Fox 1985; Guglielmi 1996; Mathieu 1996) is the collective term for a number of songs, song collections, and song cycles, whose Egyptian labels vary, for no apparent reason, between sayings (*rw*), verses (*tsw*), and songs (*ḥswt*) which probably do not refer to genre distinctions but to the oral moment (*r*) of the intonation (*ḥst*) of the texts, which are understood as bound linguistic and semantic units (*ts*). The songs are, even in their respective combinations in collections or closed cycles, unique (only O.Borchardt 1 and O.CGT 57367 have parallels [Mathieu 1996: 113–14]) and documented exclusively in Ramesside manu- scripts from Thebes. Their date of origin is, however, believed to be as early as the Eighteenth Dynasty.

Three papyri and numerous ostraca containing *Love Songs* have come down to us (Mathieu 1996). Their basic theme is amatory affection. This is verbalized by male and female voices which do not necessarily reflect actual speakers but may rather be literary fictions of primarily male origin (Meskell 2002: 130; Münch and Moers 2005: 147–8). These voices are textually integrated as antiphons (P.Chester Beatty

I group C) or as groups of male and female stanzas which interchange within a song (first group of P.Harris 500, first group of *Cairo Love Songs*) or form a song of their own (second group of P.Harris 500, P.Chester Beatty group G, second group of *Cairo Love Songs*). As elsewhere, Egyptian descriptions of desire range from catching a shy glimpse of the beloved to imagining a happy future after spending a first night together. Also the Egyptian forms of the literary treatment of desire can be compared with types of texts known from other pre-modern cultures. Clear subtypes of the Egyptian *Love Songs* are *Glorifications* which praise the bodily perfection of the quasi-deified beloved (P.Chester Beatty I, group C, songs 1 and 6), the *Paraclausithyron*, in which the male lover complains at the door of the woman's house because he is not being admitted (P.Harris 500, first group, song 7, P.Chester Beatty I rto, songs 6 and 7), or the *Alba* in which a female voice bemoans the end of love-making at daybreak (P.Harris 500, first group, song 1 and second group, song 6). Other recurrent motifs are love as drunken ecstasy, as disease, or as trap, and the wrongly designated "travesties" (Fox 1985: 292–4). In these last-mentioned songs, desire is expressed as a wish to overcome the distance between the lovers. Male voices temporarily imagine themselves as servants, laundrymen, or even as material objects in order to get close to the beloved, while female voices imagine the male lover as royal messenger, royal horse, or a desert gazelle speeding towards her. Overall, the male voices tend to be more explicit in imagining physical contact (second group of *Cairo Love Songs*) than the rather metaphorical wishes of female voices which mostly imagine the lover still on his way (P.Chester Beatty I, group G).

Because of the superficial "naturalness" of their subject matter, Egyptian *Love Songs* are usually perceived as a spontaneous expression of the deeply human feeling of love, an anthropological constant found all over the world (Meskell 2002: 126–34). However, interpreting the songs as a natural expression of the desire of the individual heart is methodologically problematic, as doing so overlays the cultur-ally unfamiliar premises of the Egyptian text with the presuppositions of one's own culture (Guglielmi 1996: 377–8; Gillam 2000; Münch and Moers 2005). Rather, evidence suggests that the *Love Songs* depict completely fictional emotional landscapes which enable the social control of emotions. The texts do not promulgate an individual desire as something autonomous but instead present role schemata which show how a passive passion caused by the perfection of the beloved can be dealt with in line with social conventions (Mathieu 1996: 168–72, 247; Münch and Moers 2005: 145–6). The texts even describe the imagined courtship of the yet oblivious lovers not as a private affair, but as a regulated social act conducted by the institutionalized role-schemes of "messengers" or "mothers" (P.Chester Beatty I, group C, song 2). In addition, the character of Mehy – the charioteer who often appears in the texts and is normally interpreted as "Postillon d'Amour," "Cupid," or "Lover's Patron" – epitomizes the male ideals in the contemporary Egyptian elite and is, therefore, the central role model of the male voices in their quest for the fulfilment of their social and sexual fantasies (Gillam 2000). The fact that it is an example of role poetry is, however, especially clear from the landscapes described in the text. There are the idealized Nile landscapes as well as spacious park-like gardens, which are known from iconographic and textual sources of the New Kingdom to be the specific imaginings of the Egyptian elite in terms of their self-image (Widmaier 2009)

and the construction of which is also referred to as a status symbol in the *Teaching of Anii* (B 19, 1–4). The affectionate voices do not only communicate with each other in these imagined landscapes, but almost transfer to them the lovers' innermost thoughts and feeling. Consequently, the lovers themselves become smoothly one with parts of the landscapes in which they act (P.Harris 500, first group, song 3 and entire third group, esp. song 2), while the landscapes, for their part, lend an imaginary voice to the love that they have witnessed. The lovers are, therefore, an integral part of an imaginary social landscape where, even as lovers, they have an exact social position and do not individualize themselves by escaping into themselves (Fox 1985: 293–4).

In line with this is the possibility of reconstructing the material situation of the performance of the *Love Songs* in the context of musical banquets or festivities (Schott 1950: 29–36; Hermann 1959: 156–66; Fox 1985: 244–6; Assmann 1989; Meskell 2002: 130–1). Attempts within the text to encourage the lover to increase his efforts to "open up" the female beloved by performing *Love Songs* with dancing and singing, as well as with wine and strong beer (P.Chester Beatty I rto., song 1), apply not to private scenes, but to the usual circumstances of the performance of the songs at banquets. The same is true of the third "Song from the Orchard" (P.Turin 1966 rto. 1,15–2,15; Mathieu 1996: 85–6) which describes the organization of a public garden party by a young noblewoman. The scene shows marquees and pavilions situated in the shadow of a tree, while servants bring out musical instruments and supply the party with a variety of breads and beers as well as preserves and fresh fruits, and at the end of the three-day celebration those gathered around the beer stall will be wildly intoxicated while the two lovers amuse themselves in the shadow of a tree. O.Borchardt 1 (Mathieu 1996 pl. 22–4) gives the clearest reference to the specific situations in which *Love Songs* are used, in which all concepts constituent of, and appropriate to, the genre and its usage are merged *within* one song. Dance, accompanied song (*ḥs*), and intoxication lead directly to the abandonment and oblivion (*sḫmḫ-ib*) that represents a "good day" (*hrw nfr*):

1 What a lovely day (*hrw nfr*) to see you, brother
2 What great enchantment, the sight of you!
3 Come to me with beer
4 And singers (*ḥsw*) with instruments
5 – Their ditties full of abandonment (*sḫmḫw-jb*)
6 To joy and delight.
7 Your temperament (*šmw*) thus presented
8 And you perfectly in the role
9 Speak, and your oration shall be heard!
10 The dance be your magnificence!
11 Your sister is charming in approval
12 And bows before your face.
13 Embrace it, with beer and incense
14 Like a gift to God!

Understood as role poetry, the *Love Songs* offer a unique combination of fiction and functional location in specific performance contexts and are, therefore, by no means

abstract (thus Burkard and Thissen 2008: 86) or de-functionalized, as was proposed by interpreting the label *sḫmḫ-ib* of some songs as a general term for entertainment-literature (Assmann 1999: 12–13). From this viewpoint the emphasis on physicality in the texts gains another significance. Bodies and the sensual perceptions thereof are not only described in the *Love Songs* – rather, they are primarily imaginative constructions of the members of the Egyptian elite at a specific performance of the songs. On such occasions, guests gaze at other guests and deconstruct their bodies to parts, serving as metaphors of desire; they hear the voices that drive them mad, and they indulge in anointing, smelling, and tasting until they have made themselves sick – several New Kingdom tombs show banquets with vomiting guests (Schott 1950: pl. XI) – and only here, in a clearly predefined setting, are these guests allowed briefly to lose exactly that composure which is also spoken of in the *Love Songs* as to better keep it in other contexts (Münch and Moers 2005: 141–6).

The Antef Song

The wider social background of the *Love Songs* can be elucidated from the Harper Song genre recorded in many New Kingdom tombs (Lichtheim 1945; Assmann 1977a). The best known of these songs, and the only one that has been handed down as literary manuscript is the famous *Antef Song* to be found in P.Harris 500 between Groups 2 and 3 of its *Love Songs*. Its transmission in a collection of different texts on one manuscript illustrates the functional connection with the Egyptian *Love Songs*. Although the song's title, "The song (*ḥs*) that is in the tomb of King Antef, the justified, in front of the Harper," has traditionally been regarded as an indication that the text originated in the time of the Antef kings of the Eleventh Dynasty (Assmann 1977a), more recent research suggests that it dates back to the late Second Intermediate Period (Polz 2003: 84–6; Fox 1977: 400–3 argues for an Amarna date). The subject of the text is scepticism towards the effectiveness of burial rituals in view of the evidence of derelict burial sites. One of the arguments is that the burials of bygone wise men such as Imhotep or Hardjedef have fallen into disrepair in spite of the fact that quotes from their literary works are still known (a motif also known from the *Miscellanies* of the Ramesside P.Chester Beatty IV vso. 3,5 ff.). Consequently, the *Antef Song* argues for consistent concentration on what this life has to offer since nothing can be taken into the next world, and nobody has yet managed to return to tell us what it is like. This philosophy is shared with the *Love Songs* and culminates in a *carpe diem* view of human life (*iri hrw nfr*). Thus, the Antef Song has at its heart the very same idea which determines the Egyptian perception of festivities in the *Love Songs* (see above O.Borchardt 1).

The insertion of the *Antef Song* in a collection of *Love Songs*, as well as its terminological cross-references and shared motifs, indicates a family resemblance between the text types. This implies that there is not only a general, social motive behind both types, but also that they have a comparable function at banquets to which possibly Herodotos 2.78 (Lloyd 1976: 335–7) refers. Negative experiences in central areas of the Egyptian intellectual universe are turning into symptoms of the subtle degradation of the social fiction of a reasonable society in which

consistently applied burial customs formed the central factor of continuity and cohesion (Assmann 1990). The literature of the New Kingdom is not for nothing haunted by *revenants* (*Teaching of Anii*, B 21,22–22,3, Quack 1994: 182–3; *Tale of Khonsuemheb and the Ghost*, Beckerath 1992) who could only be returned to the grave by the restoration of their neglected burials (see below). Even if there are offers of restoration made to respond to the *Antef Song* in the *Tale of Khonsuemheb and the Ghost* and other Harpist's Songs, there no longer exist holistic models to resolve this symptomatic problem (Hermann 1959: 157–60). Instead, different unrelated strategies for compensation are offered. The personal piety treats the problem by individualizing religious devotion. Although the New Kingdom literature presents an analogy to this in *Amenenmope*'s "silent one," other suggestions are also made. *Anii* demonstrates the possibility to get the best out of a situation within the lines of what is just about acceptable, while the *Love Songs* depict the literary consequence of the general emotional state expressed by the *Antef Song* and justify in poetic terms that it is allowed to celebrate excessively on any occasion. Of similar significance is the fact that the emotional condition of these revellers is described as "ardent" (*šm*) (O.Borchardt 1, see above), because "ardent" is precisely that social type that *Amenemope* denounces as inacceptable. Seen from this perspective, the *Antef Song* supplies not only a social reason for the existence of the *Love Songs* but also refers through its *carpe diem* to the dark side of the festivals of the New Kingdom elite that are glorified in a one-sided manner in the *Love Songs*.

Tales

The collections of texts in P.Harris 500 and P.Chester Beatty I enable us to bridge the gap between the *Love Songs* and the New Kingdom narratives. Grouping together tales such as *The Taking of Joppa*, *The Doomed Prince*, and *The Contendings of Horus and Seth* with *Love Songs*, and the *Tale of Apophis and Sequenenre* with *Miscellanies* (P.Sallier I) suggests that it is possible to reconstruct for the New Kingdom narratives a common use with all previously discussed educational, didactic, and lyrical genres. This observation is significant, because Egyptological research makes a clear distinction between narratives and other genres of New Kingdom literature and manages, at the same time, to under- and over-rate them. That they are under-rated results from the fact that their narrative character makes them intuitively an independent literary mode. This, combined with the supposed simplicity of literary Late Egyptian and the application of formalistic motif-analysis (Assmann 1977b), resulted in labelling some New Kingdom narratives as traditional fairytales. However, the fact that there are motifs in Egyptian narratives which literary critics had defined as folkloristic in other cultures, does not mean that the Egyptian narratives are folklore. On the other hand, especially mythological tales are over-valued because Egyptology tends to over-contextualize those texts which are not based on real events, relates them – on the basis of preconceptions – to specific historical episodes of the New Kingdom (e.g. Wettengel 2003) and interprets them as highly complex theological and political tracts. However, the following section will attempt to locate the *Tales* using their association with other texts, along with their family resemblance, within a hypothetical sphere of general "courtly" usage.

Courtly Romances and Adventures

The *Miscellanies* of P.Sallier I, dating to the Nineteenth Dynasty, are the only textual evidence of the *Tale of Apophis and Seqenenre* (Gardiner 1932: 85–9). This says less about its folkloristic character (*contra* Brunner 1975) than it does about the fact that a rather broader setting should be applied to reconstruct the use of New Kingdom narratives, which takes as its starting point a group of producers and users common to all genres. The fragmentary text features a heroic tale about the beginning of the conflict between the Lower Egyptian Hyksos King Apophis and his Theban counterpart Seqenenre Tao II. The historical background of the story is the ending of the political *status quo* of the Second Intermediate Period during which Egypt was divided into two. In Lower Egypt, and with a nominal claim to Egypt as a whole, the Hyksos ruled as legitimate kings, while Upper Egypt was governed by local magnates obliged to pay tribute to the Hyksos. Starting at Thebes, and under the pretext of the Hyksos' "foreignness," a war of conquest began under Seqenenre Tao II, advancing increasingly further north and eventually ending at the transition from the Seventeenth to the Eighteenth Dynasty under Kamose and Thutmose I with the complete expulsion of the Hyksos from Egypt as well as the subsequent Egyptian expansion in the Near East. The tale glorifies the beginning of the rebellion under Seqenenre Tao II as the point at which Egypt began to develop into a great Levantine power, a fact which renders it unlikely that the story originated prior to the emergence of a corresponding Egyptian feeling of supremacy, which itself began to develop under the Thutmosids of the mid-Eighteenth Dynasty.

The heroic tale *The Taking of Joppa* conveys a similar cultural feeling of elation (Gardiner 1932: 82–5). The only example of the tale comes from the collection of texts of P.Harris 500 (early Nineteenth Dynasty), on the verso of which the story is transmitted in full. It glorifies the historically documented capture of the Levantine city of Joppa during the time of Thutmose III by his General Djehuty and, therefore, represents a fictionalization of the historical res gestae of the first Palestinian campaign of Thutmose III (*Urk.* IV, 783,13; see also Botti [1955]). After Djehuty offered himself to the rebel prince of Joppa as a hostage, thus bringing him under his control, his uncontested takeover of the city eventually succeeded thanks to a trick in the course of which Egyptian soldiers hidden in sacks – supposedly a tribute following the Egyptians' surrender – gained entry into the city (the "Trojan-horse" motif) and took the population prisoner. There is almost 200 years between the actual conquest during the time of the Thutmosids and its first appearance as a fictional heroic tale during the Nineteenth Dynasty. Depending on whether the motivation behind the story is seen as a contemporary expression of Egyptian feelings of supremacy, which can be dated back to the Eighteenth Dynasty, or as an early Ramesside memory of that particular time (perhaps relating to the attempts to recapture areas lost since then), the story's date of origin is estimated to be somewhat earlier or later in this 200 year period. Its use as a historical romance which mirrors role ideals of exemplary individual success on the occasion of courtly banquets is very likely, given its transmission in the same manuscript as some *Love Songs*. Furthermore, the mentioning of Joppa itself might have had rather hedonistic undertones as becomes clear from P.Anastasi I 25,2–6, describing the frivolous adventure of an Egyptian army officer in a vineyard at Joppa (Fischer-Elfert 1986a: 212–22).

A similar situation of use and time of origin is likely for the story *The Doomed Prince* (Gardiner 1932: 1–9). This also is only transmitted on the verso of P.Harris 500 (early Nineteenth Dynasty), though the end is lost. Its prestigious military and intercultural setting suggests that the story may originate in the Eighteenth Dynasty (Helck 1987). In contrast to the two previously discussed texts, *The Doomed Prince* does not treat any historical events but presents the story of an incognito prince's individual quest for success and happiness abroad. The imaginary nature of the text, which includes supernatural powers and abilities, has often been misinterpreted as evidence of its fairytale nature but should rather be understood as a marker of its fictional status. The prince was the longed-for child of an Egyptian royal couple, whose death by a crocodile, a snake, or a dog was foretold even before his birth. In order to protect the prince from these fates, his father initially kept him isolated in a specially built desert house, but the prince became convinced that he could not escape his fate. Disguised as a member of an internationally operating class of free chariot warriors (the *Mariannu*), the hero went to Syria and gained the love of a local princess by defeating rivals in a jumping contest through his supernatural capacity in this area. The princess's love also delivers him from her father's attempt to kill him because of his supposedly low pedigree. The rest of the text presents the hero holding off his predicted fates. The story's outcome remains open due to its fragmentary transmission, but it is very likely that it concluded positively. Also this story is a courtly romance (Simon 2003) probably used during banquets, since its hero's disguise as a charioteer offers a possible role model for the members of contemporary Egyptian elite, comparable in his supernatural abilities to the quasi-divine figure of Mehy in the *Love Songs*.

Mythological tales

The so-called mythological tales have acquired a particular significance in Egypto-logical research (Baines 1996b). Although these texts do not treat any obviously recognizable real history, they are interpreted as an expression of ideas supportive of the state on the basis of their quasi-mythical subject matter and are, as a result, directly related to specific episodes of Egyptian royal activity. Indeed, because the manuscripts on which they are transmitted are dated, it may be possible to reconstruct specific historical situations of use within the setting of royal festivities for the *Tale of Astarte* (Collombert and Coulon 2000), the *Two Brothers* (Wettengel 2003), and *The Contendings of Horus and Seth* (Verhoeven 1996). However, a clear context of use neither proves that the works were royally commissioned, nor argues against their fictionality (Moers 2001: 30–1; 149–51). Some of these tales have been copied by scribes from whom *Miscellanies* also originate (*Two Brothers*) or have been trans-mitted in collections of texts together with *Love Songs* and hymns (*Horus and Seth*), which implies that it is possible to reconstruct for the New Kingdom mythological tales the same group of (re-)users and similar contexts of use as for the lyrical genres and the courtly romances.

The oldest mythological tale of the New Kingdom is the *Tale of Astarte* (Collombert and Coulon 2000). The story is long by Egyptian standards and has only been transmitted in a fragmentary manuscript (P.Amherst IX, New York, and P.BN 202, Paris), dating back to the time of Amenhotep II. The text is a heroic tale rich in

Near Eastern motifs and set in the realm of the gods. The tale's hero is the god Seth-Baal, an internationalized version of the positive, productive brutality of the otherwise ambiguous Egyptian god Seth, who was increasingly revered as the god of kings in the New Kingdom. In the text Seth-Baal defends the realm of the gods against the *hybris* of the untamed and raging sea, personified as a god (Yam) who claims not only tribute but also Astarte as a wife and, with the jewels of Nut and the ring of Geb, the symbolic handover of world domination. The text begins, however, with a dated encomium to Amenhotep II, which offers the possibility of contextualizing the story. Euhemeristic readings interpret it as aetiology associated with the establishment of an Egyptian cult of Seth-Baal in Lower Egypt, though historicizing interpretations assume a reuse of the text during a commemoration of the accession to the throne of Amenhotep II. While both readings are possible, the one proposed here builds on the second interpretation which associates the text directly with Amenhotep II. In principle, the well-attested function of Seth-Baal as a kings' god as well as the textual allusions to the personality of Amenhotep II enable us to interpret the story as a royal heroic tale. In it the king himself is the focus, disguised as his own divine role model and described accordingly as performing his royal duties as keeper of the world. The manuscript could have been used in the context of a royal banquet and offers the possibility of rendering homage to the king in two different literary forms: firstly in an encomium and secondly in a heroic legend which shows the king at his work and by which his historic *res gestae* are elaborated in a quasi-mythological form (Collombert and Coulon 2000: 208).

The Tale of the Two Brothers (Gardiner 1932: 9–30; Wettengel 2003) is transmitted in its entirety in P.d'Orbiney (P.BM EA 10183). It was copied by the scribe Enanna, known from Memphite *Miscellanies,* in the time of Sety II and dedicated to three fellow scribes. At the beginning of this multi-layered and narratively complex tale is the happy life of a peasant family made up of Anubis, his unnamed wife, and his unmarried brother, Bata. Bata symbolizes the figure of the good shepherd, who is the victim of an injustice following his rejection of the advances of his brother's wife (Biblical Potiphar's-wife motif) and, therefore, commits symbolical suicide. Transformed into a sexless godlike being, Bata is drawn into an alternative universe where, following divine intervention, he is given a wife. This wife is let in on Bata's secret and in the course of the tale becomes the catalyst for his final return to human form. Meanwhile, the Egyptian king learns of the existence of Bata's wife after a lock of her hair was washed up from the sea, falls in love with her because of her divine lineage, and has her brought to him. Bata's wife betrays her husband's secret to the king, after which the king arranges Bata's second death. His brother Anubis learns of this second death, thanks to a previously agreed sign, and set out to rescue Bata. After a long search he discovers Bata's dislocated heart, revives it and reunites it with Bata's lifeless body. Bata then transforms into a bull, travels back to Egypt, and reveals himself to his wife who wants the king to kill her spouse once again. From two drops of the slain bull's blood Bata transforms into two trees, which were felled at the behest of his wife. In doing so a splinter of wood enters the wife's mouth, and she thereupon becomes pregnant with the reincarnation of Bata. Bata becomes Crown Prince and ultimately the king, tries his wife at court, and dies after an ideal reign of 30 years.

The internal structure of the story, indicated by rubrics, corresponds to the 24 hours of the day, during which a turning point is introduced every six hours: the sunrise, the tempting, the second death in the alternative universe, the killing of the bull and the eventual accession to the throne. Overlaid on this we have the story's tripartite topographic setting: in Egypt, the alternative universe, and finally back in Egypt. Thus, the story integrates central aspects of different Egyptian ideas about creation and regeneration in the figure of Bata. His story symbolizes him as the sun god Re with his obvious day and mysterious night; as the symbolic Osiris he is killed, found, and resurrected, and as a bull he represents Amon-Re-Kamutef, who sired children with his own mother. On the other hand, Bata also has the traits of the kings' god Seth-Baal, who has already appeared in the *Tale of Astarte*. Popular interpretations see the text as either a traditional fairytale (Hollis 1990; from a gender perspective Katary 1994) or as a specific Lower Egyptian artificial literary myth, which was to serve as "commissioned work" and an "official document of the Ramesside dynasty" for the political legitimization of the "new theory of descent" of the Ramesside kings from the god Seth-Baal (Wettengel 2003). The double mention of the name of the Crown Prince Sety-Merneptah, the son of Merneptah, on the papyrus appears to suggest indeed a certain connection of the manuscript to the dynasty. However, it remains debatable whether Sety-Merneptah must inevitably be seen as the initiator of an artificial myth by the scribe Enanna, when it could be argued that the *Tale of Astarte*, a text with similar royally oriented motifs, had already been produced in the Eighteenth Dynasty. In addition, the repeated occurrence of copying mistakes and the dedication of the text to three scribes in the colophon indicates, if anything, that the character of the manuscript is comparable with the *Miscellanies* and that the name of the Crown Prince was added later purely for practice purposes. The notes on provisions appearing on the verso could ultimately indicate a use of the manuscript in the context of a festive ceremony, which, as with the *Tale of Astarte*, could of course have also taken place in a royal environment. It is very probable that the *Two Brothers* exhibits a mythologized form of the narrative worship of the royal hero, who eventually triumphs and takes his place in the line of succession as Bata-Seth-Baal. The presentation of the path to the throne as problematic may be an early-Ramesside element, but that we are dealing with a commissioned religio-political work is difficult to accept. Rather, we may suspect the use of the text at courtly banquets where the story of a typical accession to the throne, with all its difficulties, can be retold, comparatively free from consequences, in a festive environment.

There are similar attempts to contextualize politically the *Contendings of Horus and Seth* (Gardiner 1932: 37–61; Broze 1996) by locating the text historically within the coronation-ceremonies of Ramesses V and thereby challenging its fictional status (Verhoeven 1996). The text is contained on the recto of the P.Chester Beatty I from the Twentieth Dynasty, along with *Love Songs* and hymns to Ramesses V. The story gives a burlesque description of a tribunal arranged under the chairmanship of the Lord of All Atum-Re-Harakhty for the purpose of reviewing the claims of the gods Horus and Seth to the throne. In the course of the tribunal the gods demonstrate their most human characteristics: Atum-Re-Harakhty is capricious and easily offended; Seth is as brutish as he is stupid, seeking, on the one hand, to rape

Horus and, on the other hand, being defeated during a race in a ship made of stone. Horus starts out as a weak child, who, without the help of his mother Isis, would have hardly a chance of survival against Seth, while Isis herself even wounds Horus with a harpoon during one of her many rescue attempts before she can strike Seth down. Chaos reigns amongst the gods as each of them tries to get the better of the others. Of course, the throne of Egypt is eventually given to Horus, as established by the Myth of Osiris which is the basis for the story.

As a mythological tale the text documents explicitly doubts about mythical ideas of a well-ordered world by opening them to literary investigation in a humorous fictional text. It is possible to laugh about the gods in whose day-to-day relevance it is barely possible to believe in view of the intrigues and disputes surrounding the throne which took place during the late Ramesside period (Vernus 1993), even if one prays to them continuously in the context of personal piety (Baines 1996b: 373). In reality, the text reflects the contemporary conditions of the late Ramesside elite from a fictional and ironic distance (Junge 1994), transferring them into the realm of the gods and thereby freeing the commentator from any possible consequences. This view is made all the more valid if the text is regarded as a template for a dramatic performance on the occasion of the coronation of Ramesses V (Verhoeven 1996). The specific setting then applies not only to the *Contendings of Horus and Seth* but also locates the whole of P.Chester Beatty I with its hymns and *Love Songs* in the context of courtly celebration in which different text types were juxtaposed for the same purpose, i.e. ''to have a lovely day'' (*iri hrw nfr*).

The tale of *Truth and Falsehood* (Gardiner 1932: 30–7; Burkard and Thissen 2008: 30–4), transmitted fragmentarily in P.Chester Beatty II from the Nineteenth Dynasty, offers another fictional treatment of the social conflicts of the Ramesside period. It is a tale of conflict between two brothers emblematically named Truth and Falsehood. Truth is brought by Falsehood to the divine high court for the return of a borrowed and allegedly oversized dagger. As Truth is unable to furnish the dagger, he was, at his brother's behest, blinded and assigned to Falsehood as a doorman. Not yet satisfied, Falsehood charged Truth's own servant with his abduction and murder. Truth, however, managed to convince the servant to hide him. He is later found by a lady who falls in love with him and bears him a son. This son grows into a fine specimen of erudition and military proficiency but is ridiculed by his companions for his status as a half-orphan. At her son's insistence, his mother discloses to him the fact that Truth is his father. Truth is then able to tell his son his tale of woe. Imbued with thoughts of resentment, the son leaves a particularly beautiful ox in the custody of Falsehood's herdsman. Falsehood discovers the beautiful animal and demands that it be eaten. As Truth's son reclaims the animal, he discovers that it cannot be released. Hereupon Falsehood is brought before the tribunal for the return of the animal, which the son now describes in similarly exaggerated terms as Falsehood's alleged dagger. The son then demands that the tribunal ultimately judges between Truth and Falsehood. Falsehood swears that he would be blinded, were Truth found to be alive, and Truth's son swears on his part that this would happen. Here ends the tale. In spite of its rather allegorical nature (Baines 1996b: 374), Truth and Falsehood is identified as a mythological tale because of the divine tribunal, and because it overlaps, in terms of its motifs, with the *Two Brothers* (peasant life, incognito exile, woman's role, eating the bull) and *Horus and Seth* (juridical

tribunal, fantastic elements). The family resemblance between these texts also makes plausible a similar context of use for *Truth and Falsehood*, which might have been employed in rather contemplative moments of public performances. However, its serious tone could also hint at its function as an educational narrative (Griffiths 1967; Baines 1996b: 374). This would be a further indication of the fact that genre should not be the primary analytical category for Egyptological research into literature, since generic borders obviously cannot be directly represented by functional differences.

Social conflicts of a different character are dealt with for the same reason in *The Fable of Head and Trunk* (Lopez 1984: 50–1 and pl. 184; Kammerzell 1995). The text is transmitted fragmentarily on a tablet from the Twentieth Dynasty and describes the claim brought by Head and Trunk before a divine tribunal concerning the acknowledgement of their mutual supremacy. Only parts of Trunk's final speech have been preserved, yet it is he who considers himself to be the more important one because he conjoins all other parts of the body. The text, therefore, can be seen as depicting social conflicts between particularist interests which are negotiated symbolically in a fictional fable, a literary form otherwise unknown in Egypt. It presumably extols the merits of an integrative solution. In this respect the tale, like *Truth and Falsehood*, may be regarded as an educational text in spite of its quasi-mythical characters (Burkard and Thissen 2008: 137), but a use to encourage contemplation during public performances is not impossible.

The last New Kingdom narrative worth mentioning is the *Tale of Khonsuemheb and the Ghost* (Beckerath 1992). This is transmitted fragmentarily in two texts on Ramesside ostraca from Deir el-Medina, which are clearly copies from a papyrus-based original. The fictional text centers around the complaint of a *revenant* (see *Anii*, B 21, 22–3, Quack 1994: 182–3) to a high priest of Amun about the desperate condition of his tomb and his burial cult, after which the high priest sympathetically arranges their restoration. The theme of the text is, therefore, the increasingly uncertain status of Egyptian belief in burial rites, which is also expressed in other texts of the New Kingdom (see *Antef Song*). Although direct contact with the dead, e.g. the *Letters to the Dead* (Gardiner and Sethe 1928), is not unusual in Egypt, the key difference with the *revenants* of the New Kingdom is the fact that these already inhabit the collective imagination and consequently must be regarded as literary personifications of contemporary sentiments of alienation from Egyptian culture. Interestingly enough, the high priest responsible for the restoration work stays up all night celebrating (*iri hrw nfr*) with his workers after the problem of the *revenant* has been overcome. The function of the tale is not easily reconstructed, but its origin as a student's exercise from Deir el-Medina suggests that it was used by the same groups of the cultural elite and in the same contexts as the other texts in circulation there. The prominent figures featured in the text along with the motif of the prolonged celebration can possibly be interpreted as a reflection of an actual usage of the text during a banquet, in the course of which one central problem of the Ramesside period could be examined from the safe distance of a fictional work before, as in the text, returning to the celebration.

Epilogue: Early Third Intermediate Period Narratives

Two fictional tales – the *Tale of Wenamun* (Gardiner 1932: 61–76; Schipper 2005) and the *Tale of Woe* (Caminos 1977) – have been transmitted from the beginning of the Third Intermediate Period, These differ in many respects from all previously

discussed texts and are unlikely to be counted as core pieces of New Kingdom literature. They were found together in el-Hiba, a Middle Egyptian city which at this time was situated on the border of the sphere of control of the Theban theocracy of Amun and the sphere of influence of the reigning kings at Tanis. In addition, they give the impression of being functional texts rather than fictional literature, and both are dated palaeographically in the Twenty-first Dynasty. Also linguistically they are barely comparable with earlier Late Egyptian literary texts, e.g. early Demotic elements are already evident in the *Tale of Woe* (Quack 2001c: 170–1).

The *Tale of Wenamun* is transmitted only in the fragmentary P.Moscow 120 and focuses on the challenge-laden business trip taken in the Levant by Wenamun, an official of the Theban Temple of Amun. Having set off to acquire timber for a new barque for Amun, Wenamun was robbed, humiliated, and marginalized. Through a series of confrontations he discovers that he is at the mercy of foreign potentates and becomes aware of the dubious nature of the Egyptians' concept of their country as the supreme culture. While older interpretations took the text to be an original report, more recent research insists on its function as a fictional medium of reflection on contemporary cultural and social circumstances (Baines 1999c; Moers 2001: 263–73). Recently these readings have been combined into a historicizing interpretation which regards the text as an example of religio-political literature with whose help the future king Shoshenq I wanted to limit the power of the Theban priests of Amun in favor of the central kingship at the transition from the Twenty-First to the Twenty-Second Dynasty (Schipper 2005).

The *Tale of Woe* is transmitted in P.Moscow 127. This fictional text uses the intertextual foil of contemporary execration formulae (Fischer-Elfert 2005: 215–32) and describes the odyssey through Lower Egypt of Wermai, a Heliopolitan priest who was exiled and found himself a foreigner in his own country. Interestingly, Wermai's guilt and the resulting punishment correspond to the kind of behavior criticized in New Kingdom *Teachings*. Wermai's misdeed can be reconstructed as an infringement of a divine decree issued by an oracle, while his punishment consists of having to live as a foreigner in his own country and dealing with corrupt officials, who amongst other things falsify the measurement of corn and starve him. The text illustrates from the fictional perspective of an uprooted (un?)guilty person the life of precisely those segments of the population described as "foreign" in the *Teachings*, who are dependent on the good will of those around them, provided that they actually pay any attention at all (see above).

Each of the texts, therefore, reflects in its own way and from a fictional distance upon the manifest disintegration of the Egyptian society during the transition from the New Kingdom to the Third Intermediate Period and demonstrates the results of the social developments which have already been mentioned in other texts from the New Kingdom.

5 Synthesis

In place of a summary, a rather literary draft – which assumes that the communicative position of the literature of the New Kingdom is part of the respective organization of the texts and manuscripts themselves – will be presented here. The extensive intertextual integration, in terms of manuscript history, of the *Miscellanies* with all other

aspects of the literary system of the New Kingdom suggests basically that the agents of this system can be identified as Egypt's middle and upper administrative elite, as they can be observed, for instance, in Deir el-Medina during the production and usage of the texts. The following fictitious Thebes-centered scenario, which was conceivable in principle for every courtly institution of the time, can therefore be imagined: on a typical working day one struggles not only with the problems relating to the increasingly corrupt daily life of the Ramesside period, but also tutors one's disciples in the correct usage of semi-literary forms and styles (*Miscellanies*) and may even write for them individually tailored lessons, which are reused locally (*Amennakht*, *Hori*) or later attain the status of "wisdom texts" (*Anii*, *Amenemope*). Towards evening one visits the country estate of a superior, as described, for example, in the Miscellanies of P.Lansing (Caminos 1954: 412–19). One may dedicate as a gift to the host a manuscript with *Miscellanies* or literary texts (for example, *Doomed Prince*), produced especially for this occasion, and then partake of an opulent banquet in the festively decorated park (Turin *Songs from the Orchard*), accompanied by music and dancing (O.Borchardt 1) and with every imaginable form of sensual pleasures in store. There will be eating and drinking, and stories will be told – those of *Truth and Falsehood*, for example, or *Head and Trunk*, or *Khonsuemheb and the Ghost*, which reflect in general or specifically on the everyday problems of the Ramesside period but remain, as fictional literature, at a certain distance from those taking part in the festivities. One can celebrate the opulence of the distant Delta residence and assure oneself in the same breath of the simple beauty of one's own homeland in which one has just gathered. There will be further eating and drinking and tasting and smelling, and the atmosphere will relax noticeably during the narration of the heroic tales which describe the magnificent deeds of departed contemporaries or kings in distant and imaginary lands (*Taking of Joppa*, *Apophis and Seqenenre*, *Doomed Prince*, *Two Brothers*). The hustle and bustle rises and now the hero-worshipped king becomes, from a safe festive, fictional distance, the subject of lively, humorous depictions (*Horus and Seth*). The *Antef Song* confirms the participants in their blatant commitment to the delights of this world, and, later, *Love Songs* are presented and become increasingly explicit. Decorum causes the representation of the festivities to end here in most of the literary and iconographic sources, even if they hint at excessive consumption and enjoyment ad nauseum. "Satirical" ostraca and papyri with "erotic" scenes (Houlihan 2001: 121–38) however show what was imaginable. The literature of the New Kingdom appears therefore to be a literature in which the cultural elites recount stories that are first and foremost about themselves. It compensates for the diverse perceptions of living in a problematic time in which it portrays the members of society as contemporaries (*Teachings*) but, at the same time, offers them roles from a safe fictional distance (poetry and tales), with the help of which one can remain an integral part of the social happenings even in escaping from everyday life. The simple structure of many tales or the lively tone of many *Love Songs* should not disguise the fact that contemporary elite society were able to act out without consequence their self-perception by means of the roles and positions offered by extremely complex texts. That the literature of the New Kingdom, as the single available medium of reflection on the world, could not compensate for the increasing complexity of the society upon which it reflects, is another story.

FURTHER READING

Most of the texts discussed are available in individual editions (see texts), while the corpora of the *Stories* and *Miscellanies* are still most simply accessible via the Hieroglyphic transcriptions of the Hieratic originals in the works of Gardiner (1932, 1937). The most up-to-date overview of New Kingdom literature is currently offered by Burkard and Thissen (2008) in which all of the texts discussed here are presented with partial translations and introductory secondary literature. Lichtheim (1976) and Simpson (2003) are both distinguished collections of translations designed for the more detailed reading of the primary text and, because of their much broader definition of literature, also offer autobiographical, monumental, and religious texts that have been excluded here. An analytical approach New Kingdom literature, including the problems associated with research into it, is offered by Baines (1996a). Its literary historical relationship with the Middle Kingdom is also discussed by Baines (1996a), as well as by Assmann (1985; 1999b) and Fischer-Elfert (2003). The standard analysis of individual genres is available in Mathieu's treatment of the *Love Songs* (1996) and Ragazzoli's study of the *laus urbis* (2008).

Late Period Literature

Kim Ryholt

1 Introduction

The present chapter concerns Egyptian manuscript literature from the time of the renaissance that was initiated with the Kushite conquest of Egypt, in the wake of the so-called Libyan Anarchy, until the very end of the Pharaonic civilization. Effectively this period spans one millennium from the late eighth century BC until the middle of the third century AD. The Hieratic and Demotic scripts are still sporadically attested some time longer – the latest Demotic text dates to the mid-fifth century AD – but there are no securely dated manuscripts after 250 AD, and most of the temple schools seem to have ceased to operate around this time. In terms of political history, large stretches of the period saw Egypt under repeated and very different types of foreign rule; Kushite c.720–665 BC with intermittent Assyrian invasions and partial control of the country during the final decade, Persian 525–404 and 342–332 BC, Macedonian and Ptolemaic 332–30 BC, and Roman from 30 BC onwards.

The bulk of the literary texts are written in the Hieratic and Demotic scripts (comprehensive surveys of the Demotic material in Depauw 1997, Hoffmann and Quack 2007; there are no comparable surveys of the Hieratic and Hieroglyphic material). The monumental Hieroglyphic script is mainly used for funerary papyri, and only one literary text is written in late cursive Hieratic (often called Abnormal Hieratic). While Hieroglyphic and Hieratic were scripts of great antiquity, Demotic only developed in the north around the mid-seventh century and spread south, replacing Hieratic as the official administrative and legal script. By the late fifth century its use had also been extended to narrative literature, and in the late Ptolemaic Period it further entered the domain of cultic and scientific literature. The gradually expanded use of Demotic seems to have been a natural development that took place at a different pace in various parts of the country. Thus, for instance, Demotic dominates the literature from the temple of Soknopaiou Nesos in the northern Fayum during the first and second centuries AD, while one third of the similar material from the contemporary Tebtunis temple library in the southern Fayum – sometimes copies of the very same texts – is still written in Hieratic.

The Classical language continues to appear in learned contexts, and the survival of narrative and wisdom literature in the Classical language on scribal tablets from the Saite period (cf. above) indicates that such material was still used for educational purposes. A Hieratic papyrus of perhaps slightly later date is remarkable in preserving a line-by-line translation of a Middle Egyptian text rendered into early Demotic grammar (Quack 1999a). However, the classical language and script continued to play a fundamental role in the cultic domain and on monuments, and there is some evidence as to how it was preserved and taught in the temples (Ryholt 2005a: 151–2).

In addition to the Egyptian scripts, a substantial amount of Egyptian literature exists in different types of Greek translation and adaption. Moreover, several ancient collections of literary texts include Egyptian and Greek material side-by-side, such as the Apollonius Archive, the Tebtunis temple library, the ostraca from the Narmouthis temple, and the Theban Magical Archive (cf. refs. below), and it is important to keep in mind that many Egyptians also knew Greek. Fragments of more than one thousand manuscripts inscribed with the *Iliad* and *Odyssey* have been found in Egypt, not least owing to the Greek education system, and it is quite probable that the Homeric poems were more widely read than any single piece of Egyptian narrative literature. For the purposes of the present chapter, however, Greek material which does not relate directly to Egyptian tradition will not be considered.

2   Archaeological Record

Before turning to the actual texts the question of the archaeological record requires some attention. It needs to be emphasized that the extant material is far from representative in most respects: the bulk of it derives from just a few sites, and we have virtually nothing from the Delta and its important intellectual centers; funerary texts – in particular the *Book of the Dead* – are far better represented than other literary genres, and the chronological distribution is heavily biased towards the Ptolemaic era for funerary texts and the Roman era for most other genres. The uneven distribution of the material is especially problematic for the first half of the period in focus; the extant material from the Kushite/Saite renaissance is exceedingly sparse, and very little can be dated with certainty to the long, intervening Persian occupation. By contrast the Graeco-Roman Period is relatively well documented. Yet it is clear that only a very small percentage of the extensive text corpus that once existed in manuscript form has survived. This is amply demonstrated by the numerous ritual texts and related compositions that were transferred onto the walls of contemporary temples or mentioned in temple inventories; very few of these survive in manuscripts. Temple inscriptions are not included in the present survey, even when they were undoubtedly copied from manuscripts (Leitz 2008).

Moreover, comparatively few of the archaeological discoveries derive from a context of use; most of the well-preserved manuscripts were found in tombs where they had been deposited, and the majority of fragments similarly derive from cemeteries or from dumps or cartonnage. The main exception is the Tebtunis temple library which represents the only extant temple library from ancient Egypt (general description in

Ryholt 2005a; for religious texts see v. Lieven 2005 and Quack 2006b). It contained an estimated four-hundred literary texts with important works often preserved in multiple copies. The bulk of the papyri date to the first and second centuries AD but many, especially religious texts, draw on a far older tradition. There are also a substantial number of contemporary papyri from the temples of Soknopaiou Nesos and Tanis. A much older collection of papyri in the Brooklyn Museum, c. sixth century BC, similarly derives from a temple context and might be part of a temple library from Elephantine. A few private archives provide glimpses of what types of literary texts an individual might possess in addition to documents. The archives of the *katochos* Apollonios from Memphis (second century BC; Thompson 1987; 1988: 212–65) and the priest Satabus from Soknopaiou Nesos (first century AD; Schentuleit 2007) are good examples. Apollonios made the only known Greek translation of the *Prophecy of Petesis*, but he just copied the beginning which describes the fateful dream of Nectanebo II. This selection is clearly related to his personal interest in dreams and their interpretation, and it illustrates how a text originally intended for one purpose might be used for another. Satabus' archive also includes a prophecy, the only extant copy of the *Prophecy of the Lamb*, otherwise known from citations, as well as a collection of hymns which he usurped by replacing the earlier owner's name.

The appreciation of the literature is further impeded by the fact that the vast majority of the extant manuscripts lack a properly recorded or published archaeological context. This is true also for material unearthed during official excavations, even with spectacular discoveries such as the fundamentally important material from Tanis and Tebtunis. In both cases this was found in cellars, but no detailed plans and descriptions of these *loci* have ever been made available. Another aspect that often receives limited attention is the physical medium itself. Evidence of wear and repair or even notations and jottings is often overlooked or only cursorily described, but this may provide important information about the actual use of the manuscript. Thus, for instance, the *Teaching of Chasheshonqy* (better known as Onch-Sheshonqy) in the British Museum, which was apparently found rolled up with a mortuary text in a tomb at Akhmim (Smith 1994), has a second protective sheet with remains of a washed-out text added to the original one (personal observation); hence the text was clearly not written simply to be deposited in the tomb. Similarly, one of the Hieratic funerary texts of Nesmin in the same museum has a Demotic inscription on its first sheet that gives instructions for a text to be written and placed within the mummy of the deceased, thus indicating that Nesmin had provided a blank papyrus to be inscribed later with *an* appropriate text (Martin/Ryholt 2006). Equally significant is the fact that many papyri were repaired with patches in antiquity, thus providing evidence of sustained use.

3 Literary Tradition

Despite the poor documentation for the Kushite/Saite renaissance, the surviving material suggests that this period drew on much of the central literature of the New Kingdom, and there may have been a high level of continuity. By contrast we witness

an apparent break between the Kushite/Saite renaissance and the Graeco-Roman Period as regards narrative and wisdom literature; there is no unequivocal evidence for the circulation Middle and Late Egyptian texts after the Saite Dynasty, even among the substantial material from the temples of Tebtunis and Soknopaiou Nesos. If the archaeological record is representative in this respect, it must be concluded that there was no longer a general interest in the narrative and wisdom literature of earlier periods, although specific texts may still have been known sporadically (Jasnow 1999). The discontinuity may well be related to the shift from the Hieratic script to Demotic for such literature and changes in the schooling system. With cultic and funerary texts the Egyptians seem much more conservative, although a number of previously important funerary compositions disappear, and others make a debut. It is evident, therefore, that the question of continuity at least to some extant is determined by genre.

4   Narrative Literature

Very few examples of narrative literature have survived from the Late Period (Jasnow 1999; Verhoeven 1999b). A number of fragments preserve narratives in Classical Egyptian. Only one of these is otherwise attested, *King Neferkare and General Sisenet* which is known from two New Kingdom manuscripts (Posener 1957), but all of these may well date to the time before the Libyan Anarchy.

Only a single substantial narrative in a more contemporary language has so far been published; the story of *King Sisobk and Merire the Magician* (c.600 BC; Posener 1985; Hoffmann and Quack 2007: 153–60) whose grammar may be regarded as proto-Demotic. The story concerns a young magician, Merire, who gives up his own life to save a dying king. In return the king promises to honor him, protect his wife, and raise his son. He later learns from the goddess Hathor that the king has seized his house, married his wife, and killed his children. The end of the story is not preserved. Merire is also known from fragments of another narrative dating to the Ramesside period (Sauneron 1980), and we may have here the earliest example of a story cycle.

Two newly discovered texts also represent more contemporary additions to the narrative corpus. *Papyrus Queen's College* (seventh century BC; Baines *et al.* 1998; Baines 1999b) is unique in being the only known literary text in the late cursive Hieratic script (also known as Abnormal Hieratic). This describes the conflict and dispute between two individuals at the temple of Heliopolis during the reign of a king Usimare. Another manuscript preserves a few lines from the beginning of a story about the army scribe Djeddjehutyefankh son of Amenemone, a historical person known to be the son-in-law of a king Sheshonq and hence set in the Third Intermediate Period (Vittmann 2007).

While relatively little narrative literature survives from the first part of the Late Period, there is a substantial amount of material from the late fifth century onwards. This is so extensive that only a limited number of texts can be described here (details in Thissen 1990; Tait 1994; Depauw 1997: 86–92; Vittmann 1998b; Chauveau 2003; Quack 2005a: 16–80; Hoffmann 2007). These texts are all written in the

Demotic script. The earliest material was uncovered at Saqqara (fifth–fourth century BC), while later groups derive from Akhmim (first century BC) and from various sites in the Fayum, especially Tebtunis and Soknopaiou Nesos (first-second century AD). The Tebtunis temple library includes about fifty papyri containing narratives. In addition, a number of stories exist in Greek translations, which we know through Herodotos, Diodoros, and other classical authors.

One of the noteworthy aspects of Graeco-Roman narrative literature is the popularity of story cycles. Three of these center on specific historical individuals, viz. king Sesostris (early second millennium BC), the high-priest Khaemwese (thirteenth century BC) and prince Inaros I (seventh century BC). The magician Hor son of Pwensh is the subject of a fourth cycle, and yet another group of texts concerns the priesthood of the sun-god in Heliopolis. Each of the cycles seems to have been associated with a particular theme; thus the cycle of Inaros stories concerns warrior exploits, while that of Khamwese concerns magic (Tait 1996: 184).

The cycle of stories about king Sesostris is well attested through the indirect testimony of classical authors (Malaise 1966: 246). Herodotos (2.102–3, 106–10) provides the earliest testimony, while Diodoros (1.53) is most explicit: "with regard to this king not only are the Greek writers at variance with one another, but also among the Egyptians the priests and the poets who sing his praises give conflicting stories." This statement indicates that a range of stories about the exploits of Sesostris were in circulation during the Graeco-Roman Period, and that they existed in both Egyptian and Greek. The Egyptian evidence is still somewhat sparse and amounts to two poorly preserved papyri from the Tebtunis temple library (Widmer 2002) and a single ostracon of unknown provenance (Ryholt i.p.d). One of the papyri mentions that Sesostris as a king's son proceeded to Arabia, which matches Diodoros' statement that "Sesoösis ... was sent by his father with an army into Arabia."

The cycle of stories about Khaemwese and Inaros, who are not mentioned by the classical authors, are much better attested. The stories about Khaemwese, the fourth son of Ramesses II, are likely to have been inspired by the numerous inscriptions he left behind in the Memphite necropolis, recording his restoration of many royal tombs and other monuments. It is no mere coincidence that three of the four published stories include encounters with spirits in cemeteries. We even find a remark in two Ptolemaic copies of the *Book of the Dead* (Schott 1990: no. 1521) that Khaemwese discovered Spell 167 at the feet of a spirit in the Memphite necropolis, which are perhaps directly influenced by the Khaemwese stories (cf. *Khaemwese and Naneferkaptah*) rather than the inscriptions he left behind.

The two best preserved stories are *Khaemwese and Naneferkaptah* (third century; Simpson 2003: 453–69; Goldbrunner 2006; Hoffmann and Quack 2007: 137–52) and *Khaemwese and Siosiris* (first century AD; Griffith 1900; Simpson 2003: 470–89; Hoffmann and Quack 2007: 118–37), also known as "First Setne" and "Second Setne," after the title *setne*, which was carried by the high-priest of Memphis. In addition, there are fragments of at least four other stories, two from the Tebtunis temple library (only one published, Tait 1991a; Quack and Ryholt 2000) and two from else-where (one third century BC in Spiegelberg 1906: pl. 51, 1908: 112–15; the other second century BC in Quack i.p.a). An unpublished fragment from Saqqara might preserve the very beginning of a story about Khaemwese (W.J. Tait personal communication).

The two first-mentioned stories both employ the literary device of a story within a story. In *Khaemwese and Naneferkaptah*, Khaemwese finds a book written by Thoth himself, the god of wisdom, in an ancient tomb belonging to a princess. She warns him not to take the book and tells the story of how her brother-husband stole the book from its guardian and how they and their son lost their lives because of this. Khaemwese takes the book nonetheless. He is subsequently seduced by a dangerous women who manipulates him into signing over his entire property to her and killing his own children but without ever getting his desire for her fulfilled. This episode turns out to be no more than a nightmare and Khaemwese humbly returns the book to the tomb.

Khaemwese and Siosiris is similarly divided into two parts. In the first, Khaemwese's son Siosiris explains to him how the fate of the rich and poor might be reversed after death and guides him through the netherworld. Especially noteworthy is the description of the miserable fate which draws on the well-known Oknos and Tantalos motifs (Hoffmann 1994b). In the second part, Pharaoh is challenged by a Nubian sorcerer who is eventually defeated by Siosiris. At the end of the final duel, Siosiris reveals his true identity as Hor, son of Pwensh, a powerful magician from Egypt's remote past. This affords a nice example of intertextuality, since the latter character was himself the center of a cycle of stories (Ryholt i.p.a.), including one which survives in an Aramaic adaption (Porten 2004).

Prince Inaros of Athribis became famous for his rebellion against the Assyrians during their brief domination of Egypt. His identity has only recently been established (Ryholt 2004: 488–9; Quack 2006g). He came from a politically prominent family; his father Bokennife is mentioned in the annals of the Assyrian king Assurbanipal and his grandfather Petese on the Triumphal Stele of the Kushite Piyi/Piankhy. Both Inaros and his father were deified after their deaths, and the burial of Inaros is described in some detail in at least two stories. His reputation as a warrior is similarly stated in several texts. One asserts that "there is no warrior clan in Egypt like the clan of the deceased king Inaros" while in another Inaros is informed that the Assyrian ruler has learned of his reputation, "your name has been heard in the districts of the entire world and in the horizon before Re, in the underworld before Osiris, and in Punt before Amun, because of your strength of might and your marvel as a warrior." His outstanding reputation is illustrated by the fact that no less than twenty papyri from the Tebtunis temple library are inscribed with stories from this cycle, and several other papyri and tablets are attested. Curiously, the earliest surviving Inaros story is an Aramaic text from the early fifth century BC written in red ink on the walls inside a much older tomb (Holm 2007). The text is fragmentary and difficult to read, but there is mention of kings Necho, Esarhaddon, and Taharqa, in addition to Inaros himself, just like in the *Inaros Epic*.

Central to the cycle of Inaros stories is the *Inaros Epic* which recounts his exploits at length and which seems to be the longest known Demotic narrative, with the possible exception of the *Myth of the Sun's Eye*, although it is incompletely preserved (unpublished, cf. Ryholt 2004). The story is set in the reign of Necho I and describes a struggle with Esarhaddon and the Assyrians, thus reflecting the historical situation around 670 BC. There is, however, a conflation of elements; Inaros also fights the Persians, and the Assyrian king swears by Ahura Mazda. This suggests that Inaros of

Athribis was sometimes confused with his later name-sake, Inaros II, who rebelled against the Persians.

Most of the published Inaros stories are set in the time after his death and concern members of his clan. On the surface two of them, the *Contest for Inaros' Armor* (Hoffmann 1996; Hoffmann and Quack 2007: 59–87) and the *Contest for Inaros' Diadem and Lance* (Ryholt i.p.a.), concern objects intimately associated with Inaros and, therefore, of great symbolic value. Thanks to the discovery of new fragments (Ryholt 1998; Ryholt i.p.a.), it is now clear that the former text is much more than the story about a feud between two clans over possession of Inaros' armor; the important ceremonies of the Navigation of Osiris, performed during the Khoiak festival, are not carried out in the appropriate manner, and it is this circumstance that provokes the anger of Osiris. He sends demons to earth in order to possess the leaders of the two main clans in Egypt and entice them to fight for possession of Inaros' armor. In this manner the traumatic historical reality of civil war is put into a mythological perspective. The *Contest for the Benefice of Amun* (Hoffmann and Quack 2007: 88–107) similarly plays out against a cultic background. Here the ceremony of the Crossing of Amun is disrupted when the sacred bark is hijacked by a rebellious priest and his men. They go so far as to imprison the son and grandson of the king in the cargo-hold and feast on the divine offerings on board. The text is preserved in at least four copies, one from Akhmim (first century BC; Spiegelberg 1910; Hoffmann 1995) and three from the Tebtunis temple library (first–second century AD; Tait 2000a). Other substantial stories include *Petechons and Sarpot* (Hoffmann and Quack 2007: 107–17), which, like many other contemporary stories, draws upon the exploits of Alexander the Great; Petechons visits the Land of the Women (which is also mentioned in the *Inaros Epic*), fights a duel with their queen, and continues on an expedition as far as India. The text is preserved in two copies of a common Fayumic origin (second century AD; Hoffmann 1995). Fragments of several further Inaros stories remain to be published.

The stories of the Heliopolitan priesthood (list in Ryholt i.p.a) seem to be a less closely knit cycle than the Khaemwese and Inaros stories, although certain names do reappear. Of particular importance is the *Petese Stories*, a compilation of 70 stories about the virtues and vices of women attested in four papyri, one from Saqqara (fourth century BC) and three from the Tebtunis temple library (Ryholt 1999; 2005b: esp. 1–19). The numerous stories were compiled, on the orders of the Heliopolitan prophet Petese, as a literary testament by which he would be remembered. There was a rich literary tradition about the sage Petese; according to one he himself had once deciphered an ancient work on astrology by Imhotep that had been discovered in the temple of Heliopolis, and according to another he was Plato's Egyptian instructor in astrology at the same temple (Quack 2002a; Ryholt 2005b: 13–16). The overall structural pattern of the *Petese Stories* is very similar to the *Arabian Nights*; an overarching story forms the introduction as well as the fabric into which the long series of shorter tales is woven. Most, if not all, of the stories are presented by a baboon to Sakhminofret, the wife of Petese, and the composition seems to have been modeled on the *Myth of the Sun's Eye*. Each of the stories is numbered and classified into one of two categories, the *Stories of the Virtues of Women* or the *Stories of the Vices of Women*. One of the stories preserved is especially

noteworthy insofar as it is known from a translation by Herodotos, the so-called Pheros Story (2.111). The composition as a whole must have been widely read since the *Stories of the Vices of Women* are cited by title in two contemporary texts; the seedy harpist in the *Poème Satyrique* is blamed for singing about such ill-behaved women, while the *Insinger Wisdom Text* asserts that such women actually do exist.

Another substantial narrative, the *Life of Imhotep*, survives only in several hundred fragments (Ryholt i.p.b). The text recounts various exploits and episodes from the life of Imhotep, the greatest sage of all in Egyptian literary tradition. The king he served, Djoser, also plays a prominent part, and perhaps inevitably there is even mention of Pharaoh's tomb, which is likely to be the famous Step Pyramid. Also Imhotep's family is drawn into the story, viz. his divine father Ptah, his mother Khereduankh, and his little sister Renpetneferet. In one episode Djoser and Imhotep have set out to retrieve the Osiris relics which have been carried off by the Assyrians, and the text describes in detail a magical duel between Imhotep and the woman who leads the Assyrian army (Ryholt 2004: 500–2). The retrieval of exiled divine images is a well-attested topos in literature and propaganda during the Graeco-Roman Period.

Significantly, most Demotic narrative literature concerns historical persons of considerable renown, and most of it derives from priestly contexts (Ryholt 2005b: 18). It may, therefore, be argued that the texts were kept as a form of historical records, regardless of the fact that they do not present history in the modern sense, and the context corroborates the statements by classical authors such as Herodotos and Diodoros – which has often been received sceptically – that they got most of their stories from priests (in detail Lloyd 1975: 77–140).

A significant number of the stories are based on the concept of *imitatio* in the sense of matching or surpassing achievements, above all in relation to great conquerors. In some cases this has long been recognized, such as the claims that Sesostris had conquered the Scythians (Herodotos 2.110), at the time when Darius was the greatest known conqueror and had failed to do so, and later that Sesostris had visited all of India (Diodoros 1. 55), after Alexander had assumed the role as the greatest conqueror and had failed in his Indian mission (Lloyd 1982: 37–9). In other texts the *imitatio* has so far gone unnoticed. A particularly interesting example is the so-called *Bentresh Stele* which is preserved in two monumental inscriptions from Karnak and Luxor (Broze 1989; cf. Bell 1986 for the unpublished Luxor version). Here Ramesses II is not only portrayed as the supreme ruler but even marries a Bactrian princess in clear imitation of Alexander. The description of the event is partly modeled on Ramesses' historical marriage to a Hittite princess in his 34th Regnal Year, but, since Alexander died in his 33rd year, the date of the event has been lower to the 23rd year so as to surpass Alexander by a decade. That age and years mattered is shown by Manetho, who records that Sesostris, who is often compared to Alexander, similarly died in his 33rd year.

In addition to the historical narratives a number of animal stories or fables have survived. Several of these are embedded in the *Myth of the Sun's Eye*, including the *Lion in Search of Man* (Lichtheim 1980a: 156–9), which describes man's cruel treatment of animals. The end of the fable describes how the lion encounters a mouse that ends up saving him; a shorter version of the same episode is found among the Aesop fables. Also noteworthy is the fable of the *Swallow and Sea*

(Collombert 1999; Hoffmann and Quack 2007: 194–5). An Arabian prince writes to Necho II and compares the futility of destroying Arabia to the swallow which tried to empty the ocean with its beak. The story finds a parallel in the Indian Pañcatantra, and the so-called Arabian prince in the Egyptian text might be none other than the famous Indian king Ashoka (Betrò 1999).

5 Teachings

Older wisdom literature dominates the surviving material from the Late Period (Jasnow 1999; Verhoeven 1999b; Quack 2003; Altenmüller and Bialy 2009). There are copies of the classical Egyptian *Teaching of Amenemhet*, the *Teaching of Hardedef* and the *Teaching of Khety*, as well as the late Egyptian *Teaching of Amenemope* and the *Teaching of Ani*. Most of these copies survive on tablets which indicate that they were used for schooling purposes.

The main addition to the older corpus is the *Brooklyn Wisdom Text* (sixth century BC; Jasnow 1992; Hoffmann and Quack 2007: 230–8). Like the narrative of *King Sisobk and General Merire*, this text, written in Hieratic, may grammatically be described as early or proto-Demotic. Structurally it resembles Demotic wisdom literature, but it is unlikely to be much older than the extant manuscript since its introduction mentions king Apries.

The two main wisdom texts of the Graeco-Roman are the *Insinger Wisdom Text*, named after the owner of the first published version, and the *Teachings of Chasheshonqy* (survey of Demotic wisdom literature in Quack 2005a: 94–117). A third substantial wisdom text in Vienna remains to be edited. In addition to these, there are a number of smaller fragments and ostraca, including several unpublished items.

The *Insinger Wisdom Text* (trs. Lichtheim 1980: 184–217; Hoffmann and Quack 2007: 239–73) is attested in eight copies; the best preserved was apparently found in a tomb at Akhmim (first century BC; Lexa 1926), while six others formed part of the Tebtunis temple library (first-second century AD; Volten 1940; Pezin 1986; Quack i. p.b) and the last derives from Soknopaiou Nesos. The organization of the text in the Insinger manuscript is noteworthy; it is divided into 25 thematic sections, and each section contains a summation of the total number of sentences. Despite this attempt to create a fixed edition, other versions rearrange sections, and the best preserved version from Tebtunis (P. Carlsberg 2) is heavily abbreviated in relation to the Insinger manuscript, although the text is otherwise superior.

The *Teachings of Chasheshonqy* (translations Simpson 2003: 497–529; Hoffmann and Quack 2007: 273–99) is also attested in a copy from a tomb at Akhmim (first century BC; Glanville 1955; Smith 1980; Thissen 1984) and three others from Tebtunis, one of which formed part of the temple library (second century AD; Ryholt 2000), while two fragments were apparently found in a dump (unpublished, both Ptolemaic; Di Cerbo 2004: 110, 118). According to the introduction, the teachings were composed by the priest Chasheshonqy in order to educate his son after he had been imprisoned for failing to report a conspiracy against the king organized by the chief physician, his childhood friend. The manuscript from the temple library is

noteworthy in so far as it contains a longer and more detailed introduction than the Akhmim version. Since it preserves no part of the teachings, and its format would have been unsuitable, it seems to represent a reworking of the introduction into a story in its own right. Other papyri from Saqqara (second century BC; Volten 1955), Magdola in the Fayum (third century BC; Pezin 1982), Thebes (second century AD; Jasnow 1991), Gebelein (second century BC; Smith 1958), and an unprovenanced text in Berlin (unpublished; Zauzich 2000: 28), as well as two ostraca from Deir el-Medina (unpublished; Devauchelle 2003: 52, n. 55) and el-Kab (Ptolemaic; Jasnow 1987: 108), all share sentences with *Chasheshonqy*. Apart from the el-Kab ostracon, which contains only a single line, it remains uncertain to what extent these texts represent variant editions or compilations of excerpts.

6 Prophecies

These have all been recently collected, translated, and discussed (Blasius and Schipper 2002; cf. Quack 2005a: 148–61). The main texts are the *Prophecy of the Lamb* (one Demotic papyrus, quoted in several Greek sources), the *Prophecy of Petesis* (two papyri, one Demotic and one Greek; the Greek version better known as *Nectanebo's Dream*), a *Sequel to the Prophecy of Petesis* (three Demotic scribal exercises), the *Prophecy of the Potter* (several Greek papyri), the *Prophecy of Amenophis* (only known indirectly through Josephus, *Contra Apionem* 1.22ff; perhaps from a tale?), a newly published Demotic papyrus from Tebtunis, and the so-called *Demotic Chronicle* (one Demotic papyrus).

  Leaving aside the *Demotic Chronicle*, the prophecies are all *ex eventu* (i.e. made after the actual event they refer to) and follow a fixed pattern. An introduction provides the background against which the prophecy was made. It is usually delivered in the presence of a renowned king, such as Amenhotep, Bokchoris, or Nectanebo II. This is followed by the prophecy itself, which contains an elaborate description of first the chaos that will befall Egypt and then the return of order and prosperity with the rise of the savior. The media may overtly seem very different in nature; a sage, a sculptor, a potter, and even a lamb. They do, however, have in common that they all share living-creating properties; the sage can create life through his magical abilities, the sculptor – "craftsman of creating life" – by his very craft, and both the potter and lamb are iconic representations of the creator-god Khnum. Several of the texts also have in common that the medium dies, thus rendering the prophecy irrevocable; they can no longer add or change any part of the prophecy. The lamb and potter both fall dead immediately, while Petesis is apparently consumed by fire, and Amenhotep takes his own life. In addition, some of the texts share an element in describing that the prophecy was committed into writing. This is presumably a literary device intended to explain how a prophecy made in the sometimes remote past about the future to come is now known. It is noteworthy that several of these features are already attested in the *Prophecy of Neferti* of the Middle Kingdom.

  While the prophecies share a similar structure, they were originally composed under different political situations. The *Prophecy of Petesis* concerns the Persian

occupation of Egypt and the *Prophecy of the Potter* Ptolemaic rule, urging the destruction of Alexandria. It is noteworthy that none of the texts explicitly mentions the Romans, although the extant prophecies all date to the Roman Period (with the exception of the *Demotic Chronicle* from the third century BC). The relevance of these texts during the first to third centuries AD still remains to be fully understood, as does the fact that several of them were translated and circulated in Greek. As for the archaeological context, at least the *Prophecy of Petesis*, the *Sequel to the Prophecy of Petesis*, and a third prophecy were included among the holdings of the Tebtunis temple library, while the *Prophecy of the Lamb* and a Greek translation of the *Prophecy of Petesis* were found as part of private archives (cf. above).

The texts contain many examples of intertextuality; there are allusions to specific historical situations such as invasions or past rulers, several of which have still to be identified, and the *Prophecy of the Potter* specifically cites the *Prophecy of the Lamb*. Especially remarkable is the composition of a sequel to the *Prophecy of Petesis*, which forms an independent prophecy (Ryholt 2002a, i.p.a). The original text describes in its introduction how Nectanebo II learns through a dream that the gods have decided to depose him because he had not completed the inscriptions at the temple of Onuris in Sebennytos. (The latter provides another example of intertextuality, since these inscriptions were, in fact, left unfinished when the king was forced to flee the country.) The prophecy itself is no longer preserved, but according to the sequel it described the Persian invasion and occupation. The sequel is also incompletely preserved. Just before the text breaks off, we are informed that the king presented offerings which is customary before consulting the god. Like other prophecies it must be expected that it concluded with the promise of a savior. It would, therefore, seem not unreasonable to connect the composition of the sequel with Alexander's conquest of Egypt and to assume that its purpose was to proclaim him as the son and heir of Nectanebo II, drawing on the same propaganda as the *Alexander Romance*.

7   Legal Literature

A survey of Demotic legal manuals has recently been published by Lippert (2004: 147–66), to which may be added unpublished fragments from Tanis. None of the material is well preserved. The most extensive manuscript is the *Hermopolis Code* (third century BC) with the remains of ten columns, while other substantial fragments are *P. Berlin 23757* (third century BC), the *Tebtunis Legal Manual* (first century BC), and the so-called *Zivilprozeßordnung* (third–second century BC). Among the smaller fragments, P. Carlsberg 236 (third century BC) derives from the 44th column of a legal manual that was evidently quite substantial, while the *Zivilprozeßordnung* seems to have reference to a 42nd chapter or column.

There are indications that some of these manuals could relate to the great codification of Egyptian law up until the 44th Regnal Year of Amasis that was decreed by Darius I to be recorded in both Egyptian and Aramaic (Lippert 2004: 167–75; *pace* Redford 2001). The *Hermopolis Code* may well preserve part of this, and the *Tebtunis Legal Manual* and *P. Berlin 23757* could be copies of an extensive commentary on

this corpus. The status and long transmission of the codified corpus is demonstrated by the fact that Darius' decree is mentioned in a papyrus from the third century BC (Spiegelberg 1914: 30–2), perhaps citing the introduction to a legal manual, and that Amasis was remembered as the last great native lawgiver even as late as the first century BC (Diodoros 1.94). It is important for the understanding of the legal manuals that – contrary to what is sometimes assumed – aspects of traditional Egyptian law were still in effect as late as the Roman Period; hence these manuals do not merely preserve old knowledge. A specific example of the intensive use to which a legal manual might be put is provided by the *Tebtunis Legal Manual*, one of the oldest documents in the Tebtunis temple library, which was used over a period of about two hundred years and repaired and strengthened with patches in several places.

8   Scientific Literature

Foremost among the texts that may be classified as scientific, from an ancient perspective, are those that concern various types of divination (v. Lieven 1999). If the Tebtunis temple library is representative, the dominant type of divination in the Graeco-Roman Period was celestial, i.e. astrological, and this is also suggested by the number of horoscope ostraca from the temple of Narmouthis (Ross 2006; Menchetti and Pintaudi 2007). All the texts from Tebtunis so far identified are written in Demotic. The bulk of the known astrological manuals derive from the temple library, and at the time of writing some forty-five astrological manuscripts have been identified, representing more than 10% of the entire contents. The material is almost entirely unpublished, but currently under study. The handbooks fall into several categories with different focus and methodology. One category contains predictions about the future of the state to be made at the beginning of the year on the basis of the position of the star Sirius, Egyptian *Sothis*, in relation to the zodiac (only published example is Hughes 1951). Others contain predictions intended for private individuals, mostly based on either the position of the seven major heavenly bodies (i.e. the sun and moon and the five visible planets, Saturn, Mars, Mercury, Venus, and Jupiter) in relation to the twelve houses (only published example, not from Tebtunis, is Hughes 1986; translation Quack 2008b: 368–70), or the zodiac signs in relation to the thirty-six decans (none published, but cf. Chauveau 1992). Two of the latter are specifically written for women (personal observation). The handbooks sometime contain instructions and reference tables. A single manuscript has illustrations that might pertain to lunar observations like those attested in a contemporary papyrus in Vienna which were used to make predications concerning the state (Parker 1959a).

   Among the new discoveries in the temple library is one text (P. Carlsberg 104, unpublished), which has particularly thorough instructions for making astrological calculations and is remarkable in having reference tables written in Greek on the reverse. Another significant discovery is a handbook (Jørgensen 2005) that includes a table of terms which is practically identical to the Egyptian system described

by Claudius Ptolemy (c.85–165 AD) in *Tetrabiblos*, thus confirming the accuracy of his description (another table of terms from Tebtunis belonging to a different tradition is published in Depuydt 1994; Bohleke 1996). It has been suggested that the latter system originated with Nechepsos, and it is, therefore, noteworthy that the astrological texts with preserved introductions are all ascribed to, or associated with, Imhotep (at least five examples) or the hitherto so elusive Nechepsos. The latter was long known only from the Greek tradition, where he was renowned as the wisest Egyptian king as far as science was concerned. It emerges from newly identified texts that Nechepsos is a transcription of "Necho the Wise" and that the king in question is Necho II (Ryholt i.p.c). One text associates his accession with a historical eclipse, thus perhaps explaining his association with astrology. The full publication of the extensive material from Tebtunis is likely to shed much further light on Egyptian astrology and its relation to Greek and Babylonian traditions.

Another important group of divinatory texts is represented by the handbooks on dream interpretation or oneiromancy. A well-preserved Hieratic handbook from the Ramesside period (P. Chester Beatty III) demonstrates that we are dealing with a very long tradition. One of two other fragmentary Hieratic handbooks (Quack 2006a) can be dated to the fourth century BC, while all the Demotic material dates to the Roman Period. The Tebtunis temple library included at least six Demotic handbooks (Volten 1942; Tait 1977: nos. 16–17; Quack and Ryholt i.p.), and a few more are known from other sources (Spiegelberg 1902: 29; Zauzich 1980). The texts are arranged in thematic sections and cover a wide range of subjects, including dreams about different types of minerals, plants, fishes, and alcoholic beverages, or situations such as swimming, suckling on different animals, seeing Pharaoh, or even unnatural intercourse.

Other contemporary handbooks concern yet further methods of divination. A complex text recently published survives in one Hieratic and two Demotic copies, c. fourth century BC and first century AD respectively, and uses a combination of three numbers, perhaps involving some kind of dice (Stadler 2004; 2006; Quack 2005b; 2008b: 362–7). Still unpublished Demotic texts concern animal *omina* (Quack 2006a: 175–9) and weather *omina* (Collombert 2008).

The nature of the predictions about the state as well as private individuals forms an interesting sociological study and would merit closer study as more material becomes available. In summary, predictions about the future of the state are mainly concerned with the overall condition of the country (satisfaction, misery), the success of the king (defeating enemies, staying in power, revolts against), various types of major strife (wars, rebellion, invasion), the size of the inundation, and the availability of provisions (fish, fowl, crops). The personal predictions concern very much the same aspects of life as do modern horoscopes: the home, marriage and sex, children, personal disposition, health and happiness, career, and wealth.

Texts that may be described as astronomical are far fewer than those on astrology. The best example is P. Carlsberg 9 from the Tebtunis temple library which preserves a scheme, based on the civil calendar and arranged in a 25-year cycle, for regulating lunar months in the cult calendar (Neugebauer and Parker 1960: 217–25; Jones 1997; Depuydt 1998). Other texts record the date of specific constellations, such as the date when planets enter specific zodiacal signs (Neugebauer and Parker 1969: 225–40),

lunar eclipses (Neugebauer, Parker, and Zauzich 1981; Jones 1999: I 87–91), and solstices and equinoxes (Parker and Zauzich 1981).

Demotic mathematical handbooks of both Ptolemaic and Roman date, some with illustrations, have been published by Parker (1959b; 1972; 1975). They contain a range of problems from simple arithmetic to geometry and algebra.

9   Medical Texts

Relatively few medical texts of the Late and Graeco-Roman periods have so far been published, and they are all very fragmentary (for surveys see Quack 1999b; Westendorf 1999). The material includes both Hieratic and Demotic texts, some from actual handbooks and some from other contexts such as ostraca, containers, and letters. Fragments of handbooks include two Hieratic papyri, one with receipts against coughing, c.600 BC (Westendorf 1974; Vittmann 1996: text A10), while the other is too poorly preserved for identification, c. fourth century BC (Quack 1999b). The published Demotic papyri cover gynecology (first century BC; Erichsen 1954, a further fragment is mentioned by Zauzich 1994: 15), skin afflictions as well as internal diseases (second century AD; Reymond 1976, needs serious revision) and dentistry (second century AD; Reymond 1984). Related to the medical texts are a handbook on snakes that includes the treatment of snake-bites and a handbook on herbs that describes their medical properties, both of which are discussed below.

The largest single group of medical papyri derives from the Tebtunis temple library. Two of the very fragmentary texts were written in Greek (Ryholt 2004: 144), while the rest are in Demotic. The latter fragments still remain to be studied and sorted but seem to belong to at least half a dozen different manuscripts. The introduction to one manuscript describes it as "the first medical volume of the collection of Harmachis son of Har [. . .]" – using the same word for collection or collective volume that is attested in medical papyri already around 1500 BC – and continues with a long list of all the various categories of prescriptions it contains, including "prescriptions for women" and "prescriptions for children." One of the better preserved sections of the text concerns the treatment of various ailments related to the rectum.

Any comparison between Egyptian and later medical traditions is rendered problematic because of the scarcity of published material from the last millennium of Pharaonic history. This is well exemplified by two case studies concerning birth prognosis and wounds in the head (Iversen 1939; 1953), which provide evidence of a direct relation between the Hippocratic corpus and Egyptian texts from the New Kingdom. There can be little doubt that older Pharaonic medical principles continued, but equally clear examples from the Late or Graeco-Roman Periods are still lacking (even if the story of *Djoser and Imhotep* alludes to one of the same methods of birth prognosis, cf. Ryholt i.p.b). A recent survey of the influence on Egyptian medicine on Greek medical tradition (Ritner 2000; cf. also Harris 1971) draws attention to the Egyptian origin of aspects such as pulse-taking, anatomical dissection, and the quantification of ingredients in prescriptions.

It also notes the significant broadening of the range of plants products and other ingredients put to medical use in later periods.

10   Cult and Ritual

Turning to cult and ritual, the Tebtunis temple library is a particularly good source for texts that deal with the daily operations of an actual temple (Ryholt 2005a: 148–51; v. Lieven 2005; Quack 2006b; Jay 2007). Assuming that the texts attested in multiple copies were the more important, we may see the *Daily Ritual*, the *Offering Ritual*, and the *Ritual for Opening the Mouth* as essential which, indeed, is what one would expect.

The *Daily Ritual* (at least three papyri; two published in Osing and Rosati 1998: 101–28) preserves acts and recitations to be made at the opening of the shrine and the morning toilet of the god. The *Daily Ritual* is also attested in a contemporary Demotic papyrus from Soknopaiou Nesos (Stadler 2005), as well as three Hieratic papyri from the late tenth century BC. The *Offering Ritual* (at least five papyri) gives instructions for the correct presentation of offerings, while the *Ritual for Opening the Mouth* (six papyri; Quack 2006f: 69–150) provides the inanimate statue with life, just as it provides the mummy with life when used in a funerary context. Noteworthy is the fact that only one copy of the latter is inscribed for the god Soknebtunis; the other five all pertain to Sokar-Osiris and were apparently intended for use during the important Khoiak Festival.

Other ritual texts relating to the super-regional cult of Osiris include one or more Osiris liturgies bearing the title *Glorification by the Two Sisters* (four papyri; one published by v. Lieven 2006), as well as the *Ritual for Bringing Sokar Out of the Shrine* (one papyrus; Quack 2006e), all of which – like the *Ritual for Opening the Mouth* – are otherwise well attested in funerary contexts (cf. below).

Another group of texts essential in relation to the cult are the royal protection and purification rituals. In principle, the king was responsible for the cult in every temple, but in the everyday operation of the numerous temples around the country he was necessarily deputized by local priests who performed these rituals while they assumed the role of the king. The Tebtunis temple library contained several copies of such rituals (cf. Quack 2002b: 97–100; 2006b: 4–5), one of which is parallel to the protective spells in the *Manual on the Pantheistic Bes* from the "Brooklyn Library" (Sauneron 1970; cf. below) and another to the royal purification ritual in Berlin published by Schott (1957). The "Brooklyn Library" includes at least one further royal protection ritual (O'Rourke 2002), as well as a liturgical guide for the royal accession ceremonies performed each New Year (Goyon 1972; 1974). Another ritual text aimed at the protection of the king during the night was entitled *Protection of the Bed* and is preserved in a papyrus of unknown provenance (Roman; Golénischeff 1927: 114–31).

Most of these texts had a very long tradition dating back to the New Kingdom and in some cases further back. As far as the Tebtunis temple library is concerned, they were all written in Hieratic and, in contrast to the Demotic texts, mostly on fresh papyrus, although there are some examples of re-use.

11   Magical Texts

The realm of magical texts displays a very high level of continuity (Ritner 1995; Quack 1998; general discussion in Ritner 1997; texts in translation in Quack 2008b). Snake spells first attested in the *Pyramid Texts* were still in active use, and the majority of objects inscribed with the so-called Spell A and B of the Horus stelae, which were standard temple spells, derive from the Late and Graeco-Roman Periods. It is evident from monuments that the extant manuscripts preserve only a fraction of the texts in circulation.

Beneficial magic is well attested throughout the Late and Graeco-Roman Periods. The material may be divided into texts used in relation to the temples and cult (Quack 2002c) and those intended for private individuals, but the division is not always clear. An example is afforded by the *Manual on the Pantheistic Bes* which is preserved in one copy from the "Brooklyn Library" (c. sixth century BC; Sauneron 1970) and one or two others from the Tebtunis temple library (Quack 2006b; Ryholt i.p.f), all written in Hieratic. These texts were originally intended for the magical protection of the priests who carried out the cult on behalf of the king but were later also used for private individuals, with the seven-headed Bes protecting men and the nine-headed Bes women and children. The manual provides instructions for the creation of magical papyri amulets with the figure of Bes, and an actual example of such an amulet is preserved (cf. Pinch 1994: fig. 17). The nine-headed Bes is also well attested in bronze figures, small amulets, and on gem-stones. By the same token a short protective spell attested in several amuletic papyri for children from the Saite period was also used in the mammisi of Graeco-Roman temples (Fischer-Elfert 1995; Burkard 2006).

Magical texts intended for the influence and control of the health or feelings of others as well as divinatory magic are, by contrast, quite rare. Harmful magic seems always to have been very restricted, with the notable exception of the official execration rituals performed by the state itself (Quack 1998: 84), and for the Roman Period – whence most of the literary texts derive – official Roman hostility towards Egyptian magic may also have been an important factor (Ritner 1995: 3335, 3355–6). The main corpus from the Graeco-Roman Period is preserved in a cache of papyri discovered in the early nineteenth century, perhaps at Thebes, the so-called Theban Magical Library (late second–third century AD; translations Betz 1992; material and background Dieleman 2005: 11–21). It seems to have contained at least a dozen magical papyri, as well as handbooks on alchemy. The majority of the manuscripts are written entirely in Greek, but a few mix Egyptian and Greek. The latter manuscripts employ a total of no less than seven writing systems – Greek, Demotic, alphabetic Demotic, Hieratic, Old Coptic, Cipher, and *Charakteres* (magical letters) – and it has been argued that this was a deliberate strategy to restrict access to their contents (Dieleman 2006). The texts preserve randomly arranged spells concerning divine revelation through lamps, bowls, mediums and dreams, and other types of magical divination; spells designed to control the mind and health of others; and spells of healing.

12 Priestly Knowledge

A considerable number of texts deal with priestly knowledge in a systematic form. These may be divided into three main groups; general texts, cult-specific texts, and temple-specific texts. The texts presented below are selected on the basis of the number of attested copies on the assumption that the better-preserved compositions would generally be the more important.

Beginning with the general texts, the *Book of the Temple* assumes pride of place, with more than forty known copies, mostly in Hieratic though there are also a few in Demotic, one in Greek, and one in both Hieratic and Demotic (first–second century AD, a few perhaps late Ptolemaic; Quack 2000, cf. further Quack 2007a). The composition is divided into two halves, one a treatise on the ideal temple and the other a treatise on the temple personnel. By its very nature it must be assumed that this was a fundamental work present in all temple libraries. The Tebtunis temple library alone included nearly twenty copies, and there are also several copies of the text from Soknopaiou Nesos.

The so-called *Book of Thoth* (Jasnow and Zauzich 2005; Quack 2007b; 2007c) is a comprehensive initiation text for the temple scribe which takes the form of a dialogue between a divine figure and the pupil who is described as "he who loves knowledge" or "he who loves to learn." It is attested in more than twenty Demotic copies, mostly from Tebtunis and Soknopaiou Nesos, and a single Hieratic version which is probably from Elephantine. Apart from a single Demotic papyrus of Ptolemaic date, the entire corpus dates to the first-second century AD.

The *Book of Nut* or, to use its ancient title, the *Fundamentals of the Course of the Stars*, seems to have been one of the main treatises on religious astronomy (v. Lieven 2007), with a text tradition spanning at least one and a half millennia. The oldest version of the text is found in the underground temple of Sety I at Abydos, and it is further inscribed in the tombs of Ramesses IV at Thebes and Mutirdis in the Asasif (seventh century BC). The Tebtunis temple library included six copies of the text; one Hieroglyphic and five Hieratic, two of the latter with Demotic translation and commentary.

The *Priestly Manual* is an extensive cult topographical composition. The main section of the text records essential information about each single nome; the name of the nome and its capital, the main deity and sanctuary, the titles of the main priests, the sacred barque, sacred water, sacred tree, sacred mount, etc., as well as the main festival dates and the local "taboos." The text is preserved in at least three papyri from the Tebtunis temple library, one Hieroglyphic (Osing and Rosati 1998: 19–54) and two Hieratic (Osing 1998: 219–75). There is another Hieroglyphic papyrus from the Tanis temple (Griffith and Petrie 1889) and a monumental Hieroglyphic version inscribed on the walls of the Edfu temple.

The *Mythological Manual* is similarly a compilation of cultic information about every nome; it records an extensive number of local myths and is preserved in at least four Hieratic copies from the Tebtunis temple library (one published in Osing and Rosati 1998: 129–88; Osing 2000: 134–5). It is noteworthy that the local myths are interpreted in terms of the Osirian mythology, thus providing yet another example of

the dominant status of the Osiris cult in the Late and Graeco-Roman Period. The "Brooklyn Library" includes a work of similar nature, but about 700 years older, recording myths related to the Delta in its extant parts (Meeks 2006).

The *Votive Cubit* is intended to preserve the integrity of the cubit measure so as to maintain order. Like the two previous texts it is also of national geographical concern insofar as it includes a list of the Egyptian nomes and their extent with precise measurements. The text is explicitly addressed to future generations and thus represents a canon. Attested through physical cubit rules since the reign of Amenhotep III, the Tebtunis temple library includes two versions of the text, one Hieroglyphic (Rosati 1990) and one Hieratic (Quack 2006c), and elements of the text also occur in the *Priestly Manual*.

In addition to texts of general relevance, a number of cult-specific texts are also attested. The best preserved composition of this type is the *Book of the Fayum*, a cult topographical treatise pertaining specifically to Sobek. It is attested in several copies from the Tebtunis temple library, one or two Hieroglyphic, four or more Hieratic, and two Demotic translations with commentary. Further attestations include a monumental version at the temple of Kom Ombo in southern Egypt (Beinlich 1991; Ryholt 2005a: 148–9; Quack 2006b: 3). The text accords the Fayum a special position in relation to the sun god and creation, and the Hieroglyphic versions include a schematic map of the region personified as the mother-goddess of the sun. Another well-preserved cult topographical treatise is the nearly nine metres long *Papyrus Jumilhac* (late Ptolemaic; Vandier 1961, Quack 2008a), written in hieroglyphs with occasional Demotic jottings, which pertains to the 17th and 18th Upper Egyptian nome. It covers much of the same basic information that is recorded in the *Priestly Manual* but adds a lot more detail and information.

13   Onomastica

A great number of word-lists or onomastica are preserved from the Late and Graeco-Roman Period. These were used for a variety of purposes, ranging from scribal exercises in orthography or specific word classes to systematic records of various types of knowledge, and the nature of an individual text can sometimes be difficult to determine if incompletely preserved (cf. e.g. v. Lieven 2004a). Leaving aside evident exercises, the extant onomastica cover subjects such as divine names, place names, personal names, titles, materials, animals, plants, temple equipment, etc. (Depauw 1997: 115–6; Hoffmann 2000: 104–6).

The onomastica from the Tebtunis temple library include above all the *Great Tebtunis Onomasticon* written in Hieratic which was originally more than 10 m long. Its two main sections cover (A) Classical, i.e. Middle Egyptian, verbs and nouns, and (B) priestly knowledge in the form of sacred locations, animals, plants, deities, priests, etc., as well as a religious calender (Osing 1998: 25–218). Other onomastica from the library which concern subjects not directly related to the cult were written in Demotic. These include fragments of four lists of titles; at least two of these are parallels, and all of them may well be copies of a single extensive

onomasticon in view of the fact that one fragment preserves parts of the 30th to 34th columns (Tait 1984; 2000b; Ryholt, i.p.e). Another text preserved in two copies records the names of plants (Ryholt, i.p.e), while another contains names of tools, many of which are foreign (Tait 1982; Steiner 2000).

The most comprehensive onomasticon outside the temple library is a Demotic papyrus at least 14 columns long recording toponyms and deities (early Ptolemaic; Spiegelberg 1906–8: pls. 109–11, 270–80; Zauzich 1987). Several onomastica are arranged alphabetically, including the lists of plants and tools mentioned above, as well as an extensive book of names (fourth century BC; Zauzich 2000). A particularly interesting example is a list which includes names of birds paired with names of trees through alliteration, e.g. "the ibis (*hb*) is upon the ebony tree (*hbny*)" (fourth century BC; Smith and Tait 1983: 198–213). The birds in question form what may be described as the names of the individual letters of the Egyptian alphabet (the alphabet is discussed in Quack 1993a).

Some lists move from the mere recording of nouns to actual commentaries. Such information sometime constitutes specialized manuals but may also be incorporated in larger compositions. Examples relating directly to the temples and cult are found in the large compendia of priestly knowledge. Other examples concern various aspects of natural life. Several of these record which deity the item in question is associated with. A Hieratic manual describes a number of snakes, recording their physical attributes, such as color and size, as well as their divine association and, in a separate second section, cures against their bites (sixth century BC; Sauneron 1989; Leitz 1997). Similarly, a herbal from the Tebtunis temple library describes a large number of plants and their medical properties, ascribing each plant a number (second century AD; Tait 1977: no. 20; 1991b). Included in the *Great Tebtunis Onomasticon* is a list of birds with a description of their physical attributes and sometimes also other details, such as habitats and whether they were migratory (second century AD; Osing 1998: 124–36). Similarly, a list of *canidae* is found in the cult topographical manual preserved in *Papyrus Jumilhac* (Ptolemaic; Vandier 1961: 81–96, 127–8), recording once again their physical attributes and the divine association. A small fragment listing trees records only their divine association (v. Lieven 2004b). Some of the divine associations are quite straightforward; thus, for instance, red snakes and dogs are associated with Seth.

14   Mythological Narratives

In addition to the *Mythological Manual* and the cult-topographical treatises, the Tebtunis temple library includes a number of mythological narratives proper. It is noteworthy that all of these were written in Demotic in contrast to the systematic collections of mythological material listed above. The *Myth of the Sun's Eye* (Spiegelberg 1917; de Cenival 1987; 1988; Hoffmann and Quack 2007: 195–229) assumes a central position in more than one respect. Not only is it preserved in at least seven copies, but one manuscript indicates that this particular version was 124 columns long. Two further copies of the text are known; one was

re-used for one of the Theban magical papyri and preserves most of 23 consecutive columns, while the other is a fragmentary Greek translation. The text describes the exile of the Tefnut, the daughter of the sun, who has left Egypt in anger following a quarrel with her father, and the extant parts preserve an extensive dialogue between her and the god of wisdom. The latter tries to persuade her to come home, using a range of arguments and also telling several fables in the process.

The *Contendings of Horus and Seth*, describing how Horus triumphed over Seth and was chosen as the rightful ruler of Egypt, is attested in at least one papyrus (Ryholt i.p.a); three other copies spanning the fourth century BC and the second century AD come from Saqqara (unpublished, cf. Tait 1994: 209–10), Hermopolis (Zauzich 1984), and Soknopaiou Nesos (Hoffmann 1996). Otherwise unattested mythological material from the temple library includes a cosmogony that gives an account of how the cosmos came into being and developed and the central role of the primeval ocean in the process (Smith 2002) as well as a narrative that has some relation with the Dionysos expedition (cf. Kockelmann 2008b).

Related to the mythological narratives is a dramatic text concerning Horus and Seth with explicit stage instructions, which was apparently to be performed during the Khoiak Festival (Gaudard 2005); the composition, which is written in Demotic and at least seven columns long, offers a rare example of a dramatic text that is preserved on its own and not embedded within the context of a larger text.

15   Hymns and Poetry … and Invectives

Poetry in verse form is predominantly attested for religious literature and, above all, hymns. The majority of hymns are preserved in monumental Hieroglyphic inscriptions (Knigge 2006; Quack 2007d). In several cases there is direct evidence of a long tradition, e.g. a hymn to Osiris to be recited at the festivals at Abydos and attested since the Middle Kingdom (Assmann 1999: no. 204) or a hymn to Amun in the Hibis temple already attested in a papyrus of Ramesside date (Quack 1998: 88–9).

Hymns preserved in manuscript form are scarcer (cf. Depauw 1997: 95, Quack 2005a: 81–93 for Demotic material). A few ostraca are inscribed with hymns that are well known from temple inscriptions. A Demotic ostracon contains the *Hymn to the Ten Bas of Amun* (early Roman; Smith 1977; 1999), the oldest version of which is found in the Kiosk of Taharqa in Karnak; another Demotic one (late Ptolemaic; Quack 2001b) contains a standard hymn related to sistrum-playing before goddesses; and a Hieratic example (second century AD; Quack 2001a) is inscribed with the *Menu*-song related to the offering of a cocktail to the goddess Hathor. Such ostraca were perhaps used for reference during the actual ritual. The same point may apply to a hymn to Amun of Tanis preserved on a Hieratic tablet (Roman; Vernus 1979).

Three early hymns in the Demotic script were added as an appendix to the *Petition of Petese* from the late sixth century BC, all addressed to Amun (Vittmann 1998a: 198–203, 593–643; Hoffmann and Quack 2007: 52–4). A number of substantial hymns of Roman date derive from the Fayum, none of which has so far been fully published. The Tebtunis temple library includes a particularly interesting Demotic

hymn, at least thirteen columns long, which is also attested in two other papyri of uncertain origin (all second century AD; Hoffmann and Quack 2007: 305–11). The text explicitly relates to the Feast of Drunkenness which was briefly described by Herodotos (2. 60). The festival celebrated the return of the Sun's Eye from her exile to Nubia – which is recounted in the *Myth of the Sun's Eye*, cf. above – and involved an orgiastic atmosphere where the participants get drunk, engage in sexual activities, and shout insults and obscenities at an opposing party. Closely related to this text and apparently also associated with the Feast of Drunkenness are a pair of Demotic ostraca (Ptolemaic; Depauw and Smith 2004), whose texts similarly encourage drunkenness and erotic pleasure before the god Ai/Nehemanit, another manifestation of the eye of the sun.

Another Demotic hymn from the temple library is likely also to have been of some importance since it is preserved in three copies. It repeats the refrain "May Vine-Horus (or Grape-Horus?) be great for me!" over and over and seems to cite incidents from the myth of Horus. A morning hymn spans at least columns 15 and 17 of a Hieratic manuscript but was perhaps incorporated into a larger text. From Soknopaiou Nesos is a collection of hymns addressed to Sobek and Horus that span at least eleven columns (Hoffmann 1999). The hymn to Horus, preserved in two copies, is also attested in yet another contemporary papyrus of Fayumic origin (Spiegelberg 1902: 24–6; Widmer 1998).

A notable exception to the religious poetry is provided by two harsh invectives, both written in Demotic. The so-called *Poème Satyrique* is directed against a seedy harpist and the text of the papyrus is laid out in verse-lines and, unusually, provided with red verse points (first-second century AD; Hoffmann/Quack 2007: 311–16). The other is directed against a woman and is written on an ostracon (Zauzich 1991). Despite the different media, the two texts are related in several respects and may share a common origin. The harpist is strongly criticized for his lack of musical qualities and his poor behavior; he cannot sing or play but merely makes noise, and he is coarse and greedy. At one point the text explicitly cited the *Petese Stories*, more specifically those concerned with the vices of women (cf. above). The woman is scolded in no less uncertain terms. Statements such as "You should bathe [in …] and purify yourself with urine" and "One would not find enough water in the ocean, you swine, to wash your face" give an illustration of the general tenor of the text.

16   Funerary Literature

Securely dated Late Period funerary literature prior to the fourth century BC is still relatively scarce. The primary text that we have is the *Book of the Dead*, which was standardized in terms of both the selection of spells and their sequence during the Kushite period (although known as the "Saite Recension"). A number of *Books of the Dead* of the Kushite and Saite period have been published (Munro i.p.; Verhoeven 1993; 1999a), all written in Hieratic, while very little material has been ascribed to the long period of Persian occupation. It is important to note that the surviving manuscripts by no means represent the scope of funerary literature known during

this period. Contemporary tombs, sarcophagi, stelae and other sources preserve spells from the *Pyramid Texts* (Allen 1950: 12–41) and the *Coffin Texts* (Gestermann 2005) as well as the *Book of Amduat*, the *Book of Gates*, the *Book of Caverns*, the *Book of the Earth*, the *Book of Nut*, the *Book of the Day*, the *Book of the Night*, and the *Litany of Re*, and many of these compositions are still attested also in the Ptolemaic Period (cf. conveniently Hornung 1999; Manassa 2007).

From the fourth century BC the material becomes much more abundant. The *Book of the Dead* is now also found inscribed on mummy linen (Kockelmann 2008a). This was not necessarily a substitute for papyrus since both are sometimes found together. The corpus is broadened by different texts that are entitled *Book of Breathing*, as well as the *Book of Traversing Eternity* (Herbin 1994), and the adaption of royal and temple rituals put to funerary use, above all in a range of protective spells, glorifications and lamentations relating to the cult of Osiris (Burkard 1988; 2000; Assmann 2008). The vast majority of these texts are written in the Hieratic script. Hieroglyphic copies of the *Book of the Dead* reappear in the Ptolemaic Period and certainly from the first century BC Demotic is also used for funerary texts, though on a much more limited scale than the other two scripts (Depauw 1997: 116–21). Papyrus Pamonthes (63 AD; Stadler 2003) contains the only known Demotic version of a spell from the *Book of the Dead* – the latest securely dated attestation of Spell 125 – together with an extract of the *Book of Traversing Eternity.*

The *Book of Breathing* makes it first appearance in the second century BC and is used as a general term for a range of funerary texts which may be written in Hieratic or, more rarely, Demotic or even Hieroglyphic. The most common are the *Book of Breathing made by Isis for her brother Osiris*, the *First Book of Breathing*, the *Second Book of Breathing*, and what might be termed the *Demotic Book of Breathing* (for the three former see Herbin 2008; for the latter Stadler 2004). The first-mentioned text is sometimes provided with an opening vignette similar to the *Book of the Dead* and may be several columns long; the other texts are much shorter, usually a single column and often without illustrations. The papyri were generally placed on the mummy in pairs, and it is frequently indicated on the reverse whether the text was to be placed at the head or the feet. The texts were all intended to secure the continued well-being of the deceased through posthumous revival, restoration of the mental and physical faculties, integration with the gods, participation in important festivals, and provision of nourishment. By the late Ptolemaic Period the *Book of Breathing* seems to have completely replaced the *Book of the Dead.*

The *Glorification* texts represent an Osirian ritual transferred to the individual, with a purpose somewhat similar to the *Books of Breathing*. These texts go back to the earliest funerary literature in the form of the *Pyramid Texts*, and many different versions are attested for the Late and Graeco-Roman periods. They appear to have been used mainly in relation to offering and embalming rituals (Smith 1987: 20). The *Lamentations* express the suffering by the loss of the deceased and are modeled on the grief suffered by Isis for her deceased husband Osiris, Osirian myth again providing the frame of reference. Lamentations are often incorporated in the glorification ritual.

Further funerary texts that were also used in contemporary temple rituals include the *Ritual for Bringing Sokar out of the Shrine* (Burkard 1988: 228–49;

Smith 1993b) and the *Rite of Opening of the Mouth* (Otto 1960). Related to the latter is the *Liturgy of Opening the Mouth for Breathing* attested in four Demotic papyri of the first century AD, perhaps all from Akhmim (Smith 1993a). A few papyri of early Roman date also include spells first attested in the *Pyramid Texts*, both in Hieratic (Möller 1900; Szczudłowska 1972) and Demotic (Smith 1993b).

FURTHER READING

There is, unfortunately, no single study that covers the Hieratic material from the period, but at least some of it is now collected in the present chapter. General surveys of the textual material from our period will be found in Depauw 1997, Hoffmann, 2000, Quack 2005a, and Hoffmann and Quack 2007.

Coptic and Coptic Literature

Leo Depuydt

1   Definition

Coptic literature is literature written in Coptic, the language spoken in Egypt from the early centuries of the modern era to when it died out mostly, if not entirely, sometime between 1000 and 1500. Isolated pockets may have survived a little longer, but there is no way of knowing whether and, if so, how long. After the arrival of Islam in Egypt around 640 Arabic began to replace Coptic, and Coptic swiftly declined in the tenth century. By the twelfth century speakers of Coptic can have constituted no more than a tiny minority of the population. Influence of Arabic on Coptic is limited mainly to adoption of some words, and then mostly only technical vocabulary (Richter 2006).

Kasser (2006: 391) estimates that the surviving Coptic texts, presumably including both literary and non-literary texts, amount to about 40 million letters. The present article, with the references, contains about 63,000. Accordingly, the total ancient Coptic written heritage would be very roughly 635 times as long as the present article.

2   Coptic and Egyptian

Coptic is the fifth and final stage of Egyptian. The history of Egyptian is by far the longest attested of any language. It begins with crude and partly undecipherable scribbles dated to the end of the fourth millennium BC. The first full-fledged texts appear around 2500 BC. By comparison, the history of Chinese begins in earnest only around 300 BC. The oracle-bone inscriptions of the late second millennium BC do not represent the language fully and are followed by a long gap in the preserved record. Aramaic, on the other hand, is first attested in the early first millennium BC and survives to the present day, though some centuries of its evolution in medieval times are undocumented.

The terms ''Coptic'' and ''Egypt(ian)'' both derive from the ancient name of Memphis, ''House of the *Ka* of (the god) Ptah.'' The sounds *p* and *t* in ''Coptic'' are those of ''Ptah.'' The fact that two different derivations of a single name denote Egypt before and during the Coptic Period symbolizes the striking differences in religion and language between the two. Pre-Coptic religion is polytheistic and eclectic. Coptic religion is monotheistic and Christian and revolves entirely around one book, the Bible. Pre-Coptic Egyptian is written in the Hieroglyphic, Hieratic, or Demotic scripts. Coptic is written with the Greek alphabet augmented by a few letters adapted from Demotic characters and denoting sounds not found in Greek.

3   Rise and Decline

The earliest attempts to write Egyptian in the Greek script date to the first centuries of the modern era. These attempts are known as Old Coptic. One might also call them Graeco-Egyptian. They precede the invention of a standard Coptic alphabet, which exhibits its own characteristic forms of the Greek alphabet. The earliest texts date to the later third or early fourth centuries AD, perhaps a little earlier. Most literary texts in Coptic were composed between 300 and 800. Manuscript copies can be of later date but hardly later than the eleventh-twelfth centuries. Since the Middle Ages begin by different accounts as early as the emperor Diocletian's reign around 300 or as late as Charlemagne's reign around 800, Coptic literature belongs almost entirely in Late Antiquity by one account or almost entirely in the Middle Ages by another. The decline of Coptic literature from the late first millennium and its expiry in the early second millennium followed from the decline of the Coptic language which arose from the spread of Arabic after the Muslim conquest of Egypt a few years after the death of the Prophet Mohammad in 632. Only a few literary works were composed in Coptic after 1000.

4   Jewish Origin

In the fourth century well-crafted manuscripts containing polished literary works written in standardized dialects of Coptic seem to emerge out of nowhere. One wonders about the nature of the enterprise that produced this new literary tradition, the people, the places, the time. No evidence survives. It is tempting to assume that it was Christian missionaries who rejected the complicated and declining Ancient Egyptian scripts in favor of the Greek alphabet for the purpose of spreading the Gospels to the Egyptian masses. However, the eminent Belgian Copticist Louis Théophile Lefort (1948: 165–70) proposed an entirely different scenario. Lefort is overly apologetic regarding its hypothetical character while realizing its potentially ''enormous significance.'' To me it seems by far the most plausible.

Lefort makes two observations of fact. First, certain books of the Old Testament, that is, the Greek translation of the Hebrew Bible known as the Septuagint, often

exhibit an Egyptian expression where the New Testament exhibits one borrowed from Greek. It follows that the Coptic Old Testament must be older than the Coptic New Testament. Or, there was a time when the Coptic Old Testament already existed, and the Coptic New Testament did not yet. Second, certain passages in the Coptic Old Testament are nearly identical to their citations in the Coptic New Testament. It follows that one was quoting the other. Given the prior inference that the Old Testament came first, a further inference is that the Old Testament citations in the New Testament are not independently translated from the Greek but adopted literally from a pre-existing Old Testament text. No other explanation seems possible for the two facts.

The most important implication is that Coptic was created to translate the Old Testament. This implication cannot be reconciled with the widespread assumption that Coptic was developed to spread Christianity. Why would Christians have trans-lated the Old Testament before the New Testament? The necessary alternative is Lefort's hypothesis (1948: 169) that ''Jews of Upper Egypt would be the inventors of the Sahidic alphabet and the first to have elevated the living language to the height of a literary language; in other words, they would be the creators of 'Coptic.' '' In order to translate the New Testament the first Christians, who were, after all, Jews, ''would have had no need for the Demotic script because they would have found Coptic already existing in synagogues.'' Nothing is more characteristic of Coptic literature than its Christian purport. But it was a Jewish creation.

5   Surviving Legacy

When Coptic literature declined, it did not vanish entirely. Its legacy survived in at least three ways. First, Christian-Egyptian culture, which Coptic literature served to express, endured. Today, the Coptic or Christian-Egyptian Church constitutes the largest Christian minority in that part of the globe where Islam is prevalent, an area extending from Morocco to Indonesia. When the Coptic language died out not too long after 1000, the term ''Coptic'' became available to serve as a synonym of ''Christian-Egyptian'' without reference to the language. The second part of the legacy is that the appreciation of Egyptian Christians for their literary heritage in Coptic persisted. Coptic literature was still read and understood to a degree, mainly by priests and monks, but no new original works were composed. The third legacy is the fact that Coptic literature survived in the linguistic medium of Arabic. This body of writing is known as Coptic-Arabic literature. Coptic-Arabic literature is a subject of study in its own right involving a wealth of sources. It is part of Christian-Arabic studies, which examines the literatures of the Arabic-speaking Christian communities surviving as minorities wherever Islam came to dominate. The cultural break between pagan and Christian Egypt makes treating Coptic literature in this *Companion to Ancient Egypt* to a degree artificial (as to how Coptic Christians viewed pagan Egypt, see recently Westerfeld 2003). Then again, the linguistic continuity of Egyptian and Coptic does much to justify its inclusion, but the second rift that occurred when Coptic was replaced by Arabic after 1000 leaves hardly any continuity with pagan

Egypt. Suffice it to note briefly that the heritage of Coptic literature survives in three ways in Coptic-Arabic literature, two direct, one indirect.

The two direct links between Coptic literature and Coptic-Arabic literature are translations of Coptic literature into Arabic and grammars and dictionaries of Coptic in Arabic. Around 1000, perhaps a little earlier, the decline of the Coptic language led to a large-scale effort to translate Coptic works into Arabic in order to save them from extinction and keep them generally accessible. This enterprise seems to have come to an end by the thirteenth century. Naturally, a selection occurred as some works were deemed suitable for preservation but others not. The most apparent manifestation of this translation program is the many bilingual manuscripts, all church-books, in which a Coptic text in the Bohairic dialect in the left-hand column faces its Arabic translation in the right-hand column.

Translation presupposes an adequate knowledge of Coptic. When linguistic competence in Coptic strongly declined, and hardly anyone still mastered the language, the need was for grammars and word-lists from which Arabic speakers – mainly clerics presiding over church services – could learn Coptic. Grammars were called "prefaces," and word-lists were called "ladders." Several grammatical works on Coptic in Arabic dating to the thirteenth and fourteenth centuries have survived (Mallon 1906–7).

An indirect link between Coptic-Arabic and Coptic literature consists of original Christian literature from Egypt composed in Arabic. This literary production in Arabic naturally has much in common with Coptic literature in terms of genres and subject matter. Original Coptic literature written in Arabic experienced a Golden Age in the thirteenth and fourteenth centuries. A steep and permanent decline in literary productivity followed.

6   Early Coptic Studies

Coptic was no longer perfectly understood by the beginning of the Modern age. In the Renaissance the Latin West rose to intellectual preeminence, and higher learning flowered. Knowledge of Coptic was imported into Europe. A key factor in the advancement of Coptic studies was the desire of the Roman-Catholic Church to bring eastern churches back into the fold.

Five milestones in the earliest history of Coptic studies in the West can be identified (Emmel 2004a). First, by the fifteenth century, Coptic manuscripts had reached Europe, probably including some brought to the Council of Florence (1439–1443) by Coptic clerics who attended to discuss union with Rome. Second, in 1481, Flavio Guglielmo Raimondo correctly identifies Coptic-Arabic manuscripts for what they were in an inventory of manuscripts kept at the Vatican Library. Third, Fabio Vigile (c.1480–1553) produces the earliest known but unpublished scholarly opinions on Coptic. Vigile is, as far as we know, the "first pioneer" of Coptic studies (Emmel 2004a: 9). Fourth, the Jesuit polymath Athanasius Kircher (1601/2–1680) publishes the first substantial descriptions of Coptic in his *Prodromus copticus sive aegyptiacus* (1636) and *Lingua aegyptiaca restituta* (1643). Fifth, in 1696, the Augustinian

monk Guillaume Bonjour (1670–1714) completes the first grammar of Coptic, but it remains unpublished until recently (Aufrère and Bosson 2005).

At the beginning of the nineteenth century Etienne Quatremère produced a detailed survey of early Coptic studies in Europe up to his time (Quatremère 1808). Scholars have since done much to restore Coptic to a state of thorough comprehension. Hans Jakob Polotsky has described the early decades of this effort, following the decipherment of Hieroglyphic Egyptian in 1822 by Jean-François Champollion, who was himself no mean student of Coptic (Polotsky 1987/2007).

7   The Coptic Era

As an historical era the Coptic Period takes up about a tenth or about half a millennium of the 5,000-year length of the history of Egypt, lasting from the fourth century to the ninth century. ''It begins with rapid Christianization and ends with rapid Islamization'' and is ''the time of the prominence of churches in the landscape in contrast to temples or mosques'' (Mikhail 2004: 980–1).

8   External Characteristics of Coptic Literature

The identity of Coptic literature is determined, in part, by distinct external characteristics, i.e. those not pertaining to content.

Media of transmission

As regards media, one characteristic is so obvious that it hardly deserves mention. It is that Coptic is handwritten and not printed. The creation of Coptic literature antedates in its entirety the arrival of the printing press in the fifteenth century. The Coptic alphabet was for the first time printed with moveable type in the early seventeenth century (Emmel 1986). Two other characteristics of the material vehicle pertain to the time when Coptic literature was being produced and, therefore, deserve more discussion. They are its writing media and its format (Roberts 1983). As for media, Coptic literature is written on papyrus, parchment, or paper. Pre-Coptic Egyptian literature had been typically written on papyrus. In terms of format, Coptic literary works are in codex form. By contrast, when written with a pen instead of chiselled or painted, pre-Coptic literature had been typically inscribed on papyrus rolls tied with a string.

Writing materials: papyrus, parchment, paper
Coptic literature belongs to the era following the time when papyrus was typically used (except in ancient Mesopotamia, where clay was the rule) and preceding the near monopoly of paper that came with the invention of printing. This era lasted from about the second century BC to about the fifteenth century AD. In it papyrus,

parchment, and paper were all three used; in fact, in the late first millennium AD, all three were employed simultaneously to write Coptic. Over the centuries, parchment gradually replaced papyrus and paper gradually replaced parchment, but there was an overlap.

Papyrus is plant material. The sheets are made of the pith of the papyrus plant. Before the advent of Coptic virtually all the literature of Egypt had been written on papyrus from time immemorial. Egypt also possessed a monopoly on the manufacture of papyrus and exported it to all corners of the world. Many of the oldest preserved books containing Coptic literature are made of papyrus. Around the fifth to sixth century AD parchment largely supplanted papyrus after having been used alongside it. Papyrus remained in use for writing letters and business documents, but production of papyrus ceased in about the twelfth century.

Parchment is an animal material. It is animal skin stretched on a frame and dried in that state. The process is irreversible. Adding moisture to parchment does not return it to animal skin. Leather is also made from animal skin, but by a different process, tanning. Parchment became more widely used in the ancient world from the second century BC onward, after having been invented some time earlier. Some of the oldest codices containing Coptic literature are of parchment, but papyrus was still used alongside parchment in the fifth to sixth centuries. (Manuscripts are often difficult to date to a specific century, let alone to a specific decade.) As a vehicle for literary works, papyrus is, therefore, attested later in Egypt than elsewhere in the ancient world. Perhaps Egypt's uniquely dry climate exceptionally preserved papyrus books whereas humid climates elsewhere caused them to perish. If papyrus was in fact used longer in Egypt than elsewhere, Egypt's monopoly in the papyrus trade may have contributed to this situation.

Coptic literature is first written on paper from about the tenth century. Since the use of papyrus was almost extinct at the time, the name ''papyrus'' could be transferred to the new material without causing confusion. The skill of paper-making was probably imported from China to the Middle East in the eighth century. Like papyrus and unlike parchment, paper is a plant material. Sheets of paper are manufactured by dipping a grid of wires bordered by wood into a vat of rotting rags turned into liquid pulp and allowing the film of pulp sticking to the frame to dry. Iconic wire figures attached to the wire grid may leave water-marks indicating the paper's provenance or manufacturer. Paper made from wood-pulp dates to modern times and becomes common only in the late nineteenth century.

The transition from parchment to paper in the tenth century coincided roughly with the decline of Coptic as a spoken language. As long as Coptic was spoken, Sahidic was the dialect used in most writings. More than 90% of surviving literary works in Coptic are in this dialect, but, when Coptic died out, Bohairic and not Sahidic was chosen as the liturgical language of the Coptic church, and Sahidic fell into complete disuse as a literary dialect. The other literary dialects had become extinct earlier, most by about the fifth century, with Faiyumic resisting Sahidic supremacy longer, mainly till the eighth century. Accordingly, Coptic literature survives in great part in either one of two manifestations: parchment codices containing Sahidic texts and paper codices containing Bohairic texts. Codices containing texts in other dialects are earlier and, therefore, made of either papyrus or parchment.

The most prominent of those other dialects are Akhmimic, Faiyumic, Lykopolitan (or Subakhmimic), and Middle Egyptian (Oxyrhynchitic).

Since papyrus deteriorates faster over time than parchment and since papyrus manuscripts are also generally several centuries older than paper manuscripts, Coptic literary texts written on papyrus are, as a rule, more fragmentary than those inscribed on parchment, a fact which makes interpreting them more difficult.

There is one more writing vehicle on which many, usually short, Coptic texts are inscribed, namely the ostracon. Ostraca quite often date to the sixth to eighth centuries, but the texts in question are typically documentary in nature, not literary. In the documentary realm, Coptic texts on ostraca were replaced on a large scale by Arabic texts on paper. "Ostrakon" is Greek for "potsherd," but denotes two types of sherds that are both often used for short documentary texts, namely sherds of broken pots or jars and stone-sherds, mostly of limestone of suitable shape.

Format: the codex

In the history of books and writing the rise of Coptic literature around the late third and fourth century coincides with the rise of the codex, which replaced the roll. Consequently, Coptic literature is almost entirely preserved in codices. The shape of the book that is now taken for granted, with sheets bound together at the spine, did not exist from the beginning of writing 5000 years ago. The format came into existence about two thousand years ago around the beginning of the modern era. The term "codex" denotes manuscripts exhibiting this format. The earliest fragments of codices date to the second century AD, and the earliest representation of a codex is found in a painting dating to the third century found in a Roman catacomb. Christian communities almost immediately adopted the new format to the exclusion of the roll. Meanwhile, classical authors kept being copied onto papyrus rolls in Alexandria in Egypt and other centers of learning. The rise of Christianity in the fourth century coincided with the near universal adoption of the codex format.

Codices consist of quires, large sheets folded into smaller ones and cut open except at the spine. Each large sheet produces a quire. The norm in Coptic codices is quires constructed from folding a sheet three times, with eight smaller sheets or 16 pages as the result. A few of the very earliest codices, including the famed Nag Hammadi codices containing Coptic Gnostic texts, consist of sheets folded just once, with four pages as the result, and all tucked into one another. Strictly, the result is not a single quire but a large number of four-page quires all folded into one another. Among the earliest codices, wooden covers are not uncommon. Leather covers with insides consisting of papyrus or parchment debris soon became the norm.

Format: the world's oldest books and bindings

It is rarely made explicit that Coptic literature stands out among all the world's literatures much more for certain external characteristics than for the characteristics of its contents. Other Christian Oriental literatures such as those of the Syriac, Armenian, and Ethiopic churches are similar to Coptic literature in content. In addition, Coptic literature is generally popular in nature and lacks any sophistication and complexity that could render it distinctive among literatures. But when it comes to external characteristics, Coptic literature stands out by serving as the

content of many of the world's oldest books in codex format. A confluence of circumstances has produced this property of Coptic literature. The first is that Coptic literature is Christian and was, therefore, much less likely to be discarded and cease being copied than classical authors, who were often rejected for their pagan subject matter. The second is that the codex came into existence and rose to prominence at the same time as Christianity. The third is that Christian communities appear to have adopted the codex format quickly instead of showing hesitation like the pagan communities, possibly as the result of a desire to make the new format into a symbol of the newness of the Christian message. The fourth is the dry climate involving zero rainfall prevailing in much of Egypt. By comparison, the oldest Christian Syriac codex, which bears a colophon dated to 411, is made from parchment. If papyrus codices written in Syriac had ever existed, they would have perished.

It might be added that many of the earliest book-bindings are also Coptic, including those of the large number of parchment codices unearthed in 1910 on the site of the ancient Monastery of St Michael located in the desert about three miles from the village of el-Hamuli in the Fayum region and preserved at the Pierpont Morgan Library in downtown Manhattan in New York City (Depuydt 1993a). These codices constitute the largest single trove of Coptic literary works ever to reach modern libraries as a single whole. The earliest history of book-binding coincides with the earliest history of Coptic book-binding. The bindings on other early books have, as a rule, been replaced at a later date.

Language

The linguistic vehicle does much to define the identity of Coptic literature. There are three key characteristics: the extensive use of Greek words in Coptic texts, the preservation of Coptic literature in several dialects, and the relevance of Coptic to the study of earlier Egyptian.

Greek words

Substantial Greek immigration into Egypt began in the seventh century BC, the first waves consisting of mercenaries and merchants. With Alexander's conquest of Egypt in 332 BC the Greek component of Egyptian civilization became significantly more prominent. Greek was now truly an Egyptian language. The use of Greek was concentrated in the royal court and the upper classes, who typically dwelt in the cities and towns of Egypt. Greek also became the vehicle for many of the more sophisticated usages of language, including scientific and theological discussion, and it remained the language of the elite down to the arrival of Islam in the seventh century. Texts written in Demotic and later in Coptic were mostly not addressed to the elite but to the common man, and their diction and contents are of the popular kind.

Since Greek and Egyptian were spoken alongside one another, mutual influence was unavoidable. A number of Greek words must have entered Demotic and later Coptic by virtue of the mere coexistence of two languages in a single space. Greek words may also on occasion have been adopted in Coptic to lend a veneer of finesse to one's language, as one would in English by using French terms such as *de rigueur* and *à la mode*. Furthermore, contact and commerce with foreign nations made Egyptians

familiar with objects for which no Egyptian word existed, leading to the adoption of still more Greek words, e.g. Greek *khiōn* is used to denote "snow" in Coptic. However, there was yet another factor that caused a flood of Greek words to enter Coptic. Greek played a crucial role in the creation of the Coptic literary idiom. Coptic was at first developed to translate Greek texts, above all the New Testament and the Greek version of the Hebrew Bible known as the Septuagint, and the creators of the idiom were fluent in Greek. Like Coptic, Demotic must to a certain extent have been an artificial idiom, but, in contrast with Coptic, Demotic was not created by speakers of Greek in order to translate Greek texts. Therefore, Greek words in Demotic are comparatively rare.

As Greek was translated into Coptic, Greek words were retained for various reasons, among them apparently the following two. First, translators may often have felt unsure as to how to render Greek words conveying delicate nuances, which involve abstract notions. They, therefore, simply retained the Greek word. Second, many concepts of Jewish and Christian thought came to be designated by technical terms in Greek. As technical terms, they were retained in Coptic, e.g. Greek *angelos*, "angel," *anastasis*, "resurrection," and *pneuma*, "spirit." As for grammatical properties such as declension and conjugation, Greek words are given in the nominative case and verbs in a form identical to the imperative. But let there be no mistake. The overall grammatical structure of Coptic is Egyptian and not Greek, even if there is occasional influence from Greek sentence structure on that of Coptic. The number of Greek words differs from dialect to dialect. The Sahidic dialect has many more than Bohairic, but it is not clear whether this difference stems from a desire on the part of Bohairic translators for a purer Egyptian idiom.

Three additional observations on the role of Greek words in Coptic literature may be made. First, there were probably many more Greek words in written than in spoken Coptic. The written language was created by Greek speakers to translate Greek, but the spoken language was not. Second, whereas one might expect to find more Greek words in Coptic translations from Greek than in original compositions in Coptic, Lefort (1950) observed that, if anything, the opposite seems to be the case. One would expect the writings of the great promoter of monasticism Pachomius, dating to the early fourth century, to be original compositions in Coptic. Yet, they contain 25% more Greek words than translations of the Greek text of the Bible. And third, one should add immediately that, remarkably, even careful linguistic examination does not allow differentiation between translation Coptic and original Coptic.

Dialects

The fact that Coptic literature is preserved in several dialects (Worrell 1934; Kahle 1954; Polotsky 1970; Funk 1988; Kasser and Funk 1990; Kasser 2006) stands in sharp contrast with the literatures of other Christian Oriental communities such as the Armenian, Ethiopian, Georgian, and Syriac churches, which are conveyed by a single dialectic idiom. The reason for the contrast is not known. Presumably, the coexistence of several literary dialects in Egypt corresponded to a certain need. The most obvious need is that the Coptic dialects in question could not be understood outside of their geographical boundaries. It is difficult to quantify the differences

between the Coptic dialects. The differences are significantly smaller than, say, between members of the Romance language group such as French, Italian, and Spanish. At least for modern students of Coptic, if one has attained fluency in one Coptic dialect, fluency in the others should come soon and easily. In studying the dialects of Coptic the student is, therefore, advised to begin by studying one dialect really well, typically Sahidic, and only then make the transition to other dialects. One suspects that there were also dialects in Armenian, Ethiopic, Georgian, and Syriac diverging to a similar degree to Coptic dialects. One can only speculate that, in those other churches, a strong central authority was able to impose a single dialect as literary idiom on speakers of many different dialects. By the same token, no such authority presumably existed in Egypt. In any event, Egyptian intellectuals expended considerable energy in creating not just one but several Coptic literary idioms all at the same time.

Even if no dialect achieved a monopoly in Egypt, the Sahidic dialect was by far the favored idiom until the time when Coptic strongly declined at the end of the first millennium. By the sixth century, only the Faiyumic dialect was still used as a literary idiom alongside Sahidic. When Coptic died out as a spoken language, Coptic church authorities did assign a monopoly position to a single dialect, but, as already noted, it was not the Sahidic dialect that was selected but Bohairic. More than 90% of what has survived of manuscripts written up to that time is in Sahidic. Hardly any surviving Bohairic texts date before the ninth century, but early texts have come to light, especially Papyrus Bodmer III kept at the Martin Bodmer Library in Geneva (Kasser 1971), proving that Bohairic had already been a literary idiom early on.

The Coptic dialects came to light gradually in modern times. By around 1800, three Coptic dialects were known in the West, namely Sahidic, Bohairic, and Faiyumic. Between about 1880 and about 1920, two more dialects were added, namely Akhmimic and Subakhmimic or Lykopolitan. Meanwhile, additional texts have emerged, and detailed studies of the dialects have led to ever finer distinctions. The result is that, by some counts, about fifteen dialects clustering in perhaps seven or eight groups have been documented in the surviving manuscripts. The most remarkable event in the modern study of Coptic dialects was the emergence, in the second half of the twentieth century, of a previously entirely unknown dialect that has been called Middle Egyptian or Oxyrhynchitic, "Middle" in "Middle Egyptian" being a geographical term. By contrast, when "Middle Egyptian" denotes a stage of Hieroglyphic Egyptian, "Middle" is chronological, denoting a stage of the language following Hieroglyphic Old Egyptian and preceding Hieroglyphic Late Egyptian. The Middle Egyptian dialect of Coptic is represented by fine early parchment manuscripts such as the Princeton University Library's Codex Scheide containing the *Gospel of Matthew*, the Pierpont Morgan Library's Codex Glazier containing about half of the *Acts of the Apostles*, and the Psalm Codex now kept at the Coptic Museum in Cairo. The Codex Scheide and the Codex Glazier are both exceptionally well preserved. The Psalm Codex was found in November 1984 under the head of a girl buried in a cemetery at el-Mudil not far from ancient Oxyrhynchos about one hundred miles south of Cairo. Its provenance confirmed what scholars had earlier conjectured about the home of the Middle Egyptian dialect of Coptic. In being of known provenance, the el-Mudil codex is the exception among manuscripts written

in Middle Egyptian. In studying the relations between the dialects, knowledge of place of origin of manuscripts and of their date is crucial, but such knowledge is very often wanting, and the provenance of manuscripts reaching libraries in the West is frequently unknown. It is also often difficult to date manuscripts more precisely on the basis of paleographical characteristics. The earliest colophons containing dates are from the early ninth century. As a result, opinions about the home locations of Coptic dialects have diverged widely.

The most prominent and most vexed question in the study of Coptic dialects has always been the home of Sahidic (Polotsky 1970: 559–61). If we judge by its name only, the matter would seem to be simple. The Arabic name Sahidic means "pertaining to Upper (that is, Southern) Egypt." By contrast, the Arabic name of the dialect that became the official language of the Coptic church, Bohairic, means "pertaining to Lower (that is, Northern) Egypt," more precisely "pertaining to the region near the (Mediterranean) sea" (from Arabic *baḥr*, "sea"). No one has ever doubted that Bohairic is the dialect of northern Egypt, especially the Nile Delta. Furthermore, the name Sahidic is part of an old tradition. What could be easier than to conclude that Sahidic was the language of the south just as Bohairic is the language of the north? Furthermore, just as Memphis had for centuries been the political and cultural center of the north, so had Thebes been that of the south. The region of Thebes consequently presented itself as a natural choice as the home of the Sahidic dialect. From Thebes Sahidic would have gradually spread to become the literary language of all of Egypt. The single most important fact that seems to undermine this obvious hypothesis is that Sahidic shares certain striking characteristics with Bohairic. Sahidic and Bohairic share the vowels *a* and *o* where other dialects exhibit *e* and *a*. As a result, the presumed home of Sahidic gradually shifted northward ever closer to Bohairic in the north. Kahle (1954: 257 n. 1) even proposed Alexandria as the base of Sahidic, but with hesitation.

Then everything changed when a manuscript of *Proverbs* emerged that, in addition to having many traits in common with the dialects of the south such as Akhmimic and Subakhmimic, also exhibited the vowels *a* and *o* (Kasser 1960). The dialect is known as P. Dialect P is in many ways strikingly similar to documentary texts of later date whose provenance is no doubt Thebes (Nagel 1965). P is also in other ways unique. It exhibits unique additional letters and other features that are not part of the orthography of any other dialect of Coptic. Accordingly, the supposed home of Sahidic can safely be returned to southern Egypt. The question remains what the vowels *a* and *o* are doing in the south if all dialects south of the Delta exhibit *e* and *a*. It has been suggested that the vowels were adopted from the dialect of Memphis, which did exhibit those vowels, owing to the prestige of the latter dialect (Satzinger 1985).

Coptic and Egyptian

The strongest link between Coptic and pre-Coptic Egypt is the fact that the Coptic language is the vehicle of Coptic literature. Coptic is by far the best-known stage of the Egyptian language. It is "the only phase of Egyptian of which it is possible to obtain as precise and comprehensive a knowledge as can reasonably be expected where a dead language is concerned" (Polotsky 1970: 558). It is the only stage in

which one can come close to obtaining a true feel for the Egyptian language. In that sense, the study of Coptic indirectly advances the study of pre-Coptic Egyptian and Egypt.

9 Distinctive Internal Characteristics

The content of Coptic literature exhibits five general characteristics which, taken together, set it apart from many other literatures. These characteristics relate to its position with regard to categories which all literatures exhibit: (1) relation to other literatures (in regard to Coptic: subordinate because so much is translation); (2) themes struck (Christian); (3) register (popular); (4) main focus (Biblical); (5) religious purport (Monophysite).

Translation

Much of Coptic literature is translated from Greek. In addition, Manichaean texts are presumably at least in part translated from Syriac; recent excavations of a Manichaean settlement at ancient Kellis, modern Ismant el-Kharab, in the Dakhla Oasis have unearthed bilingual documents for the first time providing hard evidence of this relation between Syriac and Coptic, in addition to many other interesting finds.

To the extent that it is translated, Coptic literature is less original and creative than it could have been. Then, again, translation Coptic is not as extensive as one might assume. If one excludes Biblical and related texts, a fair amount of what remains consists of original compositions, but even these original compositions exhibit a certain relation with work originally written in Greek. A large part of Coptic literature consists of countless homilies attributed to Greek-writing church fathers such as Athanasius of Alexandria and Cyril of Alexandria. There is no doubt, however, that these church fathers did not author the texts in question, and that the texts are original Coptic compositions. Their purport is much more popular in register than anything the authors in question ever wrote in Greek. On the other hand, it is not clear to what extent the Coptic homilies transmit, in strongly diluted form, titbits of exposition written by the author to whom the text is attributed or by any other church father for that matter. The outlines of theological thinking in Christian Egypt must have originated with great teachers of the church such as Athanasius. Some of their teachings presumably trickled down to popular homilies written in Coptic, but there is no evidence for the precise nature or the successive stages of this process. Clearly, the need was for homilies that could be read in church on Sunday and understood by a largely illiterate audience. Ancient sermons presumably came about in much the same way as those in modern times. Preachers draw on all kinds of direct and indirect sources of inspiration to compose them.

Translating Greek into Coptic requires proficiency in both languages. Such dual proficiency must have been rare. Although Greek was the language of a minority, this minority constituted the ruling class. There must have been little practical necessity for Greek speakers, typically city-dwellers, to learn the native Egyptian idiom spoken by most of the rural population. By contrast, studying Greek must have been seen as

an instrument of upward mobility by many ambitious native speakers of Egyptian. In sum, there was more incentive for Coptic speakers to learn Greek than for Greek speakers to learn Coptic, except for the specific aim of translating Greek into Coptic.

Translating Greek into Coptic presupposes a near perfect knowledge of both. By contrast, in learning Greek for the purpose of social advancement, speakers of Coptic probably learned Greek to varying degrees of perfection. Coptic speakers with a far less than perfect knowledge of Greek must have been common. One piece of evidence in favor of this assumption is a unique fragment in which a Greek version and a Coptic version of a work attributed to Shenoute, the most prolific Coptic author, stand side by side (Depuydt 1989). The Coptic version seems perfectly idiomatic whereas the Greek is linguistically deficient in certain ways. What is more, the shortcomings of the Greek can in part be explained as a failed attempt to translate constructions unique to Coptic into Greek. Also, the Coptic text of a Bible passage is that of the Coptic Bible, whereas the Greek text is not that of the standard Greek Bible but rather an attempt at translation from the Coptic. The conclusion is obvious: Shenoute learned Greek, as one might have expected, but less than perfectly so.

Christianity

When Christianity became the state religion of Egypt in the fourth century, the church came to permeate every aspect of life just as much as it did in the European Middle Ages. Accordingly, just as the medieval literature of Western Europe is overwhelmingly Christian, so is the literature of Coptic Egypt. There was little need for secular literature because God was the solution to everything. Only little original work was composed in Coptic after the Muslim conquest, but, to the extent that it was, it squarely belongs in the Christian tradition, just as much as anything composed before the conquest. Islam hardly influenced Coptic literature. Documentary texts, including letters, business and juridical documents, are not literature, strictly speaking, and are, therefore, secular, dealing with the concerns of daily life as they do.

Popular register

Coptic literature is for the most part of the popular kind. It consists mainly of a type of text that one might hear read in church on Sundays. It is also the type of writing that one expects to be easily understood even when it is spoken. Intellectually sophisticated discourse took place in Greek. Shenoute, the most prolific and most original Coptic author, is a special case (Emmel 2004b). He was abbot of the White Monastery near Sohag in Middle Egypt in the fourth and first half of the fifth century. It seems clear that he composed his sermons with oral delivery in mind, but, perhaps inspired or challenged by the complexity of classical Greek literature, which he may have studied to a modest degree, Shenoute makes an unusual effort to sound sophisticated. However, his rhetorical exertions often succeed only in generating complexity for its own sake. The result is much rambling, ranting, and raving. A line of argument is often disrupted or sidetracked without ever being resumed. Still, precisely because of his highly idiosyncratic diction, Shenoute is the rare ancient Copt

the reader feels able to get to know as a flesh-and-blood personality, and a colorful one at that. Often in reading Shenoute, we get the distinct feeling that only he could have said something in this or that way, that this or that is exactly something Shenoute would say. In that sense, he holds a position of unique historical interest.

Biblical focus

Christianity is one of the religions in which a single holy book towers high above everything else as the supreme authority. It comes as no surprise, then, that many of the Coptic manuscripts that have survived are Biblical. In fact, of texts written in dialects other than Sahidic and Bohairic, most of what has been preserved is Biblical. One exception is the Gnostic and Manichaean texts written in Subakhmimic or Lykopolitan.

The overwhelming presence of Biblical texts among what survives is not the only way in which the Bible permeates Coptic literature. Almost all Christian literature in Coptic is steeped in Biblical lore and phraseology. Some homilies are mere patchworks of Biblical citations with minimal commentary. Clearly, the Bible sets strict parameters for (some might say dampens) literary creativity. As a vehicle for Biblical texts, Coptic literature plays a significant role in Biblical studies. The Coptic version of the Bible is ancient and early. It sheds light on how the Bible was understood in the early centuries of its existence, when there was still much variation in the wording and interpretation of the text. In terms of the importance of the translations, Coptic occupies first rank together with the Old Latin version or *Vetus Latina* and the Syriac version owing to its antiquity. What is more, the Coptic version is distinct from the others in surviving, at least in part, in several dialects. The many variations between the versions offer additional food for interpretation and study.

The New Testament has been analysed so tirelessly for so long that new evidence offering a completely novel angle of approach always comes as a surprise. Coptic literature has delivered such a surprise in the form of the Codex Schøyen containing the *Gospel of Matthew* in a new sub-dialect of Coptic (Schenke 2001). Its main dialect is Middle Egyptian, which has omikron where all other dialects exhibit omega, as does the Schøyen text, even if only rarely and inconsistently. The emergence of the Codex Schøyen follows the general pattern of the emergence of the Middle Egyptian dialect as a whole. By the mid twentieth century, it seemed as if what was going to be known about Coptic dialect diversity was basically known. Then, in the following decades, several old manuscripts of substantial length evidencing an entirely new dialect, the Middle Egyptian or Oxyrhynchitic dialect, emerged.

The Codex Schøyen should have a deep impact on New Testament Studies. The Two-Source-Theory, according to which the canonical Greek Matthew was compiled from two Greek sources, is affected. Codex Schøyen is translated from Greek, as all Coptic Biblical texts ostensibly are, but the text differs from the canonical Greek Matthew which the other Coptic versions translate. There were, therefore, at least two Greek texts of Matthew, and the original Greek of the Schøyen text is lost. Yet, Matthew can only have written one text. Therefore, if he wrote in Greek, how could the result be two Greek versions that are completely independent of each other? If he did not write in Greek, two Greek translators might have produced different

translations of which one is the canonical Greek text, and the other one is preserved in a Coptic translation in the Codex Schøyen. In his *Ecclesiastical History* (3.39.16) Eusebius communicates a report that Matthew wrote the *Sayings of Jesus* in Hebrew (by which Aramaic may be meant) and that different translators translated Matthew's original as best as they could.

In addition to its significance to Christianity and the history of religions in general, the Bible is unique in being preserved in several different ancient languages. It, therefore, offers much opportunity to students of language for making countless finer observations regarding the phraseology of various ancient languages. Such a comparative Biblical philology was a dream of P. de Lagarde's (1866: 110) but still needs to be implemented.

Monophysitism

In Christian tradition Jesus of Nazareth is God incarnate. As the "anointed one," Christ in Greek and Messiah in Hebrew, he died on the cross to save mankind. There was much theological debate on the nature of the Christian God in the early church. The two main themes were the relation between the Father and the Son and the relation between the divine and human natures of Christ. The understanding of these two relations was in danger of causing confusion in the minds of believing Christians. On the one hand, the Son might be considered subordinate to the Father, who was the creator of everything. On the other hand, Jesus might be considered as either too divine to suffer on the cross or too human to be fully God. To eliminate the possibility of undesirable interpretations, it had to be decreed that not only the Father and the Son but also the human and divine natures of Christ coexisted as equals. Any inability to grasp such equalities was explained by interpreting them as divine mysteries inaccessible to human understanding.

The equality of Father and Son was promulgated at the Council of Nicaea (325), against Arius (c.260–336), a prominent cleric of Alexandria, who favored subordination. The bishops of Egypt accepted with most of the rest of Christianity that Christ was "begotten, not made, being of one substance with the Father." Equality of natures was propagated at the Council of Chalcedon (451). This time, the Coptic church split off from much of the rest of Christianity by holding on to the doctrine that there was only one nature in Christ. This is called the Monophysite doctrine (from Greek *monos*, "only," and *physis*, "nature") (Frend 1979), though a minority of Egyptian Christians followed Chalcedon and the emperor in Constantinople and persists to the present day. Purely political motives, including rivalries between patriarchates, often played a role in such theological disputes.

According to the Council of Chalcedon, Christ is as much God as man and, therefore, both at the same time. The union of the two is interpreted as an unfathomable mystery. If Monophysitism holds that Christ has only one nature, is it the divine one or the human one? The matter is not entirely clear, even to theologians. This lack of clarity has been the basis of an argument that reunion of the Coptic church with other Christian churches may be easier from a doctrinal point of view than might be assumed. It would appear that Monophysitism may have been inspired less by the belief that there is one nature than by the belief that there are not two. Two natures

might make Christ no longer a single person, even if Chalcedon insisted that the two natures coexisted in a single person. An extreme expression of the notion of two persons existing in Christ was the belief that Mary had given birth to the man Jesus and not to God. Those who opposed this belief vigorously defended Mary's role as the *theotokos* ("who bore God").

The occasional defense of Monophysite doctrine is a characteristic of Coptic literature dating after the Council of Chalcedon. Monophysite doctrine seems to make Christ more divine than he is according to the doctrine of two natures. For example, at some point, when passing through a crowd, Jesus asks who touched his garment, Coptic church fathers make it explicitly clear that they assume that Jesus was only pretending and in fact knew the answer to his own question. The question as to how he could have suffered on the cross remains unanswered. It is common for apologetic discourse to keep hammering on the concept "only" (*monos*) without attention to its deeper doctrinal significance. The aim seems to be to assert independence.

10   Unique Internal Characteristics

The content of Coptic literature exhibits characteristics which may be considered specific in that they are absent from many other literatures. A sizeable component of the corpus of Coptic literature is Manichaean and Gnostic. Coptic sources, therefore, provide essential documentation for the history of these two religious movements. Neither Manichaean nor Gnostic doctrine is Christian, but both are influenced by Christianity, Gnosticism more so than Manichaeism. But yet a third religious movement to which Coptic literature makes a vital contribution belongs squarely in the Christian tradition, namely monasticism. Egypt is widely considered to be the cradle of the worldwide movement of Christian monasticism.

Manichaeism

In the formative years of early Christianity, different systems of belief competed with one another to represent how Christians should best think of all the details of God's plan for the world. The result was much debate and even turmoil, but by the Middle Ages different Christian communities attained stability by adhering to a single set of beliefs. For most Egyptian Christians this set of beliefs was Monophysitism (see above). The history of theology profoundly affects the history of Coptic literature, which is mostly religious in nature.

Another facet of the early years of Christianity was its rise from being a small sect of Judaism in the first century to becoming the state religion of the Roman Empire in the fourth century. Therefore, Christianity in its earlier years had to compete with other religions. Two religious movements that drew many followers were Manichaeism and Gnosticism. Gnosticism was mainly native to Egypt, as far as the sources allow us to see, whereas Manichaeism was foreign-born. Both ultimately suffered extinction with the rise of Christianity. Gnosticism was such an elite system that it

could hardly ever have posed a serious challenge to Christianity (see more below). By contrast, Manichaeism had much potential to become a world religion and aspired to be (Lieu 2006). Manichees were known as aggressive, even if civil, proselytizers. Therefore, Manichaeism was viciously persecuted by Christianity. Saint Augustine, whom many consider the most inspiring and celebrated ancient church father, was originally a Manichee but later converted to Christianity, and his invectives against Manichaeism are among the most valuable sources of information about this religion.

Some characteristics of Manichaeism are as follows (see Polotsky 1935). The core principle of Manichaeism is dualism. Gnosticism is also dualistic but less so. Dualism tries to reconcile the fact that there is so much evil in the world with the belief that God is the creator. How could God have created evil? The origin of dualism is a refusal to associate God with evil in any way. Dualism insists that there is not one but two fundamental principles, variously described as good and evil, divine and material, and light and dark. Good and evil are separated from one another as two distinct principles. Gnosticism and Manichaeism present different but also in many ways similar accounts of the relation between the two principles. At the center of both accounts stands a very detailed and elaborate myth that portrays the history of the world from the beginning. This myth is in large part concrete and material as opposed to abstract and spiritual, to a much greater degree in Manichaeism than in Gnosticism; in fact, almost every facet of Manichaean thought can be imagined as having a bodily presence. In Manichaeism good and evil are fully separated from the start, and only the good is called God. What is evil is so equal in status to what is good that Manichaeism has been interpreted by some as a duotheism, a religion with two gods.

All episodes in the myth of Manichaeism are described in great detail. In one crucial episode, an epic struggle takes place early in the history of the world. The realm of darkness seeks to invade the realm of light, and the latter surrenders some light particles to appease the forces of darkness. The result is a mixture of light and dark in which the light particles forget where they came from. God therefore dispatches "mind" (Greek *nous*) to mankind to allow them to regain knowledge of their origin and engage in types of behavior that will allow them to reunite with the realm of light. Owing to the key role played by knowledge, Manichaeism is called a gnostic religion, from Greek *gnosis* "knowledge."

Manichaeism is almost entirely the creation of the person after whom it is named. Mani (AD 215/16–276) was of Iranian descent and related to the Parthian royal house. He lived in south Babylonia and spoke an eastern Aramaic dialect. Unlike most founders of religions, including Jesus and Mohammed, Mani read much and wrote much. He also borrowed a great deal from other religions and adapted without hesitation anything that he thought good and useful in other faiths. He also styled himself as an apostle of Jesus Christ, and, in the end, according to some sources, Mani died for his beliefs, as Jesus did.

There is an interesting potential link between Manichaeism and Pharaonic Egypt. A tradition preserved in the *Acta Archelai*, a Manichaean work whose Greek original survives in citations, traces the earliest roots of Manichaeism to an Egyptian called Scythianus, who is said to have learned all the wisdom of the ancient Egyptians and whose beliefs traveled from Egypt to Mesopotomia. That may explain a possible

reference to a Hieroglyphic wisdom text in a Syriac Manichaean text discovered in Egypt (Depuydt 1993b).

Why does Manichaeism deserve a prominent place in an essay on Coptic literature? The reason is that one of the two principal troves of original Manichaean sources consists of texts in Coptic. These texts were originally part of a Manichaean library located near modern Medinet Madi in the western Fayum. They are now kept in Berlin, Dublin, and Vienna. The other trove is from Turfan in western China and contains texts in Iranian and Turkic dialects as well as in Chinese. The edition of all Manichaean works written in Coptic is a collaborative effort that has not yet been completed, but an international society devoted to Manichaeism founded some years ago promotes the academic study of this ancient religion. Among other original evidence of Manichaeism, Egypt has also yielded the Cologne Mani Codex in Greek and the archeological and textual remains found at ancient Kellis in the Dakhla Oasis.

A distinction applies in the corpus of Manichaean texts, which include letters, sermons, sayings, and teachings, between (1) works written by Mani himself in Syriac, Aramaic, and Persian, (2) translations of his works, (3) works written by his followers, and (4) translations of works written by his followers. The Manichaean Coptic texts presumably mostly fall into the fourth category and were mostly composed in the first generation after Mani. The manuscript copies from Medinet Madi are probably not much younger, if at all. The original language of the Coptic translations may have been Syriac.

Gnosticism

Gnostic texts, in a sense, belong to the outskirts of Coptic literature. Their contents are highly idiosyncratic, and adherents of Gnostic sects must always have been relatively small in number. Then, again, these texts constitute a facet of Coptic literature that is characteristically Egyptian and very characteristically Coptic (for three general works on Gnosticism see Layton 1995; 2004; Robinson 1977). There is nothing quite like Egyptian Gnosticism in any other surviving literature, but, above all, nothing has done more to draw attention to Coptic and Coptic literature in the twentieth century, or perhaps ever, than the discovery of thirteen papyrus codices inscribed with Coptic Gnostic texts in 1945 near Nag Hammadi, ancient Chenoboskion, in southern Egypt. The codices contain two to seven treatises. Several works appear more than once, the *Apocryphon of John* even in three versions, with a fourth being preserved in Berlin, ʙᴘ 8502.

The Nag Hammadi discovery truly gave the study of Coptic a shot in the arm. The texts in question are presumably mostly, if not entirely, translations from Greek originals now lost. They are written in the Sahidic or Subakhmimic (Lykopolitan) dialects or mixtures thereof. The Greek originals presumably date to the second or third century, and the Nag Hammadi manuscripts were copied probably in the late fourth century ᴀᴅ. Before the Nag Hammadi find a few Greek fragments and the codices Askewianus and Brucianus at the British Museum and a codex in Berlin, afore mentioned ʙᴘ 8502, had come to light as Coptic witnesses of the Gnostic religion. The edition and study of the Nag Hammadi library in the last half a century has involved a flurry of activity that is now almost impossible to survey.

One way of defining Gnosticism is by comparing it with Manichaeism. Both are dualistic in the sense defined above. Knowledge of the complex way in which the world came into existence is a crucial component of Manichaeism. In that sense, Manichaeism is a type of Gnosticism. Among the differences between the two are the following. First, Gnostic thought seems more esoteric and abstract than Manichaean. Gnostic writings are on occasion so enigmatic that one almost suspects the presence of deliberate obfuscation. The world according to Mani may be full of concepts and entities, but even the most abstract of them appear to inhabit a material body. Influence from the more abstract strains of Greek philosophy including Platonism plays a much more important role in Gnosticism than it does in Manichaeism. That must have been at least in part due to the fact that Greek had been an Egyptian language since the conquest by Alexander. As a consequence, Egypt was more imbued with Hellenic culture than Mani's Babylonia and Persia.

The second difference is that Gnosticism was much more elitist and exclusive. In Manichaeism, certain classes of human beings constituted the elite, but the religion was designed to include everyone in some capacity. In fact, Manichaeans aggressively proselytized. By contrast, Gnostics seem to have taken satisfaction in maintaining a lifestyle and beliefs that set them apart from the *hoi polloi*. The third difference is that God is even more transcendent in Gnosticism than in Manichaeism. Both are dualistic in the sense of dissociating God from the principle of evil, but Manichaeism achieves this disconnect by making the force of evil almost into a god in its own right. Meanwhile, the good God is altogether aware of the world. Gnosticism, on the other hand, accomplishes the separation by the belief in a God who has not the slightest knowledge of the existence of the world. What created the world was an emanation that separated from him without his knowing and after several permutations produced an entity that created the world.

Fourth, Gnostic thought is much more fragmented than Manichaean thought, and more than one type of Gnosticism can be discerned. By contrast, there is only one unified Manichaeism. The reason is clearly that Manichaeism is mostly the product of a single mind, Mani's, who was also its creator. No such single central figure can be identified in Gnosticism. Gnostic texts can be subdivided into types. One criterion of division is based on the degree of influence from Christianity (Krause 1979: 3, 707–8); some texts, remarkably, exhibit no such influence whereas many others do, and in some cases a text originally free of such influence may have been rewritten from a more Christian perspective.

In recent years, a new Gnostic text has come to light which has caused much excitement, namely the Coptic *Gospel of Judas*. There has perhaps not been as much emphasis as there might be on how its most unusual and most striking essential characteristic fully reveals the profoundly dualistic character of Gnosticism, namely the fact that Judas and Jesus were good friends. Dualism involves dissociating God from evil. Clearly, Judas is, in a way, the supreme personification of evil. It is easy to imagine how contact between Judas and the Son of God must have made Gnostics uncomfortable. What better way to address this discomfort than by the belief that Judas and Jesus colluded by tacit agreement and that Judas only pretended to betray Jesus to give the plot a most desirable twist?

Monasticism

A third religious movement leaving a deep mark on Coptic literature, located inside Christianity and not outside, like Manichaeism and Gnosticism, is monasticism. Its name refers to its essential behavioral characteristic, namely "alone," *monos* in Greek. Monks are people who want to be left alone. To achieve this, they actively seclude themselves from others. Even when they live together in groups in monasteries, rules are put in place to ensure great privacy. The seclusion is designed to serve a purpose. In the case of monasticism, the purpose is spiritual. The belief is that more privacy facilitates prayer and overall contemplation of the divine, for one's own possible benefit and that of all mankind.

It is widely accepted that the worldwide movement of Christian monasticism as we know it originated in Egypt. Even if antecedents have been identified at an earlier date in Egypt and elsewhere, and, even if monasticism may have risen to prominence elsewhere at the same time or soon after, the degree to which monasticism took flight in the third and fourth centuries in Egypt is noteworthy. Egypt is rightly engraved in historical memory as the cradle of monasticism. What is more, Egyptians spoke Coptic when monasticism was born. Accordingly, it comes as no surprise that monastic thought is a key component of a literature that is as Christian as Coptic literature. Presumably, most of earliest Christian monastic thought found expression in the Coptic language in the land of Egypt.

Two main stages are commonly distinguished in the history of earliest monasticism. The first is eremitic monasticism, from Greek *eremos*, "desert." The second is cenobitic monasticism. Both have made an incisive mark on Coptic literature. Monasticism began when certain individuals retreated into the desert to lead a life of solitude and contemplation. The geography of Egypt made such an enterprise relatively easy at the outset. The desert climate was not that intolerable, the stony surface easily walkable, and ancient tombs offered cool habitats within a short distance of the fertile valley where food and water abounded. However, as time went by, the need for showing ever more serious commitment required withdrawing deeper and deeper into the desert, ever further away from civilization. For example, south of Alexandria and west of Cairo, recluses successively retreated first to the desert at Nitria near the Nile, then deeper into the wild to Kellia, and finally even further away from the inhabited world to the salt desert of the Wadi Natrun. The recluses in question are also called hermits, which, like the adjective "eremitic," is derived from Greek for "desert." Sometimes hermits lived in groups close to one another and arranged to meet on certain occasions. Such a community is now mostly called by its Byzantine Greek name a *laura*. Hermits did not write lengthy treatises or follow detailed written rules. Instead, valuable lessons were transmitted in short narrative tableaux. Many of these stories have survived in several ancient languages and are known as the *Sayings of the Desert Fathers*, *Apophthegmata Patrum* in Latin. Remarkably, only one manuscript of the *Apophthegmata* is preserved in the Coptic version (Chaîne 1960), the language in which the *Sayings* must have been first uttered by the monks. Perhaps, even the Coptic version is a translation of the Greek. While the *Sayings* were first uttered in Coptic, the first systematic compilation could have been in Greek.

Monasticism of the cenobitic variety, from Greek *koinos bios*, "communal life," is monasticism as we know it. It developed from eremitic monasticism as recluses sought to live in a close-knit community, guided by well-established rules. Three names stand out: Anthony, Pachomius, and Shenoute. Anthony made the transition from eremitic to cenobitic monasticism and is generally regarded as the founder of the latter. The *Life of Anthony*, written by Athanasius in Greek, which is also preserved in a Coptic version, is one the most influential literary works of all time. For completeness' sake, Harnack's opinion is also worth citing that "it is maybe the most disastrous book that has ever been written. No work has had a more stultifying influence on Egypt, West Asia, and Europe … It is mainly responsible for the entry of demons, miracles and ghosts in the church" (Harnack 1913: 81 n. 2).

The second personality, Pachomius, served in the Roman army and presumably drew some inspiration from that experience in writing the first monastic rule. His writings are also preserved in Coptic. Among monasteries of the Pachomian tradition is the huge White Monastery near Sohag in Middle Egypt. Shenoute became its abbot in the later fourth century and held that position for decades. He is probably Coptic literature's most prolific and most significant native author, but remarkably there is no reference to him whatsoever outside the confines of Coptic literature. It is as J. Leipoldt once wrote: "to the Coptic church Shenoute means everything, but to the rest of the world nothing."

One way in which monasticism made a crucial contribution to Coptic literature is that most Coptic literary texts owe their survival to having been part of a monastery library (Orlandi 1970: 60–64). Three monasteries that have yielded many manuscripts are the White Monastery, the Monastery of Saint Makarios in the Wadi Natrun, and the Monastery of St. Michael in the Western Fayum. In general, in Coptic Egypt as in Medieval Europe, literature and culture were transmitted mainly in monasteries.

11   Types of Text

If one disregards what little poetry and what few medical and mathematical texts and church canonical texts survive, then, apart from the afore-mentioned Manichaean and Gnostic texts, the vast majority of surviving Coptic texts belong in church on Sunday. Three things matter most in church: the Book, the Lesson, and the Rite. The Book and the Lesson together form the principal contents of the service, and the rite or liturgy serves as a kind of glue. Accordingly, the bulk of Coptic literature consists of three main types.

First, the Book and what is closely associated with it. At the very center of Coptic literature as a Christian literature stands the Bible, which consists of the Old Testament and the New Testament. Manuscripts containing parts of the Bible constitute by far the most common type of Coptic manuscript. The Old Testament is basically the Hebrew Bible of the Jews in its interpretation by Christians as a preamble to their New Testament. The Coptic Old Testament is a translation, not of the Hebrew Bible, but of the Septuagint or Greek translation of the Hebrew Bible. Additional

authoritative works became part of the Greek and, therefore, also the Coptic Septuagint. Certain Christian denominations allow them into the Old Testament while others consider them apocryphal. Many other works can be closely associated with the Bible. Their main purpose is to feed a need for more information about the Biblical characters. Among them are the *Life of Adam and Eve*, the *Testament of Isaac*, Gospels about the childhood of Jesus and about each of the apostles, and the *Acts of Paul.*

The Book is basic but also limited and unchanging. Second, therefore, is the Lesson. The need is for additional edification of churchgoers. The sermon serves this purpose. Many sermons and sermon-like texts have been preserved. There are two main types. The first main type concerns interpretation of the Bible, making it more relevant to the lives of believers. Some of the sermons of this type are veritable patchworks of Bible quotes. Many are centered around a certain character or a certain event in the Bible. The second main type focuses on holding up an exemplary Christian as a model that provides inspiration or is worthy of emulation. Many of these are narrative, but the principal aim of some is to sing a song of praise. These Christians are, as a rule, called saints. A special class of saints consists of martyr saints, those who died violently for their faith in the early days of Christianity when it was persecuted, mainly by the Roman authorities. Among the martyrs are a number of soldier martyrs: soldiers in the Roman army who converted to Christianity, swore off the pagan gods, and were martyred for their faith. Some of these works may also have been read by monks in the monastery library. On the other hand, we should remember that literacy was probably rather low.

The Book and the Lesson could not by themselves make up an entire service. Third is the Rite, consisting of liturgical texts. The need was for connective material in the forms of prayers and similar texts, not only for the masses but also for the daily worship routines of the monks. Much has survived in Bohairic with parallel Arabic version, mainly because the texts in question have been in continuous use down to the present day, beginning in the time when Bohairic became the language of the entire Coptic church in the early second millennium, but only very few liturgical texts in dialects other than Bohairic have been preserved (Quecke 1970). Fairly little is, therefore, known about Coptic liturgy of the first millennium.

FURTHER READING

In addition to the works of wider scope mentioned in the references to this chapter much that is useful regarding all facets of Coptic literature specifically and Coptic culture in general will be found in the eight volumes of *The Coptic Encyclopedia* (1991). Bibliographies are the evident starting-point to gain access to what all has happened and is happening in a field of learning. Earlier bibliography is compiled in *A Coptic Bibliography* (Ann Arbor, 1950) by W. Kammerer, E. M. Husselman, and L. A. Shier. There is also a very full bibliography in the fourth edition of A. Mallon's *Grammaire copte* (Imprimerie catholique, Beirut, 1956), pp. 254–401. More recent literature appears in J. Simon's *Bibliographie copte* in the volumes for the years 1948–1967 in the journal *Orientalia* (Rome). Part of the *Annual Egyptological Bibliography* (Leiden, since 1947) is also devoted to Coptic Egypt. Some of the most recent

bibliography as well as a list of publications currently in preparation can be found on the website of the International Association of Coptic Studies (http://rmcisadu.let.uniroma1.it/cgi-bin/iacs). The Association's journal is the *Journal of Coptic Studies*, and members also receive a newsletter. Since 1976 the Association has held an International Congress of Coptic Studies at four-year intervals in Cairo (1976), Rome (1980), Warsaw (1984), Louvain-la-Neuve (1988), Washington, D.C. (1992), Münster (1996), Leiden (2000), Paris (2004), and again Cairo (2008). At most of these conferences, plenary papers are read that summarize the state of the field in regard to several topics including literature, monasticism, and Manichaeism. These papers have been published in the Acts of each conference, beginning with *The Future of Coptic Studies* (Leiden, 1978), edited by R. McL. Wilson.

Greek Literature in Egypt

A. D. Morrison

1 Setting the Scene

The starting-point for any survey of the Greek literature produced in Hellenistic Egypt under the Ptolemies must be the Museum and the distinct (but perhaps closely associated) Library, both probably instituted by Ptolemy I Soter and developed by his successors (Fraser 1972: 312–35, Erskine 1995). The precise relationship between the two is not clear, but both seem to have been part of the main palace complex in Alexandria (Strabo 17.793–4; Fraser 1972: 322–5). Prominent in the life of the Library (and perhaps also of the Museum or "shrine of the Muses") was literature, especially poetry, encompassing both research on existing earlier texts, and the production of new work (though work in the Museum and Library ranged much further, from mathematics and science to philosophy, ethnography, and history). Many of the most important poets of the period, including Kallimachos and Apollonios of Rhodes, worked within Library (the latter was employed as Librarian according to a second-century AD papyrus (P.Oxy. 1241), while the former produced the renowned *Pinakes* or "Tablets," a bibliography of the Greek literature of the Library in 120 volumes: it is no wonder one of his most famous sayings was *mega biblion, mega kakon*, "a big book is a big evil" (fr. 465 Pf.)). Such poets, especially those working under the patronage of Ptolemies Soter, Philadelphos, and Euergetes, produced not only some of the best and most important Greek literature of antiquity, fit to bear comparison with the poems of Homer or Pindar, but also contributed to the Alexandrian scholarly endeavor which did much to shape our view of ancient Greek literature as a whole, in the form of the collection, cataloguing, editing, and criticism of the texts of earlier Greek authors, most famously (but not only) the *Iliad* and the *Odyssey*.

One of the most serious obstacles to study of the literature produced in Egypt under the Ptolemies is the fact that much of the most important poetry of the period has not survived complete. It is only papyrus fragments and quotations by later writers (often grammarians and lexicographers) which allow us a glimpse of poems as influential as Kallimachos' *Hekale* or his *Aitia*, and we know still less about (for example) the

tragedies of the Hellenistic Period. Nevertheless, though we must bear in mind the skewed picture that the pattern of survival and loss has bequeathed us, it is still possible to get a good sense of many important developments in Ptolemaic Greek literature, particularly from the flowering of third-century BC poetry in Alexandria under the first three Ptolemies. The fragments which we now possess of (for example) Kallimachos' *Aitia, Iambi*, and *Hekale* are, in fact, considerable, and we should also remember that the poems which have survived complete include an epic (Apollonios' *Argonautika*), a wide range of bucolic and non-bucolic poems by Theokritos, six hexameter *Hymns* by Kallimachos, and several dozen epigrams (including many by Kallimachos and Theokritos). It is on this poetry that I shall concentrate.

2 Riches, Wonders, Difference: Egypt in Greek Literature before Alexander

What was the place Egypt and its native population in the literature of Ptolemaic Egypt? How did the confrontation with Egyptians and their own ancient culture in the cosmopolitan city of Alexandria and down through the territory of Egypt make itself felt in the Greek literature of the period? To get a sense of that we must begin with the picture of Egypt we find in earlier Greek writers. When Achilles rejects in *Iliad* 9 the many gifts Agamemnon offers him to return to battle, he emphasizes the futility of Agamemnon's strategy by alluding to the great wealth and power of Egyptian Thebes:

> not all the wealth that's freighted into Orchomenos, even into Thebes,
> Egyptian Thebes where the houses overflow with the greatest troves of treasure,
> Thebes with the hundred gates and through each gate battalions,
> two hundred fighters surge to war with teams and chariots –
> no, not if his gifts outnumbered all the grains of sand
> and dust in the earth – no, not even then could Agamemnon
> bring my fighting spirit round until he pays me back,
> pays full measure for all his heartbreaking outrage! (*Il.* 9.381–7, tr. Fagles)

Egypt was thus present in Greek literature from the very beginning. In the other great epic of Archaic Greece Egypt is also associated with riches: it is there that Odysseus claims to have made his fortune in one of his false "Cretan tales" (*Od.* 14.285–6). In the *Odyssey* Egypt is furthermore a land of powerful and exotic knowledge. When Telemachus, seeking news of his father, visits Menelaos in Sparta Helen mixes into their wine-bowl an Egyptian drug, one which dulls pain and makes one forget all evils (*Od.* 4.219–21). The soil of Egypt bears a great many such drugs:

> many health itself when mixed in the wine,
> and many deadly poison.
> Every man in a healer there, more skilled
> than any other men on earth – Egyptians born
> of the healing god himself. (*Od.* 4.230–2, tr. Fagles)

Also in Egypt, on an island called "Pharos," dwells Egyptian Proteus, "the immortal Old Man of the Sea who never lies" (*Od.* 4.384–5). He is able to tell Menelaos, who has been blown off-course to Egypt, how he can reach home, what were the fates of his fellow heroes (including the murder of his brother Agamemnon and the captivity of Odysseus at the hands of Calypso), and even Menelaos' own destiny in the Elysian Fields. Proteus can also, of course, turn "into every beast that moves across the earth, | transforming himself into water, superhuman fire …" (*Od.* 4.417–18, tr. Fagles). This strange power, alongside his great age and his knowledge (and perhaps also his divinity), capture many of the associations which Egypt evoked for the Greeks of the Archaic Period, which would continue to be important under the Ptolemaic kings.

The *locus classicus*, however, for the Greek view of Egypt before the conquests of Alexander is its description by Herodotos in Book 2 of his *Histories*. Here we find something of the picture we have already seen in Homer – Egypt as a land of exotic knowledge, riches, and antiquity. These elements combine to produce a place full of wonders, which justifies Herodotos' discursiveness:

> I am going to talk at some length about Egypt, because it has very many remarkable features and has produced more monuments which beggar description than anywhere else in the world. (2.35, tr. Waterfield)

The view of Egypt which Herodotos presents is, of course, a Greek one (cf. Lloyd 2002; Whitmarsh 2004: 165–7), and the Greek perspective is clear from the comparisons he employs to describe Egypt for his (Greek) audience. He suggests, for example, that the distance from the coast of Egypt to the city of Heliopolis is roughly the same as that between the altar of the twelve gods in Athens and the Pisan temple of Olympian Zeus (2.7), and that the size of the circular pond at Sais is roughly the same size as the "Round Pond" on Delos (2.170). Looking at Egypt through Greek eyes also results in the famous characterization of Egypt as a topsy-turvy country where everything is the opposite of (Greek) normality:

> almost all Egyptian customs (*ēthea*) and practices (*nomoi*) are the opposite of those of everywhere else. For instance, women go out to the town square and retail goods, while men stay at home and do the weaving … Women urinate standing up, while men do so squatting. They relieve themselves indoors, but eat outside on the streets; the reason for this, they say, is that things that are embarrassing but unavoidable should be done in private, while things that are not embarrassing should be done out in the open. (2.35)

The differences do not end there: in their mourning practices, in the grain they eat, in their use of circumcision, in their right-to-left writing, the Egyptians are the wrong way round (2.36), just as their river is, which floods in summer, unlike all other rivers (2.19). The river Nile, and Egypt and its inhabitants are thus used by Herodotos as an example of the "other" against which the Greeks are defined (Cartledge 1993: 56–9, Vasunia 2001: 75–109, Harrison 2003). But such a use does not mean that Herodotos views the Egyptians negatively. In fact, despite his emphasis on the

differences between Greeks and Egyptians, he finds in the latter the origins of many of the religious customs of the former (such as the Dionysiac rites introduced to the Greeks by Melampos on the basis of Egyptian ritual, 2.49) and even the names of many of their gods (2.50). Part of the reason for Herodotos' belief in such Egyptian origins for Greek practice is the great antiquity of Egyptian culture (cf., e.g., 2.142), but also partly the extremely religious character of the people, which exceeds that of any other people in the world (2.37).

It is clear, then, that Herodotos greatly admires Egyptian culture, but, though he claims to have visited the country himself and talked with its inhabitants (e.g. 2.3; 2.29; 2.99), and knows of Greeks who have lived and continue to live in Egypt, such as the mercenaries settled in Egypt by the Pharaoh Psamtik I (whom Herodotos calls Psammetichos, cf. 2.154) or those given the city of Naukratis by Ahmose II (Herodotos' Amasis, 2.178), for him Egypt remains "somewhere else," a far-away land separate and distinct from Greece. The separation of Greek and Egyptian cultures is particularly clear when Herodotos relates that the "Egyptians avoid using Greek customs" (2.91) and even that Egyptian religious scruples mean that "no Egyptian man or woman will kiss a Greek on the mouth, or use a Greek's knife, skewers, or cooking-pot" (2.41, tr. Waterfield).

It would be wrong to characterize Herodotos as encapsulating "the" Greek view of Egypt before the conquests of Alexander: Greek cities were too various in character and Greek culture too diverse for that (consider, for example, the different views of Egypt the Greeks of Cyrene will have had when the Pharaoh Apries launched against them a disastrously unsuccessful assault (2.161) and when Amasis married a Cyrenean woman (2.181), probably to cement a military alliance). Nevertheless Herodotos' account of Egypt as the "opposite" of Greece seems to have been very influential even in the Classical Period (cf. Sophokles, *OC* 337ff.), and becomes in the Hellenistic Period a vision of Egypt regularly recalled and remodeled for the very different circumstances of the Mediterranean world after Alexander.

3   Becoming the Other?

Ptolemy I Soter's securing of Egypt as a kingdom for a Greek-speaking dynasty was to have far-reaching consequences for the place of Egypt in Greek literary culture. Greek-speaking poets and scholars working in the new Greek city of Alexandria were brought into contact with Egypt's people and culture in an unprecedented manner, but their presence in Alexandria also transformed their relationship with the traditional Greek world and its literature. That world, the world of Homer and Hesiod, tragedy, comedy, lyric, Herodotos, Plato, Aristotle, and the rest was one from which they were distanced not only by many years but also by hundreds of miles. Addressing these gaps of time and distance was an important element in several different aspects of the literary production of Hellenistic Alexandria.

The story, then, of Greek literature in Hellenistic Egypt is not simply one of negotiation between increasingly complex ideas about "Greeks" and "Egyptians,"

and "Greece" and "Egypt" and their relationship (though it is that too). The city of Alexandria encompassed far more ethnic groups than Greeks and Egyptians (see Selden 1998: 289–98), and the Greeks in Hellenistic Egypt were accordingly confronted with the "other" in a number of different forms in a single city, rather than distributed across the Mediterranean. As evidence of the cultural interaction between Greeks and others in Alexandria we have the *Exagoge* of Ezekiel (a Greek tragedy about Moses and the exodus of Israelites from Egypt, of which 269 lines survive) and the Septuagint itself, the translation (undertaken at Alexandria) into Greek of Jewish writings which became the Greek Old Testament. Nevertheless, a reader coming for the first time to Alexandrian literature might expect to find the most substantial and explicit engagement to be with Egypt, its past and its people, given its characterization in Homer and Herodotos, but, surprisingly, there is little direct mention of Egypt, its ancient monuments, the traditional gods of its religion, or what was for Herodotos the wondrously different behavior of its people (cf. Weber 1993: 369–99). If Egypt is mentioned at all, this tends to be, for example, in the form of references to the Nile, which had stood for Egypt as early as Homer, as in Kallimachos' (now fragmentary) ode for a victory won by Sosibios (later the regent and minister of Ptolemy IV Philopator), where the Nile itself boasts:

> Here's a noble recompense
> from my nursling!
> ... for none has ever
> brought home the prize
> ... from these death celebrations
> ... [Sure, I am] great, and no man knows
> my source, and yet, in one regard
> I have been paltrier
> ... than those whom the white ankles of women
> easily cross, or a child on foot, not wetting his knees. (fr. 384 Pf., tr. Nisetich)

This picks up earlier Greek comparisons of their own rivers to the great Nile (which is "to compare small with large," as Herodotos puts it at 2.10) and the use of the Nile to mark out the limits of the known world, as in a victory ode of Pindar's, *Isthmian* 6 (probably c. 480 BC in date), where it is used to emphasize the reach of the fame of the sons of the hero Aiakos:

> Numberless paths, one hundred feet wide,
> have been laid out by your illustrious deeds, one after the other,
> beyond the source of the Nile and further than the Hyperboreans. (*Isthm.* 6.22–3, tr. Verity)

We also find poems (or parts of poems) set in Alexandria itself, such as the fragment of Kallimachos' *Aitia* in which the narrator (a version of the historical author) attends a symposium at which he chats with "a foreigner who was visiting Egypt, just arrived | on private business, an Ikian by birth" (fr. 178.6–8 Pf., tr. Nisetich). But, though the scene is set in Egypt, the conversation is about Greek customs:

Kallimachos wants to know why the Ikians (i.e. from the island of Ikos in the Aegean, to the north of Euboia) worship Peleus, even though he is a Thessalian (fr. 178.23–4 Pf.). The *Aitia* (or "Origins") was a four-book elegiac poem on the origins of various rituals, festivals, and cult-practices from around the Mediterranean. But crucially, these rituals and customs are Greek: there seems to have been little room in the *Aitia* (of which much is lost) for the religious culture of ancient Egypt itself which had so fascinated Herodotos, and which formed for him the origins of several aspects of Greek religious practice. Indeed the symposium at which Kallimachos meets the Ikian, Theogenes, is held by their Athenian host Pollis to celebrate a Greek festival from far away, the Athenian Aiora in memory of Erigone. It is striking that a poem like the *Aitia*, which in many ways echoes the character and interests of Herodotos' ethnographic sections, should largely shut its eyes to native Egyptian customs.

   Where we do find mentions of native Egyptians the picture is not positive. In *Idyll* 15 of Theokritos, where two Alexandrian Greek women called Gorgo and Praxinoa attend the festival of Adonis in the Ptolemies' palace, Praxinoa praises Ptolemy II Philadelphos for having cracked down on street robberies by "Egyptians":

> You've done much good, Ptolemy, since your father went immortal:
> Villains don't creep up on you now in the street and mug you
> Egyptian fashion – that was a dirty game they used to play,
> Ruffians to a man, born criminals. To hell with the lot of them.
>   (Theokritos 15.46–50, tr. Verity)

One way of reading such an attitude (though note this is expressed by a character who is an ordinary Alexandrian woman, rather than a member of the Ptolemaic court or its attendant literary elite) alongside the surprising lack of reference to Egypt in Alexandrian literature is to see it as part of a kind of cultural "apartheid" where the Greeks of the few Greek cities of Egypt (which numbered only three: Alexandria, the existing city of Naukratis in the Delta, and the southern city of Ptolemais Hermiou, founded by Ptolemy I Soter) disdained interest in the culture and history of the ancient Egyptians, and concentrated instead on their connections with the literary monuments of the Greek world. There is some evidence for the separation and autonomy of the different ethnic groupings within early Alexandria (see Selden 1998: 294–8): perhaps such separateness encouraged or exemplified a hostility or distaste between Greeks and Egyptians for one another. On such a reading the Library and Museum founded by Ptolemy I can be seen as an aggressive cultural move (Erskine 1995) designed at least partly to remind the native Egyptian population of its being reduced to subject status by an alien people. The self-presentation to the local population of the Ptolemies as Pharaohs using Egyptian iconography but in such a way as also to remind them of their Greek identity (see Ma 2003: 189–91 on the Raphia stela of Ptolemy IV, where he wears the Pharaonic crown but also takes the form of a Macedonian horseman) might also be made part of this answer for Egypt's general absence from Alexandrian Greek literature.

But it is an exaggeration that Pharaonic Egypt is nowhere to be found in the literature produced under the Ptolemies. Egypt is, in a sense, at the heart of the Greek literary culture of Ptolemaic Alexandria. In some ways, as we shall see below, the strategies which Alexandrian Greek literature uses to think about Egypt echo the use in Athenian tragedy of other, different Greek cities to think and talk about Athens: Thebes, Argos, Corinth. Indeed, one important reason for the particular way in which Egypt is present in Alexandrian literature is the other ancient, learned, and unavoidable culture with which the Hellenistic Greeks in Egypt had to negotiate their relationship, that of the Greeks themselves in preceding centuries. In earlier Greek literature Egypt had played (as we have seen) the role of the "other" against which Greek identity was partly defined, but in the Egypt of the Ptolemies it could not straightforwardly fulfil the same function. Hence it often reappears in Ptolemaic Greek literature, but transformed (in a manner reminiscent of Proteus) into many different shapes and identities. The treatment of Egypt in the Greek literature of the Hellenistic Period produced there is one part of the re-negotiation of the Hellenistic relationship with the Greek past and its literature. It is this relationship which we shall examine next.

4   Inheritance and Influence

At the end of the fifth century, several decades before the establishment of Alexandria and its cultural institutions, the poet Choirilos of Samos could bemoan the situation of the modern poet, faced with the formidable output of his predecessors:

> Ah blessed was the man skilful in song, servant of the Muses,
> who lived at that time when the meadow was still virgin. (fr. 2.1–2 Bernabé *PEG*)

For a poet working in the Library at Alexandria the problem was more acute still: not only had the Archaic and Classical old masters of Homer, Hesiod, Archilochos, Sappho, Pindar, Sophokles, Aristophanes, etc. gone before, they were now physically present and available for consultation and comparison within the Library itself. How did the Hellenistic poets respond to such an intimidating challenge?

It is clear that the poets working during the zenith of Hellenistic poetry under the first three Ptolemies, such as Kallimachos, Theokritos, and Apollonios, regularly mark their poems as "coming after" in a number of different ways. Kallimachos' book of *Iambi*, for example, which takes up and develops the Archaic genre of *iambos* (where invective and abuse were prominent elements), begins with one of the Archaic masters of the genre, the sixth-century BC Hipponax of Ephesos, returning from the dead to harangue the scholars of Alexandria:

> Listen to Hipponax! That's right:
> I'm back from hell, where an ox
> sells for a penny. I'm back,
> loaded with *iambi*
> aimed not at old Boupalos. (*Ia.* 1.1–4)

Although Kallimachos is employing here the "limping" choliambic metre with which Hipponax was particularly associated, he also clearly indicates the epigonal and changed status of his *iambos* by giving us a Hipponax who does not attack his old enemy, Boupalos, and who has been transferred to Alexandria. His target is now different: Alexandrian scholars (*philologoi*), to whom he does not simply direct Archaic abuse, but whom he also advises to stop envying one another (according to the papyrus summary of the poem's contents, *Dieg.* VI.4–6). Although the now fragmentary state of the *Iambi* makes it difficult to be certain, it seems that the opening poem anticipates a development of this kind of poetry in a new direction through the rest of the collection, which seems even to have included the celebration of an athletic victory (*Ia.* 8) and the celebration of the birth of a child (*Ia.* 12).

The *Iambi* indicate that, although Hellenistic poetry might be self-consciously epigonal, we should not imagine that succeeding to the literary inheritance of earlier Greek culture was viewed wholly negatively. Rather the impression which the Hellenistic poets regularly give is of taking advantage of their unprecedented ability to incorporate the literature of the past within their own work, and to re-make it for the very different circumstances of the Hellenistic Period. We find, for example, not only the transformation of Archaic genres into changed Hellenistic analogues (as we have seen with the *Iambi*), but also what we might see as the "preservation" of several different Archaic song-types through a process of "translation" from a range of lyric metres to the typical Hellenistic forms of the hexameter and the elegiac couplet. This too brings with it an acknowledgement of difference and of "coming after," because what prompts the need to preserve these Archaic forms of song is the disappearance of the performance and wider social contexts in which they were embedded (Fantuzzi 1993: 42–6, Hunter 1996: 3–5). Even the choral lyric poetry of the self-consciously pan-Hellenic poet Pindar was composed for particular (usually public) occasions, and for first performance (at least) by a chorus to complex musical accompaniment. But from the point of view of Ptolemaic Alexandria this age was long past: many of the occasions for the performance of choral song had themselves disappeared, and Hellenistic poets probably no longer possessed the necessary musical expertise for the composition of the complex of song, dance, and music which formed choral lyric (Hunter 1996: 3–4, Fantuzzi and Hunter 2004: 26–33).

Hellenistic poets such as Kallimachos and Theokritos ensured the continuing relevance of this earlier lyric poetry by engaging with it directly in their own work. In *Idyll* 24 of Theokritos, for example, we find an adaptation of a mythic narrative from Pindar's *Nemean* 1 (a victory ode for Chromios of Aitna on Sicily, composed between about 475 and 467 BC), in which the goddess Hera sends two snakes to kill the baby Herakles. The Pindaric telling of this story concentrates on one or two details to convey the setting and the action:

> when Zeus' son had emerged from his mother's womb
> with his twin brother into the amazing brilliance of day,
> escaping her birth-pangs, golden-throned Hera was not unaware of him
> as he lay there in yellow swaddling clothes.

The queen of the gods, furious in her heart, forthwith dispatched snakes,
and they made straight through the open doors
for the wide inner part of the chamber,
impatient to envelop the infants in their darting jaws.
But Herakles raised his head upright and set about his first battle,
seizing the two snakes by the throat in his two irresistible hands,
strangling them. Time passed, and forced the breath from their dreadful bodies.

(*Nemean* 1. 35–47, tr. Verity)

Theokritos, however, gives this typically pacy and choppy lyric narrative a more languorous and "epic" pace. We begin with Alkmena, the mother of Herakles and his brother Iphikles, singing her boys a lullaby as she put them to sleep in an opening scene which itself takes up ten lines. When Hera finally send her snakes the differences from Pindar's version become particularly clear:

But at the time when the Bear at midnight dips to its rest,
Next to Orion's mighty shoulder, cunning Hera despatched
Two terrible, monstrous serpents with arching dark blue coils
Towards the broad threshold where the palace's latticed doorposts
Stood, with strict instructions to devour the infant Herakles. They
Twisted and writhed their way over the ground on bloodthirsty bellies,
Evil fire flashed from their eyes, and their jaws spat lethal poison.
But when they were close to touching the boys with their flickering
Tongues, Alcmena's sons awoke. (Theokritos. *Id*. 24.11–21, tr. Verity)

In Pindar the "darting jaws" (and later the "dreadful bodies") of the snakes serve as the description of Herakles' assailants, but Theokritos fills out the picture with their blue coils, twisting bodies, flashing eyes, spitting venom and flickering tongues. But this is not the only shift with regard to *Idyll* 24's lyric model. We can also see further patterns which are widespread in the different treatment of Archaic and Classical narratives and characters in the Hellenistic Period: Theokritos is also concerned to bring his mythological heroes down to size by emphasizing the domestic aspects of the setting of Herakles' first battle (Gow 1952: 2.415). This is already clear in the opening lullaby scene, and is further emphasized by the way in which Theokritos narrates the reactions of mother and father to the attack on their sons:

Alcmena first heard the scream, and woke with a start:
"Amphitryon, get up! I'm dreadfully scared! Get up – don't wait
To put your sandals on. Did you not hear those loud screams – it's our
Younger boy. And look: it's deep midnight, but we can see the walls
As clearly as if it was bright dawn. Dear husband, there is something
Wrong in the house – there must be." (Theokritos *Id*. 24.34–40, tr. Verity)

Alkmena sounds like an ordinary Hellenistic woman reacting to the sound of her screaming children in the night. This is also part of a wider pattern, in this poem and in Alexandrian literature more generally, of creating an effect of "realism"

(on which see, in general, Zanker 1987), even if this is ironized by the context or situation of the narrative itself. In *Idyll* 24, for example, Herakles is turned from the new-born baby of Pindar to a ten-month old toddler (v. 1), as if Pindar's account was too implausible, even for an infant hero (Fantuzzi and Hunter 2004: 205–6). There may also have been a Ptolemaic dimension to Theokritos' poem, as there is for much of the poetry produced in Alexandria: the latter part of *Idyll* 24, which does not have Pindar's *Nemean* 1 as a direct model, tells of the education of Herakles, whom some scholars have seen as an idealized (if not unironized) Hellenistic princeling (e.g. Zanker 1987: 179–80).

The ways in which the one epic which survives complete from the Hellenistic Period, Apollonios' *Argonautika*, deals with its unavoidable generic predecessors, the Homeric *Iliad* and *Odyssey,* are also revealing. Here too there are distinct shifts with regard to an Archaic model. Instead of the twenty-four books of each of Homer's epics (which division into books is probably Hellenistic and may have been contemporary with the composition of the *Argonautika*: see Pfeiffer 1968: 115–16) we have a modern slimmed-down four, where martial combat hardly features. Jason, apart from his performance of the tasks set him by Aietes, king of Kolchis, to secure the golden fleece (in which he has the magical help of Medea), only engages in anything like a heroic fight once:

> Ash spears and shields clashed one against the other,
> like a swift blast of flame that falls upon dry bushes
> and crests there. The noisy pandemonium of battle
> fell now, fearful, raging, upon the Dolionian people:
> nor was their king, overriding his fate, to return
> home to his bridal bed and marriage chamber,
> but as he turned to face Jason, Jason sprang
> and ran him straight through the breast, and the bone shattered
> under the spearpoint, and he on the sand, in spasms,
> accomplished his destiny. (*Argon.* 1.1026–35, tr. Green)

There is much here to remind us of Iliadic descriptions of battle, such as the poignant mention that the king of the Doliones will not return home (cf. e.g. *Il.* 17.300ff., one of the many flashes of a warrior's biography which elicit *pathos* in the audience of the *Iliad* – see Griffin 1980: 103–43) and the description of the fatal wound Jason inflicts on him. But crucially this is an accidental killing: Jason and the Argonauts have been blown back onto the shore of Kyzikos, where they have recently been guests. The king Jason kills is the eponymous Kyzikos, and the consequences of the error, once realized, are great:

> For three whole days they tore their hair and lamented,
> they and the Doliones together. But then after
> they'd circled his corpse three times in their brazen armor
> they entombed him with honor and contested in funeral games,
> as ritual demands, on the plain called the Meadow, where still
> to this day his tumulus stands for posterity to witness.
> No, nor did his wife Kleite live on, survive her husband's

> decease, but compounded bad with worse by knotting
> a noose around her neck. Her death the very
> nymphs of the woods and groves lamented; all the tears
> that from their eyes dropped earthbound on her account were gathered
> by the goddesses into a spring, which men still call
> Kleite, illustrious name of that unhappy bride. (*Argon*. 1.1057–69, tr. Green)

The fate of Kleite obviously adds to the *pathos* of the scene (and the situation which leads to her death might remind us of tragedy), but we can also see that Apollonios is interested in connecting up these past mythological events with the contemporary Hellenistic present ("still to this day"; see Zanker 1987: 120–41, Fantuzzi and Hunter 2004: 49–51). This interest in the origins of names, geographical features and customs should remind us of the investigations and ethnographic interest of Herodotos, and also of Kallimachos' own poetic exploration of origins, the *Aitia*, but it also probably reflects ethnographic research then under way – we have evidence of works on non-Greek customs, for example, being written by Kallimachos and one Nymphodoros of Amphipolis, an approximate contemporary of Apollonios. We shall return to the ethnographic interests of the *Argonautika* when we examine how Egypt is thought and talked about in Ptolemaic literature.

Jason's accidental killing here, alongside his frequent episodes of helplessness and self-doubt (e.g. "amazed and at a loss, | said never a word, one way or the other, but sat there | bowed under his heavy load of ruin, in silence, | consuming his spirit," *Argon*. 1.1286–9, tr. Green), and his dependence on Medea to recover the golden fleece have meant that his "heroism" has often been called into question and seen as part of a Hellenistic awareness that Archaic heroes (such as those in Homer) are out of place in the modern world and must be transformed in some manner (cf. Carspecken 1952; Lawall 1966; Beye 1969; Zanker 1987: 201–3). But it seems clear that Jason plays a number of distinct roles in the *Argonautika* and himself develops different epic predecessors, such as the Iliadic Paris, the lover of Helen, in his attractiveness to Medea (and perhaps also his lack of conspicuous martial success) or the Odyssean Telemachos in his youth, his need of advice, and his enduring of a "rite of passage" (which his killing of Kyzikos may also be meant to echo: see Hunter 1993a: 15–25 on the "ephebic" elements here).

To seek in Jason a consistent portrayal of a new type of hero is perhaps to over-estimate the importance of an Aristotelian consistency of character (cf. *Poetics* 1454a26–8) for Apollonios' epic (Hunter 1993a: 12–13). Part of the negotiation with the epic model of Homer (the approved epic in Aristotle) which we find in Apollonios involves producing an epic where the narrative focus and impact are not where we would expect it to be if our only reference-point is Homer. When Apollonios reaches what we might regard as the "climax" of the epic action of the poem, the getting of the fleece, his narrative reveals that this is an epic very different in kind from its Homeric predecessors. His description of the snake is evocative and epic in its use of similes, but also (for an epic) brief and lacking in heroic valor:

> as when from smouldering brushwood countless soot-black
> eddies of smoke go spiraling skyward, each
> ascending directly after the other, wafted
> aloft from below in rings, so then did the monster

> undulate its enormous coils, with their protective
> armor of hard dry scales. Now as it writhed
> Medeia forced it down there, holding it with her eyes,
> in sweet tones calling on Sleep, supreme among gods,
> to charm this fearful creature, then invoked the night-wandering
> Queen of the Nether World for success in her venture.
> Jason followed behind her in terror; but already
> the dragon, charmed by her spells, was relaxing the long spine
> of its sinuous earthborn frame, spreading out its countless coils,
> as some dark wave, stealthy and noiseless, rolls over
> a sluggish expanse of ocean; yet still it struggled
> to rear up its frightful head, still obstinately urgent
> to wrap its killer jaws round the pair of them together.
> But she with a branch of juniper, newly severed,
> dipping it in her potion, chanting strong spells, drizzled
> her charged drugs in its eyes, and their most potent odor
> enveloped it, laid it unconscious. Its jaw dropped where it lay,
> in one last spasm, and far behind it those endless
> coils lay stretched out, through the dense trunks of the forest.
> Then Jason, at the girl's urging, reached into the oak tree
> and brought down the Golden Fleece; but still Medeia stood there
> smearing the monster's head with her salves, till Jason
> forced her to get moving, to make tracks back to their ship,
> and so they hurried away from Ares' shadowy grove. (*Argon.* 4.139–66, tr. Green)

The use of magic here in the main narrative of the epic is a change from Homer (most "magical" elements there are restricted to Odysseus' own version of events prior to the main action of the *Odyssey* in Books 9–12), as is the prominent role played by a woman, who performs what is necessary to recover the fleece. Jason simply reacts to her prompting to grab the target of his endeavors, and the scene ends without the killing of the monster we might have expected from other versions of this and other stories of heroes and snakes (including that of the snakes sent by Hera against Herakles in Pindar, *Nemean* 1 or Theokritos, *Idyll* 24, of which there seem to be significant echoes here). But there is a poetic precedent for shifting the main focus of an *Argonautika* away from the overcoming of the dragon and the getting of the fleece. In Pindar's *Pythian* 4, a poem which celebrates a chariot-race victory by the king of Cyrene, the narrator disposes of the end of the story in similar fashion to Apollonios:

> Then the marvellous son of Helios told him
> where Phrixus' knives had staked out the shining fleece;
> but he did not expect him to accomplish that labor too,
> for it lay in a coppice close to the ravening jaws of a serpent,
> which in thickness and strength was bigger
> than a fifty-oared ship, built by blows of iron tools.
> But it is too far for me to travel by the high road, for time presses.
> I know a short way, on which I lead many others in poetic skill.
> Arcesilas, by guile he killed the grey-eyed serpent with its mottled back,
> and with her willing help stole Medea away, who would kill Pelias. (*Pyth.* 4.241–50, tr. Verity)

Here Jason still heroically kills the snake, but the interests of the poem are elsewhere: far more space is devoted to the Argonaut Euphemos, from whom Arkesilas, king of Cyrene, claimed descent (through the sojourn with the Lemnian women, and then the colonization of Thera and thence Cyrene). This forms an example, therefore, of the widespread Hellenistic incorporation of different poetic genres within hexameter poetry, in this case within a full-blown epic. This characteristic of Hellenistic poetry is sometimes described as a ''crossing of genres'' (cf. Kroll 1924: 202–24), related to a rejection of or dissatisfaction with the generic rules adhered to by earlier poets (cf. e.g. Rossi 1971). But the idea that in earlier poetry such genres were pure and distinct, and only in the Hellenistic period combined to produce hybrids, is problematic (Fantuzzi 1993: 50; Farrell 2003: 392–3; Morrison 2007: 18–21). We find several examples of pre-Hellenistic poems which appropriate or incorporate elements from a range of genres (e.g. Erinna's hexameter *Distaff*, which echoes lyric *threnos* and elegy, or Pindar's *Pythian* 4, with its strong echoes of Stesichoros). There are also clear differences in style to be found between different Hellenistic poems: genre is not irrelevant to the much less prominent narrating voice of Kallimachos' epic *Hecale* as compared to his elegiac poetry (e.g. Hunter 1993a: 115, Cameron 1995: 440). As we have seen, reasons for the range of types of earlier poem which a Hellenistic poem will echo and appropriate include the availability of this earlier literature in the Alexandrian Library, and a desire to preserve Archaic and Classical poetry by ''translating'' it into new forms.

It would be a mistake, however, to present poems themselves as the only texts or type of literature being incorporated into Hellenistic poetry. As we have seen, Herodotean and contemporary ethnography is echoed in the *Argonautika*, and when Apollonios describes the physical symptoms of Medea's longing for Jason we can see echoes of contemporary medical and scientific research on the nervous system (e.g. by the Alexandrian doctor Herophilos, cf. Fraser 1972: 1.352, Hunter 1989: 179–80), as well as classic poetic depictions of erotic feelings such as Sappho fr. 31 V. (e.g. ''a subtle fire has stolen beneath my flesh'' (vv. 9–10), tr. Campbell):

> her virgin heart now beat a tattoo on her ribs,
> her eyes shed tears of pity, constant anguish
> ran smoldering through her flesh, hot-wired her finespun
> nerve ends, needled into the skull's base, the deep spinal
> cord where pain pierces sharpest when the unresting
> passions inject their agony into the senses. (*Argon.* 3.760–5, tr. Green)

The patterns we have discerned above, such as the changed nature of Hellenistic literary heroes in Theokritos and Apollonios, or the influence of scholarly prose works on the poetry of Kallimachos and Apollonios, might suggest to some readers a common view of poetry and its most important features (in style, content, manner, models). Accordingly, Hellenistic poetry is often seen as having developed a particular set of aesthetic principles embodying its main characteristics, and expressing its self-consciousness as different from the literature of preceding centuries (and perhaps also contemporary literature more slavishly imitative of this earlier work). Many have seen Kallimachos as most representative of this new aesthetics and have

taken several apparently "programmatic" passages in his work as evidence of a literary-critical "manifesto" outlining how he thought all poetry should now be written (e.g. Cairns 1979: 11–20). His most famous "programmatic" passage, of course, is the prologue to the *Aitia*, where Kallimachos responds to detractors whom he calls "Telchines" thus:

> "To hell with you, then,
> spiteful brood of Jealousy: from now on
> we'll judge poetry by the art,
> not by the mile. And don't expect a song
> to rush from my lips with a roar:
> it's Zeus' job, not mine, to thunder." (*Aitia* fr. 1.17–20 Pf., tr. Nisetich)

The gripe of the Telchines is that Kallimachos has not produced "a monotonous | uninterrupted poem featuring kings | and heroes in thousands of verses" (*Aitia* fr. 1.3–5 Pf., tr. Nisetich). Hence Kallimachos seems to associate his own poetry not with epic style and length, but with artistry and delicacy. He expands upon these associations by quoting Apollo's advice to him when he was first starting out as a poet:

> "Make your sacrifice
> as fat as you can, poet, but keep
> your Muse on slender rations. And see that you go
> where no hackneys plod: avoid the ruts
> carved in the boulevard, even if it means
> driving along a narrower path." (*Aet.* fr. 1.23–8 Pf., tr. Nisetich)

Many critics have seen here a rejection of epic poetry (e.g. Brink 1946: 15) and a preference for shorter and less bombastic genres. The prologue to the *Aitia* certainly had a long afterlife in the *recusatio* or "refusal" we find in several Roman poets foregoing the chance to write epic (e.g. Virgil, *Ecl.* 6.3–8, and see Cameron 1995: 454–83). But it is important to remember the function of "programmatic" passages within the context of the poems in which they appear (Hutchinson 1988: 80–4). The main job of a poetic introduction such as the *Aitia* prologue is to promote the quality of the wider poem and convince the audience of its excellence (Schmitz 1999: 157), so that the principal focus of the prologue to the *Aitia* is the *Aitia* itself, rather than the production of a reasoned justification of one's entire poetic *oeuvre*. Something similar is true of the other so-called passages which have been seen as forming the Kallimachean "manifesto," such as the end of the *Hymn to Apollo*, where Apollo rejects the complaints of personified Envy, "Phthonos," and declares a preference for the small, pure stream over the large, filthy river (*Hymn* 2.105–13). While it is true that across these different Kallimachean passages we can see that there are some qualities which tend to be privileged more than once, such as purity, refinement, smallness of size, it is also clear that these are either qualities which most poets would want to associate with their poems, or conveniently elastic ones, such as a lack of size. When does a short poem become a long one (the *Aitia* stretched to perhaps 6,000 verses)? Programmatic passages are, in fact, a

poor short-cut to gaining a sense of the nature and character of Hellenistic poetry. One might think that the *Aitia* prologue suggests that Alexandrian poets would be hostile to epic, but, in fact, both Kallimachos and Apollonios wrote epics, the *Hekale* and the *Argonautika*.

5   Distance and Dislocation

The city of Alexandria, as Daniel Selden has explored (Selden 1998: 289ff.), was founded through displacements, of local Egyptians required to move for the creation of the new city, and of Greeks and others from the rest of the world. Everyone there was from "somewhere else." Through the third century most Greeks settling in Alexandria retained their foreign affiliation (Selden 1998: 294), rather than becoming citizens of Alexandria itself, and it is clear that a connection with a city of the traditional Greek world was important to the Greek residents of Alexandrian, as we can see from *Idyll* 15 of Theokritos, where the Alexandrian woman Praxinoa reacts to criticism of her accent by citing her proud ancestry:

> Oh, where's *he* from, then? What's our twittering to you?
> We're not your slaves; it's Syracusans you're bossing about.
> And listen: we're from Corinth way back, like Bellerophon,
> So we talk Peloponnesian. Dorians may speak Dorian, I presume? (*Id.* 15.89–93, tr. Verity)

The major poets and scholars of the high point of Ptolemaic literary culture were also mostly from elsewhere, such as Asklepiades from Samos, Philitas from Kos, Theokritos (though he is not exclusively associated with the Alexandrian *milieu*) from Syracuse, Kallimachos and Eratosthenes from Cyrene. The only exception is Apollonios, whom we know as "of Rhodes," but who is said by the *Lives* transmitted with the *Argonautika* to have been an Alexandrian. It is unsurprising in this context that we find in Alexandrian poetry a self-conscious awareness of the distance between Alexandria and the Greek cities and islands from which its Greek population had come, and different ways of presenting this distanced Greece. In three of Kallimachos' six hexameter *Hymns* (*Hymns* 2, 5, and 6), for example, the audience is taken to the midst of a Greek festival by a narrator presented as participating in a ritual. In *Hymn* 5, the *Hymn on the Bath of Pallas* or *Hymn to Athena*, we are transported to Argos to witness the ritual bathing of the statue of Athena:

> All who pour water for the bath of Pallas,
> come out, come out! Just now I heard
> the mares of the goddess whinny: she too
> is anxious to go! Hurry, then,
> blond daughters of Pelasgia, hurry. (*Hymn* 5.1–4)

We are pitched straight into the excited preparations for the celebration, with the arrival of the goddess herself imminent. But this hymn does not simply give an Alexandrian audience access to a far-away or exotic ritual from mainland Greece.

The poem is fundamentally concerned with the nature of representing in literature such rituals and the gods they celebrate (Hunter 1992: 13, Morrison 2005: 43–6). Males are not allowed to view the Argive statue of Athena:

> But as for you,
> *men* of Pelasgia, beware of seeing the queen,
> even unwillingly. The man who sees
> Pallas, guardian of cities, naked
> looks upon this town of Argos
> for the last time. (*Hymn* 5.51–4)

The narrator through whom we are gaining access to the ritual also tells a ''cautionary tale'' before the statue emerges, which doubly reinforces this message: Teiresias once saw Athena naked accidentally and was blinded, and Aktaion received a worse fate for glimpsing the naked Artemis. But the very subject matter of these myths, illicit male sight of a goddess, raises the question of how the audience of the hymn itself is ''seeing'' Athena and her ritual. The narrator, who is ''present'' at the ritual and even seems to be directing it at times (e.g. in the opening lines quoted above), must (from one point of view) be a woman – how else could she witness the ritual? But there are also strong echoes of the historical author, the male Kallimachos, especially when the narrator declares:

> And now, Lady Athena,
> do come out. Meanwhile I'll these girls
> a story, not my own: I heard it from others. (*Hymn* 5.55–6)

This accounting for one's source not only reminds one of the common scholarly *persona* of Kallimachos, but also underlines the poet's control of the hymn: it is not really we who are waiting for Athena to come out – she must wait until the narrator has told the story (Haslam 1993: 124–5). This also serves to point out that what we are allowed to see by the hymn is not the ritual itself, but precisely a representation, a ''mimesis'': males in the Alexandrian (and modern) audiences are not blinded when Athena finally ''emerges'' at the end of the hymn (vv. 140–2). Hence the hymn brings with it a sense of the difference between the literary representation of a ritual and the ritual itself, and both the power of such representations to recreate the distant religious practices of Greece (and to penetrate even where male sight is forbidden), but also their limitations.

In the *Aitia* we find Kallimachos exploring in a different manner how the Greeks of Alexandria might react to their dislocation from the traditional Greek world. After the prologue the primary narrator of the *Aitia*, who is the aged Kallimachos (a version of the historical author), gives us an account of a dream he has had about meeting the Muses on Mount Helicon in Boiotia as a boy (fr. 2.1–2 Pf.), modeled on Hesiod's meeting with the Muses at the beginning of the *Theogony* (Cameron 1995: 130–2). This dream seems to be the context for the dialogue with the Muses which makes up most of *Aitia* 1–2. Hence this dream transports Kallimachos from Egypt to a favorite haunt of the Muses back in Greece, and closely associated with one of the greatest of Archaic poets, Hesiod. One might

see this simply as another example of the marking of difference and distance from the poetry of the past which we have seen elsewhere. But there is more to be said: in fr. 178 Pf. of the *Aitia* (which perhaps formed the opening of *Aitia* book 2, Zetzel 1981: 31–3, Fantuzzi and Hunter 2004: 80–1) the narrator is probably telling the Muses about a conversation at a past symposium (which may have ended with the comments of Kallimachos to the Muses in fr. 43.12ff. Pf. about only recollecting what he had heard at a symposium, Cameron 1995: 134–5). In this fragment Kallimachos reverses some of the motifs from Herodotean ethnographic investigation. Kallimachos is in Egypt (fr. 178.5–7 Pf.) and questions his couch-companion at dinner about the customs of his homeland, the island of Ikos (see §3 above):

> Tell me
> what I'm dying to hear from you:
> *Why* do you Ikians worship Peleus,
> the Myrmidon king? *What* has Thessaly
> to do with Ikos, and *why* . . . does the girl
> with an onion . . .
> in the hero's procession. (vv. 22–6, tr. Nisetich)

Herodotos, of course, often presents conversation with ''locals'' as the source for his account of the beliefs or practices of a particular place, as when he cites his ''conversations with the priests of Hephaistos'' (2.3) for the investigations of the Pharaoh Psammetichos into who are the oldest race on earth. But Herodotos lays great stress on his often having traveled *to* the places about which he is enquiring: his conversations with the priests take place ''in Memphis'' (2.2), and what he hears there leads him to travel to Thebes and Heliopolis (2.3). The debate about the truth of Herodotos' claims to autopsy (e.g. in 2.29, 2.99) is not important here: what matters is that Herodotos presents himself as having traveled in order to answer particular questions, as when he does so in order to investigate the antiquity of the god Herakles:

> I wanted to understand these matters as clearly as I could, so I sailed to Tyre in Phoenicia, since I had heard that there was a sanctuary sacred to Herakles there. (2.44, tr. Waterfield)

Herodotean ethnographic enquiry necessitates travel outside Greece, but in the *Aitia* Kallimachos remains in Egypt – the dialogue with the Muses takes place on Helikon, but this is a dream of Kallimachos who remains in Alexandria. In fact the Kallimachos of the *Aitia* is famously a non-traveler, as we can see from what the Ikian Theogenes says to him in fr. 178 Pf.:

> Happy three times over, and lucky
> as few people are, if yours is a life
> ignorant of seafaring! As for me,
> I've been more at home among the waves
> than a seagull. (vv. 32–4)

Part of what makes it possible for Kallimachos not to travel is, of course, the Library of Alexandria, which contains within it Greek culture turned into texts to which a scholar or poet has ready access, but his pose of non-traveling also points us to a change in the position of Egypt with regard to the rest of Greece. It is now the cultural "center" of the Hellenistic Mediterranean, for all that it is distanced from the Greece of the literature of earlier periods, and from the social and religious life of the cities from which the Greeks in Alexandria have come (remember that Pollis, the host of the symposium in fr. 178 Pf. creates facsimiles of Athenian festivals in Egypt). Kallimachos can wait for visitors to Egypt to bring him explanations of their customs (of which he already has some knowledge, as fr. 178 Pf. shows us). The attractions of Egypt, and its "pull" on Greeks from around the Mediterranean, are clear from a passage from the first of Herodas' *Mimiamboi* (literary choliambic "mimes," roughly contemporary in date with Kallimachos), where Gyllis explains to Metriche why her man has gone there and not returned:

> For everything in the world that exists and is produced is in Egypt: wealth, wrestling schools, power, tranquillity, fame, spectacles, philosophers, gold, youths, the sanctuary of the sibling gods, the King excellent, the Museum, wine, every good thing he could desire. (Herodas 1.27–31, tr. Cunnigham)

6   Talking about Egypt

At the end of the *Argonautika* of Apollonios, produced in Alexandria probably at some point between the 260s to the 240s BC under Ptolemy II Philadelphos or III Euergetes (Hunter 1989: 7–9), the very last section before the Argonauts reach home predicts the creation of an island, Thera, which all knew was the mother-city of a Greek colony in North Africa:

> So he spoke, and Euphemos did not reject Jason's answer,
> but took heart from the prophecy, hefted the clod and flung it
> into the deep. From it there rose an island,
> Kalliste, sacred nurse to the children of Euphemos –
> who'd dwelt in former times in Sintian Lemnos,
> then, driven out of Lemnos by Tyrrhenian warriors,
> reached Sparta as suppliant colonists; later they quit
> Sparta, led by Theras, Autesion's noble son,
> to this island, Kalliste. He changed its name to Thera
> after himself. But by then Euphemos was long since gone. (*Argon.* 4.1755–64, tr. Green)

The city the Therans would found, though Apollonios does not mention it here, was Cyrene in Libya (cf. Herodotos 4.150–8, Pindar *Pyth.* 5.72–81), a seventh-century BC foundation which had had long-standing contact with Egypt and in the Hellenistic Period fell largely under Ptolemaic control. The prominence of Thera at the end of the epic must be meant to point the audience to this city. Part of the reason for its implicit presence at the end of the epic may be the issue of Alexandria's authority over

Cyrene after its ruler Magas' rebellion against Ptolemaic rule (Hunter 1993a: 151–2, Hölbl 2001: 39, 45), but Cyrene also plays the role of a legitimizing model for Alexandria as a Greek city in Africa (Stephens 2003: 179–82).

The clod of earth which Euphemos flings into the sea at the end of the *Argonautika* is from Libya, and given to him by the god Triton (*Argon.* 4.1551–63), so that the foundation of Cyrene from Thera is a kind of ''return'' of those raised on what is originally Libyan soil (Thera) to the motherland itself. But it is not only through this prior claim on Libyan territory that the Greek colony of Cyrene is justified: Apollonios is also alluding to and adapting earlier Greek versions of this story, in particular that in Pindar's *Pythian* 4, which also narrated the giving of the clod to Euphemos by a sea-god. This is part of the wider patterns of appropriation and connection with the Greek world (and its literature) of centuries past which we have already examined above, but the particular ways in which Apollonios exploits elements of the Pindaric account are worth studying in greater detail. Pindar's version begins with a prophecy given by Medea on Thera concerning the foundation of Cyrene:

> Listen to me, sons of high-spirited men and gods:
> I tell you that one day from this sea-beaten island
> the daughter of Epaphus will plant a root
> from which cities revered by men will spring,
> near the foundations of Zeus Ammon. (*Pyth.* 4.13–16, tr. Verity)

The ''daughter of Epaphos'' is Libya, but more significantly there is a reference here to the shrine of the Egyptian god Amun (Zeus Ammon) at Siwa in the Libyan desert. This shrine played a part, of course, in the foundation of story of Alexandria itself: there to Alexander the god appeared with an instruction to found new city opposite the island of Pharos (*Alexander Romance* 1.30.6–7). Later in the same prophecy in *Pythian* 4 Medea describes how Battos, the first king of Cyrene, will go to Delphi and be prompted to found his colony in Africa:

> In time he will make a journey to Pytho's temple,
> and Phoebus in his gold-rich palace will remind him through oracles
> to transport cities in ships to the rich precinct of Cronus' son by the Nile.
> (*Pyth.* 4.53–6, tr. Verity)

The Pindaric model for Apollonios itself appears to assimilate Libya and Egypt as the precinct of Zeus Ammon by the Nile, so that the legitimizing of Cyrene's presence through its African ''roots'' could be seen by Alexandrian audiences of the *Argonautika* as extending to their city also (for the possibility that Alexandria could be seen as in ''Libya'' see Stephens 2003: 181–2).

If Cyrene represents one way of thinking about Greek presence in Egypt, there are several further ways in which contact between Greeks and non-Greeks expresses itself in the *Argonautika*. As the Argonauts in Book 2 move towards Colchis and away from Greece, the customs of the people they pass become (from the Greek perspective) steadily stranger (Hunter 1993a: 159–60, Stephens 2003: 175–6):

> Next, soon, they rounded the headland of Genetaian Zeus
> and held their course past the land of the Tibarenoi.
> There, when the women bear children to their menfolk
> it's the husbands who take to their beds, and lie there moaning,
> heads tightly swathed; the women cook them meals
> and prepare for them baths that follow childbirth.
> From here they came to the Holy Mount and the land
> where up in the hills the Mossynoikoi inhabit
> those wooden huts, *mossynes*, after which they're named.
> Their customs and laws all differ from those of others:
> What it's normal to do quite openly, in public
> or in the marketplace, all such things they perform
> in the privacy of their homes: but whatever *we'd* keep private
> this they enact, without blame, on the public highway,
> not even blushing to couple there: like free-ranging
> swine in herds, unabashed by the bystanders,
> they pick any woman they fancy, and mate with her on the ground.
> 　　　　　　　　　　　　　　(*Argon*. 2.1009–25, tr. Green)

The echoes of the ethnographic manner of Herodotos should be clear, as should the
Herodotean designation of Egyptian customs as the reverse of what is normal, in
particular with regard to public/private actions (2.35, and see §2 above). When the
Argonauts finally reach Kolchis on the far shore of the Black Sea they are in a land
whose people Herodotos had explicitly connected with Egypt:

> For the fact is, as I first came to realize myself, and then heard from others later, that
> the Colchians are obviously Egyptian. (Herodotos 2.104, tr. Waterfield)

The king of Kolchis, Aietes, is the ''son of Helios'' (*Argon*. 3.309), which recalls the
Pharaonic title, ''son of the Sun (Re)'' (Stephens 2003: 176). We should, however,
resist the temptation to see an easy (and polemical) identification of Kolchis with
Pharaonic Egypt. Aietes is an unsympathetic character and a violent, treacherous
despot (cf. *Argon*. 3.579ff., 4.6–10), but he is by no means the only Argonautic
character who echoes Pharaonic custom or practice. Jason, for example, in killing and
cutting off the extremities of Apsyrtos, son of Aietes (*Argon*. 4.477–81), echoes the
Egyptian treatment of their enemies (Stephens 2003: 215–16, who cites the funerary
temple of Ramesses III in Medinet Habu for the piling up of enemies' extremities),
while in his dependence on both magic and a woman to gain the golden fleece (see §4
above) he also echoes Horus and the magical protection he receives from his mother
and other goddesses (Stephens 2003: 213–14).

　　Indeed Apollonios even describes (in the mouth of Argos, one of the sons of Phrixos,
half-Greek grandsons of Aietes) one Egyptian Pharaoh in terms which strongly recall
Alexander the Great, but also a time when the Greeks themselves were not civilized:

> no one then could have answered questions about the sacred
> race of the Danaans: only Arkadians existed,
> Arkadians who (so it's rumored) were living even before
> the moon, in the hills, eating acorns. Nor was the Pelasgian

land then ruled by Deukalion's lordly line,
in the days when Aigyptos, mother of earlier mortals,
was known as the Land of Mists, rich in fertile
harvests, and Nile, the broad-flowing stream by which
all the Land of Mists is watered; there from Zeus never
comes enough rain; it's Nile's flooding makes crops grow.
Starting here, they say, one man traveled the whole
journey through Europe and Asia, trusting in his people's
force, strength, and courage: countless the cities he
founded as he advanced, of which some are inhabited
yet, and some not: many ages have passed since then. (*Argon.* 4.262–76, tr. Green)

Apollonios, who leaves Cyrene implicit at the close of the epic also does not name the legendary Sesostris here, though the identification is clear enough (cf. Herodotos 2.102ff.). Sesostris here provides a double analogue, for the Argonauts' still visible influence on non-Greek peoples (their voyage is the *aition* or ''origin'' of several of the customs of those they meet, even typically ''non-Greek'' ones, such as the worship with drums of the Great Mother by the Phrygians, *Argon.* 1.1132–9, see Stephens 2003: 187–8), and (of course) for Alexander's own conquests and foundation of cities, including Alexandria itself. The fact that there existed such an ancient Egyptian conqueror of Europe and Asia makes the presence of Macedonian Greeks in Egypt, in a city founded by his Greek analogue, Alexander, into another kind of ''return.'' It is perhaps also significant that Herodotos' account of Sesostris ends with the story of the Egyptian priests of Hephaestus refusing to let the Persian Darius erect a statue of himself in front of those left by Sesostris, because his achievements did not surpass those of Sesostris (Herodotus 2.110). Educated readers of the *Argonautika* might well see a pointed reference in the story of Sesostris, through this Herodotean intertext, to another man who could claim to have matched Sesostris' military and city-founding achievements, and even conquered the land of the Pharaoh himself.

7 The Ptolemaic Context

There are other echoes of traditional Pharaonic imagery and attributes in Hellenistic poetry which engages more explicitly with the Ptolemaic court. Here too we can see Herodotos' view of Egypt as a vital intertext with which the poets of Alexandria interact. At the end of the *Aitia*'s fourth and final book Kallimachos places the story of the astronomer Konon's discovery among the stars of the lock of her hair dedicated by Berenike II, wife of Ptolemy III Euergetes, in fulfilment of a vow she made to do so if he returned victorious from the Third Syrian War of 247–6 BC. The lock had been dedicated (according to Hyginus, *Astronomica* 2.24) in the temple of Aphrodite Arsinoë at Zephyrion but had disappeared by the following day. In the ''Lock of Berenike'' (*Aitia* fr. 110 Pf., augmented by Catullus' translation/adaptation, Catullus 66) the lock itself speaks and describes Berenike's pain at her separation from the husband she has recently married:

> Are new brides truly averse to Venus? Are the joys of parents frustrated by feigned tears shed in torrents as they step into the bedroom? By the gods, their lamentations are not sincere! My queen taught me as much with her many complaints, when her new husband was on his way to grim battles. (Catullus 66.15–20, tr. Nisetich)

The successful consummation of the marriage is clear here, and the lock laments that it was cut off before it could enjoy the perfumes put on it by a married woman, and that it is now separated from the queen, despite the honor of being among the stars:

> I am not so delighted
> with all that,
> as I am grieved
> that I shall never touch
> that head again, from which I drank,
> when she was still a maiden, many
> a draught of ordinary oil
> and tasted not of womanly perfumes. (*Aitia* fr. 110.75–8 Pf., tr. Nisetich)

It is not only the sexual potency of Ptolemy that the lock testifies to – it was also cut off because of his successful return from battle against Seleukos II. Both the king's sexual potency (Selden 1998: 334–5, who cites (e.g.) the close association of Ramesses II and the ithyphallic fertility god Min) and the terms in which this enemy is described in the "Lock of Berenike" have clear Pharaonic precedents: Ptolemy has gone to "plunder the Assyrian country" (Catullus 66.12, tr. Nisetich) and has "captured Asia and added her to Egypt's territories" (Catullus 66.36, tr. Nisetich), strongly recalling the traditional place of "Asiatics" among the "Nine Bows" who form the enemies of Pharaonic Egypt (Selden 1998: 331–4; Shaw 2000: 309–10). The "Lock of Berenike" also reverses several important aspects of Herodotos' account (2.181) of the Pharaoh Amasis' marriage to another Cyrenean woman (Berenike II was from Cyrene), Ladike (Selden 1998: 329–30). Amasis (unlike Ptolemy) is at first unable to consummate his marriage to his Cyrenean, and Ladike makes a vow not (as Berenike did) because of the existing sexual bond between them, but in order to bring one about: she promises to send a statue of Aphrodite to Cyrene if Amasis succeeds in having intercourse with her. He is then able to consummate the marriage, and Ladike keeps her vow, but his initial failure of sexual potency was a sign of his inadequacy as Pharaoh. The message of the "Lock of Berenike," developed through engagement with Herodotos and the exploitation of traditional Egyptian motifs, is that Ptolemy III is the rightful Pharaoh and will fulfil the traditional functions of the Pharaoh in guaranteeing (and exemplifying) the military vigor of Egypt and defeating its enemies (Selden 1998: 348).

Egypt, of course, is not the only reference-point of Hellenistic poems with a more Ptolemaic coloring. As at the end of Book 4, at the beginning of Book 3 of the *Aitia* Kallimachos devotes a long section to Berenike II. The opening of the third book, known as the "Victory of Berenike," celebrates her chariot-race victory at the Nemean Games. Hence this connects the Ptolemaic court with the traditions of Greek athletic and equestrian competition at the pan-Hellenic "crown" games

(of which the most prestigious were the Olympics), and also the tradition of poetic celebration of these victories, as exemplified by the victory odes of Pindar and Bacchylides from the first half of the fifth century BC. The ''Victory of Berenike'' encapsulates many of the patterns we have seen above. It adapts the choral lyric victory odes of Archaic and early Classical Greece, but ''translates'' them into the typically Hellenistic metre of the elegiac couplet, and incorporates itself within a longer multi-book elegy. The opening of the poem also advertises both its connections and its difference from its literary antecedents:

> A gift of thanks to Zeus and to Nemea
> is owing now … a song for the victory
> your horses won, bride, sacred blood
> of the Sibling Gods –
> for just now
> from the land of Danaos
> to Helen's island, where Pallene's seer
> shepherds his seals, came
> the word of gold. (*Aet. Suppl. Hell.* 254.1–6)

The opening line here is reminiscent of a number of Pindaric openings (e.g. *Ol.* 10.3 where Pindar ''owes'' the victor a song, and *Nem.* 1.7 where the victor and Nemea urge Pindar to begin the victory-song), and the passage, in general, records the usual details of victor, event, place of victory, victor's homeland, victor's family/father, etc. But here these details are couched in periphrases which the audience needs to decode: Berenike is ''sacred blood of the Sibling Gods'' (figuring her as the child of Ptolemy II and Arsinoë II, which she was not), and Alexandria is referred to through a reference to Pharos as ''Helen's island'' where Proteus (here ''Pallene's seer'') keeps his seals (alluding the visit of Menelaos and Helen to the Pharos of *Od.* 4, see §2 above). Part of what is achieved here is the characterization of the speaking voice as scholarly (Morrison 2007: 189–90), but the encoding of the information is also a sign that we are not dealing with poetry (and the attendant fame of the victor) disseminated principally through public performance and reperformance, but with poems which would be recited and read. It is also important to note that these periphrases are not impenetrable (contrast the obscurities of the *Alexandra* of ''Lykophron''): these allusions invite decoding by the audience, and, when decoded, act to make the audience feel ''included'' in the same group as the narrator and his patrons (cf. Schmitz 1999: 155–6, 165–70 on the prologue to the *Aitia*). One might speculate the allusions to Egyptian traditions we have seen in Apollonios and Kallimachos operate in a similar manner.

   Hence, taken together, the beginning and end of the latter two books of the *Aitia* suggest an audience for early Ptolemaic poetry composed not just of Greeks but also Greek-speaking Egyptians such as Manetho (Selden 1998: 349), and also a close knowledge of native Egyptian traditions alongside central Greek texts (such as Homer, Pindar, and Herodotos) across the different elements of the audience. Even in the Greek poetry produced in the context of the Library and Museum Egypt thus played an important role, which in itself should make us suspicious of

accounts of the early Ptolemaic Period which emphasize only division, separation, or hostility between the two cultures of Ptolemaic Egypt.

FURTHER READING

There are accessible translations (with notes) of the major Hellenistic poets in Nisetich 2001, Verity 2002, and Hunter 1993b (Green 1997 is an attractive verse alternative to Hunter for Apollonios). Those seeking general introductions to the Hellenistic Period and its literature should begin with Bulloch 1985, Hutchinson 1988, and Hunter 2003, while Whitmarsh 2004 provides a useful thematic survey of Greek literature more generally, including specific sections on (e.g.) Alexandria, and Herodotos and Egypt, as well as consideration of wider theoretical and methodological issues. For more discussion of the differences (and continuities) between Hellenistic and earlier Greek literature and culture see the pieces by Gelzer, Parsons, and Henrichs in Bulloch et al. 1993, Hunter 1996: 1–45, Fantuzzi and Hunter 2004: 1–41, Morrison 2007: 4–26. On Egyptian elements in Ptolemaic culture, including its literature, Koenen 1993, Selden 1998, and Stephens 2003 are fundamental, while Fraser 1972 provides invaluable background on the Alexandrian context as well as its cultural achievements. On the Alexandrian Library see also Blum 1991 and Erskine 1995, and on Alexandrian scholarship Pfeiffer 1968: 87–233. For detailed analysis of particular Hellenistic texts and genres the best starting-places are the individual chapters of Fantuzzi and Hunter 2004, and on Apollonios Hunter 1993a, Knight 1995, Clare 2002, on Kallimachos Acosta-Hughes 2003, Cameron 1995, Haslam 1993, on Theokritos Gow 1952, Hunter 1996, Hunter 1999.

PART VI

The Visual Arts

Temple Architecture and Decorative Systems

Penelope Wilson

Words of Ramesses III: "I have built for you (Amun-Re, King of the Gods) a noble mansion of millions of years against the mountain of Nebankh (Medinet Habu) before you, built of sandstone, quartzite and black stone, with a door of electrum and worked copper. Its pylons of stone look up to the sky, inscribed, carved by chisels with the great name of your majesty. I have built around it an enclosure of perfect construction, provided with monumental entrances, with towers flanking them of sandstone. I have dug in front of it a canal filled with water, planted with trees and plants like Lower Egypt. I have filled the treasuries with goods from all the regions of Kemet (4,4) as well as gold, silver and all kinds of precious stones, in their hundreds of millions. Its granaries overflow with grain and seed. Its fields and its livestock are innumerable like the sand on the shore." P. Harris I = BM EA 9999, 3, 11–4, 4 (after Grandet 1994: 227).

1   Introduction

Temples were the houses and center of the estates of gods. As such, they provided a protective environment on earth for the divine beings in their spiritual form. The temple and its decoration, therefore, reflected the role of a "house," the resources it controlled and a place of entrance into the divine world. It was part of the duty of the king both to build and to maintain the physical houses of the gods and to provide nourishment for them through offerings, as well as maintain their well-being through rituals. Any service, which was done for any earthly lord and owner of estates in his villa or house, was done on a cosmological scale for the gods inside their temples. The form and decoration of these divine houses had to reflect both the status of the owner and the precise function of such a special place and had also to take into consideration the requirement of the king to show himself as the earthly heir and servant of the gods. Architecture and decorative schemes, including movable monuments such as

statues, stelae, and altars and the texts and scenes inscribed or painted on temple walls, therefore, responded to all of these requirements.

There were two main types of temple in Egypt: the cult place of a god (cult temple) and the cult place of a dead, godly king (mortuary temple). The two types have many common characteristics, with the main differences being the location of the mortuary temple near the burial place of the king and the fact that the central focus of much of the inscribed decoration is the dead king, although this does not prevent the presence of many gods, especially Osiris, the god of the dead with whom the dead king was identified. As the gift of the king, cult temples had huge political and economic significance, controlling administrative areas of Egypt, enabling the king to place his monuments at the heart of the major cities, especially from the Middle Kingdom onwards, and to impose "new" state gods at the heart of the "capital" cities, such as the Amun cult at Thebes in the Eleventh and Eighteenth Dynasties or the Aten cult at Amarna in the Eighteenth.

It is likely that many hundreds of temples and shrines were in use at any one time, located in every town and village throughout Egypt, serving local and state gods and more or less patronized by the king or local officials. The indications from papyrus documents, such as Papyrus Wilbour (O'Connor 1972: 690–6), or the rich evidence from the Ptolemaic-Roman Period (Bowman 1986: 171–2) are that we have only a small surviving proportion of original buildings, and we lack evidence for local practices. The study of the development of the temple buildings is constrained further by two other factors. The first concerns early temple structures. Many of these were made from mud or organic materials, which have not survived. The organic aspect of temple structures, however, continued to be of great importance in the stone buildings, almost to the point that the stone temples can be regarded as permanent versions of an ideal organic building, designed to endure for ever. The second factor is that temples were built and rebuilt in the same place by kings over many centuries, so that most surviving stone buildings mask several phases of construction under different rulers.

There are further difficulties in the study of temple development and function because, after the Pharaonic period, some temples were converted into churches or fortifications, and others were buried under sprawling towns. The temples that are available for study, therefore, are usually excavated, in the broadest sense of the word, and present a modern-day appearance divorced from past eras. It is a difficult challenge to define the intended form of any one temple under any one ruler and, generally, the buildings are treated as monolithic structures. As a result, developments in temple architecture look as if they were linear "progressions" over time, with each previous era's ideas being included in the next one in an accumulative, "syncretistic" ideology. This approach can also mask the dynamics of each period and of particular groups of rulers. The continued publication and study of temples is making clearer how they relate to one another, often in geographical groups, but also where there are distinctive, individual flavors of design choice. There are good examples of the kind of decorative programmes that can help us to understand that, although often individual temples must have resembled incomplete building sites, they give the impression that they were designed according to a well-defined programme for specific purposes established by theological as well as royal motives. Nothing in a temple is there by chance – everything can be read and has meaning and purpose.

2   Chronological Development: A Linear Approach

Early shrines, local traditions and natural phenomena

The identification of temples in the archaeological record from Predynastic and Early Dynastic Egypt is based upon location of the building under a later sequence of temple buildings, particular structural features or the material objects found in the structure. In the town of Nekhen, on the edge of the floodplain at Hierakonpolis, the later Eighteenth Dynasty temple of Horus seems to have been constructed on top of a sandy mound encased in sandstone blocks, dating perhaps to the Late Predynastic period some 1600 years earlier. Material from an early building connected with it had been collected together and buried in a series of pits under the floor of the Old and Middle Kingdom structures built on top of the first sanctuary. The Main Deposit contained slate palettes, including the Narmer palette from the Egyptian state-formation phase, while small faience objects and ivory figurines are most likely from the Early Dynastic period (Quibell and Green 1902; Kemp 2006: 121–4). Whether they were offerings or represented gods or specific powers is unknown. Similar material from the Khentiamentiu temple at Abydos (Petrie 1903), a shrine at Elephantine (Dreyer 1986), and a non-contextualized find at Tell el-Farkha in the Delta suggest that these figures were an important focus for cult practice in Early Dynastic Egypt – wherever that was carried out.

The shrine at Elephantine could not be more different in origin, yet seems to have a similar logic behind its eventual development. The Early Dynastic shrine lies underneath the later Middle Kingdom through to Ptolemaic-Roman stone temple buildings. It was situated in a cleft between the natural granite boulders. A roughly rectangular courtyard and then other mud brick walls had been built around this area and additional walls were added in several phases in the Old Kingdom (Dreyer 1986; Kemp 2006, 116–21). The later temple buildings in stone continued to demarcate the same sacred space for over 3000 years.

The hidden, underground nature of this sanctuary is not the only possible cave shrine in Egypt, and there may have been a strong tradition of such sacred places embodied in the dark interiors of temple buildings. At Serabit el-Khadim in the Middle Kingdom, Wadi es-Sebua and other Nubian temples in the New Kingdom (Pinch 1993: 3–80) there were rock-cut temples using a mountain or hill as the location of a shrine and perhaps evoking access to hidden cave-worlds or delving for the sources of the inundation.

In the north-east of Egypt at Tell Ibrahim Awad, in the Delta, there was a sequence of buildings upon a natural sand *gezira* (island) or hill which were identified as six phases of temple building from Dynasty 0 to Dynasty 11. The Nagada III/ Dynasty 0 shrine building was made of mud brick and consisted of a rectangular building, 2.25 m wide, with an interior L-shaped wall thought to be intended to mask off the cult image. A votive deposit of pottery and a faience baboon's head were found in this place. The excavators interpreted the interior room as the sanctuary, with restricted access to the sacred area and with a dark and confined interior. In the

First Dynasty, further buildings and a tomb were built on the site, and the presence of a palette also suggests that the building did have a cultic function. In the Old Kingdom the shrine was reconstructed within a busy settlement. The excavators were struck by the careful way in which the building had been planned to provide accommodation for its lord. The rectangular ''shrine'' room was laid out on a system of 5 by 5 cubit squares on a north to south axis, 5.25 m by 9.25 m in all. An L-shaped wall masked off the shrine in a protective niche with a brick platform in front of it. Votive and ceremonial deposits from earlier buildings were integrated deliberately into small chambers in the floors in the southern portion. They included pottery, faience objects, a *per-nu* shrine, and meat offerings. As offerings were made in the shrine, they would have been cleared away and perhaps buried within the shrine in order that they might remain in sacred space and be part of its fabric. In the Eleventh Dynasty a much larger building some 35 m by 70 m was laid out in an east-west orientation over this earlier shrine. This building may date to the reign of Montuhotep Sankhkare, and its size suggests that there was royal interest in the place (Eigner 2000: 17–36). The temple at Tell Ibrahim Awad had changed from a small mud-brick, perhaps village cult place, with a hidden shrine and a tradition of votive deposits, to a ''formal'' (that is, given state expression in stone buildings) Eleventh Dynasty temple made of limestone. Each phase of building activity may be better understood on its own local terms and within its own time rather than as ''developments'' one from the other, stressing the changing emphasis of Egyptian cult buildings.

The sand-hill aspect was also important in the major cult site of Heliopolis, to the east of the Delta apex and the center of the cult of the sun god Re. Although the site is extremely destroyed, excavations and a unique inscription on stone suggest that the sun temple originally consisted of a central open-air platform within a large courtyard inside an enclosure almost 1,100 m by 475 m. Offerings were made to the sun god upon the altar, and other gods were housed in shrines around the central area. Within the central area there was a stone with a rounded top called the *benben*-stone, perhaps connected with a meteoric event and found near Heliopolis. The stone was attributed with great creative power, its shape becoming a truncated obelisk, similar to those built at the center of the sun temples at Abu Ghurob, directly to the west next to the mortuary complexes of the kings of the Fifth Dynasty. The Heliopolitan kings may have taken advantage of direct sight lines between the temple in Heliopolis and the pyramids at Abusir to suggest that the king was at the center of the sun's cyclical journey for eternity (Jeffreys 1998; Quirke 2001: 73–114). The openness of the sun cult was included in the design of the Aten temples at Akhetaten (Amarna) in the Eighteenth Dynasty. The central part of the Great Aten temple contained an open space with altars for every day of the year, with a larger platform at the center upon which the king would stand under the rays of the sun near a rounded *benben*-stela. There were service rooms and small storage areas at the sides and pylon gateways were retained, as they provided the horizon for the sun on his daily journey (Peet, Woolley, and Pendlebury 1923–51). It is also likely that the open courts of earlier and later temples embody open-air sun worship and were an important part of the temple. The way in which the priesthood and the king presented this combination of natural local features, a collected ''revered'' natural object, and their relationship with them are the key to understanding the state manipulation of sacred sites.

A further aspect of early cult practice which finds elaboration in later times may be the installation of colossal statues and stone gateways at cult buildings. The two figures of Min from the Late Predynastic period at the temple of Koptos are the best example of the investment of time and effort in representations of "power," but how they were housed or used by communities is unclear (Kemp, Boyce, and Harrell 2000). The myriad statues, including colossal images associated with temples at all periods, may be part of the practice of the cult of the "revealed" image that they represent.

In the case of the early structures, there is little evidence for the decorative scheme of the buildings. It is not known if the walls were painted with colorful patterns or scenes, or hung with colored matting or whether the mud walls were moulded in such a way as to create decorative bands, as appeared in stone buildings later.

Tradition, state formalization, and theology

Egyptian tradition, partly informed by the way that the Egyptian state-machine saw the past – accurate or not – and partly shown in evidence from excavation and objects with early representations, typically emphasizes a dualistic tradition, especially where the king is involved. Two types of shrine, known as the *per-wer*, "Great House," of Upper Egypt and the *per-nu*, "House of the *Nu*," of Lower Egypt, are believed to have been rectangular buildings of wattle and daub or matting on a reed and wood frame, and were also "formalized" in the Step Pyramid complex of Djoser in the Third Dynasty (Arnold 1982: 931–5). The *per-wer* had a convex roof which sloped downwards from the front towards the rear and had cattle horns above the entrance, whereas the *per-nu* had a uniformly convex roof supported by four main posts at the corners, which projected above the maximum height roof. Both were envisaged within enclosures and with rectangular plans, but that of the *per-nu* is more obvious in depictions, perhaps suggesting that it had added protection from flood waters. When comparing the tradition of the two shrine types with the archaeological remains, it is not clear, however, exactly which part of a "temple" is depicted. It seems most likely that the "Houses" were only the sanctuary areas, while there is little information about the whole sacred complex in which they were located. The court of stone chapels at the Step Pyramid contains one chapel type with the convex roof, supported by three posts with floral capitals and the front supported by two massive pillars at each end; a second type had a flat roof top with *cavetto cornice* and *torus* moulding at the top and sides of the walls, which were slightly inclined. As the shrines were "dummy" shrines, only the external appearance was elaborated, so that the interior remains unknown.

The temple plans preserved best from the Old Kingdom are those from the pyramid complexes at Giza, Saqqara, and Abusir. The emphasis in them on resemblance to the burial apartments of the king, statue cults, magazines for the storage of offerings, as well as the pylon mass at the entrance is striking and helpful in understanding how the architecture of the funerary cult of the king was connected to that of gods, especially in the New Kingdom mortuary complexes (Stadelmann 1997).

In the Middle Kingdom it is clear, even from the meagre remains excavated, that temples were used as instruments of royal authority throughout Egypt, so that major city shrines were reinstated as investments of the king as the servant of each and every cult place. The scale of what was attempted can best be seen in the Fayum, in whose vicinity the "new" capital city of Itj-tawy was situated. The most mysterious Middle Kingdom temple is that at Qasr el-Sagha, on the north of the Fayum. Only the sanctuary of seven shrines, with an offering hall in front of its two side chambers to the west and one to the east, was finished. The remainder of the structure was perhaps never built, if there was any intention to create a larger structure. The temple was built of monolithic blocks of calciferous sandstone. The larger sanctuary in the center is flanked by three chambers on each side. The balustrade around the roof had a convex top, and there may have been some kind of podium on the roof. The uncertainty over the nature of the building is compounded by the fact that it has no inscriptions or traces of painting, the walls being smooth and bare. The temple has been dated by comparing its construction techniques with other temples of the Middle Kingdom, as well as from pottery discovered in its vicinity and dating to the Middle Kingdom (Arnold and Arnold 1979). Although the building itself is not so informative about Middle Kingdom temple decoration, it may be part of a much more elaborate landscape, including the square-topped mountain to the north of the temple as well as the mortuary temples of the Middle Kingdom kings on the southern edge of the Fayum, the great obelisk or pillar at Abgig, and the colossal statues at Biahmu. The whole area of the Fayum may have been artificially reclaimed to create more land for the royal city and for the royal funerary cults (Hayes 1971: 505). The new area was crescent-shaped, extending from Itsa, to Biahmu and El-Agamiyin. The sacred landscape focused on the cults of gods, such as Sobek, a primeval crocodile water and swamp god and so the creation of a green and swampy environment would reflect his natural habitat. Furthermore, the area was framed by the temple of Renenutet built by King Amenemhet III at Medinet Madi, and, therefore, the multiple shrine at Qasr el-Sagha may act as the northernmost mountain limit of the sacred land. Containing these temples, the pyramids, royal mortuary temples and palaces of the kings, the Fayum may have been an almost truly realized microcosm of the world, using temple structures themselves as focal points and "decoration" within the landscape.

At Medamud, el-Tod, Koptos and Thebes large stone and mud-brick structures of the Middle Kingdom kings dominated the sacred areas with emphasis placed upon the gateways, columns, and storage areas and all based upon earlier structures and providing a base themselves for later buildings. In general, a few stone elements have been preserved, along with parts of the foundation bases, so that it is difficult to determine the layout and decorative schemes of the temples. From the Delta, the ground plans of two temples have been found, one at Ezbet Rushdi and one at Tell Ibrahim Awad (see above). They show that temples were still constructed largely of mud brick with stone door elements and consisted of an open court at the front, a columned hall inside, and then a three-part sanctuary at the rear. The basic design conforms to the simplicity and direct axis which seems to have been important in these buildings. The barque shrine of Senwosret I at Karnak, however, with its simple

scenes of ritual action, suggests that the principles of decoration design had been long established and derived from extensive ritual documents and local theologies (Lacau and Chevrier 1956).

Parts of temples from the New Kingdom are preserved much better than from previous eras, but even so it is sometimes difficult to see the intentions of any one ruler at a particular time because of later additions to the temples, which changed and redefined the space inside the buildings. The Temple of Luxor is superficially complete, but an earlier Middle Kingdom building and one of Hatshepsut were removed by Amenhotep III when he built the greater part of the standing temple for the use of his *ka* in the Opet Festival (Bell 1997). Even this building was augmented under Tutankhamun by the addition of an enclosed colonnade-kiosk, consisting of fourteen papyrus columns, with clerestory lighting. Ramesses II further shifted the orientation of the entrance towards the processional route entrance into Karnak by the addition of a courtyard, pylon, and obelisks at the front. The sequence of the buildings is typical of the way in which the basic layout of temple buildings could be developed in subsequent building programmes.

The building history of Karnak is much more complex, but gradual work in rediscovering buildings which were completely removed and used as packing for the pylons for example has begun to rehabilitate the building schemes of groups of kings (Blyth 2006), including Amenhotep I to Thutmose II, Thutmose III, and Ramesses I to Sety I. Although the main axis of the temple and its buildings was towards the east and the sanctuary of Amun, an alternate axis to the south and Luxor temple was also significant. With multiple wall surfaces for decoration, including huge pylons and free-standing monuments, such as statues, stelae, and obelisks, the impression given at Karnak is that the building space was a continuously changing kaleidoscope. The "classic" layout, however, is clear, with the series of pylon-gateways leading to open courtyards, then to the enclosed pronaos of the temple with wide, columned halls and rooms diminishing in size. Finally, at the rear of the complex, inside the naos, there is a small room, the sanctuary, which would have contained the precious metal and stone cult image of the god – Amun in this case – with side sanctuaries, in this instance of Amun's consort, the goddess Mut and their "child," the moon god Khonsu. The basic plan can be compared favorably with reconstructed plans of royal cult palaces, such as that of Merneptah at Memphis (cf. O'Connor 1991; Stadelmann 1996). Extra features within the now standard complex included a sacred lake or water source beside the main temple, the mud brick enclosure wall around the whole area, a special area containing the "tomb" of Osiris and banks of magazines for the storage of grain and resources from the god's possessions. Each part of the whole could be included in the festival processions and rituals carried out for the gods, but each part was also self-sustaining, with its own rituals and texts, giving each area its particular identity and purpose.

The limestone Temple of Sety I at Abydos gives a sense of unity and overall plan, focusing upon the cult of Osiris, but ensuring that the Daily Rituals were performed, the links to the ancestors were maintained, and the main cult centers of Egypt were honored in the seven sanctuaries. The central sanctuary is dedicated to Amun,

the three to the north are for Osiris, Isis, and Horus, while the three to the south are for Re-Harakhty, Ptah, and King Sety. The temple could be regarded also as a mortuary-cult temple, mainly for Osiris, and from his shrine a door leads to a further series of rooms for his cult. There is also a further suite to the south for Ptah-Sokar and Nefertum, mortuary gods of Memphis, and a buried "tomb of Osiris" behind the temple in the "west," which provided an elaborate setting for Osirian mysteries. The purpose of the temple seems to have been to assure Sety's legitimacy as ruler, but it also established an ironic cultic dynamic in that his name embodies the presence of Seth the challenger and murderer of Osiris, but an important god for the eastern Delta Ramesside dynasty to which Sety belonged. The form of the temple, originally with a pylon gateway leading to two terraced porticos with stairways and the front of the temple, with its squat shape and row of square columns without decorative capitals, may have been a reminder of the terrace temple of Ahmose I at Abydos, although the latter does not survive.

The surviving royal mortuary temples of New Kingdom kings give a clear sense of the design of temple structures. The temple of Ramesses III at Medinet Habu, "United with Eternity," gives an excellent sense of the cosmic scale and permanent aspirations embodied in the temple building (Murnane 1980). Community religious practices have also survived at Deir el-Medina and el-Amarna, where small mud-brick or part stone-built chapels were constructed for gatherings of people to honor local deities and ancestors and at festival times. These contained an outer and inner hall leading to an inner sanctuary. Other rooms could be added to the main building, perhaps for gatherings or additional cult focal points. One of the main elements of the buildings were T-shaped or square water basins in the outer halls for libations (Bomann 1991). The basins may have been accompanied by incense burners for the ritual incense and water offering to the dead. Such gatherings of rooms around a courtyard with a basin can be traced back to early funerary offerings and even state-supported cults of influential local "ancestor heroes," such as Hekayib at Elephantine (Franke 1994). The idea is very influential in major state temples where shrines for other gods were built around that of the main god.

In the Late Period, there is very little surviving that is representative of possible different traditions in the north, where many kings had their strongholds, but the Tanis layout of the Twenty-first Dynasty and the Temple of Hibis from the Saite/Persian period in the Khargha oasis give a sense of development based on the Karnak traditions influenced by the Amun cult center. In the Ptolemaic and Roman Period temples were used to maintain the *status quo* between the Hellenistic rulers in Alexandria and the Egyptian elite in the rest of Egypt. At Edfu, Dendera, and Philai, excellent sets of building remains provide information about the design layout of temples at this time. More ruined or uninscribed structures at Kom Ombo, Esna, Kalabsha, Taposiris Magna, and Dakhla Oasis allude to diversity within the coda for temple building. For example, the temple of Tutu at Kellis (Ismant el-Kharab) in the Dakhla Oasis shows that the walls of temples could be painted in a mixture of Classical decorative motifs as well as Egyptian ritual scenes and, in this case, dedicated to non-standard Egyptian gods (Kaper 1997). The plastered and painted vaults of the temples in the Oases and in the Fayum, as well as the nature of gods themselves, hint at other traditions throughout Egypt.

3   Mythic Development: An Organic Approach

Many of the creation myths of the Egyptians focus upon the activity of the first god-force, which often occurred upon a primeval mound emerging from the flood-waters. The god, in various forms or aspects, depending upon where you were in Egypt, settled upon the high mound and created the universe and everything in it. It is likely that the central sanctuary of a temple was intended to represent this first mound of creation at the first moment or time of the creation. The ground level of the sanctuary, therefore, would be higher than the surrounding temple, as is the case in most of the surviving cult temples, and the enclosed mound of the early Hierakonpolis temple may represent the creation center. The analogy to the first time of creation did not stop there, however, and it is likely that the whole of the temple could be seen as a recreation in stone of the landscape of the First Time (Baines 1976). The setting was imagined as the turbulent waters of Nun, the mound growing with swamps of reeds and papyrus, and an enclosed area for the god, perhaps made from reeds and mud. The story of the beginning of the world and the first "temple" is evocatively told in the Temple of Edfu, including the dimensions of the first structure in a series of symbolic numbers and a description of the beings who helped the creator god Horus Behdety (Reymond 1969; figure 35.1. If the sanctuary of a temple was the enclosure of the creator, then looking out of this space along the axis of the temple, one views the whole of creation. From this dark and hidden space, the god could see everything he had made, while those outside cannot see him, hidden in the darkness – he is present, but not seen. Looking towards the darkness of the sanctuary, the viewer is channeled towards this inner space, on a journey through time, gateways to the First Moment of creation.
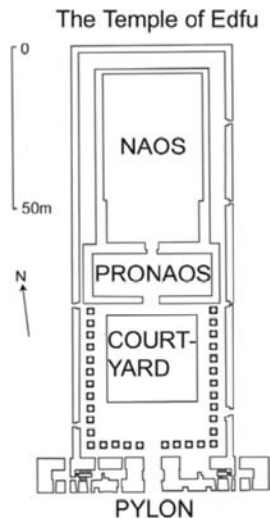
Figure 35.1   Plan of the temple of Edfu. Courtesy Penelope Wilson.

The large columns in the halls leading to the sanctuary could have been seen as the papyrus swamps around the mound, and the floral capitals of the columns evoke not only swamps with their papyrus umbels and buds, but also the lotuses of the primeval waters as well as palm tree groves. From the Ptolemaic Period there are also composite column capitals, which bring together many different types of plants, almost as a bouquet or bundle, especially in the Esna temple pronaos, for example. The friezes of papyrus and lotus plants along the lower parts of the walls also evoke this organic world and, in their original state when painted green or blue, would have been a clear reminder of the watery beginnings of the world.

Above the doorways the *cavetto cornice* also evokes the organic aspects of decoration. The cornice is shown as fan of plant or reed material, often palm fronds, bent over walls and doorways, perhaps originally intended as a shade against dust and light. Similarly the "*torus* moulding" running around the upper parts and down the edges of walls is derived from organic and mud structures (Arnold 2003: 46–7). The walls would have been made of reeds, with strong edging bundles holding horizontal matting or small reed bundles in place. A strengthening, horizontal band of reeds would have been tied to the top of the matting to maintain the integrity of the wall. When the whole wall was plastered to give a smooth, strong and waterproof surface, the horizontal band at the top would stand out from the wall creating a rounded band. Such a distinctive feature of organic building was copied in stone by the Egyptians. They also decorated the upper areas of temple walls with colorful friezes and bands reminiscent of decorative matting, textile hangings or geometric paintwork. On some walls the main decorative element of the upper area is the *kheker*-frieze, *kheker* in Egyptian meaning "decoration," "ornamentation." The *kheker*-frieze may have originated in the bundles of reeds used in the walls of organic and mud houses, which would have emerged through the *torus* binding and had to be tied off with a knot. Even so there would be a fringe of unruly reeds, which was left at the top of walls and could be trimmed down to a more decorative tuft. This area would have been left free of mud and could have been painted in real enclosures. On temple walls the *kheker*-frieze is often depicted hieroglyphically at the top of the wall, but its main function is to inform the observer that this is the wall or enclosure top and, in an architectural sense, to provide a framework for the decorated areas. The organic elements could be painted red, yellow, blue, or green to emphasize their origins, and, in due course, they were further elaborated with lines of *uraei*-cobra in friezes, cartouches of the king, and other symbolic motifs.

The original mud enclosure of the sanctuary was regarded as unroofed or open to the sky. This seems to have been the reason for the creation of the *naos*-box, or small shrine of the god, as a "house" to provide cover for the deity. In addition, the ceilings of the inner parts of the temple were usually covered in stars – golden yellow, five-armed stars against the blue canopy of the sky – demonstrating that the temple was open to the night sky. In the case of Dendera temple the effect was taken one step further with an elaborate depiction of the sky goddess Nut arching her body over the pronaos, swallowing and giving birth to the sun and surrounded by the decans (ten-degree arcs of the night sky) and constellations of the sky (Cauville 1990: 34–7). In some temples the effect of the sky was enhanced by decorating the lintels and undersides of the architraves with falcons, flying cobras, or flying vultures – the

goddess Nekhbet in her zoomorphic form. The vultures could alternate with the name of the king in cartouches, perhaps also to indicate his presence in the ether.

The inner darkness of the temple itself is the cloaking protection of the god, but in this case, why was it necessary to decorate and paint in vivid colors the walls inside the temple? They could only be viewed by lamp or torchlight, by braziers kept burning in the temple by the priesthood, or perhaps by mirror-light reflected from outside through doors and narrow window slits. In this respect, the hidden decoration is important as different parts of it could be revealed in different rituals or at different festivals. As each ritual was perhaps illuminated by torches during its performance in the temple, the decoration would be animated by the light, performed and made effective, then recede back into the gloom in a kind of suspended animation as the light moved on – like the gods themselves – hidden and potent, but awaiting renewal. It would follow, therefore, that every part of the wall surface should be decorated, so that no part of the small beams of light were wasted. Similarly, in order to make the most of each small particle of light, the interior walls of temples were decorated in raised relief, while the outside walls, bathed in copious amounts of strong sunlight, were decorated in more tolerant sunk relief. In Dendera temple windows allowing light into the staircases at the sides of the temple were decorated with the sun and its rays pouring down the light funnel.

Continuing the theme of the organic nature of the temple, the hypostyle halls of temples, most fantastically realized at Karnak by the architects of Sety I, represent the papyrus swamps lying at the base of the primeval mound as the flood waters subsided. The fenestrated windows at the top of the columns and sides of the hall, as well as the differential height between the central rows of columns and the outer rows, ensure that sunlight plays down into the hall in interrupted shafts of light, diffused beams, and constantly moving shadows. The effect created when walking through the hall is one of being in a reed bed of divine proportions, where the light flickers and changes all the time.

Beyond the swamps there is the newly created world of the First Time and the open courtyard, surrounded by a columned walkway, indicates that in the open space the sun god is lord and shines down upon a place where people can gather to make offerings to him. It is also the space used in festivals and where the local elite could gather at specific times. The walls of the open courts are often decorated with scenes of festival processions, showing the priests carrying the boats of the gods with the *naos*-boxes and the king leading the procession, as well as musicians, offering bearers and cattle for sacrifice. The Festival of Min at Medinet Habu and the Opet festival in the Temple of Luxor have lively scenes of the celebrations.

In theory, the open courtyards may have been accessible to elite people termed the *paat*, the "sun people" and the *rekhyt*. For this reason, the columns of the more external areas are decorated with many images of the lapwing or hoopoe – *rekhyt*-birds – indicating the places where "people" were allowed to walk. In practice it is unlikely that "ordinary" Egyptian people ever had access to the temple compound and that all those who came inside it were holders of some kind of priestly rank or favor. The forbidding architecture, with its huge enclosure walls and gateways, suggests such exclusivity.

Even the imposing pylon towers of temples framing the main gateways are part of the newly created world. Beyond the valley proper, especially in Upper Egypt,

the most significant aspects of the landscape are the mountains of the east and western sides of the desert. Whether these are the tall singular mountains of places such as Thebes, Amarna, and Aswan or the escarpment edges of the desert at Giza and Saqqara, they represent the borders of the Black Land and Red Land. The mountain hills are the boundaries of the created world beyond which even the inundation could not go in order to spread its life-giving mud and water. Temple pylons at the front of the temple complex were constructed to emulate these mountains and, with the gateway in the center, they are a giant hieroglyph for the word "*akhet*," meaning "the horizon." In this construct, the horizon is where the sun sets and rises, perhaps implying that the creative force of the sun sets and abides inside the temple itself, but also that the horizon represents the beginning and the end of the sun's journey, the two limits of eternity. The pylon brought to the temple the solar creative force so that it was united with the creator force of the primeval waters, but at the same time kept it separate. The effect of the two pylon-mountains is to create a central axis, which is also the highway along the Nile, with the river and its waters seen as the primary axis of the land, leading in this case into the temple and to the primeval mound. The gatehouse of the pylon is the place where the temple boundaries are entered, and, therefore, this threshold is particularly important in terms of its decorative scheme. Beyond the temple, the flagstaffs against the pylons are called the "supports of heaven" – they are there to hold up the sky and stop it from crashing down onto the temple cosmos.

Beneath the temple there could be constructed crypts, with hidden entrances in the floors and walls. These dark subterranean rooms were intended as places in which to store the cult objects and precious ritual objects of the temple, as suggested at Dendera (Cauville 1990: 54–9). The texts here also allude to the chthonic (subterranean) nature of these rooms. Evidently the idea of beautiful, precious materials of gold and glowing precious stones, held in the dark, captivated the Egyptians, who saw the hidden gold and jewels as existing with creative power and internal light, despite being surrounded by darkness. At a more practical level the crypts under temples also functioned as the cellars for the storage of precious things, as was the case in the houses of ordinary people. What could be more secure than objects with families of people or gods sitting upon them? The decoration of the Dendera crypts shows the images of the cult and ritual objects kept there and also alludes to how they were made.

The roofs of the temple could be accessed by staircases, often leading from the Hall of Offerings before the sanctuary, and they were the setting for astronomical events or festivals. Firstly, and most practically, the roofs were the places where the astronomer priests could go each day and night to make their lunar, stellar, and solar observations, which were most important for the timing of rituals and festivals held inside the temple. Important festivals such as the New Year Festival held their key moments here. In particular at Edfu the statue of Horus Behdety was carried to the roof just before dawn on New Year's Day, at the same time as the heliacal rising of the star Sirius (Sothis). As the first rays of the sun emerged they would strike the image of the god in a highly-charged moment, which renewed the god present within his statue and ensured the success of the coming year. The place where this ceremony occurred at Edfu has not survived, but it is most likely to have been carefully aligned just for this purpose.

The alignment of temples to celestial events is also implied by the layout of the temple of Thoth on Thoth Mountain at Thebes. Excavations have uncovered the plans of two temples built on top of one another, but almost one thousand years apart. The axes of the two temples differs by 2.17 degrees, and Vörös has suggested that the reason is that the main function of the first temple was to align with the sighting of Sirius on New Year's Day. By the time the temple was renewed in the reign of Sankhkare Mentuhotep III, nearly one thousand years later, the angle of the earth in relation to the star had changed slightly, so that the star now rose in a slightly different place. The new temple was thus aligned to compensate for the shift in the axis of the planet (Vörös 1998). Such cosmic alignments may be present in other temples, particularly in smaller shrines and buildings no longer extant, or structures built for specific occurrences, such as the rising of Sirius, solstices, eclipses, lunar phases, and transits of planets. The form of the temple and its decoration and design in the widest sense, therefore, was integrated with real cosmic phenomena.

Finally, the very stones from which temples and their contents were made embodied powers to support the gods and reflected the mineral universe (Aufrère 1991). Temples were dependent upon their geographical position for the choice of stone for the main body of the temple, from the ferruginous sandstone of Nubia to the smoother sandstones of Thebes, Esna, Edfu, and Dendera and limestone for Abydos. Some of the hardstones chosen for doorway elements, obelisks, statues, and columns embody specific benefits because of their physical hardness as well as more symbolic considerations. Red granite and orthoquartzite with its color range from brown to orange to red held the power of the sun. Black granite, *bekhen*-stone from the Wadi Hammamat, and basalt embodied earth's creative powers or the power of the night. Further embellishments in gold or electrum would highlight particular parts of the reliefs on walls or the tops of obelisks or details on statues, for example, in order to catch the light and focus the sun's power.

4   Decorative Principles

The Book of the Temple and the House of Life

Although the layouts of temples clearly have some underlying principles, it has been assumed that most were designed according to texts kept in the temple House of the Life. Here, all of the archive material relating to the temple theology was kept, studied, transcribed, and perhaps edited by the priests of the temple. Three of the thirty-five books listed at Edfu are called, ''Plan of the Temple,'' ''Regulations for Inscribing a Wall'' and ''The Book of what is in the Temple,'' all of which may be design manuals. Fragments belonging to a papyrus book called ''The Book of the Temple'' have been found in the Fayum. It seems that the ''Book of the Temple'' was intended to provide a guide to the layout of the temple in terms of its rooms, but it was not a blueprint for every temple. It would seem that individual temples could be designed to meet the nature and needs of the individual gods housed there. The Book dates from the Roman Period and may have been intended to set out a guide to

temples during this later period (Quack 2002a: 159–71). It is not clear to what extent the detail of wall decoration was specified and whether the instructions emanated from a state-sponsored priestly panel or synod in Alexandria or Memphis or whether it was more locally sponsored in the Fayum area.

Principles of temple decoration

The phrase "grammaire du temple" (Derchain 1962; Winter 1968) or "Temple Program" (Arnold 1962) has been used by Egyptologists to describe the relationship between the temple building design and the text and scenes inscribed on the walls. It alludes to the way in which the inscriptions were laid out to complement and work with the building itself in order to create the most harmonious and power-filled environment for the gods within the temple. At the simplest level, for example, the space within the temple must be pure and clean for the god, so rituals for the purification of offerings, people or god's statues are often placed symmetrically on the doors into the temple. Elements of chaos had to be kept outside the temple, so scenes of battles or hunting were confined to the outer walls of the building. If the killing of an animal or enemy had more symbolic meaning, then the sacrifice could be shown inside the temple, but the animal or enemy was always dead, tied up, dismembered, or being immobilized and made safe. At a more complex level, individual scenes within one room or integrated space of a temple complement one another, either to cover the same ritual and symbolic meaning, or to provide a double version of a ritual, so that it was enacted for Lower and Upper Egypt.

Cult temples in Egypt are built according to no fixed orientation, while the mortuary temples of kings have a fixed east-west orientation (Shaltout *et al.*, 2003). For cult temples, influences on the orientation may include the relative position of the river; landscape features such as mountains; astronomical aspects, such as at Abu Simbel, where the shrine is aligned to be directly illumined at the winter and summer solstice; local conditions, including the position of previous buildings or the town; and also wider considerations such as virtual sight-lines to neighboring features, such as cemetery areas or other temples.

The basic understanding is that the axis of the temple – a notional line drawn down the middle of the building from back to front – divides the building into two halves. In the "god's view" from the sanctuary, the left-hand half of the temple represents Upper Egypt, where the king wears the White Crown and the right hand half represents Lower Egypt, where the king wears the Red Crown. Such an orientation would also make the shrines on the "right" (*imnt*) the "west," where the funerary chapels associated with Osiris were situated, while the "left" side (*iȝbt*) is the "east," where the solar chapels of Re were located, as if one were sailing down the Nile towards the south. When the two halves combine they are the totality of Egypt and, therefore, the Universe. Sometimes the real orientation of the temple matched its virtual orientation, but it is not always the case, and such readings suggest that the temple axis embodies the two main orientations of Egypt – river direction and sun route.

The points at which the axial-center line go through walls are the centers of the walls and the rituals radiate out from them. Therefore, in the center of the back wall of the sanctuary, the god stands back to back with him or herself and the king faces

both of them on the right and left side. All of the other rituals in the room respect this arrangement as the starting point. In some key areas, such as the outside wall of the sanctuary and the outside and inside wall of the naos-enclosure, the designers took the opportunity to create more important scenes, perhaps focusing the power of the temple along its axis. The inside of the stone enclosure wall at Edfu shows Horus Behdety on top of (that is, by the rules of perspective, inside) his shrine in four scenes in the first two registers. In all of the scenes the king and queen offer to the temple triad, in two groups back-to-back. At Dendera, the exterior of the back wall of the temple is carved with a huge head of Hathor. The holes in the stone around it suggest that it may have been veiled or covered so that it was revealed only for certain ceremonies or for consultations (cf. Brand 2007: 61–4). The image may be an attempt to bring the focal image of the temple to more people than otherwise would be able to see it. At Karnak, a special shrine was built at the back of the temple to allow access to the axial line from the outside and perhaps for "ordinary" Egyptians.

The main groups of rituals in the temple were derived from the Daily Cult, whose ritual sequence survives not only upon the temple walls but also in papyrus books (David 1981: 58–62). Excerpted versions of the ritual were used to fill the wall space and ensure their permanent performance. Sometimes it was necessary for a ritual in one half to be balanced by a complementary or the very same ritual in the other half. In some cases, the attribution of the ritual to northern or southern Egypt would be given by the crown worn by the king, by the god in the scene, or by the content of the text. Particular areas of the temple, such as the sanctuary, rooms holding cultic objects, or rooms with another god as focus, would also have specifically designed and appropriate rituals. In addition, hymns and prayers to the gods could also accompany the rituals.

At the smallest level of detail individual walls would also be designed with the "grammaire" in mind. The wall was divided into registers by strong horizontal lines and then the registers were divided into scenes by vertical lines. Each scene could be read individually but also interacted with scenes next to them, other scenes on the same wall or with complementary scenes on the wall opposite, no matter if they were actually on the other side of the temple in the case of enclosure walls. Together, these scenes empowered the functionality of the individual room and thus contributed to the overall power of the whole temple in housing, protecting and reinforcing the god's aura of power.

The lower levels of the wall pertain to more earthly aspects of the cosmos and, therefore, contain the processions of flood and field offering bearers relating to the productivity of Egypt. In the first register, the scenes may allude to the king building the temple, including a procession from his palace, the marking out of the temple space and finally its handing over to its owner. In addition, they may mark the beginning of the ritual cycle depicted on the rest of the walls. The reading of the texts begins at the bottom of the wall and moves up register by register to the top, sometimes zig-zagging across the room from side to side, sometimes reading along one wall and then onto the next. The middle registers can deal more explicitly with matters specific to the room and to the function of it or to the god housed in it. This is where the bulk of the basic rituals based upon the daily service are depicted. As the lower and middle registers are more comfortably at eye-level, they often show

the most important aspects of the temple, such as the king performing his duties and the main gods of the temple (Kaper 1995). The other gods tend to be relegated to the upper registers. The upper registers and decorative bands at the top of the wall contain rituals and texts pertaining to more cosmological or sky-related issues, although earth-bound rituals can occur at this level depending upon the exact function of the wall and the space that it shielded. The dedication and building texts of temples also tend to be situated in the long bands running above and below the main registers.

The topmost band of the wall often contains cosmic symbols designed to protect the king. His name therefore could be written in a double cartouche and protected by various creatures, including winged cobras (*uraei*), interwoven with *shen*-protective signs and crowned appropriately, but holding symbols of protection for the king, as for example, at Luxor (Brunner 1977: 16–20). In many places, including areas above wall registers as well as over doors, the winged sun disk is depicted, sometimes with the symbols of east and west and the horizon to show that this is a sign for the whole world. Individual columns in the hypostyle halls and courtyards also fit into the patterns of the design; for example, they can be read as if written in four quarters forming two halves of each column. Groups of columns relating to the east and west can be complementary and all of the columns act as if they were holding up the sky (Kurth 1983).

The ritual scenes depicted upon the temple walls comprise a large image showing the ritual and actions being performed by the king, sometimes accompanied by a queen or his son, facing a god or gods (figure 35.2). Each figure is accompanied by a band of text with the individual's name, titles and epithets to show what "role" they are playing. For example, in ointment offerings, the king is often called son of Sheshmu, the god who makes ointment. There is also a band of text where the king explains exactly what he does and the deity explains what they will do in return for the ritual offering. The role of the king, the god shown, the type of ritual and the position on the wall or in the temple can all be used to coordinate with other rituals or scenes.

The practice of temple wall decoration

The sanctuary of the temple contains the rituals most pertinent to the temple god. Here the king interacts directly with the god in demonstrating that he has upheld his part of the bargain to build the temple and maintain the offerings to keep the god supplied. In return, the god and his or her entourage reward the king with those things he desires most— a long reign, protection and strength with which to defeat his enemies, success in his ultimate destiny to become Osiris and a harmonious universe in which the sun cycle continues each day and the inundation cycle continues each year forever. Such rewards are underlined by the rows of *hapy*-inundation and fecundity figures – shown as males with large bellies, fleshy chests and trays loaded with offerings – and field-offering bearers – shown as slender women carrying produce of the fields or farms, either in their hands or large baskets – around the lower parts of the wall, bringing all the resources of the different administrative areas of Egypt for the benefit of both the king and god. At the head of this procession there is usually the king, demonstrating his control of all of the natural resources of Egypt.
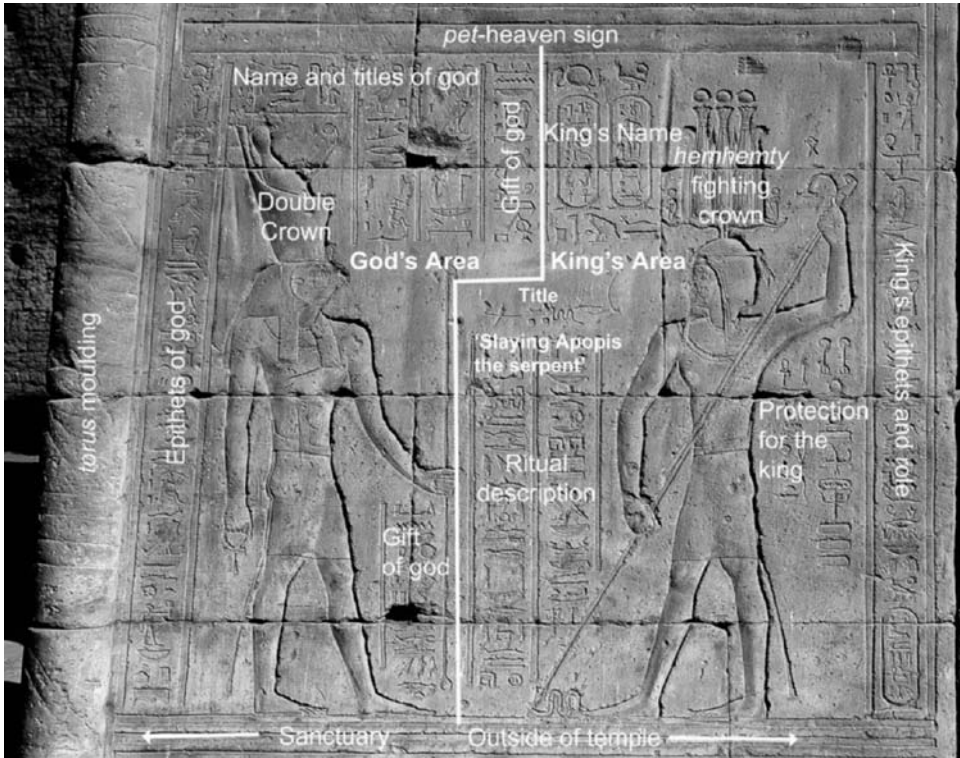
Figure 35.2 The king performing rituals of cosmic maintenance for the god. Mammisi of the Temple of Edfu. Photograph courtesy Penelope Wilson.

The interior sanctuary walls of the temple of Edfu have a very well developed "grammaire," suggesting that they were designed as one complementary schema (Chassinat, *Edfou* 9: pl. XI, XIII, XIIIa–b) (figure 35.3). The axis of the temple is north-south, with the sanctuary at the north. In the temple the east wall has the king at the left-hand side of each scene, and the west wall has the king upon the right. The *soubassement* or lowest panel shows rows of inundation (*Hapy*) offering figures bringing offering trays, with two *hes*-water vases on one arm and pouring water from a *hes*-vase with the other hand. On the east wall, the figures wear Upper Egyptian lilies on their heads, whereas the western wall figures wear papyrus plants of Lower Egypt on their heads, suggesting that this establishes the geographical arrangement of the scenes – east is south, west is north. The wall space is divided into three zones: an outer zone, where the king performs the basic daily ritual; a transitional center zone, where the ancestors and gods affirm the legitimacy of the king as ruler; and the inner or divine zone, where the god settles in his boat-shrine and the cosmos is in harmony. The ancestor zone may have acted as a transition area between the "earthly" zone at the outside and the gods' space inside. The ancestors are required to approve the credentials of the king before he proceeds to offer the main cultic emblems of the gods. The first register of the outer space brings the king to the shrine and the action zigzags across the chamber (scenes 1 to 6). In the second

south wall	west wall						north wall
king receives life Ho WC	purifying with 4 water vessels H BC	censing with incense of *Sherep* H *khat*	censing with *kesent*-incense H *nemes*	greeting with *nemset*-jar H, Ha BC	offering *wedjat*-eye Ho *khat*	raising up collar H, Ha *khat*	offering the left eye of the moon H, Ha RC
king receives jubilees Ha DC	presenting myrrh H *nemes*	*irtyw*-cloth H BC	*idmi*-cloth H *khat*	Horus gives his will & testament Ptolemy IV, Arsinoe	collar & pectoral H *nemes*	Double crown H, Ha BC	censing the uraeus H, Ha DC
king receives life H RC	entering steps (of shrine) 1. H *khat*	drawing back bolt 3. H *khat*	seeing god 5. H BC	Thoth inscribes years of kingship Ptolemy IV, Arsinoe	king censes Horus' barque DC		Offering Maat H, Ha RC
door	soubassement - fecundity figures wearing papyrus plants upon their heads (Lower Egypt) →						

	east wall						
king receives life Ho RC	purifying with 4 water vessels H *khat*	censing with incense of Nekheb H *nemes*	censing with 5 pieces of incense H *khat*	burning incense on a fire H *nemes*	offering a water-clock Ha BC	giving the menat & sistra Ha Ihy *nemes*	offering the right eye of Re H, Ha WC
king receives jubilees Ha DC	preparing white cloth H *khat*	preparing white cloth H BC	giving *medjet* ointment H *khat*	tying on the cloth head-band Ptol II, Arsinoe DC	giving the bebet-collar Ha *khat*	making the DC for his mother Ha Ihy *khat*	censing the uraeus H, Ha DC
giving life to king H DC	undoing the cord 2. H *khat*	revealing the face 4. H *khat*	adoring god 4 times 6. *khat*	censing Ptol III & Berenice DC	king censes Hathor's barque DC		Offering Maat H, Ha WC
door	soubassement - fecundity figures wearing 'lilies' upon their heads (Upper Egypt) →						

king is activated	Daily Ritual	Ancestors & Legitimacy of rule	Specific offerings for Horus and Hathor	Essential Egypt offerings

Key

Crowns

BC Blue Crown
DC Double Crown
RC Red Crown (Lower Egypt)
WC White Crown (Upper Egypt)

Khat head cloth to keep hair covered
Nemes head cloth with lappets at the front and 'pony tail' at back

Gods

H Horus Behdety
Ha Hathor
Ho Horsomthus
Ihy Ihy

Figure 35.3 The decorative programme of the sanctuary of the Temple of Edfu. Courtesy Penelope Wilson.

and third register, water offerings are made, incense is burned and unguents and cloth are brought with which to anoint and dress the god. The central texts allude to ancestral inheritance. The naos of Edfu temple was decorated under King Ptolemy IV and here he receives the will and testament of Horus to be king and his reign is recorded by Thoth. Furthermore, he is associated with his father Ptolemy III and grandfather Ptolemy II on the east wall as their heir. In the final zone, the king burns incense before the portable boats in the sanctuary – on the left wall the boat of Horus Behdety, because he is the "northern" Horus, and on the right wall the barque of Hathor, who represents the Upper Egyptian, female element.

In the registers over the boat, the temple gods receive protective decorations for their statues and their own cult regalia: a collar with protective pectoral; another collar; the Double Crown for Horus and a *wedjat*-eye for Harsomtus; a collar; water-clock; *menat*-necklace and sistrum and Double Crown for Hathor and her son, Ihy.

The symbols suggest that the gods now control time (water clock), Egypt and time (*wedjat*-eye) and that the deities are protected and made powerful with their jewels and cult objects.

The back, north wall of the sanctuary appears to be undistinguished in its decoration, but this understatement is typical for temple sanctuaries, because the main focus of the room would have been the actual shrine in the center. There are three scenes in each register on the back wall, but they are back to back, for the axis of the temple runs down the center of the wall. On the lowermost part of the wall, the beginnings of each of the *hapy*-processions are shown, with the king and queen leading the areas of Egypt to Horus and Hathor. In the first register, the king, with the White Crown on the right and the Red Crown on the left and accompanied by the queen, offers Maat to Horus and Hathor; in the second register, the king wears a Double Crown in both scenes and burns incense for the *uraeus*-cobra, affirming that he has divine protection for his kingship; in the third register, the king, wearing the Red Crown, offers the "left eye of the moon in the night" and, wearing the White Crown, offers the "right eye of the sun in the day." The gods return everything that the sun and moon see, the lands over which they move and assert that Horus Behdety lives and rises, shining in his temple. The simplicity of the scenes, therefore, belies their powerful symbolic role. *Maat*, communication between king and gods, protection and the unity of the parts of Egypt under royal rule are the primary ideology of the Egyptian king and gods.

Individual rituals and myth

Specific rituals had more important functions and so occur throughout the temple in key positions, where they can have the most impact. The most important ritual from the king's point of view is the offering of *Maat*. It is a rather understated scene – the king, often wearing his Double Crown, holds a small basket inside which (but shown on top) is the squatting figure of the goddess *Maat*, identified by the ostrich feather she wears upon her head. Maat was the embodiment of the cosmic harmony and representative of the bargain for reciprocal offerings made between the king and the god. She is a sign that all is well with the cosmos and Egypt and that the temple is functioning. Her appearance on the temple wall is therefore very important and the ritual is often shown in psychologically sensitive positions where it could be easily seen by the temple priests – for example, on doorways or porticos, in the main sanctuary, on the temple axis at the back of the temple and on processional routes through temples (for example, at Edfu, Cauville 1987: 7–9). For this reason the ritual does not seem to form part of the Daily Ritual sequence and can also appear in private and "public" temple space in the New Kingdom, suggesting that its role was more encompassing than may have been first thought (Teeter 1997: 47–8).

Other significant rituals occur in particular places. It has already been noted that smiting enemy rituals, battle scenes and hunting scenes are most often placed on the outside of the temple buildings in order to keep the chaotic forces outside the cosmos. The ritual of smiting enemies can be documented as early as Tomb 100 at Hierakonpolis, belonging to a Naqada II period ruler, and the classic scene on the Narmer palette is an iconic illustration of the genre. On the temple outer pylons two

such smiting scenes sometimes confront one another, while on the flanks of the temple, especially in the New Kingdom and in mortuary temples, it was fashionable to show battles and campaigns of the king. Whether they were totally fictional or based on actual campaign accounts, such scenes fulfilled the ritual requirement of keeping enemies at bay, especially if they represented a perceived threat from all of the borders of Egypt.

Some scenes may have a more specific, mythical allusion. The accompanying texts of the rituals may allude to these myths, but in general, New Kingdom temple texts are very short and do not provide much information about the reasons behind a particular offering or the reasons for the reciprocal offering. For example, on the outside of the Ramesses II enclosure wall at Karnak there is a sequence of rituals, based upon the daily sequence but with some deeper mythical allusions (Helck 1968). On the south wall, there are four rituals in the bottom register: from left to right (22) Offering Maat for Amun-Re; (23) Dragging Sokar (in his Henu boat) for Ptah-Sokar-Osiris who lives in Shetayt; (24) Bringing the *meret*-chests for Amun-Re; and (25) Making *medjet*-ointment for Mehyt who lives in Thinis (Tenu). The king receives: "All health like Re," "All health like Re," "the *sed*-festival of Re" and "the kingship of Atum," as well as "Yours is the *sed*-festival of Tatenen, so that your lifetime is like his lifetime."

It seems that, as Amun-Re alternates with other gods along this wall, the sequence of rituals shows the pantheon of gods surrounding Amon-re in the temple, but also makes allusion to the gods of other main cult centers, such as those at Memphis (Sokar) and Abydos (Mehyt). Amongst the rituals, the "bringing of the *meret*-chests" can be explored in more detail from accompanying texts in later temples and comparison with earlier scenes from Old Kingdom tombs. The *meret*-chests contained red, blue, white, and green cloth and were intended to be used by a son in the mummification of his father. The four cloths represent the four corners of the earth and therefore concern the inheritance due to the true heir who performs the funerary rites. It is, therefore, a ritual of inheritance to show that the king is a legitimate ruler. In Old Kingdom mastaba scenes, similar chests to the *meret*-chests are shown in funerary processions and have been associated with Osiris. The ritual of dragging the chests also occurs as one of a pair with the ritual of the "Driving of the Calves" (*hu-behsu*) in which a black, white, red and dappled calf are driven forward by the king. The origins of the ritual may have lain in some kind of harvest-festival ceremony for the threshing of the first grains, but, in Ptolemaic texts, the ritual is carried out so that the calves trample upon and destroy the snake-enemies of Osiris to ensure his preservation and disturb the ground over his tomb to ensure that he remains safely buried. The impression is that much older rituals could have been reworked to include mythical allusions, so that the original meaning of the ritual is almost – but not completely – lost (Egberts 1995a).

The offering of the *menat*-necklace to Hathor is one of the main rituals connected with this goddess. The necklace comprised a string of beads with a heavy counterpoise, which would have hung behind the wearer to ensure that the necklace stayed in position. The beads could be shaken to make a soothing rattling sound and so were frequently offered with the *sistrum*-rattle. Together they ensured that Hathor would remain calm and not become her raging, dangerous alter-ego, the lioness Sekhmet.

The sound also seems to have been regarded as a means of driving away illness and so it had protective qualities. The *menat* was also identified with the testicles of Seth, which Horus had cut off in a fight. The presentation of this symbol of male sexual power to Hathor, the goddess of female sexuality, therefore enables her to harness procreative ability for both men and women. In offering the necklace the king is made more powerful in order to destroy his enemies, as Horus destroyed Seth (Barguet 1953; Wilson 1997: 423–4). Apparently simple rituals could, then, conceal complex allusions to local stories or practices of which we have very few long and connected texts, such as the Papyrus Jumilhac. The latter details the Osirian fight against Seth, but as it is set in the seventeenth and eighteenth nomes of Upper Egypt, just south of the Fayum, the main protagonist is Anubis, suggesting that here he is the champion of the god of the dead as a form of Horus (Vandier 1961; Rössler-Köhler 1982: 708–12).

As at Edfu, sometimes the chambers may allow other deities of the region to make appearances, such as Mehyt, Khonsu, Osiris, and Min. whereas other important state deities, such as Re, also have shrine-chambers. It is likely that together they offer focal points for particular cultic aspects, as, for example the pairing of Osiris and Khonsu chambers can allude to lunar cycles and the waxing and waning of the moon as a symbol of rejuvenation (Cauville 1987: 9–11). At Abydos, the suites of rooms behind the main shrines for the cult of Osiris and a further set of rooms set aside to the south for the Ptah-Sokar and Nefertum funerary cult demonstrate that temples could be regarded as a ''meeting place'' for divine power (Kurth 1998).

Decoration as a permanent inventory

Aside from the rituals and hymns, it was also important for the temple decoration to create inventories (accounts) and lists of the possessions of the temple as well as the possessions of the king and Egypt. Thutmose III seems to have emphasized this desire to use the temple as a virtual storehouse of what he owned. The surviving reliefs from his reign at Karnak record his temple inventory, including the vessels, ritual objects (including obelisks) that he had given to the temple. In addition, the foreign lands that he had encountered were inventoried in his celebrated Festival Hall showing all the plants and animals from the world known to the Egyptians, and the Akh-Menu design contained also an inventory of time, showing the background of Thutmose as a legitimate ruler, by listing his ancestor kings in a special ancestor cult. The annals inscribed on the wall are a collation of his military campaigns, originally complete with images of the captured cities and people he had conquered. Such an undertaking is within the decorative schema of the temple as a reflection of the universe. In the case of Thutmose III, it was a universe that he seems to have seen at first hand. He was by no means the first to use the temple to record his possessions throughout the known world. The fragments surviving from the mortuary temple of Sahure at Abusir also allude to a gazetteer attitude behind the decorative scheme of the temple. In the case of this temple, built to sustain the ka of the king in the afterlife, there is also a desire to show him as victorious over conquered people, as bringing back unusual vessels and items including a bear from Syria, and as the heir of the gods in scenes showing him in their company and being suckled by goddesses.

The archiving mentality continues to be evident in the Ptolemaic Period with "geographical texts." They list the cult centers of Egypt and in each place there is a record of the name of the chief priest, the chantress of the god, the sacred mounds and groves, the sacred boat, the guardian serpent, the canal and waterways and the lands of the temple. It is reflected in the Delta Papyrus (P. Brooklyn 47.218.84), which contains a similar list for the north of Egypt (Meeks 2006) and reminds us of the primary source of the texts, that is, papyrus documents. In many ways, the layouts of the walls can directly be related to the layout of a papyrus scroll, with its segments of information and long linear sequences.

In Edfu temple the "Treasury" contains lists with depictions of offering beings carrying trays holding the ritual impedimenta of the temple and precious objects; the "Library" has a list of books contained in the temple; and the "Workshop" has a series of recipes for making unguents and incenses to be used in the temple. On the one hand, these texts and any accompanying rituals may be stone records of papyri documents which have not survived, as hinted at by the inventories of the Abusir temples; on the other hand, the way in which they are confined to specific places in the temple and the fact that they are written in hieroglyphs gives them a dual function as decoration and permanent record of the information which they contain.

5   Summary

All Egyptian temples were highly exclusive areas, designed to keep divine power safe and sound. They were intended to harness all the resources of the known world for the benefit of the gods and the harmony of the universe, as well as to manage large estates effectively for the benefit of the elite-priesthood and the king. Their gaudily painted exteriors contrasted sharply with the darkness of the interior voids, with pinpricks of colour, light and gleams of metals. The building complexes were alive with the daily bustle of offering preparation and deliveries from the temple estates, the continuous editing and copying of papyri, the endless festival rota and supplying of small altars, statues and special reliefs throughout each temple. The interior rooms came alive at set times of the day when the gods were activated with the smell of incense, sound of sistra-rattling and priests reading out the rituals or speaking the hymns. In these spaces past local traditions mingled with agricultural rituals and cosmic struggles. Egyptian temples are timeless creations, embodying one moment of absolute creation for eternity.

FURTHER READING

Wilkinson (2000) and Arnold (1999) provide an excellent basic survey of the remains of temples in Egypt with bibliographies, and Snape (1996) is a useful, short introduction. Touristic guidebooks, such as the traditional *Blue Guide* as well as more modern and easily available books such as the *Lonely Planet* and *Rough Guide to Egypt*, have accurate and detailed

descriptions of the main temples. Imaginative reconstructions in Aufrère, Golvin, and Goyon's *L'Égypte restituée* (1991–7) also evoke the monumental size of the temples and their relationship to settlements and landscapes. David (1981) is the most accessible narrative of the ritual sequences in temples based on those at Abydos, while Meeks and Favard-Meeks (1997) and Sauneron (2000) deal with the gods and priesthoods of the buildings. Regular publications from the *Ägyptologische Tempeltagung* (Egyptological Temple Conference) and collections of colloquium papers, such as that of Quirke (1997) and Dorman and Bryan (2007), continue to add insights in many areas of temple life. Arnold (2003) deals with more practical aspects of temple construction, while the papers collected by Shafer (1997) illustrate the dynamic, symbolic, and mythical worlds of temples from all periods. The great bodies of texts from the Ptolemaic-Roman temples of Edfu and Dendera are now studied and translated by Dieter Kurth's Hamburg team and Sylvie Cauville and her team, respectively. Work on Karnak temple complex (*Cahiers de Karnak*) continues to piece together aspects of the Theban sacred spaces, including processional routes (Cabrol 2001) and building phases (Blyth 2006). Individual rituals are the subjects of specialist studies, such as that of Egberts (1995) and Teeter (1997) and a readily accessible on-line database is collecting all examples of each ritual (SERaT). Visits to temples in Egypt, Madrid, New York, or Leiden are strongly recommended.

Mortuary Architecture and Decorative Systems

Aidan Dodson

1   Introduction

The ideal Egyptian tomb comprised two basic elements: the actual burial place of the body and the offering place, where the worlds of the living and dead coincided, and where items of sustenance could be provided for the deceased. Architecturally and decoratively, the two elements were for much of Egyptian history distinct, and it is important to bear this in mind whenever analysing a given funerary monument. Indeed, these elements could be separated by considerable distances; nevertheless, they still formed part of the same whole.

The structure or structures forming such a monument ideally lay in the desert on the western bank of the Nile, so that the progression from the entrance was towards the west, the home of the dead. The focus of the offering place would be on a western wall to provide for the optimum interface with the beyond. However, in some areas, topographical considerations meant that cemeteries had to be placed on the east bank. In some cases, the reversed orientation seems to have been simply ignored, but in others adjustments were made to normal plans to ensure that the cult could be carried out facing west, even if this resulted in a very awkwardly arranged monument (e.g. at the Fraser Tombs at Tihna: Dodson and Ikram 2008: 156–7).

Topographic issues also influenced the overall form of the tomb. On "flat" sites in the Nile valley, the classic tomb-type was the brick- or stone-built bench-shaped mastaba (or – for kings and queens – the pyramid), with its offering place either against or within its eastern side. Later, this was replaced by structures that were essentially freestanding chapels, often resembling miniature temples, albeit sometimes with elements that harked back to the mastaba prototype. Burial chambers would in both cases be cut in the bed-rock or compacted desert gravel – in the latter case usually lined and roofed with brick or sometimes stone.

At sites where foothills or cliff-faces dominated, the tomb would be largely or wholly rock-cut. Although, on occasion, the bedrock could be cut away to produce an apparently free-standing mastaba core (e.g. in the Central Field at Giza, or the Fraser

Tombs), most such sites simply cut the offering place into the flank of the hill or cliff. The burial apartments remained in the bed-rock.

In the Delta, very different conditions prevailed from the Nile valley, with at best sandy mounds (*gezira*) rising above the alluvium, on which both settlements and cemeteries had to be placed. Rock-cut elements of any sort were thus out of the question, and burial chambers thus had to be built out of brick or stone and sunk as deep as practicable into the *gezira*, bearing in mind the proximity of the water table. A chapel would then be built above, using the substructure as a foundation. This approach was also used for intra-urban interments in the valley, for example within the city of Memphis.

In all cases, however, the purpose of the tomb remained constant: to act as a magical machine to translate the dead person from this world to the next – and maintain them there, free from hunger, for eternity.

2   Predynastic and Early Dynastic Periods

The very earliest burial places survive as little more than scoopings in the desert gravel; they may have once been covered by low mounds of sand or gravel, with no evidence for more substantial provision. Graves of the Badarian and Naqada I Periods are generally oval or circular, with the body placed in a foetal pose, with the head to the south. By Naqada II, the design of the grave becomes more rectangular, with the orientation of the body generally reversed to face west, the reverse of the practice in historic times.

By late Naqada II times, larger tombs at such sites as Abydos, Naqada itself, and Hierakonpolis were becoming brick-lined with, in some cases, a cross-wall dividing the subterranean cavity into a burial chamber and an ante- or store-chamber. Amongst those at Hierakonpolis is Tomb 100, the walls of which were adorned with scenes of boats and hunting, comprising the first known decorated tomb in Egypt (Case and Payne 1962; Kemp 1973).

Such open-cut brick-lined substructures form a standard feature of most tombs of late Predynastic and Early Dynastic Periods, the main distinguishing feature being the number of rooms into which the overall cavity is divided. Particularly large examples are found at Abydos at Umm el-Qaab, where they represent the first identifiable royal tombs. The earliest of these, U-j, apparently belongs to a late Preynastic (Dynasty "0") king named Scorpion, and comprises a central chamber surrounded by a number of subsidiary rooms (Dreyer 1998). A sequence of similar structures is found there for each of the kings of the First Dynasty, with a series of innovations appearing with time (Petrie 1901). In particular, from the reign of Den, a stairway was added, allowing access to the interior after the roofing-over of the chambers with wood, and thus facilitating the building of a superstructure.

However, it appears that a low mound was constructed directly above the roof of the substructure, perhaps representing the primeval mound upon which the Creator first manifested himself. This mound (also found in some contemporary private tombs at Saqqara) may not have been visible above the ground surface. The only

certain markers of the tomb were a pair of stelae, each bearing the name of the king, between which were presumably placed offerings to the dead king's spirit; this arrangement was the ancestor of later, far more elaborate, royal mortuary temples.

The First Dynasty royal tombs were also surrounded by the brick-lined graves of retainers, both male and female. All indications suggest that these individuals were buried at the same time as the king; no signs of violence were found on the bodies, and it would appear that they voluntarily went to their deaths to accompany their king in the next world. The numbers of such graves drop off rapidly from the middle of the dynasty onwards, and there is no evidence whatever for the practice after the end of the Early Dynastic Period.

In addition to these burial structures at Umm el-Qaab, most kings from the reign of Aha onwards built a great mud-brick enclosure some 2 km to the east of their actual tombs, close to edge of the cultivation and overlooking the wadi that led up to Umm el-Qaab. Few traces survive to indicate what may have lain within, while in some cases the enclosure was surrounded by the graves of royal retainers. All but the very latest, the Second Dynasty enclosure of Khasekhmemwy, were later dismantled, suggesting that the enclosures' role in the mortuary cult was ephemeral and perhaps restricted to the funeral itself (O'Connor et al. 1989, 2009: 159–81).

Private tombs of the First Dynasty take a rather different form. Although substructure development is similar, superstructures are wholly different, taking the form of mastabas, with elaborately paneled brick outer surfaces. The earliest examples were divided internally into storage compartments, roofed with wood and rubble, but later – presumably for security reasons – were simply of rubble within a thick brick retaining wall. In some cases, a mound was constructed directly above the substructure, within the mastaba, presumably akin to that found above royal tombs. In an exceptional example (S3038) this mound had a stepped skin of brick (Emery 1949–58: I, 82–94).

It is likely that from the outset the offering place was represented by one of the niches at the left-hand end of the eastern façade, although it is not until the reign of Qaa (tomb of Merka, S3505) that a funerary stela is found in this location (Emery 1949–58: III, 5–36). From then onwards, slab-stelae showing the deceased in front of a table of offerings become increasingly common.

The Second Dynasty marks a number of changes in tomb architecture at Saqqara, which now became, for a period, the royal cemetery. Substructures now moved to a tunneled design along a straight north-south axis, off of which store-chambers open. In some tombs (e.g. that of Ruaben, S2302), the innermost chambers were configured to recall a house, with the burial in a niche in the west wall of a "bedroom," with one of the nearby rooms representing a lavatory (Quibell 1923: 12–13, 29). Protection for the tomb was in the form of a series of stone portcullis slabs lowered from the surface. Such portcullises had first appeared singly during the First Dynasty and were lowered from above via shafts that penetrated both the bedrock and the superstructure above.

The superstructures of Second Dynasty private tombs at Saqqara follow on from First Dynasty practice and lie within the same cemetery at north Saqqara, although the previously seen paneling is now by no means universal. The royal tombs at Saqqara lay around a kilometre to the south west, creating a clear *cordon*

sanitaire between them and the commoners' sepulchres. Almost nothing survives of the superstructures of the tombs of Hotepsekhemwy and Ninetjer, but the former has a substructure that is essentially an expanded version of contemporary private tombs, while the latter is much less regular in plan (Kaiser 1995). Two very large rectangular enclosures, one of rubble and one of stone (the ''L-shaped Enclosure'' and the Gisr el-Mudir: Mathieson et al. 1997) that lie in the desert of the west may represent the Saqqara equivalents of the Abydos royal enclosures. Pottery seems to date the second of them to the Second Dynasty, while they lie at the end of the principal ancient approach to the Saqqara necropolis, which was then from the north, rather than the east, as was later sometimes the case. Association of these two enclosures with the two known Second Dynasty royal tombs, therefore, seems not unlikely, especially given the requirement for such enclosures seen with all the Abydene royal tombs.

Towards the end of the dynasty royal tombs moved back temporarily to Abydos, broadly resuming First Dynasty practice, although the latest tomb, that of Khasekhemwy, is of considerably larger size, and in some ways recalls the Saqqara royal burial places in design. Its accompanying enclosure, the Shunet ez-Zebib, was the only one not to be dismantled in antiquity and displays a paneled exterior design that was probably also present in the now destroyed earlier enclosures.

3   The Old Kingdom

A major motif of the Third Dynasty is the beginning of a shift towards building the tombs of the elite from stone rather than brick. Stone had been used for various elements of tombs' construction back in the First Dynasty, for example, granite flooring in King Den's burial chamber, together with portcullis-slabs, and also for Ninetjer's putative limestone enclosure (the Gisr el-Mudir). However, under Djoser the entire royal funerary monument was built from the material.

Djoser's Step Pyramid complex (Lauer and Lacau 1931–61) is also significant in that it combines the elements previously found separately in royal tombs, the monumental enclosure, on the one hand, and the place of burial and offerings, on the other. The former element was also provided, for the first time, with a step-pyramid superstructure, possibly inspired by the stepped mounds of some First Dynasty tombs. While no definitive evidence exists, it is not unlikely that the stepped-pyramid form was essentially intended as an ascension aid for the king – literally a ''stairway to heaven.''

Rather than being tunneled, as had been basic Second Dynasty practice, the main parts of the substructure of the pyramid were built in a cutting in the rock, although a large number of secondary galleries were wholly rock-cut. The granite burial chamber was placed deeply underground, surrounded by various galleries and chambers, some decorated with faience tiles – imitating wall-hangings – together with reliefs of the king, and doorways inscribed with his name and titles. These represent, apart from Hierakonpolis Tomb 100, the earliest known decorated elements of a tomb substructure in Egypt. Indeed, no further decorated substructures are known – apart

from occasional purely architectural features such as incised paneling – until the end of the Fifth Dynasty.

The enclosure, surrounded by a paneled wall, was entered from the south-east corner, consistent with the positioning of the offering-place in Seconnd Dynasty mastabas. As well as a large mortuary temple on the north side of the pyramid, it contained various ritual structures, all built of stone but in many cases imitating perishable materials. In the middle of the southern enclosure wall was built a mastaba (the "South Tomb") with a substructure recalling that of the pyramid, but on a smaller scale. It seems not to have been intended to hold a burial, but rather for some ritual purpose that remains obscure. The provision of a miniature tomb in the southern half of a pyramid complex was to remain a constant feature of royal tombs down to the middle of the Twelfth Dynasty.

Private tombs of the Third Dynasty broadly followed the pattern of those of the Second, in being brick mastabas. However, there were significant developments in the form of the offering place at the southern end of the eastern façade, which was in some cases lined with stone and projected into the heart of the mastaba. These linings could be decorated, while a niche at the northern end of the tomb might be dedicated to the cult of the wife of the tomb owner. The southern niche and its slab-stela evolved during the Third Dynasty into what by the following dynasty had become the classic false door. This would remain the usual focus for the funerary cult until the Middle Kingdom, after which it became subsumed into the broader category of funerary stelae (Wiebach 1981; Hermann 1940).

A particularly elaborate tomb of Djoser's reign was S2405, built by Hesyre, where the niches of the façade were each equipped with a carved wooden panel (Quibell 1913). The tomb was later extended to provide an external chapel: such modifications of tombs while under construction are fairly common during the Third and early Fourth Dynasties. Particularly good examples are to be found at Meidum during the reign of Snefru, where elaborately decorated stone-lined cruciform chapels in the tombs of Nefermaat and Rahotep were abandoned, bricked-up, and replaced by external chapels (Harpur 2001).

The decorations of the Meidum tombs represent amongst the earliest examples of offering places being adorned with paintings and reliefs of the production, acquisition, and provision of foodstuffs for the benefit of the deceased. A key motif of the development of the private tomb during the Old Kingdom is the gradual expansion of the enclosed areas preceding the actual offering place into a chapel complex. By the middle of the Fifth Dynasty this could fill much of the interior of a mastaba with courts and rooms. Amongst these could be one or more serdabs, closed chambers linked to the public rooms by a small opening at eye-level, to allow a statue to "see" out and offerings or incense to reach it. Serdabs contained one or more statues of the deceased, playing a role as a conduit between the worlds of the living and the dead (Bárta 1998). One of the earliest examples was a figure of Djoser in a room to the east of his mortuary temple, while in the tomb of Rahotep at Meidum the closure of the original chapel had the effect of converting it into a serdab, in which were found a fine pair of statues of the owner and his wife.

The substructures of private tombs of the early Third Dynasty show a shift from a stairway entrance to one based on a vertical shaft. In both cases the entrance lay on

the roof of the mastaba, leading down to a burial chamber sunk in the bedrock. This was to remain the standard pattern down to the end of the Old Kingdom, with only one or two exceptions.

Royal tombs of the remainder of the Third Dynasty initially followed the basic pattern set by Djoser, although with fully tunneled substructures. However, the large rectangular enclosure seems to have disappeared by the middle of the dynasty (Dodson 2000b), and at the very end of the dynasty there was a short-lived reversion to mud-brick for a once-massive pyramid at Abu Rawash (Swelim 1987). However, the three large pyramids erected by Snefru at the beginning of the Fourth Dynasty were all of stone (Maragioglio and Rinaldi 1964–77: III). The earliest of the three, at Meidum, was begun as a step pyramid, but completed as a true pyramid. The next, apparently left unused owing to structural problems, was the Bent Pyramid at Dahshur, which changes angle half way up. The final monument, Dahshur's Red Pyramid, in which the king would actually be buried, was built from the outset as a true pyramid. The switch from stepped to true pyramid seems likely to have a religious origin, linked with an increased importance for the cult of the sun. It is generally felt that the true pyramid was intended to be a concrete representation of the sun's rays descending from the heavens and, as such, the ideal place of rest for the dead king.

Snefru's pyramids are the earliest examples certainly to abandon the kind of enclosure seen at the Step Pyramid in favor of the pattern that now becomes standard. This is based on a mortuary temple in the middle of the east face, with a causeway leading down to a valley temple on the edge of the desert. These structures gradually increased in size during the Fourth Dynasty before arriving at an essentially standard plan by the middle of the Fifth Dynasty. In doing so, they move from a handful of rooms to a complex of courts, halls, vestibules and sanctuaries (figure 36.1; cf. Arnold 1998). At the same time, the degree of decoration throughout the complex increased until all three principal elements were adorned with painted reliefs. Motifs employed included the king in the company of deities, the presentation of offerings, the transport of monuments, and "historical" events. The latter are in at least some cases stereotyped images (including names and places) that appear in a number of monuments over a period of centuries.

The Snefru pyramid complexes also included the first subsidiary pyramids, the direct descendants of the Step Pyramid's South Tomb. Like the latter, their purpose remains obscure; however, they are now found in all pyramid complexes down to the first part of the Twelfth Dynasty. Their location varied initially, but always lay in the southern half of the pyramid enclosure, before settling in the south-east quadrant during the Fifth Dynasty.

Internally, the earliest pyramids generally placed their burial chambers deep underground, entered via a passage placed fairly high up on the northern face of the pyramid. However, after the unique placement of Khufu's ultimate sepulchral chamber high up in the core of the superstructure itself – usually explained as the result of a series of redesigns of his Great Pyramid at Giza – from the middle of the Fourth Dynasty burial chambers were built just below ground level (Edwards 1994). During the reign of Djedefre tunneling had been replaced by construction in open cuttings; these became much shallower under Khaefre. A standard plan began to coalesce at the same time, an invariable pattern establishing itself towards the end of
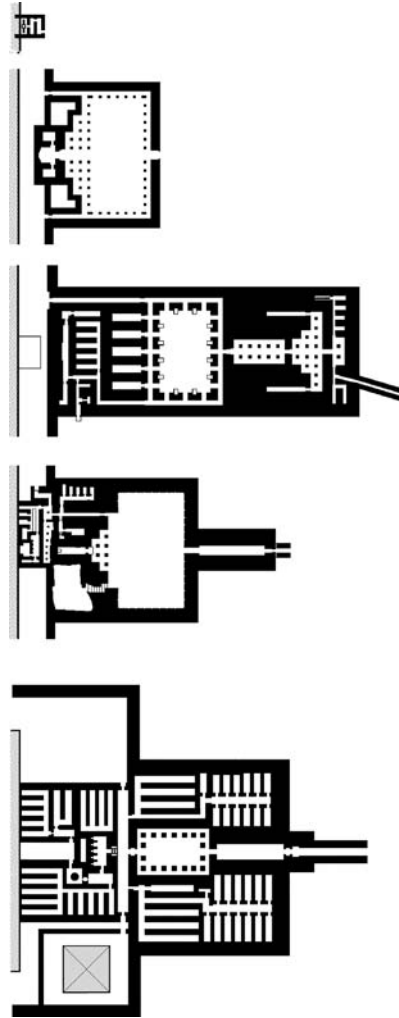
Figure 36.1 Royal mortuary temples of the Old Kingdom: (a) Snefru (Meidum); (b) Khufu (Giza); (c) Khafre (Giza); (d) Menkaure (Giza); (e) Typical Sixth Dynasty. Courtesy Aidan Dodson.

the Fifth Dynasty. This was based on a descending passageway starting at ground level just outside the center of the north face of the pyramid, which led, via a vestibule and three portcullises, to an antechamber. To the left lay a three-niched storeroom, to the right the burial chamber itself.

The pyramids of the Fourth Dynasty are generally the largest and best-built of such monuments, although the trend for increasing size is briefly reversed under Djedefre. However, while building a monument of more modest dimensions, he did so atop the mountain at Abu Rawash, which placed the capstone of his pyramid 25 m above that of the Great Pyramid. A steady reduction in dimensions is then seen from Menkaure onwards – and even a brief reversion to the mastaba under Shepseskaf; quality of core

masonry also declines during the Fifth Dynasty. This is paralleled, however, by the increase in size and elaboration of the mortuary temple, suggesting a conscious shift from simple bulk toward a more balanced approach to the funerary complex as a whole, in which the pyramid was simply one part.

A major innovation found at the end of the Fifth Dynasty is the appearance of decorated burial chambers. While in all architectural essentials conforming to the prototype of his predecessor, Isesi, Unis covered the walls of the inner rooms of his pyramid with ritual texts. These inscriptions, the *Pyramid Texts*, were also employed in the pyramids of the kings, and some of the queens, of the Sixth Dynasty, and by at least one ruler of the Eighth (Faulkner 1969). Around the same time, a number of private burial chambers began to be adorned with lists of offerings, a feature that was also later to appear on the interiors of wooden coffins (Lapp 1993).

Under Khufu there was a fundamental reassessment of the relationship between king's tomb and that of lesser individuals. Until his time, there seems always to have been a distinct *cordon sanitaire* between a royal sepulchre and contemporary private tombs. Now, however, a pre-planned "city of the dead" was laid out directly adjacent to his Great Pyramid, with streets of mastabas provided for both nobles and the royal family (Reisner 1942). Pyramids were also introduced for royal wives, although a number of subsequent queens were interred in other kinds of tomb (Janosí 1996; Labrousse 1999). The principal of these was the mastaba, which in the major cemeteries was now built of stone. The paneled façade which had been a feature of many earlier brick mastabas disappeared, while the chapel element was becoming, in many cases, an L-shaped room built into the core of the mastaba at the south end of the east face. As time went by, the chapel expanded greatly until by the Fifth and Sixth Dynasties a labyrinth of corridors, vestibules, chapels, halls, and even open courtyards occupied the interiors of some mastabas. Relief decoration was generally concerned with the generation and presentation of offerings, but with some more general "daily life" elements as well (Harpur 1987). In all cases, however, the focus of these chapels was the false door, as the principal interface between this world and the next (figure 36.2). Brick continued to be used for many smaller mastabas and those in provincial locations. The basic mastaba design, with niches at either end of the eastern façade, could be scaled, and was used to mark the modest tombs of a number of the pyramid workmen buried at Giza.

Around the middle of the Fifth Dynasty, the mastaba tomb began to be supplemented by rock-cut tomb-chapels that could exploit terrain that was unsuitable for mastabas (Reisner 1942: 219–47). The basic chapel designs broadly followed those of contemporary mastabas, although in some cases the decorative scheme was enhanced by a series of engaged statues cut into the walls of chapels. During the Fifth Dynasty the number of tombs constructed in the provinces greatly increased, the topographies of the cemeteries in question being generally far more appropriate to rock-cut sepulchres, and designs varied considerably from site to site. The substructures of many Old Kingdom rock-cut tombs were approached via sloping passages, rather than the vertical shafts that were usual for mastabas. In both cases the actual burial apartments were very simple, being restricted to a burial chamber, sometimes closed with a stone slab.
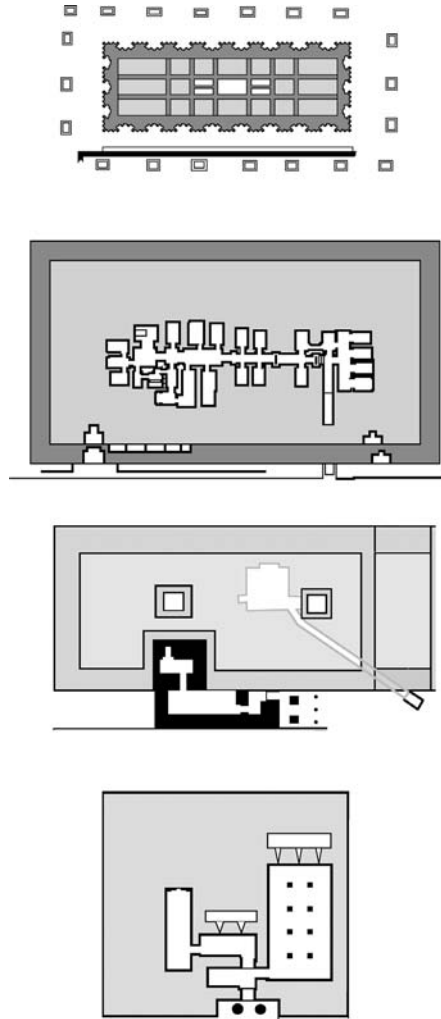
Figure 36.2 Mastabas of the Early Dynastic Period and Old Kingdom: (a) unknown (Saqqara S3503: mid-First Dynasty); (b) Ruaben (Saqqara S2302: early Second Dynasty); (c) Kawab (Giza G7120: Fourth Dynasty, reign of Khufu); (d) Senedjemib-Inti (G2370: late Fifth Dynasty). Courtesy Aidan Dodson.

4   The First Intermediate Period and Middle Kingdom

Following the end of the Old Kingdom, the political fragmentation of the country was reflected by the number of major tombs built in the provinces. Most of these were rock-cut monuments and represented a continuation of trends at the sites during the Old Kingdom. A new type of tomb developed at Thebes towards the end of the period, in which the façade comprised a series of openings leading into a

single very broad, but shallow, vestibule. Known as a *saff* (row) tomb, its offering place lay at the end of a passageway on the central axis of the structure. Particularly large versions were constructed at el-Tarif for the early kings of the Eleventh Dynasty, with additional façades at right angles to the main tomb-front which gave access to the tombs of members of the court (Arnold 1976).

The concept of the approach to the king's tomb being lined with those of his followers was further developed at Thebes, where the mortuary monument of Mentuhotep II at Deir el-Bahri lay at the end of a desert valley, its causeway flanked by the rock-cut tomb-chapels of his court. Cut individually into the cliffs, these chapels were similar in design to the *saff* tombs, although many had flat plastered mud-brick façades rather than the piers seen in the true *saff*s. The king's monument was an innovative colonnaded terraced temple with a central massif that may have been a pyramid. The king's burial chamber lay at the end of a long sloping passage in the rear courtyard of the temple. Shaft and corridor tombs of his family and household lay in various parts of the complex and its immediate surroundings (Arnold 1974–81). Although at least one later example of such a tomb-temple was begun around the end of the dynasty (TT281: Arnold 1991), the type did not continue into subsequent periods.

The Twelfth Dynasty returned the royal cemeteries to the north, kings' tombs initially reverting to Old Kingdom-style pyramid complexes, accompanied by mastabas. The complex of Senwosret I at Lisht borrows many features from the late Old Kingdom, although with an enhanced use of statuary and a multiplication of the number of pyramids provided for members of the royal family (Arnold 1988; 1992). However, the succeeding pyramid of Amenemhet II at Dahshur brings in many changes, and, as the dynasty progresses, more innovative architectural approaches began to appear, both above and below ground. Most notably, the traditional relationships between the super- and sub-structures were abandoned at Lahun, where the entrance to the pyramid of Senwosret II was placed not on the time-hallowed north side, but on the south. There it was accompanied by the substructures of eight mastabas of the royal family that lay to the north of the pyramid, some 150 m away. This fundamental change can only have been a response to a need to improve the security of the burial chamber, and many of the other innovations seen during the latter part of the Middle Kingdom were very clearly inspired by a desire to shield the mummy from the tomb-robber (q.v.). Another change found at Lahun is the construction of the royal pyramid from brick, rather than stone, something that then continues for the remainder of the Middle Kingdom. The pyramid complexes of the next two reigns of the dynasty show further deviations from classic Old Kingdom norms, that of Senwosret III adopting a scheme clearly based on the rectangular enclosures of the Third Dynasty. The monument of Amenemhet III at Hawara was built on a vast scale to the south of the pyramid that led to its being dubbed in Classical times "The Labyrinth" (Arnold 1979). Some members of the royal family continued to be buried in pyramids (or even under part of the king's pyramid), but others found rest in other kinds of tombs (Arnold 1987; 2002).

Private mastabas initially reflected Old Kingdom practice, but, as the Middle Kingdom progressed, more innovative designs appeared. On the one hand, some

moved further away from the prototype, becoming, in essence, free-standing chapels with only a marginal resemblance to the original bench-shaped monument (Arnold 2007). On the other hand, we also find in the reign of Senwosret III monuments with elaborate paneled exteriors, recalling early practice, albeit differing greatly in detail. Tombs' substructures (almost always undecorated) show an increasing concern for security, with various protective arrangements introduced into both private and royal practice, including the aforementioned change in the location of entrances *vis-à-vis* the superstructure. In the case of royal tombs, elaborate systems of concealed trap-doors, false passageways, and large hardstone portcullises were developed. These reached their peak with an unfinished pyramid of the Thirteenth Dynasty at Saqqara-South, which also had a burial chamber of solid quartzite, with the sarcophagus and canopic chest as integral elements, and which was entered via a movable roof-slab that was to be lowered by the power of sand (Dodson 1987).

Outside the cemeteries of the royal court, many of the First Intermediate Period provincial necropoleis continued to flourish. Most of these were occupied by fairly simple rock-cut tomb-chapels with vertical shaft-approaches to their substructures (e.g. those at Beni Hasan: Newberry and Griffith 1893–4). There are, however, significant exceptions to this. Decoratively, the motifs found in the Old Kingdom continue, although there is often more effort to fit them into the architecture of the tomb itself. Major provincial private tombs greatly reduce in number during the reign of Senwosret III, apparently as a result of centralizing reforms during his reign with a corresponding growth in the size of the cemeteries adjacent to the king's pyramid at Dahshur. However, some exceptionally elaborate examples continued to be built into the next reign at Qau el-Kebir, with their rock-cut cores supplemented by built elements, including pylons and walled causeways (Steckeweh 1936). At the other end of the spectrum, middle-class tombs, which throughout Egyptian history were normally simple rock-cut shafts, might have a small offering place created by carving a false-door in the rock close to the mouth of the shaft, examples existing at Beni Hasan (Garstang 1907).

5   Second Intermediate Period and Early New Kingdom

Few tombs datable to the latter part of the Thirteenth Dynasty have been identified. From the latter part of the Second Intermediate Period, we have a number of sepulchres influenced by Canaanite practice at the Fifteenth Dynasty Hyksos capital, Tell ed-Daba (Avaris: Bietak 1996). At Thebes a number of discoveries indicate that some of even the highest status individuals were buried in simple open cuttings in the bedrock, for example, the now anonymous queen whose burial assemblage is in the National Museum of Scotland (Dodson and Manley forthcoming). However, small pyramids were provided for many of the kings on the slopes of Dra Abu'l-Naga, the offering place equipped in at least one case with a pair of small obelisks. The one excavated example does not have its substructure in the immediate vicinity,

and the relationship between the two elements of these sepulchres remains unclear (Winlock 1924; Polz and Seiler 2003).

The reunification of the country saw a revival in the construction of major funerary monuments. At Abydos, the last royal pyramid to be erected in Egypt was built by Ahmose I as part of an elaborate complex. This included a mortuary temple on the edge of the desert, abutting pyramid, and a terraced temple built against the cliffs a kilometre behind them; a large subterranean tomb lay in the desert between these elements (Harvey 1994).

However, although cemeteries, of course, existed throughout the country, the principal high-status necropolis of the first part of the Eighteenth Dynasty was Western Thebes (Dziobek 1987; Kampp 1996). The senior officials constructed rock-cut tomb-chapels in the low hills at the front of the necropolis. These adopted a "T"-shaped plan, with a shallow, but wide, chamber or cross-hall directly behind the façade, and a long, narrow, room leading back to the offering place. This layout remained at the core of chapel design for much of the New Kingdom, although often expanded by the addition of pillars to the cross-hall, and further rooms to the axial passage (figure 36.3). Decoratively, these tombs broadly followed Middle Kingdom precedents, although the dominance of certain motifs varied with time (Muhammed 1966). Fresh details were added to such vignettes as those of work in the fields, while new tableaux also appeared, for example, showing the deceased before the king. Most were decorated in paint on plaster, as the rock quality at the preferred elevations was too poor for carving. However, some sepulchres sacrificed being a "tomb with a view" for decoration in relief by being built much lower down the slope, where the quality of the native limestone was better. This was particularly the case during the reign of Amenhotep III, which also saw some particularly large tomb-chapels constructed, in one case (TT48, of Surero) with no fewer than seventy columns supporting the ceilings of various parts of the structure. A somewhat obscure element of New Kingdom (and some later) Theban tomb-chapels are the "funerary cones" that are common around the Theban necropolis (Davies and Macadam 1957). Conical items with the flat end embossed with the name and titles of the deceased, their function is unclear, although in one case examples have been found forming a frieze above a tomb doorway.

The substructures of these tombs were initially simple chambers accessed via a shaft in the forecourt. However, as the Eighteenth Dynasty progressed, they became more elaborate, with pillared halls and subsidiary chambers; these were generally undecorated, but a few examples display elements of the *Book of the Dead* on their walls – and one (TT61, of the Vizier User) the normally-royal *Amduat*. Later on, the entrance to the substructure became a stairway or sloping passage, and moved inside the tomb-chapel by the reign of Amenhotep III. In a few cases, the substructure was separated from superstructure, examples including the Steward Senenmut and the Vizier Amenemopet whose chapels (TT29 and TT71) were on Sheikh Abd el-Qurna, but their burial chambers were respectively at Deir el-Bahri (TT352: Dorman 1991) and in the Valley of the Kings (KV48).

The Valley of the Kings had come into being in the reign of Thutmose I, when the old pattern of a closely-linked set of offering place, substructure, and monumental superstructure was finally brought to an end. Instead, the superstructure was
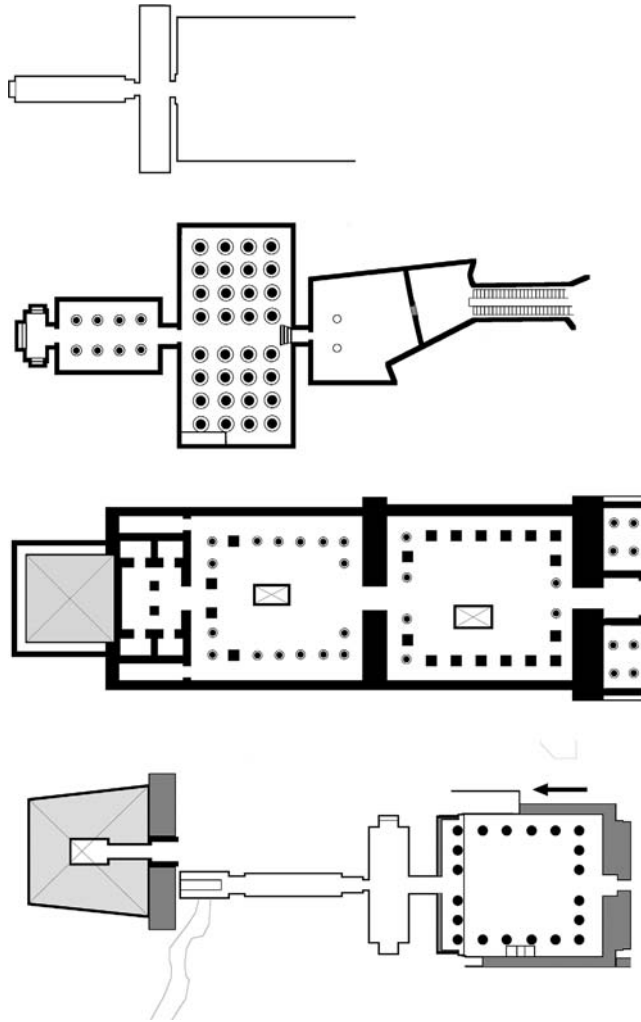
Figure 36.3 Private tombs of the New Kingdom: (a) Typical Eighteenth Dynasty Theban; (b) Ramose (Western Thebes TT55: Eighteenth Dynasty, reign of Amenhotep III); (c) Neferrenpet (Saqqara ST0: Nineteenth Dynasty, reign of Ramesses II); (d) Roma-Roy (Western Thebes TT283: mid/late Nineteenth Dynasty). Courtesy Aidan Dodson.

abolished altogether, while the other two were now to be separated by up to 2 km. The mortuary temple was placed on the desert edge at Western Thebes, while the burial place was cut in a desert wadi behind the curtain of cliffs beyond – now known as the Valley of the Kings (Dodson 2000a; Weeks 2000). The conception of the royal mortuary temple changed considerably. Rather than the king, the new "memorial temples" were dedicated to an incarnation of the god Amun specific to that particular temple. The cult of the king was relegated to the left-rear part of the temple, often in conjunction with the king's father. The right-rear of the temple was occupied by an open altar to the sun-god Re (figure 36.4). During the first part of the Eighteenth
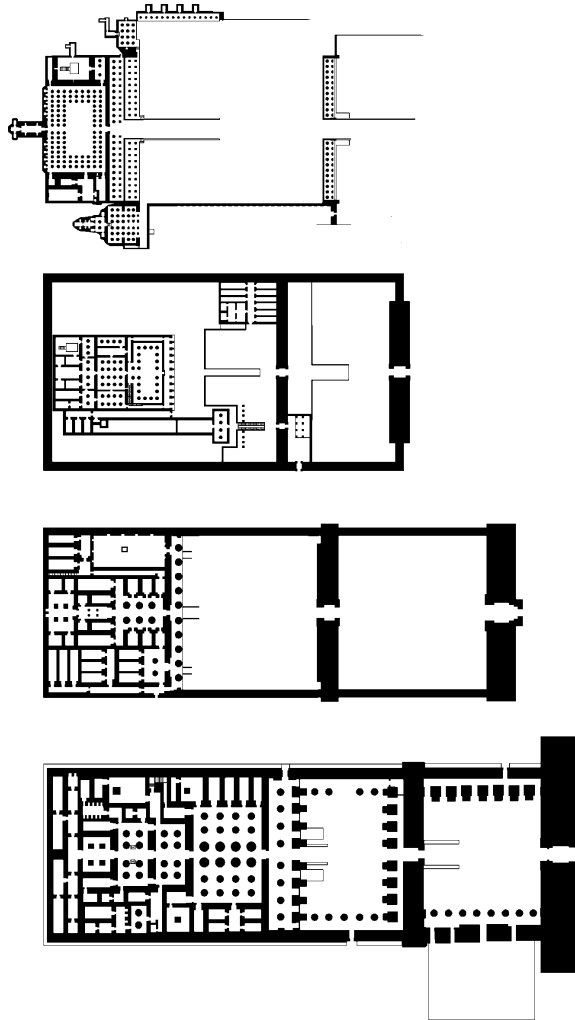
Figure 36.4 Royal mortuary temples of the New Kingdom: (a) Hatshepsut (Deir el-Bahri); (b) Thutmose III (lower Asasif); (c) Sety I (Qurna); (d) Ramesses III (Medinet Habu). Courtesy Aidan Dodson.

Dynasty the memorial temples took a distinctive terraced form, seen most dramatically with that of Hatshepsut at Deir el-Bahri, but also with those of the other Thutmosid Pharaohs. Very little survives from the decoration of most of these temples, which were largely built of mud-brick with the exception of Hatshepsut's. The latter was of limestone and still preserves much of its adornment, which included ritual scenes, historical events, hunting and fishing, and also the divine birth of the ruler. The temple also incorporated extensive statuary. All are features that recur in memorial temples of the Ramessid period (Haeny 1998).

The earliest royal tomb in the Valley of the Kings, KV20 – completed for Hatshepsut but probably originally made for Thutmose I – was a simple set of stairways and corridors leading to a burial chamber. The latter was decorated with the *Book of Amduat*

("What is in the Underworld"), the earliest of the series of "Underworld Books" that came into use during the New Kingdom and formed the main components of the decoration of royal tombs of the New Kingdom and later. The *Amduat* in KV20 was drawn in black and red ink in a very simplified style akin to that seen on papyri of the *Book of the Dead*. This approach continued down to the reign of Amenhotep III, the painting of the background giving the impression of a great roll of papyrus unfolded around the walls of the chamber. At least one early kingly tomb, that of Thutmose III (KV34), had a burial chamber in the shape of a cartouche, but from Amenhotep II (KV35) onwards the room was rectangular with a sunken crypt at the end and a six-pillared entrance area.

In overall plan, these tombs had one or more changes of axis, with one or more antechambers, together with, from Thutmose III onwards, a protective shaft, cut in the floor at the end of the initial descent into the tomb (figire 36.5). This seems to have had multiple purposes, including the protection of the tomb from flooding and hindering robbers. To the latter end the wall opposite the approach was plastered over, and in some cases decorated, to suggest that the rest of the tomb lay at the bottom of the shaft. It is possible that the shaft also had some ritual significance as a means of access to the underworld. These outer chambers were usually decorated, initially in the same style as the burial chamber, but later in full polychrome. Motifs are generally centered on the king in the presence of deities.

The tombs of the members of the royal family of the earlier New Kingdom are generally simple shaft-tombs, with most identifiable examples in the southern part of the Theban necropolis, particularly in the Valley of the Queens (Leblanc 1989). Some larger tombs are also known in the surrounding wadis, in particular that of Hatshepsut in the Wadi Siqqat Taqa el-Zeide, with a plan reminiscent of contemporary kingly tombs. On the other hand, members of the family who predeceased a king might be buried simply in a side-room of the king's tomb without any particular architectural provision (Dodson 2003b).

6   The Later New Kingdom

The reign of Akhenaten marks a fault-line in the development of funerary monuments. His new capital city at el-Amarna incorporated in its eastern hills tombs for both the nobility and the royalty of the regime. The royal tombs were built in a wadi aligned with the principal temple of the sun-god Aten and the rising sun, with those of the nobles in the cliffs and foothills flanking the entrance to that wadi. The decoration of these tombs is fundamentally different from previous practice, and dominated by the new Aten-cult.

The private tomb-chapels at Amarna generally have a slightly different architectural layout from contemporary Theban examples, but most notably eschew the time-honored decorative patterns in favor of depictions of the activities of the royal family. These, in particular, focus on their daily journey from their residence to the central city and the cult of the Aten. Depictions of the deceased are generally restricted to subsidiary roles in such tableaux, and a figure on the jambs of the main entrance doorway (Davies 1903–8). No decorated private substructures are known at Amarna. On the other hand, the royal tomb
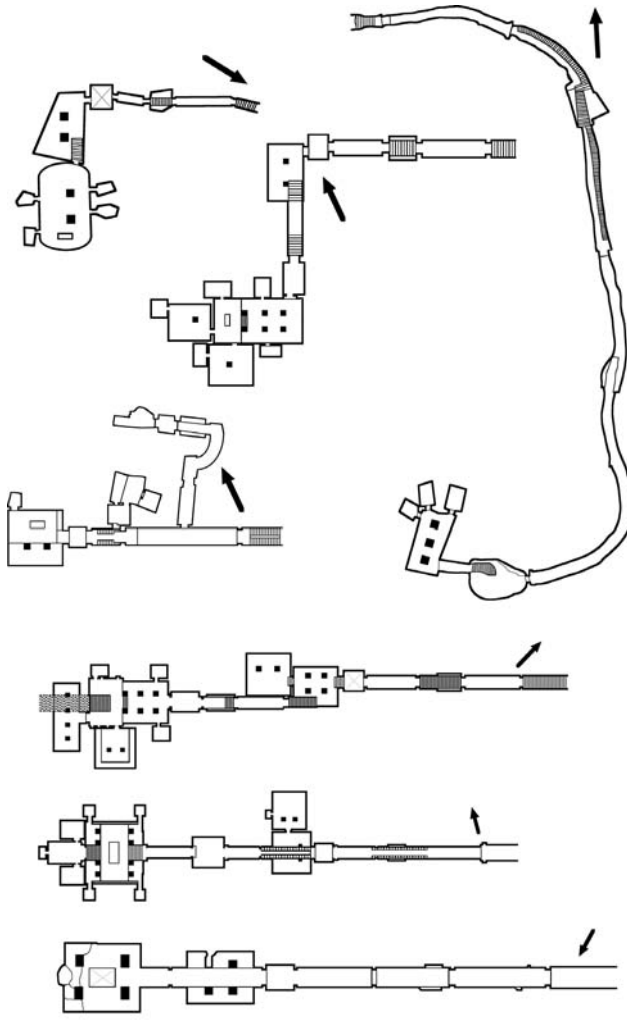
Figure 36.5 Royal tombs of the New Kingdom: (a) Thutmose I/Hatshepsut (Valley of Kings KV20); (b) Thutmose III (Valley of Kings KV34); (c) Amenhotep III ((Valley of Kings WV22); (d) Akhenaten (el-Amarna TA26); (e) Sety I (Valley of Kings KV17); (f) Merneptah (Valley of Kings KV8); (g) Ramesses XI (Valley of Kings KV4). Courtesy Aidan Dodson.

features two kinds of scene, general tableaux of the worship of the Aten, and those of the mourning of the deceased. The latter are of two types, one over the prostrate physical body, and the other in front of a standing figure of the deceased, shown as though alive. The dimensions of the corridors of this tomb are much greater than the preceding Valley of the Kings tombs, leading to a pillared burial chamber. It also has subsidiary rooms for the burial of members of the royal family – an innovation – but the tomb was never finished, so its final intended extent is uncertain (Martin 1974, 1989).

With the return to orthodoxy, a clear change is to be seen in both royal and private tombs. Already under Amenhotep III the royal memorial temple had begun to take

on a design far more akin to regular cult temples, and this continues after the Amarna period into the Nineteenth and Twentieth Dynasties, albeit with the continued tripartite division of the cult installations. In the burial places themselves, the bend in the axes of royal tombs is eliminated and the "drawn" decoration replaced in favor of a uniform polychrome scheme, which is also carved in relief. The variety of Underworld Books increases, and from early in the Nineteenth Dynasty the entire tomb begins to be decorated, with even the external doorway adorned. A fairly standard layout of compositions is established, although every tomb is unique in its exact set of works and detailed design. Most importantly, the axis of the burial chamber shifts through 90 degrees, with the crypt now sandwiched between two rows of columns. The first tomb with this layout is that of Ramesses II (KV7). The basic plan continues into the Twentieth Dynasty, although obscured by the fact that a number of sepulchres were completed to abbreviated plans.

The tombs of the royal family of the Nineteenth and Twentieth Dynasties are considerably more elaborate than had earlier been the case, with some queenly tombs (e.g. QV80 and QV60, those of Tuy and Nefertari) being essentially reduced versions of kingly examples (Leblanc 1989). Decoration generally concentrates on depictions of the deceased in the company of the gods, with the king as an intermediary in the case of the tombs of the sons of Ramesses III. The most elaborate of all was KV5, with over 130 chambers intended for at least some of the sons of Ramesses II (Weeks 2006).

Architecturally, private tomb-chapel design at Thebes saw a number of significant changes. However, far more fundamental modifications are to be seen in the tombs' decoration (Strudwick 1994; Hofmann 2004a). Although scenes relating to the career of the deceased continue, as do those of the funerary and other ritual elements, the agricultural and related vignettes that had been a staple of tomb-chapel decoration since the Old Kingdom largely vanish. Instead, the ritual palette is broadened to include elements from the *Book of the Dead* previously regarded as suitable for the burial chamber only. This continues through to the end of New Kingdom. Below ground, the pre-Amarna elaboration of substructure continues and is in some cases extended even further: early in the Nineteenth Dynasty a number of tombs have a curious arrangement whereby the descending corridor turns through 360 degrees *en route* to the burial chamber (Seyfried 1998). Most burial chambers remain undecorated, although some continued the occasional earlier practice of decoration. This is seen, in particular, at the tomb workmen's cemetery at Deir el-Medina, clearly a result of the owners' employment in the Valley of Kings, the decoration of which frequently acted as inspiration for details of the Deir el-Medina sepulchres. The tomb-chapels at Deir el-Medina were, from at least the middle of the Eighteenth Dynasty, surmounted by small, steep, pyramids. From the end of the dynasty many nobles' tombs at Thebes also incorporated such a feature, being placed on the rock slope above the entrance to the rock-cut tomb-chapel. At the same time, a number of the larger tombs began to add built courtyards in front of the rock-chapels, turning them into small-scale imitations of contemporary cult-temples. Wholly free-standing "temple-tombs" of this type are also to be found at Saqqara, normally built of mud-brick, cased in stone, and with a small pyramid on top of the chapel at the rear (Martin 1991; Tawfik 1991; Tawfik 2003; Raven 2006). Decoration generally follows post-Amarna Theban patterns, with substructures approached via shafts, sometimes taken over from older tombs demolished to make way for them.

Burial chambers were usually undecorated, the main exception being that of Maya, which showed the deceased and his wife before the gods.

Outside the Memphite and Theban necropoleis, New Kingdom tombs are found at various locations but are generally poorly recorded. In the Nile valley, they seem to conform broadly to the norms at the capitals, while in the Delta they continue the practice in the area of constructing substructures as free-standing elements in cuttings in the soil or gravel. These are generally a set of chambers opening off a common vestibule, all built of brick; good examples are known at Bubastis (Tell Basta), particularly of the Nubian Viceroys Hori II and III (Habachi 1957).

7   Third Intermediate Period

The last two tombs built in the Valley of the Kings, those of Ramesses X and XI (KV18 and KV4), were apparently not used for burials, and there is a steady decline in the number of known private tombs as the New Kingdom nears its end. With the beginning of the Twenty-first Dynasty there is a further dramatic fall in the number of known monumental sepulchres.

The royal cemetery was now at the new dynastic capital, Tanis (San el-Hagar), where the nature of the site, in the north-east Delta, meant that the usual Delta approach to tomb construction – a built structure in a shallow cutting – had to be adopted, albeit in stone rather than the usual brick (Stadelmann 1971). Some form of chapel will have been built above, almost certainly in brick, but no traces have survived (cf. Lull 2002: 51–74). The tombs lay in front of the main Amun-temple, closely adjoining one another (Montet 1947–60; Lull 2002). The earliest two tombs, NRT-I (later usurped by Osorkon II of the Twenty-second Dynasty) and NRT-III (Pasebkhanut I), have burial chambers of granite, with subsidiary rooms of limestone. NRT-III is unique in having two such chambers, one for the king, and one for his wife. The limestone part of the tomb incorporated not only an antechamber but also a pair of further chambers for the king's son and one of his army commanders. Later Tanite tombs are much simpler, featuring only one or two limestone chambers, and with a number of tombs used for the intrusive burials of succeeding kings. There is a gap in the usage of the Tanite necropolis from the end of the Twenty-first Dynasty until the reign of Osorkon II; it is unclear where burials took place during this period, although there is an indication that, wherever it was, it may have been abandoned because of flooding (Dodson 1988: 231).

In its decoration, NRT-III is mainly concerned with the king and the gods, rather than the Books of the Underworld. On the other hand, the Twenty-second Dynasty decorations of NRT-I and NRT-V (Shoshenq III) are in many ways greatly condensed versions of the compositions found in royal tombs of the Twentieth Dynasty. A number of the earlier books are omitted entirely, whether for reasons of space or ideology is unclear. Wholly new in a royal tomb is the vignette from chapter 125 of the *Book of the Dead* in which the deceased is judged before Osiris like a mere mortal. This latter inclusion may suggest a change in the posthumous conception of the king in the Third Intermediate Period, contrasting with his untrammeled divinity as displayed in royal tombs since the Fifth Dynasty.

A few fragments reused in NRT-V are the only evidence for private tombs at Tanis. Twenty-first Dynasty non-royal tombs are known at both Thebes and Abydos, but only the latter appear to have been in any way monumental, being in many ways reminiscent of the temple-tombs of the latter part of the New Kingdom, and continue throughout the Third Intermediate Period (Leahy 1990; 1994). At Thebes, only substructures survive, in some cases usurpations of earlier shafts. A particular feature is the prevalence of multiple burials, with tombs used over a number of generations (Winlock 1942: 95–7), and even repeated interments in a single hollow in the rocks, covered simply with sand and debris (Rhind 1862: 125–7; Dodson and Manley forthcoming). The most elaborate Twenty-first Dynasty tombs at Thebes are two in the area of Deir el-Bahri. One, the Bab el-Gasus, comprises a pair of joined corridors, containing numerous burials of the priesthood of Amun and their families (Niwinski 1988: 25–7). The other, a long corridor tomb (TT320), was constructed as the family sepulchre of the High Priest Pinedjem II, and later employed as a cache for displaced earlier royal mummies at the beginning of the Twenty-second Dynasty (Graefe 2003).

The pattern of known private burials continues into the Twenty-second Dynasty, although a number of offering places now survive at Thebes, in this case amongst the store-rooms of the Ramesseum, where small brick and stone chapels were built above shallow shafts (Quibell 1898: 8–13). Interment within the precincts of earlier temples is a common feature of this period, as later on vaults were opened under the floors of some of the chapels of the temple of Hatshepsut at Deir el-Bahri (Sheikhoslami, 2003). In addition, the outer court of the Medinet Habu temple complex was adopted by the royal/high priestly family of the Twenty-third Dynasty as their cemetery, identifiable burials there being of King Harsiese, in a simple corridor-tomb, and the first of a series of small temple-tombs, with a shallow substructure, built for the God's Wife of Amun, Shepenwepet I. This series continues down to the end of the Twenty-sixth Dynasty (Hölscher 1954). A similar approach is to be seen during the Twenty-second Dynasty at Memphis, with high-status tombs within the precincts of the Ptah-temple appearing there (e.g. Badawi 1957).

True monumental tomb-building is found once again at Thebes with the advent of the Twenty-fifth Dynasty. Mainly concentrated on the Asasif, a series of large tombs extends down to the end of the Twenty-sixth Dynasty (Eigner 1984), with some similar sepulchres known at Saqqara (Bresciani 1988) and Giza (Sadeek 1984). They are, in essence, an extension of the temple-tomb, usually with substantial brick pylons and enclosure walls, with both open courts and closed chambers cut into the bed-rock. The chapels usually feature at least one hypostyle hall and a range of subsidiary elements, decorated with motifs drawn from a repertoire going back to the Old Kingdom. Some of these tombs employ simple shaft-based substructures, but others have an elaborate series of corridors, stairways, and chambers, decorated in some cases with extracts from the Underworld Books of the New Kingdom, not to mention the *Book of the Dead* and the *Pyramid Texts*. The galleries incorporated in certain cases stratagems against robbers akin to those used in the Middle Kingdom; for example, the burial chamber of TT33 (Pedamenopet) was entered via a shaft leading upward from the ceiling level of the preceding room.

Ancient texts and elaborate protective systems are also a feature of a group of tombs constructed in the Memphite necropolis during the Twenty-sixth Dynasty, in particular,

within Old Kingdom pyramid-enclosures at Saqqara. They comprise a very large shaft, together with a much smaller one, linked horizontally at the bottom by a tunnel. At the bottom of the main shaft, in the center, was built the burial chamber, closely fitted to the exterior of the large rectangular stone sarcophagus within. A clear space was left between the walls of the shaft and those of the exterior of the burial chamber. The chamber's arched roof was decorated with ritual texts, including offering lists and the *Pyramid Texts*, and was fitted with one or more holes, sealed by pottery closures. A doorway sits in the narrower side of the chamber facing the tunnel opposite. It was linked to this tunnel entrance by a brick-arched passage rising from the floor of the larger shaft. This shaft was then filled with sand, and on the surface a niched enclosure built around it, with a stela apparently on each side. This seems to have acted as the primary offering place, although the tomb of Iufaa at Abusir has a further set of rock-cut, but brick(?)-roofed subsidiary rooms nearby (Bareš and Strouhal 2000). After the funeral, the pottery roof seals were broken, inundating the burial chamber with the sand housed above. As the burial party retreated along the brick tunnel, the roof was pulled down behind them, causing a further downward flood of sand. They then exited via the smaller shaft, which was then also manually filled from above. Thus, access to the burial chamber was impossible without first removing the vast majority of the sand from the main shaft, resulting in many of these tombs surviving intact until modern times. Sand was also used in certain cases to facilitate the lowering of the sarcophagus lids, after the fashion of the burial chamber roofs of the some late Middle Kingdom pyramids (see above). Certain tombs, in particular those of Udjahorresnet at Abusir (Bareš 1999), and Pakap at Giza (LG84, Vyse and Perring 1840: II, 131–44) were further protected by the cutting of a deep trench around the perimeter of the whole tomb to a depth considerably below the floor of the main shaft. This was intended to frustrate any robber who might attempt to dig a fresh shaft with the aim of breaking into the burial chamber from below. In addition to such large tombs, smaller versions of the temple-tombs were also built at Thebes, while the pattern of multiple re-use of earlier tombs was continued (Aston 2003).

The kings of the Twenty-fifth Dynasty reverted to pyramid tombs for their sepulchres at el-Kurru and Nuri in Sudan, a pattern that was to be continued by the Napatan kings and their Meroitic successors until the fourth century AD (Dunham 1950–63). The pyramids were generally small and steeply angled, with usually a fairly simple substructure, on occasion (Tanutamun's Ku17 and Aspelta's Nu8) decorated with material from the New Kingdom underworld books. A mortuary chapel was built directly above the entrance stairway on the east side.

The Twenty-sixth Dynasty royal tombs at Sais (Sa el-Hagar) were described by Herodotos in a way that suggests that they were small temple-tombs above Tanis-type substructures. However, no trace remains of them today, although scanty remains exist of the Twenty-ninth Dynasty tomb of Nefarud I at Mendes (Tell el-Ruba: Redford 2004). It comprised a large but shallow brick-lined cutting, within which a destroyed limestone structure had been built to house the sarcophagus (still *in situ*), and presumably also to support the superstructure. The fragments indicate that the tomb's decoration included elements from the *Amduat* and depictions of the king before deities.

The identification of tombs built during the Persian dominion remains problematic, and it is unclear how one should distinguish between sepulchres of the late Twenty-sixth Dynasty and Thirtieth Dynasty and those of the intervening period (Aston 1999). A stela

from Saqqara shows an interesting mixture of Egyptian motifs with the depiction of the deceased in Persian mode, but, as it was found in a reused context, nothing is known of the tomb from which it originally derived (Mathieson, Bettles, Davies, and Smith 1995).

Thirtieth Dynasty tombs are not generally of monumental size but usually follow the scheme of a temple-tomb-type chapel above a shaft-accessed substructure (Arnold 1997), frequently housing multiple interments (Quibell 1923: 13). Although one sarcophagus and fragments of another survive from royal tombs of the dynasty, they came from secondary locations, and thus nothing is known of the dynasty's royal sepulchres.

8   The Ptolemaic and Roman Periods

Distinguishing between Thirtieth Dynasty and early Ptolemaic tombs is problematic, in the absence of direct dating material, while charting developments during Ptolemaic times is difficult owing to the lack of dated data. However, it is clear that there are two basic approaches to be seen, the Egyptian and the Hellenistic, the latter particularly in evidence at Alexandria, where catacombs of an initially wholly Greek type were inaugurated (Venit 2002). However, as time progressed, Egyptian motifs began to be introduced, and by Roman times tableaux of such subjects as Anubis over the mummy could be found alongside Classical elements within the same tomb, for example, at Kom el-Shugafa in Alexandria.

In parallel, interments in the Egyptian tradition continued, although monumental structures become less common with time. However, from the time directly after Alexander the Great's conquest comes the tomb of Petosiris at Tuna el-Gebel (Lefebvre 1923–4). This is a temple-tomb following typical late Late Period form, with a screen-walled pronaos, with a substructure approached via a vertical shaft in the center of the sanctuary. The latter was decorated with an eclectic set of ritual scenes, including some derived from the Underworld Books. On the other hand, the pronaos was decorated with agricultural scenes, but in a composite Graeco-Egyptian style that is apparently unique to this tomb.

By Roman times, most surviving tombs outside Alexandria and certain other Hellenized locales such as Marina el-Alamein (Daszewski 1997Daszewski 1997) seem to be restricted to brick vaults in which multiple burials were made, although the poor recording of Graeco-Roman burial places, in general, makes assessment difficult. At Hawara, for example, mummies were piled inside brick-lined chambers, in which they seem to have been deposited after a period in the home or some other kind of above-ground display (cf. Borg 1997).

FURTHER READING

In spite of the ubiquity of Egyptian funerary monuments, publications regarding them are distinctly uneven. Grajetzki 2003 and Dodson and Ikram 2008 provide an overview covering both royal and private tombs, while the texts used in them are dealt with by Hornung 1999.

Vast numbers of books deal with the pyramids and New Kingdom royal tombs, but for technical details, Maragioglio and Rinaldi 1964–77, Labrousse 1996–2000 and Weeks 2000 are indispensable, with Dodson 2000a and 2003a providing handy digests. The designs of Early Dynastic and Old Kingdom private tombs are covered by Reisner 1936 and 1942 and Fritz 2004, with the fundamentals of their decoration dealt with by Harpur 1987 and van Walsem 2005. Middle Kingdom private tombs are less well provided for, although the decorations of many provincial private sepulchres are published in Davies' various works, and some mastabas are comprehensively dealt with by Arnold 2007. Large numbers of publications deal with individual New Kingdom private tomb-chapels, with a comprehensive catalogue of the designs of Theban tombs provided by Kampp 1996; Eighteenth Dynasty decoration is discussed in Dziobek, Schneyer and Semmelbauer 1992; and a general treatment of Ramesside examples is given in Hofmann 2004a. More general overviews are provided by Manniche 1987 and Kanawati 2001. Tombs outside Thebes are generally only covered by specific site- or tomb-publications, for example, Davies 1903–8, although a summary of one part of the New Kingdom necropolis at Saqqara is provided by Martin 1991.

Royal tombs of the Third Intermediate Period are summarized and discussed by Lull 2002, but details of private tombs of this period and the Late period are generally scattered amongst various site reports. However, those of the Twenty-fifth and Twenty-sixth Dynasties at Thebes are extensively covered by Eigner 1984, and the Abusir cemetery of the period gets an overview in Verner 2002. Ptolemaic tombs are poorly covered, even in site-reports, the same being broadly true also of the Roman period, with the exception of the tombs at Alexandria, where an excellent survey is provided by Venit 2002, with some Theban deposits covered in Riggs 2006.

Early Dynastic Art and Iconography

Stan Hendrickx and Frank Förster

1 Continuities

The Narmer palette (figure 37.1) is the ultimate icon of Early Dynastic art and was in the past often considered as a sudden breakthrough for the development of the classic Dynastic "style." This view has largely been abandoned over recent years as it became more and more obvious that the Narmer palette is an element in a very long evolution. Tracing this evolution, with its continuities and changes, is the main aim of this chapter. The basic theme of the Narmer palette, a military victory in a religious and political context, can already be found on a number of White Cross-lined jars dating to the Naqada I period (cf. Hendrickx 1998; Köhler in Dreyer et al. 1998: 111–12; Hartmann in Dreyer et al. 2003: 80–2; Midant-Reynes 2003: 326–30), at least 600 years before the palette was carved. This not only indicates continuity in artistic representations, but the White Cross-lined vessels are also very early evidence for violence and conflict, or better: the establishment of order over chaos, as being an important element of the socio-cultural development that in the end will lead to the political unification of Egypt.

Another example of thematic continuity in artistic representations is to be found in hunting scenes, both in Nilotic and desert environments, which are a dominant theme in Predynastic art. Hippopotamus hunting is represented on White Cross-lined pottery (Naqada I–IIA, c.3900–3700 BC) (figure 37.2) and occasionally also on Decorated pottery (Naqada IIB–D, c.3700–3350 BC) (figure 37.3) (Hendrickx and Depraetere 2004: 816–19). The hippopotamus as game animal was of limited economic importance in Upper Egypt because hippopotamus bones hardly ever show up in the archaeozoological record (unlike the Delta), and the animal does not seem to have been important for consumption. The hippopotamus, nevertheless, influenced the economy because the animal is very destructive of crops in the fields and dangerous to fishermen and other people working on the banks or in the marshes of the Nile. Hunting the hippopotamus is, therefore, principally related to protection, which may have been at the basis for symbolizing the hippopotamus in a hunting
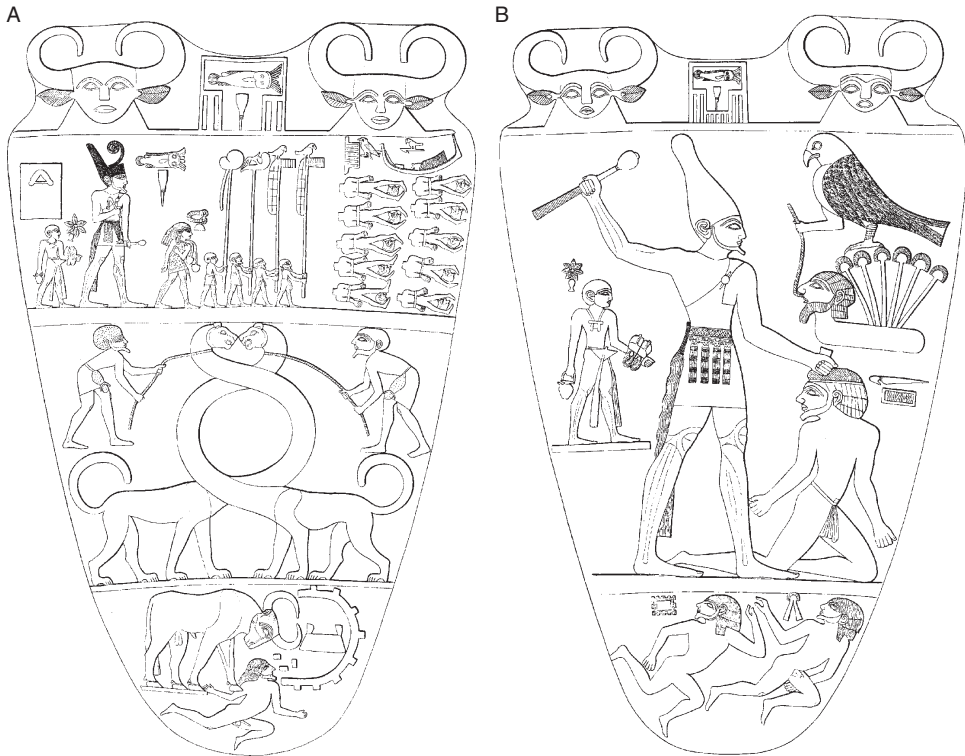
Figure 37.1a and 37.1b Hierakonpolis, Main deposit. Narmer palette: (a) Narmer in triumphal procession; (b) Narmer smiting a captive. Cairo, Egyptian Museum JE 32169 = CG 14716 (Quibell 1898: pl. 12–13).

scene as an element of chaos to be brought under control by positive forces. This concept continues into dynastic times and is by then part of royal symbolism (Säve-Söderberg 1953; Hendrickx and Depraetere 2004: 814–815; Müller 2008). The latter is, for example, shown by seal impressions from the time of Den (figure 37.4) and may even be reflected by the tradition reported by Manetho that Menes, the legendary founder of the First Dynasty, was killed by a hippopotamus after a reign of 62 years. Besides the direct royal connection, the hippopotamus hunt will also be an important part of the decorative schemes in Old Kingdom mastabas (Decker and Herb 1994: 357–70).

It is, however, to be noted that hippopotamus-hunting scenes do not occur on the Decorated vessels which constitute one of the most characteristic elements of the Naqada IIC-D period, with the exception of a few hippopotamus-shaped vessels, on which hunters and harpoons with ropes and floaters are painted (figure 37.3). These are completely different from the "regular" Decorated iconography and illustrate a fundamental problem in tracing thematic continuity from Predynastic into Early Dynastic times: Through their number, the Decorated vessels dominate our view of Predynastic representations, but it is hardly likely that this was also the case at the time when they were made. Indeed, most of the Decorated vessels seem to have a funerary meaning (Graff 2009: 122–4), and this, in combination with the fact that the
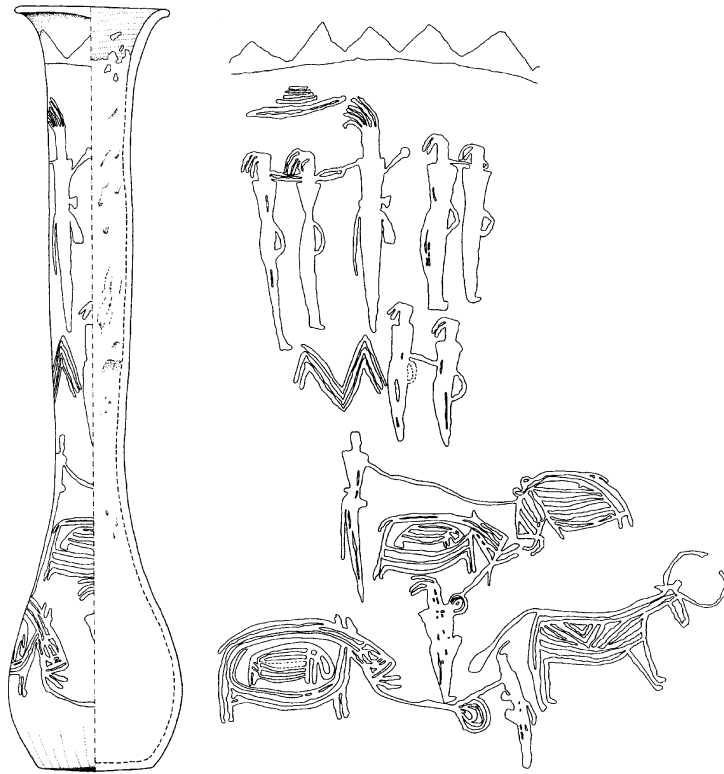
Figure 37.2 Abydos, tomb U-415. Decorated clay vessel. Naqada I (Dreyer et al. 2003: fig. 5). Courtesy DAI Cairo.

documentation at our disposal mainly comes from cemeteries, resulted in an over-representation that biased the general picture. The relatively limited number of representations that differ from the "regular" Decorated scenes are not to be considered as exceptions but rather as the rare surviving attestations of a visual world now largely lost because it mainly figured on perishable materials such as mud-plastered walls or linen. In the reality of predynastic life, these must have been prominently present, and tracing the "exceptions," therefore, allows a better idea of thematic and iconographic continuity, as exemplified by the hippopotamus-hunt motif, which can, for example, also be found in rock art.

Desert-hunting scenes also continue to be depicted throughout the Predynastic Period. They can be found on White Cross-lined and occasionally Decorated vessels (Hendrickx 2006) but occur also frequently in rock-art (cf. Decker and Herb 1994: 292–6). Often only dogs are shown, probably as a symbolic representation of the hunter. It should again be stressed that hunting desert animals such as gazelles or antelopes was only of marginal economic importance during the fourth millennium BC (Linseele and Van Neer in press). Hunting, as well as the keeping of hunting dogs, will have been the privilege of the elite, given the importance of dogs in hunting scenes and also in reality, as evidenced by dog burials (Hendrickx 2006). But, unlike the hippopotamus hunt, the desert-hunting scenes will not become a regular part of

Figure 37.3 Badari, tomb 3759. Fragmentary decorated hippopotamus vessel. Naqada IIC. Oxford, AM 1924.326. Photograph Stan Hendrickx with permission of the Ashmolean Museum, Oxford.
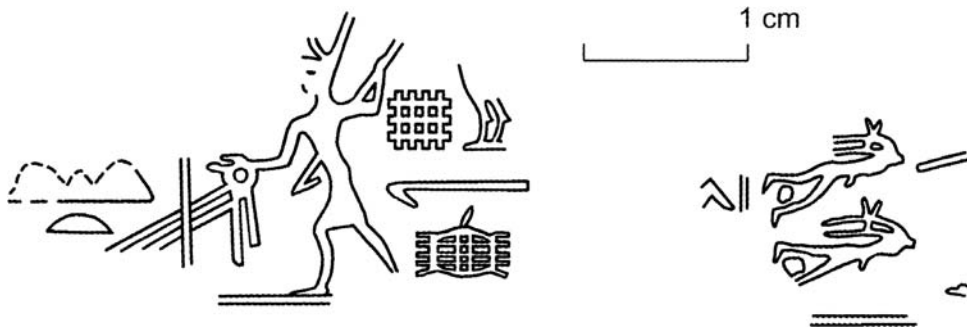
Figure 37.4 Abydos, tomb of Den. Seal impression (Müller 2008: fig. 3). Courtesy DAI Cairo, drawing Vera Müller.

the Early Dynastic royal iconography, although they continue to be represented, for example, in the decoration of the Old Kingdom mastabas (cf. Decker and Herb 1994: 297–315). For the Early Dynastic Period, a very interesting and, in artistic terms, highly developed hunting representation figures on the well-known disc from the

tomb of Hemaka (Cairo JdE 70164). The particular interest of the representation lies in the different way the two dogs are shown. One chases a gazelle the way it was normally depicted in Predynastic hunting scenes, but the other dog bites a gazelle at the neck. To emphasize the action of this dog its mouth is opened much wider than is possible while the neck of the gazelle is made far too long, attracting the full attention of the viewer to the biting dog. The anecdotic, active depiction of the dog contrasts with the early Predynastic representations and, by attracting attention to the actual event, is less suited to convey a symbolic meaning.

On White Cross-lined pottery, the military victory scenes are occasionally combined with hunting scenes (Hartmann in Dreyer et al. 2003: 80–5; Hartung 2007; Hendrickx and Eyckerman in press) (figure 37.2), confirming the symbolic meaning of the latter. This continues into Early Dynastic times, when the attitude of the king in the hippopotamus hunt appears on a seal impression next to a representation of decapitated captives (figure 37.4), the latter similar to the scene on the Narmer palette (figure 37.1). In much later Pharaonic times, royal desert-hunting scenes are sometimes combined with war scenes, for example, on the painted chest of Tutankhamun (Cairo JdE 61467). Although this may be part of a different iconographic tradition, the basic concept of the king's role in controlling various chaotic forces can be found throughout ancient Egyptian history.

The example of the two types of hunting scenes, i.e. respectively in a Nilotic and a desert environment, and their link with victory scenes, already encapsulates to a certain extent the development from Predynastic to Early Dynastic art. Both types of hunting will continue to be represented into the Old Kingdom, but their context and meaning will partially differ at that time. Only the hippopotamus hunt becomes a recurrent and important element of royal iconography. This is just one example where context and meaning of related iconographic elements change and move in different directions during the long time span between the beginning of the Predynastic Period c.3900 BC and that of the Old Kingdom c.2600 BC. The reasons for such developments are very hard to establish and may strongly differ. In the case of the hunting scenes, hunting antelopes and other, rather small, desert animals may have been judged not "spectacular" enough for royal symbolism when this was developed. But an (additional) reason might be that human representations are largely absent from Predynastic desert-hunting scenes, in which dogs apparently take over the role of the hunters, making a transfer to royal iconography less obvious. Moreover it can be supposed that dogs are not prestigious enough to become "royal animals."

Apart from a number of themes that continue throughout Predynastic times, there are also iconographic elements that have very early origins and which are already made in the dynastic style at a very early period. The most spectacular example is the falcon, of which an almost complete figurine was recently found in an early Naqada II context at the elite cemetery HK6 at Hierakonpolis (Hendrickx and Friedman 2007). The fact that the figurine is not unique, but part of a well-established tradition at that moment, at least at Hierakonpolis, is shown by the broken off wings of two other figurines. The contour of the figurine is identical to that of Naqada III falcon representations, although the detached wings of the Hierakonpolis figurine are not attested outside Hierakonpolis. The tombs from which these finds come are considered those of the earliest kings known from Egypt (Friedman 2008) and, although
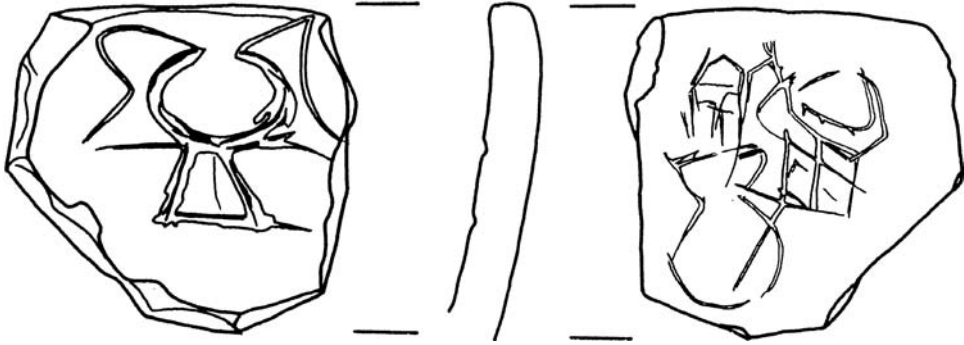
Figure 37.5 Hierakonpolis, HK29A. "Ostracon," early Naqada II (Hendrickx and Friedman 2003: 8). Courtesy the Hierakonpolis Expedition, drawing Gillian Pyke.

Figure 37.6 Gerza, tomb 59. "Gerza palette." Cairo, Egyptian Museum JE 34173, Naqada IIC. Photograph Stan Hendrickx. Courtesy the Supreme Council of Antiquities.

the extent of their kingdom cannot yet be defined, it is at least remarkable that the earliest known falcon representations come from their tombs. Another example from Hierakonpolis is the Bat emblem (Fischer 1962; Hendrickx 2002: 310) which occurs both at the elite tombs and the early temple site HK29A (Hendrickx and Friedman 2003) (figure 37.5) in an early Naqada II context and is a remarkably frequent

element during later Predynastic (figure 37.6) and Early Dynastic times, including the Narmer palette (figure 37.1). A stylistically less explicit example from the same site and period are scorpion representations (Friedman 2008: 1179–80; Hendrickx et al. 1997–8). Remarkably, all of the three iconographic elements mentioned above have been found at Hierakonpolis, while similar cases are not known for the early Naqada II elite tombs of cemetery U at Abydos.

2   Change

Despite the continuity observed in important themes and a few remarkable iconographic elements, it is nevertheless obvious that important changes also occurred during the late Naqada II–early Naqada III period. One of the most remarkable is the disappearance of the visual language of the Decorated pottery (Graff 2009), the large majority of which dates to Naqada IIC (c.3600–3450 BC). The boats which occur very frequently at that time, the so-called "Naqada plant," the addax and other elements (cf. Graff 2009) seem to have largely disappeared from the available record during Naqada IID (c.3450-3350 BC). This iconographic repertoire was not limited to decorated pottery but occurs also in rock art and the famous "Decorated Tomb" at Hierakonpolis. It is to be accepted that the meaning of it was generally known and understood, despite its highly symbolic visual language (cf. Graff 2009). The rather sudden disappearance, probably within a few generations, can hardly have happened "unnoticed" and must have changed the visual landscape thoroughly. But the reasons for this are, once again, hard to identify, among other things because the funerary customs do not seem to have changed, making a change in funerary beliefs most unlikely. Furthermore, a similar change occurs in the rock art (Huyge 2002: 199–202), where the expression of funerary beliefs cannot have been of great importance. For the rock art at el-Kab, Huyge (2002: 202) finds increasing testimony of royal ideology during the very late Predynastic and the Early Dynastic Periods through the presence of animals such as bulls, vultures, and scorpions, symbolizing royal power.

   Although the "regular" Decorated iconography disappears, pottery nevertheless continues to be painted with figurative scenes until the early Naqada III period. But the scenes are now of a different nature, mainly showing rows of animals which can be related to decorated ivories with similar representations. The latter, mainly knife handles, are generally accepted to date to the very end of the Naqada II and the beginning of the Naqada III period (cf. Dreyer 1999). The Abu Zeidan knife handle (Brooklyn 09.889.118), one of the few examples for which the provenance is known, shows animals in regularly organized horizontal rows, generally of identical animals. They are exclusively wild and among them are even hybrid creatures (Huyge 2004). The fact that a structured meaning lies behind the animal representations is shown, for example, by the combination of elephants on snakes or the insertion of a giraffe as the second animal in a row of large birds of which only the first one has a serpent under its beak, all of which can also be found on other documents. At the end of a few rows, individual animals, especially dogs, can be found. These are dominating or controlling the animals before them and by doing so represent "order over chaos,"

a fundamental ideological concept that can be found, in one way or another, throughout Egyptian history (Kemp 2006: 92–9; Darnell 2009). Exception is, however, to be made for two combinations of animals that do not represent the chaotic world. It involves respectively an elephant above one or two snakes and a vulture above a single snake. They occur repeatedly making up the uppermost row or singly at the beginning of a row. For both combinations parallels can be found outside the context of animal rows (e.g., Chicago 24119; Oxford AM E.4975), and these combinations must, therefore, be meaningful by themselves. Because the serpents are "dominated" in both and seem to be devoured by the vultures, elephants and vultures are presumably positive elements eliminating snakes as a negative symbol. The parallelism between the elephant and the vulture has, as yet, not been stressed enough and seems to leave no doubt of an interpretation in which the snake is the negative element. Furthermore, the birds with a snake at their beak, eventually in combination with the giraffe following them, may have the same or a very similar meaning (cf. Darnell 2009).

Compared to the hunting scenes, which already show no narrative, the abstraction from reality is even more obvious for the ivories with animal rows. The only detail that could be considered "anecdotic," is the raised front leg of the dogs, but this is only a standardized manner of indicating their "leaping" position, symbolizing domination and control rather than showing reality. At first view, it looks as if the manner of representing dogs has changed over time, replacing the earlier, more anecdotal and to some extent realistic hunting scenes by a highly symbolic representation. However, dogs at the end of animal rows occur already from the Naqada IC-IIA period onwards (Hendrickx 2006: tab. 1), and, although the preference for the dog in this position increases in later periods, the two modes of representation coexisted at least for some time.

Among the elements found at the end of animal rows is also a rosette which is especially interesting and can also be found in other positions on decorated ivories (cf. Hendrickx 2006: tab. 4). It occurs several times in combination with entwined snakes on two very similar knife handles (UC 16294 and Berlin 15137) and on the Gebel el-Tarif knife handle (Cairo CG 14265). Dreyer (2005: 254) considers the snakes as elements of chaos, controlled by the rosette. This is, to some extent, corroborated by the connection of the rosette with dominating animals on the "reverse" side of the Gebel el-Tarif knife handle and also accords well with the interpretation given above to the snakes under elephants or vultures. The meaning of the rosette itself can be determined by its presence as a hieroglyph on the slightly more recent Scorpion mace-head (figure 37.10), Narmer mace-head (figure 37.11), and Narmer palette (figure 37.1). Although several readings have been proposed (cf. Schneider 1997), all refer one way or another to the king, and the rosette is unanimously accepted as an emblem or sign denoting kingship. The identification of the actual object is less obvious. Although occasionally also called a "star," the slightly oval shape of the "leaves" and especially the small circle in the middle show that we are not dealing with stars. Although not generally accepted, it was proposed some time ago that the rosette represents a palm tree seen from above (e.g., Saad 1951: 34; Williams 1988: 34–5), which, in our opinion, must be accepted as correct because of the detailed representation of

the rosette on an amulet from Helwan (Saad 1951: fig. 13), where the lower leaf is replaced by the trunk of a tree, the internal linear details of which leave little doubt that the representation of a palm tree is intended.

The rosette no longer occurs as royal symbol after the time of Narmer but the closely similar lower part of the attribute of Seshat, goddess of writing, was convincingly related to it by Schneider (1997: 264), although he does not accept its identification as a palm tree. The Seshat attribute is known at least from the time of Den, and the change from the rosette, as seen on the Narmer palette, to the lower part of the bipartite Seshat emblem, the latter consisting of the rosette and a second, unidentified object above (cf. Budde 2000: 37–49), must have taken place early in the First Dynasty. The reason for this shift is, however, far from obvious and only partially explains the fact that the rosette is no longer used as a royal symbol. Because Seshat is already attested as goddess during the Early Dynastic Period, not long after the reigns of Scorpion and Narmer, it seems likely that during their time the rosette referred to a particular aspect of kingship. This may have been writing, which is, of course, essential for the administration that developed as part of state formation.

The palm tree, shown in "normal" lateral view, is well known from the decorated palettes, another rich source of iconographic information for the transition from Predynastic to Early Dynastic times. It occurs on four palettes (Ciałowicz 1992: fig. 1–4), always flanked by two giraffes. The same motif occurs also on a painted bowl from Qustul (Chicago 24153), a cylinder seal from Helwan (Cairo JdE 87518), and several rock-art drawings in the Theban Western Desert (Darnell 2009). In the immediate vicinity of the palm tree – giraffes combination, crocodiles, ostriches, storks and guinea fowl can also occur, though they are less regular and structured as the central motif. The meaning of the combination giraffes – palm tree is far from obvious and has been interpreted in different ways, which are best exemplified by the theories of Westendorf and Ciałowicz. Westendorf (1978: 207) considers the palm tree as a heavenly tree and seat of the sun, with the giraffes acting as sun-bearers, whereas Ciałowicz (1992) favors a purely political meaning, promoting the idea that the unification of Egypt is expressed in this way. The meaning of the symbolism is searched for in an Upper Egyptian – Nubian context and, for Ciałowicz, specific historical events are at the origin, although these are not specified. Both interpretations have their weak and strong points. Westendorf heavily relies on (far) more recent Egyptian religious beliefs and symbolism, while the historical events supposed by Ciałowicz are largely hypothetical and the proposed distinction between political and religious symbolism is too rigorous. As already argued, the palm tree should be regarded as a royal symbol, but kingship is embedded in Egyptian religion. Religious and socio-political interpretations should not be seen as mutually exclusive but can very well be combined. As already stated by Westendorf (1978), it is indeed remarkable that for the Dynastic Period the giraffe and the "additional" animals mentioned above are related to the sun. This has meanwhile been confirmed for the giraffe during the Predynastic (Huyge 2002: 199–201) and for the guinea fowl during Dynastic times (Beaux 2004). However, the question remains if the eventual sun
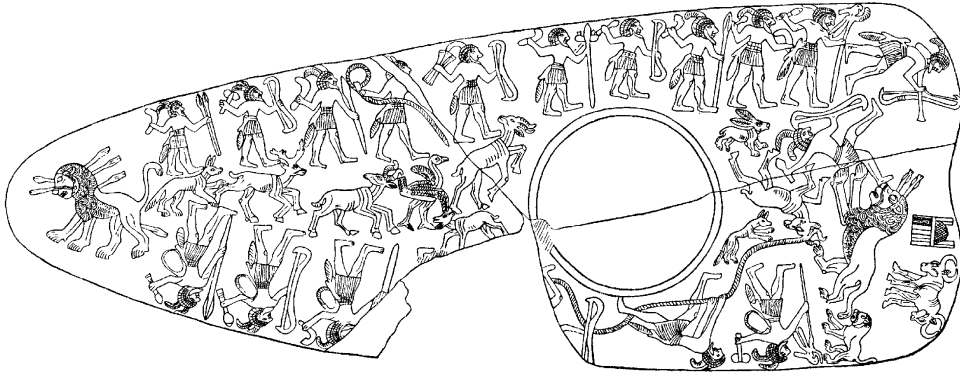
Figure 37.7 "Hunters palette," provenance unknown. London, BM 20790, 20792/Paris Louvre E.11254. Fig. 25 p. 111 from *A History of Egyptian Sculpture and Painting in the Old Kingdom* by Smith, SW (1946). By Permission of Oxford University Press.

symbolism and the royal iconography developed jointly or if the former was only later derived from the latter (or vice versa).

Continuing with the decorated palettes, we find that several whole and fragmentary examples have large scale *Lycaon pictus* (African hunting dog) figures along the edges (cf. Asselberghs 1961: pl. 70–96; Hendrickx 2006: tab. 5) (figure 37.8). The "heraldic" position of the animals is paralleled in the position of the hunters on the so-called "Hunters palette" (figure 37.7), on which a chaotic group of various desert animals is surrounded by humans. The way the *Lycaon pictus* representations frame the palettes is probably inspired by the cooperative way in which these animals hunt by surrounding their prey. The group spirit of these predators and their social behavior probably impressed the ancient Egyptians, which may well have led to their symbolic use on the palettes. The hunters on the "Hunters palette" wear the animals' tail at the back of their belts and, therefore, seem to have identified themselves, at least to some extent, with the *Lycaon pictus*. A similar group of hunters occurs on a rock- art tableau at Was-ha-Waset in the Theban Desert (Darnell 2009: fig. 7). It is also to be noted that some of the dominating males on the White Cross-lined vessels with victory scenes wear tails, although they are not depicted in enough detail to ascertain whether the tails are those of *Lycaon pictus*. This practice, perhaps intended to take over magically the strength of a powerful animal, recalls the use of a bull's tail as part of the royal regalia in later times, which is first attested on the Scorpion mace head (Figure 37.10). Similar to the representations of dogs, the *Lycaon pictus* is not shown as actively being engaged in hunting activities but is rather a "controlling" element, especially when compared to the chaotic animal world encircled. The most obvious example is the "Hierakonpolis palette" (figure 37.8) which has already been considered by Kemp (2006: 92–99) and Baines (1993) as referring to the "containment
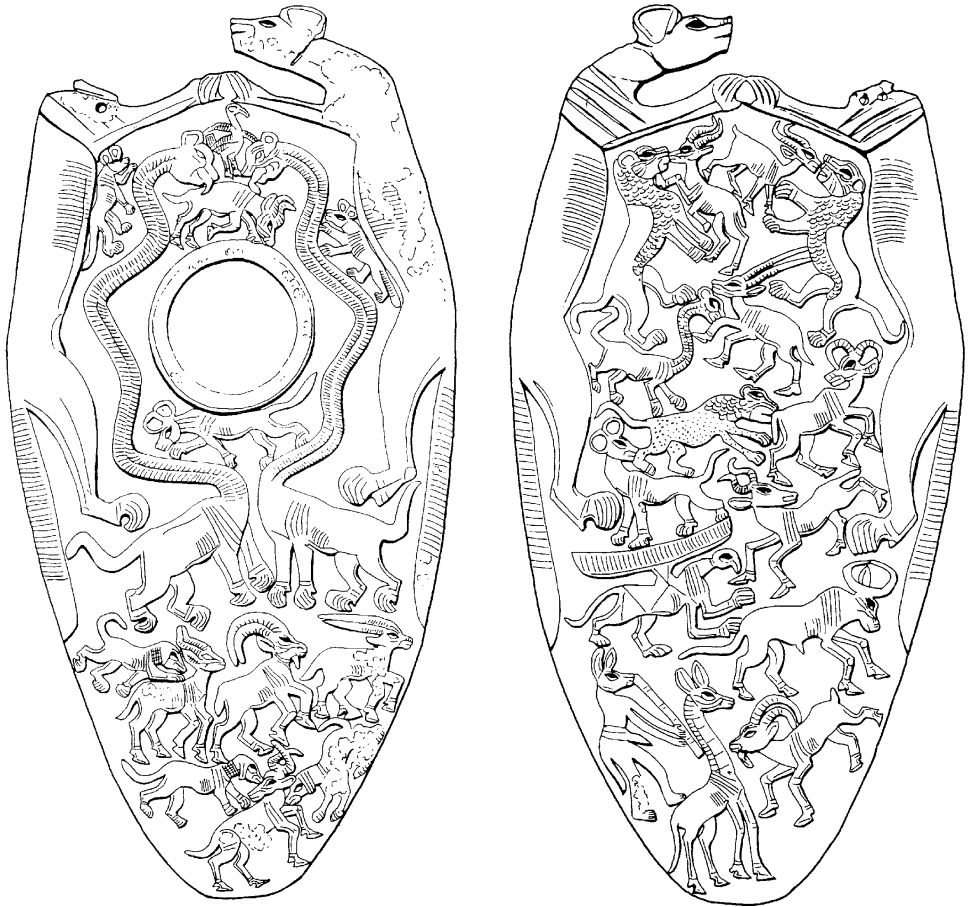
Figure 37.8 Hierakonpolis, Main Deposit. "Hierakonpolis palette". Oxford, AM E.3924 (Baines 1993: figs. 1–2). Copyright the Ashmolean Museum, Oxford.

of unrule in the universe." The "heraldic" position already occurs on a rhomboid palette, now in Brussels, where two dogs can be seen chasing three gazelles, represented in a very lively manner (figure 37.9). The object is unfortunately of unknown provenance but should date to Naqada I–early Naqada II because of its rhomboid shape. As far as the chronological position of the Brussels palette can be ascertained, it seems to be the earliest example of the heraldic opposition of two animals, and yet another attestation of a continuous tradition from Predynastic into Early Dynastic times.

It can hardly be doubted that *Lycaon pictus* symbolizes order and control over chaotic forces represented by desert animals. In this respect a parallelism with the orderly organized animal rows mentioned above is certainly to be accepted. The two types of representation can be considered as consecutive stages, the first one being the active domination through hunting and the second one the submissive animals as
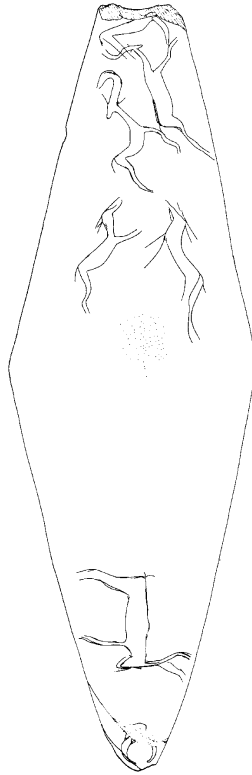
Figure 37.9 Provenance unknown. Rhomboid palette. Brussels, RMAH E.6834 (Hendrickx and Eyckerman in press b). Courtesy Royal Museums for Art and History, Brussels, drawing Merel Eyckerman.

orderly rows. Both of them are to be considered in the context of control over chaos and the resulting orderly presentation. The latter may have found its actual implementation in the offering and slaughtering of (wild) animals at temples (cf. Linseele and Van Neer in press). Although the *Lycaon pictus* is a very important iconographic element just before the onset of the Early Dynastic Period, its representation will have disappeared from the record by the start of it. This is also the case for a number of other elements, and despite its developed symbolism and iconographic structure, the visual language of the Decorated jars had already earlier disappeared.

3   The Early Dynastic

Strongly related to the more recent decorated palettes are the scenic decorated mace heads, all found at Hierakonpolis. Only one of them, the Narmer mace head (figure 37.11) is completely preserved; of the three other examples, two are reduced to rather small fragments (UC.14859, 14898), while a larger part is preserved of the third one, the Scorpion mace head (figure 37.10). Although the historical position of Scorpion

is difficult to determine, and his mere existence can even be doubted (Midant-Reynes 2000: 249; Menu 2003: 324), among others because there is no tomb for this king among the continuous line of royal tombs at Umm el-Qaab, the Scorpion mace head predates the Narmer mace head and palette for stylistic reasons. The formal style of the Scorpion mace-head is nevertheless obvious, and the figure of the king as the most important element of the decoration is here for the first time shown on a larger scale compared to the rest of the representation, a feature which will become a basic principle of dynastic art that equates relative size with relative importance. However, the decoration of the Scorpion mace head is less clearly structured than that of the Narmer mace head and palette, as can be seen by the partial absence of base lines, which is especially clear in the lowermost register where some elements are orientated at different angles. The Scorpion mace head (figure 37.10) shows the king holding a hoe in a ritual scene related to water, which has been a subject of discussion. For a long time it was considered clear evidence for the ruler as organizer of artificial irrigation, but it is now well known that artificial irrigation on a large scale hardly occurred before the end of the Old Kingdom. Gautier and Midant-Reynes (1995) convincingly showed that the Scorpion mace head was decorated with two independent but related scenes, presumably representing the king respectively in the context of Upper and Lower Egypt; the latter, however, has been largely destroyed. The possible interpretations of the preserved scene can in broad lines be seen as the choice between an agricultural ceremony and the foundation of a sacred area, or even of Memphis, the future capital of the united country (cf. Ciałowicz 1987: 32–8; Gautier and Midant-Reynes 1995). However, the first two options are not necessarily mutually exclusive. It would be most remarkable if no ceremonies took place at the occasion of the beginning of the inundation or other decisive moments of the agricultural year. Evidence of such was probably found at the temple site HK29A at Hierakonpolis, dating to the early Naqada II period (Friedman 1996). The scene on the Scorpion mace head might, therefore, very well represent an agricultural ceremony in a sacred environment. Most researchers based the idea for the latter on the presence of two partially preserved dome-covered buildings, generally accepted as religious buildings and often considered as the *pr nw* of Lower Egypt as known from later sources. This specific identification is, however, highly questionable for this early period and illogical if the preserved scene refers to Upper Egypt. A similar building occurs on the "Hunter's palette" (figure 37.7) and is usually identified as religious because of the presence of a "double bull" next to it, but there is no reason at all why the decoration of the "Hunter's palette" should be placed in a Lower Egyptian context. On the contrary, the theme of desert hunting seems rather related to Upper Egypt. If we return to the Scorpion mace head, the palm tree between the water branches has generally only been considered as testimony of agricultural productivity. However, in view of the importance of palm trees on the decorated palettes mentioned above, this is not very likely. The palm tree is apparently shown behind a reed (?) fence and is to be regarded as indicating a sacred precinct, probably being even more important than the two buildings, given its position in the composition.

The Narmer mace-head (figure 37.11) also shows the king in a religious context, but this time the interpretation is less problematic as compared to the Scorpion mace-head, although not entirely trouble-free. The decoration can be regarded as an entity,
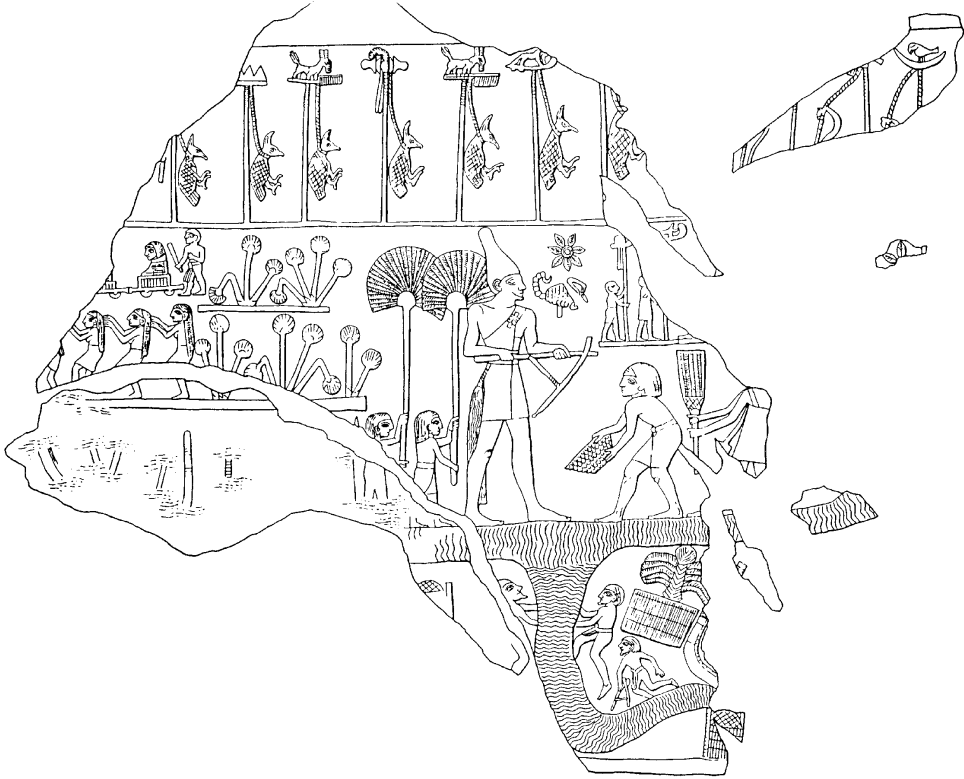
Figure 37.10 Hierakonpolis, Main Deposit. Scorpion mace-head. Oxford, AM E.3632 (Gautier and Midant-Reynes 1995: fig. 1). Copyright the Ashmolean Museum, Oxford.
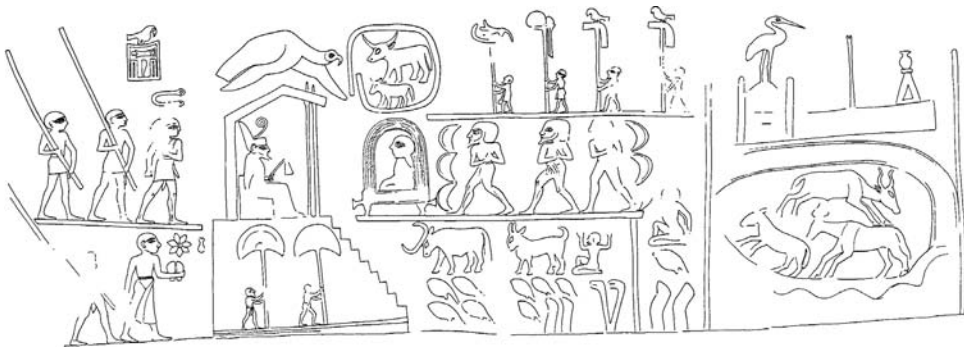
Figure 37.11 Hierakonpolis, Main Deposit. Narmer mace-head. Oxford, AM E.3631 (Friedman 1996: fig. 12). Copyright the Ashmolean Museum, Oxford.

although it consists of different parts. The only part of the decoration occupying the entire height of the decorated surface is the enthroned king, which is, therefore, the central element of the scene. There can be no doubt of the identification of the king as Narmer because his name is mentioned above his retinue. The throne of Narmer stands below a canopy on a high dais with a flight of stairs. Right in front of the king is

a palanquin, most likely carrying the queen, followed by three prisoners between two sets of three territorial marker cairns. The whole setting is that of the *Sed*-festival (cf. Wilkinson 1999: 212–15; Kemp 2006: 103–7), but the main topic is the presentation of prisoners and captured livestock, the numbers of which are very high, mentioning 120,000 prisoners and 1,822,000 bulls and goats. Narmer wears the red crown of Lower Egypt but above his canopy flies the vulture Nekhbet, tutelary goddess of Upper Egypt. This duality, essential for the *Sed*-festival, might well be confirmed by the two buildings which are depicted in a separated part of the scene. The upper one is beyond doubt a temple, the round-topped sanctuary of which is surmounted by a long-beaked bird, probably a heron. This has convincingly been identified as a sacred area at Buto in the western Delta (cf. Wilkinson 1999: 317–20). Below the temple representation, an oval enclosure with three desert animals, apparently hartebeests, is depicted. Such a construction is only known from the early temple site HK29A at Hierakonpolis, where furthermore the remains of wild animals were identified that must have been part of the meals served during religious festivals (Linseele and Van Neer in press). The two buildings might, therefore, represent most important and characteristic religious settings for Lower and Upper Egypt respectively. This inter-pretation is, of course, highly tentative but might to some extend be corroborated by the opposition of the Nekhbet vulture and two bovids in an enclosure directly in front of her. The bovids have been considered as (predecessors of) Hathor or the Apis bull (cf. Ciałowicz 1987: 39–40), but Hathor especially is unlikely because this goddess is not attested for the Early Dynastic Period. A bull cult is, however, known at Buto (Wilkinson 1999: 317–18), and the combination vulture – bovids might, therefore, express the same idea as the two buildings. The geographic duality would, in any case, make sense in the context of the *Sed* festival. Whatever the location of the scene on the Narmer mace head may be, the religious setting is beyond doubt and presents another example of the entanglement of religion and (military) politics expressed in Pre- and Early Dynastic representations.

The Narmer palette itself is, of course, to be placed in the tradition of the decorated palettes as is already shown by its primary theme, military victory, a theme that, for example, also occurs on the earlier Battlefield palette (London BM EA.20791). This connection is also visible in several aspects of its decoration such as the Bat heads, depicted twice at the top of each side of the palette as well as four times *en miniature* on the king's belt, and the control-over-chaotic forces motif symbolized by two "hunters" lassoing long-necked mythological creatures known as serpopards. On the other hand, however, the Narmer palette is decorated in a style that differs considerably from the earlier palettes and other relief decoration. This is especially obvious from the use of baselines and the fact that the shape of the palette hardly influences the organization of its decoration, unlike the manner in which, for ex-ample, the *Lycaon pictus* "framed" several palettes, paralleled by the hunters on the "Hunters palette" (figure 37.7). The fact that the palette as an object becomes less important is shown by its disappearance immediately after the time of Narmer, when not only the practice of making decorated palettes as votive objects and carriers of visual messages seems to have ceased, but even the actual use of cosmetic palettes, known throughout the Predynastic Period, strongly diminished. The reason for the unusual organization of the Narmer palette's decoration must have been that the

latter was not originally conceived for the particular shape of a palette, but rather for a rectangular surface, such as would be expected at a time when writing developed. Proof of this are the Early Dynastic bone and ivory labels recording, among other things, historical events (cf. Wilkinson 1999: 218–23). A label for the delivery of oil found only a few years ago at Abydos (Dreyer 2005: Abb. 2) apparently mentions the same event as the Narmer palette and, although much smaller than the Narmer palette, this type of document might well reflect the origin of the palette, as is, for example, also indicated by the fact that most of the palette's decoration is to be read from right to left, as is normally the case for writing. The labels themselves can, in turn, be supposed to have been copied from other official documents written on perishable materials such as papyrus. The earliest known example of papyrus is from the mastaba of Hemaka (S.3035) at Saqqara dating to the reign of Den. A roll of papyrus has been found preserved in a wooden box (Cairo JdE 70104) and, although not inscribed, it clearly illustrates the importance that writing on this material must have had. Although it cannot be proven for certain, one can easily imagine that writing and artistic composition developed in close association and with influences going both ways.

The meaning of the Narmer palette's decoration is certainly the most discussed topic for Early Dynastic times. The first and pre-eminent question is whether it is a largely symbolic expression of royal power (Köhler 2002) or refers to actual historic events. The recent discovery, already mentioned, of a year label apparently attesting the same victory as on palette seems to confirm a historical interpretation, although the rendering is done in a uniform, highly symbolic style. Over the years, the historic interpretation of the Narmer palette has changed considerably since its discovery in the ''Main Deposit'' at Hierakonpolis in 1898. The original interpretation that it is evidence of the unification of Egypt – based, among others things, on the representation of the king wearing the crowns of both Upper and Lower Egypt which is not attested before – has been abandoned for some time once it became clear that this was not a single military event. Several attempts have been made to link the victory mentioned on the Narmer palette with the Egyptian expansion in the southern Levant during Narmer's time, but this has never been generally accepted. The location of the enemy defeated by Narmer in the western Delta, as proposed by Dreyer (2005), is at present certainly the most compelling interpretation. He furthermore considers the roughly contemporaneous ''City palette'' (or ''Libyan palette,'' Cairo CG 14238) to supply further information on the conquest of the Delta, mentioning several places that were destroyed by the Egyptians. This would have happened under several predecessors of Narmer, over a considerable period of time (Dreyer 2005: 260). The localities are indicated by the depiction of fortifications, each of which is destroyed with a hoe hold by different animals or animal standards. However, although the interpretation of the hoe as an instrument of destruction is most convincing (Dreyer 2005: 258–60), the interpretation of the animals and animal standards as royal names is far less so. The latter has already been heavily criticized by several scholars (Kemp 2000; Kahl 2003; Breyer 2002) and indeed seems unlikely. The traditional interpretation as royal forces or symbols is much more plausible, and the picture of the historical development of the Delta conquest proposed by Dreyer has, therefore, to be questioned.

Predynastic and Early Dynastic art is, of course, not restricted to flat surfaces. Life-size sculpture was for a long time considered to have originated not long before the onset of the Early Dynastic Period, with the Koptos colossi (Kemp 2000; Baqué Manzano 2002) as the earliest known examples (although these are far over life-size, measuring originally around 4 m in height). Recently, this situation has radically changed with the remarkable discovery of a large number of fragments of a life-size statue that originally must have stood in the "chapel" of tomb 23 at Hierakonpolis' elite cemetery HK6, dating probably to Naqada IIB (Harrington 2004; Jaeschke 2004). Although the stylistic characteristics of the statue cannot be identified in detail, it seems, nevertheless, that it differed considerably from Pharaonic imagery and probably showed more resemblances with the Koptos colossi (Harrington 2004: fig. 32). These statues (figure 37.12) were found at Koptos by W.M.F. Petrie during the winter 1893–4, before the main excavation of the Predynastic and Early Dynastic sites that started only a few years later. Petrie, therefore, had great difficulty in dating the statues, and, although their stratigraphic position remained unclear, they are now generally accepted to date to the beginning of the Naqada III period (cf. Kemp 2000: 223–6). The pillar-like shape of the Koptos colossi and the long beard on the only preserved head clearly distinguish them from the dynastic style, but, on the other hand, they represent the fertility god Min and in this respect are an element of a continuous tradition from Predynastic times onwards. Through comparison with finds from Hierakonpolis, Kemp (2000: 228–30, fig. 13) reconstructed the Koptos colossi as pillar-statues delimiting a mound with a shrine, which differs strongly from more recent Egyptian shrines and even from depictions of Early Dynastic shrines. Although the reconstruction certainly uses the available information as thoroughly as possible, it nevertheless remains highly hypothetical.

The transition to the formal, dynastic style is illustrated by a torso found at Hierakonpolis (figure 37.14), presumably roughly contemporaneous with the Koptos colossi. The original statue must have been about 2 m high and shows a striding male figure, a posture that will become fundamental for Egyptian sculpture. Although the head is missing, it can, nevertheless, be ascertained that the figure had a long beard, which links it to the Koptos colossi, as does the elongated shape of the body. The right hand was pierced for holding a sceptre or the like, indicating the high status of the entity depicted, presumably a god or king. Certain royal sculpture has only been preserved in smaller dimensions, but no doubt this is a case of the accidents of discovery. Furthermore, the preserved examples of statuary date to the end of the Second Dynasty and depict Ninetjer (Michailidis collection) and Khasekhemwy (Cairo JdE 32613; Oxford AM E.517) (figure 37.15). Earlier statues must have existed, and a head of unknown provenance is tentatively attributed to Narmer (UC.15989). A copper statue of Khasekhemwy of a little over 1,50 m high (2 cubits, 6 palms and two-and-a-half fingers) is mentioned on the Palermo stone (Wilkinson 2000: 133–4), and, although it is not stated whether the king was represented standing or seated, this is not far from life-size. But even the manufacture of metal statues has recently been pushed back into Predynastic times by the discovery at Tell el-Farkha of two statuettes made of gold sheet, the larger measuring c. 60 cm (Chłodnicki and Ciałowicz 2007) (figure 37.13).
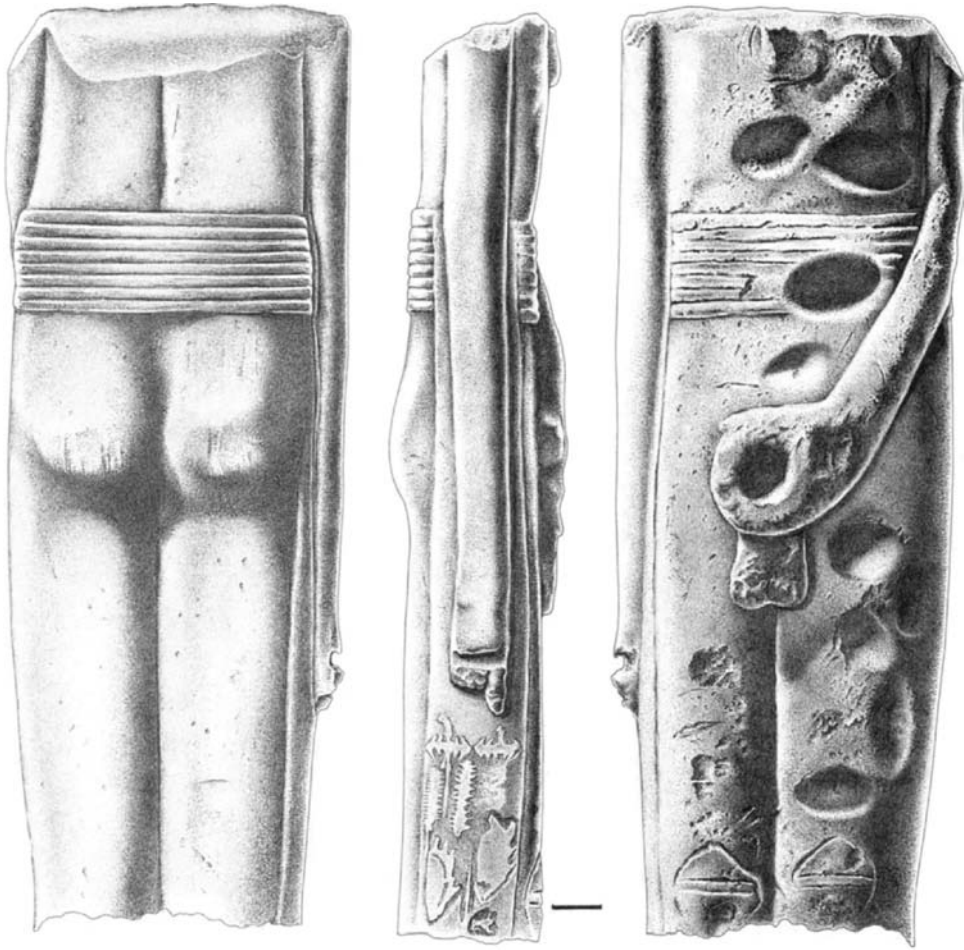
Figure 37.12 Koptos. "Koptos colossus" Oxford, AM 1894.105e (Kemp 2001: fig. 1). Courtesy the *Cambridge Archaeological Journal*.

Some of the statues of the early Naqada III period seem to have been made of composite materials. This may already have been the case for the early Naqada II statue from Hierakonpolis mentioned above (Jaeschke 2004: 57–62). Among the numerous small fragments found, none seems to come from the hair, while fingers and toes are remarkably also missing. This allows the suggestion that it was a composite statue. A wooden face, probably from Abydos and dating to the First Dynasty (Boston 60.1181), must have been part of a composite statue. The eyes were once inlaid, and the hair is rendered as a series of cylindrical curls. The part of the hair now lost may well have consisted of faience curls, which are attested as parts of wigs for statues (Lacovara in F. D. Friedman 1998: 178–9). There is also evidence for large-size wooden statues in the formal Egyptian style. The earliest examples are the scanty remains of two statues, 2/3 life size, found at Saqqara mastaba S.3505 (Emery 1958: pl. 27), dating to the time of Qaa.
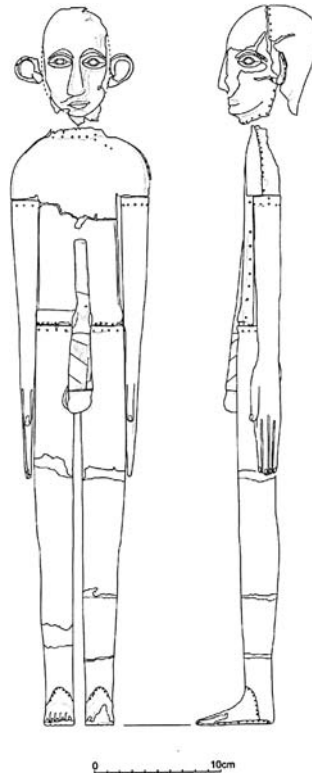
Figure 37.13 Tell el-Farkha. Gold-foil statuette. Cairo, Egyptian Museum (Chłodnicki and Ciałowicz 2007: fig. 4). Courtesy the Tell el-Farkha Expedition, drawing Anna Longa.

During the early years of the nineteenth century, Saqqara was among the most favored places for searching out objects for the antiquities market. In those days, a number of statues dating to the Second and Third Dynasties found their way into important collections in Europe. Although their exact provenance remains unknown, Saqqara is mentioned for several of them and the statues can only come from the mastabas of the Second and Third Dynasties. Several of them seem to have been easily accessible during the early nineteenth century. These statues show all the characteristics of dynastic sculpture and must have been intended as *ka*-statues. Compared to the evolution of artistic representations throughout the Predynastic Period and into the Early Dynastic Period, it is much easier to follow the transition from the Early Dynastic Period into the Old Kingdom (see Sourouzian, ch. 10). The basic stylistic characteristics are fully developed by the onset of the Old Kingdom, although some details will still be subject to change, such as the very short necks of the statues.

A particular type of statue is prisoner representations, used as door-sockets and statue bases. One of them was found at Hierakonpolis (Philadelphia E.3959) and shows a bound, prostrate captive while another one of unknown provenance is decorated with the heads of foreign enemies (Munich ÄS 6300). The importance of prisoner images is also shown by their regular occurrence as statuettes and on decorated ivories (e.g., Köhler 2002: 500–1; Droux 2005–2007). This provides

Figure 37.14 Hierakonpolis. Male torso. Oxford, AM E.3925. Courtesy the Ashmolean Museum Oxford.

another example of a theme that can already be found on the Naqada I White Cross-lined vessels with victory scenes (cf. p. 827) and which also occurs in the "Decorated Tomb" at Hierakonpolis (cf. p. 832).

An important source for Early Dynastic representations is the figurines found in votive deposits from the earliest temples at Elephantine (Dreyer 1986), Hierakon-polis (Quibell 1900; Quibell and Green 1902), Abydos (Petrie 1902; 1903; Müller 1964: 10–46), Saqqara (Yoshimura et al. 2005: 369–74), Tell el-Farkha (Ciałowicz 2007) and Tell Ibrahim Awad (Belova and Sherkova 2002). The figurines are mainly made from ivory/bone and faience, with a few stone examples. The chronological position of the deposits often lacks precision, in the case of the older excavations because of insufficient stratigraphic observations, but especially because the deposits seem to consist of objects from different periods, dating from the late Predynastic and/or Early Dynastic Period, probably up to the end of the Old Kingdom. The date of an individual object is often estimated on the basis of internal stylistic criteria, but this involves the risk of circular reasoning. The astonishing discovery made in 2006 by the Polish excavations at Tell el-Farkha of about 62 small objects, among them a large number of ivory figures, exceptionally offers possibilities for dating (Ciałowicz 2007). The find was made in an early First Dynasty context, and all of the objects were stuffed in a pottery jar with incised decoration.

Figure 37.15   Hierakonpolis, Main Deposit. Statue of Khasekhemwy. Oxford, AM E.517. Courtesy the Ashmolean Museum, Oxford.

Although, strictly speaking, not a temple deposit, the Tell el-Farkha find was made in a building the function of which is not yet established but which was certainly not a simple dwelling.

The votive figurines from the early temple sites at Elephantine, Abydos, and Tell Ibrahim Awad show a wide variety of representations, including both humans and animals. The variety itself already indicates that the different types of figurine had specific meanings. The human figurines include a large number of children, about 50% at Elephantine. These could obviously be related to the desire to have or protect children. A similar interpretation is most unlikely for representations of dwarfs, which make up the largest group of human figurines at Tell el-Farkha. Their image was essentially positive in Ancient Egypt, and they were ascribed regenerative powers, especially for women and children (cf. Dasen 1993). The figurines from the temple deposits may already have been early images of fertility and family guardians (Dasen 1993: 105). The religious context of the figurines is confirmed by a few hybrid creatures from Tell el-Farkha (Ciałowicz 2007: fig. 19–20).

The largest animal group is made up of baboon representations. These have convincingly been identified as representations of ancestors derived from the "Great White One" (*Hedj-wer*), a baboon deity apparently representing the royal ancestors (Dreyer 1986: 69; Wilkinson 1999: 285–6). Other animal representations,

such as falcons, cobra snakes, scorpions, or lions are directly linked with royal symbolism. But a site such as Tell el-Farkha, although important, was not a royal center and it, therefore, seems likely that the votive offerings were made by the local elite, confirming their own status through reference to royal iconography. It can, therefore, be suggested that the temple deposits also illustrate the popularization of the royal iconography which itself had developed during the early Naqada III period. Besides the reference to royal power and authority as such, the reason for using royal iconography outside its "proper" context must be seen in the context of its religious connotations and attendant positive powers. The iconography and symbolism of the votive offerings are, therefore, not the expression of a local "folk culture," which is confirmed, to some extent, by the fact that the deposits are rather similar all over Egypt.

The type of representations known from the temple deposits is exceptionally also attested on a much larger scale, as is shown, for example, by the calcite statue of a baboon, the base of which is inscribed with the name of Narmer (Berlin 22607), and another one with that of Meritneith on his chest (Kaplony 1966: pls 20–23). Lion sculptures exist also on a large scale, as is shown by two stone lion statues (UC.35294) found at Koptos that may even predate the time of Narmer.

The Early Dynastic Period is also a time of experiment. This can, for example, be illustrated by stone-vessel production. The diversity of stones used was never again as great as during Early Dynastic times (De Putter et al. 2000: 60), a fact indicating that the Egyptians at that time had very good knowledge of, and access to, the natural resources available. But also the quantity (as well as quality) of stone vessels and their diversity of shape increase enormously. Stone vessels become a frequently occurring type of objects in Early Dynastic tombs, where they tend to replace the pottery vessels. For the royal tombs at Abydos, and also for the tombs of the highest officials at Saqqara, huge quantities of stone vessels were produced. A great deal of them show no traces of use at all and must have been made on purpose for funerary use. The production must have taken place in specialized workshops, which most probably were under direct governmental control. Cosmetic vessels such as cylindrical jars for oil are extremely popular among the stone vessels, corroborating their luxury context. The royal tombs at Abydos must have contained tens of thousands of stone vessels (cf. De Putter et al. 2000).

A specific category of stone vessels consists of vessels imitating basketry and other perishable materials (Adams in press). They are almost exclusively known from the royal tombs at Abydos and the elite tombs at Saqqara, but the greatest diversity occurs at Abydos. Nearly all of them are only preserved in fragments, but, even so, it is easy to detect the exceptional craftsmanship, never surpassed in later Pharaonic times, of the artisans who produced them. Among the most remarkable is a dish, perhaps intended to be used for libations, in which the representation of two click beetles (*Lanelater notodonta*) appears (UC.37001–2). The occurrence of the click beetle is not limited to this dish but also appears on another stone plate from Abydos (figure 37.16) and a number of other objects (Hendrickx 1996) and represents one of the religious elements that attracted specific attention during the Early Dynastic Period. Although the insect, as a symbol of the goddess Neith, does not entirely disappear from the religious record afterwards, it does lose its earlier position in iconography (cf. Hendrickx 1996).
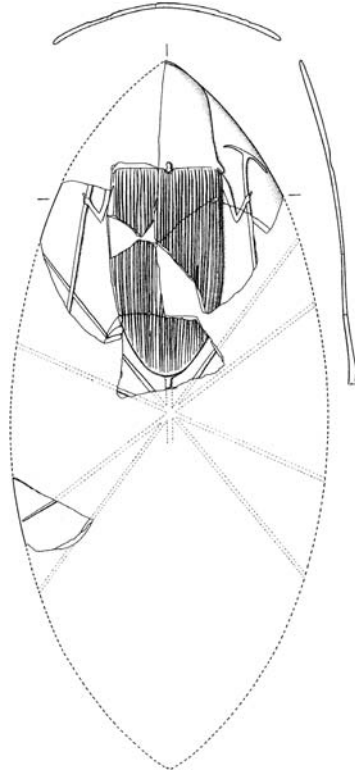
Figure 37.16 Abydos, tomb of Den. Decorated stone plate (Hendrickx 1996: fig. 1). Courtesy the Royal Museums for Art and History, Brussels, drawing Françoise Roloux.

In Early Dynastic times representational art was a central resource for the organization and display of the newly formed state and its elite, closely interlinked with administration and writing. As evidenced by inscribed tags and pottery vessels found in tomb U-j at Abydos/Umm el-Qaab, dating about 3300 BC (Naqada IIIA1), the beginnings of Hieroglyphic writing predate the earliest formally organized scenes on the Scorpion and Narmer mace-heads and the Narmer palette by 150–200 years (Dreyer 1998; cf. Kahl 2001; 2003). The importance of this observation cannot be overestimated. Writing must have developed within the context of the highest elite of late predynastic times, i.e. within the direct environment of the ruler himself. The limited number of people involved and the direct impact of their decisions explain why Hieroglyphic writing came into being – probably for economic as well as political reasons – in what looks from our perspective like a comparatively short space of time. The evolution of the Hieroglyphic writing system was, however, a process that apparently lasted up to the late Second/early Third Dynasty when continuous written language is first recorded (cf. Kahl 2001: 124–5; Baines 2007: 118–42). No doubt the stylistic characteristics of royal representation developed in the same sphere of authority, but apparently slightly later than writing. But, of course, the link between pictorial representation and Hieroglyphic writing was always very close in Ancient Egypt, as can already be seen by the early occurrence of hieroglyphs or symbols to

which arms are attached to indicate actions (cf. Baines 2007: 117–45, 281–97 [esp. 285, fig. 31]).

A clear example of standardization in both writing and artistic rendering is that of the falcon and its combination with the *serekh* (cf. Jiménez-Serrano 2003). Both elements originally occur independently. The early Naqada II falcon figurines from Hierakonpolis mentioned above (p. 830) can already be considered as royal symbols, but the first king whose name is certainly written in a *serekh* surmounted by a falcon is Ka/Sekhen, the predecessor of Narmer. At that stage the falcon is shown with a horizontal tail and pronounced chest, although this is not the case for the few examples known for the Naqada IIC period. The horizontal position of the falcon, in both two- and three-dimensional representations, is the only one occurring during the reigns of Ka/Sekhen and Narmer. Only a centralized control over the development of both writing and figurative representation can explain such full standardization. The large majority of the *serekh*s of Aha still show this "horizontal" type, but during his reign the first examples of a new type of falcon representation occur, which will become the classic shape of the Horus falcon. These are characterized by an obliquely placed body and less pronounced chest. This change of style and its chronological implications were already noted a long time ago by Müller (1938: 13–25). During the reign of Djer, only a few "old style" falcons on *serekhs* are found on seal impressions, but artists were certainly aware of the palaeographic evolution that had taken place, as can be seen from the decorative manner in which the two types of falcons are used alternating in a bracelet from the king's tomb at Abydos (Cairo CG 52008). The artistically most impressive rendering of a *serekh* occurs on the funerary stela of Djet (figure 37.17), found near that king's tomb at Abydos. In this masterpiece the shape of the falcon has been taken into consideration for the composition of the representation. If the *serekh* had been placed exactly in the middle of the space available within the borderlines of the stela, the center of gravity of the falcon would have been too much to the right because of the large tail of the bird. Instead, the artist chose to use the left leg of the falcon as center line for his composition, resulting in the *serekh* being placed somewhat to the left and a very convincing balance of the falcon itself. The artistic craftsmanship of the Djet stela, as shown also in the detailed rendering of the palace façade, is one of the best examples of the level attained by Early Dynastic artists. But this detailed rendering finds its precursors already in the later Predynastic Period, for example in a number of amazingly small but very detailed ivory carvings from Abydos (Dreyer 1999).

Near Eastern influence has often been accepted for the late Predynastic Period, especially for the origin of sealing (Boehmer 1974) and writing, a number of iconographic elements, and the palace façade. Direct Mesopotamian influence is, however, most unlikely, if only for the reason that not a single Mesopotamian sherd has ever been identified on a Predynastic or Early Dynastic site in Egypt. All of the imported pottery, which is, in any case, very limited in quantity before the Naqada III period (cf. Hartung 2001; Hendrickx and Bavay 2002), comes from the southern Levant. Therefore, direct contacts with Mesopotamia can be excluded (cf. Joffe 2000). Nevertheless, for the palace façade a Mesopotamian origin was, and still is, strongly advocated and this brings with it the claim that it was first introduced in Lower Egypt before

Figure 37.17 Abydos, tomb of Djet. Stela of Djet (Louvre E.11007). © 2002 Musée du Louvre/Christian Décamps.

reaching Upper Egypt. The palace façade is also part of the *serekh*, and the origin of the latter has, therefore, also been heavily debated. It has been sought in the Delta, with influence from the Near East, but this is highly unlikely because the earliest (empty) *serekhs* known are from tomb U-s at Abydos (Dreyer 1998: 88–89), dating to Naqada IIIA2. Certainly the waters are somewhat muddied by the frequent later occurrence of *serekhs* in the Delta and the southern Levant, but this is most probably just a consequence of the shift of the power-center of the kingdom from the south (Abydos) to the north (Memphis) at the very beginning of the First Dynasty.

A few iconographic motifs for which an (indirect) south Mesopotamian influence could have existed need to be mentioned. The "Master of the Beasts," a hero figure standing between and reconciling two opposing wild animals, usually lions, is first attested in the "Decorated Tomb" at Hierakonpolis, but the example on the Gebel el-Arak knife handle (Louvre E.11517) presents a specially strong case for arguing that it is a copy after a Mesopotamian prototype. Furthermore, the motif of entwined snakes, and representations of mythological/fabulous creatures such as the serpopard and the griffon with comb-like wings that can be found on several of the decorated palettes have parallels on Mesopotamian seals. The mode of transferring these motifs, which are notably mostly restricted to strange/dangerous animals and their containment, may have been via seals or seal impressions (Boehmer 1974) on imported

goods coming from the southern Levant, but it must be stressed that the material used for all objects with possible Mesopotamian influence shows that they were made in Egypt.

Although foreign stimuli may have played a minor role, Early Dynastic iconography is deeply rooted in indigenous Predynastic traditions. As mentioned before, themes such as violence and conflict expressed through warfare and hunting continued throughout the fourth millennium. But most of the stylistic characteristics of the Early Dynastic representations are not attested for the Predynastic Period. The classic royal iconography, for instance, is only represented on the most recent palettes and mace heads dating to the time of Narmer and possibly just before him. The earlier decorated palettes deal with the same topics, but in a visual language representing a direct continuation from Predynastic times. It shows a chaotic world of animals, both real and imagined, to be controlled by positive forces. This has often been considered an allegory for the maintenance of order and containment of disorder. Kemp (2006: 93) regards the representations as ''an ultimate, attainable harmonious framework to a turbulent world.'' Narmer has the same role on his palette and mace-head, but this is shown in a more direct manner with the (violent) role of the king as central element. The old tradition of animal symbolism survives, however, in the use of animals, such as the catfish, as royal symbols which can be represented holding, for example, a mace or a prisoner. However, the continued use of iconographic elements over a long period of time can be found both in the full meaning of certain scenes and in particular iconographic details. For example, the ''ruler'' holding a mace in the classic smiting pose of later royal iconography is first employed on White Cross-lined pottery (cf. p. 826) and approaches a formal style in the Hierakonpolis ''Decorated Tomb,'' which is fully developed on the Narmer palette (figure 37.1). This icon of royal supremacy will remain a basic standard of Pharaoh's self-portrayal throughout Ancient Egyptian history.

The origins and development of formal iconography, as defined by Kemp (2006), are intimately linked to the emergence of kingship and the elite surrounding the ruler. Although some formal elements can be traced over an extended period of time, the definitive establishment of the formal principles that are fundamental for Early Dynastic (and later) art and iconography must have happened over a relatively short period. Accepting that formal art is largely established by the time of Narmer, we can see that even a highly important royal symbol such as the *serekh* has not yet taken its classic form during the time of Irj-Hor, only two reigns before Narmer (cf. Jiménez-Serrano 2003). Although a transitional phase in the development of formal art cannot (yet) be recognized as such, this image of a rather swift process is, nevertheless, enhanced by the limited amount of documentation available. A recently rediscovered rock art tableau at Naq' el-Hamdulab, just north of Aswan, showing a royal ceremony, has characteristics of both traditional rock art and the new, formal style (Hendrickx and Gatto 2009) (plate 8). It is certainly no coincidence that the latter is especially obvious in the royal representation itself. The topic of royal ritual power, on the other hand, can already be found in, for example, the rock art of the Theban Western Desert before the formal style came into being (Darnell 2009).

The development of, and control over, a formal iconography and its syntax must have been of fundamental importance for the late Predynastic and Early Dynastic elite that had every reason to stimulate a strictly uniform iconographic language, confirming their own privileged position. Writing became an essential part of this, opening up entirely new possibilities.

FURTHER READING

A recent synthesis of Predynastic and Early Dynastic art is not available. The (very) old works by Capart (1905), Vandier (1952), Baumgartel (1955; 1960) and Asselberghs (1962) were outstanding in their time, presenting a huge documentation and are still of interest for specific topics but can no longer be considered a relevant approach. Art representations are only discussed to a certain extent in the general overview by Wilkinson on Early Dynastic Egypt (Wilkinson 1999) or Midant-Reynes' (2000) and Ciałowicz' (2001) syntheses of the whole Egyptian prehistory, including the Early Dynastic Period. Very stimulating, and to some extent provocative, for the analysis of art representations are the recent books by Midant-Reynes (2003) and Wengrow (2006) and the somewhat older study by Davis (1992).

There are several recent articles on specific aspects of Predynastic and Early Dynastic art. At first, a number of discussions on individual animal representations, such as bovines (Hendrickx 2002), dogs (Hendrickx 2006) and hippopotami (Hendrickx and Depraetere 2004) are to be mentioned. White Cross-lined and Decorated pottery was most recently discussed in an innovative manner by Graff (2009). The late Predynastic decorated palettes and especially the Narmer palette have been extensively discussed and the literature on them is huge (cf. Hendrickx 1995: 299–300). A full bibliography of Predynastic and Early Dynastic Egypt can be found in Hendrickx 1995, with yearly updates in *Archéo-Nil.*

Old Kingdom Sculpture

Hourig Sourouzian

1   Introduction

The principles of Ancient Egyptian sculpture were laid in the Early Dynastic Period, when skilled workshops produced monumental statuary in stone as well as small-sized statues and figurines in clay or in Egyptian faience, which were placed at the entrance and in the courts of the early temples of major deities. These represent anthropomorphic gods, e.g. the colossi of the god Min at Koptos, or zoomorphic divine beings, like the lions from Koptos or the great statue of a bird in Herakleopolis. Simultaneously royal effigies appear in temple precincts in Hierakonpolis and in royal funerary complexes at Abydos and Saqqara, but very few examples have survived from that period. In parallel with this, private sculpture develops gradually from archaic stelae bearing the figure of the servants of the king in Abydos and Abu Rawash to statues and stelae of distinguished members of the royal entourage in the official necropolis around the king's monument and in secondary cemeteries.

2   Categories and Location of Statues

It is with the rise of the Third Dynasty at the beginning of the Old Kingdom that Egyptian sculpture develops to the point where it achieves unprecedented quality and the production of masterpieces. The majority of the statues derive from royal funerary temples of the Memphite region and their auxiliary cemeteries containing the tombs of great officials. Royal sculpture in the round flourishes in the Old Kingdom, and, although the preserved statues of kings are not as numerous as those of some later periods, enough has survived from practically every reign to allow insights into the evolution of official sculpture.

The funerary monument of the Egyptian king was articulated around the pyramid and contained royal and divine statues, stelae, tables of offerings, stands, barques and

other temple furniture. It is a transposition of the royal residence into hard and durable materials for eternity, and it was the center and motor of a universe intended to last for ever. The preserved statues mainly represent the king in well-defined attitudes, namely seated, to receive the offerings; standing, to appear, perform ceremonies, and be accompanied by deities; or kneeling, to present the necessary offerings to the gods. Statues in the attitude of Osiris, the first of the rulers of Egypt, depict the king like his divine ancestor, holding the royal insignia against his chest. Both in the Valley Temple, where the king was venerated, and the Mortuary Temple, through which the king was introduced and admitted into the divine sphere, gradually passing into the celestial world, certain types of statue were reserved for each temple division. They were transpositions, sculpted in the round, depicting the funerary and ritual scenes that were also represented in bas-relief on the walls of the temples. Thus, statues were an integral part of the architecture. The courtiers and officials of the king's entourage, having been awarded with a tomb by their ruler, were also granted statues to preserve their likeness for the afterlife, and with stelae and false doors, later entire wall decorations, to show these high officials with their family members and their household engaged in their activities. Strict principles govern royal representation and, accordingly, standard conventions are adopted to depict the king's entourage.

3   Material

The material chosen for statues varied from reign to reign and was probably related to the quality of the quarry authorized by the ruler. The statuary used the hardest stones, the most precious metals, and the most resistant woods. It is not possible to suggest any principle in the choice of the material, nor to assert if it was by the decision of the king or if it depended on as yet unknown compulsory principles. We are also ignorant as to whether the selection of the material depended on the temple category, its place in the temple, or on the symbolism of colors and material in the surrounding architecture. On the basis of surviving examples, we may only note that the reigns of Djoser and Snefru favored limestone for statuary as well as for the architecture of their funerary complexes, and we know from the records of the Palermo Stone that Snefru, like Khasekhemwy of the Second Dynasty before him, had produced copper statues, and, in Seila, near Meidum, a step pyramid of Snefru was equipped with a chapel containing an alabaster statuette of the king. The same material was found in the Valley Temple of Khufu, who probably also used diorite, as his name has been found in quarries yielding that stone. Khafre mainly chose diorite and greywacke, as did Menkaure who also used alabaster. In the Fifth Dynasty, the royal statuary in the Mortuary Temple of Neferefre used limestone, diorite, and alabaster. In the divine temple of Hierakonpolis, Pepi I dedicated copper statues, whereas smaller figures of the Sixth Dynasty kings illustrate the use of alabaster and greywacke, but their provenance is unknown. In private statuary, the early examples of the Third Dynasty are in red or black granite and limestone, whereas later, limestone and wood will predominate.

4   Statue Types

The earliest types of statues are those of the king in striding, standing, and seated attitudes, which are later supplemented by the kneeling type and the sphinx. Group statues appear already in the reign of Djoser and are attested all through the Old Kingdom. In private statuary the earliest known type is the seated type, followed by the standing and eventually the kneeling types. The private statuary imitates the attitudes of the king, but the costume and the attributes are evidently different and established in accordance with their status, as are the accessories which they hold in their hands.

5   Royal Sculpture

The funerary complex of Djoser with the Step Pyramid covering the tomb of the king is the first monumental stone construction in the History of Egypt. It is a transposition in stone of the royal residence, destined to serve as a dwelling for the king in his afterlife. The statues found in this complex also perpetuate in stone the important episodes in the existence of the king. These statues inaugurate the great period of Old Kingdom official sculpture. The best known and the best preserved of these is the seated, almost life sized statue of Djoser, representing the king wrapped in the jubilee cloak (Cairo JE 49158; H. 142 cm; Firth, Quibell, and Lauer, 1935: I, 9, 50–51; II, pls. 29–30; PM III, 2: 414; Saleh and Sourouzian, 1987: Cat. no. 16)). It is sculpted in limestone, coated with a thin layer of plaster and painted. The statue was placed in the *serdab* of the Step Pyramid where it was found by the Antiquities Service in 1924–5. The enthroned king has his right arm bent with the fist resting on his chest, and the left hand placed flat on the knee. He wears the early form of the completely pleated *nemes* headdress over an ample and striated tripartite wig; a long ceremonial beard is attached under his chin, and a fine moustache marks his upper lip. The costume is the jubilee cloak with starched upper border around the king's shoulders. The face and the body of the king are painted ochre red, and the royal wig and beard are painted black as well as the eyebrows and the moustache. The deep-set eyes were inlaid. The face is broad, with high cheekbones and large jaws, cut at the chin by the upper edge of the beard. The mouth is full with projecting lower lip. The missing eyes and the prominent mouth confer on the face a distant look. The throne, imitating a wooden seat with its frame rendered in raised relief, is equipped with a high back rest. On the statue base, a Hieroglyphic inscription, carefully carved in relief, mentions his name Netjerykhet. Two similar fragmentary statues of Djoser seated and wrapped in a coat derive from other parts of the complex and depict him holding a flail carved in bold relief on his torso (Firth, Quibell, and Lauer 1935: I, 9, 51; II, pl. 95 nos. 1–2; Sourouzian 1995: 148, nos. 3–4, pls. 52–3). These statues are headless, but, given the absence of lappets or a wig at the break of the neck, the king must have been wearing a crown. Several over-life-sized statues show Djoser standing, feet joined and hands crossed over his chest, holding royal sceptres and staff, wearing a short jubilee
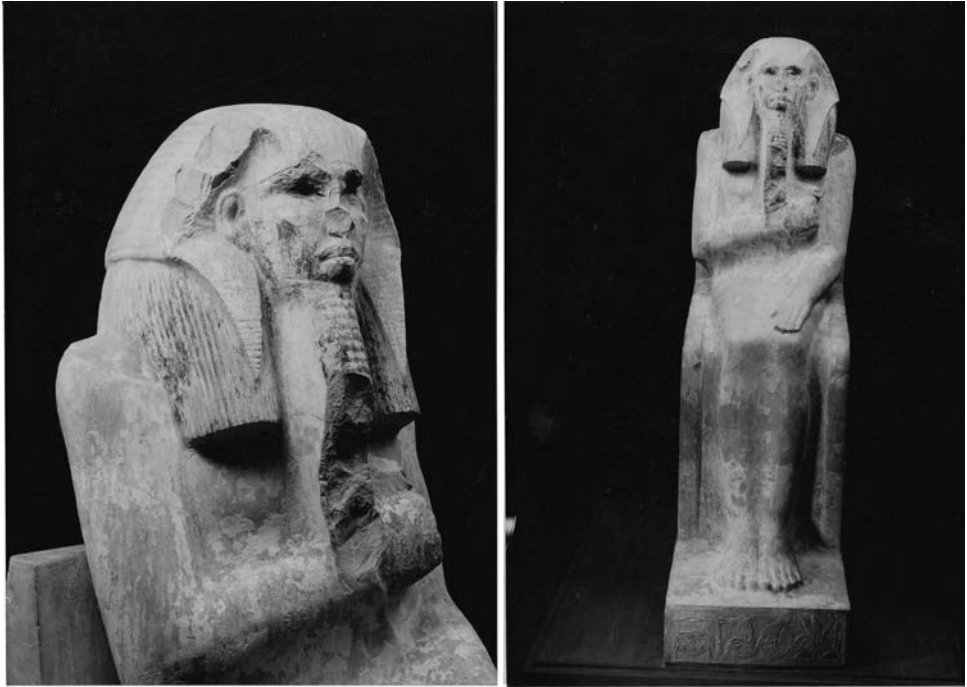
Figure 38.1   Statue of king Djoser, painted limestone, Egyptian Museum Cairo, JE 49158. Courtesy the Egyptian Museum Cairo.

cloak and a *nemes* headdress. Such statues surrounded the festival court and formed part of the architecture, acting as columns in the porticoes, and are thus often designated as "caryatides." Their unfinished state shows different stages of the sculpture in the round. When in a completed state, these statues bear traces of polychromy and eye inlays (Firth, Quibell, and Lauer 1935: I, 69; II, pl. 66; Lauer 1936: I, 143–5, 237, pl. 94; Stadelmann 1985: pl. 12b).

A standing colossal statue of Djoser in painted limestone, placed in a niche near the entrance, can be considered as one of the first colossal statues ever found in a funerary complex. The figure is standing, feet joined, and holds three sceptres; the attire comprised the red crown, a costume with one strap over the left shoulder, and a short kilt held up by an elaborate beadwork belt equipped with a bead apron. A thick animal tail with wavy strands falls behind the legs. The base is decorated with *rekhyt* birds and Nine Bows under the royal feet; the face of the base is inscribed with the name of the king, accompanied by the name and title of Imhotep, the architect of the Step Pyramid. Even though fragmentary, this unique statue produced by skilful sculptors, makes a powerful impression by its size and rich detail, and marks the beginning of a glorious period filled with masterpieces. (Firth, Quibell, and Lauer 1935: I, 14, 65–6; II, pls. 56, 59, 95; Gunn 1926: 177–96, fig. 5; Sourouzian 1995: 149–52, fig. 8b).

Group statues representing the king with deities or with members of his family are numerous in the Old kingdom and find their prototype in this reign. A group statue of which only four pairs of feet resting on a common base are preserved, was found in

the festival court of Djoser's pyramid complex (Firth, Quibell, and Lauer 1935: I, 10; II, pl. 63). Two of the feet pairs are larger in size than the others. They may belong to a family group depicting Djoser with a queen and two princesses, reproducing in three-dimensions a famous bas-relief on a limestone chapel from Heliopolis, showing Djoser with three royal women (Turin, Museo Egiziano 2761/21; Donadoni Roveri 1989: 200, fig. 301; Fay 1999: 107, fig. 29; Stadelmann 1999b: 172, fig. 3 a–b). Impressive heads of prisoners carved in basalt were also found in the funerary complex of Djoser (Cairo JE 49613, h. 25 cm; Firth, Quibell, and Lauer 1935: II, pl. 57). Their ethnic types are rendered with differentiated facial features and beards. Two dimensional representations of bound captives are known in Egypt since the Predynastic Period, and figures of bound prisoners will appear in temple statuary of the Fifth and Sixth Dynasties.

The reign of Snefru at the start of the Fourth Dynasty marks the passage from Step Pyramid to smooth faced classical type and opens a new era in royal sculpture marked by escalating monumentality. The striding statue type is now best illustrated by the formidable life sized statue of Snefru in painted limestone. It was inserted in the niche of one of the back chapels of his Valley Temple in Dahshur, where it was discovered together with the head of a similar statue (Fakhry 1961: 3–4, pl. 33–7). The fragmented statue was restored under the direction of R. Stadelmann and brought it to the Egyptian Museum Cairo where it is now on display (JE 98943, h. 200 cm; Stadelmann 1995: 164–5, pls. 60–2). The king stands against a large back slab, his left foot advanced, his arms hanging along the body, holding a container of documents. He wears the white crown of Upper Egypt and the pleated royal short kilt (*shendyt*), with pleats fashioned in fish bone pattern. The belt bears a rhomboid decoration and a buckle in the form of a cartouche containing the name of the king. A large collar and a bracelet with floral decoration rendered in shallow relief complete the attire. The face of the king is of oval shape, with a rounded chin which bears no beard. The small and elongated eyes are set horizontally. The nose is completely worn away, and the horizontal mouth damaged. The ears are large, and sculpted in detail. A stern expression emanates from this face. The statue appears outsized because of the very high crown and the elongated torso, with broad shoulders and well-modeled chest. A similar statue is also known to have existed but only the head wearing a white crown has been found. Like the relief representations on the walls and pillars of the temple, the statues were polychrome. The face and the torso are painted with red ochre; black was applied on the eyes which were not inlaid; the kilt was white; and traces of colors remain on the belt buckle and the bracelet.

From the reign of Snefru we also have a small fragmentary statue in alabaster (calcite) found in a chapel on the north face of the small pyramid of Seila. The king is enthroned, the right hand on the chest and the left resting flat on the knee, and instead of the jubilee cloak he wears the royal short kilt pleated in herring-bone pattern. The right hand is lost, but we can assume that Snefru was holding a flail in his right fist, like the better preserved famous ivory statuette of his son and successor Khufu depicted in the same attitude. Hence the statue of Snefru is the first known example of this type (see Sourouzian, in the forthcoming publication of the pyramid by N. Swelim).

Figure 38.2 Statuette of Khufu, ivory, Egyptian Museum Cairo, JE 36143. Courtesy the Egyptian Museum Cairo.

The figure of the princess Wemtetka, seated legs tucked on a base which was inserted on a larger plinth, probably accompanied a royal statue in the Valley Temple of Snefru at Dahshur (Fakhry 1961: 9, pls. 43 a–b, 44c–d; Fay 1998: 160, no. 2, figs. 3-4). This would again anticipate a statue type known from the reign of Djedefre, where the seated effigies of the enthroned king are accompanied by a queen seated near his feet on the statue base.

In the succeeding reign, the ivory statuette of Khufu, found at Abydos is only 7,5 cm high, but brings together all the characteristic features of the monarch (Cairo JE 36143; Saleh and Sourouzian 1987: Cat. No. 28). Seated in the same attitude as his predecessor in Seila, and holding in his right hand a flail against his chest, the king wears the red crown and the pleated *shendyt* kilt. The throne now has a lower back rest, the Horus name of the king is engraved on the throne jamb. On the broad face with a slightly advanced chin, the small eyes ere set like those of his father, the nose, today in a flattened state, was short, the mouth large and horizontal. In spite of the small size the torso and the legs are very well modeled. The expression is that of a ruler in advanced age, powerful indeed, but with features by no means cruel, as the later legends under the influence of the Greek travelers and the traditional fear of the Greek for *hybris*, falsely claimed.

From Giza derive pieces of a statue similar to the ivory statuette (Smith 1949: 20, fig 9), and fragments of the feet and base of two other seated statuettes

(Smith 1949: 20). Fragments of a statue head, wearing a completely pleated *nemes* protected by the falcon god were found east of the Great Pyramid and, therefore, it is more likely to belong to Khufu than to his successors (Boston 27.1466, h. 32 cm; Smith 1949: 20, pl. 5a; Simpson 1976: pl. 14d, fig. 43; Stadelmann 1998: 172, fig. 2a; Roehrig 1999: cat. No. 57, p. 254). This is the first attestation of a statue type which we shall also see in the reigns of Khafre and Neferefre (see below). A fragmented throne in alabaster, probably of a seated dyad, was likewise found near the Great Pyramid; it bears scenes of *sema-tawy* carved in deep relief and painted, with the legs of a Nile-god on the back scene. This sculpture, datable to the reign of Khufu (Seidel 1996: Dok. 3, p. 13–16, fig. 5–7, pl. 1b), would be the prototype of the dyads often represented in temples up to the Graeco-Roman Period.

Thus the hazards of conservation have left very few remains of royal statuary from the owner of the greatest pyramid. However, all these calcite fragments show that the standard types in the repertoire of temple statuary have already been invented at the latest in the reign of Khufu. Therefore, it is not surprising that the most striking feature of the Giza necropolis, the Great Sphinx of Giza, largest of all sculptures, should be in reality an *œuvre* of this great king, and not of his successor, as is generally believed. This sculpture, as extraordinary as the invention of the pyramid, stands at the southernmost limit of the vast funerary complex of Khufu, combining for the first time the royal head wearing the *nemes* with the powerful body of a lion. The Great Sphinx of Giza is a rock-cut sculpture measuring 20 m high and 73.50 m long, and hewn within the quarry of Khufu. This is a remarkable innovation in Egyptian art and may be considered as the first monumental statue in history. The Great Sphinx represents Khufu, whose facial features repeat those of his ivory statuette from Abydos. Recent research and critical analysis in art history provide archaeological, stylistic, and iconographic evidence for this dating (Stadelmann 1998: 370; 1999a: 865–9; Hawass 2003, 126–7; 2006: 37–44). The body of the Great Sphinx is today badly eroded through centuries of weathering. From the polychromy of the face we assume that the whole sculpture was painted. Like his father Snefru and like other images of Khufu (cf. the ivory statuette and two dimensional representations at Giza, Maghara, and Hatnub), the Great Sphinx was originally beardless, and the pleated divine beard was added to its chest in the New Kingdom, as well as the royal statue shown between its forepaws on New Kingdom stelae found around the monument (Hasan 1953: 71–85, figs. 62, 66–7; Zivie-Coche 2006: 58–65, figs. 1–9).

In the Old Kingdom the impact of the Great Sphinx was certainly immense and its association with the reign of Khufu well known, as confirmed by votive figures in clay deposited in a sanctuary at Saqqara, which include a royal figure striding between the paws of a lion and bearing the name of Khufu (Yoshimura, Kawai, and Hashigawi 2005: 390, no. 1, fig. 21,1, pl. 55c). This small monument gives the first known example of a statue type which, after an exceptional appearance in the Middle Kingdom (Cairo CG 391), will be frequently exemplified in the New Kingdom. It also reveals the association of a lion with Khufu (Yoshimura, Kawai, and Hashigawi 2005: 390, no. 2, fig. 21.2).

Djedefre, son and successor of Khufu, commissioned for his mortuary temple at Abu Rawash a rich repertoire of life-sized and smaller statues in red quartzite, which have survived in badly fragmented condition. Chassinat, who discovered them in
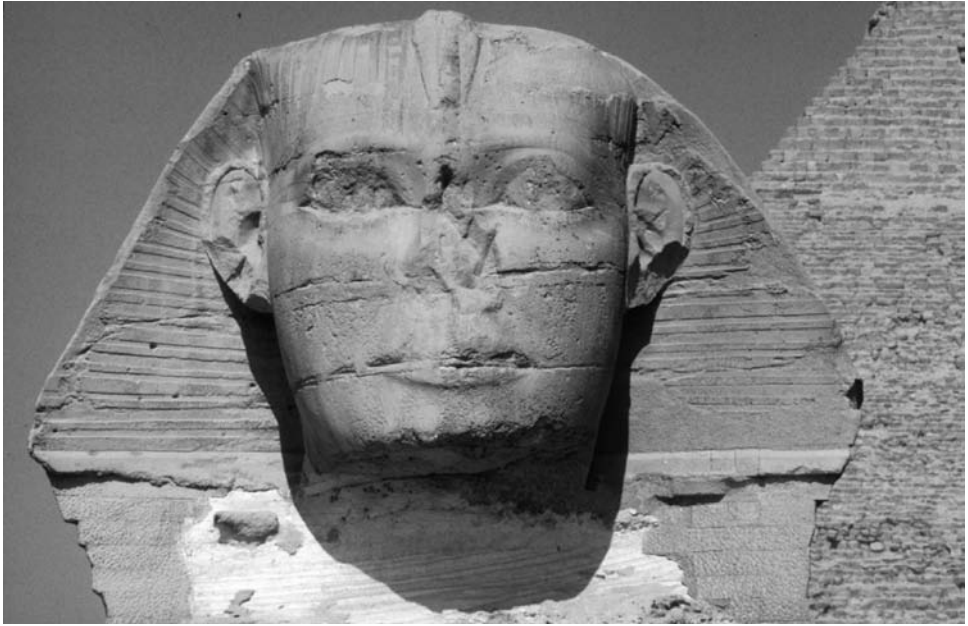
Figure 38.3   The Great Sphinx of Giza. Photograph Courtesy Rainer Stadelmann.

1900, estimated that there were more than 21 of these sculptures (Chassinat 1921: 53–75; Vandier 1958: 15–17, pl. I, 1–3, 5; Ziegler 1997a: cat. nos. 1–17, p. 42–68; Baud 1999: 35–61, figs. 1–9). About six statues represented Djedefre seated on a cubic stool, with a queen to the left or right side of his feet, and holding the corresponding leg (Louvre 11552, E 126270, Munich ÄS 5243, 5373). The king wears the *shendyt*. His left hand lies flat on the knee, and the right hand is closed vertically and holds a kerchief. Two statues represented Djedefre striding, arms along his body, and holding the short stick which reminds one a roll of a papyrus.

Four royal heads are known from this complex, two with the *nemes* headdress (Cairo JE 35138=Suez 5069, Louvre E 12626) and two others with the white crown of Upper Egypt (Cairo JE 35139, Louvre E 11167). The heads with the *nemes* are masterfully sculpted. The rectangular face with receding chin is cut by the upper border of the royal beard, today broken on both heads. The stripes holding the beard were painted black. A very fine and smooth modeling enhances the high cheeks and the thrust of the mouth. The eyebrows are naturalistic; the eyes, open and well defined, have a fine rim bordering the upper lid. The inner canthi are prolonged towards the nose by an incised line. The nose, well preserved on the Cairo head, is straight and thin, and the mouth is large and horizontal, with a very fine ridge. The ears are middle-sized, set vertically and detailed. The *nemes* is plane, held by a frontlet at the upper border of which rises the uraeus, first known in statuary on the royal headdress, with a plane hood and plane ventral column, and a tale coiled in a sinuous S-form on the top of the headdress. On the head in Louvre the *nemes* extends into a lappet falling on the back. The two other heads wearing the white crown are partly preserved and belonged probably to the striding statues.

The temple also revealed statues of two daughters of Djedefre. One of them is a limestone torso of a seated female statue, with very well-modeled breasts, found near a base inscribed for the kings daughter Neferhetepes (Louvre 12628 and E 12632; Ziegler 1997a: nos. 15, 16). These fragments and the statues of three sons of Djedefre in the attitude of a scribe (see below), attest to the presence of individual statues of royal-family members within the mortuary temple precinct. Found likewise in the temple of Djedefre is a small female sphinx in limestone, with a human face painted yellow which shows features influenced by those of a feline, like the round eyes with deep-cut inner canti. The face is beardless and was originally surrounded by a lion's mane with lion's ears. These were later plastered, as were also the forepaws. The paws have thick claws with pointed nails. The tail of the lion curved on the right side ends with a bulbous tuft, like all sphinxes of the Old Kingdom. This statue can be considered the first female sphinx in the history of sculpture. (Cairo JE 35137; Fay 1996: no. 1, pl. 83 a–d; Ziegler 1997a: 44; Sourouzian 2006: 101, fig. 4).

The following reign of Khafre is famous for an impressive ensemble of statues once placed all around the court and the pillared hall of his Valley Temple at Giza. The largest of these effigies, and also the best preserved, is the famous diorite statue of the king seated on a throne with a high backrest and supported by lions; the sides are decorated in bold relief with the heraldic plants of Upper and Lower Egypt, symbolizing the unification of the Two Lands (Cairo CG 14. H. 168 cm; Saleh and, Sourouzian 1987: no. 31, PM III, 1: 22; for all statues see PM III: 221–5). The king is seated in what is now a classical pose with hands resting on the knees, the right fist clenched vertically holding a kerchief, and the left hand flat on the knee. He wears the *nemes* and the *shendyt*. Behind his head stands a falcon with open wings, personifying the dynastic god Horus. The royal beard tapers towards the tip (now broken), and seems to be of divine type. This statue portrays the close relationship between the sovereign and the god: the king is the representative of Horus on earth and serves as the effigy for the apparition of the god. Carved in gneiss (also called Khafre diorite) from the remote quarry at the southern border of Egypt, freed from the rigid cloak and archaic posture, modeled and polished with utmost care, this sculpture is a masterpiece of royal portraiture and presents the imperturbable image of the Egyptian monarch, ruling by divine right.

The other seated statues from the valley temple of Khafre are slightly smaller in size and sculpted in diorite and greywacke. Two of them also have the lion seat (Cairo CG 9 and CG13) with the falcon perched with wings closed on top of the high backrest, parallel to the king's back. On three statues the seat is a cubic stool decorated with the heraldic plants (Cairo CG 10, CG 15, CG 17, RT 25.11.18.4; see Stadelmann 1998: 357, figs. 9, 11–12). When the head is preserved, the king wears the *nemes* and a short, flaring royal beard, bound to the neck by a wedge-shaped bridge (Cairo CG 15). The upper part of the *nemes* is plane on the statue with the falcon god, and only the lappets show pleats, marked with horizontal furrows. The striding type is attested by two fragmentary torsos in this reign, one in schist (Cairo CG 16, h. 105 cm) and the second in gneiss (Cairo JE 72213; Hassan 1960: pl. 37) bearing the royal name on the back pillar.

The funerary complex of Khafre contained an estimated one-hundred statues in diverse stones. Amongst the fragmentary remains found near the pyramid, remarkable

Figure 38.4   Khafre, diorite, Egyptian Museum Cairo, CG 14. Courtesy the Egyptian Museum Cairo.

portraits have survived in calcite (Boston MFA 21.351, Copenhagen AEIN 1599, New York MMA 26.7.1392) and gneiss (Leipzig ÄM 1945), showing a smoothly carved face with subtle musculature, curved eyebrows in relief, and eyes well defined, bordered by a fine rim on the upper lid. The nose is short and fleshy, the mouth horizontal, with a sharp dip in the middle of the upper lip. Fragments of other statues and sphinxes derive from the temple, with pieces of female coiffures belonging to statues of queens or princesses (Hölscher 1912: 91–135). A seated dyad in gneiss depicted the king and the goddess Bastet. The upper part is lost; the throne, without a back rest, shows a *sema-tawy* scene in bold relief with the Nile god bringing an offering table (Cairo CG 11). The upper part of a standing dyad with a lion-headed goddess embracing the king dates to this reign or the following (Hildesheim; Seidel 1999b: Dok. 2, p. 10–12, fig. 4, pl. 2).

A pair of oblong pedestals with rounded backs flanked each of the entrances to the valley temple of Khafre and bear witness to the existence of royal sphinxes or lions (Hölscher 1912: 15, fig. 5; Stadelmann 1985: 139). Fragments of sphinx paws have also been discovered near or in the funerary complex (Fay 1996: nos 4–7). A hand holding a *nw* vessel found in the temple may belong to a human-handed sphinx or a statue of the king kneeling. In either case, this would be the first known example of its type (Hildesheim 69; Martin-Pardey CAA 1977: 70–73; Schulz 1995: 122, pl. 47 b; Stadelmann 1998: 358).

The funerary complex of Menkaure at Giza contained numerous large and smaller sized statues in calcite and gneiss. Divided today between the museums of Cairo and Boston, they were discovered by Reisner who estimated their number at forty (Reisner, 1931:107–29, pls. 12–17, 43–64; for all statues PM III: 27–33). Seated

statuary in the same pose and attire as his predecessor is attested with magnificent large-sized examples in alabaster. The largest was found in the Mortuary Temple with fragments of a base (Boston 09.204; Reisner 1931: no. 1, pls. 12–16). Seated in what is now a classical attitude, with the right feast clenched vertically to hold a cloth, wearing the *nemes* and the pleated *shendyt* kilt, this figure is impressive by the beauty of its sculpture, its size, and its new canon of proportions. The head seems small in proportion to the large shoulders and the bold musculature of the body, but it accentuates the impression of power and majesty which emanate from the ruler. Like the statues of Khafre, only the lappets of the *nemes* are pleated, but here the sideburns of the natural royal hair appear exceptionally in two rows of curls rendered in relief. The uraeus rising from the lower border of the frontlet has a detailed ventral column. Eyes and eyebrows are enhanced with black color, and the fine moustache is painted black.

Four other alabaster statues flanked in pairs the entrance leading to the sanctuary of the Valley Temple. They all show the king seated in the same attitude and attire as the larger statue. On one statue head the *nemes* is completely pleated, and the natural hair is stylized in a row of curls in relief under the frontlet of the coiffure, and two rows on the sideburns (today in the National Museum of Port Said former Cairo JE 40 705; Reisner 1931: no. 22, pls. 50–1). On another statue two plain trapezoidal side tabs replace the natural hair (Cairo JE 40 704; Reisner no. 18, pls. 48–9). On one statue the king has short cropped hair with a plain uraeus (Boston, MFA 09.203; Reisner 1931: no. 23, pls. 52–5; Roehrig 1999: no. 70), and all uraei show four loops on top of the headdress. On one statue, the sides of the cubic throne bear the scene of the *sema tawy* carved in deep relief; in the back scene, the heraldic plants are bound by two seated Nile gods (Boston, MFA 96, Reisner 1931: 19, pl. 47 b–c).

These statues convey remarkable portraits of the king. Modeled with care, the treatment enhances the facial features and the athletic anatomy of the body with extremely large and rounded shoulders. The rectangular face with round cheeks and square jaws shows a projecting brow-ridge with naturalistic eyebrows. The bulging eyes have plump lids, and the nose is fleshy. The wavy mouth is surmounted by a fine painted moustache, the larger lower lip is advanced and the chin knobbed. The chest is well modeled, and the waist slender. The musculature on the arms and legs is rendered with care, and the knees caps jut out.

Smaller seated statues of this reign include 14 unfinished examples, mainly in diorite (Reisner 1931: 112–13, pls. 61–3). All wearing the *nemes* and the short kilt, these statues differ from the larger specimens by the pose of the right hand, here clasped horizontally. The striding type is represented by small fragments including a fine ivory headless statuette (Boston MFA 11.280; Reisner 1931: 113, pl. 64 g-j), and others in porphyry and slate (Reisner 1931: 113, pl. 63 d).

Group statues representing the king with deities from the reign of Menkaure are exemplified by five triads and a dyad, masterfully sculpted in greywacke (Reisner 1931: pls. 36–46). The triads represent the king between the goddess Hathor and the personification of a nome, all standing, except on one triad where Hathor is seated in the middle (Boston MFA 09.200). The king either holds the hand of Hathor or he is embraced by her and by the personification of the nome (Cairo Boston JE 40678, JE 40679, JE 46499, Boston MFA 11.4697). On the triad with the enthroned goddess Hathor he holds a mace. On all triads the king wears the white
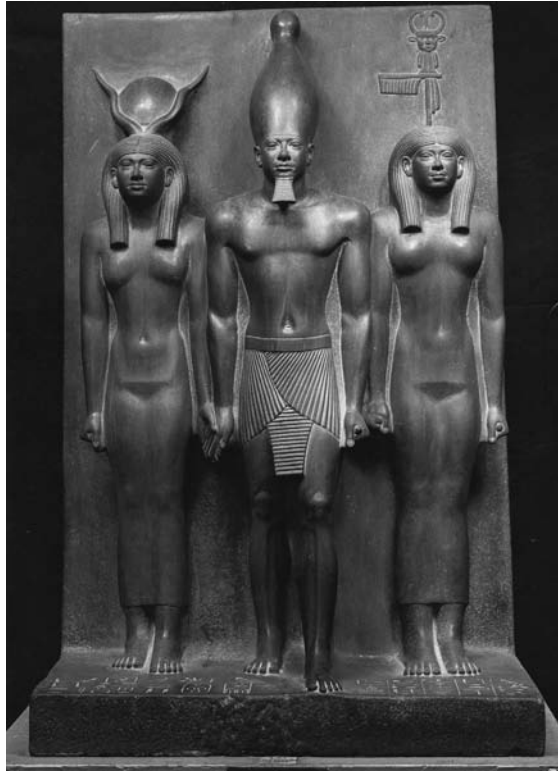
Figure 38.5 Triad of Menkaure, greywacke, Egyptian Museum Cairo, JE 54934. Courtesy the Egyptian Museum Cairo.

crown and the *shendyt*, and a short tapering beard adorns his chin. The goddesses wear a striated tripartite coiffure and a long tight-fitting dress. The faces and the anatomy are masterfully rendered. These admirably modeled sculptures were completed by painted elements, such as facial cosmetics, moustache, necklaces, and details on the belt.

A dyad represents the striding figure of Menkaure embraced by a queen or a goddess (Boston MFA 11.1738; Reisner 1931: pls. 54–60). The king wears a plain *nemes* headdress, and the queen a tripartite wig under which part of the original hair is visible on the front. Here again the details of the attire were probably gilded or completed with paint. More statues populated the Valley Temple of Menkaure, among them fragments of other group statues and probably another dyad (Friedmann 2008: 109–44), pieces of sphinx paws in alabaster, statues of family members including a standing woman, one prince and another male seated, and a scribe, as well as a beautiful statue of a recumbent jackal (Reisner 1931: pls. 62–4). Finally, fragments of an alabaster statue of the queen were discovered in the temple of her pyramid (Reisner 1931: no. 8, p. 108, pl. 17d).

The Fourth Dynasty ends with the reign of Shepseskaf whose funerary complex was moved to South Saqqara and exceptionally took the form of a monumental mastaba instead of a pyramid. Fragments of a seated statue were discovered in the Mortuary Temple (Jequier, 1928: 21, fig. 12). A small limestone head of unknown provenance,
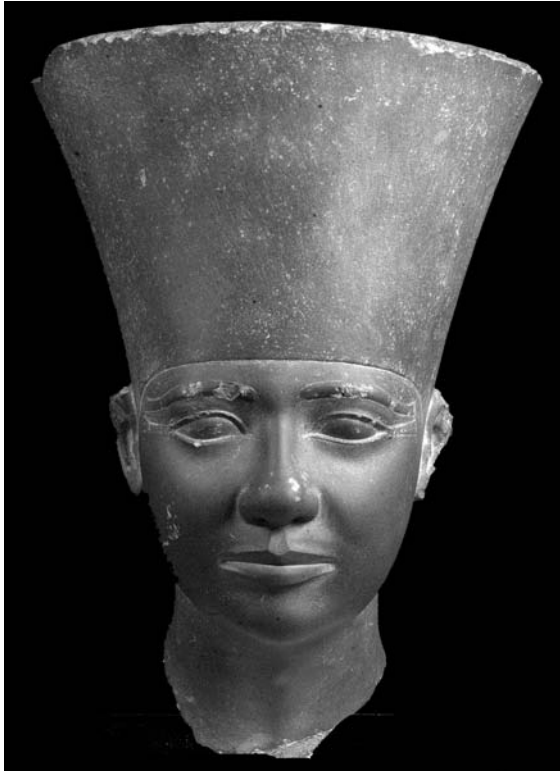
Figure 38.6 Userkaf, greywacke, Egyptian Museum Cairo, JE 90220. Courtesy the Egyptian Museum Cairo.

with short coiffure, damaged nose, and broken beard is attributed to him in the absence of comparative material (Bruxells 7117; Capart 1927: pl. 5; Hormemann 1951: I, 361).

The Fifth Dynasty royal sculpture from Saqqara and Abusir is preserved in relatively small quantities compared to the magnitude of the pyramids and sun temples of these monarchs. Userkaf is represented by the large head of a red- granite colossal sculpture and a smaller head from a statue in greywacke, found respectively in the Mortuary Temple at Saqqara and the sun temple in Abusir (Cairo JE 52501 and JE 90220. Height 75 cm and 45 cm). On the first head the king wears the *nemes*, on the second the red crown. Both heads are exemplary portraits of the king, emanating the confident serenity of a well-established monarchy. The smoothly polished contours of the oval face, with protruding brow bone, fleshy nose, and full cheeks, end with a delicately modeled chin, characterized by the absence of the beard. The curved eyebrows are rendered naturalistically on the colossal head, whereas on the smaller head cosmetic bands prolong the eyebrows and the eyes, set in clearly defined sunk contours and well-modeled eyeballs, and upper lids rimmed by a protruding ridge. The mouth is set horizontally. The smaller head bears a faint trace of black over the upper lip indicating the moustache. Smaller fragments of statuary at Saqqara and the lower part of an alabaster face of the king from Abusir are the only other sculptural remains from the reign of Userkaf.

Sahure, who built the first of the pyramids at Abusir, is famous for his magnificent funerary complex with elaborate scenes finely carved on walls of the chapels and causeway. Regrettably little remains of the statuary: fragments of a seated royal statue in greywacke with white crown and *shendyt*, and alabaster fragments without any indication of statue type except a human foot. A piece of a *nemes* tail and clenched paws attest to the presence of sphinxes in greywacke (Borchardt, 1910: 111–12, fig. 14), and another paw in sandstone probably belonged to a sphinx or a lion. A fragmentary but carefully sculpted lion with a sharply sloping back was used to serve as a libation altar pouring into a vase (Borchardt, 1910: 113, figs. 144–5).

The only known well preserved statue of Sahure is a dyad in gneiss representing in an original composition the king seated on a large throne, accompanied by a standing god who personifies the nome of Koptos (New York, MMA 18.2.4; Egyptian Art 1999, no. 109). Both lean against a large back slab. The larger figure of the king is bearded and seated in traditional posture and attire. The god, bearing the emblem of the Koptite nome on his head, holds the symbol of life towards Pharaoh's hand and clasps in his right fist a *shen*-ring, symbol of duration. He wears a tripartite wig, a plaited divine beard and a divine kilt with one pleated overlap. The face of the king is round with full cheeks. His eyes are set in well-defined sockets and rimmed by a ridge at the upper lid; the nose is short and fleshy, the mouth horizontal, with wide lips of equal length. The anatomy of both figures is conventionally modeled. The very large throne jambs are inscribed with the Horus and throne names of the king.

Neferirkare offers the best collection of royal statues of this dynasty. Fragments in various stones found in his Mortuary Temple attest to a dozen royal statues of small size in seated and striding attitudes (Verner 1985: 267- 80, pls. 44–59; Verner *et alii* 2001: 360–437, figs. 2.7.1 to 2.7.75). The most impressive of these is the statue in hard limestone representing Neferefre seated, holding a mace against his chest, and protected by a falcon perched behind his nape. On his short coiffure concentric rows of curls are rendered in herring-bone pattern, and a hole on the forehead held the lost uraeus. A pleated kilt was tied by a knot preserved on the torso. The youthful features of the face, with full cheeks and delicate modeling, are enhanced with black paint around the eyes and on the eyebrows; the fine moustache was here again rendered by paint.

A similar head in limestone with remains of a falcon's wing at the nape attest to a second statue protected by Horus. A third bust in basalt shows the king with the *nemes* headdress in seated attitude. On a fourth statue of the same material the king stands wearing the white crown of Upper Egypt, holding in his right hand the mace against his chest and in his left hand the papyrus roll. Two heads with *nemes* and a torso in diorite derive from similar statues, and finally we have a calcite head of a beardless youth with short hair which possibly belonged to a statue of a prince.

The temple revealed other fragments of royal statues in stone and wood and figurines of animals mainly in clay. A most significant component of this repertoire is the set of nine statues of prisoners in wood, including Nubians, Asiatics, and a Libyan, all kneeing with arms bound, skilfully sculpted with their characteristic features and attire.

Niuserre, the successor, is known from a few scattered statues where he invariably wears the *nemes* and the *shendyt*. On a red granite standing statue divided between

Rochester (inv. 42.54) and Cairo (CG 42003) the king holds a mace (Bothmer, 1974: 165- 70, pls. 44–5, 47–9). A seated statue in red granite bought in Memphis (Cairo CG 38) helped to attribute to this monarch a bust of a similar statue from Byblos (Beirut B 7395; Bothmer 1971: 11–16, pls. 1–2). A pair statue of the king in limestone was acquired more recently (Munich ÄS 6794. H. 71,8 cm; Wildung 1984b: 1–31). The pseudo-group (or the dyad), represents the king striding in classical attitude and attire, holding papyrus rolls. The sculpture leans against a large back slab which reaches up to the shoulders, leaving the heads free. On all statues, the top of the headdress is flat, the face of the king conforms to the conventional portraiture of his predecessors, with rounded forms, careful modeling, and well-set eyes rimmed and prolonged by cosmetic bands. On all these portraits the king is beardless, as in the wall scenes of his sun temple at Abusir. From his Mortuary Temple derive masterfully sculpted faces of lions in basalt which served as water spills to the temple roof (PM IV: 336).

Very little remains from the last kings of the Fifth Dynasty. A calcite statue of Menkauhor, bought in Memphis, represents the monarch in a *Heb-sed* cloak with the crook and the flail crossed on the chest. The face is decayed, and, except for the large rimmed eyes, the features are too worn for comment (Cairo CG 40). There were no known portraits of Unis, last monarch of the dynasty, until the recent cleaning up before his Valley Temple revealed a set of four sphinxes in limestone wearing the *nemes* (Hawass, forthcoming publication SCA). One sphinx is now on display in the Imhotep Museum at Saqqara. The elongated face with hanging cheeks is marked by large and deeply cut eyes. The horizontal mouth with full lips is bordered with a fine ridge.

The Sixth Dynasty starts with the reign of Teti, well known through his large funerary complex at Saqqara. However, the only statue attributed to him is a small figure in granodiorite which depicts a king striding, holding papyrus rolls and wearing the white crown and the *shendyt* kilt (Cairo JE 39103, h. 74 cm; Quibell 1908: pl. 31). In continuation of the traditions of Fifth Dynasty royal statuary this statue, of very conventional aspect, shows an elongated oval face with full cheeks, eyes well defined in their sockets, fleshy nose, a horizontal mouth with full lower lip, and a rounded chin smoothed by the absence of beard. The torso is long and slim, the anatomy is elaborate, and the musculature well modeled.

In the following reigns royal statuary shows original production with new statue types, at least types attested for the first time, or represented now through well-dated specimens, but it is noteworthy that, although this period included very long reigns with tremendous building activity throughout Egypt, few statues have survived. James Romano, having thoroughly studied this statuary, identified only fourteen statues (Romano 1998: 235–303, figs. 1–74).

The reign of Pepi I offers the first extant examples of standing statues in copper. These were royal gifts to the divine temple of Hierakonpolis during the first celebration of the king's jubilee (PM V: 193). Maybe contemporary, a copper statue of a falcon with golden head was also found deposited in the temple. Produced by copper sheets hammered around a wooden core to which they were nailed, the royal statues are masterpieces of established workmanship and artistic ability. The larger statue shows the king standing in the posture already seen on early two-dimensional

representations, i.e. striding, holding in the advanced hand a long vertical staff and in the hand hanging down the side a mace or a sceptre held horizontally. The smaller statue observes the conventional striding attitude of stone sculpture with arms hanging and holding papyrus rolls. The royal kilt was made of gilded plaster. A white crown probably appeared on the larger statue, while a short curly coiffure is worked onto the smaller figure. Like all Upper or Lower Egyptian crowns of the Old Kingdom, the larger statue has no uraeus, while a hole on the forehead of the smaller statue with short hair served to hold a uraeus. Holes cut in the nape of the latter suggest that a falcon was probably located there, protecting the king. Recently cleaned and restored, these two statues are now once more on display in the Cairo Museum (see Stadelmann 2005: 125–9, pls. 1–12). They exemplify the new style in vogue in the royal workshops which will be taken up immediately by the leading members of that wealthy society. The carefully sculpted faces with elongated eyes inlaid with limestone and obsidian and framed by plastic cosmetic lines, a long nose and a broad mouth with everted lips, are the common features on both portraits, except for the fuller cheeks on the smaller statue, which may represent the king as a young boy. The head of a wooden statue newly discovered in the funerary temple of Pepy I at South Saqqara may be compared to the portrait on the larger statue (Labrousse 1999: 59).

The kneeling statuette of Pepi I in schist is another example of excellent portraiture which impresses the viewer by the vivid inlaid eyes and elaborate modeling of the face with prominent mouth and jutting chin, and a body observing the new aesthetic canon with schematic anatomy and smoothly polished surfaces. Leaning forward, presenting two *nw*-vases, this statue is the first known complete example depicting the king in this attitude. The uraeus was inserted in a hole on the forehead. Noteworthy are the very long arms and legs which are freed from body and base, as well as the elongated fingers with pointed nails, which will remain a characteristic feature of this dynasty. On the back one can better observe the geometric treatment of the torso with very large shoulders, rounded shoulder blades, and a sharply narrowed waist (Brooklyn 39.121. H. 15,2 cm; Romano 1998: no. 5, 242–3, figs. 20–30). On a small calcite statuette of the enthroned Pepi I a falcon again protects the king holding the royal insignia crossed on his chest, crowned by the white crown and wearing the short *Heb-sed* cloak (Brooklyn 39.120; Romano, 1998: no. 4, figs. 8–19). The forepaws of a large sphinx in schist with bold sinews and stylized claws engraved on the damaged fingers remain from a large sized recumbent sphinx and attest to colossal statuary presumably form Heliopolis (Cairo CG 543; Romano 1998: no. 5, 244, figs. 31–4; Fay 1995: no 12, pl. 84c).

The following reign of Merenre is illustrated by two small sphinxes of original type. Both measure 5,7 cm in length. One is a lion with leonine mane and a royal beardless face (Moscow, Pushkin Museum 4951; Romano, 1998: 245–6, figs. 37–8). The second is a sphinx with a royal head wearing *nemes* and beard, presenting *nw*-vases with his human hands (Edinburgh, RSM 1984.405; Aldred 1988: 41–7, pl. 10; Fay 1995: no. 13, pl. 84a a–b, d; Romano 1988: no. 6, 246–7, figs. 39–40). On both sphinxes the eyes are large and wide open, the nose is long, the mouth everted, the tail ending with a bulbous tuft. Characteristic are the pointed claws on the first sphinx, and the long fingers with sharp nails on the second.

A   B
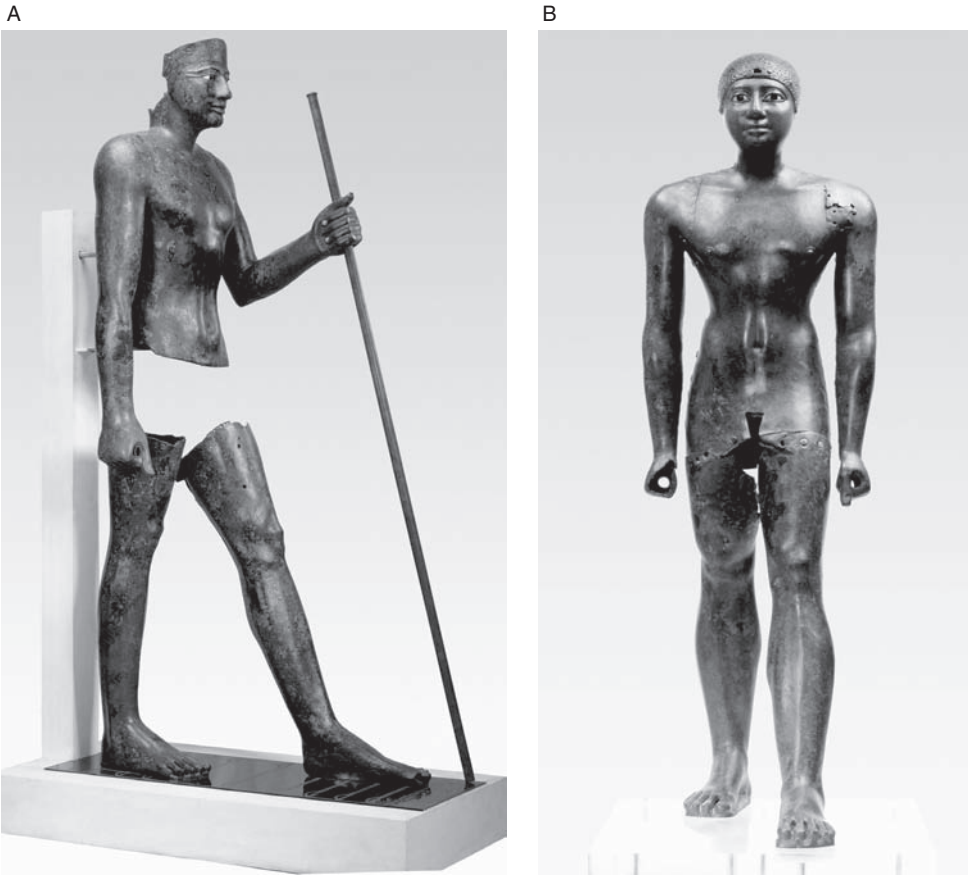
Figure 38.7a and 38.7b   Two statues of Pepi I, copper, Egyptian Museum Cairo, JE 33034 and 33035. Courtesy the Egyptian Museum Cairo.

The dynasty ends with another small sized calcite statue of innovative type: Pepi II seated on the lap of his mother Ankhnesmeryre II (Brooklyn, 39.119; Romano 1998: no. 8, 248–52, figs. 41–53). The queen seats on a cubic stool with low backrest, holding on her lap the smaller figure of her son seated sideways, his feet resting on a high narrow plinth. Her striated tripartite wig is covered with the vulture headdress, a vulture head having once been inserted in the hole on her forehead. She wears a tight-fitting long dress. Her arms and legs are completely freed from the mass of stone. The king wears the *nemes* headdress with a uraeus whose body forms eight loops on top of the head. The costume is the traditional *shendyt*. The admirably modeled faces with carefully carved features, the careful details of the attire, the elongated arms and legs, the long hands and feet, and the perfect polish of the surfaces, all are conform to the style of the Sixth Dynasty. On a calcite statuette, Pepi II is depicted as a squatting nude child, with the right hand raised to his mouth. The legs of another calcite statuette of the king dressed in the *Heb-sed* cloak (Broolyn 16.40; Romano 1988: no. 10, fig. 59) and the lower part of a small basalt statue of Pepi seated on a cubic stool and wearing the *shendyt* (Cairo CG 43) complete the repertoire of royal statues of this dynasty.

6   Private Sculpture

Royal and divine statues were receptacles for invocations and offerings. Through them the king could receive offerings brought by royal decree to the temple altars. The members of the court buried in the official necropolis also participated in these offerings. Their tombs developed rapidly into important dwellings for the afterlife. In well-preserved examples both niche and serdab contain figures of the deceased, just like royal statues in the funerary apartments of the king. For an official it was a privilege to own a statue, as the ownership of a tomb granted by royal decree was a great prerogative. It is thanks to the royal quarrymen, architects, and masons that a tomb was built, and it is the royal workshops of sculptors, artists, and craftsmen that decorated and furnished it. The statues were constrained by certain rules to special types and adequate materials.

Secondary cemeteries developed from the Early Dynastic Period near important provincial centers. In the course of the Old Kingdom dignitaries of the middle class began to copy tomb settings and equipment of residential necropoleis and equipped their own tombs with false doors, wall decoration, and statuary. Towards the end of the Fifth Dynasty governors, administrators and upper clergy gradually introduce large decorated tombs, often rivalling those of the necropoleis of the royal residence. In turn, they are surrounded by tombs of their own courtiers.

Types of statue

At an early stage the private statue types are reduced to two main attitudes, the seated and the striding, which evidently imitate the corresponding attitudes of the king. They differ from the latter by their limited number, smaller size, costume, and, especially, by attributes. Statues of women, often deposited in the tomb of their husband or son, copy effigies of queens and goddesses but do not hold attributes, except for servants of the household depicted in domestic activity. Children appear nude, a hand to the mouth, the boys frequently with a side lock, the girls with short hair.

In the Third Dynasty, although the few known specimens of private statuary are imposing in posture and skilful in technique for a period which is laying down the early principles of sculpture in the round, the statues are still massive and seem sometimes rudimentary when compared to the very sophisticated contemporary two- dimensional representations, like the limestone bas-reliefs of Khabausokar and his wife, or the wooden panels and painted walls of Hesire. Nonetheless, these are the first attempts of large sized private representation and should be considered as masterpieces of Egyptian sculpture in its early stage. The limestone effigies of Sepa and his wife Nesa are the only representatives of the striding and standing types respectively (Louvre N 37, N38, N39; h. 165 cm, 169 cm and 154 cm; Ziegler 1997a: nos. 31, 39–40, p. 112–15, 141–7). On two statues Sepa is depicted standing, left foot forward, thus suggesting the walking attitude which we conventionally call striding; the gap between the legs has not been hollowed. In his left hand he grasps a long staff, and, with his right hand put flat on his thigh, he holds a sceptre. Sepa wears a voluminous round wig with rows of locks and a short kilt with a pleated overlap,

held by a belt with a clasp. The features of his round face are very carefully rendered, and on the body we observe attempts to show anatomic features, like the tendons of the neck, the ridge of the collar bones, nipples on a slightly modeled chest, and projecting muscles around the knees on the massive legs. The slightly smaller statue of Nesa shows her standing, feet joined and left arm bent over her chest. She wears a long heavy wig and a tight fitting long dress with a deep v-neck. Several rows of bracelets at her wrists complete her attire.

Twelve statues of high officials and one of a princess show their owner seated, right hand resting flat on the knee, the left arm bent on the chest (Sourouzian, Stadelmann, 1997: 395–402, fig. 1–2; Eaton-Krauss 1998: 209–25, figs. 3–5; Sourouzian 1998c: 321–7, figs. 26–37). On all male figures the left fist is clenched, holding in one case an adze rendered in bold relief (Ankhwa, British Museum 171; h. 64 cm; PM III: 728), while on the female figure the left hand rests flat on the chest (Turin 3065, h. 85 cm), like the standing figure of Nesa. One statue shows Ankh with two hands clasped on his lap (Leiden AST 19, h. 62 cm). A last statue represents a funerary High Priest Hetepdjef kneeling with both hands flat on his knees (Cairo CG 1, h. 39 cm).

All statues are characterized by a broad face with round cheeks, large and wide open eyes, a short nose, and a wide mouth with contours well defined by a ridge. The coiffure is in most cases the round wig with rows of curls, or a longer wig. All personages wear a simple short kilt, once covered with a panther skin (Ankh in Leiden), and the princess Redjyef wears the sheath cloth. The archaic attitudes with a summarily rendered anatomy, large head, short neck, compact body and stiff angular limbs, are characteristic of this period. These statues were painted, as attested by remains of paint, black on the wigs, black and white on the eyes, with green cosmetic lines (Sepa and Nesa). The names and titles of the owners are inscribed in bold Hieroglyphs on the statue base, the kilt, or the lap. The standing statues are not equipped with a back pillar, and the seated ones employ a cubic stool with a bentwood support carved in relief on its sides ; only the statue of the princess Redjyef shows a high backrest.

In the Fourth Dynasty the standard seated and striding types remain, and new attitudes are introduced, namely, the scribal effigy and the group statues. One of the earliest sculptures is the red granite figure of Metjen, discovered in the serdab of his funerary chapel at Saqqara (Berlin 1106, h. 47 cm; Settgast 1985: 11–12; Ziegler 1997a: no. 28). As dignitary of high rank, his numerous titles contain the names of kings Huni and Snefru, dating the tomb to the passage between Third and Fourth Dynasties. Seated on a cubic stool, Metjen reverses the pose of the hands, bending the right arm with the fist clenched against his chest and resting the left hand flat on his knee, exactly in the attitude of Djoser at Saqqara, Snefru at Seila, and later Khufu on the Abydos statuette. The bentwood structure on the stool is abandoned, and the stool bears the name and titles of the owner for the last time in bold Hieroglyphic inscription, like the texts inscribed in his tomb. Compared to the high quality and elegance on the better proportioned figures of Metjen in his tomb decoration early in the reign of Snefru, the viewer is struck by the statue's archaism which marks the transition between the early period of Egyptian sculpture and the more sophisticated statuary of the following period.

A strong tendency to individualize the owner of the statue dominates Fourth Dynasty private statuary. Effigies of royal-family members now attain natural size and even surpass it. The subject is now depicted with special attention to individual features, a more elaborate anatomy, and a concern for attire and cosmetic details, rendered in lively colors which have often survived. The official workshops now produce masterpieces representing the master builders of the Great Pyramids and members of their families.

The statues of prince Rahotep and his wife Nofret, placed in their funerary chapel at Meidum impress by their vivid presence (plate 10). These are not only master-pieces of sculpture but also outstanding examples of polychromy, with an exceptional state of conservation of their colors (Cairo CG 3 and CG 4; h. 121 cm and 122 cm; PM IV: 90; Saleh and Sourouzian 1987: no. 27). Rahotep was a son of Snefru, a high priest of Re at Heliopolis, and chief of all construction projects for the king. Seated on a stool with a high backrest, his right arm bent over his chest and his left placed on his thigh, his hands are clenched to suggest the attributes he would be holding. He wears a short kilt tied under his belly by a bold knot. He has short hair and a thin moustache. A heart-shaped amulet hangs around his neck. His wife Nofret, desig-nated as "one known to the king," is likewise seated and places both hands over her chest. She wears a heavy shoulder-length wig, encircled by a diadem that is orna-mented with rosettes. Part of her natural hair is visible at the front. She is enveloped in a long mantle under which appear the halters of her tight-fitting dress. A broad collar composed of concentric rings of colored beads adorns her breast. In accordance with artistic conventions, the man's skin is painted ochre-brown, and that of the woman in pale-cream color. Their eyes are inlaid in a copper frame: the retina is made of opaque quartz and the iris of rock crystal. On the high backrest, the names and the titles of the statue owners are written in black hieroglyphs. This pair of statues marks the beginning of a long series of portraits representing the illustrious personages of the court who have not only witnessed the construction of the most extraordinary buildings of Egypt but also contributed to the development of a magnificent society.

During the reign of Snefru, beside the tendency to individualize the physiognomy of the model, an attempt is made to diversify the costume and the attributes. The practice, already in use during the Third Dynasty, of sculpting the leopard skin on the body or of rendering the sceptres, rods or adze in bold relief on the torso, is attested in this reign, with two limestone standing statues of the chief of musicians of the king, Ipy from South Dahshur (Sourouzian 1999: 151–67). On one statue Ipy wears the leopard skin and holds a rod sculpted along his right arm. On the larger statue he is depicted as a flautist holding with both hands a long flute imitating the reed rendered in bold relief across his torso. This practice of sculpting special attributes on the statue will soon disappear except for rare examples like the seated statue of the dwarf Perenankh from Giza who bears a sceptre and a long staff in his hands (Hawass, 1991: 157–62, pls. 13–14). From the second half of the Fourth Dynasty on they will be reduced to a short rod or a rolled kerchief, either as substitutes for longer staves or in imitation of the papyrus or the documents held by the king.

The scribe figures appear in the early Fourth Dynasty and will continue into the Late Period. The first known examples are carved in hard stones, especially granite, and belong to princes of the royal family represented in a writing pose. Later
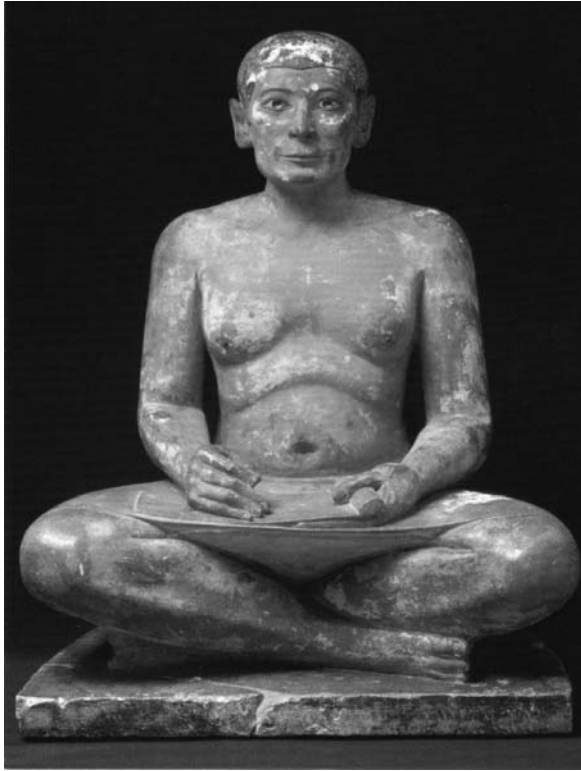
Figure 38.8 Scribe statue, painted limestone, Louvre N 2290. Courtesy Musée du Louvre.

examples, carved more frequently in limestone and wood, can depict the individual reading or praying. Admittedly not all persons portrayed as scribes held that function in the royal court but were eager to be distinguished by the capacity for writing. The costume is a short kilt, the coiffure a flaring or a round wig, with rows of locks, or simply short-cut hair. The anatomy is still depicted in summary form, but faces tend to emphasize individual features, enlivened by polychromy, and gain special vivacity through the use of inlaid eyes. Among the numerous scribe statues the most impressive are certainly those of the famous scribe in the Louvre (N 2290; Ziegler 1997a: no. 58, PM III,1: 458) and his well-known colleague in the Egyptian Museum Cairo (CG 36; Saleh Sourouzian 1987: no. 43), both said to derive from Saqqara. In spite of their conventional and unnatural seated pose, these statues show very realistic facial features, enlivened by vivid paint and inlaid eyes.

During the reign of Khufu, probably in harmony with the Great Pyramid and the Great Sphinx, most important members of the royal family were honored with monumental statuary, such as the extraordinary statue of Prince Hemiunu, who directed the building of the Great Pyramid of Khufu, his uncle. As Chief of all Works of His Majesty, Hemiunu owned a tomb in the western cemetery, with his statue placed in the serdab. The head was destroyed by tomb robbers but has been reconstructed from fragments recovered by Junker in 1912. This limestone effigy is

one of the most remarkable works with its monumental stature and imposing presence (Hildesheim, RPM no. 1962, h.155 cm; Junker 1929: 153–7; Schmitz 1986: no. 3, 36–8; PM III: 123; M. Hill 2003: no. 44). Seated on a cubic stool, his left hand laid flat on his knee and right fist clenched over his thigh, Hemiunu wears a short kilt tied with a knot rendered in bold relief on the lap. The physiognomy of the prince is impressive. The fine head is accentuated by a double chin. His corpulence, with a heavy chest doubled by a fold of fat, is executed with great realism. His massive arms, substantial legs, and parallel feet with very clearly carved toenails enhance the monumentality of the sculpture. This is clearly a portrait of a very high official of the elite, a clear declaration of royal majesty and power.

The effigy of Hemiunu is exceptional. Perhaps already at the end of the reign of Snefru, and certainly in the strict reign of Khufu, the majority of the tombs were equipped with rectangular slabs, instead of statues, on which the deceased was represented seated at the offering table (Der Manuelian 2003). Some tombs contained limestone heads of the owner, in the burial chambers or at the bottom of their shafts. They are generally called "reserve heads." The majority of the 27 heads extant derive from Giza and four from other cemeteries. They are skilfully sculpted as individual heads. They bear distinctive features of the deceased and may, therefore, be considered as ideal portraits of the tomb owners. Some of them show traces of color, and many have their ears damaged or cut out. Generally believed to be substitutes for the mummy, the exact purpose and significance of these heads are still under debate (Tefnin 1991; Roehrig 1999: 73–81). The most elaborate example of this sculpture type is the painted limestone bust of prince Ankhhaf, brother of Khafre and his vizier. This bust, with its extremely naturalistic features and vivid polychromy, is undoubtedly a masterpiece of Egyptian sculpture. It was deposited in the mastaba of the prince in the Eastern Cemetery of Giza (Boston, MFA 27.442. H.50.6 cm).

Under Menkaure and by the end of the Fourth Dynasty, private statuary proliferates in tombs. A colossal limestone statue from Giza represents Queen Khamerernebty II, consort of Menkaure, measuring 2.28 m (Cairo, JE 48856). The damaged statue depicts the queen seated with hands flat on her knees on a stool with a low backrest. With her long tripartite wig and the tight-fitting dress, this figure reproduces in colossal size the conventional attitude of a seated female. A headless limestone statue, almost life-sized, discovered in the same tomb, shows the owner standing in an archaic attitude, right arm bent over her chest, and in less traditional attire wearing a pleated dress and draped in a pleated cloak which leaves one shoulder free (Cairo JE 48828; Fay 1999: 104, figs. 14–15).

Numerous examples of wooden statuary of the standing type have survived. One of the most striking and celebrated is the life-size wooden statue of the lector-priest Kaaper (Cairo, 34; h. 112 cm; PM III, 2: 459; Vandersleyen 1983: 61–5; Saleh and Sourouzian 1987: no. 40). The priest is depicted as a corpulent individual with his friendly round face animated by inlaid eyes, so lively, indeed, that upon its discovery at Saqqara, the workmen of Mariette identified him as the "Sheikh el-Beled," the headman of their village. A wooden statue of a female, found in the same mastaba, probably represents his wife. The lady wears a short wig and a tight fitting dress (Cairo, 33. H.61 cm; Saleh and Sourouzian 1987: no. 41). Numerous such works have in the past been assigned to the Fifth or the Sixth Dynasties but should now be

Figure 38.9   The priest Kaaper, wood, Egyptian Museum Cairo, CG 34. Courtesy the Egyptian Museum Cairo.

placed in the Fourth Dynasty, thanks to the important work of Nadine Cherpion (Cherpion 1989; 1998: 97–142, figs. 1–37; 1999: 227–80). A masterpiece of this period in the category of family portraits is the painted limestone statue of the priest Kai from his tomb at Giza, representing him seated, with smaller figures of his wife and his son on the sides of his legs. (Hawass, 2005: 25–30, figs. 2–7).

One of the most celebrated groups in painted limestone shows the dwarf Seneb and his wife Senetites accompanied by two children (Cairo, JE 51280. Height 34 cm; Cherpion 1984: 35–54). This sculpture combines realistic portraiture in a harmonious setting with great delicacy. The deformity of the dwarf with a voluminous head in proportion to his diminutive legs is clearly reproduced. The natural proportions of his wife, affectionately embracing him with both hands, the head slightly leaned forward is contained within the square frame of the composition, without showing any discrimination in size. The composition is harmoniously completed by the chubby children standing in front of their father, thus concealing the absence of his legs. The children, son and daughter of the couple, are represented nude, each with a finger at its mouth, in accordance with an early established iconography for infants. Several tombs of the Memphite necropolis display rock-cut statues of the tomb's owner and members of the family, best illustrated by the tomb of Meresankh III at Giza (Dunham and Simpson 1974: 18, 20, pls. 6b, 11).

Figure 38.10   The priest Kai, painted limestone. Courtesy Zahi Hawass, Supreme Council of Antiquities.

To the south of the Giza Plateau an exceptional cemetery, newly discovered, contained the tombs of workmen and artisans responsible for the construction of the pyramids. Buried in small tombs with superstuctures containing all the elements indispensable for survival in the afterlife, such as false doors and serdabs, these tombs, excavated by Z. Hawass since 1990, have yielded small sculptures of men and women in all the traditional and necessary attitudes (seated, striding, and even in one of the graves grinding grain) (Hawass 1995: 89–101, pls. 29–32). In the tomb of the artisan Intishedu, Carpenter of the Bark of Neith, the serdab contained four statues in stone very well preserved (and a wooden example in poor condition). These statues, three seated and one striding, suitably sculpted and wearing painted attire, range from 75 cm to 31 cm, and display a variety of wigs and short kilts with elaborate collars and belts. Two of the cubic stools are painted in dark color to imitate granite. (Hawass 1999: no 89–92). In another tomb a beautifully painted pair-statue in limestone, 24 cm high, was placed in the serdab, representing an Overseer of Craftsmen named Nefernesutef and his wife seated, the wife embracing her husband at the shoulder. Her dress bears a nicely painted lozenge pattern. Through the freshness of the paint, the couple with their eyes directed upwards look very lively (Hawass 1999: 83–98, figs. 4–9).

In the official cemeteries, figures of servants performing various domestic tasks make their appearance to depict in three dimensions scenes shown on the tomb walls.
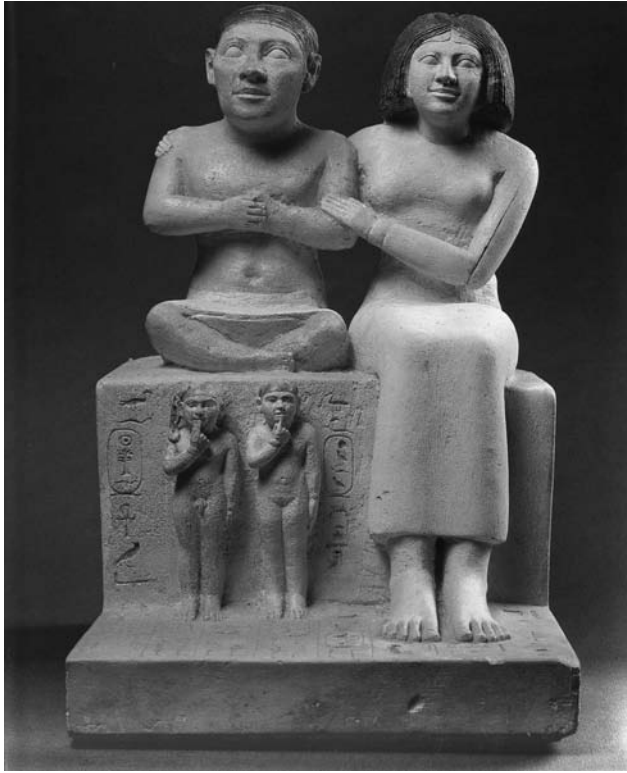
Figure 38.11 Family group of Seneb, Egyptian Museum Cairo, JE 51260. Courtesy the Egyptian Museum Cairo.

Three examples of such statuettes were deposited in the tomb of Queen Mere-sankh III. They represent members of the household staff preparing bread and beer (Dunham and Simpson 1974: pl. XVIII). In time, with increases in number and type, this practice will lead to the wooden tomb models of the Middle Kingdom.

Private statuary flourished in the Fifth Dynasty. The ever expanding tombs and their offering chapels are now populated with a large number of statues, mainly in limestone or wood, covered with a thin coat of plaster and painted. A great number of these figures had inlaid eyes, others were completely painted. They continue to represent the tomb owner in various attires with members of his family and the household staff, standing, seated, or combining both positions. The wife often embraces her husband, the children stand or are seated near their parents' legs.

Viziers and high officials, like Ti and Ptahshepses, owners of very large tombs, commissioned over-life-sized statues, whereas the statuary of the common officials tends toward a certain conformity in style and standardization of attitude, scale, and proportion. Ranefer at Saqqara owns a pair of large-size statues in painted limestone showing him striding, wearing a short kilt with pleated overlap on the statue with a flaring wig and a longer flared kilt on the figure with natural short hair

Figure 38.12 An overseer of craftsmen and his wife, painted limestone. Courtesy Zahi Hawass, Supreme Council of Antiquities.

(Cairo CG 18 and 19; Saleh and Sourouzian 1987: no. 45–6). Ti is represented with a statue over 2 m high (Cairo CG 20; Saleh and Sourouzian 1987: no. 49). The vizier Ptahshepses has not only the largest mastaba close to the pyramid of his king at Abusir, but also over-life-sized statues in all materials including quartzite (Patocková 1998: 227–33). The tomb of Nykauinpu included no fewer than 25 statues of the tomb owner, his wife, and servants (Teeter 2003: no.7).

Some high officials enrich the traditional attire with new additions, e.g. the costume of Akhethotep in Saqqara. On one of his statues he adds to an ample robe of the vizier the pendant of the goddess Bat in addition to beadwork pendants and a long scarf all worked in relief and painted (Ziegler 1997a: 237–43, pl. 19). Likewise, towards the end of the dynasty, three admirably painted wooden statues of Metjeti (Brooklyn 50.77, 51.3, 53.222; Fazzini *et al.* 1989: no. 14) differ in size and show the owner in three different attitudes and richly painted attire, the slender proportions in accordance with the conventions in vogue. Examples of exquisite polychromy can also be seen on the pseudo-group of Nimaatsed, depicted twice striding, with the flared wig on both statues which are identical except for a slight difference in height (Cairo CG 133, h. 57 cm; Saleh and Sourouzian 1987: no. 48). The lifelike appearance and the high artistic quality of this double portrait are beyond dispute. Pseudo-groups representing the tomb owner standing or seated now enjoy great

Figure 38.13 Pseudo-group of Nimaatsed, painted limestone, Egyptian Museum Cairo, CG 133. Courtesy the Egyptian Museum Cairo.

popularity, the corpus comprising thirty-two examples, including the unique royal example of Niuserre (M. Eaton-Krauss, 1995: 57–74, pls. 14–19).

Sixth Dynasty private statuary decreases in scale but brings in a completely new canon of proportion. Wooden statues and statuettes tend to replace stone sculpture. The officials now appear with smaller heads on long bodies with high and narrow waists and long arms and legs. Wooden statues are produced in modest dimensions, adding to the attire beautiful ornaments and pieces of jewelery rendered in vivid colors (Harvey 1998: 355–79, figs. 1–14). Others tend to represent the tomb owner at different moments of his life, nude like a child but with the face of an adult, standing, and holding a long staff and a sceptre. This progression is best illustrated by three statues of Meryrehaishtef deposited in his tomb at Sedment, together with a statue of a woman and three groups of servant figures. The three statues of Meryrehaishtef, which decrease in height, all masterfully sculpted in wood, show the deceased as a young boy, an adult, and an aging man. Wearing a short round wig, holding a staff and a sceptre, his expressive face with its large eyes and the lean body are admirably modeled (divided between Cairo JE 46992: Saleh and Sourouzian 1987: no. 64); British Museum (EA 55722: Quirke and Spencer 1992: fig. 145; and Ny Carlsberg Glyptothek, cat. No. 189; cf. Vandier 1958: 1141–3, pl. 45; E. Russmann 1989: 45–7; Ziegler 1999: no 188–9). Masterpieces
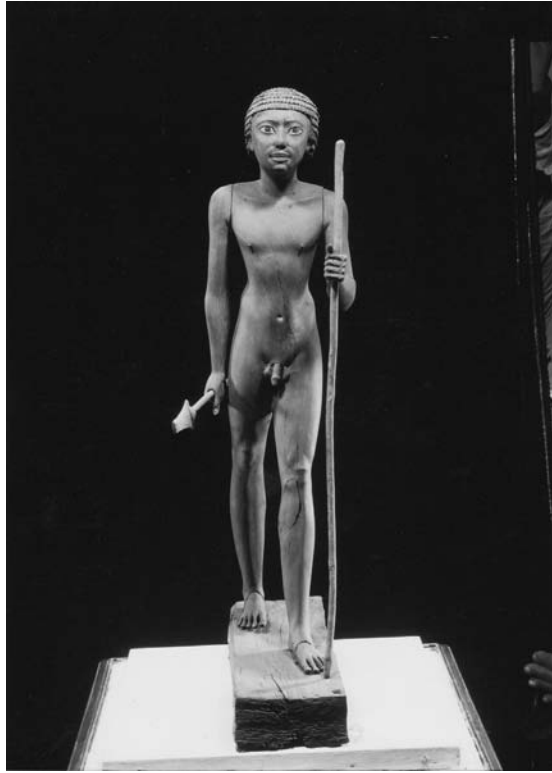
Figure 38.14 Meryrehaishtef, wood, Egyptian Museum Cairo, JE 46992. Courtesy the Egyptian Museum Cairo.

are also produced in female statuary. Beside a well-known standing statue of the wife of Mitri with long hair, dated between end of Fifth and the Sixth Dynasties, (Cairo JE 51738; Saleh and Sourouzian 1987: no. 55) a new example of the beautifully modeled statue of Ankhnespepy, Priestess of Hathor, with short hair, very large eyes and elongated limbs, newly discovered in her tomb by the French mission at Saqqara, shows the final stage of the evolution in style since the beginning of the Dynastic Period (Berger-el-Naggar and Labrousse 2005: 18–20, fig. 6).

The new style with large shoulders, narrow waist, elongated arms and legs, imitates the style of official royal representations. However, certain portraits produced in a remote provincial court can also approach caricature with their exaggerated features: dynamic flaring wigs, extremely large and asymmetric eyes, small noses, wide and flattened mouths, tiny torsos, and long limbs, (MMA 37.2.2; Fischer 1995: 87, pl. 27 b–d). These works announce a period of indecision which will eventually lead to new experience.

The Old Kingdom was a period of grandeur, ingenious invention, and extraordinary constructions. We can say without hesitation that it was also a great period for sculpture which reflects the cultural wealth, artistic grandeur, and high intelligence of Old Kingdom society.

FURTHER READING

For further detailed discussions see Aldred 1978 and 1999; Borchardt 1925; Cherpion 1989, 1997, 1998, and 1999a; Hawass 2003; Hornemann 1951–69; Jaroš-Deckert and Rogge 1993; Krauspe 1997; Martin-Pardey Eva, Plastik des Alten Reiches 1 & 2, Pelizaeus-Museum Hildesheim, CAA 1 & 4; Saleh and Sourouzian 1987; Smith 1949; Sourouzian 2003; Stadel-mann 1985; Vandier 1958; and Ziegler 1997a.

CHAPTER 39

Sculpture of the Middle Kingdom

Rita E. Freed

1   Introduction

One of the most exciting and innovative periods in Egyptian history and art history, the Middle Kingdom is ironically, one of the least studied. At the beginning artists attempted to resume working in the styles of the Old Kingdom, but within several generations they set off in new directions and succeeded in producing some of the most sophisticated works in stone and wood that rank among the finest of any time and any place. Domestic stability, international contacts, and long prosperous reigns combined to produce this flowering. In addition to sculpture and relief, the decorative arts of the Middle Kingdom are likewise creative, refined, and technically complex.

By the height of the Old Kingdom, Egypt's Pyramid Age, Egyptian artists, under royal sponsorship and based largely in the greater Memphite area, perfected methods of carving hard stone and worked out an ideal for representing the human body in both statuary and relief. They developed a variety of statue types to meet different needs and invented an artistic vocabulary to fulfill royal, religious, funerary, and social demands. Although changes and embellishments accompanied every new era, basic tenets developed during this time would serve the country throughout Dynastic history and beyond.

Through Dynasty Six most officials chose to be buried in the Memphite area near the king, but others chose their regional homelands (nomes), far outside the Memphite necropoleis. Their tomb decoration and the sculptures found within often exhibited a local stamp but nevertheless attempted to copy the basic forms of the Memphite court. With the collapse of a strong central authority at the end of Dynasty Six the Memphite area lost its dominance, and in its place nomes throughout Egypt became focal points of power and governance. This period is often called the First Intermediate Period (Seidlemayer 2000: 118ff.). Local leaders, or nomarchs, and their administrative officials were buried in their home areas in tombs created by local craftsmen. Lacking central schools of artists, and in all but a few cases lacking earlier models to copy, each area evolved its own distinctive style and color palette. Stone sculpture of the tomb owner was rare, and many examples once thought to have been from the First Intermediate Period are now believed to be later.

2   The First Intermediate Period

Urban centers from Saqqara south to Assiut, including Herakleopolis where vestiges of the Memphite court likely relocated, understandably produced material closest to the earlier models, although on a much smaller scale. Old Kingdom multi-roomed tomb chapels were reduced to several (usually three) relief-decorated slabs featuring the most essential themes for the afterlife. Similar to late Old Kingdom examples, reliefs from these so-called "stela-chapels" contain relatively few widely spaced figures that tend to be flat and devoid of modeling and lack all but the most essential incised details. Decorated tombs at many sites exhibited their unique local stamp during the First Intermediate Period. One example is Naga ed-Deir, (located near Abydos) where tomb decoration is reduced to a single slab of stone inserted into the wall of a rock-cut offering room (Dunham 1937: 2). The sole adornment on these stelae, which may be either in raised or sunk relief, is the tomb-owner with his wife and family members standing beside a pile of food offerings. Above is a short funerary inscription. Their distinctive color palette includes vibrant reds, yellows, and greens.

The artist's attempt to follow the Old Kingdom canon is shown by the incised vertical axis line and horizontal lines bisecting the same strategic body parts as they

Figure 39.1 Boston, MFA 98.1034. Stela of Meny, Dynasty 9, limestone. From Dendera, Egypt Exploration Fund by subscription. Photograph © 2010 Museum of Fine Arts, Boston.

did in the Old Kingdom (Barta 1970: 94ff.). Despite this, body proportions deviate substantially from earlier examples. For example, on many sunk relief stelae from Naga ed-Deir (Dunham 1937: 17–8 and pl.4, 1) too small heads connect directly to neck-less torsos from which elongated limbs dangle. Waists are too high and feet are too large. What these stelae lack in sophistication, they make up in folkish charm, thanks, in part, to their well-preserved paint. Other sites in Upper Egypt, including Assiut, Akhmim, Beni Hasan, el-Bersha, Dendera, Thebes, Moalla, Gebelein, and Aswan, also developed their own unique and readily identifiable variants of the Old Kingdom style.

Dendera is a particularly important site in the development of Middle Kingdom art because its relief style influenced that of Thebes, homeland of Mentuhotep II, the reuinifier of Egypt and first king of the Middle Kingdom (Fischer 1968). With its large raised-relief figure and hieroglyphs the stela of Meny (figure 39.1) is typical of the Dendera style. The raised areas have smoothly rounded edges, and the interior of the figure is highly modeled, giving it a more lifelike appearance. Additionally, details such as Meny's wig, multi-strand necklace and kilt and a number of hieroglyphs were intricately and skillfully incised.

3   The Middle Kingdom

Dynasty Eleven

Mentuhotep II

The gradual reunification of Egypt was completed during the fifty-one-year-long reign of Nebhepetre Mentuhotep II. As his power base increased, he enlarged and modified his funerary temple in his home city of Thebes and altered or augmented the spelling and epithets associated with his name (Grajetzki 2006: 19; Arnold 1969: 38–42). Accordingly the execution of the temple's different stages and accompanying tombs of female family members can be approximately dated within his reign.

Six tombs constructed at the same time for priestesses of Hathor, four of whom bore the epithet ''Royal Wife,'' were among the earliest elements of Mentuhotep II's funerary complex to be decorated, based both on their archaeological context and the early form of the king's titulary (Grajetzki 2006: 18, note 28; Callender 2000: 153). Stylistically they represent a further elaboration upon the Dendera style. A relief from the tomb chapel of a priestess named Kemsit (figure 39.2) features exceedingly high, almost three-dimensional raised relief. She wears a dress, shawl, broad collar, and bracelets as she sniffs a jar of scented unguent. In all, six levels of relief were necessary to accommodate the complexity of her garment. A sophisticated accomplishment, all of this had to have been planned in advance, as layer after layer of limestone was cut back. Each tiny curl of her wig, each bead on her multi-strand broad collar, and each feather on her dress were separately carved. While the high raised relief and patterning are all present on material from Dendera, at no time do the Dendera artists achieve the intricacy and sculptural quality of the royal priestesses' style at Thebes. The tombs of the priestesses were constructed when Mentuhotep II's

Figure 39.2 London, BM 1450. Relief from the tomb of Kemsit, Dynasty 11, painted limestone. From Deir el Bahri. © The Trustees of the British Museum.

struggle to increase his power base and reunify the country was in progress. Nevertheless, the quantity and quality of relief sculpture (including decorated sarcophagi) make it clear that a dedicated group of artists was supported by the growing power and wealth of Thebes and its leader. These tomb chapels were concealed when the precinct was expanded.

The tomb of Mentuhotep II's chief queen, Neferu, located in the cliffs to the north of the main structure was decorated later than those of the Hathor priestesses (Arnold 1979b: 19, note 63). A fragment from the tomb with the Horus name *Sema-ta(wy),* "Uniter of the Two Lands," suggests its construction took place following the king's reunification of the country, no later than his thirty-ninth regnal year (Callender 2000: 152). Stylistically, the reliefs, carved in both raised and sunk relief, continue the style of the priestesses' tombs with some noteworthy modifications. Raised relief is lower, and jewel-like incised detail is replaced by bolder, less fussy decoration. Also, a deliberate simplification and attenuation, most noticeable in limbs and facial features, replaces earlier attempts at naturalism. What makes the Neferu reliefs easily identifiable is their distinctive facial features including the exaggerated width of the eye with a pronounced downturned inner canthus and elongated cosmetic line widening at the tip, a large aquiline nose with a deep groove at the corner of the nostril, sharply delineated lips with squared off corners, and diagonally oriented ears

with the disc-shaped ear-lobes balanced by a similar fleshiness at the top of the ear. Both the Neferu reliefs and the earlier priestesses' reliefs share the elongated legs, high waist, and small heads that characterize post-Old Kingdom material. This would change in the next and last phase of Mentuhotep II's funerary temple construction, which features the final form of the king's name.

The back walls of the colonnaded halls and the chapel at the rear of the king's funerary temple were also relief-decorated. On the former the king overcomes enemies (Russmann 2001: 87), while more intimate scenes of the king received by the gods are depicted in the chapel. Typical of reliefs of the end of Mentuhotep II's long reign, a relief fragment showing the king embraced by Montu, a local god associated with war (figure 39.3) is exceedingly low and flat, with details supplied in paint rather than with the chisel. Although Montu as well as a goddess no longer preserved embrace the king, both do so in an awkward, stilted manner that shows association, rather than emotion. Nevertheless, the artists successfully reproduce the canon of proportion of the Old Kingdom, and accordingly, compared to earlier reliefs from the king's reign, the heads are larger, the waists are lower, and the legs not as long. It is noteworthy that in the low, flat level of the carving and the proportions of the figures, this relief bears a closer resemblance to what is found in the funerary temples of the Old Kingdom in the Memphite region than it does to earlier reliefs of the same reign.

Figure 39.3   London, BM EA 1397. Relief showing Mentuhotep II embraced by Montu, Dynasty 11, painted limestone. From Deir el-Bahri. © The Trustees of the British Museum.

This similarity can only be a direct result of the artists having traveled north to observe the earlier material, or artists from the north, i.e. the Herakleopolitan area, coming south to work. Neither would have been possible prior to the reunification of the country. Not only the artistic evidence, but also textual evidence supports such connections (Freed 1984: 159–60). Further, at approximately this time the canon of proportion becomes fully articulated. Specifically, the Old Kingdom system of creating a figure around a central vertical line and intersecting horizontal lines was expanded into an eighteen-square grid which accommodated a standing figure from the hairline to the bottom of the foot (Robins 1994). The resulting smaller divisions made it easier for artists to make precise copies of Old Kingdom examples. Private reliefs from this time also directly copied the Old Kingdom style and iconography (Fischer 1959: 240–52).

In the later relief style of Mentuhotep II the strong fold at the nostril and the broad, undifferentiated lips outlined by a thin ridge (vermilion line) remain, but other aspects of the facial features become smaller and more naturalistic. Eyes are narrower, lack a pronounced inner canthus, and the width of the cosmetic line remains constant. The ears return to vertical.

With the exception of small-scale wooden statuary, there is little sculpture in the round from the end of the Old Kingdom until the reign of Mentuhotep II. The king incorporated life-size images of himself in the pose of Osiris in both underground (Saleh and Sourouzian 1987: no. 67) and above-ground contexts in his funerary temple. A standing figure of the king which stood outside is reminiscent of the pre-Old Kingdom, Archaic period style in that the body is hardly differentiated from the stone. In the absence of examples to copy, the artist was unable to render the human body naturalistically (figure 39.4). The head is a compact rectangle on a short, stocky neck, the crossed arms hug the columnar body, and hefty legs with massive feet distribute the weight of the stone. Rectangles define the knees. The facial features are only superficially carved, so that they have a flat, one-dimensional appearance. In comparison to the cubic mass of the head, the eyes, while large, are only thinly outlined. Brows form a thin, straight band above the eye, dipping slightly as they continue toward the ear and run parallel to the similarly thin cosmetic lines. High cheekbones are the most prominent feature of the face and define furrows extending from broad nostrils toward thick, straight lips encircled by a thin ridge. Like the latest of Mentuhotep II's reliefs the statue has a depression at the corners of the eyes, a pronounced fold at the nostrils, and broad lips rimmed by a vermillion line.

Mentuhotep II's reunification of the country could not have been accomplished without trusted military (Saleh and Sourouzian 1987: no. 70) and administrative officials, and some of them also had decorated tombs and sculptures in Thebes. Mery was Mentuhotep II's steward, the official in charge of the royal estate, one of the most important offices of the time (Grajetzki 2006: 21–2). Mery's statues (Russmann 2001: 89) bear a striking resemblance to Mentuhotep II's own, although on a smaller scale. The square shape of Mery's face is further emphasized by an enveloping curled wig cut straight across the forehead and at the level of his lips. He too hugs his arms to his chest – in this case a gesture of servitude – and has overlarge legs and feet. The lack of definition in his arms and torso makes it appear as if the body has no skeletal structure. Like figures in all but the latest of the Mentuhotep II reliefs, Mery has a high waist.

Figure 39.4   New York, MMA 26.3.29. Statue of Mentuhotep II, Dynasty 11, sandstone. From Deir el-Bahri. The Metropolitan Museum of Art, Rogers Fund, 1926.

Mentuhotep III

The bold sculptural style of Mentuhotep II changed during the reign of his successor Mentuhotep III, when heavy volumes gave way to a refined delicacy (figure 39.5). Mentuhotep II's stocky mass is replaced by the elegant elongation of Mentuhotep III's many statues from the Montu temple at Armant, south of Thebes, the only site at which sculptures of this king have been found. It is also the first clearly documented instance of statuary associated with a temple, rather than a tomb. This custom continued throughout the Middle Kingdom and later.

The low, flat relief style of the end of Mentuhotep II's reign becomes even lower and flatter during the reign of his successor. Remarkably, details that were only added in paint during the previous reign are now precisely and intricately carved, making them some of the most beautiful reliefs Egyptian artists ever produced. An example from Tod, now in the Louvre (Bisson de la Roque 1937: fig. 35) shows the king beside a table piled with food offerings. His pleated kilt is overlaid with an intricately beaded apron and a dagger inserted under his belt hangs in front of the apron. His bracelet and multi-strand broad collar are also made of individually incised beads. All the contrasting patterning, as well as the highly modeled muscles of the legs, fit harmoniously together and bear testimony to the increasing skills and sophistication of the artists.

Figure 39.5 Boston, MFA 38.1395. Mentuhotep III, Dynasty 11, sandstone. From Armant, Egypt Exploration Society in recognition of a contribution to the Robert Mond Expedition from the Harriet Otis Cruft Fund; Photograph © 2010 Museum of Fine Arts, Boston.

A unified Egypt provided ready access to the Memphite area monuments, so it is hardly surprising that Mentuhotep III's body proportions reproduce exactly those of the Old Kingdom. Itinerant artists from the north may well have found employment in the Theban area and instructed their Theban counterparts. Reliefs of Mentuhotep III have been found, like those of Mentuhotep II, in temples from Abydos south to Elephantine (Freed 1984: 178; Grajetzki 2006: 20). Whereas Mentuhotep II's reliefs differ from site to site, those of Mentuhotep III display a remarkable uniformity. This is indicative of a talented, centrally supported artistic school producing a standardized image of the king. In this way it was recognizable and revered by all.

Dynasty Twelve

Amenemhet I

Thebes remained the center of power until the next dynasty, when it is widely believed that the vizier of the previous king became the first king of Dynasty Twelve, Amenemhet I (Grajetzki 2006: 26, 28). Internal troubles may have forced him to move the capital north to virgin territory on the border between Upper and Lower

Egypt, close to the mouth of the Fayum (Grajetzki 2006: 30). There, outside the modern village of Lisht, Amenemhet I constructed his funerary complex. Most of the work likely took place under his son and successor Senwosret I, since blocks built into its foundation contain the names of both kings (Grajetzki 2006: 26). The earliest year-date attested at the site is Year 20 (Arnold 1991a: 18–20; Callender 2000: 159), the first of ten years when the two may have ruled jointly (Arnold 1991: 42, note 47; Callender 2000: 160).

Although Amenemhet I ruled for three decades, remarkably little material is dated to his time, perhaps because the king's efforts were focused on quelling internal turmoil. At his funerary temple it is understandably difficult to isolate his work from that of his son. Fragments of royal sculpture and relief have been found as far south as Armant, as far east as Sinai, and as far north as the Delta (Grajetzki 2006: 32). To date, the only two well-preserved statues of the king were found at the Delta sites of Tanis and Khatana (Arnold 1991: 30). Both feature a seated king with well-defined musculature and body proportions conforming to the Old Kingdom canon. In contrast, the head and facial features show a closer affinity to the Theban-area Eleventh Dynasty material, particularly in the way the facial planes lack modeling. Thick straight eyebrows extend from the bridge of the nose toward the temples. An equally prominent cosmetic line parallels the brows and accentuates the large, flat eyes. Folds of flesh mark the corners of the nostrils, and the lips are either straight or drawn up into a smile. One of the statues is 2.68 m high, and the other is approximately life-size (Aldred 1970: fig. 13).

As earlier, sculpture and relief of the king's officials follow the royal model (Freed 1981: 71ff.), and also consciously copy Old Kingdom examples. Ihy and Hetep were priests who served the cults of both Tety of Dynasty Six and Amenemhet I at Saqqara (Silverman 2000: 260ff.). Carved in low flat raised relief like the king's, offering bearers carry little and are so widely spaced that they read more as individual figures than processions. Clever details, such as the carrying of two animals or birds bound together in a basket or the use of raised and sunk relief in the same composition occur only in the Old Kingdom tombs in the immediate vicinity and demonstrate conscious copying (Freed 2000: 212). The fact that these two men were also priests of Tety, a king who had ruled approximately 500 years earlier, further demonstrates the desire to establish continuity with the past and recapture its ideals.

Another detail characteristic of reliefs and stelae of Amenemhet I's reign is the careful balancing of food offerings under, beside, and sometimes atop the main offering table in an offering scene to the extent that at times, the integrity of the individual food is sacrificed in favor of overall balance or organization (Freed 1981: 72, 75). The uniformity of style and iconographic details throughout the country, perhaps transmitted by artists accompanying administrators sent by the king (Grajetzki 2006: 32), caused the disappearance of the regional styles so prominent in the First Intermediate Period.

In addition to being accomplished copyists, artists from the reign of Amenemhet I were also innovative. The tombs of the two Saqqara officials mentioned above contained a new type of statuary depicting the owner seated on the ground with his legs drawn up close to his body and his hands crossed over his knees. Because the shape resembles a cube, this statue type, which continued into the Late period, is

generally called a block or cube statue (Schulz 1992). It may represent a man seated in a carrying chair (Aldred 1950: 43–4; Leclant 1978: 234, fig. 225), a translation into three dimensions of relief representations abundant in nearby Old Kingdom tomb chapels. Later this statue type became more abstracted and took on other meanings (Eggebrecht 1966: 143–63). It is noteworthy that the facial features of Hetep's two block statues (Ihy's are poorly preserved) resemble those of Amenemhet I himself.

Senwosret I

In contrast to his father and predecessor Senwosret I's building activity was prolific and extended beyond Egypt's borders (Callender 2000: 161). From Elephantine to the Delta, temples and statues bear his name (Grajetzki 2006: 37ff., esp. 41). The goal of just one of his numerous and far-flung quarrying expeditions was to retrieve sufficient stone to carve 150 statues and 60 sphinxes (Seyfried 1981: 250; Simpson 1984: col. 892; Callender 2000: 161). Many statues of Senwosret I are over life-size, making him the first monarch since the Old Kingdom to commission multiple sculptures on a colossal scale. Many of these sculptures were reinscribed and recarved by Egypt's great builder Ramesses II of Dynasty Nineteen, so that Senwosret I deserves even more recognition for his building activities than previously realized (Sourouzian 1988: 229–54).

Senwosret I was the first king to build extensively at Karnak; a sphinx and several colossal statues and statue fragments bear his name (Evers 1929: pls. 33–5; Sourouzian 2005: 109, pl. 11). Given the presence of the many statues of Mentuhotep II at Deir el- Bahri, across the river and toward which Karnak was oriented, it is not surprising that these statues continue the Eleventh Dynasty style. Like the statuary of Amenemhet I, they share broad rectangular faces with high cheekbones, large, flat eyes with thick straight brows and cosmetic lines, and unsmiling mouths. Senwosret I's body, with its well-defined pectorals, small waist, abdominal muscles, depressed navel, and median line extending upward from it shows a mastery of anatomical detail not seen since the Old Kingdom. This sculptural style is not restricted to Karnak but may be seen on statues of the king found at Memphis (Evers 1929: pl. 45), Tanis (Evers 1929: pls. 37–8), and Alexandria (Evers 1929: pl. 36; 1929: 97–7), with the latter two likely to have been brought from elsewhere.

Senwosret I ruled for forty-five years, and some of his many sculptures differ in style from the ones described above, but because none include a year date, it is not clear if the style changed over time or with its function. It is likely that Senwosret I commissioned sculpture for his jubilee festival, the first of which he celebrated in his thirty-first year of rule. Karnak, Abydos, and Lisht all featured Osirid statues of Senwosret I in an Osirid pose usually associated with the jubilee (Arnold 2003: 228). In its massive breadth and lack of modeling in the mid-torso, an example from Abydos (Evers 1929: pl. 35B) is closest to the statues of Mentuhotep II, although the facial features are similar to those described above. An example from Karnak is more refined. The torso is slender and elongated, while the head has been trans-formed from a geometric exercise to a naturalistic composition, conceived as a whole rather than a combination of unrelated parts. The face is oval, rather than

square, and eyes are cut deeply into it so that the brows overhang them. More delicate lines replace the earlier pronounced brow and cosmetic bands. The face is marked by high cheekbones and a firm chin. Lips taper at the corners and are cut more deeply into the facial surface. The additional modeling gives the face more character.

In a group of over thirty sculptures from the king's funerary temple at Lisht, the latest of which are Osirid pillars from the causeway (Arnold 2003: 214), the slender form of the Karnak Osirid statue is repeated, but the face has an even more human quality, largely because of smoother, somewhat less angular modeling of the surface and facial features. The almond-shaped eyes are smaller, the cheekbones less pronounced, and the corners of the lips taper gently into the face, creating the appearance of a slight smile. The folds of flesh at the nostrils and corners of the mouth have been replaced by a more modulated surface. The funerary temple group also includes ten over life-size, seated statues of the king found ritually buried in the temple's courtyard which exhibit an overall cold, formal quality. Nowhere is the Middle Kingdom attempt to emulate the Old Kingdom clearer than in the Lisht funerary temple sculptures. Though they may demonstrate superficial mastery of the Old Kingdom style, particularly in their attempt to reproduce the ideal body, they lack the inner strength and nobility of spirit that are the hallmarks of the Pyramid Age.

While the sculptures of Senwosret I show an array of styles, reliefs from his many monuments are more homogeneous. Because the refurbishment of temples to local gods was part of his consolidation of power (Callender 2000: 162), he must have deployed artists from the Residence who carved the king's likeness with relative uniformity from the Satet Temple in Elephantine in the south to his funerary temple at Lisht in the north. Raised reliefs are higher than in the previous reign and display more incised detailing and greater surface modeling (Wildung 1984a: 76–7), making the entire composition more harmonious. The same spirit is evident in sunk-relief representations, where a deep outline provides greater depth in the working surface. Even in the most formal of the royal reliefs, there is an animation and character strength that demonstrates artists have gone beyond copying and have truly mastered the medium. In many respects, there are no finer reliefs than those of Senwosret I (figure 39.6). Internal stability, the use of sculpture and architecture as propaganda, and royal patronage contributed to this flowering.

With the increase in royal building activity, private arts also flourished as highly placed administrators commissioned elaborate funerary monuments, perhaps from the king's own sculptors. The nomarch Sarenput I erected his tomb at Qubbet el-Hawwa across from Aswan, Egypt's southern border. Finely carved limestone door-jambs at the entryway to the open court feature a seated image of the tomb owner that forms a sharp contrast to the images carved on the rock-cut façade of the tomb. The former, presumably a product of the royal school, are precisely carved and canonically correct, while the latter, which must have been done by local artists, exhibit figures with small heads, high waists, attenuated torsos, and elongated legs that are more reminiscent of a the pre-reunification Eleventh Dynasty.

Although Senwosret I patronized local cults in many cities, Abydos, the place where Osiris was buried and reborn, achieved special prominence. Taking part in

Figure 39.6 New York, MMA 14.3.6. Relief of Senwosret I, Dynasty 12, limestone. From Lisht. The Metropolitan Museum of Art, Rogers Fund and Edward S. Harkness Gift, 1914.

the god's annual festival of resurrection was thought to guarantee the same for the attendee, a privilege now available to high officials as well as the king. Statues and stelae were erected as proxies for those unable to attend. Although a few of these monuments are earlier than Senwosret I, during his reign the custom became more widespread. Close to forty private stelae are dated or datable to the reign of Senwosret I (Simpson 1974a: 26–7). The finest among them (Hayes 1953: 298–9), like the king's funerary temple reliefs, feature high and beautifully modeled raised relief and canonically correct figures organized in a pleasing composition.

The rich variety in royal statuary from Senwosret I's reign is also seen in the private realm. The statue of the Overseer of Chamberlains Antef (Simpson 1974a: pl. 13) is reminiscent of the more angular, awkward style of Senwosret I. Concentric scallops on his chest are probably meant as rolls of fat, based on what is shown on stelae of the same man (Simpson 1974a: pl. 12), but, because his torso is so thin, they look more like ribs, making him look gaunt instead. In contrast, it is clear from his statues that the vizier Mentuhotep, the highest private official in the country, was fat (Delange 1987: 57–8). He sits either cross-legged with a scroll on his lap or with one knee up, and this pose emphasizes his swollen breasts, rolls of flesh and an abundant abdomen that forces his navel into a horizontal shape. Mentuhotep's statues were found at Karnak – the first time private statuary clearly appears in temple contexts (Vandier 1958: 226). Just like the king he first served, the power and influence of Mentuhotep was widespread. He is credited with oversight of building activity at both Abydos and Karnak (Grajetzki 2006: 40, 44), and stelae bearing his name were found at Saqqara and Abydos. His burial was at Lisht.
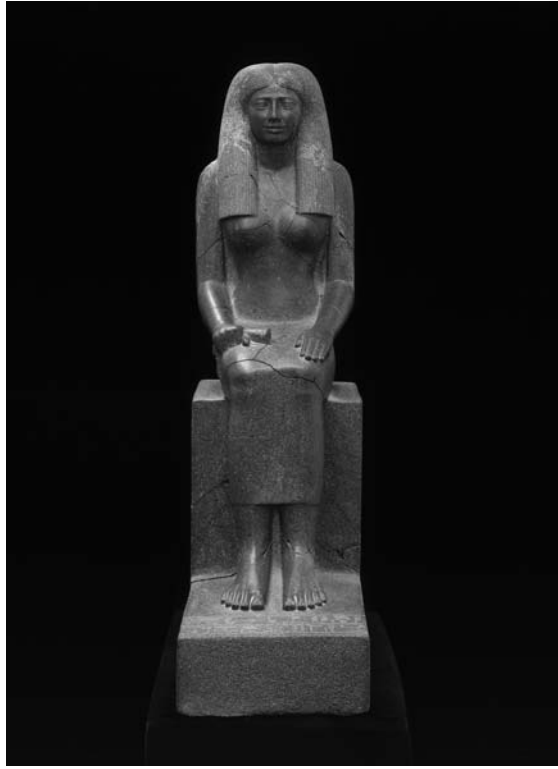
Figure 39.7   Boston, MFA 14.720. Statue of Lady Sennuwy, Dynasty 12, granodiorite. From Nubia (Sudan), Kerma. Harvard University-Boston Museum of Fine Arts Expedition. Photograph © 2010 Museum of Fine Arts, Boston.

The first known over-life-size statue of a woman since the end of the Old Kingdom is Sennuwy (figure 39.7), wife of Djefaihap, nomarch of Assiut during the reign of Senwosret I. He is most famous for his large decorated tomb, a gift from the king (Kahl 2007: 88ff.). The tomb was robbed in antiquity, but fragments of an approximately half life-size statue of the nomarch and the well-preserved statue of his wife were discovered in the tomb of a Nubian chieftain buried in Kerma, Sudan, probably during Egypt's Second Intermediate Period. Sennuwy's statue, with its well-formed body and sweet, placid face supports Djefaihap's claim of royal patronage. It compares well with sculptures of the king from the Residence, although the artist's lack of familiarity in representing a large-scale female form is evident. In comparison to Old Kingdom models, her breasts are large and her loose garment hides the sensuality of her body. In addition to Assiut and Qubbet el-Hawwa, Meir, Beni Hasan, and el-Bersha all feature large painted or relief-decorated tombs of officials of early Dynasty Twelve, bearing testimony to the continued importance of local rulers. Each differs in style and subject matter, but, for the most part, they display the influence of a reunified Egypt, where artists had access to material outside their local areas.

Senwosret I died after 45 years of rule, leaving behind him a stable and prosperous country where new or renovated temples to local gods bore his name. By the end of

his reign, artists who worked for the king and his high officials had succeeded completely in their quest to reclaim the artistic legacy of the Old Kingdom. In relief work, on the basis of style alone, at times it can be difficult to distinguish between the two. Sculpture, on the other hand, clearly copies Old Kingdom forms but never achieves its inner character strength.

Amenemhet II

Amenemhet II succeeded Senwosret I and is thought to have been his son. Despite his 35 years of rule, and in stark contrast to his father, remarkably little royal material is unquestionably dated to his reign (Fay 1996: 7, 38ff.), even though inscriptions mention his building activity (Grajetzki 2006: 46–7). The only well-preserved dated royal sculpture is one of a pair of colossal sphinxes from Tanis, now in the Louvre (Fay 1996: 11, 15). Its broad face and the unmodeled expanse of cheeks contributes to its massiveness. Facial features include arched eyes with nearly horizontal rims continuing in a wide cosmetic line, thick brows that parallel the eyes and cosmetic lines, a broad nose with vertical depressions extending from the outer edge of the nostrils to the corners of the mouth (nasolabial folds), a philtrum, and straight lips highlighted by a thin raised line (vermillion line). Although much smaller, the bust of a king in Boston (figure 39.8) has all of Amenemhet II's hallmarks and may be attributed to him as well (Fay 1996: 32ff.). The harsh, almost brutal quality of these sculptures bears no relation to the sweet idealized faces from the end of Senwosret I's reign. Rather, they show the beginning of a trend toward the maturity and character that would further develop in later reigns.

Amenemhet II was buried at Dahshur in a pyramid which awaits further exploration (Callender 2000: 164). From that site and several others, the few existing fragments of royal relief (Fay 1996: 39ff.) are of little value for art-historical analysis. This is particularly unfortunate, since the tomb chapel of Siese, one of Amenemhet II's viziers who was buried near him (Simpson 1988: 57ff., pls. 14–5) demonstrates the outstanding quality of relief work artists must have produced for the king as well. The angular shape of Siese's head and its arrogant tilt, the pronounced fold of flesh at the nostril, a pouting lower lip, double chin, and thick neck leave no doubt that this image is a true portrait. As such it is one of very few relief portraits from any era in Egyptian history. What it shares with the precious few fragments of royal relief is a relatively high but flat surface and a forced, artificial organization of offerings.

Conservative fashions of earlier reigns give way to more elaborate ones. Often garments are longer or even layered atop one another, perhaps implying a period of colder weather. On one wall of the tomb chapel of the Nomarch Ukhhotep at Meir, his chief of overseers wears a high-waisted, wrapped garment with a fringed upper border (Blackman 1915: pl. 14), while on another wall Ukhhotep sports an elegant pleated mantle (Blackman 1915: pls. 18, 35). New styles would both continue and become more elaborate through the end of the Middle Kingdom.

Private stelae from Abydos provide the greatest body of material dated to Amenemhet II's reign (Simpson, 1974a: 27–8). This continues the trend begun in his father's reign and bears testimony to what is often called the democratization of religion. The demand for monuments was met by an Abydene school of artists who produced many similar but undistinguished works. Most are in sunk relief, which

Figure 39.8   Boston, MFA 29.1132. Amenemhet II, Dynasty 12, granodiorite. From Nubia (Sudan), Semna; Harvard University-Boston Museum of Fine Arts Expedition. Photograph © 2010 Museum of Fine Arts, Boston.

generally requires less skill to execute than raised relief. Thin, elongated figures of family members stand stiffly in registers facing the dedicant, who is usually seated at an offering table, now devoid of the rich variety of goods seen previously. It represents the beginning of mass production of such monuments, with the expected shortcuts and reduction to the most basic elements. Although the same artists' hands may be identified on many of them, in no instance is the artist identified (Freed 1996: 324ff.).

Sahathor left a stela with a niche containing a block statue at Abydos (Russmann 2001: 96–7). Although the statue's facial features are idealized, the rectangular shape of the face gives it a stern quality reminiscent of the Amenemhet II sphinx. The wig and body, like the figures on Abydene stelae of Amenemhet II's reign, have been abstracted to essentials. The wig bears no decoration but echoes the smooth line of the body, where an enveloping garment barely reveals the human form.

Although it is not specifically dated, the style of the splendid seated statue of Sehetepibreankh suggests that it too was made during the reign of Amenemhet II (Hayes 1953: fig. 125). It was found at Lisht, which continued to be used for burial throughout the Middle Kingdom, despite the location of royal burials elsewhere after Senwosret I's reign. Sehetepibreankh's broad, unmodeled face, large eyes with arched

upper lids and straight lower lids, naturalistically curved brow, depression at the bridge of the nose, and thick lips meeting in a straight line echo the Louvre sphinx. His wig, which envelops his shoulders and tapers to points above his breasts represents a new fashion of the time, and may subtly mimic the royal *nemes* headcloth. It is masterfully rendered with modeled waves and incised individual curls carefully tied off at the forehead and lower edge. Sehetepibreankh's solid, muscular body is more naturalistically sculpted than in the previous reign.

Senwosret II

Although he ruled for a relatively short time (8–9 years) (Grajetzki 2006: 48), Senwosret II's reign was one of the most artistically and culturally innovative. The trend toward individuality begun in the reign of his father blossomed, thanks to continued economic prosperity, internal stability, exploration of new areas within Egypt and an increased contact with surrounding countries. Unfortunately at least three colossal images of Senwosret II were altered almost beyond recognition by the great usurper, Ramesses II in Dynasty Nineteen, and then taken to Tanis by Dynasty Twenty-two. Karnak, Medamud, and Memphis yielded other statues of Senwosret II. No sculpture and but a few fragments of relatively low, flat raised relief were found in his funerary complex at Lahun, located near the entrance to the Fayum (Petrie et al. 1923: pls. 16–19).

The few surviving images of Senwosret II demonstrate that the movement away from youthful idealization toward more psychologically powerful images of power, maturity, and character already suggested under Amenemhet II continued in earnest under the reign of Senwosret II. A bust from a seated statue of the king said to be from Memphis (figure 39.9) presents a more realistic appearance than previously seen in Middle Kingdom sculpture (Simpson 1984: col. 900, 902, note 13). Large features filling most of the facial surface impart a new immediacy. Almond-shaped eyes depressed under strong overhanging brows leave little space for the forehead. The brows continue in an unbroken curve into the bridge of the nose. Narrow at the top, the nose broadens into nostrils whose width nearly matches that of the mouth. The lips meet in a straight line, but the upper lip is narrow and straight throughout while the lower is full in the middle but tapers at the corners, making the king appear to pout. Pronounced cheekbones and receding cheeks draw attention to nasolabial furrows. Ears pushed artificially forward by the *nemes* draw even more attention to the face. Regardless of whether it represents a true portrait, the result is a more lifelike image than previously seen on royal sculpture.

A detail on the Copenhagen Senwosret II that may reflect both the prosperity and internationalism of the times is the double-lobed pendant on a beaded chain the king wears on his muscular, idealized torso. Mining operations around this time produced and exploited such exotic and colorful stones as amethyst, turquoise, anhydrite, obsidian, and carnelian, all of which are incorporated into exquisite and complex jewelry and cosmetic vessels found in tombs associated with the pyramids of Senwosret II and his father. It is the first time a king is shown with this type of necklace.

The prominence of sculptures of royal women is another noteworthy aspect of Senwosret II's reign. Two over life-size images of one of his queens, Nofret, found in Tanis (Evers, 1929: pls. 72–5) exhibit a facial shape and features strikingly similar to
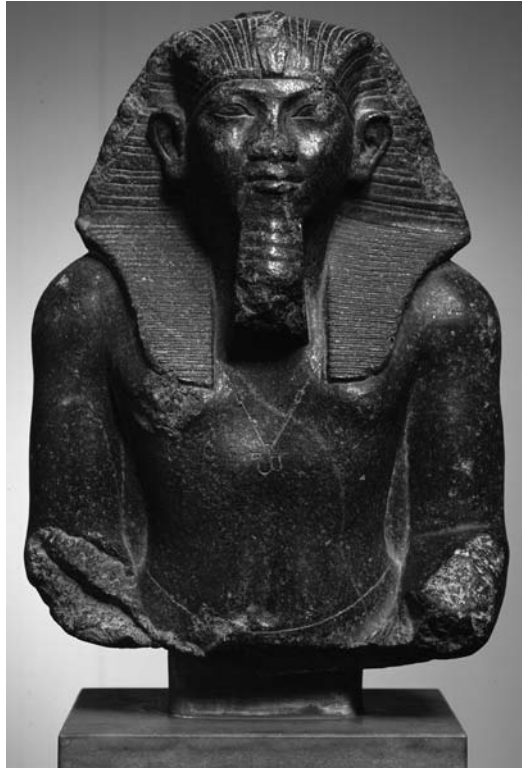
Figure 39.9   Copenhagen, Ny Carlsberg Glyptotek AEIN 659. Head and upper body of Senwosret II, Dynasty 12, granite. From Mitrahina. Photography Ole Haupt. Courtesy The Ny Carlsberg Glyptotek.

the Copenhagen king. The queen's wig is most voluminous behind her large ears and pushes them forward, giving her even greater presence. The wig is tripartite, with the front lappets tapering just above her breasts and curling around what appear to be discs, a style reminiscent of what is worn by the great goddess Hathor, and accordingly referred to as a "Hathoric wig." Another of Senwosret II's wives, Weret who bears the title "Great Royal Wife" in her statue in the Louvre (Ziegler 2001) has a rounder face but comparable eyes. The similar form of the eyes leads to the identification of a queen in Boston as Weret (Freed, Berman, and Doxey 2003: 128). Narrow shoulders and the angle of the neck break on the Boston sculpture suggest it came from a sphinx, the ultimate symbol of power in Egypt and befitting a Great Royal Wife. A sphinx representing a daughter of Amenemhet II was found in the Levant (Fay 1996: 44–5, pls. 58–60), where it may have been sent as a diplomatic gift or a reminder of Egyptian power. Its style leaves no doubt that it was made in Egypt.

Private sculpture is also innovative during Senwosret II's reign. Although not specifically dated, the nurse Satsneferu's mature face, low forehead, drooping lower lip, and cheeks made to appear wider by prominent ears are all hallmarks of the reign of Senwosret II (Hayes 1953: fig. 132). She squats with her feet demurely to her right side and places her left hand on her right breast as a sign of respect. She wears a long

fringed mantle draped over her left shoulder. Later in the dynasty, statues of men, both seated and standing, wear an enveloping cloak draped over both shoulders. Ukhhotep wears a three-quarter-length wrapped kilt secured above his waist in each of two statues from his tomb at Meir (Terrace and Fischer 1970: 81–4; Freed, Berman and Doxey 2003: 129), and he stands between two wives, a rare situation which might be interpreted as polygamy (Simpson 1974b: 100–5). Both wives, like the king's wife Nofret, wear the Hathoric wigs. A daughter stands between Ukhhotep's feet in the Boston statue in a clever way of providing symmetry to the statue group. (On the Cairo statue, she stands to Ukhhotep's left.). As an adolescent, the daughter is clothed on both statues but still has youthful sidelocks which take the form of a ponytail on each side of her head, another unique and creative manner of maintaining symmetry.

Ukhhotep was one of a number of regional governors (nomarchs) from families who continued to enjoy prestige, power, and perhaps royal favor in their home areas and were buried there. The Nomarch Djehutyhotep from el-Bersha had the largest tomb at that site, and it was richly decorated in low, flat raised relief in a style similar to Senwosret II's. El-Bersha is located in an area rich in fine limestone as well as alabaster. Accordingly it is not surprising to find 172 men dragging a colossal alabaster statue of what may have been the nomarch himself (Newberry 1893: 24), providing a sense of the power and wealth of the nomarchs and the magnitude of building projects they undertook in their homelands.

Nomarchs also continued to build their tombs at Qubbet el-Hawwa to the west of Aswan, Egypt's southern border. Unlike earlier in the dynasty, when Sarenput I's tomb chapel reliefs (apart from the door-jambs) displayed the mark of a local hand, the style of both painting and sculpture in Sarenput II's tomb is now not only uniform throughout but also echoes what is found elsewhere in Egypt at the same time, if not earlier. This nomarch began his career in the fourth Regnal Year of Senwosret II and continued until at least the eighth year of his successor, Senwosret III (Habachi 1985: 46). Osirid statues, ¾ in the round, which line the tomb's corridor, bear plain, unlined but serious faces that are more similar to those of the reign of Amenemhet II than Senwosret II. B. Fay has identified a statue of Sarenput II that also displays the style of Amenemhet II's reign and suggests it came from his tomb (Fay 1997: 100).

A shrine dedicated to an important local official named Hekayib was located on Elephantine Island opposite Qubbet el-Hawwa. Although he lived in the late Old Kingdom, his worship as a local saint continued throughout the Middle Kingdom, and some of the period's finest private sculptures come from there. Sarenput II commissioned two statues for the shrine, one for his father Khema, who lived under Amenemhet II, and another for himself (Habachi 1985: 43–4, pls. 39–45). The father's serious but youthful face and muscular torso resemble sculptures of the time of Amenemhet II. Sarenput II's own statue, presumably made at the same time or shortly after, is in an entirely different style (Habachi 1985: 42, pls. 30–7). His eyes are more naturalistic and three-dimensional in shape and are highlighted by sharply delineated brows and cosmetic lines. Pouches under the eyes and short but pronounced nasolabial furrows, hallmarks of Senwosret II's reign, further distinguish the two statues. Like the monarch under whom he served most of his life, Sarenput II

Figure 39.10 New York, MMA 17.9.2. Sphinx with head of Senwosret III, Dynasty 12, granite. The Metropolitan Museum of Art. Gift of Edward S. Harkness, 1917.

wears a beaded chain with a pierced, double-lobed amulet. The statues of Khema and Sarenput II are both masterpieces, and together they demonstrate that artists understood and adapted to the changes that ultimately accompanied each new reign.

Senwosret III

Senwosret III, the son and successor of Senwosret II, ruled for at least nineteen years but more likely nearly forty, according to recent discoveries (Wegner 1996: 3ff.). Sculpture and relief made for the king and his highest administrators followed the Twelfth Dynasty's trend toward advanced age, maturity, wisdom, and the ability to elicit character in sculptures made from hard stones. Sculptors produced royal and private monuments that were both numerous and superbly crafted. One author counted 68 statues and statue fragments of the king himself, many colossal in scale that were found throughout Egypt, as well as in Nubia and Sinai (Polz 1995: 234, 237). Karnak, Deir el-Bahri, and Medamud have thus far yielded his most impressive examples.

Nowhere is the divine power of kingship better expressed than in the diorite sphinx of Senwosret III, thought to originate from Karnak (figure 39.10). Even without his name inscribed on its mane, his distinctive face would identify him. The iconography of age, wisdom, and character strength hinted at during the reign Senwosret II is now

overt, even to the point of exaggeration. Hooded eyes protrude outward from sunken sockets, which are further emphasized by pronounced pouches beneath, and parallel sets of diagonal grooves extend from the inner corners of the eyes to the cheeks, from the nostrils to the corners of a tight-lipped, frowning mouth and from the corners of the mouth to the chin. As in the previous reign, over-large ears are pushed outward by the *nemes* headdress. The taut modeling of the lion body, further enhanced by the variegated stone, meld beast and man together into a creature worthy of reverence – if not fear.

At Deir el-Bahri, powerful, over life-size images of Senwosret III carved from black granite stood between columns of the colonnade. Six remain; two are headless. In all the king wears a three-quarter length pleated skirt with a projecting triangular frontal element. His hands lie flat on the front of his kilt in what is often called a gesture of reverence (Russmann 2000: 102–3). This is the first time the king is depicted in this manner. The volume provided by the projecting kilt and hands give the sculptures a strong presence, and this is further enhanced by the king's facial features. In addition to the traits described above, they also have deep grooves on the forehead that arch upward from the bridge of the nose. Illuminated by sunlight raking over them, these sculptures surely attracted attention and garnered respect.

By placing images of himself at the funerary temple of the Middle Kingdom's founder, Mentuhotep II, Senwosret III identified himself with his illustrious predecessor. This would have served as powerful propaganda for the populace. Many have speculated upon what additional message the king wished to convey with his aged, haggard, yet stern face, not only at Deir el-Bahri, but also elsewhere. Suggestions include the king's desire to elicit fear, reveal the awesome divinity of kingship, show reverence to the god in whose temple his statues were erected, or demonstrate concern for the country and its people, as contemporary literature suggests. All are possibilities.

Out of the four Deir el-Bahri statues with heads, two appear younger because their faces are not as deeply furrowed (Vandier 1958: 186). A group of at least twenty seated statues of granite as well as a number of sphinxes from the nearby Montu temple at Medamud (Vandier 1958: 184) exhibit a full range of facial modeling, suggesting the artist deliberately intended to show the king at various stages of life, from youth to extreme age (Vandier 1958: 184–6). The variations are particularly noticeable in the three-dimensionality of the eyes and the depth of the furrows of the cheeks and chin. In all cases, whether youthful or aged, the body displays the idealized muscular form of a man in his prime. As a group of statues in a similar pose found in the same location, not only are they unparalleled in their variety, but also they show the ability of the artists to make hard stone come alive.

The difference between youth and age is also evident in reliefs from the same site. One striking example may be found on a lintel where Senwosret III with an unmodeled face offers to the falcon-headed local god Montu on the left half**,** and in a mirror image the king with a furrowed face and hooded eye offers to the falcon-headed Horus, god of kingship, on the right. A second lintel from Medamud showing the king in his jubilee garment was copied detail for detail, howbeit less skilfully in the next dynasty (see below) (Cottevielle-Giraudet 1931: 7, pls. 1, 5).

Ongoing excavations at his pyramid complex at Dahshur and Abydos, where Senwosret III was buried, are continuing to yield more material. Reliefs of the king

Figure 39.11   Boston, MFA 2003.244. Josephson Head. late Dynasty 12, quartzite. Possibly from Memphis. Partial Gift of Magda Saleh and Jack A. Josephson and Museum purchase. Photograph © 2010 Museum of Fine Arts, Boston.

found at both (from Dahshur: Wildung 1984a: 176, fig. 151; from Abydos: Wegner 1995: 66), share with the Medamud material a sophistication of modeling of both main figures and raised relief hieroglyphs, ranking them among the finest reliefs Egyptian artists ever produced.

The reign of Senwosret III was also a time when sculptures and reliefs of important non-royal officials exhibited the same quality as the royal material. A quartzite head of a nobleman in Boston known as the ''Josephson Head'' (figure 39.11) is carved with such sensitivity that its hard stone reads as flesh. Although the nobleman's facial features are similar to those of the king he served, details like the bump just below the bridge of his nose and his finely chiseled cheeks set him apart. Surely one of Senwosret III's own sculptors must have carved the Josephson Head, perhaps in the Theban area in view of its similarity to the Medamud material. The statue of Hekayib (Habachi 1985: 48–9, esp. note 2, pls. 50–6) from the shrine of his namesake on Elephantine is another superb sculpture of the time. While Hekayib's face bears the beautifully sculpted features of Senwosret III, his fleshy, almost feminine breasts carry through the image of an elder in a way not seen on any Middle Kingdom royal sculpture.

The reign of Senwosret III is also a time when the number of smaller scale sculptures and reliefs of officials of lower rank increases dramatically, particularly at Abydos, where many private stelae bearing the king's name have been found
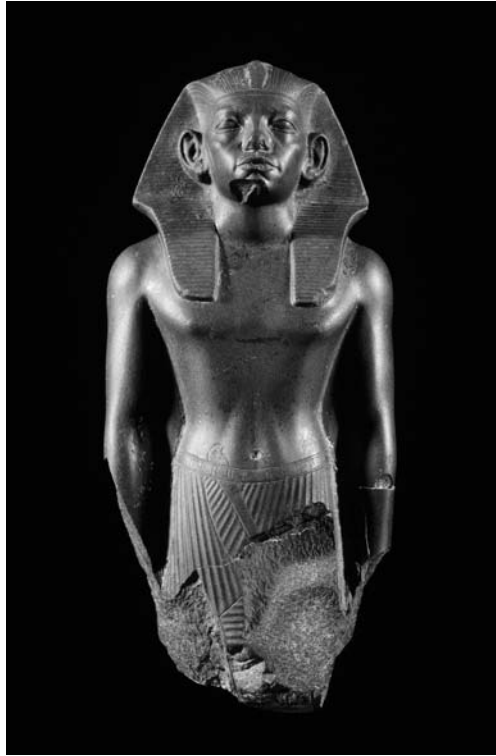
Figure 39.12 Paris, Louvre N 464. Statue of Amenemhet III, Dynasty 12, greywacke. © Musée du Louvre/Georges Poncet.

(Simpson 1974a: 28). They exhibit the same dichotomy as contemporary private sculpture. Some are innovative in their form and skilled in their execution (Simpson 1974a: pl. 2, upper left) while others show large numbers of family members and co-workers carved in rote, cookie-cutter fashion and arranged in repetitive rows or framed in rectangles (Simpson 1974a: pl. 3, upper left).

Amenemhet III

The reign of Amenemhet III, which lasted at least 46 years, including a coregency of up to 19 years with his father, was the longest of the dynasty. Given the number and quality of works produced under Senwosret III, it is not surprising that superb sculptural achievements continued. Amenemhet III is represented in at least 70 sculptures (Franke 1995: 745), and his quarrying activity was greater than that of any king before him (Leprohon 1980: 217, 272, note 175).

In most instances, images of Amenemhet III are easily distinguishable from those of his father. Senwosret III's hooded eyes and deep diagonal furrows are less pronounced and, instead, a jutting chin and pouting mouth, often including a protruding lower lip becomes the focus (figure 39.12). As before, images vary from youthful and idealized (Evers 1929, pls. 102–3) to more mature (figure 39.13). While the younger image has more of the appearance of a spoiled adolescent, the latter projects

Figure 39.13   Copenhagen, Ny Carlsberg Glyptotek AEIN 924. Head of Amenemhet III, Dynasty 12, greywacke. Quft. Photograph Ole Haupt. Courtesy The Ny Carlsberg Glyptotek.

a haughty confidence. The consummate skill of the artists is beautifully expressed in masterpiece after masterpiece of royal sculpture.

Amenemhet III focused on internal development rather than foreign affairs (Leprohon 1980: 333ff.). With ample resources available, artists produced numerous colossal images of the king which surely sent a powerful message to the populace. A pair of seated statues of the king must have formed an awesome pair outside the temple to Bastet at Bubastis, where they served as intermediaries between the populace and the divinity at home inside the temple. The head alone is over 0.76 m high (Russmann 2000: 106–7). Two seated statues of the king made of quartzite once presided over the banks of Lake Moeris at Biahmu in the Fayum. Although today only their pedestals remain, fragments found nearby suggest statue and pedestal together measured over 18 m in height (Freed 2002a: 111). At the time they were made, they were Egypt's tallest free-standing statues and surely served as the models for Amenhotep III's Memnon colossi at Thebes. Variety also distinguishes the sculpture of Amenemhet III. The dress, pose, and attributes of some sculpture are traditional, but other images display a creativity unsurpassed by any previous monarch. Good examples are the many sphinxes from the Delta. While some are the sleek animals of earlier (Freed 2002a), others, through a leonine mane framing the face, perfectly meld man

and beast (Saleh and Sourouzian 1987: no 102). The surrealistic image is carried through to the torso, with rippling muscles enhanced by stylized grooves imitating hair.

Most likely Amenemhet III used the Step Pyramid precinct of Djoser of Dynasty Three as a model for his funerary complex at Hawara (Callender 2000: 169–70). His interest in Egypt's antiquity explains why a number of his statues from the Fayum oasis, an area upon which he focused extensively, wear long ringlets and full beards known only from Egypt's first few dynasties (Freed 2002a: 115–17). Further, on one of these statues (Saleh and Sourouzian 1987: no. 103) he wears the accoutrements of a High Priest, including a leopard skin, a *menat* necklace, and standards bearing divine heads. While the king's role as High Priest may have been understood, this is the first time a king is specifically shown in this role.

The Tanis statue of Amenemhet III shows him in another unique and creative manner. In this pair statue, he – perhaps shown twice, or with his double (*ka*), or possibly his coregent – is depicted as a bearer of offerings. His outstretched arms present fish, ducks, and lotuses to the gods similar to the way the king's personified estates do in relief beginning in Dynasty Four (Smith 1981: 76–7). The back of the statue provides another insight into how artists strayed from tradition to accommodate new ways of expressing age-old concepts. Representing a standing male statue with his left foot forward was one of the cannons of Egyptian art seldom broken. However, here the offering statue on the proper left is depicted with an extended right foot, thereby creating symmetry and providing balanced surfaces for offerings.

The creativity in pose, composition, and attributes extended into the private sphere as well, as exemplified by the now twin – but once triple – statue of the Memphite High Priests Sehetepibreankhnedjem and his son Nebpu (figure 39.14). They share a common base and back slab, as well as a continuous triangular kilt which extends directly outward from the back slab, creating the impression that the statue is as much a relief as a three-dimensional work made for placement inside a temple niche (Delange 1987: 82). Their conjoined skirt is innovative, but its projecting triangular shape and the arm placement resemble what first appears on statuary of Senwosret III. It may have been usurped from the royal sphere. According to the inscription, Nebpu commissioned this statue for his father, whose facial features exhibit the deeply hooded eyes and diagonal furrows of Senwosret III, while those of Nebpu emphasize the pouting mouth of Amenemhet III. This, as in the statues of Sarenput I and his son Khema mentioned above, may have been a conscious effort to acknowledge change in the official physiognomy from reign to reign. The dense and complex accoutrements of this statue also bear the hallmarks of the reign of Amenemhet III (Delange 1987: 82–3). Both men wear the diagonal priestly shoulder band, eight-strand beaded aprons with complex ties, and a unique and ornate chain necklace featuring mummified falcons and the necropolis god Anubis with arms upraised in prayer. This intriguing statue has no known parallel.

In another example of creative re-thinking of a known sculpture type, the block statue of the Steward of the Counting of Cattle, Senwosretsenbefny (figure 39.15), features a small-scale representation of the owner's wife Itneferuseneb, standing between his feet. Viewed frontally, wig, lap, legs, and base each meet at right angles, forecasting a trend toward simplification and reduction to geometric forms. The view is deceptive, since, viewed from the side or at an angle, the statue displays a

Figure 39.14 Paris, Louvre A47. Sehetepibreankhnedjem and Nebpu, Dynasty 12, quartzite. © Musée du Louvre/Georges Poncet.

sophisticated melding of curvilinear, organic forms. Senwosretsenbefny's face has the calm, inner strength of a mature man, despite any overt signs of age. His eyes are naturalistic but not given special emphasis. The lower part of his face projects forward, particularly his lower lip, which gives him a hint of a frown. The statue fits in well with the parameters of sculpture of the time of Amenemhet III, although an earlier date is possible as well (Romano 1989: no. 22). Napoleon brought it back from Egypt as a gift to his wife Josephine (Romano 1989: no. 22).

In addition to relatively few larger scale and accomplished private works, there are countless examples from this time on of small-scale statues of minor officials, often with their families, that make up in charm what they lack in sophistication. Found not only at Abydos, but also throughout the country and into the Levant and the Sudan, they are often crudely proportioned, lopsided, and downright amusing. They represented their owner's eternal presence in a tomb or temple and gave him access to the benefits of life in the Netherworld. In contrast to the statues which seldom bear a royal name, more stelae are dated by inscription to Amenemhet III's reign than any other Middle Kingdom king with the exception of Senwosret I (Simpson 1974a: 28–9). Most often they include multiple figures in passive, repetitive poses arranged in long rows below the dedicant, who is seated beside a table of offerings. The depiction of a

Figure 39.15 New York, Brooklyn Museum 39.602. Block statue of Senwosretsenbefny, Dynasty 12, quartzite. Charles Edwin Wilbour Fund. Photograph courtesy of the Brooklyn Museum.

private individual worshipping a god directly represents a major innovation of this time, and it is in keeping with the greater access to and popularization of religion at the end of Dynasty Twelve.

Amenemhet IV

Amenemhet III's reign was the last of the lengthy and productive periods of Dynasty Twelve, and, although his son (or grandson) Amenemhet IV succeeded him, the highest Regnal Year attested for him is nine, possibly including a several-year-long coregency (Callender 2000: 170). A pedestal decorated with uraeii bearing his head in a *nemes* (Brunton 1939: 177–9, pls. 23–4) is the only inscribed royal sculpture bearing his unrecarved image. The faces, although small in scale and very damaged, exhibit hooded eyes similar to those of Senwosret III. This is the first time the king's face adorns a uraeus, and in this respect he continues the creativity of his father. Amenemhet IV completed several temples begun by his father in the Fayum, most notably Medinet Madi, built to honor the goddess of the harvest, Renenutet. Large-scale, flat and unmodeled reliefs of the king and gods adorn the walls.

Not surprisingly, little private material is specifically dated to the reign of Amenemhet IV, although certainly some of the smaller-scale undated works must

be from this time. A few private stelae from Abydos bear the cartouches of both Amenemhet III and IV. Stylistically these resemble the mass-produced, rote works described earlier.

Sobeknofru

Sobeknofru, the wife of Amenemhet IV and, according to the historian Manetho, his sister as well, was the last king of Dynasty Twelve. On three headless statues from Khatana (Habachi 1952: 458ff., pls. 8–9) she wears traditional female attire, but, in a torso in the Louvre of unknown provenance (Delange 1987: 30–1), she is depicted with both male and female attributes. Atop the traditional female sheath dress, she wears a *nemes*, a double lobed, pierced amulet on a beaded chain of the type usually worn by kings beginning with Senwosret II, and a high-waisted kilt with a triangular projection first appearing under Senwosret III. Another attempt to combine genders is shown in her use of both male and female titles (Callender 2000: 170–1).

Dynasty XIII

Between fifty and sixty kings, mostly unrelated to each other, ruled in the approximately 150 year period that marks the Thirteenth Dynasty (Grajetzki 2006: 63–75, 170), a sharp contrast to Dynasty Twelve, where a single family enjoyed long reigns in a stable and prosperous country for almost 200 years. With some reigns lasting but a year, it is hardly surprising the period remains enigmatic and royal material is relatively scarce. In all, just over forty statues of Thirteenth Dynasty kings are known (Davies 1981: 21–34), and of those only seventeen retain their heads (Fay 1988: 7, note 6). The majority come from Thebes and south.

A life-size seated sculpture of Amenemhet V who ruled for two years as the fourth king of Dynasty XIII, may have originally stood in the Satet temple at Elephantine (Fay 1988: 67–77). Continuing the Twelfth Dynasty tradition, the body is idealized and well sculpted, but the combination of wide and narrow pleating on the knee-length kilt is thus far unattested on male royalty (Fay 1988: 73). The face exhibits wide-set eyes which are well modeled but not deep-set; high, pronounced cheekbones; shallow nasolabial furrows and a protruding mouth whose corners appear to be drawn up in a slight smile (Fay 1988: 71). It echoes the face of Amenemhet III who ruled twenty years earlier, but it lacks the inner strength that characterizes the late Twelfth Dynasty monarchs. Seldom do later Thirteenth Dynasty royal sculptures achieve the mastery of this representation of Amenemhet V.

The seventh decade of the Thirteenth Dynasty appears to have ushered in a period of greater stability, to judge from the longer reigns, preserved sculptures, and the familial relationship between Sobekhotep IV, the twenty-fifth king of the dynasty, and the three kings who succeeded him (Spalinger 1984: col. 2042). Sobekhotep IV, who ruled for nine years, is represented in nine statues, some of them colossal in size and found throughout Egypt (Delange 1987: 19). In a statue in the Louvre (figure 39.16) from Moalla (Delange 1987: 20–1), Sobekhotep IV wears a kilt and sits with his hands flat on his lap, a position first adopted by Amenemhet III (Aldred 1970: 46). In comparison to the earlier king, his head is too small, his feet are too

Figure 39.16 Paris, Louvre A17. Statue of Sobekhotep IV, Dynasty 13, gabro. From Mo'alla. © Musée du Louvre/Georges Poncet.

large, and his flaccid body looks as if it lacks a skeleton. His arms and hands are devoid of modeling, and his legs are reduced to flat planes meeting at right angles. The face also looks as if it were conceived as intersecting geometric forms. In short, the sculpture comes across as bland and derivative.

Nowhere is the artistic contrast between the late Twelfth and the Thirteenth Dynasties clearer than in reliefs from Medamud where later gateways copied earlier ones. Door-jambs and lintels of both Senwosret III and Sobekhotep II show the enthroned kings twice in jubilee dress under a baldachin receiving the traditional accoutrements of rule (Wildung 1984a: figs. 195–6), although only Senwosret III would have ruled long enough to have legitimately celebrated his 30-year jubilee. While Senwosret III is depicted once as young and once with the lined visage of an older man (Cottevielle-Giraudet 1931: pl. 46), Sobekhotep II's faces, in comparison, are identically vapid (Bisson de la Roque and Clère 1928: 59–60, figs. 48–50). The copyist was also unable to reproduce the earlier proportions, and Sobekhotep II's head, torso, and throne are oddly elongated (Wildung 1984a: 225, figs. 195–6).

Some of the Thirteenth Dynasty's finest works are those of high-ranking bureaucrats, whose power must have rivalled the king's. According to its inscription, the statue of Gebu, Master of the Royal Treasury (figure 39.17), was a gift of the king, although the specific king is not named. He sits cross-legged on the ground with his
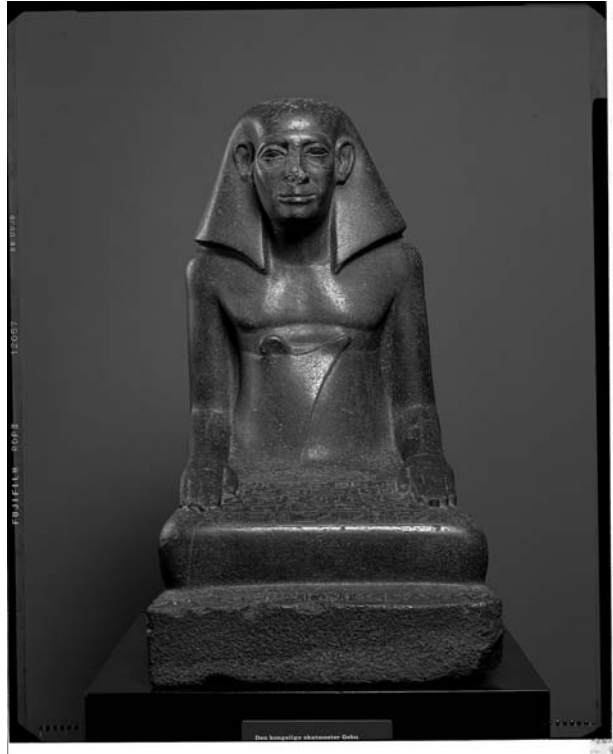
Figure 39.17 Copenhagen, Ny Carlsberg Glyptotek AEIN 27. Statue of Gebu, Dynasty 13, granite. From Thebes. Photograph Ole Haupt. Courtesy The Ny Carlsberg Glyptotek.

hands flat on his broad lap, which forms a flat rectangle and is inscribed, like a stela, with a standard offering formula. His high-waisted wrapped garment hides an ample stomach. The unadorned stylized geometric planes of his body and plain shoulder-length wig focus attention on his extraordinary face. With their heavy lids, overhanging brows, and pouches beneath, his eyes are reminiscent of fine late Twelfth Dynasty work. Pronounced cheekbones give extra emphasis to deep diagonal grooves that emanate from flaring nostrils downward. The prominent mouth greatly resembles the mouth of Amenemhet V. Both share a surrounding ridge, wide philtrum, thin upper lip, protruding lower lip, and corners drawn up in a slight smile. Overall, the impression is one of a powerful elder statesman worthy of fear and respect. Gebu's facial features would seem to place him toward the beginning of Dynasty Thirteen. Given his powerful position, it is possible he served more than one king. The statue was placed in Karnak where it must have been visible for at least four hundred years. It is likely to have served as a model for the statues of Amenhotep III's architect, Amenhotep son of Hapu. Many other masterful representations of powerful officials of Dynasty Thirteen were found in the Hekayib sanctuary and elsewhere (Junge 1985: 127ff.).

Perhaps because so many kings ruled for such short periods, seldom do the administrative elite or the lesser bureaucrats place the name of a king on their statues or stelae, thereby making it difficult to put them in chronological order. It is clear that the democratization of religion continued, and small scale, often awkwardly

Figure 39.18 Boston, MFA 24.892. Statuette of a couple, Dynasty 13, granodiorite. From Nubia (Sudan), Semna, Harvard University-Boston Museum of Fine Arts Expedition. Photograph © 2010 Museum of Fine Arts, Boston.

proportioned statuary of low-level officials proliferated (figure 39.18). Many of these statues must have sat in small stela chapels at Abydos, to judge from the vast numbers of Thirteenth Dynasty stelae from that site. While many stelae show the repetitive layout and iconography found in late Dynasty Twelve, including the dedicant offering directly to funerary gods, others show a creativity not seen earlier. To an even greater extent than previously, royal iconography such as the flail (Simpson 1974: pl. 40, top right) or the *shen* sign (symbol of eternity) (Simpson 1974a: pl. 40, top left) appears in the private sphere. In keeping with a tendency to cover more of the body, Renseneb wears three skirts on two stelae he dedicated (Simpson 1974a: pl. 81). Humble bureaucrats sit on fancy high-backed chairs (Simpson 1974a: pl. 27, lower right). Proportions change. Gross obesity is shown in a way that exceeds all previous known attempts (Simpson 1974a: pl. 56), but more commonly tiny heads are placed atop elongated, often very thin torsos (Simpson1974a: pls. 73 top or 81 top). These changes may be seen in part as the expression of the individuality of the artist, who, in at least one instance, signed a stela he made (Cooney 1951: 2, fig. 1). The inability to reproduce the standard canon of proportion also reflects the lack of a strong central government to support artists. In that respect, these works, with their naïve charm, are reminiscent of those of the First Intermediate Period.

FURTHER READING

An excellent source of additional information on Middle Kingdom art in its historical and cultural context is Wildung 1984a. Art and archaeology were masterfully brought together in Bourriau 1988, the catalogue for her pioneering exhibition of 1988. Aldred 1970 is still the best overview of the iconography of Middle Kingdom royal sculpture. Callendar in Shaw 2000 is a useful and up-to-date synthesis. For a comprehensive collection and discussion of Middle Kingdom art and iconography Evers 1929 remains invaluable. Seminal but more focused books and articles include Fay 1988 and 1996, Arnold 1991, Habachi 1985, Fischer 1959, and Davies 1981. Excavation reports of the Middle Egyptian sites of Beni Hasan, Meir, el-Bersha, and Assiut are but a few of the many sources of further information on this fascinating but understudied period of Egyptian art.

New Kingdom Sculpture

Betsy M. Bryan

1 Introduction

By the beginning of the Eighteenth Dynasty the Ancient Egyptians had been making statuary for more than two millennia. It would thus be naïve to describe the sculpture of the New Kingdom as simply the result of iconographic and stylistic principles established at the dawn of civilization. Any serious student of Egyptology knows that the Egyptians utilized representational art in ways similar to all cultures, including modern ones, and, therefore, the choices made by artists reflected time-sensitive societal organization. The act of statue creation could compress erudition, current religious notions, elite fashion trends, chosen physical traits, and artistic style into a highly sophisticated image of a ruler or a non-royal person. Statues likewise could display the imagery of the past in style or fashion and thereby create associations between contemporary kings and elites and their forerunners. New Kingdom sculpture, therefore, acknowledged the art from which it was born and sought to update it for the needs of contemporary culture and taste.

The features of the reigning king adorned all elite statues during most centralized eras of ancient Egypt, and the New Kingdom was no exception (Seidel 1980; Wildung 1982). Thanks to the changes in royal images from reign to reign, a stylistic chronology of New Kingdom sculpture is largely possible and can also assist in sequencing statue types in the absence of texts. Sculpture, being the product of artisans who worked in contact with both priests and royal officers, was adorned with textual identifiers and short or long texts that would have been supplied to the artists by the patrons or their representatives. The combination of the statue with the inscriptions communicated a larger message than either did alone, and in the New Kingdom statues bore lengthy texts far more often than earlier. In the New Kingdom many new types of statuary were invented that added to the communicative aspect of sculpture, and the texts that they carried included commemorative and religious inscriptions in addition to offering invocations. As such, statuary often functioned in the manner that two-dimensional monuments had traditionally done, e.g., temple stelae and tomb and temple inscriptions. The function of individual statues within cultic settings was, however, extended even further through their poses and

placement, such that statues might have interactive roles, both receptive and performative. Seated sculptures of both royal and non-royal personages might thus be fashioned to receive offerings, as in a tomb or temple sanctuary; likewise kneeling, standing, and striding statues might suggest eternal cult activity by the dedicant. The discussion below will provide a chronological overview of royal and elite New Kingdom statuary in its cultural context and will seek both to describe and interpret.

2   The Eighteenth Dynasty to the Reign of Thutmose I

The beginning of the New Kingdom presented challenges of every type to the new Ahmosid dynastic family following the expulsion of the Hyksos. Probably among the more pleasant demands on the kings was the revival of temples installed with statues of Ahmose, Amenhotep I, and Thutmose I. At the beginning of any new era large-scale art production surely strained the resources of trained artisans to carry out the work, and the early Eighteenth Dynasty was likely no exception. The limited remains from the reign of Ahmose indicate that his efforts were significant in Abydos and Karnak where artisan workshops existed already, but elsewhere production appears to have been of inconsistent style and quality. For example, Vivian Davies observed that statues of Ahmose and Amenhotep I dedicated on Sai Island in northern Sudan were likely the work of local artisans betraying Nubian stylistic preference. (Davies 2004) At the Buhen Temple the king's additions were added in crudely incised relief, suggesting an absence of highly trained Egyptian craftsmen. Edna Russmann recently pointed out that Ahmose's style at Abydos differed from that at Karnak due to the archaistic tendency at the latter temple, where the early Twelfth Dynasty style remained the standard model (Russmann 2005). At Abydos Ahmose's monuments owed more to the late Second Intermediate Period, whose style was visible on the numerous stelae produced there during that era. Yet, the fragments of Ahmose's relief, as retrieved by Stephen Harvey, suggest that the Abydos monuments required a crew of artisans with a high level of training, and it is possible that the existing craftsmen were supplemented by others (Harvey 2004).

Ahmose's face from a limestone life-sized statue with the white crown (private collection) has extremely large very slightly oblique bulging eyes set in a broad rounded face (Romano 1976). The brows are plastic and highly stylized. The damaged mouth is clearly smiling and not ungenerous. The face on a shabti (British Museum EA 32191; figure 40.1) is more heart-shaped, but the finely incised features are similar, and the mouth is carefully defined with the shape seen on later Thutmosid faces. Russmann identified the origins of the highly idealized Thutmosid style in the shabti face of Ahmose and in some of the non-royal Theban statues from the late Seventeenth and early Eighteenth Dynasties, and she noted their correspondence with royal and non-royal Theban coffins of the same era. (Russmann 2005) Yet, as she also commented, other styles surfaced during this period until the Thutmosid type was well developed, perhaps by the reign of Thutmose II, but certainly in that of Hatshepsut. Alongside the delicate idealized face of Amenhotep I on his Karnak reliefs, an individualizing style

Figure 40.1 Shabti of Ahmose. Limestone. British Museum EA 32191. Courtesy Trustees of the British Museum.

depicting Amenhotep I appeared in his Osirid statuary from Deir el-Bahri, where a large and fleshy nose protruded from a heavy face with a thin horizontal mouth (British Museum EA 683). The Osirid type may have offered a nod toward Mentuhotep II's Deir el-Bahri sculptures, yet faces on earlier *rishi* coffins and late Seventeenth Dynasty royal coffins, such as the gilded one of Queen Ahhotep (CG 28501), may have been another source of the alternative facial type (Roth 2002). Those features were more summary, but the broad prognathous facial shapes, large noses, and thin mouths are very evocative of the more carefully modeled features of Amenhotep I. The colossal statues of Thutmose I came close to the Thutmosid idealized facial type and wander far from the Deir el-Bahri faces of Amenhotep I. Thutmose I has a long nose that broadens at the its base with a thicker and broader mouth than his predecessor – whether in statuary or relief – and is slightly smiling. The eyes are naturally arched and very wide open, as seen on the one well preserved example, CG 42051 (Bryan 2002; Russmann 2005; figure 40.2). The breadth of the face beneath the eyes is similar to the Ahmose statues but with the more prominent cheek bones so typical of the Thutmosid faces. The statues of Thutmose II are either fragmentary or dedicated by Hatshepsut and cannot be properly evaluated for distinctive features (Dreyer 1984), yet by the time of Hatshepsut's regency the tentative elements of portrayal had given way to a strongly

Figure 40.2 Facial detail from an Osiride of Thutmose I. Sandstone. Temple of Karnak. CG 42051. Courtesy Supreme Council of Antiquities.

identifiable model that was only subtly tweaked during her kingship and that of Thutmose III up to the reign of Thutmose IV.

Russmann pointed to new royal facial features and additional statue poses and attributes for female images as innovations of the early New Kingdom (Russmann 2005). The relationship between faces on funerary statues and coffins may have resulted from the deployment of readily available artisans from Western Thebes to work on a broad range of monuments, perhaps crossing artistic forms as a result. For example, female figures shown with the left leg advanced were not uncommon in two dimensional representations of the late Middle Kingdom and Second Intermediate Period, but, other than as wooden statuettes (CG 495 and 797) (Borchardt 1930), were not commonly produced in statuary until the beginning of Dynasty Eighteen. The artisans of such wooden funerary statuettes may have been well positioned to craft these early New Kingdom striding sculptures. As Russmann noted, however, the new poses suited the newly expanded visibility of women in Egyptian elite culture and soon were made in every size and material.

During the reigns of Ahmose, Amenhotep I, and Thutmose I and II, the following royal statue types are attested: seated wearing white crown and *Sed*-festival robe: Ahmose, Amenhotep I, and Thutmose II (inscription posthumous); Osirid: Amenhotep I, Thutmose I; seated wearing the *nemes*: Thutmose I (fragmentary); Thutmose II (fragmentary); group with deities: Thutmose I (upper half restored post-Amarna); kneeling: Thutmose II (inscribed and attributed). Sphinxes (one with human hands) are attributed to Amenhotep I. This brief list of statue types is almost certainly under-representative, since Hatshepsut and Thutmose III dismantled and altered so many early Eighteenth Dynasty monuments at Karnak and Deir el-Bahri. The life-sized examples from Egypt and Nubia (Ahmose, Amenhotep I, Thutmose II) depict the king in the most ancient royal portrait type – that of the king in jubilee or coronation robe wearing the white crown (Davies 2004; Dreyer 1984). This combination, seen also on the Second Intermediate period Karnak statue of Merhotepre Sobekhotep (Davies 1981), recalls the Nekhen statues of Khasekhem that underlined his Upper Egyptian association. Perhaps, then, not only the divine legitimation of the ruler but perhaps also his domination over the southern regions was implied in the placement at Elephantine and Sai Island of the early New Kingdom statues. The Osirid statues of Amenhotep I and Thutmose I are very different in form and size, but the architectural use of all the examples was fundamental. In adorning the mud-brick works at Deir el-Bahri, Amenhotep I used statues attached to broad pillars, while Thutmose I added his thirty-six colossal images in the Hall behind the Fourth Pylon and created a peristyle court with them (Lindblad 1984). Both rulers emphasized their association with the great god Osiris by means of these mummiform statues, but Amenhotep I's representation in the double crown combined the power of the dual king with the image. At Karnak Thutmose I may have been shown in the red crown as well as the white, like Senwosret I on his Osirids from Lisht (CG 399 and 401), but at Karnak the focus on veneration of deceased kings would have underlain the use of the statue type. The other statue types are so poorly attested as to provide little to our understanding of their use, but there are no new forms among them. Rather it is in the non-royal sculpture that indications of new demands on the role of statuary are evident. As Russmann noted, elite females played a more active role after the late Second Intermediate Period. (Russmann 2005) On the so-called "Donation Stela" of Ahmose from Karnak Queen Ahmose-Nefertari is shown striding behind her husband, clearly an active participant in the scene. Although no known temple statue illustrates this pose in the early Eighteenth Dynasty, small non-royal funerary sculptures did so, and by the reign of Amenhotep III had become a statue type used for large-scale images of queen and elites alike (Bryan 2008). The inclusion of hand-held attributes, such as lotuses, may also have been an early signal of the increased communicativeness of sculpture seen so plainly in the statuary of Hatshepsut and her contemporaries.

3 Sculpture in the Mid-Eighteenth Dynasty

The Thutmosid royal image dominated sculpture from the reign of Thutmose II into that of Thutmose IV, although its expression was manipulated both from ruler to ruler and within each reign as well. Yet the idealized smiling face with broad upper

Figure 40.3 Kneeling statue of Hatshepsut with nemset jars. Granite. Deir el-Bahri. JE 47702. Courtesy Supreme Council of Antiquities.

cheek bones, naturally arched eyes, long nose widely spread at the base, and broad mouth appears in every case, while the size of each feature and the location and subtlety of modeling varied. The royal sculpture of Hatshepsut, as discussed by Tefnin (1979) and more recently by Keller, Arnold, and Roehrig (Keller 2005a; Arnold 2005) represents the first full statuary programme known from the New Kingdom and demonstrates the ability of the Theban workshops to produce many dozens of life-sized and colossal images with technical excellence and stylistic cohesion (figure 40.3). Yet the face of the queen within those statues could be seen to have changed in a number of ways over the fifteen years of her work at Deir el-Bahri. Only slightly later Thutmose III was able to rebrand Karnak with his distinctive image and went on to do so in temples throughout the Nile Valley (figure 40.4). Dimitri Laboury's treatment of the vast corpus of Thutmose III's statues included an internal chronology and a typological analysis indicating both traditional and new types created through the 54-year reign, but Laboury also noted that statue types are less useful in identifying evolution of a portrait over time (Laboury 1998). Thanks to the extremely large number of statues of this king and their known architectural settings, Laboury was able to combine stylistic analysis with the evidence from architectural history and thereby provide additional confirmation for his dating of many works. He concluded that Thutmose III's portrait evolved through his reign, breaking eventually away from Hatshepsut's model only to return at the end of the

Figure 40.4   Sphinx of Thutmose III. Granodiorite. Temple of Karnak. CG 42069. Courtesy Supreme Council of Antiquities

period to a new youthful look most similar to that of his father Thutmose II. During the period of the "proscription of Hatshepsut," therefore, Thutmose III's facial type attempted to obliterate the first fifty years of his own reign, leaving his legacy as his father's legitimate heir as his last comment (Laboury 1998).

It is the homogeneity of the image that characterizes the art of the Thutmosid era, and that achievement was made possible by the use of standardized production techniques, such as grids, to proportion figures. Recently the Spanish mission in Thebes discovered a drawing tablet with the proportioned figure of Hatshepsut shown frontally on a grid, an obvious technical aid to statue creation (Galan 2007). An aid to the creation of the two-dimensional form of Thutmose III has been in the British Museum (EA 5601) for many years and may have been a companion piece produced in the coregency era (Robins 1994). The canonical grid system enabled large numbers of artisans to work in consistent styles and to complete the relief decoration for Hatshepsut at Deir el-Bahri, in East Thebes, and elsewhere in Egypt and in Nubia.

4   The Royal Portrait

The instantly recognizable image of the ruler spread throughout the new empire in Nubia, from Aniba to Gebel Barkal, by means of the expanded artisan efforts referred to already. A seated dark granite image of Thutmose III in the jubilee robe was left at

Figure 40.5 Seated statue of Amenhotep III. Granodiorite. Kom el-Heitan. British Museum EA 4. Courtesy Trustees of the British Museum.

Gebel Barkal, while an image of Hatshepsut was left at Sai Island near her Ahmosid ancestors's images. (PM 1951: 165) More interesting, perhaps, is the amount of royal and elite sculpture found at these Nubian temples and fortresses, attesting to the presence of Egyptian officials and more significantly, to the wide distribution of the newly emerged Thutmosid model already in the reign of Hatshepsut. The block and seated statues found in Nubia were made of Egyptian stones in a number of cases – limestone and Aswan granodiorite – and attest to the desire to export the new hegemonic power's image into the territory. Hatshepsut's face on the limestone statue of Nubian prince Ruiu (Leipzig 6020) and on the granodiorite image of his son Amenemhet (University Museum E 10980) was certain evidence of these local chieftains' loyalty to that ruler and likewise sent her renown (her *bꜣw*) to Aniba and Buhen through the depictions (Roehrig 2005b: catalogue entries 27–8). Whether the sculptures were carved in Nubia or Egypt is unimportant, since the materials themselves were typically Egyptian, as was the technical craftsmanship.

The ability of the Egyptian state to export the depiction of its powerful, youthful, and divine rulers may have contributed to the maintenance of the Thutmosid model over nearly a century, aided most significantly by Thutmose III's constant construction in the Nile Valley and beyond (Vandersleyen 1982). The militarily active series of rulers apparently found the nearly sweet smiling facial features to be an effective

image, and by the end of the reign of Hatshepsut they were combined with more masculine body types that persisted through the reign of Amenhotep II. Only after the southern and northern borders had been sealed by treaty and diplomatic marriages did the dominance of the Thutmosid type begin to wane. The two-dimensional art of Amenhotep II began to vary, sometimes representing a large and obliquely set almond-shaped eye and a "dishpan" facial profile that lacked a brow line. In statuary these features appeared in the reign of Thutmose IV only to become in exaggerated form the hallmarks of Amenhotep III's distinctive face. The idealization of the young smiling Thutmosid face was replaced with a set of features that was elaborated to convey the elegance and extravagance of courtly life: strongly angled eyes ovoid in shape reproduced the effects of eye cosmetics, a broad straight nose with barely perceptible root replaced the aquiline profile, thick upper and lower lips expressed sensuality without a smile, and a fleshy face softened the strength of the Thutmosid bone structure (Kozloff and Bryan 1992; figure 40.5).

5   Statue Types and Innovations of the Mid-Eighteenth Dynasty

The expansion of statue types during the reigns of Hatshepsut and Thutmose III has been commented upon by several scholars, and this was true for both royal and elite sculpture. Yet, it was not only new types but also new uses of old ones that characterized the corpus. For example, kneeling royal statues had been produced since the Old Kingdom, but Hatshepsut's sculptors created them in over life-sized form to line the processional path on the second terrace of Deir el-Bahri. Likewise new attributes appeared in the hands of Hatshepsut's kneeling images, including *nemset* offering jars with *djed* pillars affixed; she also wore the *khat* headdress on those kneeling statues, perhaps referencing her own divine *ka*. (Keller 2005a) Her Osirid figures combined a cloaked upper body with mummiform legs, and they represented the ruler holding the *ankh* and flail in one hand and the *heka* and *was* sceptres in the other. The four attributes combined the powers of the royal jubilee with those of the eternal divine realm of Osiris. Hatshepsut or Thutmose III introduced additional statues of the ruler presenting a libation altar, standing as offerer, holding a standard, depicted as king-falcon in a mixed image, and presented before the image of the divine falcon in a group. Headdresses that had been known in two-dimensional art were introduced in statuary, including particularly the *khepresh*, or blue crown, a type that became very common (Laboury 1998). In the reigns of Amenhotep II and Thutmose IV these new statue types continued to be represented (Chadefaud 1982; Bryan 1987).

As mentioned in the introduction, the expansion of statue types during the New Kingdom allowed these three dimensional images to convey powerful ideological messages of religious and political significance even without the inscriptions that normally accompanied them. A renewed interest in compiling and communicating knowledge characterized the early New Kingdom, and, beyond the evidence of academic papyri, this is attested in obvious display by kings and elites: from the *Instructions to the Vizier*, the *Opening of the Mouth*, the *Book of the Dead* and the

Figure 40.6   Amenhotep II before Meretseger. Granodiorite. Temple of Karnak. JE 39394. Courtesy Supreme Council of Antiquities.

Amduat, tombs became locations for showing collective knowledge as details of cosmic order (Assmann 1996a). Temples had traditionally displayed elements of rituals, but now also the participants and their roles, as witness the Red Chapel of Hatshepsut. At the same time, royal achievements were presented as the exhibitions of worldly (Punt, obelisk transport) and divine (Divine Birth) organization in the Deir el-Bahri colonnades exemplify. The so-called Botanical Garden of Thutmose III at Karnak fulfilled a similar role by communicating visually the information gathered by the king, and the Annals of the king paraded the process of scribal documentation on the battlefield to make an accounting of the king's offerings to Amun-Re. Within this environment that monumentalized knowledge and its ideological uses, statuary too had expanded functions (Lankowski 2006).

The multiplicity of royal offering statues in the mid-Eighteenth Dynasty demonstrated the variety of the kings' gifts and devotional roles, while the new wigs, crowns, and attributes on other sculptures alluded to divine aspects. Even more illustrative of the royal and divine interactions were the group statues, including such esoteric ones as that of Amenhotep II before the cobra goddess Meretseger (JE 39394) (figure 40.6) whose body and head with Hathoric horns and disc surround the frontal image of the ruler (PM 1972: 282). The striding king in the white crown was shown with hands against the triangular aproned kilt, in prayerful pose, and his feet are at a

lower level than the platform on which the snake's body rests. An additional allusion to Hathor appears on both sides of Meretseger's body which is flanked by papyrus stalks and flowers, in a manner very similar to Amenhotep II's Hathor statue from Thutmose III's Deir el-Bahri temple that depicts the child king nursing from the Hathor cow. (Saleh and Sourouzian 1987). There too the striding image of the king in the same pose and kilt appeared at the front of the statue with the head, horns, and disc of the goddess showing above him. Since Meretseger was also connected with Hathor at Deir el-Bahri, the intentional similarities of the two group statues may have been designed to link the origin and destination of the Beautiful Feast of the Valley procession. When taken together with the Hathor image as cobra on the east and cow on the west one is reminded of Hathor's multiple roles as solar accompaniment, and we are tempted to read the images as enactments of the king's own prenomen, *ʿ3-ḫprw-rʿ*, "Great of Transformations is Re." At a minimum the various elements of both statues communicate much more than the simple protection of the king by a goddess, when one sees that the king is fused with both deities' heads and, therefore, emerges from her.

6 Non-royal Statues of the Mid-Eighteenth Dynasty

An examination of non-royal statues from the mid-Eighteenth Dynasty reveals an expansion of types similar to that for royal ones. Recently the statuary of the Steward and Royal Nurse Senenmut has been discussed with regard to new types developed during the reign of Hatshepsut (Keller 2005b; Roehrig 2005a). In particular the introduction of statues depicting royal children held by officials may have been the invention of this steward, but was certainly a form that he offered in temples in numbers: standing holding Nefrure, in block form with only her head visible, seated with Nefrure enclosed within his cloak, and squatting with the princess shown seated on his lap. Other innovations appear in statues of Senenmut making offering of divine emblems, including over-sized sistra, curled cobras, and a surveyor's cord (figure 40.7). Many of these new forms included within their design cryptographic writings of Hatshepsut's name, and further cryptograms were invented to incise on the statues. This interest in hiddenness characterized Senenmut's approach even to his construction works on Hatshepsut's behalf, when he placed secret images of himself behind doors and recessed behind door jambs at Deir el-Bahri and elsewhere, and it should be seen in the larger context of elite knowledge display as mentioned above (Dorman 2005). Although Senenmut commissioned what amounted to a program of statuary for the temples, his contemporaries and those who lived in ensuing Thutmosid reigns continued to have similar types of statues created. Additional types seen in this period both in tombs and temples include the stelophore, used frequently atop tomb entrances with a kneeling figure of a tomb owner holding a stela with a hymn to the sun carved on it (Stewart 1966) (figure 40.8). The naophore, perhaps also introduced by Senenmut, was dedicated in temples by officiants who showed themselves carrying a shrine containing the statue of a deity (Keller 2005b; Wildung 1982), while another naos type showed the statue dedicant

Figure 40.7   Senenmut holding sistrum. Quartzite. Temple of Mut. CG 579. Courtesy Supreme Council of Antiquities.

within a shrine and emulated a type used for royal statues in the Second Intermediate period (Gaballa 1970). At the same time traditional non-royal types continued to be produced, including seated, striding, scribal, block, and family group statues. As with the royal statuary produced in the mid-Eighteenth Dynasty, elite sculpture sought to represent the dedicants in a variety of roles *vis à vis* the gods and that could amplify the inscriptions carved upon them.

7   The Reign of Amenhotep III

The reign of Amenhotep III is prominent for the production of statues and for the magnification of royal iconography; this era (c.1390–1352 BC) is known more for images of deities and colossal sculpture than for innovations in statue types. Life-sized stone statuary representing anthropomorphic, animal, and animal-headed deities was produced in large numbers, including the production of many hundreds of granodiorite Sekhmet (lion-headed goddess) statues (Kozloff and Bryan 1992;

Figure 40.8 Stelophorous statue of Neferperet. Granodiorite. Temple of Karnak. CG 42121. Courtesy Supreme Council of Antiquities.

Bryan 1997; Sourouzian and Stadelmann 2007; Sourouzian 2008). In addition many group images combined the ruler with major deities and thereby increased both the number of his divine associations and also his implied divine status. Likewise iconographic elements were added to royal images that suggested the king's divinity, as, for example, a sun disc carved atop the *nemes* headdress on a granite statue of the king seated next to the goddess Maat (Bryan 1994). A small kneeling figure of the king wore a short round wig and double crown relating to the ''royal'' god Neferhotep (Kozloff and Bryan, 1992). Further association of the king with the gods was communicated through the inscriptions on the divine images that labeled them as ''Amenhotep III beloved of X-god,'' thereby blurring the distinction between the two. For example, the colossal quartzite baboon statues placed at Hermopolis for Amenhotep III wear pectorals decorated with the prenomen of the king and inscribed centrally with both cartouches of Amenhotep III, beloved of Thoth (Kozloff and Bryan 1992). So numerous were the life-sized and larger divine images made for this king that a programmatic use for the statuary is likely (figure 40.5). The mobility of statuary, as compared with temple wall decoration, allowed it to be utilized in multiple ritual settings, and, just as the king could be associated with a vast variety of gods, so the divine images of falcons, jackals, lions, etc., might be identified with a range of gods including, but not limited to, the one named.
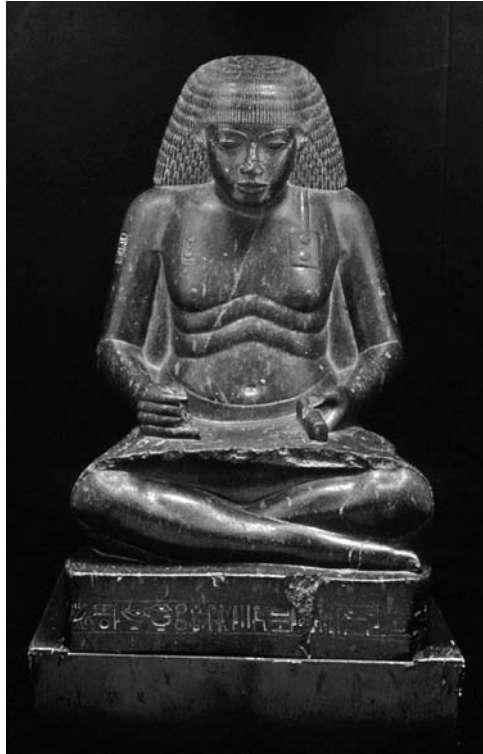
Figure 40.9 Intermediary scribal statue of Amenhotep son of Hapu. Granodiorite. Temple of Karnak. JE 44862 = Luxor J4. Courtesy Supreme Council of Antiquities.

Iconography was further employed by Amenhotep III's artisans to picture him as a lunar god, Nebmaatre, lord of Nubia whose cult center was shared with Amon-re at the temple of Soleb in modern Sudan. The deified form of Amenhotep III had an anthropomorphic iconography known from relief sculpture, and represented a king figure with *nemes* and a modius with lunar crescent atop. The only preserved statue form of this deity is a recumbent lion of granite whose head is turned at ninety degrees from the body in a newly created sphinx form (Helck, 1957; Kozloff and Bryan 1992). Around the pedestal an inscription identifies the lion as Amenhotep III's "living image on earth, Nebmaatre, lord of Nubia, who resides within the fortress of Khaemmaat (Soleb)," and next to the lion an inscription names "the king of Upper and Lower Egypt Nebmaatre, given life like Ra; the vigorous lion, beloved of [Amun]." If we compare this label with the texts on the colossal baboons and other deity statues, it becomes all the more suggestive that the king was intended to be represented as the deity and *vice versa*. Thus a hallmark of the reign was the use of inscriptions and iconography as much as statue types, such as Osirids, to suggest the king's divine status.

Non-royal elites during the reign of Amenhotep III continued to utilize a broad range of types in both tomb and temple settings, including scribal, block, offering, seated, and striding figures. As before, the face of the king's officials carried his

features in nearly every instance, although the highly influential Scribe and Overseer of Works Amenhotep, son of Hapu, also donated a scribal statue of himself with a wizened lined face recalling the features of late Dynasty Twelve rulers (Sourouzian 1991). As with Amenhotep III's own statues, those of his most trusted elites were specified by the inscriptions to perform certain functions. Amenhotep, son of Hapu, the Steward Neferrenpet, and the Scribe of Recruits Men, for example, identified their statues as intermediaries between human petitioners and the gods; as such, these men enhanced their statuses in a fashion similar to the king's own elevation, and the eventual deification of Amenhotep, son of Hapu, probably owed much to his petition statues that sat outside the Karnak Tenth Pylon gateway (Borchardt 1930; Kozloff and Bryan 1992) (figure 40.9).

Statues of royal family members also multiplied during the reign of Amenhotep III, and, in particular, striding queen and princess statues appear for the first time, along with standing images of daughters as part of royal family groups. The king's principal wife and mother stand, left foot forward, beside his throne on the colossus of Memnon and its twin, and Tiyi appears again on the recently unearthed quartzite colossus from Kom Heitan (Sourouzian and Stadelmann 2004). A group statue of the king, probably a triad with Amenhotep and another female, includes a striding image of the "King's Daughter" Isis wearing the side lock hairstyle but also bearing the title of "King's Wife." It is the combination of frequent representations of the royal women coupled with their active poses that presents a real innovation in the statuary of the period, and this had a strong impact on the remainder of the New Kingdom.

8   The Amarna Period

The art style of the reign of Amenhotep IV/Akhenaten was an innovation in itself, but changes in royal iconography amplified its revolutionary aspects. The king's "new style" changed the proportions of the human body in order to produce the newly elongated neck and torso of the ruler atop his shorter lower leg (Robins 1993, 1994). The new 20-grid square standing figure was not applied only to the king, however, and all Amarna art reflected the changed body type. The earliest examples of the "new style" are the sandstone colossi of the king from his Karnak complex of the Gempaaten. On these thirty or so figures the royal face, like the king's body, is elongated with a knobby chin, long spreading nose, and thick lips that protrude nearly as far forward as the nose. The eyes are long narrow ovoids set deep in the face with hollowed lids. The ears of the king are likewise long and narrow and for the first time show earring holes; the neck bears two deep incised creases. These last elements are innovations in representation that were retained throughout the New Kingdom, despite the return to traditional forms at the end of the dynasty (figure 40.10).

As has recently been noted, these standing (not striding) figures of Amenhotep IV display numerous artisan changes and recarvings that were sometimes hidden by the attachments to square pillars or by placement above normal eye height (Freed 1999b; Kozloff 2008a). The first application of the king's proportional switch from 18 to 20 grid squares in addition to large changes in the shape of the head, shoulders, waist,

Figure 40.10 Colossus of Amenhotep IV. Sandstone. East Karnak. JE 49529. Courtesy Supreme Council of Antiquities.

and hips of the ruler led with no surprise to the artisans' adjustments. A similar set of alterations appeared on the relief figures of Sety I on the interior of the north wall of the Hypostyle Hall at Karnak, where artists changed figures many times to introduce the newer pose of the king leaning forward toward the king (Brand 2000). All of these changes were well hidden when surface plaster and painting were accomplished, but it reminds us that the Egyptian artists themselves needed to adjust to new styles. They resorted, as in the reign of Hatshepsut, to the use of the grid to accomplish stylistic changes, and evidence of it continued to be visible on monuments throughout the reign (Laboury 2008).

As with the stylistic innovation, the royal regalia worn by the ruler on his sandstone colossi were inventive. The *nemes* headdress was combined with the four feathers of the god Shu, and the *khat* headdress was topped with the double crown. On the

king's torso and arms raised rectangles bore the cartouches of the king's god Aten in a manner that is visually assertive. Body elements such as nipples and navels are exaggerated in size and depth, and the ultimate result of these and the heavily carved facial features is the creation of multiple surfaces that caught the changing daylight. Akhenaten's iconography was solar, and his artisans carved his statues to illustrate the sun disc's interaction with the king.

The evidence of other royal statuary at Karnak is largely fragmentary, but from Amarna many elements of the king's statue programmes exist, including works in granodiorite, quartzite, and granite, although, with the exception of some statuettes, most are represented by statue parts only. Life-sized torsos and heads of the king and Nefertiti in indurated limestone had the Aten's cartouches incised on them, but no longer atop raised rectangles (Aldred 1973). Most of these statues are life-sized or smaller, and, when indications of pose are available, frequently standing statues have arms bent perhaps to grasp altars or offering tables. Relief representations of standing colossi are known from the Aten temples, however. A seated granodiorite pair statue of Akhenaten and Nefertiti has recently been partially reconstructed from fragments originally from the sculptor Thutmose's workshop (Thompson and Laboury n.d.). The larger royal statuary was represented at the site of the limestone boundary stelae where groups of the royal family were carved out of the *gebel* as offering groups that included the royal couple and daughters (Reeves 2001).

The Amarna style underwent modifications at the new residence city, being closer to Karnak's extreme angular form in the earliest years and considerably less so at the end. The use of composite statue techniques may have contributed to some of the changes in the Amarna style. As Dorothea Arnold has discussed, fashioning composite sculptures of several stone types that fit together with tenon and slot methods facilitated the reduction of such traditional elements as back pillars or heavy negative spaces (Arnold 1996b). Some unusual – and rare – materials could be employed to produce the composite sculpture, as witnessed in the yellow jasper face variously referred to as either Tiyi or Nefertiti. A further benefit for the sculptors was greater freedom to explore the volumes of statue heads when working them alone rather than as a part of a large rectilinear block. Ultimately, however, it is impossible to state conclusively that the production of composite statuary was a choice or a result of specific artistic responses to the resources in an isolated environment.

Among the accentuated elements of Amarna sculpture was a continued increase in images of royal females, particularly in separate figures. More than 50 pieces were left in the Thutmose complex, representing images of the royal family, and several were bald egg-shaped heads of princesses fashioned of lustrous brown quartzite. These highly exaggerated forms echo, on the one hand, the angle of the long head of Akhenaten wearing the *khepresh* or white crowns but, on the other, carry their own iconographic value. As "egg-heads," the accent on youth and rebirth is suggested, particularly expressive of the Amarna philosophy of life's daily re-creation (Arnold 1996b; Arnold 1996d; Gabolde 2008) (figure 40.11). The bodies of these princess heads have not been identified, but a couple of headless ones in similar quartzite material are sculpted with swollen belly, pubus, thighs and buttocks, along with a slit-like navel slightly open at the center. These elements appear to have been most consistent in relief and statuary in the middle years of the reign, a time when the face
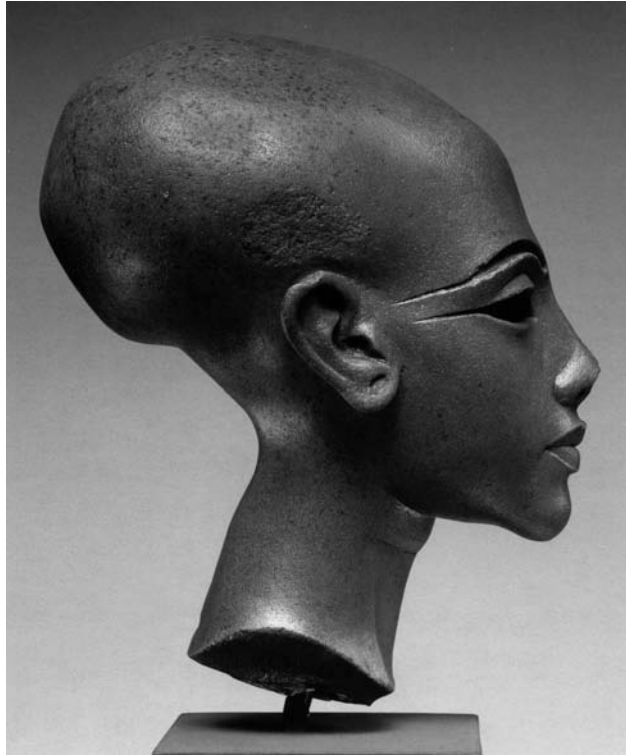
Figure 40.11 Head of princess. Quartzite. Amarna. Berlin 21.223. bpk/Ägyptisches Museum und Papyrussamlung, SMB.

of Nefertiti was given its own type – with a square jaw and horizontal mouth, and a notably more vertical pitch from the chin to the top of the crown (Arnold 1996a). The new image far better accommodated the queen's signature flat-topped headdress and appears on the remarkable limestone Berlin bust of Nefertiti. Other statue heads of the queen were found prepared with tenons but without headdresses that would have been in different materials. It is interesting to speculate on what crowns the queen might have worn on the completed images, since relief scenes show Nefertiti (or Meritaten) wearing a broad range of crowns, including the *khepresh* and a version of the *Hemhemet* crown, in addition to the plumed Hathoric and flat- topped crowns (Davies 1904; Arnold 1996d; Reeves 2001; Gabolde 2008). The creation of the queen's face as a model image did not change the princesses' facial types; they continued to carry their father's features, but the invention did signal that the power of the female ruler was ascendant.

In the post-Amarna reigns of Tutankhamun and Ay sculpture reflected the demands made on artisans to abandon the new style and grid of Akhenaten without total rejection of some of the Amarna preferences. Rita Freed described one group of Amun statues as follows: "These include a soft, fleshy face with high cheekbones, naturalistic eyes, and the full lips particularly reminiscent of Akhenaten's family in the later Amarna years – as well as pierced ears, a fullness at the breast, a flaccid torso, and

a full, drooping abdomen'' (Freed 1999; Eaton-Krauss 2008). Such a description is entirely applicable to images of these rulers, who returned to traditional types including colossal striding images out of quartzite and colossal seated ones as well. Appropriately, Freed notes that another group of statues of Amun "are closer to the traditional pre-Amarna style," and she concluded that these statues represented two workshops (Freed 1999a; Eaton-Krauss 2008), although in the aftermath of the abandonment of Akhetaten, Karnak temple could well have employed sculptors working in both styles. In a desire to link the post-Amarna rulers with the earlier era, the style of Amenhotep III was particularly embraced, perhaps more by Tutankhamun than his successors (Martin 1989; Eaton-Krauss, 2008). The complexity of discussing art of the post-Amarna era is exemplified by the tomb statues of Tutankhamun that show both traditional bodily proportions and Amarnesque ones as well; yet the presence of royal tomb objects made for other Amarna period rulers, such as Ankhkheprure Neferneferuaten, within the Tutankhamun material makes a clear path of stylistic development extremely difficult to identify (Vandersleyen 1984–5; Laboury 2002; Gabolde 2008). More useful is the approach taken by Eaton-Krauss who has discussed the statue types that were among the preferred ones made during the post-Amarna period. Eaton-Krauss pointed, as have others, to the very large number of statues of Amun that were produced to replace those destroyed by Akhenaten's minions. In addition to statues of Amun, groups of the king with Amun and Mut were carved, and groups of Amun behind a smaller or kneeling king particularly stressed the return of the god's role in conferring rulership. Eaton-Krauss noted that this type continued to be produced in nearly identical form by Horemheb, as did the large colossal seated statues made for the mortuary temple of Ay and usurped by Horemheb (Eaton-Krauss 2008). Despite the similarity in the post-Amarna facial features, the youthful faces with fleshier features can be reasonably identified with Tutankhamun, while the blander features with more horizontal and thinner mouths appear to stem from the last years of the dynasty.

During the Amarna era non-royal statuary both within Amarna and at sites such as Saqqara and Thebes was largely confined to the tomb environment, since elites did not dedicate sculpture in the temples. A few small-scale figures are known, particularly from the sculptor Bak's workshop, one of the larger ones being a false-door type of statue that holds images of Bak and his wife (Berlin ÄM 31009) (Freed 1999a). In the reign of Tutankhamun, however, the restoration can be identified even before the monumental royal inscriptions refer to it as one views the burst of non-royal sculpture made for tombs and temples. Scribal and block statues were placed in the Ptah temple of Memphis, the great Amun temple of Karnak, and elsewhere, while separate and group tomb statues were made for Memphite elites, such as Maya (Horemheb from Memphis, MMA 23.10.1), Yuy (Brooklyn Museum 66.174.1), and Maya and Meryt (Leiden AST 3) (Schneider and Raven 1981; Freed 1999a). The emphasis on naturalism in the Amarna period persists in the post-Amarna sculpture, and even the old-age indicators seen on images of Nefertiti were applied to tomb statues such as that of a woman now in the Florence Archaeological Museum. Likewise the hollowed cheeks and bone structure of a mature woman may be seen on the otherwise beautiful wife of Nakhtmin (Egyptian Museum CG779B). (Saleh and Sourouzian 1987; Arnold 1996c) (figure 40.12). Most of the royal

Figure 40.12 Wife of Nakhtmin. Indurated limestone. Akhmim. CG 779B. Courtesy Supreme Council of Antiquities.

and non-royal statue types attested during the post-Amarna era existed before Akhenaten's reign, but a few adaptations were made. For example, the standard-bearer forms had been known for royal statues at least since the mid-Eighteenth Dynasty but were now also dedicated by private people (Russmann 1989).

   Horemheb's reign signals for many the beginning of the Nineteenth Dynasty, politically and art historically. However, the sculpture bearing his name does not entirely support that view. In his Valley of the Kings tomb the artists were clearly charged with creating a cohesive style that largely emulated the reign of Amenhotep III, and the figures of Horemheb were carved and painted with a traditional idealized body type, albeit proportioned with a slightly shortened leg. However, because Horemheb usurped so many post-Amarna statues from Tutankhamun and Ay, his face and body in statuary most frequently continues to resemble the practice of the preced-ing period. A dyad of granodiorite depicting the king and his wife Mutnodjmet (Turin Inv. 1379) does appear to have originated in Horemheb's reign, and the bodies

of the royal pair are idealizing without the flaccid bellies seen on most post-Amarna sculpture (Scamuzzi 1965). The king's statue is headless, but the queen's face, despite mutilation, displays smaller more natural-shaped eyes than those of Tutankhamun and Ay. The high and prominent cheek bones suggest a similarity with the Florence woman's statue mentioned above. The queen's regalia include a tri-partite wig in small curls, overlain by a vulture headdress, a double uraeus, and a modius, a rather traditional composite of queen's regalia that is compatible with the inscription on the rear of the statue that claims the king's appointment to rule by Amun and other deities.

9   Nineteenth–Twentieth Dynasties

The reign of Sety I marked a period of artistic rejuvenation, expressed at his Abydos, Karnak, Redesiya, and other construction sites. The idealized style of the king's relief sculpture in his tomb and at Abydos reclaims a distinctive facial icon with a narrow hawkish nose, a pursed mouth taller than wide, and ovoid but open and horizontally set eyes. A kneeling granodiorite figure of the king offering a *ka* symbol altar shows these features and had been dedicated in the Abydos temple (MMA 22.2.21) (Hayes 1959; Sourouzian 1993). A statue in Vienna represents a new type for royal figures (Rogge 1990; Seipel 1992). The king in granodiorite is preserved from the lower face to the waist and wears a minutely plaited wig longer than shoulder length in front and shorter at the back. It is a wig type worn by Sety in a number of relief representations, including his tomb in the Valley of the Kings and on his battle reliefs from Karnak (Westendorf 1968: 178). The characteristic mouth of Sety I appears on this statue identifying it most probably as the king or his son Ramesses II. A falcon is spread across the back of the king's head, and an obelisk-shaped back pillar appears beneath. The exceptional iconography continues in the introduction of the pleated shawl with sleeves over the king's proper left shoulder and tied beneath his right breast. He holds a *heka* sceptre in his right hand. Although rather badly damaged, this exceptional statue represents elements of non-royal iconography that have migrated into royal sculpture. Both Ay and Horemheb were elites elevated to the kingship, and the latter, in particular, mixed the images from both periods of his functioning. Thus, in his elite Saqqara tomb, Horemheb wore elite clothing, such as Sety I wears on the statue, but artisans have added uraei to his images. The result is the elevation of the clothing into the royal environment. Statues of this type became common from this time, and a striding image of the king from Abydos wears a similar shawl and the same wig style as here (CG 751) (Borchardt 1930).

Sety I also dedicated a number of groups, including one from Karnak that was reconstituted by Hourig Sourouzian (Sourouzian 1998a) from some fragments found in the nineteenth century, some found in 1985 during work in the Akh-Menu of Thutmose III, and from a face in the Louvre (E 11100). The group represents Amun and Mut seated with a small figure of Sety standing before and between them. Sourouzian made the observation that the small size of the king *vis à vis* that of the deities was uncommon among the New Kingdom triad statues – which themselves were rather common – and that the other examples dated to the end of the

Eighteenth Dynasty. Another link for Sety I's sculpture to the late Eighteenth Dynasty exists in his life-sized calcite composite statue, CG 42139, also discussed by Sourouzian (Sourouzian 1993). The ruler's face carved in the soft sedimentary stone has a broad and thick mouth similar to those on post-Amarna sculpture, but the bodily proportions are those of the traditional 18-square grid. Since composite statuary was particularly characteristic of Amarna sculpture, it is possible that the artists of this statue had worked in the workshops of Akhetaten several decades earlier.

Ramesses II by any standard was a king among kings: during his sixty-seven years of reign Egypt's ruling focus completed a shift northward that reflected military investments in the Levant and the threat of incursions from the Libyan west (figure 40.13). Although Thebes remained the religious capital for the national god Amon-re and, as such, received the attention and resources to continue building existing and new temples, the gods of Thebes, Memphis, and Heliopolis were now equally honored to emphasize the geographic expanse of Pharaoh's rule. Statue groups of these deities multiplied in temples where the king made donations, and Ramesses frequently added deified forms of himself (Habachi 1969; Seidel 1980) Although, like his predecessors, the complete range of Ramesses' statuary expressed the variety of roles associated with kingship in the New Kingdom: divinely ordained earthly ruler, priest of all cults, and guarantor of cosmic order, a large number of his images projected the elevation of the kingship itself to the ranks of full deification. While frequently having himself

Figure 40.13   Bust of Ramesses II. Granodiorite. Tanis. CG 616. Courtesy Supreme Council of Antiquities.

sculpted amongst and at the same size as other national gods, such as Ptah-Tatenen, Re-Harakhty, Sekhmet, and Hathor, at the same time Ramesses' wives and children were represented on his sculpture at a greatly reduced scale, thus separating their status from his. Family group statues are nearly non-existent during the reign of Ramesses II, and only occasionally were images of his queens made in similar size to his own (Seidel 1980; el-Masry 1998).

In Nubia, where even earlier kings were represented in deified forms, Ramesses proclaimed a nearly superior position *vis à vis* the major gods. At Gerf Husein, for example, Osirid statues of the ruler in the forecourt and hall are identified as "Ramesses, who has appeared with the gods," while another is called "Ramesses in the temple of Ptah," and yet another "Ramesses beloved of Atum." Although the exact intent behind these names may be elusive, the insistence is upon Ramesses' position as and among the gods. Even more esoteric are the statue identifications in the sanctuary of Gerf Husein, where four gods are represented: "Ptah of Ramesses in the temple of Ptah," "lord of appearances Ramesses in the temple of Ptah," "Ptah-Tatenen of Ramesses in the temple of Ptah," and an illegible female deity (Kitchen 1979). The probability is that these deity names associated with Ramesses' images were added after he began to celebrate his many jubilee festivals. His titulary also underwent changes after his union with the sun god during the *Sed* feasts, and the "gods of Ramesses" too may have indicated the result of such melding (Eaton-Krauss, 1984).

Although the emphasis on the divinity of the kingship was remarkable for Ramesses II's sculptures, the types of royal works produced during his reign were largely familiar. There were single statues striding, standing, seated, kneeling, and offering. The king was shown carrying *naoi* and standards, wearing a rich assortment of headdresses, and assuming the form of a sphinx. So many statues were produced of Ramesses II over the decades that categorization and dating of the images are difficult. There were several model likenesses of the ruler, with variants of each, and it may not be that all (or any) attempted a form of portraiture. However, one model, perhaps only produced early in the reign, has elements in common with the facial features of Sety I, particularly adopting the long hawkish nose of Ramesses' father. One of the king's best known statues, a seated coronation type image now in the Turin Museum, illustrates this facial type well, but it is also represented by the calcite colossus from Memphis and a statue recently joined by Hourig Sourouzian from parts in the Cairo Museum (Sourouzian 1998a) (figure 40.14). These statues have generally roundish faces and lightly hooded eyes with somewhat narrow upturned mouths that are less thick than on his other likenesses.

The well-known bust of the king from Tanis on which he wears a pleated sleeved shawl and broad collar similar to the garb on the Turin sculpture has some features in common with that likeness, but here the face is distinctly not that of Sety. The round facial shape is enhanced by the spherical wig type, but it also has more modeling than the Turin statue does. The king's mouth is still somewhat narrow and smiling but far fuller in the lips. It appears that most of the statues of Ramesses II were based on models similar to these facial features, some with rounder faces, wider and bulging eyes, and some with narrow, some quite broad sunken eyelids. A slightly altered version of this model was particularly popular for Ramesses II in Thebes – and at

Figure 40.14 Coronation-style statue of Ramesses II. Granodiorite. Turin Cat.1380. © Fondazione Museo Antichità Egizie di Torino – used with permission.

Luxor Temple and the Ramesseum in particular: this likeness deliberately emphasized features in common with Amenhotep III's face, emulating his highly distinctive mouth almost exactly, with its central drooping bulge in the upper lip. It is well known that Ramesses II also had a series of striding granite colossal figures of himself made for the Luxor Temple's first court, and these were placed alongside originals of Amenhotep III that had been reinscribed for the later ruler. The original gigantic seated figures of Ramesses before the Pylon and those within the court all repeated the homage to Amenhotep in their facial features, but it is important to note that the Ramessid originals always carved the king's eyes rounder and with deep sunken eyelids in contrast to the narrower eyes and convex lids of the earlier king.

At his funerary temple Ramesses' images were combined with works that earlier had represented Amenhotep III, whose own temple land was partially contiguous. The well-known ''Younger Memnon'' brought from the Ramesseum by Giovanni Belzoni early in the nineteenth century to London illustrates well the style of Ramesses' sculptures that recall but do not exactly copy the face of his great predecessor (Leblanc 1999). Yet probably Ramesses' son Merneptah took over more of Amenhotep's images for use in his own funerary temple than did his father.

Ramesses II may have reused Amenhotep's statues in other temple locations, particularly choosing from the large number of life-sized statues of deities placed there (Bryan 1997; Sourouzian, Stadelmann, et al. 2006).

With regard to the reuse of statues, the reign of Ramesses II is pivotal; for, although he did not introduce the practice, he utilized it extensively to complete the decoration of the many cult places where he was active. The choice of statues that Ramesses' artisans reinscribed, retouched, and even reworked does appear to have favored certain kings, in particular, Senwosret I, Thutmose III, and Amenhotep III (Sourouzian 1988; 1995b; 1998b), and, although this may well have been because these kings' colossal works graced such large temple complexes as Ptah's in Memphis, Amun's in Karnak, and Amun's in Luxor, it is also probable that Ramesses also expected to gain some divine association with these great rulers by means of sharing their images. It has been noted that the historical consciousness of Egypt's great past was notable during Ramesses' reign – as witness the compilation of king lists and the pseudo-historical texts such as the 400-Year Stela (Eaton-Krauss 1984). The Nineteenth Dynasty was still new in the reign of Ramesses, and the uses of the past in establishing the legitimacy of this line of rulers – distinct from the irregularities of the late Eighteenth Dynasty kings – were likely brought to bear in monument-making as much as in text composition.

Non-royal statuary of the Nineteenth Dynasty is abundant enough to reflect both the length of Ramesses II's reign and the relative stability of the period. Viziers, High Priests of Amun, and officials of all types dedicated sculptures of themselves in a variety of sizes and media and with a range of inscriptions upon them. Already in the Eighteenth Dynasty there was a large number of temple statues dedicated by private elites representing the dedicants as both recipients of and participants in cult ritual. This trend continued unabated in the Ramessid era, and in the major temples the types of sculptures presented were often quite traditional in form, even when styled to show current fashions in wig and clothing. The vizier Paser under Ramesses II dedicated a kneeling naophorous statue in Karnak showing himself in the archaistic vizier's garb and in a style very like that of the late Eighteenth Dynasty, perhaps in hopes of linking himself with the office holders of the past (CG 42164) (figure 40.15). The scribe Hapy also placed a statue in Karnak: his sculpture shows him wearing the heavily pleated clothing and long echeloned wig of contemporary fashion. Hapy is posed seated with one leg up before him and the other down and tucked behind the other. This pose is well known from the Middle Kingdom but was not common at the time, and thus Hapy's artists showed his appreciation of the past just as did Paser's (CG42184) (Hawass 2008).

Yet the Ramessid era was not simply a continuation of the earlier New Kingdom as viewed from the private sculpture any more than from the royal. First, the sheer numbers of statues left during the period surely surpasses the Eighteenth Dynasty production levels, but the range of sites at which temple and tomb statuary of high quality occurs also appears to have expanded, particularly from the north and the border lands of Egypt. Just as Buhen and Gebel Barkal revealed the dedications of earlier elites stationed in Nubia, sites close to Mersa Matruh near the Libyan border have produced fine-quality sculptures from the time of Ramesses II, including a beautifully detailed standard bearer statue of one Nebre and a *migdol*-shaped *naos*

Figure 40.15 Vizier Paser, reign of Ramesses II. Granodiorite. Temple of Karnak. CG 42164. Courtesy Supreme Council of Antiquities.

containing figures of Ptah and Sekhmet that reflected the garrison environment of the dedicants (Hawass 2002). At the same time officials at the southern end of the empire continued to donate statues in the Nubian temples during the later New Kingdom, for example, the Viceroy of Kush Setau under Ramesses II who placed a striding figure of himself in the Buhen sanctuary (CG 1134). Cult places between these border extremes were equally full of statuary, and elite tombs likewise received sculptures, as is amply indicated by the provenances to Saqqara and Qurna in the Egyptian Museum's *Catalogue général* (Borchardt 1930).

   When considering the types of statues offered in the Ramessid era the Karnak temple and its cachette excavated by Legrain provide an excellent overview. The types placed in Amun's home frequently combined emblems of the deity with kneeling, seated, or standing figures of the dedicants whose cult participation carrying images of Amun in processions was thereby memorialized and made permanent (Legrain 1909). An unusual monument (Naples 1069) was dedicated by Ramesses II's

close friend Amenemine and may have been either a temple or tomb object. Mummiform images in high relief ring a rectangular granodiorite block, and each figure is inscribed as an image of either Amenemine himself or one of his family members. The overall work creates a family memorial that could function like a written genealogy, but perhaps also like a group ancestor bust, providing a link to deceased intercessors (Trapani 1998). In the body of temple statuary there are few female images attested, but numerous examples are known from tombs of the period. Further, among the vast numbers of statuary from the reign of Ramesses II images of queens and princes, not including groups with the king, are well attested and reflect the active roles undertaken by the royal family (el-Masry, 1998). A standard-bearing figure of a queen (now in the Metropolitan Museum of Art) claims a female sacerdotal responsibility during temple ritual otherwise known only for men (Scott 1992). It recalls the balance of priestly actions between the highest temple priests and the God's Wife of Amun during the Eighteenth Dynasty as illustrated on Hatshepsut's quartzite bark chapel (Robins 1983). The absence of a visible God's Wife following the death of Queen Mother Tuya (Nefertari has the title on scarabs but not elsewhere) may have signalled the broader participation of royal females in palace and cult activities, in a manner similar to that found in the reigns of Amenhotep III and Akhenaten. In particular, Prince Khaemwese dedicated numerous statues of himself, and, although his primary function attached him to the Ptah temple in Memphis, his monuments were placed in cult places throughout the country and depict him with features similar to the two major models of Ramesses II.

The non-royal statuary of the later Ramessid era, as earlier, was designed to represent the dedicants performing a variety of roles that telegraphed social status (Sist 1997), but, if one compares the sculptures of the High Priests of Amun with those of contemporary rulers, it is clear that there is very little difference between the types produced. High Priest Bekenkhons left multiple images of himself in the Karnak temple (CG 42159–61), as standard bearer and naophore, but two were shown in striding poses wearing similar pleated garb to that on contemporary royal statues. Ramessesnakht, who served under Ramesses IV and later, dedicated a figure of himself offering an altar with the Theban triad atop it, indicating his closeness to the deities (CG 42162). A second statue took the form of a scribal figure, decidedly not royal in type, but the high quality was enhanced by an image of a baboon emerging from the back of the high priest's head and visually claimed the presence of the god Thoth within Ramessesnakht (CG 42163) (figure 40.16). Since there was a series of scribal statues dedicated at Karnak by such major figures as Amenhotep, son of Hapu, Horemheb, and Paramesses – the last two having become kings – this scribal figure was likely also intended to assert the elevated status of the High Priest.

Royal statuary from the remainder of the Nineteenth Dynasty is far less numerous than earlier, and the proportion of reworked objects is also greater (Sourouzian 1989). Merneptah's original monuments are, however, well attested at Memphis where he left a ceremonial palace that contained colossal standing images of the king carved in limestone. Elements of this palace are in the University of Pennsylvania Museum and show the king with a roundish face, ovoid eyes slightly less wide than Ramesses', and a thin mouth. The icon is quite distinct from any statue face of Ramesses II, but the reworked images of Merneptah are less so. CG 607, found in

Figure 40.16 High Priest Ramessesnakht as scribe, reign of Ramesses IV. Granodiorite. Temple of Karnak. CG 42163. Courtesy Supreme Council of Antiquities.

the king's mortuary temple, was recarved from a statue of Amenhotep III and has the narrower eyes and mouth seen on the Memphis statues, but, due to the thickness of the original mouth of Amenhotep III, the mouth is still somewhat thicker. A new type of statue is represented by CG 1240 of Merneptah in striding pose holding a captive in his left hand and a scimitar in his right. Although the figure is only a half meter in height, it is highly monumental, and the later statue representing Ramesses VI smiting owes much to it (Borchardt 1930). For Merneptah's son Sety II a number of statues still remain, including a fine seated quartzite piece in the British Museum (EA 26) (Seidel 1980). Its features have much in common with those of Merneptah. A headless standard-bearer figure in the great Hypostyle Hall of Karnak is part of a group of six figures from that temple, and its head has been identified in the Metropolitan Museum of Art (34.2.2), although it was recarved as the image of Amenmesse (Cardon 1979; Yurco 1979). Contrary to earlier arguments, although the group of Karnak statues bore Amenmesse inscriptions with those of Sety II over them, they were likely originally of Sety II, whose reign was interrupted in a coup by his son Amenmesse (Dodson, 1997).

Figure 40.17 Ramesses III holding an image of Osiris. Greywacke. Temple of Ramesses III, Mut Precinct. Luxor Museum. Courtesy Supreme Council of Antiquities.

Royal sculpture of the Twentieth Dynasty introduces few new types, although one important one naming Ramesses III, now lost, was described as a healing statue with magical texts associating the king and a deity, perhaps Isis (Seidel 1980). Ramesses III left a large number of statues in his name, although a significant proportion of these, particularly from Thebes, were reworked or reinscribed from earlier rulers' images. At the Karnak and Mut Temple, however, Ramesses left original colossal figures of himself, and within his Karnak small temple over life-sized Osirid figures were set against the pillars of the first court. At Medinet Habu similar architecturally placed figures of the ruler enhance the first two courts, although these may have been reused from an earlier temple (Stadelmann 2008). In his mortuary temple Ramesses reused a number of statues that had derived from Amenhotep III's nearby temple and palace complex, including the cult image of Ptah in one of the rear cult chapels, as well as two granite dyads of the king with Maat and the king with Thoth. An enormous statue base of the earlier king with fecundity figures ringing it remains in the second court of Medinet Habu, and the distinctive style of the earlier ruler is discernible here and on much of the reused sculpture (Bryan 1997; Strauss-Seeber 1998). Ramesses III left a number of standard-bearing figures, as well as striding, kneeling, and seated

Figure 40.18   Ramesses VI smiting Libyan enemy. Granite. Temple of Karnak. CG 42152. Courtesy Supreme Council of Antiquities.

royal images (Mojsov 2007). A figure of the king wearing a heavily pleated shawl and kilt with the round wig and double crown was found recently at the Ramesses III temple within the Mut precinct (Bryan 2005) (figure 40.17). The figure is incomplete, but the king, striding, held a small statue in front of him in the form of the mummiform god Osiris. The image of his son Pareherwenemef appears on the proper left of the statue in sunken relief. This greywacke life-sized figure of Ramesses III is of the highest quality and can be identified as the cult image for the king's temple. In the sanctuary niche at the rear of the temple's central aisle an image of Ramesses III appears in relief on the east side of the niche. The image shows Ramesses in similar garb holding an image of Osiris before him, suggesting strongly that the statue, which was cut into pieces in the Roman era and buried beneath the paving slabs of the central aisle, was indeed the principal cult image.

The royal statuary of the remainder of the New Kingdom shows several examples of the king carrying out activities, but smaller scaled figures dominated: the king offering, the king kneeling with an offering table, but also the king with a lion smiting

an enemy are all known for Ramesses IV, the last having been repeated by Ramesses VI, who also reinscribed figures of his two predecessors (figure 40.18). Only one colossal image of a ruler is known from the reign of Ramesses IV to Ramesses XI, and takes the form of the upper half of a granite figure of Ramesses VI, CG 634. Although it remains uncertain, probably this represents an actual depiction of this king and has distinctive iconographic elements belonging to the late Ramessid era (Burger-Robin 2002).

FURTHER READING

Although no single work covering New Kingdom statuary exists, the interested reader will be well served to begin with Edna Russmann's excellent overview of sculpture (1989). Russmann's clear explanation both of the facts about the statues and of her own response to them is a superb introduction to an appreciation of Egyptian statuary. For the early New Kingdom, the exhibition catalogue edited by Catharine Roehrig (2005a) contains numerous excellent articles and entries that will assist the reader. Arielle Kozloff and Betsy Bryan (1992) likewise covers numerous aspects of the later Eighteenth Dynasty, while Dorothea Arnold (1996), as author and editor, and Jean-Luc Chappaz with Francesco Tiradritti as editors (2008) contain up-to-date discussions and interpretations of the fascinating Amarna era. Hourig Sourouzian has covered the Ramesside era in a number of works (see, in particular, Sourouzian 1989). A dissertation by Simon Burger-Robin (2002) has discussed the sculpture of the last kings of the New Kingdom.

CHAPTER 41

Late Period Sculpture

Edna R. Russmann

1   Introduction

Egyptian sculpture in the Third Intermediate Period and the Late Period continued many of the artistic traditions developed during earlier periods. The poses of statues and the conventions for representing the human body were little changed, as were many costumes and accessories. Since the persistence of styles from the recent past was frequently an important factor in ancient Egyptian art, it is not surprising to find a strong New Kingdom element in the sculpture of the Third Intermediate Period. That tendency continued during the Twenty-fifth and Twenty-sixth Dynasties, but the archaizing imitation of more distant periods became increasingly important. Never had Egyptian sculptors mined their past so thoroughly as they did during the Late Period. The layering of references to the past reached a peak of complexity during the Thirtieth Dynasty, when both royal and private statues often imitated the style of Twenty-sixth Dynasty sculpture, which was itself archaizing.

Very few statues of private people were made any longer for tombs; almost all were now intended to be placed in temples. The reasons for this change were numerous and complex, deriving from such factors as the increased emphasis on the coffin's painted decoration and the more frequent use of group burials. Whatever its causes, the change had several consequences for the statuary itself. The use of wood and limestone, relatively soft materials that had always been used primarily for tomb statues, declined sharply in favor of harder stones, such as granite and basalt, that were more resistant to the accidental damages that might occur in the semi-public but well-traveled courts and halls of a temple. There was also a tendency to give passers-by more to read, by increasing the number of texts on the back pillar and base of a statue, and by placing inscriptions on the clothing of a figure and even, in certain cases, on its body.

Statues of women had always been made primarily for tombs. The Egyptians apparently felt that images of women, like women themselves, were at risk in public places without the protection of their menfolk. During the New Kingdom, statues of

married couples had sometimes been placed in temples, but this practice virtually ceased during the Late Period. From the Twenty-first through the Twenty-sixth Dynasty, virtually the only women shown solo in temple sculpture were the Divine Consorts who, in addition to being "wed" to the god of the temple, Amun, were women of royal lineage. Even the statue of the lady Shebensopdet (Russmann 1989: no. 73, pp. 157–9, 220), whose grandfather was King Osorkon II and whose father was the High Priest in Karnak temple, where her seated statue was placed, may have been given additional protection in the form of statues of her husband and father-in-law.

Portraits – or distinctive physiognomies that give the impression of being individual likenesses – had been produced as early as the Old Kingdom, when statues of tomb-owners sometimes showed them with faces and bodies of mature appearance (Metropolitan Museum 1999: no. 44, pp. 229–31). During the Middle Kingdom, the faces of the Twelfth Dynasty kings Senwosret III and Amenemhet III, and some of their followers, showed unmistakable signs of aging, although their bodies always reflected the prime of life (Saleh and Sourouzian 1987: nos. 98, 102–5). In the New Kingdom, during the Eighteenth Dynasty, King Amenhotep III was occasionally shown with signs of age in his face and body, as were a few of his highest courtiers and, remarkably, his Queen Tiyi, as well as some of her female attendants (Kozloff and Bryan 1992: nos. 23, 26, 50; Saleh and Sourouzian 1987: no. 149). This interest in representing signs of age continued into the reign of his son Akhenaten and Queen Nefertiti, but then it seems to have disappeared for the next six centuries. Not until the Twenty-fifth Dynasty did statues of men with individualistic features, usually suggestive of advancing age, become an important feature in Egyptian sculpture. This development was to last well into the Ptolemaic Period.

Throughout the Late Period, Egypt was exposed to various groups of foreigners, including Libyans, who had settled in the western Nile Delta; Kushites, who had long known the Egyptians as conquerors in their southern homeland; Greeks, who traveled to Egypt as traders and as soldiers who sometimes settled there; and several waves of invaders from the East, including the Assyrians and then the Persians; the latter, unlike other invaders, actually occupied Egypt twice. The influence of these groups varied greatly; those that affected the arts will be discussed below. Here, however, we may note that even when foreign influence on sculpture was most noticeable, it was nonetheless a minor factor in the continuing general insularity of Egyptian art and culture. Readers may note that many of the statues discussed in this chapter are said to come from the Karnak Cachette. That is the name given to a historic find made in 1903 and 1904, in the temple of Karnak, in present-day Luxor. There, buried in a pit beneath the floor of a courtyard, archaeologists found hundreds of stone statues and pieces of temple equipment, dating from the Middle and New Kingdoms through the Third Intermediate and Late Periods, into early Ptolemaic times (PM 1972: II, 136–67, lists accounts of the find and all known objects found). Statues and temple equipment tended to accumulate in Egyptian temples over the centuries, and it was apparently common practice to bury obsolete pieces within the sacred precincts. Similar burials have been found in other temples, but the Karnak Cachette is by far the largest.

2   The Twenty-first to Twenty-fourth Dynasties

The first part of the Third Intermediate Period consisted of the Twenty-first to the Twenty-fourth Dynasties. It was the first of two periods, along with the Twenty-sixth Dynasty, when Egypt was ruled by Libyan settlers in the Nile Delta, who still retained many of their traditional ways. During most of the period, the capital was Mendes in the Delta, but many of the northern cities were ruled by high-ranking Libyans. In the south, at Thebes, the High Priest of Karnak temple was also important, either as a competitor or an ally. Most of the surviving statues inscribed for these rulers, especially the earlier ones, are older monuments that they usurped by reinscribing them. During the Twenty-first Dynasty, Psusennes I, in particular, reinscribed many of the royal statues in the temple at Tanis, often adding his name to images that had already been reinscribed for Ramesses II and Merneptah. Two statues of Pinedjem I from Karnak show him in royal regalia, although he was just the High Priest of Amun. Both of these statues had almost certainly been usurped. One, a kneeling figure holding round *nw* pots, from the Karnak Cachette, has its identifying inscription located, most unusually, on the fronts of its upper arms (Brandl 2008: no. VK 3,4, p. 270, pl. 149a). The second, a standing colossus in red granite at Karnak, had probably been made for one of the later Ramessid kings (but see Kitchen 1995: 258 n. 80).

Shoshenq I, the founder of the Twenty-second Dynasty, apparently had a fine seated statuette of Thutmose III at Karnak reinscribed for his predecessor, Psusennes II (Brandl 2008: no. VK 2.2, p. 268). Shoshenq I also appears to have relied on reinscribing earlier royal statues for himself, most spectacularly on a colossal Middle Kingdom sphinx from Tanis, now in the Louvre (Fay 1996). His successor, Osorkon I, is best known for a statue bust found in Byblos and now in the Louvre. The statue was certainly made in Egypt and the large cartouche on its chest is certainly that of Osorkon; but scholars disagree over whether it was made for him or usurped by him while it was still in Egypt (Brandl 2008: VK 2.3, pp. 268–9, pl. 151). As for Osorkon II, his best-known statue is a large kneeling figure, the head of which is in Philadelphia and the body in Cairo. It has recently been shown to be a usurped piece, made in the early Nineteenth Dynasty (Brandl 2009: 60–6). Not until late in the Twenty-second Dynasty, or somewhat later, do we find a find royal statue of fine quality that seems almost certainly to have been made for the king named on it: a small limestone figure found in the Karnak Cachette and now in the Cairo Museum. The statuette shows Osorkon III kneeling and reaching forward to launch a small boat model (figure 41.1) (Russmann 1989: no. 72, pp. 155–7, 220). Other royal statues of the Third Intermediate Period are for the most part fragmentary or made of metal (discussed at the end of this chapter).

Like their rulers, some private individuals of the Third Intermediate Period equipped themselves with statues by reinscribing pieces made earlier for other people. Examples of these usurped statues have been collected by Brandl (2008: 218–61, pls. 122–136). On most of them little has been changed except to add the new owner's inscription and images, in place of the original text. The earliest of these usurped statues date back to the Middle Kingdom, among them a very fine standing figure in Baltimore at the Walters Art Museum (Brandl 2008: no. U-1.1, pp. 218–19, pl. 122). Most of the reused statues, however, were made during the New Kingdom. One example

Figure 41.1 Osorkon III kneeling and pushing a small boat; from the Karnak Cachette; Dynasty 23; limestone, red colour on headdress and kilt, possibly an undercoat for gilding, now lost, h. 18 cm.; Cairo, Egyptian Museum, CG 42197. Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture.

is a standing figure from the Karnak Cachette that was made in the Eighteenth Dynasty and reinscribed for a High Priest of Amun in the Twenty-second Dynasty (Russmann 1989: no. 66, pp. 142–5, 219). The great majority of statues of private people during the Third Intermediate Period, however, were made at that time. In most cases these statues repeated the poses, costumes, and even facial types that had been popular during the New Kingdom. Nevertheless, the later statues can be differentiated fairly easily from their models. They are handsome, but, in an almost generic way; the only signs of individuality occur in the inscriptions and images that now covered almost all of the figure's clothing as well as the base and the back pillar. Given such emphasis on texts and illustrations, it is not surprising that the most popular statue pose was the block statue, on which only the face and hands were uncovered (figure 41.2) (Brandl 2008: no. O-5.2.38, pp. 176–7, pls. 96–97; also see Russmann 1989: nos. 74–75, pp. 159–63, 220).

In the past, almost all studies of Third Intermediate Period private statues dealt primarily with their inscriptions. Thus the recently published *Untersuchungen zur steinernen Privatplastik der Dritten Zwischenzeit,* by Helmut Brandl, which focuses on their appearance, represents a major step forward. Dr Brandl describes and illustrates over one hundred statues, and discusses almost every aspect of their style, including the differences between statues made at this time in northern Egypt and in the south.

3   The Twenty-fifth and Twenty-sixth Dynasties

Historians today usually consider the Twenty-fifth Dynasty to be part of the Third Intermediate Period, while they assign the Twenty-sixth Dynasty to the Late Period. There are good reasons for this division; however, the sculpture of the two dynasties is so closely related that they will be considered together here.

Figure 41.2   Block statue of Harsiese; from the Karnak Cachette; Dynasty 23; granite, h. 42 m.; Cairo, Egyptian Museum, JE 36967. Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture.

The Twenty-fifth Dynasty consisted of a family from Kush, a region sometimes called Nubia, in the northern part of present-day Sudan. For much of its ancient history, this area had been dominated by the Egyptians, who had built temples there to Amun and other Egyptian gods. Some of these were apparently still functioning in the eighth century BC, when Kush was ruled by a native dynasty. For these Kushite rulers, the worship of Egyptian Amun in their own land may have suggested, and certainly reinforced, their claim that this preeminent god had given them rulership over their northern neighbor. They asserted this claim by invading Egypt and conquering the local Libyan dynasts. We have no evidence of how, or even whether, the rulers of Kush were represented before they came to Egypt. Following their conquest, they were portrayed by Egyptian artists in the traditional manner of Egyptian kings, with youthful, muscular bodies and torsos divided by a vertical depression down the center, in the manner of Old Kingdom sculpture. The standing, seated, and kneeling poses of Kushite royal statues also imitated those of the Old Kingdom, as did their short, pleated kilts. Only their heads, rounder and fuller in the face than those of most Egyptian rulers, may have been intended to suggest their foreign origin (figurer 41.3) (Saleh and Sourouzian 1987: no. 245).

Figure 41.3 Head of Taharqa; probably from Thebes; Dynasty 25, reign of Taharqa; granite, h. 36.5 cm.; Cairo, Egyptian Museum, CG 560. Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture (Saleh and Sourouzian 1987: no. 245).

The Kushite kings were usually shown bareheaded with close-cropped hair that was often patterned with small circular curls. Almost certainly, they brought this hairstyle from their homeland; but it may have been reinforced in Egypt by surviving images of some Old Kingdom kings with uncovered, close-cropped heads (Metropolitan Museum 1999: no. 70, 274–6). On their hair the Kushite rulers usually wore a diadem with a row of cobras along the top and a pair of cobras at the front (best preserved on bronze statuettes, for example Myśliwiec 1988: p1.44c). This double uraeus is unique to the kings from Kush. It is presumed to have symbolized their control over both Egypt and their homeland. It also appears on images that show them wearing the traditional Egyptian *nemes* headcloth and/or composite crowns (Russmann 2001: no. 120, pp. 223–5). They were never shown wearing the Blue Crown, which they apparently associated with their Libyan predecessors. Traces of gilding have been found on some of their crowns and also on their hair; the latter circumstance has led some commentators to presume that these kings were wearing some form of skull cap. In their homeland, however, close-cropped hair was represented on both male and female royalty during this time and later. In all cases, it follows the contours of the skull very closely and, on some female examples, at least, it was painted black.

Both in Egypt and in Kush, the Kushite kings were often shown wearing broad bracelets and anklets of Egyptian type. Their favorite jewelery, however, was an emblem of the god Amun in the form of a ram's head that usually wore a double uraeus between its horns. The ram-headed amulets were suspended from the center

of neck cords and often from the ends, which were brought forward. All of these features can be seen in Bonnet and Valbelle, for example, on two statues of the last king of the dynasty, Tanutamun (Bonnet and Valbelle 2006: 94–101). These details of style and dress appear not only on images of the Kushite kings from Egypt, but also on figures of Taharqa and his successor Tanutamun which have been found in Nubia, together with statues of subsequent kings of Kush. These statues, most of them colossal in size, were first found at Gebel Barkal early in the twentieth century by an expedition from Boston (Dunham 1970: 17–24, pls. 1–2, 7–20). Quite recently, another cache of large statues of Taharqa, Tanutamun, and their successors was discovered at the Kushite site of Kerma. Like the statues in the preceding group, these figures had all been broken; but they were carefully buried together and are substantially complete. In the recent publication by their discoverers (Bonnet and Valbelle 2006), one can clearly see how the Egyptian style of the statues of Taharqa and Tanutamun, which were undoubtedly the work of Egyptian sculptors, gave way, in the statues of their successors, to a different, and presumably a more Kushite, sensibility. However, the beginnings of a more indigenous style can already be seen on certain images of Taharqa in Kush. He is shown with a much fuller face and a sterner expression on a sphinx from Kawa, now in the British Museum (Bonnet and Valbelle 2006: 143; Welsby and Anderson 2004: 132, no. 98), and on a series of statues, also from Kawa, that show him standing in front of a ram (Leclant in Aldred et al. 1980: no. 223, 229). The many stone shabtis from Taharqa's tomb in Kush also appear to be, at least in part, the work of local stone carvers (Wildung (ed.) 1997: 201–20, pp. 194–5).

When the kings of the Twenty-fifth Dynasty were driven back to Kush by an army of Assyrian invaders, a descendant of the short-lived Libyan Twenty-fourth Dynasty gained the throne, to found the Twenty-sixth Dynasty. The kings of this dynasty are often called Saite after their home city of Sais, in the Nile Delta. They rejected all of the Kushites' distinctive accessories, including the ram's head jewelry, the double uraeus, and the fillet worn on uncovered hair, but they resumed the use of the Blue Crown.

The remains of Saite royal sculpture show that it was of uniformly high quality. Statue types include sphinxes and standing and seated figures. Like Kushite royal figures – and unlike those of their Libyan predecessors of the Third Intermediate Period – the bodies of Saite royal statues were based on models earlier than the New Kingdom. Torsos were sometimes modeled with a vertical depression, like those of the Kushites, based on the style of the Old Kingdom; but they might also be divided horizontally into the breast, ribcage, and waist, in a manner more typical of the Middle Kingdom. Throughout the Twenty-sixth Dynasty, the workmanship of royal-statue bodies and of sphinxes is of consistently high quality. It is greatly to be regretted that only one of these statues, a sphinx, still has its head.

A number of heads from Saite royal statues have survived, but only two still bear inscriptions by which they can definitely be identified. The earlier example is a fine stone head in the Musée Jacquemart André in Paris, which represents the third king of the dynasty, Psamtik II. The king is shown wearing a Blue Crown. His face is long; his eyes, set high above prominent cheekbones, are small; his mouth is full but small,

and slightly upturned (Aldred et al. 1980: no. 125, 143). A standing statue of Psamtik II in the Louvre has been too heavily reworked, especially in its head, to be of interest as a likeness (Bosse 1936: no. 137. 53, pl. 7b). The only other Saite royal head datable by its inscription is the head of a sphinx, which is inscribed for the penultimate king of the dynasty, Amasis (Myśliwiec 1988: 49–50, 63–64, pl. 63a–b). The face is long and rather fleshy; the nose has been completely removed, perhaps to prepare for a modern replacement. The eyes and full-lipped mouth are rather large, as they often are on sphinxes.

Several decades ago Anthony Leahy warned against assigning identities to Saite royal heads or other sculptural fragments that have lost their identifying inscriptions (Leahy 1984: especially 59–61). Even a partially preserved name might be interpreted in more than one way, as on a head in Bologna (Leahy 1984: 71–3). A small limestone sphinx found in the Karnak Cachette, with a broken inscription that bears only the name "Psamtik," has been assigned to the first of the three Saite kings named Psamtik, apparently because the workmanship is rather clumsy (Josephson and Eldamaty 1999: 67–9, pl. 30A, B). That is clearly a most uncertain identification. Over the years, various authors have assigned most of the uninscribed Twenty-sixth Dynasty royal heads to one ruler or another on no real evidence. Most have tended to ascribe examples with a long, rather full face, almond-shaped, slightly slanted eyes, and a slightly smiling mouth to Apries (for example, Aldred et al. 1980: fig. 126, 144), while heads with even longer faces, narrower, more slanted eyes and a smaller mouth with a fuller lower lip are attributed to Amasis (figure 41.4) (Aldred et al. 1980: fig. 127, 145). However, the only inscribed likeness of Amasis, on the sphinx described above, is much closer to the faces commonly ascribed to Apries, whereas the face on a dark stone sphinx head in Toledo more nearly resembles those ascribed to Amasis (Myśliwiec 1984: 222–4, pls. 20, 22 a,c,d). One should also note that those making such attributions have completely ignored Psamtik I, whose fifty-four year reign was the longest in this dynasty and who, like the other Saite kings, is known to have had sizable statues, of which complete bodies, or fragments, have survived.

None of these objections renders the proposed attributions impossible, but they do raise doubts, especially when one considers that the long faces with slanting eyes, usually attributed to the end of the dynasty, are clearly the most deliberate attempts to render the characteristic features of Libyans as they had long been shown on Egyptian representations of Libyans (as on a faience tile of the New Kingdom: Friedman 1998: no. 54, 93, 197). This suggests the possibility that they were earlier, rather than later, images of the Libyan dynasts, especially since the features later borrowed for royal representations in the Thirtieth Dynasty were usually the blander versions, which thus may represent the last images of the Saite dynasts.

Statues of the Divine Consorts

Like their Libyan predecessors, the Kushite and Saite kings appointed royal princesses to be Divine Consorts of the god Amun at Thebes, thus maintaining the royal presence in this most important religious center while they governed from the north. The careers of two Kushite Divine Consorts, Amenirdis I and

Figure 41.4   Head of a king; said to be from Sais; Dynasty 26; greywacke, h. 35.7 cm.: Berlin, Ägyptisches Museum 11864. Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture (Aldred 1980: 145, fig. 127).

Shepenwepet II, spanned most of the Twenty-fifth Dynasty. Although the Kushites, like the Libyans, seem to have valued plumpness as a sign of feminine beauty, statues of the Kushite Divine Consorts imitate the form of Egyptian female figures during the Middle Kingdom, with long, narrow waists and slightly swelling hips, set off by the traditional tight-fitting dresses and long straight wigs. Like the Kushite kings, these women wore a double uraeus, sometimes with a vulture head between the two snakes, as on an alabaster standing figure of Amenirdis I in Cairo (figure 41.5) (Saleh and Sourouzian 1987: no. 244). Their faces were often somewhat more plump than on their predecessors, but their features do not seem to emphasize a foreign origin.

    A most unusual small figure of Amenirdis I in faience shows her seated on the lap of the enthroned god Amun. He is shown on a slightly larger scale, with his arms around his earthly wife (Leclant 1965: 105–6, pl. 66). Unfortunately, the heads of both figures have been broken off, so that it is impossible to tell whether they were kissing, as are the couple on the only parallel known to me, an unfinished statuette from Amarna that shows Akhenaten seated, kissing a wife or a daughter, who sits on his lap (Aldred et al. 1979: fig. 161, 174).

Figure 41.5   Standing figure of the Divine Consort of Amun Amenirdis I; from Karnak; Dynasty 25, reign of Shabaqa; alabaster, h. 170 cm.; Cairo, Egyptian Museum, CG 565. Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture (Saleh and Sourouzian 1987: no. 244).

During the Twenty-sixth Dynasty two Saite princesses filled the role of Divine Consort. Of the first, Nitocris, only fragments of three statues are known. The best of them, the hips and thighs of a standing figure with her right arm at her side, resembles the relatively slender figures of her Kushite predecessors (Russmann 2002: 1037–8, pl. IA–D). The only known statue of Nitocris's successor, Ankhnesneferibre, is a standing figure, which is virtually complete (Russmann 1989: 182–5, 221). Her right arm hangs at her side and her left hand, posed beneath and between her breasts, holds a fly whisk, in a manner found on standing statues of the Kushite Divine Consorts and probably on the fragmentary statue of Nitocris. Unlike those figures, however, Ankhnesneferibre is shown wearing her hair in a short, round bob, and her figure is decidedly plump. Since similar features of hair and form can be found on some female figures of the earlier Libyan Tweny-first to Twenty-third Dynasties, one may suspect that Ankhnesneferibre's statue represented a return to the traditional Libyan ideal of feminine beauty.

4   Private Sculpture of the Tweny-fifth and Twenty-sixth Dynasties

Much of the well-preserved private sculpture of the Twenty-fifth and Tweny-sixth Dynasties comes from the Karnak Cachette and other Theban temples, but there are enough examples from other parts of Egypt to show that statuary throughout the country developed along much the same lines. No new statue poses were developed during these two dynasties, but almost all of the older statue types were continued from previous dynasties or revived from earlier periods. Standards of quality remained at least as high as in earlier periods. Archaism, however, not only increased, but became more eclectic: a single statue might combine a pose, a costume, and a hairstyle derived from three different periods. The greatest innovation, however, is the fact that, to a much greater degree than in any earlier period, the faces of male statues, and occasionally also their bodies, were sometimes shown with individualistic signs of age.

All of these characteristics may be found in the statues of Montuemhet who, as mayor of Thebes, was the virtual ruler of all southern Egypt, from the late Twenty-fifth Dynasty into the Twenty-sixth. Numerous statues or statue fragments of Montuemhet have survived. In *Montouemhat*, his magisterial 1961 survey of the man's monuments, Leclant discussed 19 statues and statue fragments. Other fragments have been found since then. A standing figure of Montuemhet from the Karnak Cachette, near life size (figure 41.6) (Saleh and Sourouzian 1987: no. 246), shows him with a rounded face marked by fleshy creases from the nostrils to the sides of the mouth, and the suggestion of a cleft chin. It is a mature face, with a stern expression that conveys the power and authority which Montuemhet certainly wielded. This face is framed, however, with an elaborate shoulder-length "double wig" of New Kingdom type and set atop a youthful, muscular body which, like the short pleated kilt, is derived from the Old Kingdom. The body is so similar to those of the Kushite kings that this statue may well have been made in a royal sculpture workshop as a mark of the king's favor.

Another standing statue from the Karnak Cachette, contemporary to that of Montuemhet and in the same pose and costume but on a smaller scale, shows his contemporary Horemakhet, a Kushite prince who was the High Priest of Amun at Karnak (Russmann 1989: no. 80, pp. 175–7, 220–1). The priest's strong, youthful body is slightly narrower through the waist and hips than that of Montuemhet. The ridge atop his shaven skull and the bold features that seem almost to crowd his narrow face may be intended to suggest his Kushite identity, although they do not resemble the features of his royal relatives. A second "portrait" image of Montuemhet, is the bust of a statue found in the ruins of the temple of the goddess Mut at Thebes (figure 41.7) (Russmann 1989: no.79, pp. 173–4, 220). On this image, Montuemhet's head is bald on top, with a flap of hair that covers the back and sides, hiding the tops of his ears. This hairstyle is a tonsure, of a type shown since the New Kingdom on statues of the devotees of certain goddesses. The broken area at the bottom of his chin and beneath it is what is left of his hand, which was held to his

Figure 41.6 Standing figure of Montuemhet; from the Karnak Cachette; Dynasty 25–6; granite, h. 137 cm.; Cairo, Egyptian Museum, CG 42236. Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture (Saleh and Sourouzian 1987: no. 246).

mouth in the ritual gesture of begging characteristic of this cult. Montuemhet looks considerably older on this bust than he does on his standing figure. His face is also notably longer, especially from the base of the nose to the chin. Thus these two ''portraits'' of a single figure cannot represent his real appearance at different ages. This discrepancy should be a warning to the modern viewer that such faces, seemingly so individualistic, cannot be considered portraits in our sense of the word.

Another standing statue of Montuemhet shows him holding a figure of Osiris, the top of whose tall crown reaches to Montuemhet's chest (Leclant 1961: Doc. 3). Standing statues of this type usually hold a figure of Osiris (Bothmer 1960: nos. 28, pl. 25; 39, pl. 36; 44, pl. 41; 48, pl. 44) or a *naos* containing the image of Osiris or another god (De Meulenaere and MacKay 1976: no. 47, pl. 19). Standing poses of this kind may be considered a variation on the even more popular kneeling statues, discussed below. One of the finest statues of Montuemhet, probably from the Karnak Cachette, shows him wrapped in a long cloak and seated on a low-backed, cuboid seat (Wildung 2000: no. 89, pp. 173, 187). This pose is derived from a type of statue that had originated in the Middle Kingdom and continued into the New Kingdom. As on the earlier examples of these seated statues, Montuemhet has one hand uncovered

Figure 41.7   Bust of Montuemhet; from Karnak, temple of Mut; Dynasty 25–6; granite, h. 48 cm.; Cairo, Egyptian Museum, CG 647. Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture (Saleh and Sourouzian 1987: no. 246).

and open, palm down, on his chest; his other hand rests on his lap, clutching the edge of his cloak to hold it closed. Beneath the lower arm, a line of inscription runs down to the bottom of the cloak. Montuemhet's finely striated, shoulder-length hairdo, set low on his forehead without any indication of a part, recalls the style of earlier periods, but his short chin beard has very few parallels in either period – or, for that matter, on other representations of Montuemhet. The face of the seated figure is finely modeled, but its features do not correspond with either of the ''portrait'' statues discussed above, nor, for that matter; with the faces of any of his other statues (most fully discussed and illustrated in Leclant 1961).

Other cloaked statues include an extremely fine example in New York's Metropolitan Museum. Only the head and shoulders of this figure are preserved, with his left hand emerging from his cloak (Bothmer 1960: no. 10, pp. 11–12, pl. 10). According to the inscriptions that cover both the front and back of the cloak, the statue represents a man named Ankhemtenenet, who was a priest at Memphis. A double wig, like that worn by the standing statue of Montuemhet, described above, frames a face that combines elements of both idealizing and individualistic types. It is broad and round, with rather large, wide-spaced eyes, flesh folds running down from the nostrils of his now damaged nose, and a wide, narrow-lipped mouth.

Several statues of Montuemhet showed him seated on the ground with his legs bent up in front of him and his body enveloped in a cloak (Leclant 1961: Docs. 10, 11: pls. 16–20; both have lost their heads). This type of statue, which originated in the Middle Kingdom, is usually called a block statue. In the Twenty-fifth and Twenty-sixth Dynasties, as in the Middle Kingdom, block statues are normally cloaked, although some are shown wearing a long kilt. Most late block statues, but not all, have back pillars. They differ from block statues made during the Twenty-second and Twenty-third Dynasties primarily in having less of their surfaces devoted to texts, normally just the front of the cloak or kilt, as well as the back pillar, and the base. The images of gods that had been so popular on block statues of the Third Intermediate Period were now rarely included. Characteristic examples of Twenty-fifth and Twenty-sixth Dynasty block statues may be seen in Josephson and Eldamaty, which is also a good place to observe the non-portrait faces that, as in every period, were more common than the portrait features that are described here in some detail.

On several of Montuemhet's other statues he is shown kneeling, holding a stela before him (Leclant 1961: Docs 5–7, pls. 6–11). Kneeling figures of servants had first appeared during the Old Kingdom, but the pose was not used to represent men of importance until the New Kingdom. During the Twenty-fifth and Twenty-sixth Dynasties, as in the earlier Third Intermediate Period, the kneeling pose was one of the most popular forms of temple statuary, along with the block statue. Kneeling statues normally held or presented something: a stela, like those held by the kneeling figures of Montuemhet, or a figure of Osiris, who is usually shown standing in a small *naos*. More rarely, the figure holds nothing but rests his hands palms down on his thighs (Bothmer 1960: nos. 37, 52B). A kneeling statue of the Vizier Nespakashuty, a younger contemporary of Montuemhet, shows him with an elaborate wig and an unusual short chin beard (Russmann 2001: no. 129, pp. 234–7). He holds an object in the form of a pillar topped by a cow-eared head of the goddess Hathor, with a superstructure in the shape of a temple façade. This object imitates a sistrum, a musical rattle that jingled in a manner thought to please the goddess.

Sometimes a kneeling figure holds nothing, but rests his hands, palms down, on his thighs. That is true of two large quartzite statues made toward the end of the Twenty-sixth Dynasty, for a man named Nekhthorheb. One is now in the Louvre and the other in the British Museum (Russmann 2001: no. 131). These statues are remarkable for their simplicity: Nekhthorheb's face and body are fully modeled, but the details of his hair and kilt are not indicated, and even the inscription is kept to a minimum. In an unusual detail, his head is slightly raised. Combined with the simplicity of his figure, Nekhthorheb's upward gaze conveys a sense of religious belief that is seldom communicated across so many centuries.

The pose of a scribe, seated on the ground with his legs crossed and his kilt stretched taut between his thighs to form a writing surface, had originated in the Old Kingdom (Ziegler in Metropolitan Museum 1999: 61, fig. 33). Even then it must have been mostly symbolic, since it showed men of high rank in the most humble stage of their profession. That would have been even more true in the Late Period, when the pose again became popular, although it is perhaps the only major statue pose that has not been recorded for Montuemhet. It was used for a statue of his contemporary Petamenophis that was found in the Karnak Cachette (Josephson and Eldamaty 1999:

31–5, pl. 15a–d). Like his Old Kingdom predecessors, Petamenophis sits with his right hand poised to grasp a pen and his left hand holding the rolled end of the scroll that is spread across his kilt, its inscription oriented toward his eyes, rather than to the viewer. Also traditional is the way in which each foot is tucked under the opposite leg, leaving only two toes visible on each. Unlike earlier examples of the scribe's pose, which were destined mostly to be hidden away in tombs, this statue has Petamenophis's name on the vertical edge of his kilt where it would be easily visible to a temple viewer. His short-cropped hair recedes at the temples to suggest advancing age which, with the possible exception of the flesh folds beside his nostrils, is not reflected in the bland, stylized features of his face. Nespakashuty, whose kneeling statue is discussed above, also chose the seated scribe pose for one of two statues that were found in the Karnak Cachette. Nespakashuty's broad shoulders and strong torso mirror those of Montuemhet and other Twenty-fifth Dynasty notables, but his smiling face already reflects the blander images of the Twenty-sixth Dynasty. Instead of holding a pen with the papyrus scroll spread on his lap, as on earlier scribe statues, Nespakashuty grips the front edge of his kilt with both hands (figure 41.8) (Josephson and Eldamaty 1999: 79–82, pl. 34).

A second statue of Nespakashuty from the Cachette is much smaller and, exceptionally for a temple statue, carved in limestone (Russmann 1989: 176, 178–9, 221). It shows him seated on the ground with one knee raised and his other leg, bent and flat on the ground, passing beneath it. This pose first appeared late in the Old Kingdom, as a variation on the scribe's pose (Metropolitan Museum 1999: 458, no. 186, p. 458). Although it never became very popular, there are several examples from the Kushite and Saite Periods.

During the Twenty-fifth and Twenty-sixth Dynasties statue groups of two or more figures usually showed them on a rather small scale and in very high relief, standing within an inscribed niche. A typical example, now in the Metropolitan Museum, shows a father and son who, except for their hair styles, appear virtually identical. The inscription tells us that this monument was made for them by the son of the younger man (Bothmer 1960: no. 26, pl. 22, fig. 52; formerly in the Gallatin collection).

The upper section of a more unusual type of group statue shows Montuemhet beside his son and heir, Nesptah, against a round topped stela (Leclant 1961: Doc. 12. pp. 79–86, pls. 21–6). The two are identically garbed, their left shoulders covered with a leopard skin, with an inscribed band running diagonally across the chest and a large emblem of the goddess Bat on a neck cord. With their identical striated, shoulder-length wigs and their youthful faces, they appear to be the same age. It is interesting, therefore, to notice that Montuemhet alone has slightly slanted eyes and a small pursed mouth, suggestive of the features of the Libyan Twenty-sixth Dynasty kings. As a holdover from the previous regime, Montuemhet may well have felt the need to demonstrate his loyalty to the new dynasty in every possible way.

Just as Montuemhet's career spanned the Twenty-fifth and Twenty-sixth Dynasties, so did the statue types popular during the earlier dynasty continue into the later one. There were, however, a few innovations, designed to express loyalty to the Saite kings. Some of their subjects chose to have the royal names inscribed on the shoulders of their statues. Most examples seem to come from Memphis (Bothmer 1960: no. 49, p. 56, pl. 43, figs. 110–11), or from the Delta (De Meulenaere and MacKay 1976: no. 42, pl. 17a; no. 51, pl. 21a). At least one, however, a standing figure of a man

Figure 41.8 Nespakashuty in the pose of a scribe; from the Karnak Cachette; Dynasty 25–6; greywacke, h. 80 cm.; Cairo, Egyptian Museum, CG 48634. Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture (Josephson and Eldamaty 1999: 79–82, pl. 34).

named Harbes, with the cartouches of Psamtik II on his shoulders, was found in the Karnak Cachette (Bothmer 1960: no. 48, p. 55, pls. 44–5, figs. 106–9). Subjects of the Saite kings often had themselves shown with Libyan features like those of their kings. Since many, if not most, of these ''Libyan'' faces appear on statues made in northern Egypt, where many ethnic Libyans lived, it is possible that many of them reflect the actual ethnicity of the statue owners. That may also be true of the upper half of a kneeling statue from Thebes, whose very slanted eyes and pursed lips give an almost exaggerated impression of Libyan features (M. Seidel in Schulz and Seidel et al. 2009: no. 50, pp. 124–5; Libyan appearance disputed).

Libyan ethnicity may also be suspected in the face of a scribe statue of a man named Bes, who governed the Delta city of Mendes. At first sight, one is struck by the statue's sunken eyes and the large pouches beneath them; together with the sharp ridges of the collarbones, they make the figure look aged, or even ill. But the eyes have a definite slant which, given the high office Bes held in an area dominated by the Saite kings, strongly suggests that he, too, was of Saite descent (Bothmer 1960: no. 20, pp. 22–4, pls. 18–19). Also from the north of Egypt comes the limestone statue of another man named Bes, who is shown in the asymmetric pose of a scribe

sitting on the ground with one knee raised (Bothmer 1960: no. 29, pp. 34–5, pl. 27). This Bes has a full-cheeked face, and his torso and limbs are decidedly plump. Once again, his Saite heritage is indicated by his slanted eyes and pursed mouth. His political allegiance is demonstrated by the cartouche of Psamtik I on his shoulder.

Toward the end of the Twenty-sixth Dynasty an official named Psamtik commissioned three statues for his tomb at Saqqara (Saleh and Sourouzian 1987: nos. 250–2). As we have noted above, private sculpture in this period was almost always made to be placed in temples. This set of tomb statues, all carved in greywacke and all about the same height, has other unusual qualities. One shows the tomb owner, Psamtik, who was an Overseer of Seals, wearing a long kilt, with a seal hung from a cord around his neck. He stands under the chin of a cow that wears the plumed headdress of the goddess Hathor, whom she represents (figure 41.9) (Russmann 1989: no. 86, pp. 185–8). This type of statue had been invented during the New Kingdom, when it always showed a king under the protection of the Hathor cow (for example, Saleh and Sourouzian 1987: no 138). In the Late Period, however, it was always a private person shown under Hathor's chin. The two other statues in Psamtik's tomb group are seated figures of the god Osiris and his consort Isis. In the past, such statues would have been considered appropriate only for temples, or perhaps royal tombs, but never for tombs of officials. One can only wonder that Psamtik could so disregard the old rules. As one would expect in this period, however, the faces of both the gods reflect the features of the Saite king, as does the face of Psamtik.

The continued production of "portrait" heads throughout the Twenty-sixth Dynasty may be typified by the white quartzite head of a man in the British Museum (Russmann 2001: no. 133, pp. 243–4). He wears a flaring wig of New Kingdom type. His cheekbones project above the sagging, creased skin on his cheeks and chin, leaving no doubt he is shown in middle age or even later. His narrow, almost squinting, eyes and the rather taut folds at the sides of his mouth make his expression hard to read; this is one of the most enigmatic of the many Late Period portrait heads.

5   The Twenty-seventh Dynasty

The Achaemenid Persians conquered and ruled Egypt as the Twenty-seventh Dynasty (525-404 BC). One of the Persian kings, Darius I, had at least two statues of himself made in Egypt and apparently placed one or more in a temple there. A statue of Darius found at Susa may originally have been erected in Egypt and later removed, or it may have been meant from the beginning to be sent to Persia. The statue was published soon after its discovery, in a series of articles and photographs by various specialists (*Journal Asiatique* 1972). The figure, which is almost complete except for its head, shows Darius in Persian royal garb. The inscriptions, however include traditional Egyptian texts and images of a type found on royal figures. The statue was almost certainly made in Egypt, in stone from the Wadi Hammamat, which is east of the Nile River (Trichet and Vallat 1990: 205–8).

Persian influence on Egyptian private sculpture seems to have been limited to a male costume that is customarily called Persian, although it seems to have no exact
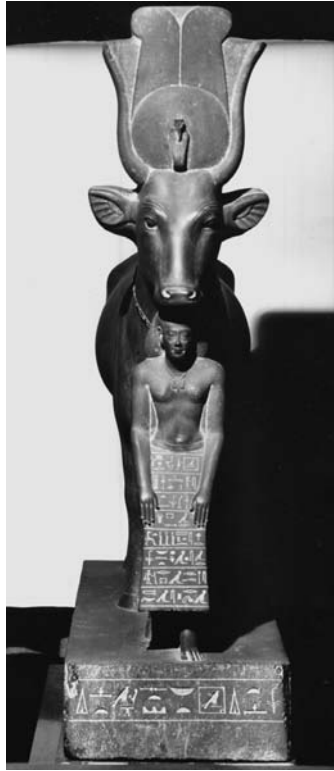
Figure 41.9 Psamtik protected by Hathor in the form of a cow; from the tomb of Psamtik at Saqqara; late Dynasty 26; greywacke, h. 96 cm.; Cairo, Egyptian Museum, CG 784. Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture (Saleh and Sourouzian 1987: no. 251).

counterparts in Persia itself. The garments first appeared on statues made at the end of the Twenty-sixth Dynasty, but they had their greatest popularity during the Twenty-seventh Dynasty. The costume continued to be represented sporadically into the Ptolemaic Period. Its main component was a long rectangle of cloth that was wrapped around the torso under the armpits and reached almost to the ground. Although it was not very different in principle from earlier wrapped male garments in Egypt, it was apparently made of a heavier fabric, and it covered somewhat more of the body. It was fastened in front in such a way that the innermost corner of the cloth poked up next to the body, and the outer edge hung down in a short flap (Bothmer 1960: 75–6). Beneath this wrap one or two shirts might be worn: an undershirt that was visible only at the neckline, under a shirt with a V-neck and sleeves just below the elbow, or a long-sleeved garment.

Egyptians who worked for the Persian overlords were particularly likely to be shown wearing the ''Persian'' costume. The most important example is the headless statue of a standing man named Udjahorresnet, which bears inscriptions all over his wrapped kilt, the *naos* he holds, containing a figure of Osiris, and the tall, slender base

Figure 41.10   Kneeling Psamtiksineith in "Persian" garb, holding a naos; from Memphis; Dynasty 27; graywacke, h. 44.5 cm.; Cairo, Egyptian Museum, CG 726. Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture (Russmann 1989: no. 87, pp. 188–90, 221).

on which the *naos* rests. (Botti and Romanelli 1961: no, 40, pp. 32–40, pls. 27–32; pl. 27 shows the figure with a head that does not belong, which was subsequently removed.) Udjahorresnet wears a non-Egyptian type of bracelet, consisting of a cylindrical semi-circle with ends in the form of lion heads. The inscriptions, which have been much studied, give interesting details of Udjahorresnet's service to both the first Persian king of Egypt, Cambyses, and his successor, Darius I. A headless statue in the Brooklyn Museum, which is probably from Memphis, represents a man named Ptahhotep, holding a naos. Ptahhotep wears the wrapped skirt over a long-sleeved garment and two necklaces, one a torque in Persian style and the other a traditional Egyptian pectoral (Fazzini, Romano, and Cody 1999: no. 77, p. 128).

   Another statue of this period from Memphis shows a man named Psamtiksineith kneeling and holding a small shrine containing a figure of Osiris (figure 41.10) (Russmann 1989: no. 87, pp. 188–90, 221). He, too, wears the wrapped skirt of the "Persian" costume, over a V-necked shirt, with an undershirt below. His hairless head,

with its expressive face, attests to the continuation of the individualistic tradition of sculptural representation into the Persian Period. His eyes are set in fleshy pouches and pronounced creases flare from the sides of his rather long, straight nose. Above the distinctive little knob of his chin, his upturned lips seem about to speak. Like all of the late "portrait" representations of ancient Egypt, this face appears to be unique.

The heads or busts of late portrait statues are still very difficult to date: their very uniqueness militates against organizing them in chronological groups. A few examples, however, are similar enough in a number of their details to suggest that they might have come from the same workshop. Two examples may be the busts of two statuettes carved in the greenish stone known as greywacke, which are now in the Walters Art Museum in Baltimore and the Louvre in Paris. Both have finely modeled torsos with a minimum of detail; attention is focused on their heads, and especially on their faces. The more openly expressive of the two pieces is the one in the Walters (Seidel in Schulz and Seidel et al. 2009: no. 57, pp. 138–139). He has a striated, shoulder-length hairdo of a kind usually assumed to be a wig; however, it recedes at the temples as if it were natural hair. The face appears to be that of an aging man; the creases at the base of his nose, his swollen-looking upper eyelids, and the heavy folds down from the sides of his nostrils are all standard Egyptian conventions for indicating age. There is nothing conventional, however, about his ferociously scowling expression, which seems to find nothing right with the world. The bust in the Louvre is more subtle and nuanced, most probably the work of a different sculptor (Aldred et al. 1980: no. 136, p. 155). The smooth surfaces of this man's shoulder-length wig set off the details of his deepset, rather puffy eyes, the sagging flesh below his cheekbones, his narrow, perfectly preserved nose, and his mouth, with its thin but well curved lips, set above a chin that can be seen, in profile, to be sagging slightly. In contrast to the Walters bust, this man seems to be focused inward; his expression suggests ambivalence.

6   Twenty-eighth to Thirtieth Dynasties

No sculptural monuments can be definitely attributed to the kings of the Twenty-eighth and Twenty-ninth Dynasties. Unidentified royal heads of the Late Period are sometimes assigned to them, most notably a head in a Blue Crown from Mendes in the Delta (De Meulenaere and MacKay 1976: no. 53, p. 198, pl. 22a–b). This head has also been assigned to the Thirtieth Dynasty, however, and even to the early Ptolemaic Period (Salis 2008: pl. 20b). Statues of private persons that can be assigned to this period are extremely rare (Bothmer and De Meulenaere 1986).

A sizeable number of royal statues, statue heads, and sphinxes have survived from the Thirtieth Dynasty. The heads from statues of the two major kings of the dynasty, Nectanebo I and II, are so similar, however, that they cannot reliably be distinguished unless they are inscribed (compare Myśliwiec 1988: 83). Since they are far more idealized than their Twenty-sixth Dynasty prototypes, it is almost always possible to distinguish between representations from the two dynasties. Only in one case did a

Figure 41.11   Bust of Nectanebo I; from Tell el-Bakleya; Dynasty 30, reign of Nectanebo I; granite, h. 107 cm.; Mansoura, Antiquities Inspectorate, Inv. No. 25. Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture (Bakry 1971: pls. 13–15).

head of the Thirtieth Dynasty in Philadelphia, wearing a Blue Crown, resemble those produced during the earlier period closely enough for it to fool the foremost authority of that day on late Egyptian sculpture, Bernard V. Bothmer (Bothmer 1960: no. 53, pp. 61–2, pl. 50, identifying it as Amasis). Bothmer soon recognized his error and discussed it with this writer and many others, but unfortunately he never corrected it in writing. In virtually every other case, however, the difference between the Saite royal heads and the more stylized heads of their Thirtieth Dynasty followers can easily be seen (compare, for example the heads of a Thirtieth and a Twenty-sixth Dynasty king shown in Josephson 1997: pl. 2a and b). And just as the royal imagery of the Thirtieth Dynasty had drawn on its Twenty-sixth Dynasty predecessors, so was it to serve in providing models for the faces of statues of the first Ptolemaic kings (Salis 2008: 74; cf. his pls. 8 and 9). The royal bust illustrated here is inscribed with the name of Nectanebo I. It was excavated in the Delta late in the twentieth century and is not yet well known in the literature (figure 41.11) (Bakry 1971: 13–15, pls. 13–15). Other Thirtieth Dynasty heads are very well known, such as a large example in greywacke in the British Museum (Russmann 2001: no. 135, pp. 245–6).

   The torsos of royal statues made during the Thirtieth Dynasty consistently show a tripartite division, with the breast, ribcage, and the stomach clearly differentiated. The best of these statue bodies are as fine as any produced in ancient Egypt; others,

Figure 41.12 Standing statue of a man; provenance unknown, possibly from the Delta; Dynasty 30, reign of Nectanebo I; diorite, h. 51.2 cm.; Brooklyn, New York, Brooklyn Museum 52.89 (Fazzini, Romano, and Cody 1999: no. 79).

however, are barely mediocre in quality (compare the two examples shown in Aldred et al. 1980: 157). Most sphinxes of the Thirtieth Dynasty are large; for the most part, they were made in series, usually to line avenues in temple precincts. They are well made but, as one would expect, far more stylized than statues in human form. A number of the sphinxes of Nectanebo I at Luxor have been illustrated by Myśliwiec (1988: pls. 81–4).

Just as their kings looked to the Twenty-sixth Dynasty for models, so too did many private people of the Thirtieth Dynasty when they commissioned statues for themselves. The standing figure of a man in Brooklyn is an example of such a statue (figure 41.12) (Fazzini, Romano, and Cody 1999: no. 79). The lower legs of the figure are gone, together with the man's name, which would have been written at the bottom of the back pillar against which he stands with his left leg forward and his arms at his sides, as male statues had been shown standing since the Old Kingdom, some two millennia earlier. His short, wrapped kilt and his round, curly hairdo also originated in the Old Kingdom. They were modified to suit the taste of the Twenty-sixth Dynasty, and then further refined in the Thirtieth Dynasty to produce the

Figure 41.13 Standing statue of Wesirwer in ''Persian'' dress, holding three divine figures; from the Karnak Cachette; Dynasty 30; greywacke, total h. ca. 74.8 cm.; Brooklyn, New York, Brooklyn Museum 55.175 (head) + Cairo, Egyptian Museum, JE 38064 Photograph courtesy of the Brooklyn Museum, Corpus of Late Egyptian Sculpture (Fazzini, Romano, and Cody 1999: no. 81; Bothmer 1962–3).

highly stylized, smiling face of this statue and the elegant curves of its torso. One of the few innovations in Thirtieth Dynasty sculpture may be seen in the way the rows of small curls on the head of this statue have been left unpolished, so that they appear lighter in color than the dark, smooth surfaces of his body. This coloristic treatment of the hair was rather popular during this dynasty and throughout the Ptolemaic Period.

Statues with individualistic heads also continued to be made throughout the Thirtieth Dynasty. The great majority, like those from earlier in the Late Period, show the signs of age, such as facial wrinkles, drooping eyelids, and the like. A very few, however, show more originality. That is certainly the case with the head of a man named Wesirwer from the Karnak Cachette, in the Brooklyn Museum (figure 41.13) (Fazzini, Romano, and Cody 1999: no. 81). Wesirwer's low, hairless skull and broad face show no overt signs of age. And yet, if not old, he does not really seem young: the suspicion of a frown above his narrow nose, his slightly downcast eyes, and the suggestion of tension at the corners of his wide, narrow-lipped mouth all suggest

an inwardness or tension that one seldom encounters in Egyptian sculpture of any period.

Some years after the Brooklyn Museum acquired the head from Wesirwer's statue, the body was identified in the Egyptian Museum in Cairo (Bothmer 1962–3). The Egyptian Museum graciously loaned the body to Brooklyn, so that the two parts could briefly be exhibited and photographed together. The complete figure is shown standing, wearing a ''Persian'' wrapped kilt and shirt, and holding a representation of the Theban god Amun seated between his consort, the goddess Mut, and their son, the falcon-headed god Khonsu. Taken as a whole, the statue is well made; but one would not guess, looking only at the body, just how exceptional the head is.

The one major innovation in private statuary during the Thirtieth Dynasty appears to have been the creation of the healing statue, or guérisseur, a late development in a long line of Egyptian magical protective measures against dangerous creatures, both real and imaginary (Aldred et al. 1980: fig. 141, p. 159). The healing statue represents a man standing or seated on the ground. He holds a stela on which the child god Horus is shown victorious over dangerous animals and, except for his face, his figure is entirely covered with protective spells. Statues of this type were commissioned by high officials and set up in public places, where people could gain the benefit of their magical powers by pouring water over the figure and its inscriptions, and collecting the runoff. Like other aspects of royal and private figures discussed above, the genre of healing statues outlived the Thirtieth Dynasty and continued to be produced in the early Ptolemaic Period (Kákosy 1999).

7   Metal Sculpture

The making of images in metal seems to have flourished throughout the Third Intermediate Period and most of the Late Period. Most of the evidence from the Twenty-first Dynasty comes from the tombs of Psusennes I and Shoshenq II within the temple enclosure at Tanis. It includes the silver anthropoid coffin and gold mask of Psusennes I, the gold mask of his official Wendebawended, and that of Shoshenq II (Stierlin and Ziegler 1987: pls. 1–4, 56–7, 94–5). These objects strongly reflect New Kingdom influence; it seems that the craftsmen of the Twenty-first Dynasty had inherited from the New Kingdom advanced skills in making metal images of which, apart from the gold mask and coffins of Tutankhamun, almost nothing has survived.

Even less has survived of fine metal sculpture made during the New Kingdom; most probably, examples from that period had been melted down for reuse. But the size, the quality and, in many cases, the elaborate inlays on bronze statues made during from the Twenty-first Dynasty down to the Twenty-sixth would not have been possible without a knowledge of earlier casting techniques. One of the finest of these bronze statues, made in the Twenty-second Dynasty and now in the Louvre, is a standing figure of the Divine Consort Karomama (Hill 2007: fig. 19, p. 39; Aldred et al. 1980: figs. 105, 108, pp. 121, 127). Like the later Divine Consorts, Karomama was a princess. She is sumptuously garbed in a pleated gown of New Kingdom type,

with a large necklace which, like the various patterns on her dress, is inlaid in gold and silver, much of which is still preserved.

Bronze figures of kings and of the Twenty-fifth Dynasty Divine Consorts were usually quite small, but sometimes richly inlaid with gold (Hill 2007: 82–3, 90–1, Russmann 2001: no. 115, pp. 217–18). A standing figure of the god Amun in the Metropolitan Museum deserves mention for its material. The statuette, which is almost seven inches high, is cast in solid gold (Hill 2007: 84–9). Bronze statues of private people were made in the same styles as the stone sculpture of their day. Those from the Twenty-first to the Twenty-fourth Dynasties have costumes, hairstyles, and facial features reminiscent of the preceding New Kingdom (Russmann 2001: no. 117, pp. 119–21). Though not heavily inscribed, as were contemporary stone statues, the bronze figures are often decorated with representations of gods (Hill 2007: figs. 45–6, pp. 76–7).

Almost no bronze statues of private individuals can confidently be ascribed to the Twenty-fifth Dynasty. The figure of a high-ranking woman named Takushit, in the Athens National Archaeological Museum, is usually ascribed to this period, because her name means ''The Kushite Woman.'' Takushit's plump figure is covered by a long-sleeved dress, which is decorated with incised figures of gods inlaid with precious metals (Hill 2007: 98–105). A partially preserved standing figure of a man, which was imported in antiquity to Greece, was found there in the 1960s (Hill 2007: 110–13). The best preserved section of this statue includes the torso, which has proportions of Old Kingdom type, characteristic of Twenty-fifth Dynasty stone sculpture.

A Twenty-sixth Dynasty bronze figure in the British Museum wears a leopard skin and an inscribed band like those described above for Montuemhet and his son, over a long, pleated kilt (Russmann 2001: no. 130, pp. 238–9). Like many stone statues of this period, he held the figure of a god, only the base of which remains. Another Twenty-sixth Dynasty figure is the silver statuette of a woman in the Metropolitan Museum (Hill 2007: 114, 150–5). Her full-breasted figure and her short, curled headdress are characteristic of her day. Her identity, however, is a mystery. She is nude, except for her jewelry and, like some stone statues of Twenty-sixth Dynasty officials, she has the cartouches of King Necho on her upper arms. She may represent a servant, or even a concubine.

FURTHER READING

The Third Intermediate Period and the Late Period are seriously underrepresented in almost all books about Egyptian sculpture or Egyptian art generally. But the books cited in this text as sources for particular images also include other late statues, very often others discussed here. Thus the reader who does not have access to the book cited for a particular statue may well find it included in one or more of the others. Sculpture of the Third Intermediate Period has just begun to receive concentrated study in the work of Helmut Brandl, whose ''Bemerkungen'' and *Untersuchungen* mark the first major attempt to organize this large body of material and to deal with such problems as the reuse of earlier statues. For royal sculpture of the Twenty-fifth

Dynasty, Russmann 1974 is out of date, but remains a useful collection of Egyptian representations of these kings. For those found in Kush, Bonnet and Valbelle 2006 is essential. I have discussed in the text the problems of attempts to identify royal representations of the Twenty-sixth Dynasty. The same is true, to a large extent, of Thirtieth Dynasty royal sculpture, which has yet to be completely published. As for private statuary of the Twenty-fifth through the Thirtieth Dynasties, I do not know of any comprehensive publications of images, much less serious studies.

Ptolemaic and Romano-Egyptian Sculpture

Sally-Ann Ashton

1 Introduction

The difficulty for those approaching Ptolemaic and Roman sculpture for the first time is that few statues are inscribed and, as a consequence, we are almost entirely dependent upon stylistic analysis to construct a relative sequence. For this, training in art-historical analysis is necessary, and the detailed analysis of eye-shape and the inclusion or absence of a philtrum (the area between the nose and upper lip, which is often absent on representations of Ptolemy II) is probably enough to deter even the most interested students. Add to this that, in order to understand how sculpture was used during the two periods, it is necessary to be able to analyse both Greek and Roman-style statuary and it is not difficult to see why this subject is often neglected.

Traditionalists seem to consider Egyptian sculpture of the Ptolemaic and Roman Periods to be degenerative and contaminated by outside influences. This observation contains a measure of truth but can be seen as a positive if one wishes to study cultural interaction. This interpretation is reflected in the manner in which the two periods are often amalgamated and described as Graeco-Roman in spite of their being different in terms of administration. During the Ptolemaic Period there was a resident royal family, whereas few Roman emperors even visited the province. This had a substantial impact on manufacturing processes, particularly with regard to objects that were directly connected to the royal cults (Ashton 2003).

This chapter will attempt to summarize the key developments and influences over a five-hundred year period, from the Macedonian conquest of Egypt by Alexander in 332 BC to the late second century AD. It will include the key developments and trends in the production of sculpture in Egypt and in Italy during the Roman Period. I have broken the material into sections according to styles and will look at royal, private, and divine imagery under each sub-heading.

2   Continuing Earlier Egyptian Traditions

Alexander the Great provided a role model for Ptolemaic rulers. His conquest of Egypt seems to have been more of a spiritual journey for a ruler who was keen to adopt the traditions of non-Greeks. No statues of Alexander have been identified due the lack of inscriptions during this period. The Macedonian appears as an Egyptian king on the walls of a shrine at Luxor temple, illustrating his close bond with Amun and the continuation of a long tradition of representing kings. Furthermore, Alexander's journey across the Libyan desert to Siwa to visit the Oracle of Amun (Greek Ammon) and his desire to be buried there indicate a strong sympathy with Egypt and its religious traditions. Although this desire was never realized, Alexander's body was eventually laid to rest in Alexandria, and the associated sanctuary became a focal point for the Ptolemaic royal cults.

Early Ptolemaic statues share some of the characteristics of the statues of the Thirtieth Dynasty, most notably the facial features, as characterized by a rounded face, almond-shaped eyes, and a forced smile. Numerous limestone and plaster sculptors' models suggest that the royal image was carefully controlled from a central source (Tomoum 2005). This attention to Egyptian precedent was mirrored by the Ptolemaic royal family's programme of financing temples. Indeed it is possible that the two go hand-in-hand and that Ptolemaic promotion of Egyptian culture mirrored religious developments that would tie the foreign dynasty and its culture to established Egyptian tradition. Even early dedications at ostensibly Greek sanctuaries such as the Sarapieion in Alexandria included Egyptian-style representations of the ruling house. At this particular site the statues took the form of two colossal sphinxes, which were most likely placed at the entrance to the sanctuary (Ashton 2001: 21). Their inclusion is significant for two reasons: firstly it shows a commitment to the role of the rulers as kings of Egypt and secondly because it links the dynasty with the Thirtieth Dynasty kings. To what extent the latter point was lost on the predominantly Greek audience is not known. However, the overall message of acculturation with Egyptian tradition must have been apparent even to the most uninformed Greeks who used that sanctuary.

The rulers continued to be presented in this traditional manner. It would be tempting to see these purely Egyptian-style statues as early representations of the Ptolemaic royal house, with the later rulers adopting Greek-style features, as described below. A representation of Kleopatra VII as Isis, which belonged to a dyad showing the queen with her son, indicates that the two styles co-existed (Ashton 2004b: 549) and that a strong Egyptian tradition continued in spite of developments elsewhere in statuary. The royal women continued to be presented in the same manner as their Egyptian and Nubian predecessors. Like earlier royal women Arsinoe II was depicted with a double uraeus (cobra) on her brow. This phenomenon seems to have distinguished principal royal women from others in the harem but in the case of this particular queen most probably also distinguished her from her brother's first wife, Arsinoe I (Ashton 2005). The majority of royal women wore a single cobra, no doubt because Ptolemaic royal men, with the exception of Ptolemy VIII, typically had only one official wife. There was no need, therefore, to distinguish the principal wife.

In the second or first century BC the triple uraeus appeared on statuary. Specialists disagree over the identification of the queen and, indeed, whether this characteristic was associated with a single royal woman (Ashton 2004b). The Egyptian-style statues of royal women represent both the role of consort and of goddess. For the former the queens typically wear a crown consisting of a sun-disc, double plumes, and cow's horns, and wear a cobra on their brow. There is an exception to the crown in the case of Arsinoe II, who appears with a distinctive crown based on that of the god Geb (Dils 1998). When depicting a goddess the Egyptian artists continued to utilize their usual iconographic repertoire. For deified queens a vulture headdress was added to the attributes mentioned above. Such statues are rare, and it seems that divine status was assumed along with the role of royal wife.

Private statuary continued to be produced and is evidence of the close bonds between the royal house and the Egyptian elite. Closest to the Ptolemaic Egyptian royal images are the so-called ''egg-heads'' on account of their prominent skulls (figure 42.1). Like the royal statues, this particular group is difficult to date because stylistically they are similar to the ''portraits'' found on royal statuary of Thirtieth Dynasty as well as the Ptolemaic Period. Indeed, it is not impossible that such statues were produced during both periods. An inscribed example identifies the subject as a ''prophet of Horemheb'' (Bothmer 1960: 127). Other statues, generally dated to the second and first centuries BC, have portrait features that differ from the standard royal image. There has been a considerable degree of debate concerning the extent of outside influences on such statuary (Ashton 2004b: 546–8). The faces are non-idealized in that they are not uniform. The rounded youthful faces are replaced by images of men with lined faces, often with heavy eyelids and prominent cheekbones that are reminiscent of statues of Senwosret III in the Twelfth Dynasty. A survey of this group (Bothmer 1960; Bianchi 1988: 125–39) shows a group of individual portraits, perhaps in a literal sense, and, whilst some officials still preferred to be depicted in a more traditional manner, mimicking the ''portrait'' of the ruling king, some may have preferred a more autonomous and perhaps realistic style of representation. The idea that realistic representation existed in Egyptian sculpture is controversial, and it could be argued that this group of statues formed part of an archaizing phenomenon that harked back to the Middle Kingdom. It is worthwhile considering whether the similarity of facial features is not simply characteristic of the Ancient Egyptians as a race of people, and an image type that the Greek rulers aspired to even though they had no ethnic or racial connection.

More stylized statues appear in the later Ptolemaic and early Roman Periods (Walker and Higgs 2001: 178–83). The idea that their portraits are realistic representations seems less plausible than it is for the aforementioned group. However, many of the representations include the depiction of natural hair – a characteristic that owes more to Greek than Egyptian tradition. Some examples still include lined faces, and, with the exception of the natural hair, the statues are Egyptian in form. The subjects were Egyptian officials, including the governor of Tanis during the reign of Ptolemy XII, the governor of Dendera during the reign of Kleopatra VII, and a priest named Hor also from the reign of Kleoptra VII. During the Roman Period more stylized versions of these private dedications were manufactured. As a group

Figure 42.1 Fragment of a meta-basalt statue of an Egyptian priest. The Fitzwilliam Museum, Cambridge E.3.1946. Courtesy the Fizwilliam Museum.

they indicate that, although Egypt was under foreign administrations, Egyptians maintained their culture and still wished to be represented in a traditional manner.

Non-royal women were also represented during the Ptolemaic Period. Examples range from private individuals who wished to make a personal offering of a statue to their god (Bothmer 1960: 118–19) to women who held an official position. One such example is the statue of Heresankh, who was a priestess of the cult of princess Philoteira, sister of Arsinoe II (Walker and Higgs 2001: 70–1). Women typically wore a plain sheath-like dress and a tripartite wig. They can be distinguished from royal women by the lack of a cobra on their brow and also because these statues often depict the subjects with their hands laid flat against their thighs, whereas royal statues have clenched fists holding a bar.

3   Greek-style Representations

A key problem for the Ptolemaic royal house was how they presented themselves to their powerful but minority Greek audience. A major cultural difference between the Egyptians and Greeks was the issue of divine status for living rulers. The Egyptians

had long accepted that their ruler held a form of divine status through his role as the embodiment of the god Horus. The Greeks followed no such tradition, although it is fair to say that Alexander the Great experimented with the concept of his divine status as a Macedonian ruler and that he was declared the son of a god during his visit to the oracle of Amun at Siwa. The ruler was subsequently deified fully by his successors upon the establishment of a personal cult. Initially, the Ptolemaic royal house deified its members posthumously and by associating the living ruler with deceased divine ancestors. It was not long, however, before the royal house fully embraced the concept of living gods. This development was only really of any consequence to the development of the Greek-style royal statue. Early rulers and their consorts were shown as Hellenistic royals, wearing a diadem or fillet rather than the crown of a god. Unfortunately, few provenanced Greek-style representations survive. Perhaps one of the most significant examples is the triad from the Alexandrian Sarapieion, now housed in three different museums. Here, Ptolemy III and Berenike II appear with the iconography of Hellenistic royals, but their over life-sized effigies in an idealized style of portraiture hint at a divine status. During this period Ptolemy III began to appear on coinage with divine attributes, thus cementing his own status by association and paving the way for future generations and their presentation to the Greeks in Egypt.

Greek-style statues of the Ptolemaic rulers are usually identified by comparison with coin images. Although this method has its limitations, it has, nonetheless, enabled scholars to identify statues of members of the royal family. Greek-style representations were typically made from imported marble or copper alloy. The stone examples were completed by a method known as *sfumato*, which entails the use of plaster to finish features such as hair rather than carving them out of the stone. In some cases the backs of statues were completed in this manner, perhaps suggesting that there was a shortage of marble from which to carve. As an alternative Egyptian limestone was often used for royal and divine representations, and, since the statues were heavily pigmented, the base stone would be of little consequence beyond the ease of carving. These stone or metal heads were then typically slotted into a body made from another material and now lost. Only two complete stone statues of Ptolemaic rulers in the Greek-style survive; both housed in museums in Egypt (Ashton 2001: 58, no. 1.9). The male statue is housed in the Egyptian Museum in Cairo and stands over 2 m in height. Carved from limestone, and perhaps originally finished in stucco, the sculpture represents a late Ptolemaic ruler, naked apart from a cloak and aegis on his right arm. It is likely that the raised right arm once held a spear. The figure is athletic in appearance and can be dated to the late second to mid-first centuries BC on account of the wide diadem that he wears. Some scholars have suggested that the statue represents Mark Anthony. However, the royal insignia would make this identification unlikely. The second statue was also carved from limestone and found in Alexandria, but it represents an early Ptolemaic queen. It has been suggested that the subject, who is seated and veiled, is Berenike II, on account of the child who stands by her side (Tkaczow 1993: 189–90). The daughter of Berenike and Ptolemy III, princess Berenike, died as a child and was deified and, since the larger figure wears a veil over her head, a sign of mourning, it is possible that the statue was commissioned in memory of the princess's death.

There are two important groups of Greek-style statues that survive from Ptolemaic Egypt. Both groups date to the third century BC. One group was found at Memphis, a major Egyptian religious center and a Greek settlement site. The Memphite group is carved from local limestone and is in a poor state of repair. It was discovered by the French Egyptologist Mariette near the Serapeum at Saqqara and published in 1950 by Lauer and Picard. Twelve statues were found; they are life-size and a mixture of seated and standing figures. There have been a number of interpretations of the group, which is purely Greek in style and seems a little out of place in this traditional Egyptian site. The group was placed in a semi-circle at the end of an avenue of sphinxes in front of a Thirtieth Dynasty temple. Visitors would have passed the group on their way to the sanctuary of Sarapis and the burial vaults of the Apis bulls. The group appears to represent Greek playwrights, mathematicians, philosophers, and a ruler, most probably Ptolemy IV or V. It has been suggested that the identity of the members of the group was carefully planned to include Greeks who had had contact with Egypt (Ashton 2003). If this interpretation is correct, what we find at Memphis is an equivalent to the dedication of Egyptian-style statues of Ptolemaic rulers at the Alexandrian sanctuary of Sarapis. Both dedications aim to bring the two cultures together and to demonstrate the dual character of the royal house.

The second is a group from Tell Timai (Thmuis), a large settlement site in the Delta. The site was founded in the Ptolemaic Period but today is dominated by later Roman industrial surface debris and mud-brick structures. The sculptures, published by Edgar in 1915, are made from marble and include two male portraits and four female rulers. Only the heads and necks survive, and it is clear from the base of the pieces that they were slotted into statues that were most likely made from a different material. The male rulers can be identified as Ptolemy II and Ptolemy III. However, the former was originally identified as Hermes. The head of Ptolemy III has a *mitra* across the brow, which links the ruler to the god Dionysos and is an example of the ruler's early affiliation with an established deity in order to elevate his status. The four female statues are more difficult to identify with any certainty but are likely to represent Arsinoe II and Berenike II. One of the heads probably representing Berenike has its hair styled in locks rather than tied back in the usual bun. This hairstyle was later associated with Isis during the Roman Period, but it is here an alternative used by the Ptolemaic royal women, which increased in popularity in the second century BC.

The early representations depict the rulers as mortal or heroic. The facial features are idealized and, although distinct portraits have been identified, it would be wrong to see the classical genre as taking us any closer to the actual appearance of the subject than the idealized Egyptian form. In the second century BC, however, there was a change. Ptolemy VIII adopted a new style of portrait, which was copied by his sons Ptolemy IX and Ptolemy X. Instead of an idealized portraiture Ptolemy VIII, who was nicknamed *Physkon* (''Pot-belly'') on account of his size, adopted an image to represent his real physical appearance. Scholars have made reference to the Hellenistic characteristic of *tryphe* or luxury, and it has been suggested that this particular ruler's appearance represented excesses in an ideological rather than literal sense, but the fact that his sons adopt a similar but individual version of this portrait type would seem, at least, to suggest that artists may well have drawn from the physical characteristics of the rulers for their representations.

Figure 42.2 Fragment of a Greek-style marble statue of Berenike II. From Naukratis. The Fitzwilliam Museum GR.22.1899. Courtesy the Fitzwilliam Museum.

The representations of royal women paralleled those of their consorts (Kyrieleis 1975; Smith 1988: 86–98). Such was their importance that their images were produced in equal, and possibly greater, numbers than those of their male counterparts (figure 42.2). Although idealized, the queens in the third century BC had distinctive portrait types, often associating them with existing Greek goddesses such as Aphrodite or Artemis. The surviving heads indicate a variety of different sizes of statue, ranging from colossal, heroic, life-size and under life-size. Iconographic attributes were often added in metal and have subsequently been lost. Fortunately the holes that were drilled to support objects such as a diadem or crown remain. It is also possible to track the developments in iconography through the coinage. Coin images show that only posthumous queens were deified until the reign of Kleopatra I at the turn of the third century BC.

In order to link the two cultures, the Ptolemaic royal house, or perhaps its advisors, attempted to merge the Greek and Egyptian traditions ideologically. Furthermore, these developments included iconographic associations between the Egyptian and Greek-style representations. This was particularly true of the presentation of royal women in statuary. Arsinoe II, sister and wife of Ptolemy II, is a prime example of how this acculturation worked. Not only was a link with earlier Egyptian iconographic traditions made, but artists also adopted an equivalent to the double uraeus

for the queen's Greek-style representations – a double cornucopia, or horn of plenty. This particular symbol is found on the reverse of the coins bearing Arsinoe II's image and also on statuary and on faience cult vases.

The number of Greek-style royal representations diminished substantially after the third century, and it seems likely that this is reflected in the practice whereby some Egyptian statues of male rulers incorporated the Greek portrait features of the kings and, in one instance, a queen. Once the second century had arrived the royal women become more powerful, sometimes ruling in their own right, and this is echoed by the adoption of a more masculine type of representation on a Greek-style statue of Kleopatra II or III (Walker and Higgs 2001: 59).

Private representations in a Greek-style are far fewer than in the Egyptian style. Women dominate and adopt the facial characteristics and hairstyles of their queens. As noted above, they can be distinguished from royal or divine representations by their lack of insignia. A large number of smaller-scale female representations survive, and it is difficult to know if these statues represented royal or private women, or indeed a traditional Greek goddess. Images at this scale were doubtless private dedications and so probably came from a workshop less closely linked to the royal house. Evidence for this particular group of sculptures is minimal, but there are examples throughout the period of Ptolemaic rule, suggesting that there was an audience for the manufacture of Greek-styles images for the duration.

The main innovation with regard to divine statuary was the introduction of the god Sarapis to the Greeks in Egypt. Sarapis was a composite of two existing Egyptian deities – Osiris and Apis – and, as such, was the celebration of the cult of the dead Apis bull, who resided at Memphis. Two sanctuaries are known from the Ptolemaic Period- the aforementioned Sarapieion in Alexandria and a second at the site of the home of Apis at Memphis. The majority of statues of Sarapis are Roman in date. One of the few sculptures that can be securely dated to the Ptolemaic Period is the aforementioned head of Sarapis that was dedicated alongside statues of Ptolemy III and Berenike II. Sarapis was shown with a beard and with his unkempt hair parted down the center. Later in the Roman Period the god is found with a *kalathos* or grain measure, on his head and typically wears his fringe in ringlets. It was only really during the Roman Period that the god enjoys more global recognition. The Ptolemies appear to have lost interest in promoting the Greek form of the god as they themselves became keener to be associated with the more traditional Egyptian gods and religion, and, as rulers, maintained their duality through the adoption of Greek portraits on traditional Egyptian statues.

4   The So-called Mixing of Traditions: Representing Greek Pharaohs

There are no indications that Greek sculptors attempted to incorporate Egyptian attributes or style into their repertoire, and it is this hesitation to embrace the Egyptian traditions that highlights a fundamental discrepancy between the Hellenistic and Roman periods. The Egyptian artists, on the other hand, were keen to embrace

Figure 42.3 Egyptian-style fragment of a granite statue of Ptolemy VI with Greek portrait features. From Aegina. The National Archaeological Museum Athens 108. Courtesy the National Archaeological Museum, Athens.

foreign attributes. In the Ptolemaic Period in Egypt an important development occurred in Egyptian royal workshops: the adoption of non-Egyptian features on representations of the royal house. For images of the male rulers this entailed the adoption of the recognized Greek-style ''portrait'' of the king, thus effectively making a statue bi-lingual because the necessary elements were there for Greeks to recognize their ruler and for Egyptians to identify the statue as a representation of their king (Ashton 2001; Stanwick 2002; Ashton 2004b).

Scholars are divided as to when this category of sculpture first appears, though it seems likely that it was during the reigns of Ptolemy IV or V. A colossal statue, perhaps from Karnak and now housed in the Egyptian Museum in Cairo, has portrait features that accord with those of Ptolemy V, although this statue has also been identified as a representation of the Emperor Augustus (Ashton 2001: 88, no. 12). More certain are a series of heads from Egyptian-style statues that have the portrait features of Ptolemy VI, found in Kanopos near Alexandria, the Greek island of Aegina, and the Iseum Campense in Rome (figure 42.3). It is this particular group that copies the portrait of the ruler most faithfully, with careful attention to the facial features and hair.

Figure 42.4 Steatite statue of Ptolemy XV in the form of a Herm. The Fitzwilliam Museum, Cambridge E.1.2003. Courtesy the Fitzwilliam Museum.

As we move into the period of the *Physkons*, Ptolemies VIII, IX, and X, we find that artists produce versions of the Greek-style portraits. Statues from this period include three sphinxes from the *dromos* of an Egyptian-style temple at Narmouthis in the Fayum; a group of male and female representations set up in front of the lighthouse at Alexandria; and individual statues from Alexandria, Memphis, and Kanopos. This particular period is important for two reasons: firstly, because it shows that artists had moved into a second phase of production and that they no longer copied the Greek models exactly but chose to create versions of the portraits; and, secondly, because the provenances show that this phenomenon is attested at sites that are both Greek and Egyptian in character.

A series of Greek-style portraits of a late Ptolemaic ruler carved from hard stone has also been identified (Ashton 2001: 68 and 2003: 20–1), and it is unclear from which tradition they emerged. They are isolated as a group and appear to represent a single ruler, and it has been suggested that they may represent Ptolemy XV, the son of Kleopatra VII and Julius Caesar. Several of this group of heads belong to a type of Greek statue known as a *herm* (figure 42.4). They are in the form of a pillar with a phallus attached to the lower section and are decorated with the head of a prince or king, wearing a Greek diadem or fillet. More usually in Greece this type of statue has the head of a god and it seems plausible that this group served a cultic function.

Figure 42.5 Limestone Egyptian-style statue of Arsinoe II with a double cornucopia. Metropolitan Museum of Art, New York 20.2.21. Courtesy the Metropolitan Museum of Art.

Also relevant to this group are representations of the Ptolemaic royal women. Unlike the statues representing the male rulers, statues from this group are not as well provenanced, and so it is difficult to know the context in which they were used. The characteristics are a knotted costume, which is Egyptian in origin, corkscrew locks, and a cornucopia, both of which were originally part of Greek iconography. Not all statues in the group have all three attributes, and there is a further distinction in the styling of the garment, with some examples adopting more folds and the inclusion of an under-garment, which have been interpreted by some scholars as more Greek than Egyptian (Bianchi 1980; Ashton 2001; 2004a; Stanwick 2002; Albersmeier 2002).

Only one statue is inscribed, a limestone statue of Arsinoe II now housed in the Metropolitan Museum of Art (Ashton 2001: 108–09, no. 54) (figure 42.5). This particular sculpture is important because it shows that the locks, knotted garment, and cornucopia that are later associated with Isis have no such link in the Ptolemaic Period. The text associates the queen with Amun. The only provenanced statues from this group belong to the aforementioned statues from the Alexandrian lighthouse and most likely date to the second century BC (Ashton 2001: 110–11). There are later examples from Fouah in the Delta, from Kanopos, and from the Sarapieion at Alexandria (Ashton 2001: 114–15 and 116–17 no. 66 and 118–19, no. 69).

It is generally assumed that both the male and female statues were manufactured by Egyptian artists because of their ability to carve the harder stones and also because the statues remain essentially Egyptian with a back pillar and, in the case of the male statues, because their iconography was more relevant to an Egyptian context. It is important to note that both forms of statue co-existed with purely Egyptian-style sculptures, and, for this reason, it seems likely that they served specific functions. There were so many strands of royal cult for both Greek and Egyptian audiences that there would have been a need for statues that could meet the necessary requirement of being immediately identifiable. This was particularly pertinent, given the lack of inscriptions during this period.

5 Emperors and Pharaohs at Home and Abroad

Romano-Egyptian sculpture is different from its forerunner and has received comparatively little attention by Egyptologists, largely due to the abundance of material produced and displayed in Italy. Some of the Egyptian-style pieces produced in Italy are so unconventional that they have been dismissed as modern forgeries, or eighteenth-century *Egyptomania* (Ashton 2004a). There are four discernable categories of sculpture produced during the Roman Period in both Italy and Egypt: firstly, those which adhere to the typical classical canons (Roman); secondly, purely Egyptian-style statuary found mainly in Egypt and often associated with private dedications but also including generic representations of an Egyptian ruler (Egyptian); thirdly sculpture made according to the classical tradition but which adopts an Egyptian theme (Egyptianizing); and finally sculpture that is made according to the Egyptian tradition, including the all-important back pillar, but which has elements that suggest it was carved by a non-Egyptian craftsman (Romano-Egyptian).

With regard to the continuation of Egyptian-style statues with Greek, or in this case Roman, portrait features, several examples without provenance have been identified as Augustus and Nero (Kiss 1984). There are three heads of Vespasian from Egyptian-style statues; one is now in the Egyptian Museum, Cairo, and so probably from Egypt. The other two, now in the Ny Carlsberg Glyptotek Copenhagen and the Fitzwilliam Museum Cambridge, are without provenance (Ashton 2004a 28–29) (figure 42.6). The earliest securely datable and provenanced examples during the Roman Period come from Italy during the reign of Domitian. At the sanctuaries of Isis at Benevento and the Iseum Campense in Rome we find the emperor appearing as Pharaoh but with a version of his portrait that was more commonly found on Roman sculpture. At Benevento there are two striding statues, one partially preserved sphinx, and two heads from sphinxes showing the emperor's face. Two of the sphinxes are made from red granite, and here the sculptor has clearly struggled with the stone (Müller 1971). The features are not as cogent as on the third, which is carved from a hard dark stone, most probably basalt, which shows the Emperor's characteristic overbite, especially in profile. This leads us to the question of the identity of the artists. In the Ptolemaic Period statues that were essentially Egyptian, but with Greek portrait features, were doubtless carved by Egyptian artists. This can be determined by

Figure 42.6   Egyptian-style fragment of a statue of Vespasian. The Fitzwilliam Museum, Cambridge E.83.1954. Courtesy the Fitzwilliam Museum.

the proportions, which are comparable to contemporary purely Egyptian-style royal sculpture. The statues of Domitian are less securely attributed to an Egyptian school.

The two striding statues are important for identifying the artists. Müller identified one as Caracalla in his 1971 publication of the material from the site. Stylistically, however, the statue fits more easily into the first century AD. A more convincingly identified representation of Caracalla in the Egyptian Museum, Cairo, shows the ruler with his beard and with characteristic curls of hair beneath the *nemes* headdress. The Benevento statue can comfortably be identified instead as Domitian, though poor preservation of the mouth and nose distorts the profile. The statue is also carved from what appears to be diorite and, as with the granite sphinxes, the sculptor has produced a finish which is less than sharp, probably due to difficulties carving the relatively hard stone. In terms of this statue's "Egyptianness" the artist has produced a respectable copy of an original statue. This is illustrated best by the treatment of the back pillar – a feature common to all striding Egyptian sculpture – which, in this case, extends to the top of the head and is broad enough to have supported an inscription, had it have been required. In contrast the artist of the second striding statue, which can unquestionably be linked to Domitian on account of the strong resemblance to the emperor's established portrait type, has struggled with the execution of the back pillar. Here the back pillar is more of an afterthought than a functional part

of the statue. It is narrow and unevenly placed, twisting to the viewer's left. This suggests two things: firstly, that the artist was not familiar with the Egyptian tradition and, secondly, that the statue was originally placed with its back against a wall. There are other features that also betray the artist's non-Egyptian training. The belt of the kilt that the emperor wears sags at the front and is too high at the back; there is also the uraeus which is not of the standard form but is carved in a manner that is closer to relief rather than standing slightly proud of the headdress in the usual fashion. This latter feature would become a common feature of Romano-Egyptian sculpting.

At the Iseum Campense, a complete sphinx in red granite illustrates a close copy of Pharaonic originals but with the portrait features of Domitian (Lembke 1994). There were several lion-headed sphinxes from the site and an earlier import of a sphinx with the cartouche and typical stylized "portrait" of Amasis. The stone of the Domitian sphinx is highly polished in what became the usual Romano-Egyptian fashion, and the features are unequivocally those of Domitian. Like the two striding statues and one of the red granite sphinxes from Benevento the Iseum Campense sphinx originally had inlaid eyes – a feature found on many Ptolemaic representations, particularly those of the second and first centuries BC.

The adoption of portrait types more commonly associated with a Pharaoh's Roman image is clearly a continuation of an established Ptolemaic tradition, but it is not a continuous practice. There is perhaps, however, a hint of the precise source from which the Roman artists took their influence. One of the statues from the Iseum Campense may well be a Ptolemaic original. The portrait, which is all that remains, was tentatively identified by Lembke as a representation of the Emperor Domitian in the Egyptian style. Unlike the aforementioned statues, however, this head has hair beneath the *nemes* headdress. The statue was identified by Ashton and Stanwick as Ptolemy VI on account of the styling of the fringe and also the portrait features, both of which occur on an inscribed statue now in the National Museum in Athens (Ashton 2001: 90–1) (figure 42.3). Like some of the Domitian statues, this Ptolemaic example has inlaid eyes and may well have provided a model for artists working in the first century AD. It is unlikely that the Romans recognized which of the Ptolemaic rulers this image represented, but its more familiar style of portraiture must have appealed to the Roman taste, being somewhat closer to the classical tradition that it shared with Greece.

A second Ptolemaic statue that is associated with the Iseum Campense was re-worked, possibly during the Roman Period. The colossal head, now housed in the Ny Carlsberg Glyptotek, offers an interesting insight into the re-use of Ptolemaic sculpture during the Roman Period and is perhaps a case of mistaken identity. The original identity of this piece is easier to determine than its usurper. The recutting is most obvious around the hairline, where a sharp ridge delineates the original hair from the re-cut portrait. The problem with the piece is that the nose, mouth, and chin are modern restorations. The *anastole* (wreath-like treatment of the hair), cutting for a uraeus, and also the colossal size of this statue all point to the original subject's being Ptolemy X Alexander II (Lembke 1994). There is, of course, the possibility that this head was appropriated in Egypt during the Ptolemaic Period. A head of Ptolemy XII, the father of Kleopatra VII, was also re-cut in the Ptolemaic Period and has a similar line along the forehead at the hairline. Perhaps the Romans mistook this statue for

Alexander the Great on account of the *anastole* treatment of the hair, which was typical of his portraits, and decided to bring the head to Rome. Whatever the reasons, we find two closely related Ptolemaic portrait types within the Iseum Campense. Both have inlaid eyes and hair styled according to a Greek coiffure. The Roman artists copied the idea of incorporating a recognizably classical portrait onto an Egyptian statue, but, for whatever reason, they declined to include the hair of their Emperor.

When we turn to the second century AD, we find two notable statues from Egypt, often identified as the Emperor Caracalla but perhaps representing Hadrian and dedicated during his stay in Egypt (Kiss 1984: 74–5, fig. 188 and 81, 89, figs. 205–6). Both are housed in the Egyptian museum in Cairo; one is sculpted from limestone or quartzite and the other carved out of granite. Both show a bearded emperor and are equivalent to the Ptolemaic royal statues with Greek portrait features. The limestone statue derives from Mendes in the Delta, and the granite statue comes from Sheikh Fadl near Beni Masar (Stanwick 2002: 130). There are a number of other fragments of this category of statue representing a bearded emperor (Stanwick 2002: 130; Kiss 1984), indicating that there remained an audience and need to portray the kings of Egypt as both Emperors and Pharaohs.

An innovative use for this category of bilingual statuary occurred in Italy during the reign of the emperor Hadrian and can be more tightly dated to the period after 130 AD, following the death of his favorite, Antinous, who drowned in the river Nile during an imperial visit to Egypt. The adoption of this form of statuary for a non-royal or imperial subject is confusing to Egyptologists and, one must presume, to Egyptians at the time. Antinous is effectively shown as Pharaoh of Egypt. Perhaps the closest parallel to the cult of Antinous is the posthumous deification of Ptolemaic royal women. Such acts were distinct from the ruler cults, and in this respect Hadrian's deification of Antinous is unique – he was neither his consort nor a family member but is treated as both on the obelisk commemorating his deification and the founding of the city that took his name (Grimm, Kessler and Meyer 1991). The text states that Antinous will be worshipped as Osiris-Antinous; in other words, the cult is that of the dead Antinous. The closest parallel for this is the cult of Osiris-Apis (the dead Apis bull), who became Hellenized as Osarapis and then Sarapis by the early Ptolemaic rulers.

Antinous does not, however, appear as the god Osiris, who was traditionally associated with the deceased Pharaoh of Egypt, as opposed to Horus who was the living king and son of Osiris. Osiris was murdered by his brother Seth and then dismembered, with the body parts spread throughout Egypt. The sister and wife of Osiris, Isis, collected the remains of the body and with the phallus in place became impregnated with Horus. Thus Osiris is shown as a mummiform figure. Antinous is shown with attributes that are associated with the king of Egypt or the god Harpokrates (the young form of Horus); namely, the *nemes* head-cloth, the kilt, and, on occasion, the uraeus or royal/divine cobra. Both forms were commonly used in the Roman Period to represent the Pharaoh and the young Horus and so presented an established iconography. It could, of course, be argued that the statues of Antinous were merely fashioned in order to evoke Egypt, but this seems unlikely on two counts. Firstly, there is an example of an Antinous-Osiris statue from Egypt in this form, although its exact provenance is unknown; and secondly Antinous appears on

the obelisk and in the Munich statue in the role of Pharaoh iconographically and ideologically. Fooling the Romans was one thing, but insulting the Egyptians with a skewed iconography was quite another. The text, which is written in hieroglyphs, illustrates that the obelisk's origins are firmly within the Egyptian tradition, and it is also believed to have been originally displayed at Antinoopolis, being moved to Rome in the third century AD. Does the presentation of Antinous, then, represent a misinterpretation of a Ptolemaic tradition, or a development? The answers lie at Hadrian's villa at Tivoli, where we find a complex game between religion, affection, and self-promotion played by Hadrian with Antinous as the subject.

Antinous appears in at least four separate groups in a variety of forms. Each statue shows the subject wearing the *shendyt* kilt, *nemes* head-cloth, and, on some of the representations, a uraeus (royal or divine cobra) acting in a protective role and representing the eye of the sun-god Re. The groups can be divided into Egyptian and Egyptianizing statues, in other words, those sculpted by artists working in the Egyptian and Roman traditions respectively and, as such, they provide an insight into the kinds of features that artists from each tradition considered to be peripheral.

Some statues are Egyptian, and here all of the features that one might expect are present: back pillar, stance (striding forward onto the left leg), costume, and uraeus. The only non-Egyptian feature is the portrait of Antinous. Two statues, from separate groups, show a Roman deviation from the usual in that one statue from each pair strides forwards onto its right leg, mirroring the more usual left. The first pair are often referred to as the *telemones* (male equivalents of caryatids) and, as their name suggests, they served an architectural rather than cultic purpose at the Villa. The left and right mirroring emphasizes their architectural role and is a Roman rather than Egyptian innovation; all striding statues in Egypt have their left leg forwards. The statues are carved from a single block of red granite and are colossal in size, measuring 3.35 m in height. They most likely served as a monumental entrance to a temple or cult area. Roullet suggests that this type of pillar was influenced by the Osirid pillars used in Egypt, but such colossal architectural representations of Pharaohs can also be found, perhaps most successfully at the temple of Ramesses II at Abu Simbel. There were problems in the execution of the pair: the sculptor has not allowed enough room for the stride with the result that the back leg on both statues appears to curve inwards, indicating that the sculptor was uncomfortable with the Egyptian tradition or that they were intended for a limited space. In style they are Romano-Egyptian because they include a back pillar. The portrait features are not a strong element; the double form of god is, however, paralleled elsewhere at the site.

The second pair of mirror statues constitute part of a much larger group of statues carved in *bigio morato* (a black Greek marble). In terms of their portraits they lack the usual features of Antinous, most especially the characteristic eyebrows, with diagonal cuts to indicate hair, also found on portraits of Hadrian. The facial features are also lacking the idealized form that is found on other images of Antinous, perhaps suggesting that this pair was not carved by imperial sculptors but a smaller workshop (Grenier 1990). The statues are very similar, with only three centimetres difference in their height; they both wear the *nemes* head-cloth and the *shendyt* kilt. Unusually, the two so-called Osiris-Antinous statues from the Hadrian's Villa group do not wear the royal or divine cobra on their brow. The form of the statues is Egyptian, and the arms

are held tightly by the sides; one holds a cloth in the palms of its hands (another non-Egyptian feature in terms of its form) rather than the usual bar. The two Osiris-Antinous figures are in many respects removed from the action of the ceremony, as stressed by their architectural mirror-imaging, and it is possible that they stood in a similar manner to the *telemones* of Antinous.

There is one further Egyptian statue representing Antinous from Hadrian's Villa, which probably served a cultic purpose. It is made from *rosso antico* (a red Greek marble) and is today housed in the Egyptian Museum in Munich. Antinous is shown with a striped *nemes* head-cloth and uraeus, and the statue appears to be striding forward on the left leg and is supported by a back pillar to the mid-back. It is 2.26 m high. There are claw-chisel marks on the left arm and a dowel for slotting the arm into the shoulder, suggesting that the statue consisted of several pieces in antiquity. This is a common feature of Romano-Egyptian sculpture and one which the artists concealed well in the finished product. The facial features are easily identifiable as the young god and details such as the diagonal cuts to indicate the eyebrows are typical of Antinous' Roman portraits. This statue is without any doubt a portrait of the youth. Winckelmann suggested that the find-spot for the statue was the so-called Kanopos (Scenic Canal), which is close to the find spot of the group that included the black marble statues of the god (Raeder 1983: 153–4).

One of the most skillfully carved representations of Antinous in this guise is made in red quartzite and measures 34 cm in height (Charles-Gaffiot and Lavagne 1999: 240). This fragment also shows Antinous wearing a striped *nemes* head-cloth and uraeus. The uraeus is extremely prominent, suggesting an individual sculptor or workshop and perhaps that this piece stood alone. There is also the fitting for a crown at the top of the headdress, a feature not found on the other statues of Antinous, and it is without a definite provenance. Antinous wears the divine uraeus on both the Munich and, if relevant, Dresden statues, and it, therefore, seems logical to conclude that he is the god attended by the priests. Perhaps the accompanying statues represent the Egyptian priesthood, established to tend to the cult of the dead Antinous. His image here is once again more closely linked to that of Harpokrates/ Horus than Osiris, and so he appears more as if a son of Hadrian, distinguished by his portrait but wearing the traditional Egyptian costume and regalia.

Grenier originally placed the red statues of Antinous in his reconstruction of the Serapeum (Scenic Triclinium) and suggested that the two groups of red and white marble represented Upper and Lower Egypt. The white marble statues of Antinous (figure 42.7) are, however, Roman interpretations of these Egyptian-style represen-tations, and interestingly the artists have ignored the back pillar, striding stance, and uraeus. It was this particular stage of a version of a copy that artists in the Ptolemaic Period never reached, and its presence alongside the more traditional statues in the same contexts suggests that the two served different functions or purposes. The roots of those closer to the Egyptian tradition are firmly set in the Ptolemaic tradition. As for the function of the Antinous statues, although located in a villa, they may have been associated with the small temples that are currently being excavated by the Italian authorities on the site.

It is perhaps significant that one of the earliest Ptolemaic sculptures to have found its way to Rome was designed specifically for a Roman audience. The marble head of a

Figure 42.7 Statue of Antinous. White marble. H.2.41 m. Museo Gregoriano Egizio 22795. Photograph Marie-Lan Nguyen Wikimedia Commons. Courtesy of the Vatican Museums.

queen wearing an Egyptian headdress and wig, now housed in the Capitoline Museums' annex at Monte Martini, is the earliest example of a Roman interpretation of a Ptolemaic Egyptian sculpture (Ashton 2001: 118–19, no. 70). The statue is classical in form, consisting of a bust, carved in order to fit into a separate body, and made from Parian marble. Its portrait features copy those of Kleopatra VII and accord well with two heads that were found in Italy and show the queen as a Greek monarch (Walker and Higgs 2001: 203–7). It has been suggested that the head functioned as a cult statue, originally intended to represent Kleopatra VII, and was probably dedicated during her stay with Julius Caesar in Rome (46–44 BC). In terms of Egyptian iconography the statue shows a goddess, distinguished as such by the vulture headdress, which would originally have supported a small crown and vulture head, probably executed in a precious metal. It is an Egyptian parallel for the statue of the queen as Venus in the temple of Venus Genetrix and, like this statue, was permitted to remain during the rule of Augustus.

A small figure of the goddess Isis, dating to the Ptolemaic Period and showing the goddess in her traditional Egyptian form, was also found on the Esquiline Hill in Rome (Walker and Higgs 2001: 331). The statue measures 22 cm in height and, it has been suggested, served an apotropaic function, perhaps within a household or cult center. Like the Monte Martini statue, the Esquiline Isis wears a vulture

headdress and appears in a traditional sheath-like dress. It was not long, however, before the Romans adapted the iconography of Isis and both used and created images to represent the goddess that had once symbolized Ptolemaic queens.

The main symbols that denote Isis in the Roman Period are a knotted costume and corkscrew locks. The attributes accompanying the goddess change but typically include one of the following: a crown formed from cow's horns, sun-disc and plumes; a situla and sistrum (typically together), or a cornucopia (horn of plenty). The *ankh* also appears as an alternative symbol of her identity and powers.

The model for Roman Isis was pulled directly from the Ptolemaic repertoire. An inscribed statue in the Metropolitan Museum of Art, representing Arsinoe II as a goddess, shows the queen with a corkscrew wig, a knotted costume, and a double cornucopia (Ashton 2001: 108–9) (figure 42.5). The inscription on the back pillar states that the statue represents the deified queen, and she is referred to as beloved of Amun; there is no mention of Isis. The Metropolitan Museum's statue is important because the majority of these statues are uninscribed and, therefore, open to interpretation. There can be no doubt that, in this instance, the statue simply represents a Ptolemaic queen as a goddess in her own right. By the second century BC one of the forms of deification adopted by the Ptolemaic queens was their assimilation to Isis. Both Kleopatra III and Kleopatra VII believed that they were embodiments of the deity and, as such, adopted her name. Statues of these same queens, then, could be equated to Isis by association, but there is nothing to suggest that they were specifically designed, or used exclusively, to represent them in this role (Ashton 2001: 44–5; Stanwick 2002: 75 and 80, who advocates a connection). Certainly the variety of poses adopted by the white marble Egyptianizing Isis figures suggests that the artists were trying to invoke the goddess' many functions and roles; for this particular aspect of Egyptian theology seems to have confused the Romans, hence the suffixes to the name Isis which occur on a regular basis in order to indicate which aspect was being stressed.

Some of these changes found their way back to Egypt; marble representations of the goddess Isis were perhaps the most significant (Ashton 2004a). The Romans adopted the knotted costume, crown, corkscrew locks, and, on occasion, the cornucopia, that had previously been linked to Ptolemaic queens. These representations of Isis were executed completely in a classical style and were without a back pillar and free from the usual Egyptian striding stance. That they were accepted in Egypt is illustrated by the examples at the small temple in front of the main pylon at Luxor and at the temple of Isis at Ras el-Soda in Alexandria (Bianchi 2006). Traditional representations of the goddess continued to be produced on temple reliefs in Egypt, but the new marble representations in the style of Ptolemaic queens became popular throughout the Roman Empire.

6   Conclusion

Ptolemaic and Romano-Egyptian sculpture have some features in common, and for certain categories of statues it is possible to trace the origins and developments across the five-hundred year period of production. The key difference in the Roman Period

is that the king was no longer resident in Egypt, and so the focus shifts to Italy, in particular, to the villas and sanctuaries of the capital city of Rome. The two periods are very different in that key iconographic features were further developed in the Roman Period but often adopted a new meaning. Whilst it would be wrong to approach the two periods as one, it is essential to consider them together to obtain a holistic approach to the study of Egyptian sculpture at this time. Some features in both periods are new to the Egyptian repertoire, but what a survey of sculpture demonstrates above all else is the flexibility and talents of the Egyptian sculptors, who are able to incorporate alien attributes into their repertoire, whilst producing statues that were still relevant to their traditions.

FURTHER READING

A good place to start is with the many exhibition catalogues. By looking at both the essays and catalogue entries in Bothmer (1960) and Bianchi (1988) it is possible to obtain a better understanding of one of the key issues in the study of Ptolemaic and Romano Egyptian sculpture, namely the degree of synthesis between traditions. The PhD publications of Ashton (2001), Stanwick (2002), and Albersmeier (2002) offer different perspectives on the study of Ptolemaic royal, and, in the case of Albersmeier, private female, statuary. For Greek-style royal sculpture Kyrieleis (1975) remains the most comprehensive source. Romano-Egyptian sculpture is dominated by publications of the material found in Rome. Roullet (1972) provides a catalogue of the majority of sculptures found in Rome, and there are more detailed works on the material from the Emperor Hadrian's villa at Tivoli (Raeder 1983; Grenier 1990). Müller's 1971 publication on the statues from the Egyptian sanctuary at Benevento is not readily available but provides a comprehensive catalogue of the material. For the Iseum Campense in Rome Lemke's 1994 publication of her PhD remains the most accessible and comprehensive discussion.

Pharaonic Painting through the New Kingdom

Betsy M. Bryan

1   Materials and Pigments

Painting was used as a decorative medium in the Nile Valley perhaps as early as the Khartoum Mesolithic onward, when paintings of animals and humans were created on rock walls as early as 6000 B.C. Within Egypt the exploitation of mineral pigments for artistic renderings was well underway in the Naqada I era, most prominently for ceramic objects (Crowfoot Payne; 1993; Aksamit 1998), but few results have been published identifying pigments from Neolithic objects. For the Pharaonic era, however, numerous studies have been conducted to identify pigments and to study the application of paint (Blom-Böer 1994; Lee and Quirke 2000). Likewise a number of publications have addressed the identification of paint binders, particularly on museum objects. (Newman and Serpico 2000; Newman and Halpine 2001). Glues from animals or fish have been found as a binder and adhesive, but gums, from plants or trees, have been identified more frequently. The analysis of these organic binders is more difficult than pigment identification, and often results must be reported as simply "animal glue" or "plant gum", without being able to specify further (Newman and Serpico 2000; McCarthy 2001). In general, the ancient palette consisted of black, white, red, yellow, green and blue, as the primary pairs of colors, along with a number of mixed paints such as brown, pink, orange, and grey. With the exception of black nearly all the pigments used in ancient Egypt were mineral in nature; black was consistently carbon-based, generally made from soot (Colinart 1998). Most of the mineral pigments were collected regionally throughout Egypt, but some were rarer and required importation, for example, orpiment and realgar. Orpiment in particular, a yellow arsenic sulfide, may have been collected in the Kharga Oasis or from an island in the Red Sea, but it was also imported from as far away as Turkey or Iran, and recent studies have shown that it was not uncommon for this expensive pigment to be mixed with the easily available ferrous oxide, yellow ocher (Colinart 2001; McCarthy 2001). Orpiment has a more luminous quality to it than does yellow ocher, and the mixture enhanced the golden appearance of the

yellow pigment. Like orpiment, realgar is an arsenic sulfide and was used as an alternative for red and orange colors. Both of these pigments have been found more often on New Kingdom and later objects and paintings, but there is now good reason to think that they were used as early as the Old Kingdom. The same is true for the mineral huntite, a magnesium-based pigment, that is a very bright white (Lee and Quirke 2000; Heywood 2001). It alternates with calcium carbonate and calcium sulfate which were the most common white pigments used, but huntite was employed as early as the Old Kingdom, particularly to emphasize the whiteness of garments; it equally could underlay other colors to brighten them. Since huntite was used as early as the Old Kingdom, a source for it in Egypt may well have existed, but until now it has not been located.

The pigments that have been the most debated and discussed are the blues and greens (Blom-Böer 1994; LeFur 1994; Colinart 1998; Pagès-Camagna 1998; Lee and Quirke 2000; Green 2001; Middleton 2001). Laboratory studies demonstrate that the vast majority of blue pigments are the synthetic material "Egyptian blue", ground from a vitreous frit-like substance, composed of sand, copper, calcite or gypsum, and an alkali such as natron. The sources of the copper have been debated and may have been various, including malachite and copper filings. Green pigment was generally also a frit-like substance, made, like Egyptian blue, in several stages, from similar ingredients. Doubt as to the existence of a separate green pigment before the New Kingdom was raised by one set of studies that concluded that early green color layers had been applied as a lighter blue and degraded to green, but more recently this has been shown to have been in error (Pagès-Camagna 1998). A green frit existed as early as the Old Kingdom. Mixed colors, such as gray, combined carbon black and calcium carbonate or calcium sulfate, while pink paint in most periods of Ancient Egypt was a combination of red ocher with white. On objects of the Ptolemaic Period, however, vermilion and an organic pigment were identified as a pink color (Lee and Quirke 2000).

2   Painting in the Predynastic and Early Dynastic Eras

Throughout the Pharaonic era, and already in the Neolithic, two dimensional representation employed iconic scenes as a means of communication (Barta 1970; Harpur 1987; Van Walsem 2005). Such subjects as Nilotic flora and fauna and male hunting parties were well attested on early Naqada vessels. Well-known Egyptian artistic norms, such as the symmetrical balancing of scenes, were also employed on these pots (Schäfer 1986). Likewise, the shapes of decorated surfaces influenced the artworks themselves, so that a circular plate was treated as a round pool in which hippopotami or fish swam round and round, while a round or cylindrical pot might be treated either as two-sided and carry dual scenes that communicated visually or as a continuous canvas on which rows of animals moved around the vessel's circumference. Scenes on tall or globular pots frequently were bounded top and bottom by elements that created a landscape of desert, mountain, or river valley. Further, despite

the use of icons to convey content – as, for example, on the well-attested Naqada IIc/d boat vases – as in later Egyptian art, each icon was adapted to the specific object, both as to size and proportion, but also as to specific imagery. The art was, therefore, hieroglyphic in nature, relying on requisite forms combined with one or more elements that might convey further meaning. Painted art continued to combine hieroglyphically formulated images into characteristic scenes that were adapted to the overall context, including architecture and objects (Fitzenreiter 2001). Over time the ideation of the elements used increased in value. For example, in the earlier Neolithic, men might carry bows that designated them as hunters, but already by Naqada IIc, in the Hierakonpolis Tomb 100 painting, the presence of an animal-herding crook in the hand of a dominant male identifies not an occupation but political power – and probably rulership. Egyptologists do not always agree that ideological and religious intent was layered into metaphors such as the crook of rulership, and particularly there is disagreement about any mythological interpretations to tomb scenes of the Old Kingdom (Van Walsem 2005; Altenmüller 1998). For later periods, however, most scholars agree that the icons used were intended to be understood on a series of levels, depending on the education and interest of the viewer.

The Hierakonpolis Tomb 100 contained an early example of mural painting – perhaps the most intensively developed use of this artistic medium (Cialowicz 1998) (plate 9). Despite the absence of canonical conventions, such as registers and regulated proportioning, the wall presents the basic elements of Pharaonic Egyptian painting, and of two-dimensional art generally. Some painting conventions known from later wall decoration were utilized by the artist(s) of the mural, including the variation of dark red and lighter ochre body colors to emphasize individual figures. The polychrome palette indicates the direction in which painting was developing; yellow, red, brown, white, and black were all present, leaving only green and blue to be added. The background is colored in the buff tone of the wall mortar and appears similar to that of the contemporary Naqada IIc/d pots (Vandier 1969). Likewise the dominance of the boat icons is similar to that of the boat scenes on pottery. Yet one boat is larger and placed higher than the others, and riding in its kiosk is perhaps the ruler associated with Tomb 100 itself. In addition to the continuous central boat motif, the painting contains several other thematic groupings separately placed. In the upper left a man with uplifted mace faces wild animals, perhaps lions, demonstrating an individual's physical power. In the lowest level of the painting a single thematic area runs across the wall. At left a figure, similar to that at upper left, raises his mace before three crouching captives (figure 43.1) Two figures with large scepters, one the crook and the other the *was* may both indicate the same hero as ruler, while to the right of center two icons represent a hand-to-hand fight in progress and with the victor raising his weapon over the defeated combatant. Three crouching figures may be captives and visually link to the left end of this thematic group. The physically dominant male as victor over other men – and therefore a political ruler – is a clear message from this sequence of icons, and just above them two additional groups add additional information. A hero is flanked by two confronting lions in a manner well known from the Gebel el-Arak knife and generally considered to be inspired by Mesopotamian sources (Pittman 1996). To the right a man fights a bull, which is shown defeated by its upside down placement. Both scenes have mythic

Figure 43.1 Hierakonpolis Tomb 100. Detail of victorious hero.

elements, since the animals in question are themselves associated with raw power and, in the historical era, with divine kingship. Here their placement near the smiting scene may add hegemonic ideology to the heroic roles of the man represented. Another type of iconic group appears on the upper right where the hero hunts antelope with dogs, a motif that balances against the upper-left lion hunt. Both scenes also localize the setting in a desert, uphill from the Nilotic boats. The landscape is further suggested by the cavorting hill-animals placed centrally, and rather oddly, as if in the midst of the river. A final grouping in the center of the painting may also have been an attempt at landscape suggestion, since we see five antelopes placed with their feet on a small circle within a larger one, creating a ring of animals. This motif may communicate in plan view the numerous hillocks and gebels along the river where smaller desert animals might be spied. Although perhaps not so successful as a means of indicating an upland area, this motif surely marks the ingenuity and creativity of a very ancient artist. As an early wall painting, Tomb 100 at Hierakonpolis functioned in many ways like later Pharaonic tomb paintings that memorialized the life of the deceased. The tomb owner was depicted in many roles and linked to the broader community in which he lived by the presence of the fleet of boats (Cialowicz 1998).

3 Wall Paintings of the Old Kingdom

As the desire to decorate tomb and temple walls developed, the need to lay out iconic scenes on walls increased. Instead of placing separate icons on a single undifferentiated surface, the walls were divided by groundlines and vertical scene markers. Content connections were implied through the physical relationships of the icons, but narration of an event was limited to linking scenes visually and with text, similar to comic book story-telling. Gay Robins has pointed out that the square grid did not exist until the Middle Kingdom in Egypt, but that guidelines were used to proportion figures, both for painting and for relief work in the Old Kingdom, with certainty from the Fifth Dynasty onward (Robins 1994). Her analysis of early dynastic figures indicates a lack of standardization through the Third Dynasty, but she also noted

that royal figures representing King Djoser were nearly identical to the classical proportions seen throughout the remainder of the Old Kingdom. The masterful painting in the tomb of Itet, dating to the beginning of the Fourth Dynasty, must have required the use of both horizontal and vertical guidelines, although they are not now visible. Yet the wall paintings from the tomb of Metjetji, dating to the late Fifth or early Sixth Dynasty, preserve these guidelines very well as part of the under-sketches (Arnold and Ziegler 1999). As Robins' work has indicated, Egyptian artists divided the human body mathematically from very early on, perhaps as early as the First Dynasty, and wall surfaces were likewise laid out with these proportions in mind. Indeed, the development of figural proportions as part of wall planning is what separates Hierakonpolis tomb 100 from the Meidum paintings and from the lime-stone paste-filled reliefs.

During the archaic era, as the canonical forms of Egyptian art developed, painting developed with it. The two primary functions of painting were coloring and drawing. By the Third Dynasty traditional colors were used for skin colors (red for males and yellow or pale pink for females), hair (black and blue), clothing, and a variety of offering objects. The tomb of Hesyre has painted panels representing both geomet-rically painted textiles and funerary objects, while the statue of Djoser was painted, as later, with an overall white ground color, over which was layered black pigment for hair and beard, red for skin color, and additional white for the festival robe. In the early Fourth Dynasty tombs at Meidum, large wall scenes were designed combining painted plaster over mud brick with sunken relief compartments carved in limestone and filled with pigment paste. One of the tomb owners, Nefermaat, boasted in an inscription that, "he made his images in drawing that cannot be erased," apparently referring to the pigment filled relief (Smith 1949; Arnold and Ziegler 1999). The materials used for the pigment paste were those used in painting throughout Phar-aonic Egypt and were bound with water and resin. The hues included black, white, red, yellow, green, blue, brown, and gray (Pagès-Camagna 1998; Arnold and Ziegler 1999). As has frequently been said, the irony was that the technique was largely unsuccessful, since after the liquid in the paste dried, the pigment contracted and fell out of the stone compartments. Yet, the esthetic taste conveyed by the Nefermaat and Itet tombs was for highly colored but smooth wall scenes, similar to painted plaster alone. Indeed, the intricacy of the mud-plaster paintings in these tombs demonstrates the artists' recognition of the medium's capacity to convey visual information. Wall painting appears to have been developed on mud brick surfaces, and the carefully proportioned and intricately detailed paintings from the tombs of Itet and Nefermaat must represent the apogee of early dynastic murals on mud brick walls. Yet, through most of the Old Kingdom, elite monument builders privileged painted relief sculpture over painted plaster, just as they privileged stone over mud brick for construction.

The interrelationship between relief sculpture and wall painting is significant, since the same artists may well have carried out both of these techniques of decoration. The role of painting, however, is different from that of sculpture, where it pertains particularly to color. The addition of color, separate from line art, created a covering for the images on the wall, and in the best preserved Old Kingdom painted relief, the paint is thick and nearly obscures the relief itself. Because the craftsman sketched the scenes on the walls before carving or painting, these under-sketches and the

guidelines used to proportion the scenes needed to be covered over. Background paint was used for this purpose, and it was a part of every wall scene, although frequently it has been lost over the centuries. The background paint for the tombs of Nefermaat and Itet was gray in color and can still be seen on the mud-plaster paintings from those tombs. In later Old Kingdom tombs, such as those of Mehu and Metjetji, the background paints were also gray, but with blue added in. Background paints combining blue and gray were common in most periods of Pharaonic Egypt, sometimes in a dark hue, and at other times in a much lighter one that resembled sky color (D'Amicone and Vigna 1998). Although nearly all tombs have lost some or much of their original coloring, the banquet scene from the tomb of Mehu, dating to the Sixth Dynasty, is an example of how pervasive the coloring was (Altenmuller 1998). Likewise, the marsh scene in the tomb of Ti, despite the loss of color on the fish in the water, also shows the heavy layering of paint across the wall. One tomb in which most of the paint has remained on the wall is that of Pepiankh Heryib, called Heny, at Meir (Blackman 1924: IV) (plates 11–12). This large relief painted tomb in the Old Kingdom D cemetery consists of several rooms and family chapels, in addition to a burial chamber and a partially decorated serdab. The scenes of Heny emphasized his activities: observing preparations for his own tomb (first chamber), fishing and fowling, viewing agriculture from a carrying chair, viewing animals, brewing, and shipping (hall). In the large pillared hall other family members and their false doors are included in more static scenes, lending more importance to the role of Heny as provider and family pillar. In the burial chamber Heny's priests appear reciting the rituals, while the deceased's funerary boat is centered over the burial pit.

The background color on the walls of Pepiankh's tomb is dark blue grey, similar to that of Mehu, and it is applied thickly. The red skin color on the male figures was also layered heavily, and, where it is not worn away, the paint nearly removes the appearance of the relief sculpture. In the front chamber a large seated figure of the tomb owner faces a doorway observing artisans at work as they create statues and cult objects for his own burial (O'Connor 1996). The tomb of Pepiankh, called Heny, has recently been cleaned so that the colors can be far better appreciated, although in the inner hall there is still a great deal of concretized mud on surfaces. Nonetheless, the tomb's palette abounds in blue, red, and white, with a lesser amount of yellow (most often used to indicate gold) and green/blue, which is still recognizable in the marsh scenes and on the garment of the tomb owner's wife whose tiny image stands before him as he gazes at the marsh (D'Amicone and Vigna, 1998; Lee and Quirke 2000; Green, 2001). The black used to color wigs and short hair styles is frequently faded, but, when well preserved, it shows a great similarity to the background color, which is a dark blue gray. It may be that both the hair and the background paint combined black and blue in differing amounts. The overall visual impression in the tomb is of richly colored images more than of painted sculpture. The result, surprisingly in agreement with the inscription from the tomb of Itet, is of "images that cannot be erased", doubly produced by the layers of paint and the stone surfaces beneath.

The tomb of Pepiankh, called Heny, also well illustrates the second major function of painting: the creation of image via drawn line. Egyptian two-dimensional art was characteristically finished by outlining the colored images, but it was also produced by covering line sketches with paint before the final drawings were done. The draftsmen

Figure 43.2 Meir. Tomb of Pepiankh. Serdab showing inked images of funerary rites atop red sketches. Photograph Courtesy the Author.

laid out the walls scene-by-scene using carefully proportioned guidelines, and then drew the figures and objects into the scene, usually with red ink; the craftsmen then sculpted these scenes following the sketch lines. In Pepiankh's burial chamber the sculptural work was left unfinished, and only the upper registers had been carved (figure 43.2). The remainder of the scenes, however, were outlined and carefully drawn in black ink using the underlying red guide lines. As Robins has noted, the figures were proportioned to eight sets of guidelines that properly positioned the standing figures at the bottom of the foot, midpoint of foot to knee, top of knee, bottom of the buttock, narrowest waist point, armpit, shoulder, and hairline (Robins 1994) (figure 43.3). Even internal details were added to define items such as geese and food offerings. These black drawn figures represented a means of completing the tomb scenes, since the representation with its discernible outline constituted the Egyptian notion of an image.

The serdab cut beneath the floor level within the burial chamber was decorated with rows of sunken relief representations of statues of the tomb owner, each filled with color. The outline of these images was created by the sunken carved edge, and the paint added a second layer of identification to the figures. The tomb of Pepiankh, called Heny, thus well represents all the ways in which drawing and painting combined to create and complete wall decoration.
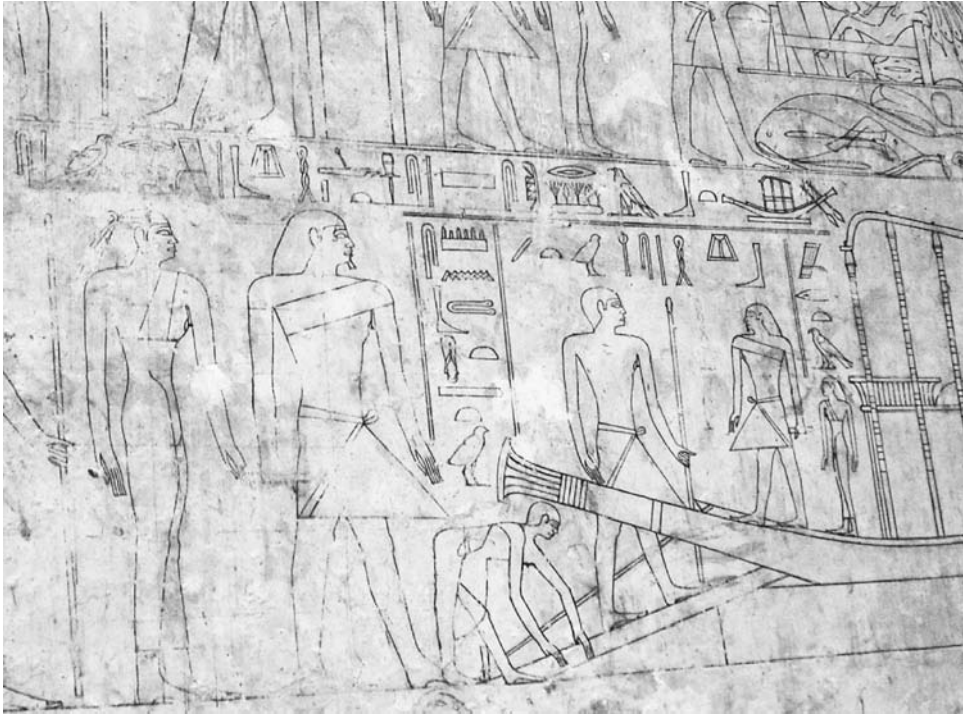
Figure 43.3 Meir. Tomb of Pepiankh. Serdab showing the eight sets of guidelines proportioning figures. Photograph Courtesy the Author.

4 Wall Paintings of the First Intermediate Period and Middle Kingdom

In some locations tombs were cut, but the wall decoration was never carried out. Instead a carved and painted stela was set into a niche in the tomb and marked the location for cult offerings. At the large population centers, such as Aswan and the area of Middle Egypt, large tombs were carved in the hills and the decoration completed in paint on the stone walls, over which plaster was spread to cover any surface inconsistencies. The famous tomb of Ankhtify at Moalla has painted decoration on its interior walls and its rock-cut columns (Doret 1994; el-Masry 2008) (plate 13). The limestone walls were lightly plastered, but the background paint is difficult to identify in most places on the east walls. It appears to have been a brownish tone deeper than that of the plaster itself, but only the results of pigment analysis will identify what the tomb looked like in antiquity. The very lively scene of Ankhtify holding a fishing line on the west wall of the tomb exemplifies the style of First Intermediate Period two-dimensional art. The figure of the tomb owner and the fish that he gathers are highly colorful and detailed, being predominantly blue and blue-green, and they contrast significantly with the largely red and brown tones in the tomb. However, these images, and those on neighboring walls, have not been proportioned using the

eight-guideline method of the late Old Kingdom. Rather the fish appear on the wall not only as the tomb owner pulls them from the water in the vigorous activity depicted, but they also float on the wall without relation to the water or to a ground line. The identity and volume of the fish caught were painted into the scene as additional information by the painter, but alteration of the icon detracted from the scene as an action. Instead it suggested that the fish constituted provisions supplied by and for Ankhtify.

As in the Old Kingdom, the scenes in the tomb of Ankhtify identify his high status in the region as a military leader and local governor. They also show his control over local resources, particularly those concerned with food provisioning. On the columns, scenes of baking and brewing were shown alongside those of meat preparation. The tomb owner's expectation that similar offerings would be provided to him in his tomb may be assumed from these paintings, but we know from inscriptions in the tomb that he had also claimed to be able to help provision the people of Edfu and Hefat, the ancient name of Moalla. Thus it is likely that the paintings of food provisions as well as of animals and fish were also intended to indicate Ankhtify's largess to the population. A similar intent should be identified behind the representation of granaries in other tombs dating to this time, including the tomb of Sobekhotep at Moalla and that of Khety at Beni Hasan.

Regional relationships between tomb paintings in style and content can also be inferred during the First Intermediate Period. The coloring of cattle, for example, is very similar in the tombs at Moalla, although the general theme content is not repetitive. In the same way, at Beni Hasan large scenes of young male wrestlers were repeated in several tombs (2, 14, 15 17), although this motif was used in a more limited way elsewhere, e.g., Tomb 366 at Thebes of Djar (PM 1960) and B2 of Ukhhotep at Meir (Blackman 1915). On the other hand, one similarity between the tomb of Ankhtify and the Eleventh Dynasty tombs at Beni Hasan is the interest in displaying knowledge of the natural world. Just as the painters of the Moalla fishing scene represented numerous types of fish, those who painted the tombs of Khety and Bakt III at Beni Hasan were equally interested in depicting a wide variety of birds and animals, even labeling them by name (Shedid 1994) (plate 14). This display of knowledge was a characteristic of tomb decoration, and in these examples recalls the Egyptian penchant for creating written onomastica (Assmann 1996a). The Eleventh Dynasty tombs at Beni Hasan were carefully designed and laid out, relying particularly upon ground lines to structure the wall scenes, but the figures were not proportioned with discernible guidelines, although these may have disappeared since antiquity. As Robins has demonstrated, only with the advent of the early Twelfth Dynasty does mathematical proportioning of the human figure become a standard feature again, and the squared grid was introduced with the advent of the Middle Kingdom (Robins, 1994).

One of the earliest grids preserved in a tomb may be found at Meir in the chapel of Ukh hotep, son of Senbi, dating to the reign of Senwosret I (Blackman 1915) (plate 15). There are grids of various sizes on the unfinished scenes, and on the west wall the large seated figure of the tomb owner has been further divided such that five smaller squares divide up each larger one (Robins 1994: 86). The method allowed the artisans confidently to proportion each part of this major figure — the deceased at

his offering table. The only part of the chapel that was complete was the statue recess in the west wall, but there we see a palette similar to that of Pepiankh Heryib. A gray-blue background contrasts with the brick-red bodies of the tomb owner and offering bearers, and the Hieroglyphic texts are carefully filled with bright Egyptian blue (plate 16). The unfinished scenes were similar in content to those of Senbi's chapel (B1), showing desert hunting and bedouin shepherds on the south wall, with estate activities on the north, including animal husbandry, boating in the marshes, papyrus collection, games, and music. No specifically funerary scenes appear here or in the other Middle Kingdom tombs at Meir, but those may have been intended for the burial area or coffin. Clearly the nomarchs and priestly families of the region were among the elites who had access early in the Twelfth Dynasty to artisans trained in mathematical proportioning, very likely with the support of Lisht. The scene content, however, was in keeping with the local tradition, which itself showed a connection to the Memphite traditions of earlier periods (Blackman 1915; el-Khouly and Kanawati 1989). The tomb of Amenemhet at Beni Hasan is likewise dated to the reign of Senwosret I and shows evidence of a grid, although the general content of the scenes is quite similar to that of Eleventh Dynasty tomb chapels (Newberry 1893; Shedid 1994).

By the reign of Amenemhet II, elite tombs at Beni Hasan, Meir, and Aswan were laid out with gridded walls, including those of Sarenput II and Khnumhotep (Robins 1994). Both of these nomarchs indicated connections to the ruler in their chapels, Sarenput taking a nickname that included the prenomen of the king, and Khnumhotep including a biography that gave pride of place to the ruler (Shedid 1994). The decorative scheme in the Beni Hasan tomb eliminated features seen in the earlier tombs at that site, such as the wall of wrestlers, and instead privileged the scene of the tomb owner fishing and fowling in the marshes, as was frequently the case in Old Kingdom tombs (plate 17). In this fashion the nomarch's role as a local military leader was converted to stress his control over the mythological realm of the marsh and its wild denizens. The removal of this scene likewise would have made his loyalty to the king unquestioned. Thus in the first three reigns of the Twelfth Dynasty the combination of the use of proportional grids, the inclusion of allusions to the king, and the changes in scene content may indicate the regional connections to the Residence at Lisht and to the artisans trained at the royal center. The source of the artisans who decorated provincial tombs during the Middle Kingdom remains in question, since the content of tomb scenes does show variation from area to area, even though artisan techniques, such as the use of grids, were found at a variety of sites. It is likely that regional craftsmen were supplemented by itinerants, who traveled from the royal centers to the provinces to assist with tomb and temple decoration; the choice of wall scenes and texts may suggest the levels of connection between regional tomb owners and the court, e.g. the tombs at Assiut, where the display of religious and legal knowledge in the tomb of Djefaihap I is accompanied by the presence of the cartouches of King Senwosret (Kahl et al. 2008). The wall texts of the legal and financial details of Djefaihap's funerary cult underlined his relationship to the ruler and the rejuvenation of private endowments that had been displayed in Old Kingdom tomb chapels. It is unlikely that the local artisans were prepared so early in the Twelfth Dynasty to place these complicated and erudite inscriptions on the tomb walls without the assistance of royally trained scribes.

At Thebes in the reign of Senwosret I the tomb of Senet, the mother of the vizier Antefoker, was built and decorated (Davies N. 1920). This is a painted tomb, but there are no traces of grids to be found, despite its date contemporary with grids seen at Beni Hasan and Meir. In the late Eleventh Dynasty the tomb of the General Antef was decorated in a combination of pre-and post-unification styles, using guidelines. It is likely that these proportion guides were used for Senet's chapel as well (Jaroš-Deckert 1984; Robins 1994). However, the scene content of the early Twelfth Dynasty tomb compared with that of the Eleventh Dynasty general's shows remarkable change. Indeed, the earlier tomb contained traditional estate and offering scenes, as well as probable burial rites in the rear chamber, but, in concert with other First Intermediate Period tombs, also represented militaristic scenes from the wars of Mentuhotep. Yet the icons in tomb number 60 of Senet are nearly identical to those found in the first half of the Eighteenth Dynasty at Thebes, including a kiosk scene that apparently represented Senwosret I and a burial procession on the south wall of the front chamber, with estate and hunting activities on the north wall. The recitation of burial rites was depicted in the interior shrine on the south wall, and musicians appeared singing songs for the deceased (Davies N. 1920). The south wall of the corridor is most closely connected with later Theban tomb decoration and contained both the royal kiosk and the burial scenes. In a somewhat archaizing manner, these funerary icons showed elements of the journey to the West and to the mummification tent, the pilgrimage to Abydos, the dragging of the *tekenu*, and arrival at the tomb signified by the large seated figure of Senet looking back at the procession. The content of the scenes was very similar to that seen in tombs of the early Eighteenth Dynasty, such as tomb number 82 of Amenemhet (Davies N. 1915: XI; Vandier 1969: 433–4) and specifically departed from the Old Kingdom models by including offering-bearers carrying mummiform statues with the crowns of Upper and Lower Egypt, as well as statues of the deceased – but without the image of a statue shrine. The offerings depicted are more in keeping with images from the coffins and burial chambers of the Middle Kingdom but were common in the early Eighteenth Dynasty scenes.

5　Wall Paintings in the New Kingdom

Only a handful of tombs remain from the Second Intermediate Period, and two of them are at Hierakonpolis and el-Kab, those of Horemkhauef and Sobeknakht, quite probably painted by the same artists (W. V. Davies 2001b). Recent study of these tombs has suggested that they were decorated in the Seventeenth Dynasty and not earlier. Despite the absence of grids or visible guidelines, these tombs represent not the crudeness of an intermediate period, but the rejuvenation of traditions of tomb decoration. The primary artist, Sedjemneteru, who was depicted and named in the tombs of Horemkhauef and Sobeknakht, proportioned the figures to register lines, and used the wall space to create lively, active, but well-drafted figures and activities (W. V. Davies 2001b). He was accompanied by a second scribe of form in the tomb of Horemkhauef, and in both chapels there are representations of the tomb craftsmen,

in addition to the scribes (plate 18). As in provincial tombs of the Old and Middle Kingdoms, expert artisans were highly valued, but in Hierakonpolis and el-Kab even the lesser-status tomb builders were represented at their craft (Junker 1957). It is difficult not to link this fact to the scarcity of skilled artisans in the period and, more significantly, to the need for artisan training as a new centralized government arose in Thebes at the end of the Seventeenth Dynasty. As Davies has noted, the figure types in these two Seventeenth Dynasty tombs reflect the earlier proportions of the Second Intermediate Period, being elongated and thin. Similar proportioning may be seen in the el-Kab tomb of Renni, dating to the reign of Amenhotep I (Robins 1994: 249–50; W. V. Davies 2001b). The well- preserved tomb of Renni is one of the earlier funerary chapels of the New Kingdom. It is wholly carved in sunken relief and painted, and there is no visible evidence of grids or of guidelines. However, the consistency of figural proportions across whole scenes is so strong that a line drawn through the hairline of the first figure in a procession continues without variance to the hairline of the last (Tylor 1900: pls. VII, XIII) while, despite the careful drafting in the tombs of Sobeknakht and Horemkhauef, the heights of figures in procession vary (W. V. Davies 2001b: color pls. 44–5). Likewise in both content and coloring there are distinctions between the tombs at el-Kab of Sobeknakht and Renni, representing the transition from the late Seventeenth to the early Eighteenth Dynasty. Such familiar scenes from the Middle Kingdom as filling the granaries on an estate occur in the earlier tomb but not in the later, while the extensive agricultural scenes so common in Eighteenth Dynasty Theban tombs appear in Renni's tomb but not in that of Sobeknakht. The Second Intermediate era tombs show indications of light background color in some instances, and buff plaster wash in others, but Renni's tomb had gray-blue background paint with Egyptian blue hieroglyphs, in the manner known from the Old and Middle Kingdoms and resumed in the Eighteenth Dynasty (plate 19). Yet the Seventeenth Dynasty tomb contains scenes of worship before deities, Ptah and Osiris, and these scenes may prefigure the appearance of gods in the New Kingdom Theban tombs. Despite the overall low numbers, there are more decorated Seventeenth and early Eighteenth Dynasty tombs in the area of Hierakonpolis, el-Kab, and Edfu than in Thebes, but the reinvigorated monument building beginning in the reign of King Ahmose at Thebes necessitated the training of artisan crews. Renni may have benefited from the availability of these newly trained artisans (Friedman 2001).

The use of grids was well established for wall decoration in elite tombs by the reign of Thutmose II when Theban Tomb 81 (Ineni) was constructed. As the inscriptions indicate, Ineni's tomb was decorated after the death of Thutmose II, in the period of the Hatshepsut regency. Robins indicated that a change in proportions of the figure was introduced around the time of Thutmose III's reign, and recently a gridded tablet depicting Hatshepsut as ruler was discovered by the Spanish mission working in Dra Abu'l-Nagga, underlining a probable date to that queen's reign for changes in the proportioning system (Galan 2007). The generally slimmer proportions of the figures in the tomb of Ineni may suggest that his chapel was decorated just before the change in proportions was introduced. The reintroduction of the grids was, therefore, more likely to have been a means of training artisans who were needed for monument building in the city of Thebes, beginning as early as the reign of Ahmose (Harvey 1998; Robins 2001b).

Although the administration of Egypt was divided between northern and southern viziers in the Eighteenth Dynasty, archaeological evidence suggests that Thebes was the preferred choice for elite burials through the first half of that period (although the research carried out by Alain Zivie in Saqqara has changed this picture somewhat). The limestone hills in western Thebes define several areas for the elite cemeteries, but only the foot of these hills consisted of strong stone capable of being carved in relief, so the majority of New Kingdom Theban tombs are painted on rock-hewn and heavily plastered walls. Beginning with the regency of Hatshepsut the area of Sheikh Abd el-Qurna rose to prominence as a site for the most elite tombs, in part, one presumes, because it could afford a view of the processional way to the Queen's temple in the bay of Deir el-Bahri where the Beautiful Feast of the Valley was celebrated each year. Hatshepsut's High Priest of Amun Hapuseneb placed his chapel at the north end of Sheikh Abd el-Qurna (TT 67), as did her chief stewards Senenmut and Amenhotep (TT 71, 73), while her Second Priest of Amun, Puyemre, located his tomb beneath these at the base of the hill, where it could be carved in relief (TT 39). These men largely owed their elevated ranks to the queen and thus may have wished to connect their burial places with her temple. In contrast, the vizier of the era, User, who came to power in Year 5 and survived (as did Puyemre) the transition to the sole rule of Thutmose III, placed his two tombs more centrally on the hill and sited to the east (Dziobek 1994). User's family was powerful and connected to the Amun priesthood (as were so many of the elites buried in New Kingdom Thebes) but had also controlled the vizierate in the prior era. Although the ruler appeared in his tomb, as he did in all the chapels referred to above at the north end of the Qurna hill, the vizier's position was highly emphasized in his chapels, and he even had the funerary texts of the so-called *Amduat*, otherwise reserved to rulers during the New Kingdom, on the walls of his burial chamber. Recent study of the viziers of the mid-Eighteenth Dynasty has suggested that they had their own "neighborhood" in the cemetery and that it included relatives associated with the temple of Amun, as well as clients of the viziers, such as Amenemhet (TT 82), whose rank was dependent on him and not the king.

During the Eighteenth Dynasty scenes of the king seated in a kiosk were common for the highest elites (Radwan 1969). However, many officials buried at Sheikh Abd el-Qurna were below the highest ranking, and in their tombs the kiosk scene was absent. The kiosk was only one of the many icons that made up the program of Theban tombs, painted or relief. Hartwig's recent book on painting discussed a number of the major icon scenes that decorated the tombs of nobles painted during the reigns of Thutmose IV and Amenhotep III, and she concerned herself particularly with the walls that faced the entrance door, the so-called focal walls (Hartwig 2004). Whether these icons represented the ruler with the tomb owner in front of him, a family banquet with the tomb owner as its focus, or the deceased in the activity of his official roles, this front room was always a place that emphasized the lifetime of the tomb owner (Manniche 1997; Bryan 2009). Scenes of fishing and fowling, known already in tombs of the Old Kingdom, were sometimes placed in the front room and sometimes in the corridor behind, perhaps because this scene alluded to an activity that the deceased enjoyed with his family during life, but by the New Kingdom (or earlier) also made mythological reference to the defeat of chaos and

the maintenance of the cosmos by association with the sun god. In the tombs of the Eighteenth Dynasty from the reign of the Thutmose III onward, an upside down T-shape was common for the architecture, and the cross hall was frequently a front room with focal walls (Hartwig 2004). The rear corridors received scenes of funerary processions, the Opening of the Mouth Ceremony, and offering scenes where the deceased and his wife were given sustenance for the afterlife. There too were niches to hold statues of the deceased and sometimes false doors. The paintings in these areas not infrequently showed differences in quality between the front and rear rooms (Shedid 1988). It is unlikely that this was only due to the reduced lighting in the back of these rock-cut chambers; rather, it is more likely that the best artists and the most labor-intensive scenes were employed in the front chambers where memorialization of the tomb owner's life was intended to be viewed by visitors to the chapel. At the time of major festivals, particularly the Beautiful Feast of the Valley, and at the time of funeral rites and perhaps anniversaries thereof, family members and close friends of the family visited their deceased relatives and enjoyed a banquet of drink and food that enabled a union between the living and the dead (Bryan 2009). There is much to suggest that, in the absence of an open courtyard for the tomb chapel, the family gatherings took place in the front rooms of the tombs, so that the decoration often included a dialogue with the visitors. Not only were specific family and friends identified in banquet scenes on the walls, but prayers and appeals to the living were placed in the front rooms in the hope that visitors would recall the tomb owner and by speaking his name and a proper prayer might magically provide sustenance in the next world. Often an autobiography of the tomb owner was also written on the wall in the front chamber, and scenes of his official life created a visual biography as well, the outcome being an ideal self presentation intended to influence and encourage participation by visitors. The creation of individualized scenes painted by the best available artists would have furthered this aim, and in the first half of the dynasty, when there were fewer well-trained artists in the city, technical skill was lavished on the icons of the front chamber, while more rapid and less demanding painting techniques were used in the rear to depict funerary and offering scenes.

The manner in which tombs were painted in the Eighteenth Dynasty differed from that in the Nineteenth and Twentieth, when men from the crews that decorated the royal tombs in the Valley of the Kings were available for hire to local officials (Keller 2001). How often this was the case is only a surmise, but documents do show that the artisans of Deir el-Medina did work in tombs of the cemeteries outside their own town. In the first half of the Eighteenth Dynasty, however, the organization of workers for the royal tomb is poorly understood, and there are no documents that directly link them to the building or decoration of elite tombs in Thebes (Andreu 2002). Instead it may be that many of the artisans who decorated the elite tombs came from the large royal temple projects. The new dynasty was Theban in origin and quickly reorganized resources to rebuild the great temples throughout the country, but most particularly in Thebes itself. The powerful elites in the country were charged with the oversight of new monument building – in the temples of Karnak, in the funerary temples of the kings in Thebes, and in the royal tombs of the Valley of the Kings. These same elites began to prepare tombs for themselves, and, in their roles as overseers of work for royal monuments, were able to direct artisans to build and

decorate their own houses of eternity. In particular, a small group of ostraca excavated by the Metropolitan Museum of Art and edited by William Hayes refers to the building of a tomb that Hayes presumed to be the upper one of the royal steward Senenmut, c. 1468 BC (Hayes 1942). Other ostraca, some concerning the lower tomb of that great steward, some the funerary temple of Hatshepsut, Djeser Djeseru, a few the high temple Djeser Akhet built by Thutmose III, and others without certain direct reference are among those published (Hayes 1960).

These texts, undoubtedly of the reigns of Hatshepsut and Thutmose III, and spanning the period of 1479–30 BC, contain a number of terms relating to building and decorating tombs and temples. To these may be added other Eighteenth Dynasty vocabulary for pigments, materials, and artisans. These ostraca have provided the lexical meaning of painting terminology and the actual process of painting (Bryan forthcoming). To summarize the processes and their employment, the following terms and their meaning have emerged:

1   *ꜣꜥꜥ* Plastering to fill in wall gaps, hide rock deficiencies, and create a surface for decoration.
2   *šꜥd* Fine plaster followed by trimming to cut the damp plasters with a sharp edge for a smoothed surface.
3   *wꜣḥ ḏriw* Laying out of preliminary sketches for scenes with *tꜣ-ryt*, "red ochre". Done by draftsmen, i.e., scribes, not by tomb artisans.
4   *dḵw/dgꜣ* Background painting with a blue or white frit mixture with emphasized adhesive qualities to cover any visual inconsistencies. Also means "whitewash".
5   *ḏriw* Application of paint in patches of color upon the preliminary sketches. Done by tomb artisans, not by scribes, in these ostraca.
6   *sš* Final drawing of outlines and details with red ochre or other pigments to complete the images. Done by scribes only (Bryan, forthcoming).

In those ostraca which represent a handful of days in the tomb of Senenmut there were four or five tomb artisans, who did not have the title of scribe, carrying out all the procedures with the exception of the background sketches and the final outline drawings. The most significant piece of information derived from the processes found in these ostraca is that the tomb artisans placed the color on the walls after the scribes had done the background sketch, and, therefore, participated in the production of the paintings. From the ancient Egyptian point of view, however, the application of color did not create an image but simply colored the wall. It was the drawings, and very particularly the outlining, that created the image. This can be seen and concluded from numerous examples describing images in religious literature, and the act required the presence of scribes (Bryan forthcoming). It does not necessarily follow that only tomb artisans could lay out paints on the wall, only that tomb artisans could not do background sketching and outlining, which were reserved for the draftsmen. The source of these workers remains uncertain, but it is as likely as not that they were taken from the funerary temple work groups and ultimately from Karnak Temple. Nor do these ostraca tell us exactly how many workers were needed to complete an elite tomb chapel such as that of Senenmut; these appear to be records of only a few days, and in two ostraca we find only two scribes, but in another ten scribes are found doing the drawing.

TT92 of Suemniwet was left unfinished when the tomb owner died early in the reign of Amenhotep II and provides nearly a textbook for the study of Egyptian painting techniques in the first half of the Eighteenth Dynasty (Bryan 2001). All the processes described in the ostraca may be seen in that tomb, and additional techniques of organization as well as paint application are visible. The quality difference between the front hall and the cross and corridor chambers is particularly distinctive. In particular, the painting in the front room was accomplished on gridded plastered walls, only one area being painted without a grid, clearly by a master scribe of form (plate 20). In this chamber the painting was being outlined and finished from the bottom of the wall upward, while in the cross and corridor rooms work was completed and outlined from the top down, the procedures seen most often in Egyptian tombs and temples. The painted detail in the scenes of palace food production, which showed the royal butler Suemniwet in his official capacity, included numerous registers of small figures with tiny details applied with what must have been hair-like brushes (plate 21). In one scene, where the deceased sat watching several registers of scribes counting booty from the king's wars, grids of different sizes were placed on the wall in order to proportion the different sizes of figures properly. On the north wall of the front chamber the scribe of form laid out and completed a portion of one segment of wall without a grid, while he could supervise the tomb artisans applying paint to the sketches he had laid out on the neighboring grid. In this instance a difference in pigments used across the wall strongly suggests that the scribe of form did the undersketch, the coloring, and the final outline in his ungridded area, but he would have been responsible only for the sketching and outlining of the rest of the wall.

In the rear two rooms of Suemniwet's chapel grids were used for the large icon scenes but only guidelines were used where offering processions were planned (plate 22). This is in strong contrast to the front room where six registers of small grids were laid out to depict processions for the booty and punishment scenes that were never completed. The number and size of registers in the cross and corridor rooms also contrasts with the front chamber, and they are both fewer and larger, allowing the work to be done quickly, with few details such as those in the palace scenes. In both the rear rooms an effort was made to complete all four of the images of the tomb owner and his wife seated before offering tables, and to inscribe the offering texts into two of those scenes (plate 23). More painting was completed in the rear passage than in the cross hall, perhaps because the burial rites were considered of more importance than the fishing and fowling scene. The more incomplete work allows us to conclude that a minimum of three draftsmen were working in the cross hall, and that they oversaw the application of paint by tomb artisans who were working in different ways on the east and west sides of the room: sequentially on the east side, only beginning a second scene when the first was nearly done; working up and down the entire wall on the west side applying one color everywhere onto the background sketch, such that at the south end red, white, blue, and yellow had been applied, but at the north end only red and white (Bryan 2001) (plate 24).

By the reigns of Thutmose IV and Amenhotep III grids were less often utilized to proportion scenes in the T-shaped tombs, but they were still frequently employed for the large offering scenes depicting the tomb owner. Tombs such as those of Menna, Nakht (TT52), and the unfinished tomb of Neferrenpet (TT43) (plate 25) are fine examples of

this (Kozloff and Bryan 1992; Laboury 1997; Hartwig 2004). Menna's chapel (TT 69) is being re-studied at the present time, and its pigments as well as its paint application have been the subject of new research. The style of the painting, i.e. the outline, became more homogeneous in the fourteenth century BC, and it is likely that the source of artisans was less diverse than in the first half of the dynasty. It is not unlikely that only a single draftsmen supported by a couple of tomb artisans and perhaps an apprentice could have completed the work in a small tomb, but study of individual drawing styles has suggested that at least two draftsmen worked sketching and outlining a chapel, even when the hand of a single master dominates.

A famous stela from the Middle Kingdom informs us that the draftsmen were indeed trained to sculpt and paint iconic scenes, and the autobiography of the early artist mentions particularly hunting scenes and animals such as the hippopotamus, perhaps implying the difficulty of representing certain images (Barta 1970). Most of the icons of the Middle Kingdom can still be found in the New Kingdom tombs, but hunting scenes disappeared by the reign of Thutmose IV, while representations of deities, particularly Osiris, became standard with the Eighteenth Dynasty. The royal kiosk with the seated king disappeared from elite tombs by the end of the Eighteenth Dynasty, perhaps a casualty of the Amarna era when windows of appearance and images of the royal family overshadowed the tomb owners nearly entirely. Theban tombs of the Nineteenth and Twentieth Dynasties contain fewer scenes of the tomb owner's lifetime and more that depict the afterlife journey of the deceased. Grids are rarer in those tombs, and painting styles are frequently expressionistic, showing elongated crania, long sloping facial profiles, and narrow unnaturally shaped fingers, often representing the hallmarks of particular chief draftsmen from Deir el-Medina (plate 26). During most of the Eighteenth Dynasty under-sketches were drawn directly onto the finished gypsum plaster, although figures might be added to a scene after the background paint had been applied (Lee and Quirke 2000). Some tombs, even as early as the mid-Eighteenth Dynasty, showed that background paint was applied before sketching was done, but this was the rarity (Shedid 1988). In the Ramesside period different background colors were often used, and it was not unusual for painting to be done in white sketch atop yellow or another background hue. TT 1 of Sennedjem is an example of the former, as is TT 359 of Inherkhau, both in Deir el-Medina. (Keller 2001). Most of the tombs decorated in Thebes during the Nineteenth and Twentieth Dynasties belonged to priests of Amun and not to high royal officials who were instead buried in Saqqara or elsewhere. The tombs of these men of more middling elite status frequently had indifferent drafting and were often small in size, but one tomb of the very end of the new Kingdom, TT 65 of Imiseba, shows scenes of priestly processions with the bark of the god in such beautifully drafted and heavily detailed painting as to rival the best of mid-Eighteenth Dynasty scenes (Bacs 2001). Having been at least partially painted by artists of Deir el-Medina, this tomb and that of Ramesses IX contemporary with it demonstrate that drafting and careful outlining were not lost arts, only less accessible to the average tomb owner in Thebes.

Tomb painting was less common after the New Kingdom until the Twenty-fifth Dynasty. With the revival of tomb building in the Late Period, a new grid style was introduced, and both wall relief and painting were embraced. The craft of the artisans

was valued as far away as the modern Sudan, including the temple of Kawa and the pyramids of Kurru where in the subterranean burial chambers of King Tanutamun and his mother carefully drafted scenes from funerary books, along with scenes depicting the ruler, were beautifully colored and proportioned (Heywood 2002). Painting retained its status and significance for Egyptian society throughout antiquity, and its basis in iconic imagery, outline drawing, and wall coloring characterized it until its end.

FURTHER READING

Readings on painting materials and techniques include Robins (1994), Colinart (1998), Lee and Quirke (2000), and Davies (2001). For painting design and style see Smith (1949; 1951), Mekhitarian (1954), Tefnin (1997), and Hartwig (2004).

Mosaics and Painting in Graeco-Roman Egypt

Helen Whitehouse

1 Egypt in the Hellenistic *Koine*

The conquest of Egypt by Alexander the Great in 332 BC brought it into the sphere of artistic influence from the kingdom of Macedon, where increasing political power and wealth had created a fertile ground for artistic developments that now feature prominently in the history of Hellenistic art. There, in the generation before Alexander, the art of wall-painting had begun to attain new levels of sophistication and technical accomplishment, as attested in the royal tombs of Vergina and other funerary monuments (Brecoulaki 2006). The influence of contemporary painting is also seen in the later fourth century BC in the fine decorative pavements with figure scenes discovered at Pella, the Macedonian capital – a significant development of the plain or patterned pavements created with pebbles, found at various sites in the Greek world and on its periphery from the late eighth century BC on (Dunbabin 1999: 5–17). In due course these were to evolve, *via* the introduction of other materials which enhanced the constructive possibilities, into the tessellated mosaic pavements in which cubes (*tesserae*) and other shaped pieces of stone, glass, and faience made possible pictorial effects which could mimic the finest of paintings.

The new settlement created by Alexander on the coast of the western Delta was to become the premier Greek city of the East, richly endowed with royal, public, and religious buildings whose architecture and decoration were renowned throughout the Mediterranean world. Not only in their buildings but also in the more ephemeral trappings created for processions, shows, and festive occasions, Alexander's successors, the Ptolemaic dynasty, would have set the fashion, in much the same way that the artistic patronage exercised by the powerful families of baroque Rome, and the events which they staged, both generated creative activity and provided the pattern for others to follow. What little we know of the Ptolemaic equivalents hints at a wealth of artistic production to which the surviving material record barely testifies: the paintings, tapestries, and metalwork with which the banqueting pavilion of Ptolemy II Philadelphos was decorated, the giant floats and walking personifications in his

Dionysiac procession (Rice 1983), and the interior decoration of Ptolemy IV Philopator's palatial boat with its many dining-rooms. The record of these originally penned by Kallixeinos of Rhodes in the mid-second century BC, and preserved in the lengthy quotations by Athenaios in his "Learned Banquet" (*Deipnosophistae* 5. 196, 197c–203b, 203c–206) has been minutely analysed for the insight it can provide into Ptolemaic ideology and artistic style, and has generated recreations of the structures and décor described therein (references in McKenzie 2007: 385 n.113, 387 n.180). Particularly significant aspects of the creations described by Kallixeinos are the prominence of the cult of Dionysus and its visual expression, and the innovative combination of Pharaonic and Greek imagery. The former was to feed into the decorative art of Graeco-Roman Egypt in all its aspects, the latter to co-exist with the continuing survival of the two cultures' independent artistic expression.

The idea of a distinctive and influential Alexandrian school of art, the productions of which are mostly lost, has hovered as a persistent ghost behind extant bodies of material, especially that in the Campanian towns and villas overwhelmed by the eruption of Vesuvius in AD 79, which have provided the most extensive surviving body of Roman paintings and mosaics *in situ*. Particular aspects of this material for which Alexandria has been invoked are the relationship of the first two of the Four Pompeian Styles of wall-painting to models in the Greek east; the emergence of the genre of landscape painting in Roman art; and the subject matter and high technical quality of the earliest mosaics found in Italy. When Blanche Brown, aiming at a definition of "Alexandrian style," undertook her survey of the pictorial art of Ptolemaic Alexandria over half a century ago, she worked with a limited corpus of barely 50 items (Brown 1957; some key references to arguments for and against the existence of such a style, p.88 n.16; more recently, Stewart 1996). Her corpus embraced some half-a-dozen mosaics and the decoration of a handful of tombs, as well as painted vases, and the painted stone panels (*loculus* slabs) which were used to seal the recesses in tombs where the deceased were deposited, and typically carried figure scenes from the Greek funerary repertoire, set within architectural frames, or the representation of closed gates or doors. Her corpus was also selective, focused on "pictures," and deliberately omitting the architectural decoration found in a number of Alexandrian tombs, although some of her close analysis was devoted to features such as decorative borders and patterns which might help to date individual works. In the light of the surviving evidence, she also examined the meagre collection of references to Egypt in the classical literature on painting, on the basis of which Alexandrian artists were credited with such innovations as the creation of the landscape genre, caricature, and a kind of impressionist technique. Brown (1957: 88–93) understandably concluded that none of this could be supported by the patchy account emerging from the evidence she had assembled.

We are not much nearer pinning down the elusive "style" now, but other questions have emerged, and are receiving answers; and Alexandria, while the most influential part, is not the whole. By looking at the surviving evidence throughout Egypt in both the Ptolemaic and Roman Periods, as well as widening the range of material examined, we can gain a fuller idea of the role of paintings and mosaics in the society that produced them. This chapter will necessarily be concerned with the function and content of mosaics and paintings in their Egyptian context, rather than the works of great artists and their influence.

2   Scope and Limitations of the Evidence

As with the archaeological record for earlier periods in Egypt, the surviving evidence is weighted more towards funerary and religious monuments and materials than the public and private contexts of the living inhabitants. Alexandria itself presents a particular problem: the urban development of the modern city from the second decade of the nineteenth century onwards has largely effaced the ancient one, though in itself it produces intermittent archaeological discoveries, some of the most notable arising from the latest phase of development over the last decade or so. Even more than in the city of Rome, archaeology will never yield a substantial amount of evidence for what once existed in painting of the highest quality in Alexandria, though a significant and growing body of mosaics has been discovered. The ancient cemeteries scattered throughout the city include a relative abundance of painted tombs cut into its rocky substrate, and throughout the Nile Valley there are other concentrations of funerary monuments, either in the traditional form of rock-cut tombs, or in built form, like the "houses" of the dead in the extensive Graeco-Roman necropolis at Tuna el-Gebel, now under renewed investigation by Cairo University and the University of Munich. The houses and public buildings of the living, constructed in mud-brick, like the subsidiary buildings which surrounded the great stone temples, have been erased from the record in the Nile Valley, but out of the valley, in the abandoned settlements of the Fayum and in the eastern and western deserts, a blanket of sand has enveloped buildings and preserved painted walls to at least some of their original height; in some cases, even collapsed ceilings may be retrieved in fragments from the fill. With an ever-expanding range of sites all over Egypt under investigation, the material record is steadily increasing: important contributions are coming from the work of the Supreme Council of Antiquities (SCA) of Egypt and the Centre des Etudes Alexandrines on land at Alexandria; and the Polish Centre for Mediterranean Archaeology at its urban heart, in Kom el-Dikka, and at the nearby coastal site of Marina ed-Alamein. The work of various missions in the Fayum has added more systematically to the evidence retrieved from its settlements by expeditions of an earlier era that were more closely focused on the retrieval of papyri; and further afield, exploration of the quarries exploited by the Romans in the eastern desert, and the Roman settlements and mud-brick temples of the Dakhla and Kharga Oases of the western desert, is enabling comparisons to be made between the Delta, the valley and its fringes. Spread throughout Egypt in this way, the evidence is inevitably patchy, and in some cases probably peculiarly local in character, though it is difficult to gauge this, given the lacunose nature of the overall record. None the less, there is significant information being retrieved to feed into the bigger picture of Hellenistic and Roman art. Less rich than other parts of the Greek and Roman world in the survival of mosaics in quantity, and wall-paintings of high quality, Egypt has nonetheless preserved some exceptional examples in these genres, amongst them the "Sophilos" mosaic (see below), one of the most celebrated of signed pavements; and a rare example of later Roman painting on the grand scale (plate 27) – the frescoes in the "Imperial Chamber" within the temple of Amun at Luxor, depicting the tetrarchs and their entourage (Deckers 1979). As this chapter is being written, the joint project

of the Oriental Institute of Chicago and the American Research Center in Egypt to clean, conserve, and document these unique paintings is reaching completion. Until now, they have been known best *via* water-color copies made of them in the nineteenth century, a fact which in itself underscores how important for our knowledge of Graeco-Roman art in Egypt are the records made by earlier travelers and Egyptologists, who were able to observe material that was subsequently degraded beyond recognition, or removed.

In one area in particular – the survival of ancient art executed on organic materials – Egypt can claim exceptional importance, since its climate has favored to an unparalleled extent the survival of works executed on wood, textiles, and papyrus; to this can be added the documentary evidence of artistic activity and commerce also preserved on papyrus.

3   Two Cultures, Two Modes of Expression

From the 330s on, the presence of a non-Egyptian ruling establishment emanating from one of the most opulent centers of early Hellenistic art, and governing from a new city built in Greek style but incorporating selected elements of traditional Egyptian art, created a culture in which two very different modes of representation were current. The possibilities of combining these to form new genres, using them in parallel, excerpting selected features, or completely rejecting the one for the other, make the history of art in Ptolemaic and Roman Egypt a narrative of diversity that reflects the increasing cultural complexity of Egyptian society. Analysis of the art itself may help us to understand how the members of that society saw themselves, in the choices they made to encapsulate their status and personal identity, and express their beliefs and aspirations.

In a seminal paper published in 1961 László Castiglione examined the phenomenon of artistic "duality" as observed in the funerary productions of Roman Egypt, seeing in this "double style" the mingling of Egyptian and Greek elements in a field where imagery has particular potency, in expressing a society's hopes for commemoration and continuing existence after death. As noted by Riggs (2005: 8–9), the issue concerns not so much the nebulous concept of "style" as the existence of two completely different systems of representation, the one an evolving system concerned with conveying "reality," the material world as seen by the eye and recreated with the aid of devices such as perspective, the other a sophisticated and long-established system aimed at delivering information about the material and divine worlds and actions performed within them by use of a highly regulated canon of images. The peculiarly Egyptian nature of the latter gave it considerable cachet as an artistic "brand" in the world outside Egypt, while at home its importance was maintained well into the Roman Period in the sphere of religion and funerary practices, where it had performative and magical functions. The adoption of Greek art in public and domestic contexts, however, would have flagged the status of its users, and it offered especial potential in delivering portraiture of a truly personal and naturalistic kind, in painting as in sculpture – an important consideration given the emphasis conferred by traditional Egyptian funerary ideology on preserving the deceased's corporeal image.

Three extant monuments of Ptolemaic date show the incorporation of Greek elements within the formal vocabulary of traditional Egyptian art, in a kind pragmatic "duality." The most celebrated of them is the temple-tomb of the high priest and sage Petosiris, the most conspicuous feature of the extensive necropolis at Tuna el-Gebel, resting place for the citizens of Hermopolis Magna (mod. Ashmunein). The recent republication of Gustave Lefebvre's 1923–4 documentation of the tomb with an additional volume presenting a new photographic survey in color (Cherpion et al. 2007) may reanimate the study of this important monument.

The tomb, which contains a Greek visitor's graffito of the middle of the third century BC extolling the "wise man" Petosiris, has been variously dated to the last quarter of the fourth century, just after the arrival of the Macedonians in Egypt (Menu 1998; Cherpion et al. 2007: 2), or a half century or more later, to the reign of Ptolemy II Philadelphos (Nakaten, in *LÄ* 4: 995–8). Although this is strictly outside the brief of this article, since it is decorated in sculpted and painted relief, it makes adjustments to the fundamental iconographic programme used in traditional tomb decoration which are of interest in comparison to the lesser reworking found in later, painted tombs. Within the conventional sequence of scenes decorating the outer of the tomb's two rooms, the pronaos, Greek forms (and also some Persian) are repeatedly introduced – for clothing, hairstyles, items of furniture, and craft tools; craftsmen and agricultural laborers are dressed in contemporary clothing – short, loose tunics belted at the waist, and conical straw hats – and the faces of those engaged in scenes of work are portrayed with a freedom in facial expression, delineation of age, hairstyles, and beards. Occasionally the innovation extends to representation as well as form – every so often a full-frontal view of a figure breaks the sequence of traditional profile renderings of head and body, or bodies are shown turning in movement. One scene – the sacrifice of bulls at a tomb, with grieving family members (Cherpion et al. 2007: 85–8) – is purely Greek in conception. The decoration seems to be a purposeful attempt to make specific areas of the traditional repertoire "contemporary," and, in the particular form and extent to which this has been carried out, it remains unique. The presentation of Petosiris himself, however, is notably orthodox within the canon of traditional representation.

By contrast, the reverse phenomenon is observable in a smaller tomb far from the Nile Valley, where there is innovation in the presentation of the tomb-owner himself. The rock-cut tomb of Siamun in the Gebel el-Mawta necropolis of the Siwa Oasis (Lembke 2004) consists of a long room with a total of 12 *loculi* for the deposition of bodies; its walls and ceiling are painted with traditional funerary scenes and related decoration (including one updated detail, the depiction of the hearse carrying the enshrined, mummified body as a wheeled wagon of Persian type, as in the tomb of Petosiris: Cherpion et al. 2007: 134–5); they are executed in a fine style and comparable in several places to the vignettes and texts in Ptolemaic copies of the *Book of the Dead*. Two of the representations of Siamun, however, diverge from the traditional: on the north wall he is shown as a standing figure in forward movement, but not wholly in the canonical form – the upper part of his body is shown in full profile, his arms before him in the pose of adoration, and his profile head has ample curly hair, and a neat beard and moustache (figure 44.1; Lembke 2004: 367 fig. 8). The treatment of his head, not exclusive to this monument (see Brooklyn 1960: 174,

Figure 44.1 The tomb-owner Siamun, detail of the painted decoration on the north wall of his tomb in the Gebel el-Mawta necropolis, Siwa Oasis. Author's photograph.

fig. 334, a fragment of painted shroud, with sculpted parallels) apparently shows us Siamun as he appeared in life, and it is applied to an otherwise more canonical image of him on the west wall as the seated tomb-owner, but the rest of this scene is distinctively different – he is facing his son, a child partly draped in a mantle, who is touching his father's knee in a gesture of farewell, an image derived from the Greek funerary repertoire (Lembke 2004: 368 fig. 10, 372). Fallen fragments of the architectural decoration from the *loculi* openings show small "hellenizing" touches here, too, in the form of painted egg-and-dart moulding. A Ptolemaic date for the tomb is generally accepted, but a more precise dating within the period is not so clear (Lembke, 2004: 372, has noted that the pink skin coloration used for Siamun is not typical before Roman Period), nor is the motivation for these adjustments to the traditional iconography – an expression of Siamun's ethnic identity, or the furthest-flung example yet recorded of a concern to represent the deceased in "lifetime" form at salient points in the funerary progression (Riggs 2005:134–142)?

Some of the formal features of Siamun's tomb have been invoked in the discussion of the third monument cited here, one of three mud-brick shrines revealed at Kom Madi, 1 km south-east of the settlement of Narmouthis (Medinet Madi) in the Fayum (Bresciani 2003). This one consists of three rooms and a painted forecourt. The central room, equipped with an altar, was also painted: a figure of Osiris flanked

by Isis and Nephthys on the rear wall, and other divinities, together with the feeding of sacred ibises and offering of incense, on the adjoining ones. Outside, however, the paintings have a totally different character – on the entrance wall of the court files of bearded, curly-haired soldiers marching towards the entrance, their clothing, boots, and weapons distinguishing them as Greeks. A taller figure in a long-sleeved garment, a red fillet around his curly hair, faces away from them, and even larger figures, only partly preserved, flank the entrance to the cult-room – traces of something like a smiting-scene to the left, and on the right a military figure pouring a libation on to an altar while an Egyptian goddess stands by; a further large-scale painting on the right-hand wall of the court shows desert game fleeing before a mythological or divinized figure whose red-booted feet stand within a vehicle drawn by griffin-felines.

The decoration respects the conventions of traditional Egyptian art in the registered composition, the differential sizing of the figures, and their depiction in profile views, with solid coloring applied within linear outlines; but it also presents a serious, albeit not very skilled, attempt to portray foreign actors within a traditional ritual context. Dating the monument to the end of the second century BC, the excavator has suggested a connection with the divinized Alexander the Great, perhaps to be identified as the figure facing away from the files of soldiers, and has noted the parallel between the large figures and the later images of hero-divinities at other Fayum sites (below, p.1026).

4   Documentary Evidence for Mosaicists and Painters

A small number of Graeco-Roman papyri preserves evidence for the activity of mosaicists and painters, and the process of commissioning and paying for work; the examples known up to the 1970s were collected in an article by Maria Nowicka (1979). They also confirm and extend our knowledge of the Greek terminology used for various aspects of both crafts. Most celebrated amongst them are the documents preserved in the mid-third century BC archive of Zenon, estate-manager at Philadelphia in the Fayum, regarding the execution of work in the house of the tax-official Diotimos. One (*P. Cairo Zenon* IV 59665) is a contract for two pavements to be laid in a bath-building and has been much discussed in the literature of mosaics for its detailed specifications of layout, dimensions, and motifs (Dunbabin 1999: 23, 278, 318). It implies that at this date, at any rate, mosaics are an Alexandrian speciality, with the instructions for these particular pavements coming from a workshop associated with the royal palace. Two other documents (*P. Cairo Zenon* III 59445, *PSI* IV 407; Nowicka 1984) concern the painter Theophilos from Alexandria who is being employed on the interior decoration of three rooms in the same house, but is also being asked to paint a number of pictures (*pinakes*) for hanging therein.

Amongst the various genres of painting, the portrait (*eikon*) was a particularly important one, required in various areas of Graeco-Roman public life. Commissions for portraits of officials, rulers, and members of the gymnasium, to be displayed in public buildings or temples, have been preserved in several papyri (Nowicka 1979: 23–4). A set of accounts from Oxyrhynchos (*P.Oxy.* LV 3791, published in 1988)

includes payment to a painter named Artemidoros for the materials and execution of "divine features." The date is the turn of AD 317–18, so the features could have been those of Constantine and some or all of his associates, the occasion for this municipal commission by the prefects, which may have been a mural or a panel-painting, possibly being the elevation of the three junior partners.

There is also a body of graphic art executed on papyrus, both drawings and paintings, which can extend our knowledge of the range of artistic activity in Graeco-Roman Egypt, as well as the manner in which work was draughted and transmitted – a resource for the study of ancient drawing which is unparalleled in its scope and quantity. Most of the material published so far has appeared intermittently in the standard papyrological series, rather than in specific monographs; one such, Ulrike Horak's republication (1992) of part of the collection of the Papyrussammlung in Vienna also includes a useful checklist of published illustrated papyri up to 1990, and other fragments in this collection, plus some in Berlin, have recently been published by Froschauer (2008). There are limitations to this body of drawings (which also includes pieces of paintings): the fragments have most commonly survived in rubbish dumps, with the more recent, higher layers holding the better-preserved pieces, so that the material is often very scrappy, and late Roman or Byzantine in date. Larger pieces retrieved from the papyrus stuffing of mummified animals, or cartonnage (the papier-mâché-like medium used for the manufacture of funerary masks and other coverings) are less common. The description "book illustration" has often been restrictively applied to these fragments, but pieces from illustrated texts seem in fact to be in the minority, and most of the surviving drawings seem to have been made for a variety of other purposes, some perhaps as student exercises, many as the preparatory designs for larger compositions, or the models for work to be executed in or on another medium, such as woven textiles or wooden artefacts, or shown to a client. In the Zenon papyri cited above just such a model or pattern (*paradeigma*) has been supplied for the mosaic and part of the interior decoration, and recently a comprehensive study of those fragments that can be specifically identified as patterns for woven textiles has been published by Annemarie Stauffer (2008).

Textile patterns present a particularly well-defined category, and there is no doubt that many of the surviving drawings can similarly be identified as preliminary sketches for work in other media: this is most clear in the case of those draughted on square grids, in the traditional Egyptian manner. A number of these have been published, mostly depicting subjects of Pharaonic type, for execution in relief and freestanding sculpture (figure 44.2; Whitehouse with Coulton 2007: 299–301, 304, pl.xxix), but there is no clear evidence amongst this material that would indicate the nature or existence of an ongoing compilation, a pattern book for repeated use in a workshop, which could be consulted by would-be patrons (Froschauer 2008: 13–14) – rather, the papyri suggest that drawings were often prepared *ad hoc* in a very sketchy form.

The existence of ancient pattern-books, particularly in the field of mosaics, where a degree of replication in pavements, sometimes at considerable distances apart, is not uncommon, continues to be debated (Froschauer 2008: 10–11) – not least in the wake of the excitement aroused by the exhibition and publication of the "Artemidoros papyrus" (Gallazzi and Settis 2006; Gallazzi et al. 2008; and Settis 2008, for a

Figure 44.2 Preparatory drawing for a sculpted figure of the god Bes: red and black ink and red wash; P.Oxy. LXXI 4841. Courtesy of the Egypt Exploration Society.

well-illustrated overview, with revisions to the dating suggested in 2006, and more information on the circumstances of retrieval). This large papyrus, now a series of reconstructed fragments but originally a roll some 2.55 m long, was retrieved from a compacted bundle that included unrelated documents concerning Alexandrians with property in the area of Qau el-Kebir (Antaiopolis). It takes its name from Artemidoros of Ephesos, the second book of whose *Geography*, written at the end of the second century BC, is inscribed on the papyrus in a hand which has been dated to the early first century AD, a date which accords with the dating of the other documents in the bundle (AD 70–100) and sits comfortably within the date range obtained by radiocarbon dating of samples of the papyrus. The text is accompanied by an incomplete map of Spain; when this enterprise was apparently botched and abandoned, the reverse of the papyrus was subsequently used for a series of drawings of animals (including some fantastic creatures) accompanied by their names written in Greek, and the blank spaces on the *recto* were filled with drawings of feet, hands, and heads, possibly drawn from plaster casts of sculpture. Both sets of drawings are quite accomplished, not entirely unparalleled in this respect but rare amongst other surviving drawings on papyrus. In the exhibition catalogue of 2006 an essay by Salvatore Settis analyzed at length the implications of these "workshop" drawings (Gallazzi & Settis 2006: 20–65), and the animal drawings have been invoked in discussions of the

particular problem of mosaic pattern books (Settis 2008: 90), with specific reference to the labeled animals of the Nile mosaic of Palestrina (see below). In addition to returning to these questions, the more recent publication by Settis (2008) vigorously rebuts some keenly voiced arguments that have been raised against the authenticity of the papyrus; the questions posed by its contents, at least, will undoubtedly continue to stimulate further comment.

5   Mosaics

Although never in widespread use in Egypt, mosaics of high quality were manufactured throughout the Hellenistic and Roman Periods, chiefly for locations in the city of Alexandria and its hinterland. Colorful decorative surfaces made of glazed faience tiles had been known from the earliest dynastic times in Egypt; the development of glass manufacture in the Eighteenth Dynasty introduced another decorative possibility which endured into the Roman Period as an Egyptian speciality – the use of shaped pieces of colored glass to create inlaid inscriptions and pictures: an outstanding example of the early Ptolemaic Period is the magnificent inner wooden coffin of Petosiris from the burial pit of his tomb at Tuna el-Gebel, inlaid with hieroglyphs of colored glass (Cairo JE 46592: Malek 2003: 318–19). The set of obsidian vessels inlaid with Egyptian ritual scenes and decorative motifs in colored stone (Naples 2006: 212–14), found in fragments within a box in the Roman villa at Stabiae in Campania, exemplifies the ongoing currency of another typically Egyptian product.

The survival of thousands of pieces of mosaic glass – small plaques with embedded motifs of both Greek and Pharaonic design – both in and outside Egypt demonstrates a parallel decorative inlay form generally credited with being an Alexandrian speciality (Goldstein 1979: 209–66; Schlick-Nolte 2004). The creation of complete decorative surfaces with figure scenes and patterns formed of large pieces of shaped glass, in the same manner as *opus sectile* pavements and wall-revetments in colored stone, may also have been a speciality emanating from the glass workshops of Alexandria, though the evidence for this potential export line is not clear; much of the discussion has centerd on the prefabricated glass panels of Egyptianizing decoration, apparently destined for an Iseum, that were found at the harbor-side of Kenchreai in Greece, still packed in their wooden crates when the town was overwhelmed by an earthquake in AD 365 or 375 (Ibrahim et al. 1976; Nauerth 2004).

In the course of the Ptolemaic Period both faience and glass were absorbed into the range of materials used to create tessellated mosaics (Guimier-Sorbets and Nenna 1995), but the concept itself was a purely foreign introduction to Egypt, and the distribution of surviving mosaics reflects the pattern of Greek settlement in Egypt and the introduction of specifically Greek forms of architecture. By far the largest number have been discovered in Alexandria and its immediate surroundings, followed by sites elsewhere in the Delta; amongst these, a group of mosaics which were found piecemeal in the early decades of the twentieth century and entered the collections of the Graeco-Roman Museum in Alexandria in the 1920s came from Thmuis (Tell Timai) in the eastern Delta, just south of the ancient nome capital, Mendes

(Daszewski 1985: 146). It includes three of the most significant found in Egypt, evidently laid in buildings of some opulence in both Ptolemaic and Roman times, but nothing is known of their precise find-spots. Isolated finds have been made further south, in the Fayum, and at Hermopolis Magna and Antinoopolis, but in Upper Egypt only a solitary example has so far been found *in situ*, paving the circular tholos of a late Ptolemaic bath-building at Hu (Daszewski 1985: 170–1).

In the first volume of a projected *Corpus* (1985), Wiktor Daszewski catalogued 53 surviving mosaics of Hellenistic and early Roman date and subsequently estimated that the total of known mosaics in Egypt amounts to some 160, dating from the Ptolemaic Period to late antiquity (Daszewski 1996: 145); to these may be added a small number known from published references but rarely described in such detail that anything more than a find-spot and rough categorization of type can be recorded, and the total will surely continue to make modest growth with further discoveries in Alexandria. The majority of the extant examples are pavements, with perhaps two or three instances of wall mosaics, or fragments thereof, recognizable by their larger glass *tesserae* (Daszewski 1985: 130–2 no.23, from Kom el-Dikka, *frigidarium* of bath; Daszewski 1996: 147 with n. 20 on 154, from Thmuis, Alexandria GRM 20195).

Typical locations for mosaics are bath buildings of the Greek type, such as that discovered at Hu (above), and other settings connected with water, in both instances the impermeability of mosaic paving being of practical advantage. In domestic contexts, dining-rooms are the most favored location, as the prime reception area of the house, thus requiring the most impressive décor. In a Roman-style *triclinium* the function of the room is clear from the layout of the mosaics, with simpler designs used for the U-shaped formation where the three dining couches were placed, but a more elaborate central panel forming a T-shape with the adjacent threshold pavements, to greet the diners entering the room. Several examples have been uncovered in Roman houses of the first to third century AD at Kom el-Dikka, including the complex centered on the "Villa of the Birds," where the triclinium features a central panel of *opus sectile* (Majcherek 2003; Kolataj et al. 2007: 28–34).

From the corpus of surviving mosaics some clear developmental lines and design preferences appear: a small group of Alexandrian pavements spanning the period 320 to 250 BC and including both geometric designs and figure scenes illustrates the transition from pebble to tessellated construction (Daszewski 1985: 101–10 nos. 1–4; McKenzie 2007: 67 fig. 97, 69). The emergence of polychrome mosaics of the highest technical achievement, created with minute pieces of stone (*opus vermiculatum*) is typified by a small group of figure compositions dating to about 200-150 BC, which show subtle color effects which suggest that they are copies of paintings: they include the signed Sophilos mosaic from Thmuis, dated to about 200 BC. A square pavement, this has patterned borders framing the bust of a woman in military garb, crowned with the prow of a ship and holding a naval flagstaff, a personification of maritime power for whom a specific identification as Berenike II has been suggested (Daszewski 1985: 142–58 no. 38). The subject features again in another mosaic from the same site, dated perhaps a decade or so later (Daszewski 1985: 158–60 no. 39), but this time the format is circular and the surrounding "frame" consists of overlapping scales, a composition echoing the Medousa shield with the gorgon's head at its

center and a radiating pattern of colored scales or feathers around. Equally fine is the polychrome mosaic depicting a rather mournful dog seated beside an overturned metal flagon, a circular panel of *opus vermiculatum* which had been set within a plainer pavement (Guimier-Sorbets 1998b; Paris 1998: 230–31). It was discovered in 1993 during work on the site of the new Bibliotheca Alexandrina, and the find-spot – within the site of the ancient palace quarter – further emphasizes the apparent dominance of the royal workshops in the development of mosaic art in Alexandria.

Later pavements, well exemplified by those uncovered in houses at Kom el-Dikka dating from the late first century BC to the fourth AD, show a transition from polychrome mosaics to the widespread use of simpler black-and-white pavements, with repeat patterns based on geometric shapes as the predominant decoration. Similar pavements were found at various sites throughout the city in chance discoveries of earlier years: Tkaczow's topographical survey (1993: 333 s.v. "Mosaic floors") supplies a useful compilation of sites. In general, elaborate figure scenes are not common on mosaics found in Egypt, the most substantial example being the inscribed pavement with mythological scenes found at Sheikh Zouede, near el-Arish, and dated to the late third century AD. Situated at the eastern margin of Egypt, this pavement has been seen to have a closer relationship to the style of Syrian and Palestinian mosaics than the Egyptian corpus (Daszewski 1996: 145 with nn. 9, 10 on 153). Two of the probable wall mosaics noted above depict mythological figures (Dionysos; and Alphios and Arethousa) and a very fragmentary pavement found at Antinoopolis has figures (Artemis and ?Aphrodite, and scenes of bird-catching) in its central panels (Uggeri 1974). Birds and fish seen in relative isolation, however, seem to have been popular motifs, plausibly linked to the Alexandrian interest in natural history, which would have generated illustrated texts (Daszewski 2005). In the eponymous mosaic of the "Villa of the Birds" at Kom el-Dikka (plate 28), the motif of the bird with vegetation seen in a number of single panels elsewhere is repeated to carpet-like effect (Kolataj et al. 2007: 34–8), but they also include a reduced version of the most famous bird mosaic of all, the picture of the doves drinking from a metal bowl, originally created by Sosos of Pergamon (Pliny *HN* 36.184).

A common pavement design, especially for the central panels of dining-room pavements, was the circle within a square; and for the circle itself the favorite form was an imbricated shield which typically (but not invariably) had as its center-piece the head of the gorgon Medousa: as an apotropaic symbol the Gorgoneion, already well established in the Greek world, is ubiquitous in the funerary art of Graeco-Roman Egypt, conferring protection on coffins, the painted doorways on *loculus*-slabs, and cinerary urns (Parlasca 1991: 116–20). Its apotropaic quality may have influenced its choice for mosaic center-pieces, too. Although shield mosaics are found all over the Mediterranean area, the number of Egyptian examples – seven to date, plus a few simplified variants where the shield is filled with triangles or cubes – is striking. They range in date from the mid-second century BC to the mid-second AD. The most recently discovered, from a house on the Diana theatre site in Alexandria, formed part of a *triclinium* pavement dated to AD 100–150, where it was surrounded by geometric designs (Guimier-Sorbets 1998a).

The shield, with its overlapping bicolored feathers or scales radiating or swirling over its surface, gave mosaicists an opportunity to introduce color and movement

into their designs, sometimes echoing the depiction of overlapping feathers in Pharaonic art (Daszewski 1985: 64). Despite its currency everywhere in the Greek world, the motif would have had especial resonance in Egypt, where the scaly aegis of Zeus and Athena, to which the shield is related, distinguished one of the four statue types of the founder standing in Alexandria: the image of Alexander Aigiochos showed him cloaked in the aegis, often with the addition of the gorgon's head, like a badge, and a border of snakes around the garment's edge (Stewart 1993: 243–4, 246–51, 421–2, figs. 82–3). A number of small statuettes of this type have been found in Egypt, amongst them four from Ptolemais, and one found outside the temple of Luxor.

In both of the fine Ptolemaic mosaics from Thmuis described above, the central portrait is an *emblema*, a panel of finely detailed mosaic which was prefabricated in a terracotta tray or on a terracotta or stone plate. It was thus portable and could be taken from workshop to site where it would be laid as the center-piece in a pavement of less intricate design, executed in coarser *tesserae*; it was also adaptable, since it could be removed from one, perhaps worn, pavement and set into another. The medium of *emblemata* and the creation of exceptionally fine mosaic "pictures" are intrinsically linked in the Hellenistic world, and amongst several different production centers a particularly significant role for Alexandria in the manufacture and export of such panels has been mooted, supported by the identification of Alexandrian *emblemata* in distant locations such as Ostia (Guimier-Sorbets 2005: 573 n.17) and the appearance of subject-matter with Egyptian associations executed in mosaics of great finesse in Italy in the first century BC (at Pompeii, for example – Dunbabin 1999: 39–41). Whether or not there was an extensive export market for *emblemata* of Egyptian origin, their widespread local use (sometimes with clear signs of re-use) is reflected in the number surviving amongst the total of known mosaics – it currently stands at 17 (Daszewski 2005: 1147–52); amongst recent additions to this group are three *emblemata* set into the limestone pavement of the banqueting room above a hypogeum at Marina el-Alamein, dated to the late first or early second century AD (Daszewski 2002: 79).

Nilotic imagery

Even before the Roman conquest of Egypt, scenes depicting typical features of the landscape of Egypt, especially its flora and fauna, were appearing in mosaic pavements in Italy. The earliest surviving, and most celebrated, example of this genre is the Nile mosaic that once formed the pavement of a grotto in an apsidal building adjacent to the temple of Fortuna Primigenia at Palestrina (Praeneste), east of Rome (Meyboom 1995). The mosaic (plate 29) depicts the course of the Nile from the highlands of Ethiopia to the Delta at the time of its annual inundation; animals labeled with their Greek names inhabit the rocky terrain of the cataracts, while lower down in the picture, temples and rustic buildings stand on islands of land above the flood waters in the Egyptian Nile valley, with boats of all kinds around. A dating of the mosaic to the last quarter of the second century BC is now generally accepted; the authenticity of its depiction of aspects of Ptolemaic Egypt is unparalleled in later Nilotic scenes, though the evolution of this genre through the first century BC in Italy can be traced in other

mosaics that appear to draw on similar sources – the pavement in the House of the Faun at Pompeii showing Nilotic flora and fauna (Tammisto 1997: 364–6, pls. 22–3); and from Rome the fragments of a pavement with boats and ducks (Donati 2000: 160 no.1 and col. pl. on p.70), and the fragmentary scene of visitors watching the feeding of sacred crocodiles on some festive occasion (Donati 1998: 319 no.160 and col. pl. on p. 252). Nothing of this kind has as yet been found in Egypt, but over the course of the same century Nilotic scenes and Egyptianizing motifs began to appear also in Roman wall-painting. Their popularity increased after the Roman conquest of Egypt, but, in a development not dissimilar to the vogue for Chinoiserie creations in eighteenth-century Europe, they also moved away from a credible presentation of the landscape and inhabitants of Egypt to a more amusingly decorative style, centerd on the comic depiction of "pygmies" in a fantastic Nile ambience (corpus of Nilotic scenes: Versluys 2002). No single satisfactory explanation for this genre has been found, though the association of pygmies with the sources of the Nile (Aristotle *HA* 8.12.596b) and their potential relationship in some scenes to the dwarf gods of Egypt (Whitehouse 1977: 65–8; general review of the question – Meyboom and Versluys 2007) may have been influential factors.

Whether or not the Palestrina mosaic was copied from some composition celebrating the life-giving Nile that already existed in Egypt, a dependence on Ptolemaic sources and the influence of Alexandrian mosaic technology in the creation of such a picturesque pavement (albeit from *tesserae* that have been identified as local stone types) are manifest, and supported by the increasing evidence of polychrome mosaics of the highest quality in Alexandria by the mid-second century BC. For the existence of Nilotic scenes in Egypt itself, however, the evidence is slight and later in date than the fine examples noted above: fragments of a polychrome mosaic with motifs including fish, birds, and a pygmy against a blue-grey watery background, were retrieved with parts of other pavements from the debris filling a water-basin near the sea at Abuqir (Kanopos) (Daszewski 1985: 136–42 nos 28–37, with a suggested late Ptolemaic or early Roman dating). If they originally paved the floor of some water-related context, this would mirror the common association of Nilotica elsewhere with settings such as baths, summer dining-rooms, and garden features with piped water. A solitary pygmy carrying amphorae on a yoke forms the center-piece to one of the "shield"-type mosaics (Parlasca 1975: 368 pl. H). More picturesque is the small fragment of polychrome mosaic depicting a pygmy punting a boat through a marsh landscape (Daszewski 1985: 167–8 no. 44, suggesting a late Ptolemaic dating; Tammisto 1997: 366–7, pl.24 fig. NS3, 1, querying date); allegedly from el-Amarna, it is more likely to have formed part of a pavement somewhere in Hermopolis Magna, on the opposite side of the river, also the site of one of the bath pavements found *in situ* (Bailey 1991: 54). The only substantially preserved Nilotic mosaic yet found in Egypt is one of those discovered at Thmuis, a large (though incomplete) pavement depicting a family dining under an awning while a dancer entertains them; around them the marshy landscape is peopled with pygmies in encounters with the typical birds and beasts of the Nile (figure 44.3; Breccia 1932: 65, 101, pl. 52; color detail illustrated in Empereur 2000: 18 fig. 22). Prefaced with an inscription conveying good wishes, the mosaic is likely to have formed the center-piece of a dining-room pavement, and presents an Egyptian adaptation of the hunt-and-picnic scene found
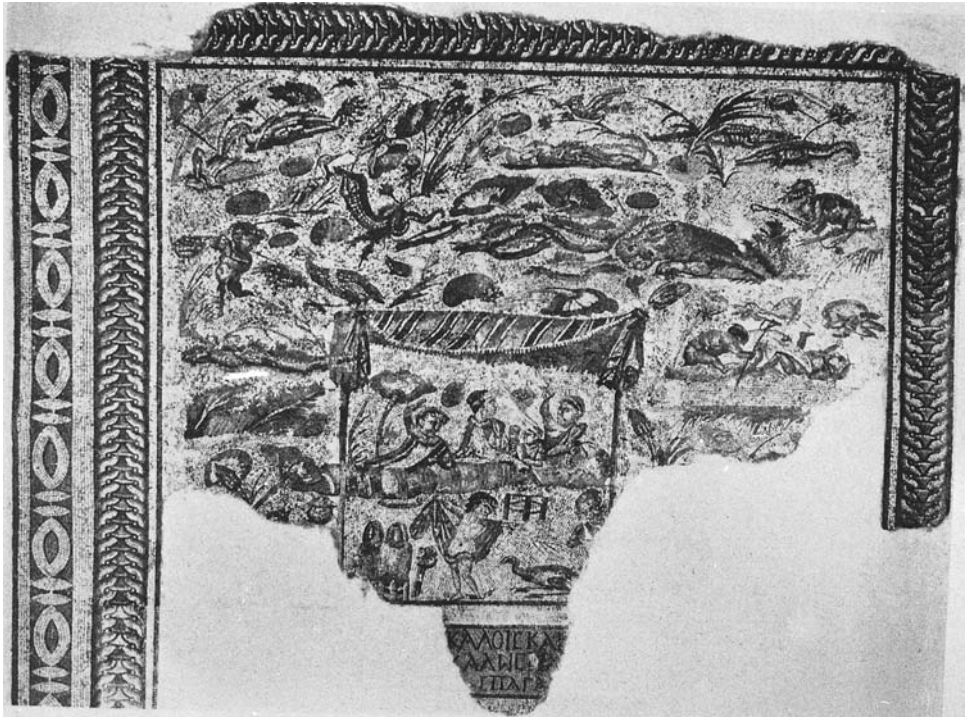
Figure 44.3 Polychrome mosaic pavement from Thmuis, Alexandria GRM inv. 21641: festive banquet in a Nilotic landscape, third century AD. After Breccia 1932.

elsewhere in later Roman mosaics (for typical third- to fourth-century examples, see Dunbabin 1999: 131–3, 135 fig. 137, 142–3 with fig. 147). In setting this scene at the quintessential time of celebratory feasting in Egypt – the coming of the inundation – it follows thematically in the line of the Palestrina mosaic, but the relationship between Ptolemaic Egypt and the beginning of the Nilotic genre still awaits clearer definition which may come from further discoveries in Egypt.

6   Painting

Interior decoration for the living and the dead

The decoration which the painter Theophilos was commissioned to execute in the house of Diotimos in the mid-third century BC (above, p.1014) was apparently in the Alexandrian "zone style," a local variant of the Masonry Style current throughout the Hellenistic world. This imitated structures in ashlar blockwork, painted to resemble colored stone. Above a low plinth, the Masonry Style divided the wall into two major zones, the lower consisting of large panels (orthostates), the upper representing courses of isodomic blockwork (stones of uniform size laid in the manner of

stretcher-bond brickwork); one or two narrow string courses or friezes separated these zones, and the top of the wall was finished with a frieze or cornice (Ling 1991: 12–14, with diagrams). The appearance of stone was evoked in both paint and stucco moulding – the margins of the blocks were recessed so as to resemble drafted masonry. The "zone style," however, achieved its architectural effects without relief modeling in plaster, using painted or incised lines to delineate blocks (Venit 2002: 28, 53–4). In the Philadelphia house, Theophilos was to decorate the vestibule with a plinth or socle (*hypostolion*) imitating patterned stone (*phleboperimetrion* – "veined like alabaster"? See below, p.1027), followed by a colored band, a wide "multicolored" zone, and finally a Lesbian *kymation* moulding in purple (*P. Cairo Zenon* III 59445). In the two Greek-style dining rooms, he was to execute only part of the decoration – an upper zone plus moulding in the seven-couch room, and just the moulding in the five-couch room. It is possible that the rest of the decoration in these two would have been entrusted to less skilled (and less expensive) hands (Nowicka 1984: 257), but equally likely that it was executed in real stone revetments, appropriate to the more splendid effect required in a dining-room.

Diotimos' painted rooms in the Fayum probably echoed the kind of interiors that officials of his rank might have expected at home in Ptolemaic Alexandria; an idea of some of the typical features can be gleaned from the painted interiors of the city's tombs, which likewise include fictive representations of zones of colored stonework, and mouldings marking the horizontal divisions in the scheme of the walls. They do not, however, simply replicate houses, as Margery Venit has observed in her comprehensive study of the tombs of Alexandria, but present a grander architectural ambience for the dead (Venit 2002: 36). Only scant fragments of painted decoration have been recovered in the city to demonstrate what actually existed, and these do not come from areas of ordinary occupation: small pieces of painted wall-plaster from the Chantier Finney site, within the area where the royal palaces were situated, seem to have been derived from true Masonry Style décor, with the blocks modeled in shallow relief (Adriani 1940: 52–3, pls. xix, xx). Small glazed tiles colored white, yellow, green, and blue from the same site probably belonged to tiled wall-covering, a technique represented in paint, as noted by Adriani (1940: 44–45), in tomb II in the Anfushy necropolis (Venit 2002: 80–85, pl.II). In the outer room, courses of chequer-board "tiling" separated by "alabaster" strips appear above a deep zone of "alabaster," and the central course of "tiles" is interrupted periodically by square panels depicting Egyptian crowns; this scheme is apparently a late first-century BC replacement of an earlier masonry scheme. The "tiling" is repeated as the main decoration in the inner burial chamber, the decoration overall thus conferring a distinctly palatial appearance upon the tomb, which, together with the depiction of crowns, seems to reflect the gradual appropriation into the private funerary sphere of royal trappings.

The Hellenistic Masonry Style has been seen as the precursor of the First Pompeian Style, which presents a similar structural programme with modifications that transcend the architectural logic (Laidlaw 1985: 25–37). The possibly continuing use in the Greek East of such schemes is one question in the study of Roman provincial wall-painting which new discoveries in Egypt may help to elucidate, along with the degree to which decorative styles in the east may have remained independent of fashions in

the western empire. A question posed in the reverse direction is the potential derivation of the Second Pompeian Style, with its illusionistic architectural views, from the east, and specifically from the "baroque" architecture of Alexandria. Detailed argument in support of its Alexandrian origin in both buildings and painted decoration has been offered anew by McKenzie (2007: 96–112), drawing attention to comparable effects of perspective, shadow, and spatial recession painted in the Ptolemaic tombs of Alexandria, and the architectural elements on the stone *loculus* slabs.

Until recently the evidence for non-funerary wall-paintings of Roman date in Alexandria was as fragmentary as that for the Ptolemaic Period: pieces of painted plaster from the Serapeum site show details typical of the Second and Third Pompeian Styles and have been attributed to a redecoration of the Ptolemaic sanctuary in the first century AD (McKenzie et al. 2004: 86 n.44, pls. viii–ix): they depict egg-and-dart moulding, a griffin atop a cornice, a fragment with an animal hoof which might indicate some figure composition, and a patterned band in the "oriental" style – the latter a significant feature in comparison with the motifs used in the Third Pompeian Style, along with Egyptianizing ritual scenes (De Vos 1980: 60–5, pls. xxxiv–xlvii). Of allegedly Alexandrian origin are a number of small fragments of painted plaster, now in a private collection and restored into four panels, with figure scenes including mythological characters (Odysseus and ?Penelope), fishermen, and soldiers in action, on guard, and aboard ships (Hanfmann 1984). The subject matter is somewhat heterogeneous, the style of depiction fluent but cursory, reminiscent of illustrated manuscripts; a date in the late third- early fourth century AD has been suggested for them, and in some respects they seem comparable to the scenes from Homer, and other subjects, painted in a fourth-century house at Amheida in the Dakhla Oasis (Leahy 1980). A stylistic but much later parallel nearer to home is provided by the painted fragments found in a house at Abu Mina dated to the sixth century (Grossmann and Pfeiffer 2003).

By contrast with this meagre and enigmatic evidence, excavations at Kom el-Dikka have uncovered houses with well-preserved interior decoration spanning the Roman Period and exemplifying two recurrent features of surviving paintings elsewhere – the use of a decorative scheme which defined the main zone of the wall as a series of large panels, with a plain or decorated socle below, and a frieze or narrower paneled zone above; and the imitation of colored stone in various formats, from simple panels to the more intricate designs of tiling or geometric patterns formed in *opus sectile*. In sector M at Kom el-Dikka an early Roman house where the mosaic pavements are also preserved in several rooms retains an extensive amount of decoration on the wall of one room (no. 14: Majcherek 2002: 41–3). Here the main zone of the wall, above a low socle, is divided into large panels, 0.65 m square with linear definition in red and black, alternating with narrow rectangles; the latter are filled with garlands, and there are traces of figural motifs – a garlanded female head, and a dog – within the square panels, and a painted "string course" above. Comparable schemes where the main zone of the wall has been divided into panels of similar size have also been found in houses in sectors G and W1N, where the plain but rich coloring, including extensive use of dark red, suggests the imitation of stone (Tkaczow 1995): that actual stone decoration in the *opus sectile* technique was used on floors and walls at this site is

indicated by extensive finds of fragmentary stone, including red and green porphyry, as well as the surviving pavement in the "Villa of the Birds," noted above.

The scheme in room 14 has been compared to the Masonry Style as found elsewhere in the eastern Mediterranean (Majcherek 2002: 42); similar paneled schemes were apparently in widespread use in Roman Egypt and may likewise be seen as ultimately derived from the proportions and divisions used in that style. They are also, however, comparable to a style of decoration found everywhere in the Roman Empire from the late first century onwards, where the main zone of the wall is divided into large framed fields carrying a central motif, alternating with narrow areas of vertical ornamentation with or without frames (R. Thomas 1995: 308–11), a style which itself may have derived its proportions and rhythm from the First Pompeian Style. The "panel style" has been found in a number of locations: at Kellis in the Dakhla Oasis it is used in a substantial private house (Hope and White-house 2006: 319–20, 323 col. pls. 1,2), as well as the mud-brick structure identified as the *mammisi* of the god Tutu in the settlement's main temple (Kaper 1997: 205, pl. VII, b–c), where the combination of this contemporary décor with traditional religious imagery composed in horizontal registers is so far unique in Egypt in a non-funerary context. A simpler version of this design, on a green ground, is also used throughout the temple precinct, notably on the *temenos* wall, where it is surmounted by a lower zone of oblong panels and an acanthus frieze (Hope 2002: 191 pl. 14, 192), and it similarly appears on the *temenos* wall of the temple at Deir el-Haggar, cleared by the SCA in 1997–8, where the large panels are painted alternately yellow and red, like those in the Kellis *mammisi*, and the design is topped by a vine frieze. A court in the rock shrine at Ain el-Labakha, in the Kharga Oasis, has a simple design of panels outlined with a red fillet and lightly modeled moulding, and painted to resemble breccia or marble (Hussein 2000: 14, photos 20–22).

Painted decoration discovered in the Greek settlements of the Fayum suggests that here, too, the "panel style" and imitation stonework were common: two of the houses of early Roman date east of the *dromos* at Medinet Madi have preserved areas of such decoration (Bresciani 1976: 25–8, pl.A center left and bottom left). Of particular note, although poorly represented in the published photographs, is one of the well-preserved mud-brick buildings with upper storeys uncovered at Batn Harit (Theadelphia) during Otto Rubensohn's Fayum explorations (Rubensohn 1905: 5–15, with plan fig. 6 on p.7). In this three walls of the principal room, accessed from an open court via openings in the fourth wall, were decorated on a blue-green ground with panels defined by patterned borders and carrying central motifs, compared by Rubensohn to the soaring figures seen in Pompeian wall-paintings. This design was organized around three niches in each wall, the larger central one with flanking pilasters added in plaster, and all containing figure paintings: best preserved are Demeter and Kore in the central niche on the east wall (Rubensohn 1905: figs. 8 on p. 9 and 12, an artist's copy, on p.13), and the young male nudes like *genii* in the smaller, flanking niches on the south wall, one beside an altar, the other holding a garlanded *vexillum*; remains of another paneled scheme with alternating yellow and black fields were found in an adjacent room, and there was another painted niche in a room beside the stairs. The decoration in the principal room, for which Rubensohn suggested a second-century AD date, overlay an earlier scheme of

the simplest architectonic kind, following the outline of the bricks. A similar combination of a niche containing figure painting with paneled décor including imitation stone was found in a house at Philadelphia (Block D6; Viereck 1928: 15, pl. IVc). Ongoing excavation of the substantial house at Kellis (see above) is revealing a profusion of decorative styles (6 different schemes in 5 rooms, including elaborate fictive *opus sectile*, and a kind of reduced version of the Second Style: Hope and Whitehouse 2006: 319–22) suggesting that the "panel style" was one choice amongst many possibilities – but one that was perhaps deemed appropriate to certain formal settings.

Devotional figure paintings as part of the basic wall decoration, not integrated within a decorative scheme, are familiar from the several examples found *in situ* at Karanis (Boak and Peterson 1931: pls. xxiv figs. 47–8, xxv fig. 49, xxxvi fig. 71). These are vivid, but not accomplished, paintings, comparable in style to the wall-paintings at Kom Madi (above, pp.1013–14) and the many similar images painted on wooden panels (see below). Examples of much more accomplished work have recently been discovered in a well-to-do house, H 10, at Marina el-Alamein, and dated to the second century AD (Kiss 2006); in room 2 remains of a painting in a niche styled as an *aedicula* show an incomplete arc of divinities (Helios, Harpokrates, and Serapis, portrayed as nimbed busts), above traces of another figure. A second devotional picture significantly near the main entrance to the house (room 5S) is a large rectangular panel framed in brown, enclosing an incomplete standing figure of a male divinity, bearded and with a nimbus, holding a cornucopia and probably pouring a libation on to the altar shown in a fragment at the bottom left of the panel. A lance-head just visible by his right shoulder plausibly identifies him as Heron.

Much less is known about the decoration of ceilings than walls. The painter Theophilos' instructions included the decoration of the ceiling (*kamara*) of the larger dining-room, but the work is to be done "according to the *paradeigma*" already agreed, and no further details are given (*P. Cairo Zenon* III 59444, ll. 9–10). Most likely the painting would have imitated the appearance of coffering, ideally executed in wood or plaster, like the carved and gilded cedar-wood ceiling of Ptolemy IV Philopator's floating palace (Ath. 5.205c) or the thickly gilded coffering in Kleopatra's palace (Lucan *Pharsalia* 10.111–21; for the nomenclature and premium status of this kind of ceiling construction, see Leach 2004). *P. Köln* I 52 invites competitive bids for gilding part of the carved wooden ceilings of the portico and entrances to the gymnasium of Antinoopolis in AD 263, listing the typical kinds of geometric shapes used to form the patterns (hexagons, a tetragon, and lozenges). Such ceilings were familiar also in monumental stone in Egypt (e.g. in the portico of the temple of Thoth at Hermopolis Magna: Parlasca 1998) but more frequently imitated there, as elsewhere in the Roman world, in painting (plate 30; Hope 1988: 174–5).

Painted imitations of structured ceilings are also found in the rock-cut tombs of Alexandria, but attention has recently been drawn to the more unusual representation of textiles in some of these, with reference to the use of actual textile canopies in Macedonian tombs (Guimier-Sorbets 2004). During the later Ptolemaic Period, the decorative programme of Alexandrian tombs begins to show a change in emphasis towards the inclusion of traditional Egyptian funerary iconography, where previously the emphasis was on the representation of architecture, in both constructed and

painted features, with limited pictorial content (Venit 2002: 91). A singular exception to this, if the dating to mid- to late second century BC is accepted, are the painted walls from the tomb at Wardian (now transferred to the Graeco-Roman Museum in Alexandria,) with landscape and pastoral scenes, rendered in an unusually fluid style with washes of color defined with linear strokes (Venit 2002: 96–118, pls. v–vii). More than any other pictures yet found these invite the tag ''impressionist''; in their fluency and confident draughtsmanship they also recall one of the finest of Macedonian tomb-paintings, the ''Rape of Persephone'' at Vergina (Brecoulaki 2006: 78–99, pls. 13–20).

In painted tombs of the Roman Period throughout Egypt the relative dominance of Egyptian funerary content is striking (corpus of material: Kaplan 1999), sometimes counterpointed by relatively small intrusions of Greek imagery in the depiction of the deceased, or symbolic additions such as the figures of Victories, apotropaic Medusa-heads, or keys to the underworld, motifs that also figure on painted coffins and shrouds (Riggs 2005: 199–201; Parlasca 1991). An exceptional instance of duality at its most literal is provided by the parallel depiction of core scenes from the funerary repertoire of both cultures in two of the burial niches in the ''Hall of Caracalla,'' the smaller complex located beside the great catacomb with decoration sculpted in relief at Kom el-Shuqafa in Alexandria. Recent study of these faded paintings, originally investigated in the 1900s, under ultra-violet light has made possible a new record in photographs and facsimile drawings (Guimier-Sorbets and Seif el-Din 2001). In each case, the wall above the sarcophagus has been set out in Egyptian style in two registers, the upper centered on the traditional presentation of Anubis tending the mummified body of Osiris on a lion bed, mourned by his sister-goddesses, while the register below depicts in lively figure painting the myth most frequently evoked in Greek tombs, the rape of Persephone (Brecoulaki 2006: 81–3). The parallel decoration continues onto the side walls of the niches.

The myth of Persephone features also in one of the tomb-chapels at Tuna el-Gebel (no. 3 – Gabra et al. 1941: 73–6; Gabra and Drioton 1954: pl.14), a cemetery that presents a more evenly balanced proportion of Pharaonic and Greek material, commensurate with the architectural character of the city which it served (McKenzie 2007: 158–60); no. 16, with apparently cultural rather than funerary reference, portrays the stories of Electra and Oedipus, with Greek inscriptions identifying the protagonists (Gabra et al. 1941: 97–100, pls. xliv–vi; Gabra and Drioton 1954: pls. 15–17). A recurrent feature is the imitation in paint of stone wall revetments, ranging from simple panels to careful depictions of geometric compositions in *opus sectile;* the stone most commonly evoked in the panels here and elsewhere, with swirling concentric markings in yellow-brown paint, is ''onyx alabaster'' (banded travertine, quarried at several sites in Egypt, Aston et al. 2000: 59–60). The imitation of stone decoration in the lower zone of the wall is common also to the unusual group of painted rock-cut tombs in cemetery C of the necropolis at Salamuni, near Akhmim; five of them feature zodiac ceilings, with the Greek zodiac depicted in circular format with a variety of divinities forming the center-piece (Neugebauer and Parker 1969: 98–102 nos.73–8, pls. 52–6); in two of these the deceased is represented as a citizen of the Greek east, in the form more familiar in sculpture (e.g. Grimm and Johannes 1975: 20 no.20, pls. 29, 31, 34–5) – a standing figure in tunic and Greek-style

mantle, holding a papyrus scroll, in a *contrapposto* stance which the tomb-paintings, despite their limitations, strive to replicate. This was evidently a significant choice of presentation for the tomb-owner, together with the appropriation from temple architecture of a zodiac. In the tomb of two brothers at Athribis (Wannina) this programme is repeated, but the zodiacs are of a hybrid form incorporating both Egyptian and Greek elements; and here they are explicitly personalized, giving the birth-date of one brother, AD 148 (Petrie 1908: 12–13, pls. xxxvii–viii; Neugebauer and Parker 1969: 96–8 no. 72, pl. 51, after Petrie). Intriguingly, both the inclusion of zodiacs and the contemporary, Greek presentation of the deceased are echoed at a great distance, in the two most celebrated rock-cut tombs at el-Muzawwaqa, at the western end of the Dakhla Oasis, where one owner, Petosiris, is shown in the full-length statue type (Osing et al. 1982: 86–7, pl.32a); the other, Petubastis, in a front-facing portrait bust (Osing et al. 1982: 75–6, pl. 22d).

Amongst Alexandrian tombs of Roman date, that from Tigrane Pasha street (now reconstructed outside the Kom el-Shuqafa catacomb) presents the most striking synthesis of Egyptian and Roman iconography at a point when the authenticity of the former was weakening, and the latter was becoming increasingly similar to styles of tomb-decoration outside Egypt (Venit 2002: 146–59, pls. ix–x). The structure of the ceiling (plate 31) recreates features of a cross-groined vault of a type current elsewhere in Roman tombs from the second century AD on, but the actual decoration is more unusual and perhaps localized, the depiction of a canopy carried on bamboo canes and centered upon the Gorgoneion. The extreme originality of this interior prompts continuing speculation as to the ideology behind this choice of decoration, and the identity of those who commissioned it (Venit 2001). That such strong influences of current Roman styles of tomb decoration were not confined to Alexandria is demonstrated by features in the tombs of Tuna el-Gebel, but also, more surprisingly, at Antaiopolis (plate 32), in a tomb featuring a mixture of Pharaonic funerary scenes with Graeco-Roman ornamentation in the form of floral candelabra and a frieze of awning-pattern (cf. the similarly mixed decoration of graves at Kom Abu Billou: Kaplan 1999: 157–8, pls. 71c, 72a, b). The question of how these motifs were transmitted forms another line of enquiry in which not only the availability of models or pattern-books but also the existence of peripatetic painters need to be examined.

Portraits and other paintings on wood and textile

Literary and documentary evidence for the existence of portraits in the classical world indicates that they fulfilled similar functions of record and commemoration to those required of them now (Nowicka 1993) and were likewise the object of cultivated collection and display (the decoration of Ptolemy II Philadelphos' pavilion included "selected portraits," Ath. 5.196). The legacy in sculpture is copious, but only in Egypt has a large body of painted portraits of the Roman Period survived, mostly painted on thin panels of wood, and preserved by the dry climate and their incorporation from the first to the fourth century AD into the traditional funerary practices designed to preserve the corporeal person of the deceased in order to ensure their commemoration and perpetual existence. The celebrated "mummy portraits," first associated exclusively with the Fayum but now known to be derived from a number of

sites throughout Egypt, were greeted with rapturous enthusiasm when first exhibited in Europe and America, and a series of international exhibitions through the 1990s recreated some of the enthusiasm for these depictions of ''real people'' of antiquity and stimulated new interest in further analysis of their significance (Riggs 2002). The exhibitions coincided with, and built upon, the appearance of a number of significant new publications at that time: the best-illustrated collection of such portraits yet to appear, with a thoughtful commentary and useful grouping of representative portraits by site (Doxiadis 1995); a major new study using Roman portrait sculpture as a comparative aid to dating the portraits by analysis of the subjects' hairstyles, jewelery, and clothing (Borg 1996); and the completion of Klaus Parlasca's magisterial four-volume corpus of all known portraits (Parlasca 1969; 1975–1980; Parlasca & Frenz 2003).

Since then many new avenues of research have been opened, the publication of material from individual sites in combination with archival documentation being one especially fruitful avenue (Riggs 2005: 175–244 on the traditionalist material from Western Thebes; Calament 2005, in combination with the record of Antinoopolis items now in the Louvre; Aubert et al. 2008: 346, for list of items; Picton et al. 2007[8], for Petrie's work at Hawara). By producing additional information to supplement the sometimes scanty record of the earliest excavations, and distinguishing local characteristics, as well as placing the particular forms of portraits, shrouds, and masks within the total range of funerary practices (Riggs 2005), these studies are contributing to the examination of the wider issues of society and religion, in life and death, in Roman Egypt, and much can still be done with the analysis of these portraits.

Some of these portraits had served as lifetime records of their subjects before being subsumed into funerary use, though the proportion of the extant corpus which can definitely be identified as such remains debatable. The ''little portrait'' (*eikonion*) sent by Apion, serving with the fleet at Misenum, to his family in Philadelphia in the second century AD (*BGU* II 423 = *Sel. Pap.* I, 112; Nowicka 1979: 24) might have looked something like the category of mummy portraits depicting young men in military dress. Even in Egypt, few portraits have survived from an incontestably non-funerary sphere; the tondo depicting the emperor Septimius Severus and family is the most famous (Berlin Antikensammlung Inv. 31329; Doxiadis 1995: 88).

More frequent survivors than personal portraits are the devotional images which existed either as individual framed pictures or the components of a triptych with folding doors, usually now surviving as *disiecta membra*. The quality of the representations, which generally combine popular divinities of both local and national interest, is mediocre, showing the characteristics found in the Fayum wall-paintings cited above. A set of three pictures on wood now in the Getty Museum has busts of Isis and Serapis on the narrower panels that would form the wings, and a commemorative image of a man as the central feature (Walker and Bierbrier 1997: 123–4 no.119); whether these three unprovenanced panels really belong together remains unknown. Few panels have come from known contexts: at Tebtunis Rubensohn found two within a house also containing papyri of the late second century; one was still in its frame and fallen from the wall where it had been hanging (Rubensohn 1905: 16–20, pl.1, depicting seated figures of Isis holding Harpokrates, and Souchos), the other just a fragment showing Athena with lance and aegis beside another, lost,

military/divine figure (20–21, pl.2, an artist's copy). Another framed panel of similar composition, showing Min and Soknebtynis, was found in the temple precinct by the Italian mission working at the site in the 1930s (Rondot 1998), and a narrow panel with a bust-length image of Isis, possibly part of a larger picture made of several strips of wood, like the Tebtunis examples, enclosed within a frame whose traces can be seen along the edges, was found within the temple of Tutu at Kellis (Whitehouse and Hope 1999). It had apparently been lost or discarded during the build-up of earth over the stone paving between the middle and end of the fourth century, though the style of the painting suggests that it may date at least a century or more earlier. The corpus of late antique panel paintings being formed by Thomas Mathews and collaborators (Mathews 2001: 170–7; see also Rondot 2001) will help to clarify some of the questions surrounding these, as well as adding to the discussion on the transition from panel paintings to true ''icons.''

The use of linen as a vehicle for painted pictures is familiar from Pharaonic times, for example in the form of votive cloths and shirts (Pinch 1993: 102–34, pls. 14B–24). The funerary art of Graeco-Roman Egypt made extensive use of linen shrouds to carry the image of the deceased, either depicted in purely traditional guise as an Osiris figure, or incorporating the same style of naturalistic portraiture as the painted panels, in a full-length image of the deceased presented, like the tomb-owners described above, after the manner of contemporary statues, or more surprisingly inserted within a setting of traditional funerary imagery (Riggs 2005: 99 fig. 39; 194–8). A small number of mummy portraits were also executed on linen rather than wood, and there would undoubtedly have been painted hangings in religious and secular use, fulfilling similar functions to the later and better-preserved tapestry-woven or resist-dyed textiles with pictorial content (Kötzsche 2004: 207–8). A rare survivor in this category is a fragmentary polychrome picture depicting a goddess, Isis-Euthenia, holding a shawl full of fruits and raising aloft a glass bowl, an allusion to the celebration of the Nile inundation (New York MMA 1984.178 – Sack et al. 1981; Lilyquist 1985; later painted textiles, Kötzsche 2004: 209–15). The background to the figure is a lush garden landscape of trees, similar to the kind familiar from Roman wall-paintings in Italy; in two Pompeian houses, these painted gardens contain Egyptian features such as sphinxes and other pharaonic statues, and small *pinakes* with cult scenes (Pompeii I 9, 5: De Vos 1980: 15–21 no. 9, pls. xii–xix; VI 17 *ins. occ.* 42: Naples 2006: 188–91). The ideological importance of garden imagery in ancient Egyptian art has been noted in discussions of the Egyptianizing gardens of Pompeii, but we do not know whether the garden of the Egyptian goddess, who was painted perhaps a century later than the Pompeian decoration, was based upon western models or reflects a truly ''Egyptian garden'' of the Graeco-Roman Period.

FURTHER READING

For Alexandria, McKenzie (2007: 66–71, 175 fig. 299, 179–84) provides well-referenced summaries of Ptolemaic and Roman mosaics and paintings within their urban context, with annotated city plans, and Tkaczow (1993) lists discoveries up to the early 1990s. Annual

reports of the Polish mission's work at Kom el-Dikka (and further afield) appear in *Polish Archaeology in the Mediterranean* (*PAM*), and the discoveries of the French mission on land are published in the series *Alexandrina* and *Necropolis*, as well as the major journals. For the Fayum, Davoli (1998) provides a site-by-site review of discoveries from the earliest archaeological work on. Reports on the excavations at Kellis in the Dakhla Oasis appear in the *Bulletin of the Australian Centre for Egyptology* (*BACE*), and in the Dakhleh Oasis Project (DOP) Monograph series (1987–). Up-to-date reports on current work are also available on websites for sites such as the Luxor temple (http://oi.uchicago.edu/research/projects/epi/), and Amheida, in the Dakhla Oasis (www.nyu.edu/isaw/amheida). A discussion of techniques and materials is beyond the scope of this chapter, but much new information is coming from research and analysis, as well as excavations: on mosaic tesserae, cements, and the setting of *emblemata* (e.g. Guimier-Sorbets 1998b, 2005; Guimier-Sorbets & Nenna 1995); on wall-plasters, painting techniques (both *fresco* and *secco*), and pigments (Abd el Salam 2004; Berry 2002; Blondaux 2002; Hope & Whitehouse 2006: 322); and the pigments and types of wood used for panel-paintings (Cartwright 1997; Aubert et al. 2008: 29–40, 41–54). Finally, the range of comparative material in the eastern Mediterranean is growing annually, and extends from Cyrenaica to the Black Sea: for the latter area, a most welcome development is the republication, in a French translation with additional notes and introductory matter, of Mikhail Rostovtzev's fundamental study of ancient decorative painting in Southern Russia (1913–14; Rostovtseff, tr. Fraysse & Rychtecky, 2004).

Egyptian Art of Late Antiquity

Thelma K. Thomas

1 Introduction

The visual and material culture of Late Antique Egypt, extending, roughly, from the later third to the seventh century, preserves an unusually broad spectrum of artistic remains, ranging from the public monumentality of cityscapes, for example, to clothing and other items of personal significance. Over the past generation, the quantity of artistic evidence has grown, thanks to current archaeological fieldwork, even as the quality of evidence has been improved by modern methods of documentation, close study of past excavations, and, notably, conservation campaigns. This expanding repertory of monuments has been characterized in recent studies in relation to artistic developments known elsewhere across the wider world of Late Antiquity. Accordingly, this historical period is referred to by designations connoting world-views extending far beyond the Nile Valley. The terms "Late Roman," "Early Byzantine," "Early Christian," and "Late Antique" all refer to the same core chronological span but with different cultural emphases. Although Late Roman is retrospective and Early Byzantine prospective, both terms refer to the continuation of the Roman Empire and Roman culture – in fact, the people we call "Byzantine" and locate in the mainly Greek-speaking eastern Mediterranean called themselves "Roman." "Early Christian" refers to the spread of Christianity across the Roman Empire and beyond. The phrase "Late Antique," however, is used in a more inclusive sense to refer not only to Rome and Byzantium but also to the political, religious, and cultural spheres of the Sassanian Persian Empire of the third to seventh centuries, and the early Arab Caliphate, which incorporated Persian and Byzantine territories into the emerging Islamicate world beginning in the the early seventh century. The world of Late Antiquity comprises, in addition, kingdoms of Western Europe during this time period, as well as contemporary polities and cultures farther north, east, and south. One of the most striking traits of this period of Egyptian art is the extent to which it reflects the interconnectedness of these diverse realms.

Late Antique Egyptian society maintained ongoing, long-range communications by means of trade, travel, and remarkably effective postal systems. Whereas it is often noted that much of Egypt's role within the expansive economy of the later Empire was based upon long-distance travel, we should recognize that the massive shipments of grain sent from Egypt via Alexandria, first to Rome, then later to the new capital city of Constantinople traveled along maritime routes with other commodities and goods. Egypt exported flax and linen, for example, the cloth made from flax, papyrus paper made from the papyrus plant, raw glass, and objects made of glass. Ivory, as well, remained an important sumptuous material for export and for significant diplomatic gifts, such as the eight stools and fourteen chairs of ivory sent by the patriarch Cyril of Alexandria (412–444) to the emperor Theodosius II (408–450) in Constantinople (Cutler 1985: 20). Exports from Egypt were complemented by imports into Egypt. Ivory, for instance, came originally from India and East Africa via Red Sea trade routes and, from the south and west across African land routes. Silk was imported from China via Persia until at least the mid-sixth century when sericulture was established within the empire. Traveling to and from Egypt across the Mediterranean and the Red Sea and along extensive road networks with such goods and the merchants who traded in them were government officials and church leaders, monks and pilgrims, soldiers, scholars, and artisans. Ideas were in transit, too, not only in the minds of Late Antique globe-trotters but as expressed in texts, images, and objects.

2   Alexandria: City of "Splendid Beauty"

Throughout Late Antiquity Alexandria remained on a par with the premier cities of Rome, Constantinople, and Antioch. As for other Roman cities within Egypt and across the Empire, the ornamental beauty or, in Greek, *kallos*, of the city (Saradi 2008) was measured by such traits as physical setting (climate, landscape, views, and proximity to natural wonders), the splendor of its monuments (temples and, later, churches, other public buildings and spaces), the prestige of its mythical foundation, and the achievements and character of its inhabitants. The testimony of numerous written sources, although only meagerly augmented by archaeological evidence, makes it clear that Alexandria was renowned for all these categories as well as for its size and prosperity. Its cosmopolitan population included Greeks, Romans, and Egyptians, and thus polytheists of various persuasions as well as monotheistic Jews and Christians. Many of the most illustrious inhabitants and visitors were associated with the city's famous schools. The site overlooked the Mediterranean and was situated on the famously fertile land of the Nile Delta. Even the shape of the city was legendary, having been selected by the eponymous founder, Alexander the Great, who was said to have devised the lines of the street plan and city walls.

Public art and architecture

At the beginning of Late Antiquity, the cityscape of Alexandria was still delineated by the ancient walls (restored by Diocletian (284–305)), graced by such venerable institutions as the Library and the Museum, and enriched by the commerce made

Figure 45.1 Alexandria, plan of the Late Antique city. After McKenzie: 2007.

possible by its harbors (figure 45.1). The great causeway, the Heptastadium, linked the city to the harbors and the Pharos, the lighthouse that was one of the Seven Wonders of the Ancient World (which continued to stand until the fourteenth century). Embedded within the strictly gridded plan of the city, a feature originating in Hellenistic city planning, was the main colonnaded street, the Canopic Way, which extended across the full width of the city from the eastern to the western gates. Nearly twice the breadth of other streets, this remained the main processional route through the city during Late Antiquity. To the north of this street were the forum and the Caesareum, the temple built by Kleopatra VII and marked by the re-erection of ancient Egyptian obelisks. "Cleopatra's Needles" remained in place throughout Late Antiquity (up until about one hundred years ago, when when they were taken to New York City and London). Their use in this context can be understood as a Graeco-Egyptian version of the kind of political markers, typically freestanding monumental arches and columns, employed in Roman urbanism. Indeed, Late Antique Alexandria had all the amenities of Roman city life, including a public architecture showcasing its Ptolemaic heritage, Roman culture, and Roman imperial might.

Architecture for education: auditoria

The schools of Alexandria continued to be held in highest esteem during Late Antiquity, and excavations have revealed settings constructed especially for the exchange of ideas and information (Derda et al. 2007). In an area of modern Alexandria known as Kom el-Dikka, near the center of the ancient city just off the Via Canopica, in a complex of public buildings including imperial baths and what may have been park-like open space, are three clusters of perhaps twenty lecture halls (figure 45.2). The largest of these, the Small Theatre (so-called in comparison to an even larger building in the eastern part of the city) was first built in the fourth century. In its sixth-century rebuilding the stage was removed, the seating area enlarged, niches framed by columns located behind the seating and, over all, a domed roof. Elaborate sculptural ornamentation of an earlier fifth-century renovation (Corinthian column capitals and bases) was reused in the sixth-century phase of the building.

Until well into the seventh century, these auditoria accommodated teaching and oratorical displays in architectural settings that would have been familiar to the educated elite of the governing class: long rectangular rooms were lined with risers of stepped seating built of stone; the benches continuing in either an angular fashion or a curving arc around one short side of the rectangle. This arrangement allowed the audience to enjoy clear views of each other and of the center of the room; this we know from Late Antique representations of teaching and discoursing scholars represented in similar u-shaped arrangements. This building-type shares features with traditional Graeco-Roman architecture accomodating assembly and public discourse including the theatre, of course, and the city council building, or *bouleuterion*. This form was also taken up in monumental church architecture in the stepped seating of the *synthranon* provided for officiating clerics in church apses (in a church, the terminating space of the sanctuary that is semicircular, recessed, and usually vaulted. Indeed, in several of the auditoria the short end wall is apsed). A special seat set in the center of the stepped seating in the semicircular end row of seats in one of the
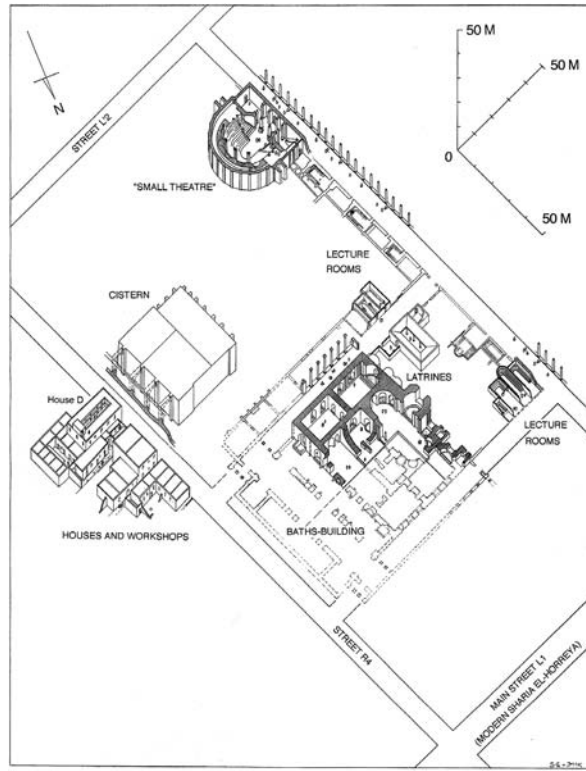
Figure 45.2 Alexandria. Kom el-Dikka, mid-sixth century, axonometric reconstruction based on results of Polish excavations. Sheila Gibson and J. McKenzie, after McKenzie: 2007.

auditoria is similar to the bishop's throne at the center of a *synthranon*. Mingling with local elites in these auditoria were cosmopolitan intellectuals from places as distant from each other as Italy and Persia, who by the time of the sixth-century rebuilding of the Small Theatre had long been accustomed to competitive public disputation. Seen in this light, lecture halls might be considered arenas, enclosed and specialized, for the transmission of knowledge and oratorical displays.

Architecture for entertainment: the hippodrome

Circuses, known as hippodromes in eastern parts of the empire, were similar in form to lecture halls but much larger, open-air arenas for sensational entertainment, especially chariot-racing, which enjoyed increasing popularity from the first century throughout Late Antiquity (Humphrey 1986) and was well known across the empire to be wildly popular in Alexandria. In the southwest corner of Alexandria, just below the Temple of Serapis, was the hippodrome called the Lageion after the founder of the Ptolemaic Dynasty (Ptolemy I Lagos, also known as Ptolemy I Soter, 385–285 BC). The Lageion was one of the largest hippodromes of the Roman world. The only larger examples, in Alexandria's peer cities of Rome, Constantinople, and Antioch, all

shared the same long u-shape outlined by stepped seating constructed of stone. The remains of the Lageion as recorded in Napoleon's *Description de l'Egypte* preserved little more than this framing shape: opposite the curved end (*sphendone*) would have been the starting gate (*carceres*); column fragments were found along the center barrier around which the chariots were raced (the *spina*).

Although not usually considered from the perspective of Late Antique Egypt, it is instructive to consider better preserved evidence of the hippodromes in Constantinople and Rome for examples of the kinds of honorific monuments erected along the *spina* and to underscore the visibility of Ancient Egypt in Late Antique public art. The hippodromes of those capital cities were marked with trophies, commemorative monuments, and famous spoils (*spolia*) collected from across the Empire. It is certainly possible that references to the distinctive grandeur of Alexandria and its love of hippodrome entertainment were on display in monuments along the *spina* of the Lageion.

A scene painted on papyrus, evidently belonging to a late fifth- or early sixth-century codex (Turner 1973), was found in Antinoopolis, another of the Egyptian cities boasting its own hippodrome – there is evidence for hippodromes in other Late Antique Egyptian cities, including Memphis, Herakleopolis Magna, Oxyrhynchos, and Hermopolis Magna. Since the manuscript leaf is fragmentary, it is not known whether the composition was more extensive before the page was broken along the left side (figure 45.3). What remains, depicted in confidently economical brushstrokes, is a group of six figures. Five of the figures wear helmets. Four must be charioteers for they wear red or blue padded vests over their long, tight-fitting blue or red shirts. One of them carries a horsewhip. On his right, another relatively well-preserved figure, also helmeted and wearing a tight-fitting green jacket but without a protective vest, touches the charioteer's arm in a gesture of familiarity. This may represent another charioteer or, perhaps, an attendant.

The lively, casual style of the painting is well suited to the self-possessed, athletic bearing of the charioteers and to the expectant atmosphere of the scene that is enhanced by the figures' shared looks. Behind the charioteers is the double line of a graphically rendered arch that would seem to delineate the vaulted passageway through which they have just entered the racetrack. At such a moment, excited crowds would have greeted charioteers with the roar of their cheers. Without doubt, successful charioteers were superstars among athletes. Dio Chrysostom, writing around the turn of the second century, described Alexandrian spectators flinging their clothes in excited abandon at charioteers, then ''departing naked from the show'' (as in Humphrey 1986: 511). This zeal continued throughout Late Antiquity as poems were written about them and statues erected in their honor. Fans associated in factions with teams known by the colors worn by their Charioteers: the most famous and long-lived were the Blues and Greens; the other two teams were the Reds and Whites. (The Whites may have been represented on the left side of this composition before it was damaged.) These color-coded teams competed in racecourses across the Empire. Factions were empire-wide as well. Even the emperor had to favor a color, although it does not seem to have mattered which, with financial support and leverage for recruitment. This practice further linked circus entertainment to politics and to the potential volatility of agitated mobs. The first mention of factions in Alexandria is dated to 315; in a late mention dated to the early seventh century, a bishop John of Nikiu
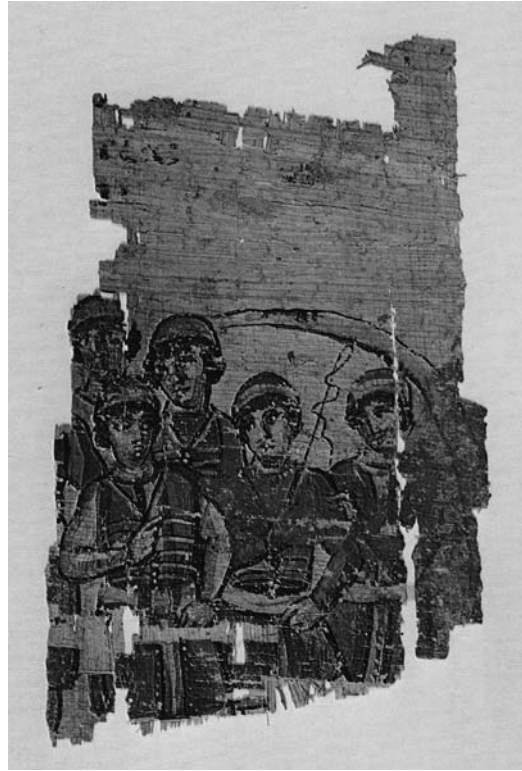
Figure 45.3   Charioteer papyrus, from Antinoe, c.500. After Weitzmann: 1977; Courtesy the Egypt Exploration Society.

(a town in the Delta) wrote of murderous violence between Blue and Green factions in Egypt on the eve of the Sassanian Persian invasion of 611.

Events within hippodromes were never far from affairs of state or political demonstrations. The Lageion received imperial funding when, following a destructive fire, it was rebuilt by the emperor Zeno (ruled 474–91). The hippodromes in Rome, Constantinople, and Antioch were incorporated within imperial palace complexes. More generally, in Late Antiquity, decrees were read and posted in such public venues, and this was where imperial subjects voiced their requests to the emperor, and where the assembled crowds could be incited to riot. Spectacles presented in hippodromes included political punishments, in which prisoners might be forced to perform sacrifices to the traditional gods or be put to death. Executions were sometimes done on a massive scale and even presented as theatrical displays: this was the context of Roman persecutions of Jews and Christians.

Temples pompous with lofty roofs

At the highest point on a hill overlooking the hippodrome, was the Serapeum, a defining feature of Alexandrian topography (figure 45.4). The fourth-century historian, Ammianus Marcellinus wrote of a cityscape studded with "temples
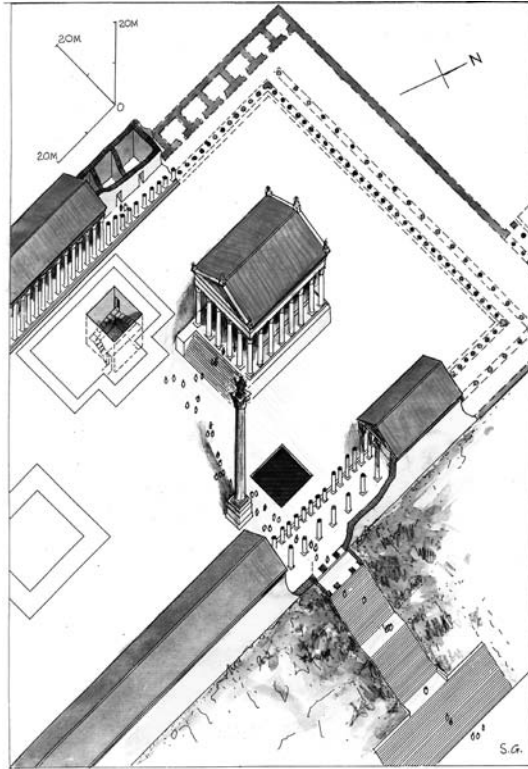
Figure 45.4 Alexandria, Temple of Serapis, after 298, axonometric reconstruction. Sheila Gibson, after McKenzie: 2007.

pompous with lofty roofs" and commented that "conspicuous among them is the Serapeum, which . . . is so adorned with extensive columned halls, with almost breathing statues, and a great number of other works of art, that next to the Capitolium, with which revered Rome elevates herself to eternity, the whole world beholds nothing more magnificent" (McKenzie 2007: 245). This was the acropolis of Alexandria.

One entered the Serapeum by an imposing flight of steps, which led up to the great rectangular portico enclosing a courtyard in which were a pool, stairs down to underground passageways, a Nilometer (an ancient instrument for measuring the height of the inundation of the Nile), and the main temple, which was dedicated to Serapis and housed the renowned colossal cult statue of the god. One Christian visitor of the later fourth century, Rufinus of Aquileia, described optical feats utilizing the advanced scientific knowledge Alexandria had been famous for since Ptolemaic times, such that, for example, the mouth of the statue would seem to be kissed by a ray of sunlight. Accommodated in rooms behind the portico were smaller shrines, living quarters of priests, and library study rooms for interested scholars.

Imperial imagery

An indisputably conspicuous Late Antique addition to the Serapeum, just inside the entrance beyond the main stairway, was the imposing portrait of the emperor Diocletian (285–305). Postumus, then prefect of the city, erected the honorific column of red granite on which was placed the portrait statue of purple porphyry. Late Antique aesthetics appreciated such vibrant color combinations and the lustrous surfaces made possible by polishing hard stones. An inscription on the column commemorated Diocletian's rule, his visit to the city, and his suppression of a revolt instigated by the previous prefect. Today, only the column remains and it is now popularly mistakenly called "Pompey's Pillar." It is possible that fragments of a porphyry sculpture found nearby belonged to the portrait statue of Diocletian. Clearly, Diocletian showed a marked fondness for the material. Quarried only at Mons Porphyrites in Egypt, it was another of Egypt's prestige exports. The distinctive deep purple hue of porphyry had been associated since the first century with Roman imperial status; however, during the rule of Diocletian and his successors, it came to be employed for portraits, funerary monuments, and other imperial monuments to a greater extent than ever before. In Alexandria several Late Antique imperial portraits in porphyry have been found in or near public spaces.

Imperial portraits had since the time of Augustus been replicated for prominent placement in public places. Much like the urban amenities of public architecture and even the gridded street plan in which the buildings were placed, displays of imperial portraits were visual signs of Roman culture and Roman rule. By Late Antiquity the accumulation of imperial images in public places was an ancient, still effective mechanism for expressing both imperial succession and continuity of imperial rule, as well as the particular ideology of a given emperor (Kiss 1984).

Diocletian's imperial ideology developed within the context of his notable administrative successes: his reorganization of provincial governance and regulation of the economy, his pacification of the rebellious army, achieved in part by enlarging and favoring it, and his curtailment of barbarian incursions by strengthening Roman military presence along the far-flung borders of the Empire. He also undertook a comprehensive reorganization of imperial rule, following a strategy of dividing the Empire into eastern and western halves, each half governed by a co-emperor, called an *Augustus*, and his junior colleague, called a *Caesar*. This was the basis for the Late Antique tetrarchic system. What art history has dubbed "tetrarchic style" is the adaptation to tetrarchic imperial policy and ideology of a formulaic, yet powerfully expressive way of rendering a mature, experienced military authority that had been utilized for portraits of earlier soldier emperors. Two well-known group portraits of tetrarchs carved of porphyry present definitive examples of this style. One set, dating c. 300, is in the Vatican in Rome and the other, dating c. 306–7, is now embedded on an exterior corner of San Marco in Venice (figure 45.5). Each example pairs two tetrarchs on a column. Originally, each pair of columns would have been erected in a public place, much like the pre-tetrarchic statue of Diocletian on the column in the Serapeum.

Tetrarchic unity and divinity is on display in a room dedicated, c. 300, to the cult of the emperors in the renovated antechamber before the sanctuary of the New Kingdom Temple of Amun at Luxor, ancient Thebes, in Upper Egypt (figure 45.6). Newly

Figure 45.5 Group portrait of tetrarchs, porphyry, c.300, San Marco, Venice. Vanni/Art Resource, NY.

conserved paintings, their colors restored to vivid freshness, present an accomplished example of a more traditional realistic style also employed by the tetrarchic emperors. The lowest register of paintings mimics the inlay work of *opus sectile*, in which flat pieces of colored stones cut to shape were inlaid in the wall. Paintings on the upper levels of the south wall represent a ceremonial procession converging below an audience with co-rulers enthroned before a host of imperial soldiers. This two-zoned composition was likely echoed on the east side of the wall. Between these scenes and facing the central axis of the ancient temple was a specially constructed apse that was marked in front by four columns, which may have carried a stone canopy (baldachin). Painted in the vaulted conch of the apse was the colossal image of the eagle of Jupiter (Zeus), wings outstretched, holding in its claws an equally colossal wreath over a monumental group portrait of tetrarchic rulers, their heroic physiques only partially cloaked. They stand in paired groups separated by a bust-length figure of Jupiter in human form within a roundel placed slightly higher than the emperors' haloed heads.

The divinity of ancient Egyptian kingship has been coopted in this display by reuse of the temple. For this tetrarchic-period renovation of the temple complex as a Roman military camp, a *castrum*, an enclosing, rectangular fortified wall with regularly spaced towers was constructed (figure 45.7). The space inside was crossed by a

Figure 45.6 Thebes, former temple of Amun, Imperial Chamber, c.300, drawing of detail of wall paintings and niche in south wall. After McKenzie: 2007.

grid of streets determined by the main axis of the temple. Two monumental entrances in the new wall, allowing access for river traffic on the west and land traffic on the east, established subsidiary axes perpendicular to that along the length of the temple. Glorifying each of these entrances was an honorific monument consisting of four columns, called a *tetrastylon*, each with a tetrarchic group portrait, the one on the west dated to c. 300 and that on the east to c. 308. Altogether the reformulation of the temple complex as a *castrum* with the commanding up-to-date wall paintings in the chapel dedicated to the divine emperors presents a model of tetrarchic imperial ideology. Serial additions of tetrarchic portraits reflects an increasing insistence upon pomp, and elaboration of the apparatus for honoring emperors. Those who processed through the temple to the chapel would see their actions mirrored in the wall paintings there. Upon entry to the chapel they would note as well the "dramatic visual juxtaposition" of Ancient Egyptian and Roman artistic traditions (McFadden 2007: 98). Similar to the use of *spolia* in the hippodromes at Rome and Constantinople, this tetrarchic monument reflects a Late Antique aesthetic that is capable of incorporating ancient monuments for the expression of imperial aspirations to universality.

The concord and implacable divine authority expressed in tetrarchic portraits are contradicted by historical events. Internal power struggles among the tetrarchs led to effacements of portraits, acts of *damnatio memoriae*, which were deeds of such serious offence that the destruction by Constantine of one of Diocletian's portraits
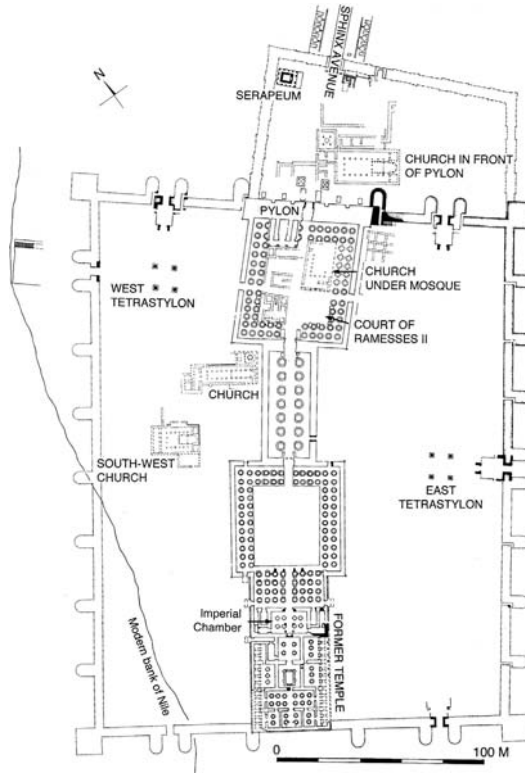
Figure 45.7 Thebes, plan of military castrum incorporating former temple of Amun with Late Antique churches. After McKenzie: 2007.

reputedly compelled Diocletian to suicide (Ellingsen 2003: 32). One matter of contention, a critical failure of Diocletian's rule, was his continuation of a century-long series of government-sponsored persecutions of Christians and adherents of other religions suspected of being insufficiently patriotic. The Great Persecution, instigated by Diocletian in 303 and promulgated by a series of edicts until 311, the year of his death, had such a profound impact in Egypt that to this day the Calendar of the Egyptian Coptic Church begins with the year of Diocletian's accession to the throne (284), and is known as The Era of Martyrs, *Anno Martyrum*. It is no wonder that the portrait statue of Diocletian erected in the Serapeum does not survive.

3   Christianity and Empire: New Rome

In 313 the co-emperors Constantine and Licinius issued the Edict of Toleration, legalizing Christianity throughout the Empire. Ultimately, Constantine wrested control from his co-rulers to achieve sole rule of the empire in 324 and become the first Christian emperor. Although he was not baptized until shortly before his death in 337, his extraordinary support for the Church was instrumental in bringing

Christianity into the public sphere. Whereas most Christian meetings had been held in fairly small, private settings, like that exemplified in the house church preserved at Dura Europos in Syria (Krautheimer 1986: 27, fig.1), Constantine helped establish a public Christianity, in part by building churches and shrines on a monumental scale and adapting a type of imperial public architecture known as the basilica (a large, rectangular building, frequently apsed, in which legal, administrative, and commercial business was conducted). Constantine was not the originator of this trend in church building, but his use of the form lent an imperial association and *de facto* sanction to early basilica churches, which housed the burgeoning Christian population and provided an appropriate setting for the evolving performance of the liturgy (prescribed ceremonies); they also came to occupy significant positions within Roman cityscapes. In Rome, for example, Constantine built the new cathedral (the church of the highest-ranking ecclesiastical position of a city), St. John the Lateran, on imperial property. In the capital city Constantine founded on the site of ancient Byzantium, his New Rome, he set aside space for the new cathedral dedicated to Holy Wisdom, Hagia Sophia, in the very heart of the city among the grandest public buildings and right next to the old acropolis. New Rome, called Constantinople or Constantine's city, vied for prominence with old Rome and Alexandria in part by the construction of grand public spaces and architecture, and in part by the increasing enlargement of the role of the city within the emerging Church.

Constantine's support of the Church advanced the development of a hierarchical administration based on the territorial and civic governance of the Empire, but this organization of the early Church did not prevent the emergence of sectarian divisions, which were rooted both in local cultures and in doctrinal issues. Especially divisive were debates concerning the nature (in Greek, *physis*) of Christ. In 451, over five hundred bishops attended the Council of Chalcedon (a city just across the Bosphoros from Constantinople) convoked by the emperor Marcian (450–457), which decreed a Dyophysite statement of Christ's two (*dyo*) natures. Thirteen Egyptian bishops refused to stray from the Monophysite doctrine (Christ has one nature: Man-God) decreed by the Council of Nicaia in 431. From this turning point the Monophysite Egyptian Coptic Church developed within interconnected strands of religious beliefs and politics, but, despite the schismatic position of the native Egyptian church, Alexandria, an Apostolic See founded by Saint Mark, remained a key participant in the development of the early Christian doctrine.

4   Transforming the Sacred in Cityscapes

During the course of the fourth century, as churches were integrated into public urban space, churches became essential to the *kallos* of the Christian Roman city. Two of the earliest Christian buildings in Alexandria, a shrine dedicated to Saint Mark and the first church of Patriarch Theonas (282–300), had been located at the eastern and western extremities of the city. Within residential areas there were other smaller structures belonging to Christians, but the erection of magnificent churches within the heart of the city did not occur until after the legalization of Christianity. In the first

instance, under Patriarch Alexander (312–328), the Caesareum was converted into the cathedral dedicated to Saint Michael. More churches were constructed in Alexandria during the long, stormy tenure of Patriarch Athanasius (328–373). Unfortunately, we know of the earliest Christian churches in Alexandria mainly from texts because so little archaeological evidence survives. There is a similar paucity of archaeological evidence for Alexandria's large and influential Jewish community; it is possible that the basilica form was taken up for Late Antique Alexandrian synagogue architecture (as at Sardis, in Asia Minor) much as we know from archaeological evidence it was adapted for church architecture elsewhere in Egypt. Some structures, like the Church of Theonas, were destroyed during persecutions of Christians. Others were destroyed by subsequent periods of violence between Christians and Jews, and between Christian sects. Later warfare and rebuilding are responsible for other erasures. In many ways, the meagre archaeological record is the result of the hazards of continuing urban existence.

The placement of religious monuments and the character of religious experience changed drastically during Late Antiquity. Public architecture – such as baths, theaters and hippodromes as well as temple precincts – had long been used as venues for presenting sacrifices to traditional gods. However, over the course of Late Antiquity the continuation of Egyptian and other "pagan" cult practices came to be conducted within the private sphere (Frankfurter 1998b). At first, with the emergence of Christianity into the public sphere, there was competition for centers of cult within the cityscape. Ultimately, temples lost imperial support, temple building ceased, and hostility toward the existence of temples increased. Often the Christianization of a place involved overturning prior sacrality, which happened both by cooption and by force.

The destruction of temples in and around Alexandria may be exemplified by the dramatic events surrounding the violent end of the Serapeum at the close of the fourth century, as visualized so evocatively in one painted marginal image, not surprisingly the one most often selected for reproduction from among the sixteen painted, now fragmentary, leaves of a manuscript in the Pushkin Museum in Moscow. It is known as the Alexandrian World Chronicle because it tells the history of the world from the perspective of Alexandria (also known by the name of its collector as the Goleniscev Papyrus). The manuscript has been assigned dates between the fifth and seventh centuries. The text was written not in Greek, but in Coptic, the last phase of the Egyptian language utilizing the Greek alphabet with additional letters for sounds not used in Greek. In this carefully painted scene Theophilus is shown initiating, overseeing, or celebrating the destruction of the Serapeum in Alexandria, which did indeed take place under his aegis while he served as Patriarch of Alexandria (385–412) and in accord with the anti-pagan legislation and policies of Theodosius I. One decree of 391 forbidding entry into sanctuaries and temples had the result of allowing many temples to be declared "abandoned," although this did not always occur without protest. At one point defenders of an "abandoned" temple in Alexandria barricaded themselves inside the Serapeum with Christian hostages, some of whom they forced to make sacrifices; others they tortured and killed. Theodosius decided that Theophilus should pardon the offenders but should destroy the temple images, thereby initiating an early example of state-sponsored Christian iconoclasm.

This marginal scene from the *Alexandrian World Chronicle* clearly does not simply narrate historical events. Instead it asserts symbolically the exalted status of

Theophilus and the superiority of Christianity over paganism. "Holy Theophilus," identified by inscription, is represented standing on the blue roof of a small structure, which must depict the temple of the god. The roof, supported by a yellow and blue architrave, is supported in turn by whitish columns and capitals. Inside the notably dark atmosphere of the temple is the intact, even darker brown cult statue of Serapis, exemplar of Graeco-Egyptian syncretistic religion, identified by the attribute on top of his head, the *modius*, a basket for measuring grain and a fertility symbol of Greek origin, indicative of the rich harvests brought by Serapis's power over the Nile flood and of his associations to Greek and Egyptian fertility gods. The scene is only partially preserved and has suffered enough damage for it to be difficult to discern details of the clothing of the statue, but it does seem that the garments of the cult statue and those of Theophilus are linked by color scheme so as to underscore both the equivalence of the figures and their contest. The statue's cloak appears to be yellowish with reddish ornamental bands, whereas Theophilus is depicted in fancy dress of similar contrasting colors, a yellow (gold?) tunic under a purplish cloak embellished with blue at the neckline. In one hand, covered by his cloak, he carries a brown codex with a white cross on the cover. The other arm, held away from the body, is bent so that his hand points up. From the "ground" at either side of his feet spring well-formed, elegantly curling branches, their leafiness perhaps emblems of the fertility of the land that continued despite the evident demise of Serapis and the termination of his cult. Unfortunately, damage has obliterated the rest of the composition that may have continued to the right, obscuring any relation of this composition to other scenes placed along the bottom and side margins of this page.

The destruction of the Serapeum in 391 and the subsequent construction of a shrine dedicated to Saint John the Baptist near the site mark defining moments in the Christian conversion of the cityscape. There is variety, however, in the evidence for abandonment and preservation, reuse, destruction, and replacement of temples. By way of contrast, the round temple dedicated to the Fortune (*Tyche*) of Alexandria, the Tychaion, not only flourished throughout most of the fourth century largely because of its centrality to municipal governance, but its secularization in 391 appears to have been a factor in the preservation of its statues of pagan gods, pre-Christian rulers, and philosophers (Haas 1997: 167; Gibson 2007). The replacement of another fixture of Alexandrian identity bears mention: although the renowned Museum was destroyed in 415 in one of the episodes of mob violence that convulsed the city, the construction of the auditoria at Kom el-Dikka attests to ongoing public endorsement of Alexandria as an intellectual center.

Outside of Alexandria there is much better archaeological evidence for the inclusion of Christianity in urban settings by the building of multiple churches. At Thebes, for example, one church was built in front of the first pylon of the temple of Amun outside the *castrum*, another within what had been the Court of Ramesses II, and two more to the west of the temple but still within the *castrum*. In the southern frontier zone shared with Nubia, on the island of Philai, the first room of the Temple of Isis was converted into a church, and other churches were constructed on the island even as temples continued to attract pilgrims (Dijkstra 2005).

The adaptation of ancient tradition is evident in the reuse of ancient spaces and buildings on other Egyptian cities. At Hermopolis Magna in the mid-third century,

for example, the heart of city was given a monumental marker in the form of a *tetrastylon* at the junction the two main colonnaded streets (see above, p. 1042). In the mid-fifth century the large cathedral for the city was built in a corner of this intersection, incorporating its two monumental porticoes and courtyard within the system of colonnaded streets, thereby further monumentalizing the area and, in the relationship between courtyard, central spaces, and subsidiary peripheral rooms, even correcting the asymmetry of the earlier temple enclosure it replaced (Török 2006a: fig. 1, p. 248). Here, careful siting and construction were symbolic in their "superscription of pagan cult with Christian worship" (Török, 2006a: 254).

4 Church Architecture

Although the liturgies of different early Christian sects differed in details, they had in common the regular, weekly celebration of the most holy sacrament of the Eucharist, or Communion, in which the consecrated offerings of bread and wine were distributed to those who had been baptized into the faith for their ritual consumption in commemoration of Christ's Last Supper with his apostles and of Christ's passion and death. Church structures developed to house the external actions of this liturgy. Throughout the Empire of New Rome, these fundamental requirements came to be accommodated by an apsed space for the sanctuary, in which the altar was located and to which only clergy were admitted, a larger nave space for the assembled congregation, and, articulating the distinction between these spaces, a low barrier that did not restrict visibility or interaction between clergy and congregants. Regional variation in the formation and layout of these features is not absolute. Thus, characteristic features of Syrian or Aegean church planning, for example, are found in Egyptian church architecture. Indeed, the role of Alexandria in the development of Late Antique architectural style outside of Egypt is a subject of current debate (McKenzie 2007).

The southeast church in Kellis, in the Dakhla Oasis, dating perhaps as early as the Constantinian period, preserves the core set of features of much of early Egyptian church architecture (see Grossmann 2007: 106, fig. 6.2). At the eastern end, the floor of the semi-circular apse is raised above the level of the floor of the rectangular nave, and a low *pi*-shaped balustrade extends the sanctuary space in front of the apse. The wooden frame of this chancel barrier may have held glass panels made of fragments found at the site (Bolman 2006b). The apse is flanked on each side by a small room; a side entrance in the apse wall leads into the southern room. Apse, side chambers (*pastophoria*, rooms used by the clergy for their preparations), and an alignment of additional small rooms all along the southern side were enclosed within flat exterior walls. Inside, a single, continuous colonnade around all four sides of the rectangular nave, divides the long rectangular space into a main central aisle and two narrower side aisles. On the shorter east side of the rectangle, the line of columns defined a transverse aisle that was part of the sanctuary. This church is known as the Eastern Church as there was a second church very close by.

There was considerable improvisation in the arrangement of these features. Centrally planned churches (so designated in contrast to the long axial planning of

basilicas) are found mainly in the north of Egypt. At Pelusium a church dated to the middle or later fifth century presents a round nave articulated by a continuous circular colonnade (Grossman 2007: 119, fig. 6.10). As was common in Egypt by the mid-fifth century, the episcopal church of Hermopolis Magna took the form of a basilica with an apsed sanctuary and central and flanking aisles delineated by a colonnade. Above the aisles was a gallery level that overlooked the nave. Unusual for Egypt is the transept, a feature often found in Italian and Mediterranean churches, that here extends out from the sanctuary in two arms ending in apses. The colonnade continues all the way around the nave and transept arms. Another distinctive feature is the crypt below the apse.

Crypt below apse and continuous colonnade articulating nave and transept space are all elements used in later phases of the Martyr Church at the extensive pilgrimage complex now called Abu Mina, dedicated to St Menas, who was martyred during the Great Persecution (figure 45.8). The first phase of construction, apparently in the fourth century, created a niched tomb at the underground burial place of St Menas. Successive structures above ground were increasingly grand: a freestanding mausoleum, replaced at some time in the mid-sixth century with a shrine and the Martyr Church, in which a continuous colonnade delineated a four-lobed shape called a tetraconch, a form otherwise unknown in Egypt although well-attested in Syria and other areas of the Empire. A baptistery was built at the westernmost end of the church and, to the east, the late fifth- or early sixth-century basilica called the Great Church, which is the largest Egyptian church to survive from this period. The Great Church is unusual for its projecting apse and three-aisled transept – features attested mainly in Asia Minor and Greece (Grossman 2007: 115). The eastern lobe of the colonnade in the Martyr Church intersects with an oval colonnade in the narthex of the Great Church, linking the two churches together as one tremendously impressive complex.

5   Settings for Pilgrimage: Pilgrimage Art

By the mid-sixth century the pilgrimage center of St Menas had grown into a miniature city in extent, in its use of elements of urban planning and public architecture, and in the locations of distinct populations. There was a semi-circular courtyard on the south side of the crypt church for incubation (the practice of sleeping in proximity to a sacred place or relics in order to effect a cure). On the north and the east sides arranged around rectangular courtyards were buildings to house those working at the site. Another church, known as the Northern Basilica, has been interpreted as serving an anti-Chalcedonian community, in contrast to the Chalcedonians elsewhere at the site (Grossmann 1998b: 295). A small monastic settlement seems to have been located at the eastern edge of the city near another church. North of the great church complex were more ecclesiastical and administrative buildings lodgings for travelers (*xenodocheia*), public baths, and a colonnaded, processional street leading to a multi-use area consisting of residences, tombs of those able to arrange burial near the saint, and installations for light industry, such as wine presses and the pottery workshops that produced the clay flasks (*ampullae*) that pilgrims

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Figure 45.8 Pilgrimage center of St Menas (Abu Mina), overall plan, mid-sixth century. After Grossmann: 1998. Copyright Dr Ludwig Reichert Verlag Wiesbaden.

acquired as special souvenirs and which contained oil or water sanctified by proximity to or contact with the remains of the saint.

Menas flasks are impressed on one side with the image of the saint, identified by inscription as "Holy Menas" and represented standing with his arms raised in prayer between two kneeling camels. The scene, a visual reference to the episode in one of the saint's legends when camels bearing his body refused to travel any farther, having recognized his burial place, can be difficult to decipher on these humble artifacts. The image of Menas is more clearly delineated on a carved, round ivory box (*pyxis*) of the

Figure 45.9   Ivory pyxis with Saint Menas, sixth century. The British Museum, M&ME 1879,12–20, 1AN34975001; Trustees of the British Museum. (1449) .

sixth century (figure 45.9), found in the early Christian Church of San Paolo Fuori le Mure in Rome, and now in the British Museum (Buckton 1994: 74). On one side Menas is shown after his martyrdom, in an apse-like place of honor, indicated by the columns flanking him and the arch they support, in turn flanked by kneeling camels; Menas is haloed and suitably dressed for a soldier from a wealthy family in a rich cloak (*chlamys*) with the square insignia indicating high rank (*tablion*). Two women approaching from the left, and two men from the right, converge on the scene; they, too, are richly dressed. On the other side is a rare depiction of Menas wearing only a loincloth at the moment before his martyrdom. Inexpensive clay flasks made in multiple batches and a singular expensive ivory box including portraits of commissioner(s) and probably meant as a votive offering give some idea of the wide range of society that undertook pilgrimages and the strong need all felt to commemorate both the act of pilgrimage and the goal (Frankfurter 1998a).

Abu Mina is just one, albeit the largest by far, of the many early Christian shrines near and in Alexandria commemorating prophets, apostles, martyrs and other saints. In the late fourth century the Virgin Mary revealed to the Patriarch Theophilus places visited by the Holy Family on the Flight into Egypt. Theophilus recorded all he saw

and heard, and the Holy Family's sojourn across northern Sinai to Pelusium, sites across the Delta down to the Roman fortress at Babylon (now in Old Cairo), and other sites in Middle and Upper Egypt, became part of the network of pilgrimage routes across the Holy Land (Gabra 2001). Also in the late fourth-century, a nun now known as Egeria described sites in southern Sinai associated with the Old Testament, and particularly Exodus. She wrote of her experiences on the arduous trek and the holy sites she saw for her "sisters," possibly fellow nuns, back at home. She visited places that stood as testimonies to Christian history. These were natural features of the landscape, such as the cave where the prophet Elijah took shelter and the bush that had burned with God's presence, which she saw still thriving in a garden near a church. At these special places, she read appropriate scriptural passages and prayed with her guides and the local monks. Egeria mentioned only briefly the architecture at these places; interestingly, she decribed no buildings enclosing the *loca sancta* she visited. Nor does the architecture seem to have been commemorative in character or in the functions it served. In Egeria's account, churches were visited so that she might benefit from a local monk-priest's performance of a partial or full celebration of the Eucharistic liturgy.

6   Settings for Monasticism: Monastic Art

Monasticism intensified the focus of Christian life on the forging of personal relationships to God through ascetic behavior. Withdrawal from worldly life in order to do so was a well-known trope for the setting of monastic life even before literary celebrations of Egypt's most famed monks cast them as "Desert Fathers." Yet, this "desert" was conceptual (Goehring 2003), referring to any space where ascetics could practice austerity, center their lives on prayer, and model their behavior after that of Christ, the prophets, and angels. This could happen in the separate space of the monastic cell, within the walls of a monastery, within monasteries in urban settings or those in the relatively uninhabited arid terrain on the outskirts of settlements. In Upper Egypt, in Western Thebes, monks settled in and around ancient tombs, inhabiting the liminal space of the cemetery where the presence of demons was particularly strong (O'Connell 2007). In all these places monks worked to transform themselves spiritually by control of their bodily actions and their thoughts, even their outward dress. Monastic settlement provided an alternative to secular government, the valorization of personal wealth and status, and other worldly seductions of cities. Indeed, monastic community was often characterized in opposition to urban existence. For example, the monastic founder, Shenoute, described the nearby city of Panopolis as a stage for social displays and a place for entertainment, and characterized the beauty of the city as cosmetic, the beauty of mere outward appearance as opposed to the true, inner beauty of the monastery, which was like the heavenly city of Jerusalem (Behlmer 2002). In the *Historia Monachorum* and other monastic literature, the city was often cast in the role of the harlot (certainly prostitutes were found in cities) opposite the role of the monastery as a type of paradise.

This vision of the monastic setting was not only spiritual and conceptual but was enacted by monks who flocked to desert locales throughout Egypt. Just as the terrain

on and around Mount Sinai was dotted with monastic establishments, so was the countryside southeast of Alexandria, in Kellia, replete with monks. The remains of hundreds of early Christian monastic dwellings have been found there, and hundreds more nearby in Nitria and Scetis (the Wadi Natrun). Visually, conceptually as well as experientially, this was a striking transformation of the desert.

Different types of monastic architecture developed to accommodate varieties of monasticism, from that of the isolated hermit, or anchorite, to loosely organized semi-anchoritic settlements, to large coenobitic ("shared-life") communities (*koinoniai*), organized hierarchically into well-structured administrations with written rules (Gabra 2002). Within coenobitic monasteries monks took up the habit (*skhema*), prescribed dress identifying them as part of the community. One example of coenobitic monasticism is provided by the federation of three neighboring monasteries, two for men and one for women, of Apa (meaning both father and abbot) Shenoute (348–464 or 6). Each monastery in Shenoute's federation was self-sufficient. Until recently the architectural elements and their layout were known mainly from texts, but current archaeological investigations are uncovering important confirmatory evidence of these settings for the labors of monastic life. Within monastery walls were: gatehouse, dormitory "houses," workshops, dining hall, bakery and kitchen, infirmary, laundry, storehouse, library and scriptorium and, of course, a church. Each house contained an assembly-hall for prayer and handwork, and other workshops. Outside the walls, agricultural activities took place in the monasteries' fields, gardens and orchards.

The surviving fifth-century basilica churches for two of the federation monasteries share plans and elevations (Grossmann 2007). These churches are often called the Red and White Monasteries (named in part after the colors of their brick and limestone building materials and the fact that these very large churches serve as monastic enclosures for present-day monks). The churches are also known after the names of illustrious leaders, Apa Bishay (320–417) and Apa Shenoute (348–464 or 6). From the exterior, the profile is rectangular and blocky, with massive walls sloping inward and topped by a cavetto (concave, curving) cornice, thus reminiscent of the exterior ancient an Egyptian temple (Bolman 2006a: 260, fig. 1). The walls are pierced by windows, which, originally, provided light and air for the interior. Inside, ornamental niches further articulated the walls. In plan, the church has a central nave flanked by two aisles delineated by a return colonnade supporting a gallery (figure 45.10). To the east, the central arch before the sanctuary is wider and taller than the two flanking arches leading to the pastophoria. Sanctuaries and pastophoria are again contained within flat exterior walls, as are subsidiary rooms along the east and south sides. (Libraries were preserved in two of the subsidiary rooms.) Both churches originally had triangular, pitched roofs over the naves, although now they are open to the sky. Sanctuaries shared a similar design as well: trilobed in plan, multistoried in elevation, each lobe topped by a semidome, the central, highest space originally covered by a conical or pyramidal roof, now spanned by a dome.

As part of a program to strengthen the frontiers of the empire, Justinian I (527–565) built a fortified monastery at the foot of Mount Sinai around the site of the Burning Bush (Nelson 2006). The church is a simple three-aisled basilica, with apse and pastophoria enclosed within the exterior wall (Forsyth 1965). A striking variation in this church plan is the number of small, private chapels within the church: three in

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Figure 45.10 Sohag, Church of the Red Monastery, plan, fifth century. Plan by P. Grossmann, after Grossmann, 2007. Reprinted with the permission of Cambridge University Press.

alignment on each side of the main body of the church, and two more beyond the pastophoria. The latter two originally embraced the Burning Bush, but with the loss of the bush this space was enclosed to form another, easternmost chapel. This multiplication of chapels would have accomodated private devotions of priest-monks and liturgical services performed for pilgrims (Mathews 1982).

Vast semi-anchoritic monastic settlements, as at Kellia, included buildings for single monks and for master-monks with one or two disciples. Many of these buildings were

economically arranged, placing the elder monk farthest from the shared space of a courtyard, where rooms for visitors might be located, and the disciple's room nearest the kitchen. Ornamentation, consisting of crosses of various shapes and designs, was centered on the prayer niche in the courtyard. There was a similar focus on imagery to guide prayer painted in niches and church apses in the large communal Coptic monasteries of Apa Jeremias at Saqqara near the city of Memphis and Apa Apollo at Bawit near Hermopolis Magna. Elizabeth Bolman (1998; 2007) has shown how paintings within monastic cells at Bawit and Sakkara of angels, for example, and monastic exemplars, assisted monks in their meditations and in their efforts of imitation (*mimesis*) of their spiritual exemplars.

7   Church Decoration

Local traditions are employed in tandem with more widespread ornamental forms in Late Antique church decoration. For the fifth-century cathedral at Hermopolis Magna blocks from earlier local structures were reused within the foundation, but visible ornamental features of the capitals were in the Graeco-Roman tradition, including red-granite columns reused in the nave and limestone Corinthan capitals carved in up-to-date forms as found in cities of Greece, Italy, as well as in the capital city of Constantinople. In the round church at Pelusium Proconnesian marble capitals combining small Ionic volute scrolls and finely carved acanthus undercut to create densely shadowed surfaces appear to be imports from Constantinople (Grossmann 2007: 122). From the Monastery of Apa Jeremias locally developed forms, such as palm or lotus capitals, were used alongside Corinthian and other forms of the Graeco-Roman repertory. Here, however, the capitals preserve painted details, such as shadows and veining in leaves, and a great deal of strong color, the application of which was not restricted to naturalistic patterns (McKenzie 2007: 308, figs 516–17). Other richly carved features include, for example, doors, cornices, and chancel barriers of stone and wood, often bearing traces of polychromy (Thomas 1989).

Glass ornamenting architectural settings could be used to similar extra-ordinary effect. The inlaid glass (called intarsia, in which flat pieces of a colored material are pieced together to form a larger composition) of the fourth century, now in the Corning Museum of Glass (plate 33), is an example of virtuoso craftsmanship in which all motifs are defined by their lustrous colors and the precisely formed shapes of their glass pieces (Auth 2007). Clearly, each piece was made to order for this commission. At the center of this fragmentary panel is preserved part of the head in profile of a figure identified by inscription as "Thomas." The proximity of the large, yellow letters of the inscription to the more diminutive scale of the pinkish-beige figure make all the more striking the delicate intricacy of the small and precisely shaped pieces of glass fitted together to form the curving black lines of his intently focused, deeply set brown eye below the arching line of his furrowed brow, each distinct whirled lock of purple and white in his beard, and the streaked locks of hair on his head. Interestingly, the use of colors for the figure is more vibrant and forceful than the sensitively rendered lines of the drawing of the figure.

There is no evidence for the original size of this panel when it was complete (currently 79 inches long) or the extent of the overall composition to which it belonged, but, even as a fragment, this panel provides a glimpse of Late Antique interest in playful alternation between two- and three-dimensional spatiality. The solidity of the wall behind this compelling vision of the cross was made to disappear, effectively nullified by the shining, colorful surface of the glass inlay and by the fictive architecture (framing what would have been a symmetrical composition). Deliberate spatial indeterminacy is enhanced by the deep light-absorbing blue of the background, between, on the right, the shimmering gold cross *(crux monogrammata)* of comparatively large and simply cut pieces of glass within a medallion of a thin red band between thicker, bright yellow bands and, on the left, an Ionic column capital with red and white scrolled volutes flanking short vertical lines of red, yellow, and green. The remaining capital does not quite meet (and, therefore, does not support what appears to be) an entablature, represented by straight bands all along the top of the panel: from bottom to top, white, red, yellow, brown, white, and red. Comparison to an example of *opus sectile* (in which flat pieces of colored stones are cut into shapes for inlay in designs) at Abu Mina, in the pavement for the tomb church (McKenzie 2007: 291, fig. 484), of similar composition illustrates how skilfully the glass artist manipulated light and dark, contrasting and related colors, and variations in brightness and lustre.

In contrast to the inlay work described above, the technique of mosaic uses stone and glass pieces (*tesserae*) of fairly uniform square shape and small size to achieve a similar effect. Wall and ceiling mosaics, which began to flourish in the fourth century, the best-known architectural use of glass during Late Antiquity, are rarely attested in Egyptian monuments. Gold glass tesserae in the tomb church at Abu Mina suggest that the sixth-century dome was covered in mosaic work. The only completely preserved composition is found in the Justinianic church on Mount Sinai, in the apse and extending up the eastern wall (Nelson 2006: 24, fig. 31). Medallions frame the apse. Most contain bust-length portraits of apostles and prophets, but the central medallion above Christ's head contains a haloed cross, and portraits of contemporary figures are placed at crucial points: Justinian at the center of the lower border and, anchoring the two corners, portraits of contempory local leaders of the church and monastery, John the Deacon and Longinus the Abbot. Within the apse is a glowing scene of the Transfiguration of Christ: the vision witnessed by the apostles Peter, John, and James on Mount Tabor just prior to the Crucifixion. The transfigured Christ is revealed in his divinity, conversing with Moses and Elijah, two prophets associated with revelations of God on Mount Sinai. Multiple elements of this extended composition connect the ongoing local monastic tradition to the Biblical history of the site and link epiphanies at the site to the apostles' epiphany on Mount Tabor and, indeed, to epiphanic experience. As concerns the sacrament of communion, for example, the faithful understood the Holy Spirit was a real presence in the church, and that the consecrated offerings of bread and wine were mystically transformed into the body and blood of Christ. Portrayals of Christ in the sanctuary confirmed these beliefs visually.

An important, long-term conservation program at the Coptic monastic church of Apa Bishay in Sohag has revealed several layers of wall painting in the northern lobe of

Figure 45.11 Sohag, Church of the Red Monastery, view into northern lobe of sanctuary. Three layers of paintings dating between late fifth or sixth century and c.800 AD. Photograph taken after completion of conservation except in sections of the ground floor and clerestory. Photograph Patrick Godeau; © American Research Center in Egypt. The Red Monastery Conservation Project was carried out by the American Research Center in Egypt with funding from the United States Agency for International Development in collaboration with the Egyptian Supreme Council of Antiquities and the Coptic Orthodox Church.

the sanctuary (Bolman 2006a). Originally all of the sanctuary was painted: niches, architectural ornament, and walls. Inhabiting the middle zone of niches in the northern lobe is a Shenoutian monastic portrait gallery, reminding the monastic audience of their lineage and of the salvation to be gained by remembering their forefathers and following their examples (figure 45.11). In the apse above is an image of the mother of God nursing the infant Christ, again a Eucharistic reference but with a very different presentation of the Christ's human and divine nature and, therefore, the nature of his sacrifice for the salvation of humankind. This integrated scheme of polychromed architectural sculpture and painted walls included in the apse fictive architectural elements – painted columns and arches – building an elaborate architectural fantasy and extending the pictorial space behind the picture plane of the actual space of the apse.

The fragmentary remains of wall paintings in the later sixth-century church at Karm el-Ahbariya, just a few kilometers from Abu Mina, provide fascinating glimpse of

continuing interest in the emperor Constantine as a heroic figure, expanding upon a fourth-century biography (Witte-Orr 1993) with narrative scenes on the west wall emphasizing the role of the cross in Constantine's life. The Flight into Egypt and other narrative scenes from the life of Christ covered the south, west, and north walls. On the north and south walls were represented Old Testament prophets and saints.

8   Art and Architecture in the Private Sphere

Elaborate schemes of church decoration developed prior traditions of architectural decoration, much as preexisting structures and sites were adapted for the creation of Christian cityscapes. Similar adaptive processes were at work in the formation of settings for pilgrimage and monasticism; so, too, for artistic developments in the private sector.

Funerary art

At several catacombs in in Alexandria, as in the underground complexes near the Serapeum, tombs reused by Christians were painted with crosses and paradisical motifs, or more extensive Christian compositions with eucharistic allusions similar to those in church decorations. Paintings and inscriptions are found as well in large Christian mausolea at Bagawat in the Kharga Oasis. More humble tomb stones (*stelai*) were also inscribed, carved, and painted to commemorate the dead. In the tombs of wealthy polytheists and Christians, the vaulted heads of honorific wall niches were ornamented with painted sculptural decorations (Thomas 2000). Mythological subjects are associated with Dionysos, Herakles, Earth, and watery themes associated with Nile, Aphrodite, and nymphs, often in dynamic, asymmetrical compositions. There are, however, striking similarities between some of the Christian and mythological scenes in symmetrical compositions of nymphs riding dolphins echoed by similar arrangements of angels holding crosses. Moreover, Christian compositions could mark an existing motif with a cross, for example placing a cross on the hinge of a half-shell. Religious affiliations of other compositions cannot be determined for lack of a qualifying inscription or determining motif. Interestingly, although no explicitly Jewish examples can be identified in Egyptian contexts, similar formats in Palestine for the Jewish cemetery at Beth Shearim and the Christian cemetery at Shefarim suggest a broader use of these forms and merit further comparative study (Maayan-Fanar 2006).

Domestic architecture and its decoration

There is archaeological evidence for dwellings of different social strata. In Alexandria, in Kom el-Dikka near the large public complex with the auditoria and baths, were affluent residences with their own private baths. Nearby were large multi-unit residences, several of which preserve on the ground floor evidence of small workshops for glassworking and bone- and ivory-carving. One trend in Late Antique urban

development is the subdivision of large houses into apartments. Another empire-wide trend is the multiplication of small markets throughout the cityscape. The building identified as House D exemplifies both trends (McKenzie 2007: 217, fig. 374). The entry to House D, from the main street known as R4, led into a long, rectangular courtyard around which were public rooms, including workshops. Stairs led from the courtyard to a second floor, where domestic quarters were located. On a wall in the courtyard is evidence of a Christian shrine for private use by those in the building: a very fragmentary painting of the enthroned Virgin, holding the Christ child on her lap and, to the left of the throne, a standing angel. Between the throne and the angel is the outline of a smaller (less than half-size) figure, apparently the donor of the painting (McKenzie 2007: 240, fig. 406). This painting, dated to the first half of the sixth century, is similar to Christian votive offerings in public settings such as the mosaic panels at the Church of Saint Demetrios in Thessalonike, Greece. As such a comparison might suggest, the role of devotional images in private and public settings as it developed throughout Late Antiquity was both multifaceted and complex.

Religious imagery in non-Christian domestic settings may reflect private devotional practice. Isis and Harpokrates, for example, are represented in their traditional Graeco-Egyptian forms in similarly modest dwellings in house B50E in Karanis in the Fayum, dating to the fourth century (Gazda 1983: 39, fig. 68) and in Amheida in the Dakhla Oasis in a house dated to the third century. Both houses were built of mud-brick, the most common material for domestic architecture in Late Antique Egypt. In both scenes the infant Harpokrates, identifiable by his sidelock and the finger at his mouth, is nursed by Isis, identifiable by her hairstyle of tiers of black curls and her knotted mantle. It has been suggested that these paintings display a more emphatic mixture of Greek and Egyptian cultural symbols than the more extensive set of paintings in a neighboring, grander house at Amheida, dated to the fourth century (Boozer 2007). Here, too, Harpokrates is represented, as is a female figure labeled *Polis*, (''city'' in Greek) likely a personification of Amheida and intended to associate the owner with that city. Another scene, of a family at table, seems to reflect a trend toward the increasing elaboration of spaces for reception among the elite of Late Antiquity. The extensive series of mythological scenes among the wall-paintings in this house belong to a growing corpus of monumental paintings attesting to a long-lived tradition of illustrations of Greek myth that would seem on display the owner's educational attainment and social aspirations. There are no clear religious associations for narrative paintings of literary inspiration.

9   Icons

Although in Greek *eikon* means ''image,'' the term is often used to refer specifically to small-scale painted devotional panels. A tradition of ''pagan'' icons has been proposed in reference paintings like the third- and fourth-century examples of Harpokrates described above, painted wooden panels with similar subjects, and mummy

portraits dating from the first to the third centuries (Rassart-Debergh 1990). Although mummy portraits were painted on wooden panels, they were inserted over the faces of the deceased within their mummy cases, portraying regular people, whose only claim to divinity was their transformed state after death. Panel-painted icons may be distinguished from mummy portraits by their use, method of construction, and subjects (Mathews 2006). There is, however archaeological evidence that the icons were buried with their owners, and placed in domestic shrines as votive gifts, similar to the above-mentioned Christian wall painting in Kom el-Dikka. Small donor figures are sometimes included in these compositions as in the chapel in Kom el-Dikka. Wooden frames surround the main panels. Some of these icons had movable side panels for concealment and revelation of their divine subjects. From the Graeco-Egyptian pantheon, these are haloed gods usually represented in human form, as half-length or full-length figures in fairly static poses with little or no indication of setting. About half of the known examples represent military deities, such as Heron. The next most commonly represented divinity is Isis, depicted as in the wall paintings at Amheida and Karanis.

Panel paintings, wall paintings, and mummy portraits all rely upon asymmetry, a device from the Graeco-Roman repertory to approximate naturalism and animation. As in life, eyes are not entirely level or the same size, nor is frontality absolute. Representations of divinities are unusually undistinguished in other ways, approaching the generic in their avoidance of representational formulas like those of contemporary mummy portraits, which achieve a documentary realism by use of such features as the wrinkles and moles capable of describing a person's appearance visually in much the same way as their mention in a written description in a legal document. Divinities are identified instead by their pose, dress, or other attributes: Isis by the tiered curls of her black hair and distinctively knotted mantle, for example, or Heron by his plated cuirass armor (covering chest, or chest and back) and double-headed ax. Such portrayals seem to have been designed to encourage prayerful dialogue between gods and humans in much the same way as the earliest Christian panel-painted icons, most of which are preserved in the Monastery of Saint Catherine on Mount Sinai. None of these earliest Christian icons can be securely dated before the middle of the sixth century. Despite that gap of several centuries between the latest of the panels of savior gods and the earliest of the Christian icons, common stylistic features and methods of construction suggest shared artistic traditions and, perhaps, affinities beween devotional practices (Mathews 2006).

Sixth- to seventh-century developments of Christian devotional images in Egypt were linked to developments within the Byzantine realm especially as concerns associations to patterns of worship for the cult of saints as well as, during the turbulent eighth and ninth centuries around phases of state-sponsored iconoclasm, the development of a theory of icons. Much of an icon's effectiveness came to depend upon a transparency of the sacred image providing immediate devotional access to the holy person, who was made recognizable by likeness to known features, attributes, or even inscriptions. The survival of a series of icons dating from perhaps as early as the sixth century until the present day at the Monastery of Saint Catherine on Mount Sinai may have been possible because the

monastery was not subject to imperial iconoclastic decrees and because the monastery has remained in use until today.

10   Manuscripts

Although pottery sherds were used as a kind of scrap paper, and wax tablets as notebooks, by far the most significant writing surfaces for Late Antique artistic remains are papyrus and parchment. Similar to manuscripts of papyrus, cut pieces of parchment were sewn together into scrolls before the innovation in the Roman Period of the codex form of the book. For codices, pieces of parchment or papyrus could be folded into folios (one sheet folded so as to make two or four pages) and then sewn together as quires (a gathering of folios or leaves) before they were bound together. There is a particular manner of bookbinding associated with Coptic codices in which folios or quires are sewn through their folds and linked to each other by a line of chain stitching. Codicology is particularly concerned with the book as physical object, its written and ornamental features, how it was constructed or might be reconstructed from rearranged quires, or a given page reconstructed from fragments. The codex form of the book came to predominate over the scroll in the fourth century, although scrolls continued to be used for some ceremonial documents and to be represented as the appropriately ancient form of book held by historical figures.

Although in the strictest sense ''illuminated'' refers to manuscripts with lustrous metallic, typically gold, decorations, illumination is also used in a more general sense to refer to any kind of painting on a manuscript, whether marginal ornamentation, decorated initial letters, or larger compositions. Manuscript paintings are also called miniatures to distinguish between the small scale of painting in books and painting in other formats, mainly that of wall painting, referred to as monumental. The *Glazier Codex* (Pierpont Morgan Library, G67), still preserved in its original covers of wooden boards, presents an early example of a full-page miniature (Bober 1967). At the end of the text of the first fifteen books of the *Acts of the Apostles* is a composition in yellow, red, and brown of an *ankh* version of the cross (*crux ansata*) ornamented with interlaced motifs and peacocks (symbols of resurrection). This manuscript is dated to the turn of the fifth century by the particular uncial forms of the letters. Of course, not all codices were heavily painted. A well-executed drawing on parchment depicts an unusual portrayal of Job as a royal figure – wearing a crown – with his daughters, wearing jewels and diadems (folio 4 verso; Spatharikis 1976: 14–20). This composition is unusual among contemporary representations for emphasizing Job's eventual success rather than his suffering. This is one of the surviving eight folios of a seventh-century (?) manuscript preserving the text from Job 40:8 to Proverbs 3:19 (Naples, Biblioteca Vittorio Emanuele III, MS 1 B 18) written in Coptic uncials.

The flat, unrolled page of the codex may have allowed for thicker applications of paint, and the facing pages (the back, verso, facing the front, recto, of the following page) encouraged relations across pages and throughout the book (Weitzmann 1977). The expressive purposes of manuscript illumination range from diagrammatic (e.g., rendering key features for identification of a medicinal plant in a herbal),

to narrative and representational (the charioteers of the Charioteer Papyrus; the Job composition), to symbolic (the *ankh* in the Glazier Codex). These expressive purposes may overlap (as in the narrative and symbolic representations of "holy Theophilus" in the *Alexandrian World Chronicle* and Job in the Naples manuscript).

Paintings and drawings for the transmission of designs to artisans may not have been stored in book form. This category of evidence (McKenzie 2007; Stauffer 2008) has only recently attracted scholarly attention, and it is not yet known how they were organized for storage within workshops, whether clients referred to them as they negotiated their commissions, or how artisans might have referred to them during the processes of production.

11   Textiles for Clothing and Furnishings

To date, written sources provide most evidence concerning the production, commerce, and acquisition of textiles (Wipszycka 1991). Some textiles were produced in the home, but specialists in dyeing, spinning, weaving, and finishing produced the majority of textile goods. Some of these artisans were self-employed; others worked in workshops.

Egypt preserves by far the richest body of textile evidence from anywhere in the Late Antique world. Great numbers of textiles have long been collected from archaeological sites. However, only recently has their discovery been documented in detail and consistently. Ongoing review of textiles from past excavation and current fieldwork projects yielding textiles from settlement and funerary contexts reveal much about the use and reuse of textiles over long periods of time in multiple settings (Thomas 2007). Because cloth was labor-intensive to produce and, therefore, fairly expensive but needed for many aspects of everyday life, textiles were reused and resold, handed down or saved for special use. Concomitant with other changes in burial practices during Late Antiquity (the end of mummification and mummy portraits, for example), the dead were dressed in multiple layers of clothing and in the yardage of reused large-scale wall-hangings and purpose-made shrouds. Interestingly, clothes and furnishings reused in burials were often deposited in in good condition, perhaps reflecting the wishes of the deceased, survivors honoring the dead, or beliefs about the afterlife (Dunand 2007). Most textiles in museum collections were found in burial contexts.

Vibrancy of coloration, density of ornamentation, and range of motifs and patterns distinguish Late Antique from earlier textiles. Curtains and rugs tend to be ornamented with overall patterns lacking distinct vantage points or orientation. In contrast, wall hangings often organize compositions within architectural frameworks of colonnades (figure 45.12). The most common items of clothing were rectangular shawls and loose-fitting tunics, which could be decorated with inwoven tapestry passages along the neckline and cuffs, in *clavi* (bands extending longitudinally over the shoulders) and segmenta (squares or roundels) placed at the shoulders or near the knees. These basic arrangements were improvised upon as was an ornamental repertory of geometric and interlaced forms and vegetal and animal motifs, in addition to

Figure 45.12 Wall-hanging representing figures in arcades, tapestry-woven wools. The Brooklyn Museum, 46.128; Courtesy of the Brooklyn Museum.

mythological and Christian motifs. Christians continued to employ mythological imagery on their clothing and furnishings throughout Late Antiquity, sometimes marked as Christian by the addition of the symbol of the cross. Purely Christian compositions were devised as well. These decorations are found in all manner of combinations and color schemes and on versions of the tunic with more close-fitting silhouettes for body and arms. Sometimes tunics were worn as if sleeveless, by pushing arms through slits beneath the sleeves and letting the empty sleeves dangle.

Although often called Coptic, these textiles attest to numerous demographic groups within Egypt and to local and long-distance trade in materials and finished goods. A type of garment known as the Persian Riding Costume is a tight-fitting coat (similar to that worn by the charioteers in the Charioteer Papyrus) with dramatically long sleeves that could be left to drape over the hands or pushed up to bunch along the arm (Fluck and Vogelsang-Eastwood 2004). This type of garment, or one very similar to it, is draped over the shoulders of the forewardmost man approaching Saint Menas. It seems that, as trade textiles traveled, for example, so too did technology, ornamental motifs, aesthetic expectations, and fashions in clothing. Technical developments allowing for more sophisticated weave structures also distinguish Late Antique textiles. Overall patterns repeating small motifs, woven on looms capable of programmable passes of weft threads, first appeared in the third or fourth century.

Over time, the motifs grew larger. Most characteristic from the seventh or eighth century onward are compositions identified by the subjects in their roundels: powerful beasts and mythological creatures, hunters, and mythological and Christian scenes. These are closely related to imported patterned silks of Persia, Central Asia, and China (Brubaker and Haldon 2001). On the streets of Antinoe and in the Alexandrian lecture halls, we should imagine the visual displays created by congregations of literati from around the known world in garments as varied as their origins and as eclectic as their Late Antique cosmopolitan taste.

12   Art-historical Study of Late Antique Egyptian Art

Over one hundred years ago, Alois Riegl, an influential scholar of the ''Vienna School'' so prominent in the early development of art history, explored how Egyptian ornament participated in widespread artistic trends of Late Antiquity. In contrast, the scholarship of Josef Strzygowski, also of the Vienna School, characterized what he understood to be the autochthonous traits of Late Antique Egyptian ''folk'' art (Elsner 2002; Török 2006b). Studies in line with Stryzgowski's characterization of Coptic art as unschooled and in opposition to a Hellenism nearly exclusive to Alexandria predominated well into the 1960s. Abetted by a burgeoning market for Coptic art and neglect of confirmatory archaeological context, such views allowed many works ''said to have come from Egypt,'' modern pastiches composed of textile fragments, recarved sculptures, and outright forgeries to infiltrate the corpus of documented works (Russman 2009). Art historians have since come to pay much closer attention to details of materials and techniques, compositional and iconographic repertories, and archaeological evidence. Interestingly, the role of Alexandria is again at center stage in studies of widespread trends affecting artistic production, albeit now within the urban matrix of the later Roman Empire extending across Egypt (McKenzie 2007; Kiss 2007). Just as Late Antique art is both universalizing and intensely local through the ways in which Graeco-Roman traditions were adapted in combination with local traditions and those from elsewhere, Egyptian art of Late Antiquity was receptive to multiple historic legacies and to exotic artistic trends, and grounded in an aesthetic that was capacious, adaptive and, ultimately, transformative (Török 2005).

FURTHER READING

We would recommend the following: *L'Art copte en Égypte* 2000; Capuani 1999; Falk and Lichtwarkiet et al. 1996; Gabra and Eaton-Krauss 2007; Török 2005.

The Reception of Egyptian Culture

The Reception of Pharaonic Egypt in Classical Antiquity

Alan B. Lloyd

In the current context the term "reception" is taken to denote not only the knowledge and understanding which the classical world acquired of Pharaonic Egypt but also the use which Greeks and Romans made of their vision of this culture for their own purposes. In dealing with this phenomenon we shall concentrate mainly on the textual evidence since material of this kind is much more explicit than representational data, but there is much to be learned from the latter, and its aid will be invoked as and when it helps in analysis. Unfortunately the textual database is anything but easily tractable because it is generated by several factors which interact in complex ways to create not one image but a veritable kaleidoscope. The starting point for any image generation is the personal reaction of individuals, which may range anywhere on a spectrum running from tolerant fascination through disinterested enquiry to contemptuous prejudice. Such perceptions will then be aggravated by major deficiencies in historical and cultural imagination which are endemic in the ancient world, though it had no monopoly of this failing, and both vitiate a deep understanding of any alternative culture. Furthermore, while the ever evolving tradition on Egypt, oral and written, which took root in Greece and Rome, contained much truth, it also harbored many errors which were much more likely to be compounded than rectified in the light of experience or fresh knowledge as the new was forced into a pre-existing mould. Finally, textual traditions are not all of one type or one literary genre, and this inevitably has a significant effect in that they all have their genre-defined agenda which determine what they say, how they say it, and how far truth is subordinated to the requirements of a particular type of text. While it is true that one culture will never produce an undistorted picture of another, however hard it may try, the interaction of the factors just enumerated guarantees that the image Pharaonic Egypt generated in the classical world will fall some considerable way short of actuality. The most convenient way to deal with these data is to take them in chronological order.

1   From Homer to Euripides

Direct Greek contacts with Egypt began in the Bronze Age, but overwhelmingly the experience on which Greeks drew in our surviving texts is the experience gained from the eighth century BC onwards (Froidefond 1971; Lloyd 1975). Only one passage in extant literature can be argued with some plausibility to have had a Bronze Age input, and that occurs in the only reference to Egypt in the *Iliad* (9.374–84). In this passage Achilles is responding to Odysseus' attempts to get him back into the Trojan War, but Achilles refuses, whatever the reward on offer:

> not all the wealth that goes into Orchomenos, nor into Egyptian Thebes, where the greatest treasures lie in abodes, and there are a hundred gates, and through each two hundred warriors ride forth with horses and chariots.

Egyptian Thebes appears here as a symbol of colossal wealth and as a place which was enormously impressive in architectural terms: if the city walls were thought to have a hundred gates, then they must have been believed to be extremely extensive and would imply a very large city, though it is possible that the fact lurking behind the comment is the large number of temple gateways in the place which have been reinterpreted in transmission as city gates. The city is also associated with strong military resources. What, however, is the origin of these comments? Orchomenos was a major city of great wealth during the Bronze Age but not in the Archaic Period when the *Iliad* was composed. Therefore, the juxtaposition of Thebes with Orchomenos does raise at least the possibility that the reference to Thebes is also a reminiscence of the Bronze Age. However, even if this is a deduction too far, the *Iliad* retains its position as the earliest extant reflection of the Greek reception of Egypt.

There are many more references in the *Odyssey* (2.15ff.; 3.297ff.; 4.116ff.; 4.219ff.; 4.348ff.; 4.471ff.; 11.517ff.; 14.235ff.), and these passages have much to say: Egypt was a long way from Greece, and it was possible to get there by accident under pressure from wind and wave, but there is a clear recognition of the value of the prevailing north winds (the Etesians) in taking voyagers to Egypt. There is an implication that Greeks were frequent visitors, and the mention of a Greek called Aigyptios would suggest some familiarity with the country. The Nile, described with the standard river epithet as "heaven-fed," features under the name of Aigyptos, but the comments on Pharos are very inaccurate, and it should be noted that Homer's comments largely concern the Delta. The wealth of Egypt is much to the fore, including the riches of Egyptian agriculture, and, not surprisingly, it becomes a target for piratical raids by Greeks. The wisdom and technical skills of the Egyptians are highlighted on a number of occasions, and they are associated, in particular, with powerful drugs and great expertise in medicine. The use of a different language marks out the Egyptians as foreigners, but Egypt is firmly locked into the Greek world. Not only is it drawn firmly into the orbit of the Trojan War, but genealogy is already being used to tie Egyptian culture into that of Greece (Paeon is the ancestor of Egyptian doctors!); Egyptians are given unequivocally Greek names without any qualms; the Egyptian city alleged to have been encountered by Odysseus is clearly conceived of in Greek terms, and its king thinks in Greek mode; the

Greek deity Proteus is converted into an Egyptian deity, though he shows a remarkable knowledge of Greek religious practice, and the names attached to other divinities are Greek. On the other hand, Egypt is associated with piety and with a recognition of obligations to the gods, whereas the Greeks get rather a bad press. Above all Egypt was a land of wonders.

A careful reading of this Homeric material against the background of later texts immediately reveals that it already shows many of the interests and attitudes which dominate the later image. Egypt clearly featured with particular prominence in the wider world, physical and conceptual, inhabited by Greeks of the Archaic Period. Its wealth is later a recurrent issue, and its status as a place where Greeks or Romans could get rich in a variety of ways was never lost in antiquity. The spectacular nature of its architecture, particularly its size, is a pervasive preoccupation, even though the emphasis on Thebes is much less in evidence as the decline of that once great city gathered pace. In the same order of things the place of Egypt as a land where exquisite and skillfully wrought objects could be obtained is never shaken. Its military strength and institutions continue to exercise later writers whilst the wisdom of the Egyptians and their arcane knowledge, particularly of medicine, are a constant theme. All this, combined with the conviction that Egypt was a place where strange and benign deities could be found and the projection of the benevolent and forgiving character of Odysseus' fictitious king, prepared the way for Egypt to become a location for later literary utopias. The prominence of the Nile in Homeric tradition foreshadows the interest shown in later accounts, and the interest in the prevailing North Wind also does not disappear, though not all geographical information is sound, despite the fact that the Greeks were in an excellent position to get that right. The Proteus episode is taken over into later texts, though greatly expanded and with the conversion of Proteus from a god into an Egyptian king. The awareness of Egypt as a distant foreign country with remarkable geography and culture does not, however, prevent a process of assimilation to Greece from taking place whereby genealogy can be used to bring Egypt into the Greek orbit, and Greek names can be attributed to figures who are supposed to be Egyptian. This process was to lead, amongst other things, to the rampant hyperdiffusionism which we later find in Herodotos. All this leaves no doubt, given the central position held by Homer's epics in defining the Greek world-picture, that he played a major role in determining what Greeks thought about Egypt and in orientating their focus to particular aspects of that culture.

The Ps-Homeric and Hesiodic corpus clearly had much to offer, but its sad state of preservation can only offer hints of riches lost. In the Homeric *Hymn to Dionysos* Egypt features alongside Cyprus and the Hyperboreans as a possible destination for the captive Dionysos (Crudden 2002: 78). The fact that Egypt features at all indicates that it was a destination which naturally came to mind, but the association with the other two locations is intriguing. Cyprus was, of course, well known whereas the Hyperboreans feature in Greek tradition as a mysterious and semi-mythical people at the limits of the known world (Bridgman 2004), which neither Cyprus nor Egypt could be said to be. It very much looks as though there is a gradation here where Egypt occupies the middle ground somewhere between the well known and the fabulous. The *Nostoi* or "Returns," often attributed to Agias of Troezen, takes us to familiar Homeric ground when mention is made of the return of Menelaos from

Troy and his arrival in Egypt with five ships (West 2003: 155). Of particular interest, however, is the appearance of the Io and Danaos cycle of legends in the *Aigimios* and *Catalogue of Women* which created close links between Egypt and Argos in Greece. The surviving comments are extremely brief, but they are sufficient to show that this body of material with all its implications was already firmly established in Greek tradition during the early Archaic Period (Evelyn-White 1914: 166–7, 272–3: West 2003: 266–8).

The basics of the Danaos cycle, which had numerous variants, were that the Argive priestess Io, who had been one of the many objects of Zeus' unremitting sexual appetite, was turned by him into a heifer. After much wandering she arrived in Egypt where she gave birth to Zeus' son Epaphos. He was the ancestor of the Egyptian king Belos, the father of Aigyptos and Danaos who embarked on a bitter quarrel. This contretemps Aigyptos wanted to settle by marrying his fifty sons to the fifty daughters of Danaos. To avoid this Danaos and his daughters fled to Argos which was ruled at the time by a king called Pelasgos, but they were pursued by Aigyptos' sons, and eventually Danaos consented to the marriage with disastrous results for the sons who were all killed by their wives at Danaos' instigation with the exception of Lynkeus whom the daughter Hypermnestra refused to murder. In due course this pair became the founders of the Argive Danaan dynasty.

It will be immediately obvious that a major element in the construction of this narrative is the use of eponymous ancestors, a widely used device in Greece, as elsewhere, for providing the origin of a particular social or national grouping. Pelasgos, therefore, functions as the founder of the Pelasgians who were regarded by the Greeks, erroneously, as their predecessors in Greece (Lloyd 1975–88: i. 232–4), whilst Danaos serves the same function for the *Danaoi*, i.e. Greeks, and Aigyptos for the Egyptians. The effect of this device is, in the first instance, to bind Egypt and Greece closely together by making the Argive royal family descendants of Egyptians, and the *Catalogue* (16) claims that the legacy went further by asserting that Danaos made Argos well watered whereas it had previously been waterless, i.e. an erstwhile inhabitant of Egypt has given Argos the benefit of his expertise in irrigation. The genealogical exercise also has the merit of explaining how the Pelasgians ceased to be Pelasgians and became Greeks. In both contexts there is an insistence that the Egyptians played a crucial role in the development of Greek culture, but it is impossible to suppress the question as to why this should have happened at all. Argos was not a big player in the resumption of contacts with Egypt in the eighth–seventh centuries BC, though neighboring Corinth and Aigina were. Some might wish to argue that there is a reminiscence of Bronze Age contacts of the area with Egypt which were undoubtedly considerable. This is certainly possible, and we have pointed out another plausible case of this in our discussion of Homer, but there is an easier and much more attractive explanation. Genealogizing was a means by which not only Greek social and political groupings but also major foreign peoples could be tied into a Greek ancestor (frequently Herakles whose wanderings made him an ideal candidate for the role), and this process became a major preoccupation of early Greek literature, the most conspicuous example being the *Genealogies* of Hekataios of Miletos, which regrettably survives only in fragments (Jacoby 1957). Even if there were no further motivation, Egypt would have been brought into this process, but its

highly privileged position in the traditions still demands an explanation, and that must be located in the enormous prestige which Egyptian civilization had acquired in the Greek world, a prestige which, if anything, became ever greater with the passage of time. To establish the thesis that Greek culture descended from that of Egypt would be parallel to the impulse which drove Romans to insist on the origins of their greatest city in Troy through a Trojan refugee in the form of Aeneas and which impelled early British chroniclers to derive the ancestry of their nation from Brutus, another refugee from this iconic city. In all cases the impulse has its origin in the need to generate and maintain an enhanced self-perception based on the best possible ancestry.

The period during which these traditions were developed also saw reception functioning in other forms of artistic expression. The large-scale presence of Greeks in Egypt from the seventh century onwards exposed them to a material culture which they found both attractive, spectacular, and, above all, a stimulus to explore new cultural developments. In minor art forms, sculpture, and architecture this trend led to the appearance of Egyptian or Egyptianizing material throughout the Greek world. However, in the visual arts as in literature Greeks showed a consistent independence of thought which normally stopped well short of slavish copying. They took what they wanted in inspiration and techniques but adapted any borrowings to Greek taste and practice so that traces of any Egyptian ancestry were quickly eroded to vanishing point (Boardman 1999).

The sixth and fifth centuries saw the development of two new Greek literary genres, tragedy and prose literature, in which Egypt features prominently. In tragedy the earliest extant text is the *Suppliants* of Aischylos which formed part of a tetralogy of plays produced at Athens in the 460s consisting of a trilogy of tragedies also containing *Egyptians* and *Danaids,* supplemented by a satyr play (*Amymone*), all based on the Danaos cycle which we have already discussed (Garvie 1969; Johansen and Whittle 1980; Burian 1991; Sandin 2003). Since *Suppliants* is the only survivor of this group, it impossible to establish with certainty the conceptual drive of the trilogy as a whole, but the play still has much to offer for our purposes. Predictably the genealogical links between the Danaids and the Greek world are heavily emphasized throughout the play (15ff., 40ff., 73ff., 77ff., 210, 274–6, 291ff., 328ff., 524ff., 854ff.), and this, of course, facilitates the identity switch at 1023–9 where the Danaids express their determination henceforth to regard themselves as Argives. On matters geographical the play is not entirely happy. While there is an awareness of peculiarities of Egyptian topography and meteorology (1ff., 70ff.), Aischylos evidently conceives of Egypt rather as he would Greece itself; for, when describing Io's visit to Egypt, it is cities which are mentioned, and she is never said to go to the *land* of Egypt as such (311, cf. 388). In the treatment of the characters who stand for Egyptians (i.e. the Danaids, the sons of Aigyptos, and their associates) we encounter a strange amalgam of discordant features. On the one hand, the Egyptians are frequently presented as saying and doing things in Greek ways: the speech of the chorus at 1–175 is couched entirely in the language of Greek religion; the ships which were used by the sons of Aigyptos are clearly imagined as being of Greek design, or, at least, not distinctively Egyptian (134, 715 (trim of sails, sideguards, eyes at front); at 176ff. Danaos speaks in terms of Greek customs and attitudes and shows throughout a commendable knowledge of Greek mythology; and at 308 we find that an Egyptian can be regarded

as using a Greek word. On the other hand, the perspective frequently swings to regarding the Egyptians as aliens. Danaos can be presented as speaking from a non-Greek point of view (220), and throughout the play differences between Egyptians and Greeks are highlighted: they are non-Greek in speech (117ff., 972–4); their clothing is strange (120ff., 234–7, 246, 719–20); their skin-color is different (154–5, 719–20, 745), as is their physical form (278ff., 496ff.); their food is mentioned with contempt (761, 953); their laws are at variance with those prevailing in Greece (387–8); they are brought into relation at one point with bizarre customs and disgusting activities (281ff.); and there is a recognition that, as foreigners, their position is precarious in Argos, and they must proceed with circumspection (917, 975ff.). The terminology used to denote these foreigners also insists on difference but from different perspectives: *xenos* and cognates are frequently used and seem to be employed when a positive view, i.e. a disposition to acceptance, is at issue. (195, 202, 277, 500, 701, 926–7); the rarer *epēlys* (195, 401, 611), at least at 401, is negative; and *karbanos* (914, cf. 118) is applied to the herald of the sons of Aigyptos in a context which insists on separateness, and this squares well with the very negative portrayal of the sons of Aigyptos and their associates as hybristic and impious (741 and frequently thereafter), a view which contrasts sharply with the politically responsible and morally finely tuned attitude of Pelasgos (234ff., 911ff.). However, we should not regard the presentation of this particular group of Egyptians as reflecting a general Greek or Aischylean attitude to Egyptians as a whole; it is clearly a requirement of the narrative that this group should appear and behave in a reprehensible manner. Overall, the play is working with two of the major trends in the Greek reception of Egypt which we have already identified in the epic tradition: a concern with tying in Egypt closely to Greece through genealogy and a marked tendency to intermingle Greek and Egyptian elements when dealing with matters geographical and ethnographic. At the same time there is a strong awareness that the Egyptians are an alien people who are physically and, in many ways, culturally different, a perception which is also detectable in Homer.

The only other surviving Greek play with a dominant Egyptian focus is Euripides' *Helen*, produced in 412 BC (Dale 1967; Burian 2007; Allan 2008). The plot is built around the famous palinode of the Sicilian poet Stesichoros (640–555 BC) which claimed that Helen had not been taken to Troy by Paris but had been replaced by a phantom (*eidōlon*). Instead she was translated by Hermes to Egypt and deposited with Proteus, and there she is eventually encountered by Menelaos on his return from Troy. Much of this narrative is patently Homeric in origin, but Stesichoros and his successors have given it a bizarre twist which was designed to absolve Helen of all moral blame for the Trojan War. This version of the story has great dramatic potential which Euripides exploits to the full, but his focus in *Helen* is on the final phase where we are confronted with the attempt made by the infatuated Theoklymenos, son of Proteus, to try and retain Helen in Egypt, the rediscovery of Helen by Menelaos, and their subsequent escape.

When we turn to the analysis of the portrayal of Egyptians, we find virtually nothing Egyptian in the play. There are elements of Egyptian geography at 1ff. and 769, and there is a dramatic reference to the migration of cranes, a spectacular annual feature of the Egyptian skies (1479ff.). As for the portrayal of the Egyptians, this shows three features: positive, negative, and a consciousness that Greek customs may

differ from those of Egypt. On the positive side we have a general association of Egypt with insight and knowledge, above all through the prophetess Theonoe: Proteus is presented in very favorable terms as the "most temperate of men" (47), and as a protector (60ff.), and, in general, Egyptians get a favorable press (314, 481). The negative dimension comes through very powerfully in the portrayal of king Theoklymenos whose arrogance, selfishness, and xenophobia are strongly marked (e.g. 60ff., 437–44, 921, 1171ff.). At 247 Egypt itself is said to be "an unhappy land," and the frequent negative references to *barbaroi* reflect badly on Egyptians (e. g. 224–5, 274–6, 741–3, 863–4, 1593ff.). When the narrative requires it, we find a recognition that customs can be different (800, 1065–6, 1241, 1246, 1270), but the overwhelming impression is that, wherever we look for Egypt in this play, it is rarely to be found: we encounter the tomb of Proteus adjacent to the palace, a most un-Egyptian location, and clearly conceptualized in Greek terms as a place of secure refuge for a suppliant (1ff., 64ff., 1165ff.); the names of the "Egyptians" are stridently Greek throughout; Theonoe, an Egyptian woman, is presented as a prophetess in the best Greek tradition (10ff., 144ff., 317ff., 515ff., 528ff., 819ff.) and speaks in a thoroughly Greek manner (e.g. 865ff., 998ff.); Theonoe and Theoklymenos show the knowledge of Greek mythology which one has learned to expect in the *barbaroi* of Greek tragedy (e.g. 998ff., 1220ff.); we have an inapposite intrusion of a Greek custom of supplication (831, 947, 1237), the acceptance of four-horse chariots as a possibility in Egypt, though they are quite out the question (1039ff.), and the appearance of an old woman (*graus*) as a door-keeper to the palace (437ff.) which could never have happened, and an Egyptian king offering to arrange a horse sacrifice (1258) which would be quite unparalleled.

The confrontation of these two presentations of Egyptians in tragedy yields intriguing results, not least in revealing that, whatever the terms of the perception of otherness, this perception is very partial. Whereas Aischylos shows a consciousness of the Egyptians as culturally different, Euripides does so only to a very limited extent. In *Helen* there is a lack of interest in the question, and the obvious explanation would be that Euripides' primary concern in this play is exploring the dramatic potential of the Stesichoros version of Helen's sojourn in Egypt and its possibilities for the dramatic poet. These he feels able to develop with a minimum of exotic local color; he quite simply does not need Egyptian Egyptians. We have, therefore, surely the situation which frequently arises in paintings and sculptures of the Renaissance, Baroque, and high Classical Periods where often a scene from Classical or Biblical sources is depicted in entirely contemporary dress except for the odd Roman helmet or boot, inserted as a *sēmeion* to fix the historical context, but nothing more. In Euripides' play it is much more important to enhance the sense of immediacy than the sense of difference. Aischylos, on the other hand, saw his task in very different terms. This may be partly because of dramatic imperatives which are hidden from us by the loss of the other plays in the trilogy, but, even if that is true, there is a broader context to consider. There were excellent reasons why Aischylos and his contemporaries should have developed a heightened sense of ethnicity: recent ethnographic writing such as that of Hekataios of Miletos (Jacoby 1957: 2666–769) provided ample evidence of cultural disparities between Egypt and Greece, not to speak of other areas, and the on-going struggle with Persia, in which Egyptians were actively

involved against Greeks, raised in an unnervingly stark and immediate manner the fact of ethnic difference and posed the critical questions: "What is it to be Greek?"; "What is it to be non-Greek?." In such an environment it is hardly surprising that Aischylos and his contemporaries should show a keen sensitivity to the specifics of what it was to be non-Greek, in general, and Egyptian, in particular.

The prose writings of the Ionian enlightenment of the seventh–fifth centuries inaugurated a long tradition of comment on Egypt which consolidated existing trends, whilst opening up new ground. Anaximandros and Hekataios of Miletos established that continent theory, geology, meteorology, ethnography, botany, and zoology were all topics in discussions of Egypt (Lloyd 1975: 84ff.) whilst *periplous* texts comparable to the much later *periplous* of Ps-Scylax (Peretti 1979) or Pomponius Mela's *De Situ Orbis* (c. middle of the first century AD, Romer 1998) were also current, including that of the sixth-century voyager Euthymenes of Massalia who is known to have commented on the problem of the sources of the Nile. However, important though the role of these pioneers may have been, they are all overshadowed by the great fifth-century figure of Herodotos of Halikarnassos.

The *History* of Herodotos, who was born sometime about 484 BC, provides one of the two fullest surviving literary engagements with Ancient Egyptian civilization from any period in classical antiquity (in general Hartog 1988; Gould 1989; Thomas 2000; Bakker, de Jong, and van Wees (eds.), 2002; Diodoros' account in Book 1 can claim to be the other). He wrote within essentially the same time-frame as Aischylos and Euripides, but his work introduces another change of genre and a corresponding shift in agenda. His purpose was to preserve an account of the great conflict between the Greek world and the Persian Empire in the sixth and fifth centuries BC, but, fortunately for us, he took a very broad view of this task and worked on the basis that a careful characterization of the main protagonists was essential for the understanding of the conflict as a whole whilst, at the same time, showing the gradual move westwards of the Persian menace and the formidable resources of which it disposed. Since Egypt was one of the major provinces of the Persian Empire, it inevitably qualified for a detailed discussion, and this it gets in the great excursus which covers the whole of Book 2 and the early part of Book 3, though there are numerous references to Pharaonic Egypt elsewhere.

Even a cursory reading of the Egyptian section reveals that fundamentally Herodotos is in many respects developing strands in the reception of Egypt which had been established long since. We have already insisted at several points on the marked tendency of Greek writers to close the cultural gap between Greeks and Egyptians, even to the point where the latter are given Greek names and Greek ancestors. Herodotos' account of Egyptian history provides a conspicuous example of this phenomenon. In dealing with this narrative it is crucially important to grasp that Herodotos' *History* as a whole is dominated and orientated by a clearly defined conceptual agenda which was part and parcel of the mentality of his age and of which Homer, yet again, was a major determinant. Very briefly this amounted to the conviction that the world was dominated by a moral and physical order (*dikē*) which was definitive, at least in the sense that it could not be improved, and this order was supported and maintained by the gods, above all by Zeus. The most important factor leading to infringements was *hybris*, an overweening

ambition which refused to accept the boundaries inherent to that order and wilfully transgressed them. The way to avoid that was to recognize and accept such limits, i.e. to act as a *dikaios*; the phenomenon which most often led to transgression was a high degree of success which could lead people to forget what and who they were and to transgress the limits which were set for human beings. To Herodotos the history of the Persian Empire perfectly exemplified this moral syndrome, and such thinking informs the whole of his narrative of Persian imperial progress and disasters, but the syndrome also applied to many other figures in his narrative, and the discussion of Egyptian history is no exception (Lloyd 1988).

The historical narrative is the longest ingredient in Herodotos' survey of Egypt, and there can be no reasonable doubt that it was essentially his creation, despite the demonstrable presence of older ingredients. It would be impossible to overemphasize the role which it played in presenting an image of Egyptian history to the classical world, a status which ensured that it was much quarried by later authors, most obviously by Diodoros Sikeliotes, but his influence is easily detected as late as the fourth-century Roman historian Ammianus Marcellinus (*History* 22.15). Its earlier section is of little historical merit, although its value to historiography is very great, and it is often seriously inaccurate, above all in the wildly erroneous chronological displacement of the pyramid builders of the Old Kingdom and the inclusion of vintage Homeric elements in the form of Proteus, transmuted into a human king, and the lengthy treatment of the associated Helen episode. However, the section 2.147ff., which focuses on the history of the Saite Dynasty (664–525 BC), is much more accurate, though its coverage is undoubtedly skewed in favor of subject matter involving Greeks and in which Greeks would naturally have a particular interest, but we should not lose sight of the fact that, throughout the historical narrative, the actions and fates of kings are presented in a manner which makes them conform to precisely the same moral imperatives as any figure in Greek history, i.e. they inhabit the same moral world as Lydians, Persians, or Greek tyrants, and their portrayal shows no insight into a specifically Egyptian world view.

A Homeric pedigree is also evident in Herodotos' statement of intent in embarking on his lengthy disquisition on Egypt which he formulates in the following terms:

> I am going to speak at some length of Egypt because beyond all lands it possesses far more wonders (*thōmasia*) than any other land and works which surpass all power to describe. (2.35.1)

Herodotos, however, goes much further than his illustrious predecessor in presenting "wonders" as the major driver in his choice of subject matter, and the text bears out this point of emphasis in many different areas of comment: Egyptian customs are the reverse of those of everyone else; religious practices are very much at variance with those of the Greeks; the extraordinary regime of the Nile and the Egyptian climate are markedly different; the size of Egyptian monuments, in particular, is a recurrent source of interest – again an Homeric strand; the sheer size of Egypt is astonishing, and personalities and their activities also qualify as "wonders" or "wonderful"; customs such as mummification have no Hellenic parallel, and the fauna are also startling, e.g. the crocodile, hippopotamus, and even the domestic cat (an exotic to

Greeks at this period) and its reported antics, as well as the flora, e.g. lotuses and the papyrus plant.

Not the least of the marvels of Egypt was the enormous antiquity of its civilization compared with that of Greece, and Egypt's antiquity greatly facilitated the application of another of Herodotos' mental traits: the taste for *post hoc ergo propter hoc*, i.e. if *a* is earlier than *b*, then *b* MUST be the result of *a*, a principle which was destined to a brilliant, if malign, future well beyond the temporal confines of Classical history. This conviction enabled Herodotos to claim that Egypt had been the inventor of a series of cultural phenomena, exemplifying the concern with the *prōtos heuretēs* or "first discoverer" which became a major theme of Greek cultural theorizing (Kleingünther 1933) and locates Herodotos very firmly in the hyperdiffusionist camp of cultural historians. The wide application of this principle amongst Greek writers meant that a long series of Greek *illuminati* were taken on fictitious trips to Egypt to acquire the beginnings of their achievements, including Homer, Solon, Pythagoras, and Plato, to name only a few (Lloyd 1975: 49–60), though an all-inclusive scepticism on these traditions would be ill-advised. In Herodotos' case the most wrong-headed result of its application was the claim that virtually all Greek religion and Greek gods had an Egyptian origin, but other alleged, and equally erroneous, legacies are the influence of the organization of the Egyptian warrior class (*Machimoi*) on the development of the Spartan military system and Solon's supposed borrowing of his unemployment law which Herodotos claims was introduced in Egypt by the Pharaoh Amasis.

What is our assessment of Herodotos' portrayal of Egypt? The account of Egypt is embedded in an historical narrative written for a fifth-century Greek audience. It, therefore, reflects Greek interests and Greek preoccupations of that period. There is no genuine understanding of the ethos of Egyptian civilization or of the mentality of the Ancient Egyptians. Where the subject matter is a matter of observation Herodotos can often provide good information, but it is not always sound, and his information on such issues should always be treated with caution. However, it should never be dismissed out of hand. Whatever its deficiencies, the Herodotean narrative is the first consecutive account we have from any source of Egyptian civilization, and it is written by a European largely uninfluenced by Egyptian attitudes, above all by Egyptian royal propaganda. Herodotos is an outsider looking in, and his perspective on that civilization is invaluable, particularly since he saw Pharaonic civilization when it was still a going concern.

2 The Fourth Century to the Macedonian Conquest

The preceding discussion has identified a number of key trends in the evolution of the Greek perception of Egypt all of which were developed considerably in later texts, sometimes in startling directions. A particularly intriguing offshoot of the abiding admiration for the wisdom of the Egyptians is the role which ideas about the high quality of Egyptian institutions came to occupy in discussions of the nature and proper form of the state. This line of enquiry is particularly associated in the fourth century with Plato and Aristotle, though in their case they take very different directions.

Plato makes several references to Egyptian institutions, the most interesting being his comments in *Timaios* 21dff.. Here Plato describes a probably fictitious visit by Solon to the Saite nome where the main goddess was Athena (i.e. the Egyptian goddess Neith) and whose inhabitants claimed kinship to Athens. Solon questioned priests there who proved to be vastly more learned than he and informed him that the Greeks were nowhere nearly as ancient a people as the Egyptians, the priest showing in the bygoing (22c) the usual commendable knowledge of Greek mythology. The unparalleled continuity of Egyptian culture meant that Egyptian records went back a very long way, and on this basis the priest then claimed that the Egyptian class system had once been established in Athens, that the Egyptians were the first to use shields and spears in Asia, and that Egyptian wisdom, in general, was of great antiquity. At *Statesman* 290 d–e, in the context of a broader discussion of the relationship between priesthood and kingship, Plato points out that in Egypt no king could rule without being a priest, an observation which is basically correct. The Egyptian class system was also a matter of interest to Aristotle (*Politics* 7.10) who argued that their example should be followed wherever possible

A particularly interesting offshoot of these debates is Egypt's conversion by some writers into an ideal or even utopian state, held up as an example to all and, as such, conceptually akin to the model government systems appearing in Plato's *Republic*, *Timaeus*, and *Critias* and parodied in Theopompos' *Meropis*. The clearest surviving example of this phenomenon is the *Busiris* of Isokrates (436–338 BC) (Livingstone 2001) produced as a riposte to an earlier discussion of the contemporary writer Polykrates who had presented a negative picture of the Egyptian king Busiris, a ruler normally given a bad press in Greek tradition. Isokrates' portrait could hardly be more different. He begins his account by insisting on Busiris' noble ancestry, asserting that his father was Poseidon and his mother Libya, daughter of Epaphos, son of Zeus. Busiris, wishing to leave behind an eternal monument to his valor, embarked on the conquest of many peoples and eventually established himself as king in Egypt which he considered by far the best place of residence. This development gave Isokrates the opportunity to present Egypt as ideal both in its geographical endowments and in its institutions: it had the best climate and the best agriculture, benefiting greatly from the Nile which conferred major economic benefits and was also excellent for defence. Busiris himself was a wise ruler and ensured that his subjects were well fed. He then divided them into three classes, priests, craftsmen, and warriors, and allocated appropriate numbers of citizens to these classes. These were hereditary in order to guarantee the best possible performance and in Isokrates' view were an unqualified success. The military system of Sparta was taken from the military caste system in Egypt, but the Spartans had spoiled it by claiming the absolute right to take the property of others. The Egyptians, on the other hand, while not neglecting their own property, did not try to get hold of that of others. If the Egyptian system were adopted properly "we should all possess our own goods and pass our days in happiness." Busiris exemplified practical wisdom, and he ensured that priests had affluence, self-control, and leisure. As a result they were able to discover excellent drugs which made the Egyptians the healthiest of men. They developed philosophy and operated a system whereby the older men were put in charge of important matters whilst the younger were required to devote themselves

to the study of astronomy, arithmetic, and geometry. Isokrates was also able to use Busiris to get round the rather embarrassing practice of animal worship by claiming that Busiris required it as an example of obedience to authority, i.e. it was a matter of discipline. More general comments are also made: fear of the gods had a civilizing influence in Egypt, and the Egyptians believed in swift punishment for misdeeds; Pythagoras studied their religion, and brought back to Greece the results, thereby acquiring a great reputation.

3   From the Macedonian Conquest
to the End of Paganism

The conquest of Egypt by Alexander the Great in 332 inaugurated a radically new chapter in the history of reception in that it led to the close integration of Egypt into the Graeco-Macedonian world and from 30 BC into that of Rome. From this point onwards the issue is not simply the impact of Pharaonic Egypt outside Egypt but also the reception of that culture by non-Egyptians who settled in the country on a very large scale. Even the term ''Egyptian'' becomes ambiguous since it can be applied not only to ethnic Egyptians but to anyone who lived in or came from Egypt, irrespective of their ethnicity. However, in most respects this change did not bring with it a fundamental shift in the focus of the classical world, and all the themes and interests already identified continued to exercise their influence. We even find Egypt featuring in a much developed version of the old *periplous* genre in the first part of Book 17 of the *Geography* of Strabo (c.64 BC to AD 24) who provides thereby one of the best accounts of the country to survive from antiquity, based, at least in part, on first-hand experience (Gardiner 1961: 6–7).

The utopian dimension which we have already discussed is evident from the beginning of this period as a major feature of the discussion of Egypt produced by Hekataios of Abdera (Murray 1970; Burstein 1996). Analysis of this text is impeded to a considerable degree by the fact that it only survives in fragments, *testimonia*, and, above all, in customized précis form in Book I of Diodoros Sikeliotes' *Universal History*. How far this customizing process went and how far Diodoros supplemented Hekataios from other sources it is impossible to establish, but, since it is indisputable that Diodoros' standard method at any given point in his work was to take one major source as his basis (e.g. Sacks, 1990), we are probably dealing at worst with a garbled summary of Hekataios' original.

Hekataios' account of Egypt was composed in the immediate aftermath of the conquest of Egypt by Alexander the Great and its reconstitution as a Hellenistic kingdom under one of his generals Ptolemy, son of Lagos, later Ptolemy I. His work sprang from and addressed that context at a number of levels. Most obviously it seems to have been intended to provide an up-to-date assessment of what was known about the kingdom, covering all the canonical topics with varying degrees of competence. The influence of Herodotos is frequently detectable, particularly in the account of Egyptian history which persists with the largely legendary character of the Herodotean narrative whilst aggravating its confused chronology for the pre-Saite

period and falling far short of the good quality of Herodotos' coverage of the Saite period itself. However, in his account of Egyptian government and society he moves off in a very different direction. Even a cursory reading of Diodoros reveals that Hekataios' method here was to take as his starting point information from Egyptian sources, which was frequently of good quality, but that he then used this material to project an image of ideal behavior and ideal socio-political systems. Sometimes these observations take the form of moralistic comments on the motivation (always fictitious) of individual kings, e.g. Tnephachthos' preference for the simple life as against royal luxury (45), the benign policy of Sesoosis and the admirable nature of his suicide (57–8), the moral issues thrown up by the behavior of the pyramid-builders (64), the wisdom of Bokchoris, and the virtues of Sabakos (65). The Egyptian socio-political system, in particular, is presented in the most positive form: the insistence on probity in the implementation of the law (48); the Egyptian assessment of the value of human life (51); the discussion of Egyptian kingship which is patently given a marked utopian twist, despite its obvious purchase on aspects of the Pharaonic system (70–2); the wisdom shown in the governance of the country (73–80), with a sharp reminder of the dangers inherent in the practice of oratory in courts of law (76) which was highly apposite to a Greek, particularly Athenian, context; and the rationale behind a number of Egyptian religious practices (89–90, 93–5). The didactic tone of all this material is unmistakeable and had a particular relevance to Hekataios' contemporary audience in that the conquest of Egypt by Alexander and the creation of the Ptolemaic kingdom swiftly gave rise imperiously to questions on how the country was to be run, and, above all, what form kingship was to take in such a complex multicultural environment. We should not, therefore, be far wrong if we were to read Hekataios' idealizing image of Pharaonic culture as a political pamphlet pointing Egypt's new masters in what he perceived to be the most appropriate directions.

Another major element identified in our pre-Hellenistic discussion was the Greek conviction that there had been considerable cultural transfer from Egypt to the Greek world, but the concept had been well developed beyond these beginnings by Hekataios' time. One form which this took was elaborate accounts of Ancient Egyptian colonizing activity of which Diodoros' 1.28 (Hekataios?) is a splendid, and startling, example; for, in addition to asserting that Argos, Athens, and Colchis were colonized from Egypt, the same claim is now made of the Chaldaeans and Jews. This chapter and the next then proceed to argue that the Athenian socio-economic structure had been imported from Egypt and that the legendary Athenian kings Petes, Kekrops, and Erechtheus were all Egyptians. It need hardly be said that all of this is fictitious, and its basis is evident from this passage alone, i.e. the old malign Herodotean syndrome is at work whereby similarities, often rather slight, are identified between the Egyptian and the foreign, and then the antiquity of Egypt is mobilized in order to apply the principle ''the oldest is the source of all the rest,'' i.e. Egypt gave all these things to the world. Here again, however, we must not forget the cultural context within which Hekataios' work was produced. The rivalry between the successors of Alexander was bound up, amongst other things, with the fiefdoms which they inherited after Alexander's death in 323, and the prestige of the kingdom of Egypt easily translated into the prestige of Ptolemy himself, and the antiquity of

Egypt and its role as the colonizer of a significant part of the area which was soon to become the Seleucid fiefdom contributed mightily to that prestige. Confidence in the validity of this suspicion is strengthened by Diodoros 1.20 where he is speaking of Osiris = Dionysos, who was claimed by the Ptolemies as their ancestor:

> Osiris … traversed as well the other countries of Asia and crossed over into Europe at the Hellespont. In Thrace he slew Lycurgus, a barbarian king who opposed his plans. He left there the now aged Maron, whom he commissioned to care for the plants introduced to this country, and made him the eponymous founder of a city which he called Maroneia. And he left his son Macedon behind as king of Macedonia, which was named after him, while to Triptolemos he entrusted the tillage of Attica.

The influence of the legend of the wide-ranging conquests of Sesoosis/Sesostris is patent here, but equally obvious is the attempt to make Thrace and Macedonia ultimately dependent upon Egypt, i.e. we are confronted with another example of Ptolemaic propaganda, this time targeted at the rival kingdom of Macedon.

Another example of the Ptolemies' use of Egypt in the propaganda battle with their rivals, in this case the Seleucids of Asia, may be the use made of the Egyptian priest Manetho of Sebennytos in what has been described as a "war of books" (Murray 1970: 166). This deeply learned man who flourished in the early Ptolemaic Period wrote a history of Egypt based on Egyptian sources which was not written in Egyptian but in Greek and, therefore, clearly designed for a Greek-speaking audience (Helck 1956; Mosshammer c.1979; Redford 1986: 231–332). It covered the whole of Egyptian history from the mythical dynasties of the gods down the end of the Thirtieth Dynasty, though an account of the Thirty-first Dynasty was subsequently added by another hand (Lloyd 1988). It has been plausibly argued, though proof positive is lacking, that this work had a political dimension, i.e. it was designed to enhance the prestige of Pharaonic Egypt and, by the same token, the prestige of the Ptolemaic dynasty itself. Similarly, it has long been suspected that the parallel contemporaneous work of the Babylonian priest Berossus (Burstein 1978), also written in Greek, and dedicated to the Seleucid king Antiochos I, was intended to enhance the prestige of the Seleucids by demonstrating the extreme antiquity of the culture of Babylonia which was a major part of the Seleucid Empire. Political and military competition then acquires a cultural counterpart as well. Sadly, this political dimension remains a matter of speculation in both cases, however attractive the hypothesis, but what is certain is that Manetho's work went a long way to present an accurate account of Egypt's millennial history based on Egyptian data and written from an Egyptian standpoint. He may well have been motivated in part by a determination to set to rights the account of Herodotos to which he is known to have taken a critical attitude (Jacoby 1958: 7–8), though it is most intriguing that the surviving fragments of Manetho, if that is what they are rather than garbled *testimonia*, give good grounds for suspecting that more than a sprinkling of Greek errors crept into the account. How far Manetho succeeded in disseminating such information to a pagan Greek audience we can only guess, though indications are that few pre-Christian readers found his narrative to their taste, but the work exercised an enormous influence on

Christian chronographers and through them on the modern science of Egyptology. The Ptolemies' exploitation of the exotic glamor of Egyptian civilization in promoting the image of their kingdom did not stop at mobilizing the power of the pen. The great procession organized by Ptolemy II, probably in relation to the Ptolemaieia Festival held at Alexandria in 271/0 (Austin 1981: 361–3; Rice 1983), was a colossal propaganda display which targeted many points of reference, and a specifically Egyptian dimension did not fail to appear: the great pavilion constructed in the citadel was covered by a canopy of scarlet and white, Egyptian royal colors, and four of its wooden columns were palm-shaped, clearly evoking an element in Egyptian architectural practice; it also contained 100 gold couches ornamented with sphinxes' feet, and the floor was strewn with flowers which, according to Kallixeinos of Rhodes (fl. c.155 BC), our authority for this event, were designed to illustrate the extraordinary capacity of Egypt to grow such things in abundance and throughout the year; the emphasis on gold and silver in the description must surely be seen as an evocation of the world-famous wealth of Egypt, and wealth is much to the fore in the description of the Dionysiac procession which took place in the stadium as the *pièce de résistance* of the great event and which also conveyed an Egyptian or Nubian dimension in its use of frankincense and myrrh and exotic animals such as camels and elephants. We are justified in seeing further evidence of image-projection on the dynasty's behalf in the results of the recent underwater archaeological work on the sunken palace-quarter at Alexandria where large quantities of Egyptian and Egyptianizing material have come to light. Frequently, it had simply been employed as building fill, but the numerous items of Ptolemaic date must have been used to embellish the palaces and other buildings of this elite area (Ray 2001: 37; Goddio 2004) and can be regarded as another element in the Ptolemies' reception of Pharaonic culture as a valuable part of their image-building repertoire. It would be gratifying if we could also invoke as part of this strategy the appearance of the Egyptian elements in examples of Ptolemaic royal portraiture which have been the subject of much discussion (e.g. Ashton 2001), arguing that the Ptolemies were deliberately using a bilingual iconographic vocabulary to promote an exotic image, but there is at present no reason to believe that such statuary was produced under direct royal patronage, though this is by no means improbable, or even by non-Egyptians. If that is indeed the case, the statues cannot be regarded as evidence of the reception of Egyptian culture by Greeks or Macedonians but rather as indications of the Egyptians confronting the iconographic challenge created by their need to come to terms with foreign conquest. In the case of monuments which are Egyptian in style but embellished with a Greek inscription (e.g. Walker and Higgs (eds.) 2001: 156, fig. 154), there is an initial temptation to assume that a Greek-speaker, whether native Greek or not, had taken over and used an Egyptian object for his own purposes, but such pieces could just as easily be the product of loyalist Egyptians using Egyptian motifs but adding a dedication in the language of the élite rather than Hieroglyphic or Demotic, particularly if there were a significant likelihood of Greek-speakers gaining easy access to the monument. The prudent view at present would have to be that, whilst such pieces could be mobilized by the Ptolemies to serve their image-building agenda, their production cannot be shown *in itself* to be evidence of Greek reception of Egyptian culture.

One area where reception is beyond all doubt is religion. We have already discussed Greek attitudes to Egyptian religion which were dominated by the misguided notion that Greek religion was largely derived from Egypt and that most Greek gods were thinly disguised Egyptian deities. The Ptolemaic and Roman Periods saw the reception of Egyptian religion take on a completely new dimension. A major success story here was Sarapis (Vidman 1970; Stambaugh 1972; Hornbostel 1973; Takács 1995; Merkelbach 1995). His Egyptian antecedents were by no means universally conceded in antiquity, and Tacitus purveys no fewer than three contradictory traditions (*Histories* 4: 83–4; Austin 1981: 438–40), but there is no difficulty in identifying his genesis. Sarapis' name (often used to translate the Egyptian *Wsir-ḥp*, ''Osiris-Apis''), the traditional connection with Memphis, and his relationship to Isis are enough to justify the standard modern view that the starting point was the pre-Hellenistic Memphite composite deity Osiris-Apis who was established in Alexandria alongside his wife Isis by Ptolemy I with the assistance of Greek experts and the ubiquitous Manetho. Here a rapid process of Hellenization took place through association with appropriate Greek deities which made him into a syncretistic savior god and ultimately lord of the universe whilst preserving his ancient links with Isis, her son Harpokrates, her sister Nephthys, Anubis, and Apis. It is often asserted that the development of the god was a deliberate ploy by the Ptolemaic dynasty to develop a syncretistic deity who could unite Greeks and Egyptians in a common cult. While this may be true, there is no evidence to prove it, and it is perhaps more likely that the Ptolemies' concern was to generate their own distinctive city or dynastic god by creating a deity from elements drawn from both religious traditions. Though there is evidence that the cultic fortunes of Sarapis were not consistently high in the Ptolemaic Period (Griffiths 1970: 40ff.), he was able to migrate well beyond Egypt to become a popular deity throughout the Hellenistic and Roman world who, despite his markedly classical dimensions, particularly in iconography, never severed links with his Egyptian origins and thereby sustained the exotic allure which attracted so many to things Egyptian.

The success of Sarapis brought with it a considerable enhancement of the cult of Isis which had already made some progress in the classical world before the Hellenistic Period (Dunand 1973; Takács 1995), having already undergone a major boost in Egypt during the Late Period when she supplanted Hathor as the major female divinity (Bonnet 1952: 328). Her credentials for this were strong: she was the devoted wife of Osiris and reassembled his dismembered body and, with the assistance of Anubis, was responsible for his embalmment and resurrection, achievements which made her both a model wife and a putative guarantor of life after death. In addition, she was the devoted mother of her son Harpokrates, protecting him from all dangers until he could assume the mantle of his father Osiris, and her attributes also showed the beginnings of a nature goddess (Münster 1968). These qualities, together with her identification with Demeter and the ensuing development of Isiac mysteries, made her enormously popular throughout the classical world and, in many respects, the precursor of the conceptualization of Mary, mother of Christ (Witt 1971; Heyob 1975; Solmsen 1979; Walker and Higgs (eds) 2001: 278ff.; Versluys 2002: 9ff.). The Isis of the classical world was, however, heavily customized to satisfy Greek and Roman requirements as emerges very clearly from Plutarch's monograph *On Isis and Osiris* (Griffiths 1970), Book 11 of Apuleius'

Metamorphoses (Griffiths 1975), and the Isis aretalogies (Müller 1961)), a process of acculturation in which Hellenized Egyptians such as Bolos of Mendes (second century BC), Apion (c.64 BC–c. AD 24), Chaeremon (first century AD), and Zosimos of Panopolis (end of third–beginning of fourth century AD) undoubtedly played a significant role, though with a grasp of things Pharaonic which became increasingly precarious, as the *Hieroglyphika* of the enigmatic and perplexing Horapollo amply demonstrates (Fowden 1993: 52ff., 64, 87, 90, 120–6, 184–6; Hornung 2001: 12–13).

We have already made reference to what Egyptian religion had to offer in the face of death. The promise of the Egyptian afterlife proved highly attractive to foreign settlers in Egypt, who were overwhelmingly Greek in language and culture, and it is abundantly clear that burial in the Egyptian mode or, at least with some Egyptian elements, became for many *de rigueur*, a practice which finds vivid expression in the archaeological record throughout the country in mummies embellished with portraits or images in a Graeco-Roman style as well as in the decoration of Alexandrian mortuary installations such as Kom el-Shuqafa (Doxiadis 2000; Riggs 2005). It is undeniable that with the passage of time it becomes increasingly difficult, and often impossible, for scholars to maintain distinctions on ethnic lines as Greek culture came to be seen with increasing momentum as the elite culture to which the upper strata of Egyptian society aspired, whether they were ethnic Greeks or Egyptians, and defining an individual case as an Egyptian "going Greek" or a Greek "receiving" Egyptian culture is frequently quite impossible where neither names nor language are safe criteria; in this process of rampant cross-cultural fusion assimilation and reception are often the same thing. However, there are numerous cases in Egypt where communities which are unequivocally Graeco-Roman took over local Egyptian deities as a major part of their religious lives: the devotion to various forms of the native crocodile god Sobek/Souchos in the Fayum (e.g. Petesouchos and Pnepheros at Karanis) being only one of many examples (Bagnall and Rathbone (eds.) 2004: 131–53).

Another aspect of Egyptian cult practice which made a great impression on the Hellenistic and Roman world was Egyptian expertise in the magic arts which shows itself in many contexts: Egyptian magical texts were translated into Greek and customized as appropriate on a very considerable scale (Fowden 1993: 66) whilst itinerant practitioners, some genuine Egyptians, others not, were widely available, functioning as experts in incantations and the casting of spells, a talent which was often associated with astrology in the development of which Egypt played a significant role (Frankfurter 1998b). The fictional activities of Nectanebo in Macedonia narrated in the *Alexander Romance* (Stoneman 1991: 35ff.) and the character and capabilities of Kalasiris in Heliodoros' *Aithiopika* provide excellent examples of how they were thought to function (Cauderlier 1992: 222ff.). It was also possible for Greeks to travel to Egypt to acquire expertise in magic as demonstrated by the pseudepigraphical narrative attributed to Thessalos of Tralles (first century AD) in his *De Virtutibus Herbarum* (Fowden 1993: 164ff.) and the fictional activities of Eukrates in Lukian's *Philopseudes* (Ogden 2007: 231ff.). On the other hand the degree of Egyptian influence on the works in the *Hermetic Corpus*, which were widely read in the Graeco-Roman world, continues to be debated (Fowden 1993: 155ff.;

Ebeling 2007), but, whilst the finished product was clearly heavily Hellenized, either by Greeks or Hellenized Egyptians, it is indisputable that its antecedents lie ultimately in Egyptian theological thinking, a view which is likely to be strengthened with the unlocking of further Demotic material which is currently underway (cf. the *Book of Thoth*, Jasnow and Zauzich 2005), and the same will hold true for the *De Mysteriis* of Iamblichus (c.250–325) whose intellectual antecedents certainly owe much to Hermetic prototypes.

We must not, however, assume that the attitude of the Graeco-Roman world to Egypt was consistently positive. Rome never recovered from the confrontation with Kleopatra, regarding Egypt as a potential source of trouble which needed to be carefully watched, a perspective much strengthened by a keen awareness of the wealth of the place which could so easily make it yet again a springboard for an assault on Rome (Bowman 1986: 35–8). Culturally, Romans, like the Greeks before them, could also take a very negative view of Egyptian religion, finding animal worship a particularly risible phenomenon (Juvenal, *Satires*, 15), and Ammianus Marcellinus' description of Egyptians falls well short of a ringing endorsement:

> Now Egyptians are, for the most part, rather swarthy, dark, inclined to gloominess, slender, lean, excitable in every movement, argumentative, and most insistent in their demands. Amongst them anyone would blush if he could not show a multitude of stripes acquired through refusing to pay tribute, and no torture has yet been devised which can induce a hardened bandit of that region to tell you his name if he did not wish to. (22.16.23)

For all that, the unique fascination of Egypt's culture and physical environment continued to exercise its allure, and this translated, amongst other things, into a wide vogue for Nilotic landscapes as a decorative motif, sometimes on a very large scale, which appear throughout the Roman world, including Egypt itself, beginning in the second century BC and carrying on well into the Christian era (Versluys 2002). The same fascination also shows through in Greek novels of the Imperial Period, particularly in Heliodoros' *Aithiopika*, which shows a sharp awareness of Egypt's many *mirabilia* (Bonneau 1992: 213–9; Cauderlier 1992: 221–3). Egyptianizing gardens and works of art featured in Italy itself, as did obelisks, pyramid-shaped tombs, sphinxes, small antiques, and even Hieroglyphic inscriptions. Visits to Egyptian sites by Roman tourists were clearly common, and accounts of things Egyptian, particularly the more startling, found their way into the writings of such figures as Pliny the Elder who discussed an astonishing range of Egyptian material in his encyclopaedic *Historia Naturalis*.

4   Conclusions

Almost forty years ago Christian Froidefond published a book entitled *Le Mirage égyptien* in which he discussed the reception of Egypt in Greek literature from Homer to Aristotle, but his term "mirage" is only partly apposite. On the one hand it

suggests that the Greeks generated a blurred and shimmering image of Egypt; on the other hand, the term mirage implies an illusion – a mirage is something which does not exist. The first implication of the term is correct; the second lies some way wide of the mark. The preceding analysis has shown in some detail that Greeks and Romans were reacting over many centuries to experiences of a real phenomenon, but that the cultural processing of that experience took place at many levels, in different ways and times, and in order to meet a variety of different agenda. When we first encounter the Greek reception of Egypt in Homer, the die is already cast; the course of reception is already well advanced, and the seeds of much that follows are clearly present. From these beginnings an image evolved which presented Egypt as a distant, mysterious, marvellous, and enormously ancient land, a land of great wealth and power, and a land whose inhabitants, particularly priests, were endowed with extraordinary wisdom and mastery of a rich store of arcane knowledge. Admiration for Egypt had reached the point even in our earliest texts where the Greeks enthusiastically endorsed the conviction, misguided though it was, that large elements of Greek civilization had originally come from Egypt, and there are many examples of Greeks and Romans taking over and customizing elements in Egyptian culture either because of a perceived superiority to anything they themselves possessed or because of the invincible allure which Egypt and things Egyptian exercised on the foreign observer. In all this there is little sign of any real understanding of, or empathy with, the ethos of Egyptian culture. Greeks made Egypt in their own image, and the Romans largely followed suit, despite a large dose of Egyptophobia, all obligingly assisted by Hellenized Egyptians, or, at least, Egyptians with a knowledge of Greek, but the end product was much more than mirage. Rather it was the result of a dialogue between what existed at an objective level and what Greeks and Romans wanted and needed Egypt to be. It is, therefore, not at all surprising that, while the image of Egypt shows some of the blurred and shimmering dimensions of a mirage, it is also a mirror of the terms in which Greeks and Romans strove to locate themselves in a wider world of which the Mysterious East was a most important part.

FURTHER READING

The reception of Ancient Egypt in the Classical world continues to attract much scholarly attention. Valuable discussions of many aspects of the topic will be found in Froidefond 1971, Hartog 1988, Fowden 1993, Burstein 1996, Assmann 2000, Hornung 2001, Versluys 2002, and Burkert 2004.

The Reception of Egypt in Europe

Andrew Bednarski

1   Introduction

The landmass known as Europe has had contact with Egypt for more than 2,000 years. While the land of the Nile can often be dealt with as an historical unit, as a country, as the hub of an empire, or as a province, the area defined as Europe cannot. The many different cultures, languages, and perceived national identities within this area simply do not allow for it. This lack of social and political cohesion hamstrings anything more than general attempts to discuss cultural and intellectual exchanges concerning ancient Egyptian civilization and Europe as a whole. In order to assess properly how elements of Egyptian civilization were received in individual European countries those countries need to be studied in isolation first. This concept of country-specific reception studies has a long historical tradition (Glick 1974; Porter and Teich 1981), and I have previously argued for its adoption in the study of the history of Egyptology (Bednarski 2005). It is also important to remember that contact between cultures can take a multitude of forms: from literary influences, to architectural developments, to the adoption or adaptation of philosophical constructs, to changes in material culture. With the difficulties of studying an area as large and as diverse as Europe in mind, this chapter will deliver a very brief sketch of points of contact between Europe and Egypt. Similarly, armed with the awareness that it is impossible to deal with all the forms that such contact has taken, this chapter will focus primarily on aspects of European interest in Ancient Egypt from antiquity to the nineteenth century. On one level, therefore, this chapter may be read as a very broad history of European Egyptology from a largely British perspective. As part of the discussion on the nineteenth century I shall break from the loose narrative to explore one institution within one European nation, in an attempt to view directly the institution's interaction with ancient Egypt. After this brief discussion, the historical narrative will resume to discuss European interest in ancient Egypt through the twentieth century.

2   Ancient and Classical Contact

Ideas and objects have been transmitted between the cultures of the Mediterranean for thousands of years. As the cultural inheritor of the classical world, Europe has, therefore, had a long and complex history of contact with Egypt. Explicit evidence of contact between areas of ancient Greece and Egypt is found in archaeological remains. Summaries of these remains have been made (Steel 2007: 459–75) and need not be repeated here. In addition to this archaeological evidence, Greek and Roman authors may be viewed as the first Europeans to have both written on Egyptian history and incorporated ideas from Egypt into their writings. These writers are discussed in detail in the preceding chapter and require no further treatment in this discussion, save to emphasize that they embody the sorts of information available to European scholars after the fragmentation of the Roman Empire.

One further body of texts, of Near Eastern origin, should be mentioned, i.e. scripture. Hundreds of Biblical references to Egypt are made in this corpus. Given the primacy of Judaeo-Christian belief in Europe from late antiquity onwards, it should be noted that the Bible presented a particularly relevant and familiar starting point for any reader interested in Egypt, or for any Christian who came in contact with aspects of Egyptian civilization.

3   Medieval, Renaissance, and Enlightenment Contact

Many opportunities for contact with ideas or objects associated with Egypt existed in Medieval and Renaissance Europe. The Crusades provided a new means by which Near Eastern elements could find their way to Europe, and Europeans might find their way to the Near East. Throughout this period Europeans traveled to Egypt and documented their journeys. The popular *Travels of Sir John Mandeville* is one example of a widely-read, albeit fake, travel account which discusses the land of the Nile. Written around 1356 the work could be found in every major European language by 1400, with a vast number of manuscripts available by 1500 (Moseley 1983: 9). Numerous other travel accounts from this period are easy to find (IFAO; Carré 1932 and 1956).

The sixteenth and early seventeenth centuries witnessed Europeans bringing more than travel accounts back from Egypt. Voyages conducted expressly for the collection of Egyptian antiquities began to take place (Baines and Malek 1980: 22). An interest in Egypt also became explicit through the adoption of Egyptian motifs in European art and architecture (Curran 2007). Similarly, a clear interest in the symbols carved and written on Egyptian objects developed around this time, with Athanasius Kircher's (1602–1680) attempts to translate the now dead, Hieroglyphic language. Kircher based his work on classical texts, such as that of Horapollo (Greener 1966: 142), and prompted a new interest in Coptic (Bierbrier 1995b: 229).

It was also during the seventeenth century that Europeans made the first scientific attempts to explore Egypt. John Greaves' 1646 *Pyramidographia* incorporated

Humanist scholarship in an attempt to quantify and qualify Egyptian pyramids (Greener 1966: 54; Wortham 1971: 19–23; Bierbrier 1995b: 176; Lehner 1997: 44) while other scholars began to study subjects other than isolated objects, hieroglyphs, and pyramids. Claude Sicard, for example, undertook an exact investigation of the Egyptian monuments between 1707 and 1726 for the Regent Philippe of Orleans. This study correctly identified several sites and monuments using classical texts. While Sicard's manuscript was lost, letters on his work were preserved and later formed the basis for Jean Baptiste Bourguignon d'Anville's 1765 map of Egypt. This map was later incorporated into the Napoleonic *Description de l'Égypte* (Greener 1966: 70–3). In 1735 the letters of Benoît de Maillet, at one time the French Ancien Consul in Cairo, were published by Jean Baptiste le Mascrier. This text discussed contemporary Egypt as a doomed, despotic, ailing state and later lent ideological weight to Napoleon's invasion (Laurens 1999: 3).

European travel to Egypt increased in the early 1700s due in part to a diffusion of publications on the country (Leclant 1999: 125). Two such works were Frederik Ludvig Norden's *Travels in Egypt and Nubia*, originally published in 1741, and Richard Pococke's *A Description of the East and some other countries*, originally published in 1743. Both Norden's and Pococke's work provided strong visual records of Egypt's monuments and included plans and maps. During the eighteenth century, along with an increase in European travelers, came improved studies of ancient Egypt, as demonstrated by the works of Bernard de Montfaucon, published between 1719 and 1724, and Baron de Caylus, published between 1752 and 1764 (Baines and Malek 1980: 24). As a result, by the end of the eighteenth century, we can see that popular and academic knowledge of Egypt, including its antiquities, natural environment, culture and peoples, had been available to Europeans long before Napoleon set foot on Alexandrian soil.

4   Napoleonic Contact

The Franco-British Treaty of 1763 forced France to reassess its territorial ambitions in order to remain a world power. As a result, it concentrated on those territories left to it by the treaty while simultaneously exploring new and unexploited lands (Broc 1975: 275). These national, territorial missions of expansion were coupled with professional, scientific exploration. During this period, French foreign policy was motivated not only by the pressures of expanding empires, new technologies, and a need for resources. It was also motivated by Enlightenment, philosophical constructs. The writings of Constantin-François Chasseboeuf, Comte de Volney (1757–1820), for example, pursued a train of thought similar to that of de Maillet. Volney's writings prophesied the eventual collapse of the Ottoman Empire and, therefore, ideologically facilitated French expansion into the Orient (Laurens 1987: 117, 189–90). All of these factors motivated Napoleon's decision to invade Egypt, a province of the French-friendly Ottoman Empire, in 1798. Capitalizing in part on precedents set by earlier missions of colonization as well as his own Italian campaign, Napoleon attached to his army a corps of scholars. Brought primarily to create

a modern infrastructure necessary for the rapid colonization of Egypt, the savants initially numbered 151 in total. As their time in Egypt progressed the group applied its skills to record all aspects of the strange land: its antiquities, its people, its flora and fauna, its arts and sciences, its geography, etc. As the campaign and the scholars' explorations continued, the notion of pooling all resources into one comprehensive publication was born. By 1802 all of the French scholars had returned to France and the government began the lengthy process of publishing their findings. The result is the mighty *Description de l'Egypte*, whose official, yet inaccurate, publication dates are 1809–1828. The first edition of the work comprises ten folio volumes of plates, two atlases, and nine volumes of text. What it represents is the sum of French knowledge concerning both ancient and modern Egypt at the end of the eighteenth century. It was the direct result of a large-scale, violent invasion of one country by another, motivated by new social ideologies, as well as economic and political ambitions, and strongly rooted in prior traditions (Bednarski 2005: 3–20). At the same time, it should be recognized that the historical dynamics which gave birth to the *Description*, the scale of research undertaken by the savants, the quality of their research, and the long-term efforts behind the project, make the corpus unique amongst earlier colonial-scientific works. Similarly, the corpus must also be viewed as distinct from previous Egyptological works.

5   Early Nineteenth-century Contact

Napoleon's invasion made Egypt accessible to Europeans in ways never before possible. The resulting military conflict meant that the country became a source of interest to many different sorts of people who could engage with it through commonplace means, such as newspapers and periodicals. Similarly, famous objects, such as the Rosetta Stone, and collections of antiquities, brought to Europe by both the French and British armies, provided tangible manifestations of the country and aroused further interest in it. Interest was also piqued by publications stemming from the Napoleonic invasion, such as Dominique Vivant Denon's *Voyage dans la Basse et la Haute Egypte*, published in 1802. Stemming from their military presences in the country, both France and Britain launched unprecedented missions of exploration in the early 1800s. Between Henry Salt, appointed British Consul-General in 1815, and Bernardino Michel Maria Drovetti, appointed French Consul-General in 1811, Egypt was rapidly divided into geographic spheres of influence in which archaeological investigations and the accumulation of collections took place. Despite the overbearing presence of France and Britain, other countries and individuals engaged with the exploration of ancient Egypt in significant ways. It was amidst this environment, for example, that the Swiss explorer Johann Ludwig Burckhardt undertook his extensive travels in Egypt, becoming the first European to visit Abu Simbel (Bierbrier 1995b: 74). Burckhardt recommended the Paduan-born Giovanni Battista Belzoni to Salt, which, in turn, facilitated a brief but famous career in archaeology yielding some of the most famous pieces of Egyptian culture now in British institutions. During this period British Egyptology was brought forward by

the works of John Gardner Wilkinson. Both his 1835 *Topography of Thebes* and his 1837 *Manners and Customs of the Ancient Egyptians* were the direct result of the 12 years he spent living and working in Egypt (Thompson 1992: 133–42; Bierbrier 1995b: 443–4). As the nineteenth century progressed, the *Description* was not forgotten, with Franz Christian Gau's *Antiquités de la Nubie*, published between 1821 and 1827, meant as a supplement to the Napoleonic corpus (Bierbrier 1995b: 164). In keeping with many elements of the *Description*, Karl Richard Lepsius undertook the best prepared expedition ever to have gone to Egypt. His findings were published in twelve massive folio volumes of plates that comprised the *Denkmäler* in 1859. The text to the work was later published under the guidance of Edouard Naville between 1897 and 1913 (Bierbrier 1995b: 249). The face of Egyptian archaeology was also forever changed by the work of François Auguste Ferdinand Mariette (1821–1881) who, along with a long list of accomplishments, discovered the Serapeum, founded the Egyptian Antiquities Service (now the SCA), and established the first national museum in the Near East (Bierbrier 1995b: 275).

Along with many wondrous archaeological discoveries, the groundwork for reconstructing the ancient Egyptian language was set during the nineteenth century. A systematic approach to studying Hieroglyphic signs was established by George Zoëga (1755–1809), even though he himself never made attempts at translation (Bierbrier 1995b: 457). Significant efforts at decoding the language were undertaken early in the century by, amongst others, Thomas Young (1773–1829), Johan David Åkerblad (1763–1819), Antoine Isaac Silvestre de Sacy (1758–1838) and Jean François Champollion (1790–1832). In 1822 Champollion published his famous *Lettre à M. Dacier*, which proved to be a watershed moment in the history of translation. His *Précis du système hiéroglyphique*, published the following year, expanded this work. It was not until his *Grammaire* (1836–41) and *Dictionnaire* (1841–4) were published, however, that the full extent of his ideas was realized (Bierbrier 1995b: 93). Despite the validity of much of his work many of his ideas were disputed into the mid and late 1800s (Ceram 1954: 80). Other scholars capitalized on these successes and greatly contributed to the understanding of ancient Egyptian civilization during this time. Charles Wycliffe Goodwin's *Hieratic Papyri*, published in 1858, is a case in point, as were the numerous text-related discoveries made by François Joseph Chabas (1817–1882) (Bierbrier 1995b: 90, 171).

Yet each of these advances in the study of ancient Egypt were part of much larger developments in Europe. The nineteenth century, after all, witnessed not only the professionalization of Egyptology, but also that of the sciences in general (Bednarski 2005: 41). Historical studies directly benefited from the resulting refinement in theories and techniques that accompanied this professionalization. The best example of this fact is the birth of what we now recognize as archaeology: a system of observation and analysis that stems from advances made in the field of geology. New mental tools such as this led Europeans to develop new ideas on the antiquity of the planet and mankind's presence on it. In turn, an increasingly better understanding of geological strata was complemented by new discoveries of ancient texts and languages, which challenged older conceptions of mankind's history and place in the world.

6 Ancient Egypt in Great Britain in the Early Nineteenth Century

At this point in our study it is useful to break with the broad, historical narrative and focus on a single European country in order to examine in more depth interest in ancient Egypt. As briefly stated, European interest in Egypt extended beyond the realm of the scholar in the late eighteenth and early nineteenth centuries. British academic and popular interest during this period is easy to find. A mixture of nationalism, political satire, and ancient Egyptian motifs are evident, for example, in the caricatures of John Gillray, which lampooned French colonial and scholarly interest in Egypt. The first such image to be discussed was based upon personal letters from disgruntled French officers in Napoleon's Egyptian army. The letters were intercepted by the British Navy and published in London, presumably in an attempt to boost the war effort. For the "Siege of the Column of Pompey" (figure 47.1), dated 6 March 1799, Gillray assured the British public that his image had been etched from the original, intercepted drawing. In it, he depicts the French scholars who accompanied Napoleon and who later produced the *Description de l'Egypte*. Gillray shows them in Alexandria attempting to measure the Column of Pompey while weak from dehydration and hunger, and in a difficult situation with the native Egyptians. The idea of placing the savants on the column in fact stemmed from a supposed incident that took place in 1781, in which eight drunken British naval officers held a party atop it. The leader of the group in the caricature holds a proclamation that reads "Long Live Mohammed, who protects the Sciences," while one of his colleagues has plans for burning Mecca in his pocket. Other plans, works and tools fall from the column, such as a project for "fraternizing with the Bedouins," which regrettably lands on the head of the Bedouin in the bottom left of the scene. To this unfortunate person's right is another Bedouin who shoots down the "Abyssinian coach," while the passengers drop pamphlets entitled "Aerial Navigation" and the "The Velocity of Falling Bodies." The Frenchman who is losing his grip has a "Plan for Making Man Immortal" (Hill 1976: 118).

A second image by Gillray, entitled simply "Egyptian Sketches" (figure 47.2), and dated 12 March 1799, depicts a field of pyramids on a vast, cloud-filled desert horizon. Two sphinxes with predatory claws wear hats with tricolor cockades. Behind them, an ape dressed as a ragged French officer climbs a pyramid in order to install a bonnet-rouge, typically carried on the masts of French men-of-war. The sash of the ape contains a blood-stained dagger. Clutching at his coat-tail is a nude man, who symbolizes Folly. He wears a fool's cap and wields a second cap atop an ass's head with bells (George 1942: 538).

The final Gillray image to be discussed is also dated 12 March 1799 and is entitled "The Insurrection of the Amphibious Institute – The Pursuit of Knoweldge" (figure 47.3). This scene depicts two Frenchmen, clearly two of Napoleon's savants, attempting to domesticate crocodiles, only to have the animals attack them. One man holds a halter and whip, with a saddle and a large book entitled "On the Education of the Crocodile" on the ground near him. Three plates beside this book depict a Frenchman riding a crocodile, a Frenchman's chariot being pulled by crocodiles, and a small boat

Figure 47.1 John Gillray's "Siege of the Column of Pompey" Reproduced from a copy kept by Professor J. Secord, the University of Cambridge.

being towed by a crocodile. The man, having attempted to ride the crocodile, has his leg seized by the creature. The second figure, behind the first, is also seized by a crocodile and drops a book entitled "The Rights of the Crocodile" (George 1942: 538–39). These satires demonstrate more than British humor at the expense of French efforts: they present a visual blend of contemporary politics with imagery of ancient Egypt. It seems reasonable to assume that this imagery, of Egyptian antiquities, fauna, and peoples, was understood by, at the very least, upper class segments of British society.

Other tangible forms of British academic and popular knowledge of Egypt in the late eighteenth and early nineteenth centuries, indicative of a broader portion of the British public, were newspapers and magazines. Like today, periodicals in Great Britain from this period catered to all types of readers. Also, like today, nineteenth-century periodicals demonstrate wide-ranging interest in ancient Egypt from both editors and consumers. As a source of evidence for gauging public interest in a subject, periodical literature must be taken seriously. As the century progressed it was in this forum, after all, that new discoveries were announced, and historical ideas accepted, rejected and ridiculed. By the 1830s, the number of periodicals in Great Britain had tripled, from approximately 475 titles in 1801, to an estimated 1,000 titles by 1831 (Dawson et al. 2004: 7–9). Taking 13 such titles, and focusing on the first three decades of the nineteenth century, we can clearly see strong public interest in the topic
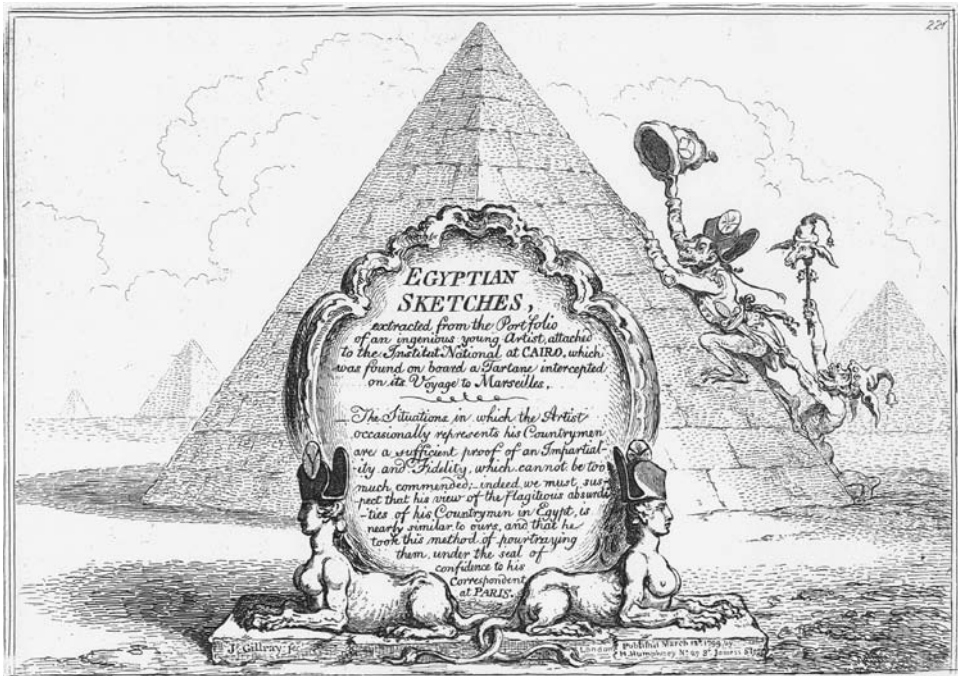
Figure 47.2 John Gillray's "Egyptian Sketches" Reproduced from a copy kept by Professor J. Secord, the University of Cambridge.

of Egypt. The 13 journals selected for this examination are recognized by historians of periodical literature to be the most significant publications of their kind during the early 1800s (Bednarski 2005: 3). In addition, these 13 periodicals were targeted at different sorts of British readers. Some were wealthy, well-educated and read broadly. Others had modest funds that might be spent on reading material, and modest educations, but were still interested in a variety of topics. Still others had very specific interests. In total, the selected 13 periodicals can be divided into three categories: leading quarterlies, general interest, and specialist periodicals. When examined together, these publications represent the interests and opinions of a broad spectrum of British readers and editors.

One method of exploring these periodicals is by reading through the indices and tables of contents for each volume and focusing on words that are central to the study of Egypt during the early nineteenth century. These indices are far from cursory, and include all substantive references within the journal in question. The key words upon which I focused my study include: Belzoni, Champollion, Demotic, Denon, *Description de l'Egypte*, Egypt, Enchorial, Hieroglyphs, Jomard, Rosetta, and Young. Figure 47.4 lists the number of volumes, or in the case of the *Literary Gazette* the number of years, examined for each journal. The table also lists the number of volumes, or with the *Literary Gazette* the number of years, of a periodical that contain the key terms between 1800 and 1830.

This rapid quantification of data reveals several important facts. To begin with, the fact that Egypt is mentioned in all 13 periodicals, each with different goals, political biases and formats, suggests that it was generally a popular theme amongst British

Figure 47.3   John Gillray's "The Insurrection of the Amphibious Institute – the Pursuit of Knowledge." Reproduced from a copy kept by Professor J. Secord, the University of Cambridge.

readers. How popular that theme was to different journals and readers, however, could vary greatly. But how did British interest in ancient Egypt compare with interest in other areas of historical enquiry? A comparison between mention of Egypt and mention of aspects of ancient Greek and Roman civilization might help to context-ualize the periodical references indicated in figure 47.4. To address this question I have taken two of the journals listed in figure 47.4 and searched within them for terms relevant to the study of ancient Greece and Rome: Aeneid, ancient authors, Athenian, Athens, classic/Classical, Greece, Grecian, Greek, Iliad, Latin, Parthenon, Roman, Rome, Sparta and Spartan. What this search reveals is that these Classical terms can be found in 30 out of the 52 volumes examined of the prestigious *Edinburgh Review*. In other words, the terms relating to aspects of ancient Greece and Rome occur in 58 per cent of the studied volumes. Similarly, a search for the same terms in the *Edinburgh*'s literary rival, the *Quarterly Review*, reveals their occurrence in 32 of the 43 volumes examined (i.e. 74 per cent). These figures, as visually compared with those relating to references to Egypt, are shown in figure 47.5.

With this comparative data, it might be fair to say that readers and editors of both the *Quarterly* and *Edinburgh* were similarly interested in the subject of ancient Greece and Rome. On the subject of Egypt, however, the findings within these two journals suggest interesting possibilities. In the *Edinburgh* the occurrence of Egyptian topics is well below that of Classical topics. Yet in the *Quarterly* such occurrences appear to surpass those of Classical topics. With only two periodical sources of
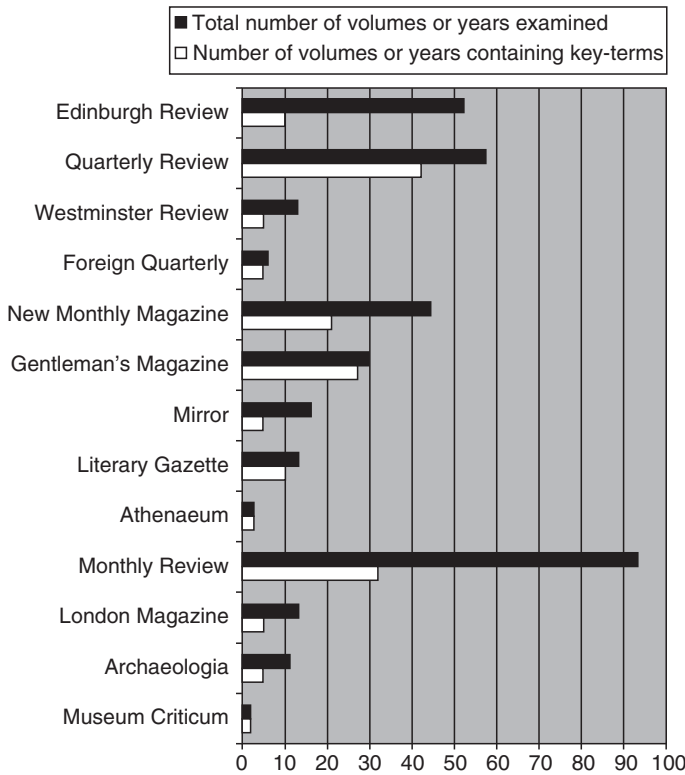
Figure 47.4 The popularity of Ancient Egypt as a topic in 13 British periodicals between 1800 and 1830.

comparison, we cannot draw definite conclusions. It might be that the *Quarterly*'s mention of Egypt is comparable to other contemporaneous journals, meaning the topic of ancient Egypt was just as, or more, popular than Classical topics for British readers. On the other hand, the possibility exists that the *Quarterly*'s use of ancient Egypt was an anomaly not shared by other periodicals. Whatever the case may be, this definite interest in ancient Egypt, as reflected in the periodicals, is expected because of the long tradition of writing about the country, because of Britain's involvement in the Napoleonic invasion, and because the military conflict resulted in new access for European enquiry.

As mentioned above, archaeological activity in Egypt went hand-in-hand with collecting. The British Museum was founded in 1753 and opened its doors six years later. Amongst the initial material on display were Egyptian objects, some bequeathed to the museum upon the death of Sir Hans Sloane, and others from donations. Egyptian material continued to find its way into the museum throughout the century. The objects gained after the defeat of the French in Egypt greatly augmented both the size and prestige of the collection. This world-class exhibit continued to grow as the century progressed and British Egyptology developed. The excavation work of the British Consul Henry Salt and his sometimes-agent
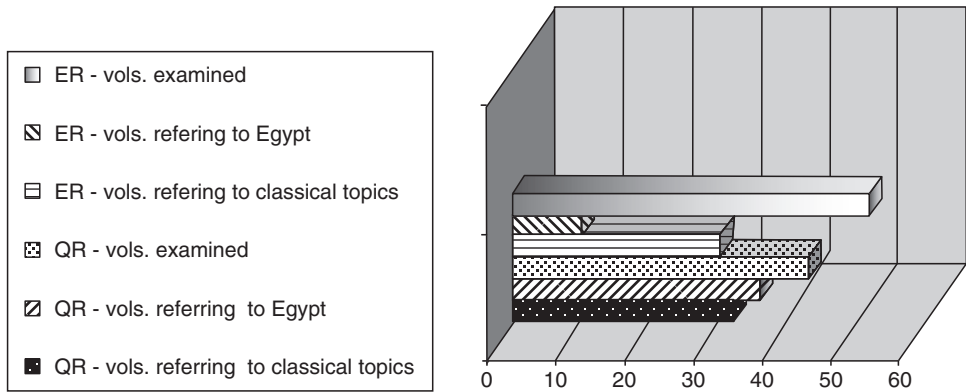
Figure 47.5 The relative popularity of Ancient Egyptian and Classical topics in the *Quarterly Review* and *Edinburgh Review*.

Giovanni Belzoni both contributed to the British Museum's Egyptian collection and attracted popular attention. It was in this dynamic environment of popular and scholarly interest that Britain developed its own nascent form of Egyptology by the 1830s. By this decade, after spending 12 years in Egypt undertaking research, John Gardner Wilkinson returned to England and published his groundbreaking *Manners and Customs of the Ancient Egyptians.* As the century progressed, important figures to British Egyptology, such as Samuel Birch and Ernest Wallis Budge, took prominent positions in the British Museum. Similarly, as the century progressed, the scale and scope of British archaeological activity in Egypt grew while the quality of the work undertaken improved. By the end of the century, Flinders Petrie, partly through his work with the publicly funded Egypt Exploration Fund, had established new standards for excavating in Egypt and influenced a generation of scholars and excavators.

7   The Fitzwilliam Museum: A Case Study

Yet interest in collecting Egyptian objects can be found throughout the country, not only in the British Museum. Institutions in centers of learning outside of London gained Egyptian material through gifts and bequests. As the century progressed these institutions became even further entwined with archaeological work in Egypt through the practice of sponsoring excavations through direct subscriptions. This practice was the primary means by which institutions, such as the Egypt Exploration Fund, and individuals, such as Flinders Petrie, funded their work. In return for such support museums were accorded objects found over the course of an excavation based on the amount of money they had paid as a subscription. As a result of both British interest in ancient Egypt and this funding practice a multitude of Egyptian collections can now be found in Great Britain.

Museum archives and correspondence from the 1800s offer intriguing possibilities to the researcher interested in the history of Egyptology. Such documents, for

example, offer information on the shifting attitudes that surrounded the acquisition of museum objects. These changing systems of selection, sometimes implicit, sometimes explicit, can shed light both on what the institution thought was important to buy and display as well as what that institution thought the museum-going public should be served. The Fitzwilliam Museum, one of the repositories for the University of Cambridge, is one of those British institutions that amassed an Egyptian collection over the course of the nineteenth century, and whose archives provide us with a glimpse into its changing priorities.

The museum was founded after Richard VII Viscount Fitzwilliam of Merrion bequeathed to the University of Cambridge his works of art and library, along with a tidy sum of money to take care of both, in 1816. While the initial collection did not contain Egyptian artefacts, material from Egypt found its way into the Fitzwilliam early in its history. The sarcophagus lid of Ramesses III, for example, was given by Belzoni in 1823 and formed a cornerstone of this collection. The most notable influx of Egyptian artefacts, however, occurred in the late Victorian Era. By the end of the nineteenth century the museum had grown to become an important repository for Egyptian material and an active shareholder in privately funded excavations in Egypt, from which it benefited. This thumbnail account of the growth of the Fitzwilliam's Egyptian material fits nicely into the loose narrative on the development of British Egyptology and Egyptian collections outlined above. It is, however, also misleading. Throughout the 1800s the perceived importance of the Egyptian collection within the institution was not what we might expect when we view it today. The museum's syndicate papers, the minutes kept for one of the early governing bodies of the museum, indicate that the museum's main priorities throughout the mid to late 1800s were not on building up its now world-famous Egyptian collection, but rather on maintaining and improving its picture galleries. Apparently created in the 1840s, the responsibilities of the museum's syndicate evolved and grew over time. Right from its inception, however, it had powers related to the purchase and display of objects in the museum, as well as their maintenance. In May of 1849 the Syndicate gathered and discussed the allocation of funds for insurance purposes. The museum's pictures are mentioned second on the list of items to insure, for £8,000, after the building's fixtures and furniture. The list of categories of items to insure appears to be organized in descending order, from most expensive to least expensive. The second position of the category of the picture collection on the list demonstrates its importance to the museum, as the collection was undoubtedly the largest and most expensive in the museum (SP A: 23 May 1849). Yet the primacy of the picture collection is also evident in other ways. Well into the 1850s the museum had but one curator responsible for all its objects, and his title was Curator of Pictures. In 1853, with the death of the then Curator of Pictures, the museum recognized a need to professionalize further both the position of curator and the museum's operations. To this effect, a report in the Syndicate Papers states:

> the Objects which compose the Fitzwilliam Collection are not only rare and precious, but that many of them, especially in the department of Engravings and Manuscripts, are greatly exposed to damage and loss from unskilful handling … After therefore carefully weighing these and other important considerations … the Management Syndicate are

of opinion that the Fitzwilliam Collection requires the constant superintendence of a person of higher station and attainments than are possessed by those who are at present entrusted with the care of the Museum.

  The Syndicate therefore recommend . . .

  1. That there shall be three Curators of the Fitzwilliam Museum.
        (a) The Curator of the Pictures, Sculptures, and Antiquities
        (b) The Curator of the Library
        (c) The Curator of the Building (SP A: 18 May 1853)

Perhaps tellingly, this attempt to professionalize may once again demonstrate the foremost concern for the picture collection, as the word ''picture'' remains the first part of the curators new title. In 1873 the opinion that the picture gallery was, and should be, the main concern of the museum was made explicit in a passage from the Cambridge Undergraduate Journal. This passage is a scathing critique of the syndicate and its management of the all-important gallery:

> The Syndicate are at present spending their money on altering and finishing the building . . . The Picture Gallery is the most important part of the Museum, and we believe that there are few who would wish it to remain in its present condition. It contains about 500 pictures; and if twenty per cent were removed, the value of the collection would be as much enhanced. We might as well teach our children to admire the leading articles of the *Daily Telegraph*, as specimens of classical taste, as to hang up many of the offending daubs at present exhibited on the walls of the Fitzwilliam Museum . . . Can we have any reasonable hope of the better management of the Fitzwilliam Museum, when bad pictures continue to be hung and good ones refused? We are inclined to think that the Slade Professor should be invested with almost autocratic authority, and we should like to see the Curatorship of the Museum in the hands of an M.A. of artistic tastes. We think it right that the building should be beautified and handsomely finished; but the true object of the endowment should ever be kept in view – the care of the objects of art contained in it, and the improvement of the collection. Before long, we hope that some portion of the income will be laid aside annually for the purchase of pictures . . . There is another minor point we would notice – the need of a good descriptive catalogue of the pictures. (SP B: 5 November 1837).

Such concern for the picture gallery is fitting because, as this last passage states, the Fitzwilliam was established to be, and in many ways continues to be defined as, an art-historical, rather than a scientific or archaeological, museum.

  The 1853 attempt to professionalize the museum, and the new title accordingly given to the curator of objects, might also indicate a second, early priority over the museum's antiquities, and therefore the Egyptian antiquities: sculpture. Along with a marked concern for the welfare of the picture gallery, the museum syndicate papers demonstrate a concern for establishing and maintaining a collection of casts of classical sculpture. In 1850, a letter from a Mr Edmund Oldfield of the British Museum to Mr Mathison of Trinity College, Cambridge, highlights this focus. Oldfield was apparently under instruction from the Dowager Lady Wombwell to secure a new home for her cast collection. For possibly sincere reasons stated in the following passage, Oldfield thought the Fitzwilliam an appropriate venue for this collection:

> A few days since I was informed by Lord Colborne, that a friend of his, the Dowager Lady Wombwell, had a collection of casts from the Antique, which from a change of residence she was no longer able to accommodate with house-room … With your Museum therefore in my mind, I proceeded to examine Lady Wombwell's Collection … In the first place, it includes a few figures, which, with my views of art, I should not wish to see in the University Collection. Were the primary object to produce an ornamental effect, or even to give pleasure to nine-tenths of your visitors, I could not object to any part of the series. But regarding Art, as I do, as an educational instrument, I would not willingly admit into my Academy any thing which does not tend, either by its intrinsic excellence to elevate public taste, or by some peculiarities of style on treatment to supply materials for information whether aesthetic or historical. The number of casts however, which my own judgement would reject, is but small, and their value probably not one-tenth of the whole … It does not appear therefore to me that the collection, as a whole, is materially depreciated by the possession of some inferior portions. On the other hand, it is very naturally enhanced in value by the inclusion of one or two figures, which it would be difficult or impossible to procure from any other quarter … The interest I feel … arises from three considerations: firstly, I believe this collection may eventually be made more useful to the cause of Art at Cambridge, than in any other place upon which I can now fix: secondly, it may also, in my view, be useful to the cause of Education, by tending to promote the recognition of the study of Ancient Art as an essential branch of Classical Learning: and thirdly, it would be a great and unfeigned gratification to me to be instrumental in rendering any service to the University where I passed two of the happiest and most instructive years of my life and formed many of my most valuable and endearing friendships. (SP A: 25 May 1850).

The museum's immediate response, despite the fact that the museum wished to acquire the collection, was that it lacked the funds to complete the transaction. Fortunately, a third party, evidently in contact with Oldfield, presented himself in June of that year to assist with the acquisition. As stated in a letter forwarded from Mathison by Oldfield:

> I am very glad to be able to reopen my correspondence with you on the subject of Lady Wombwell's Casts with more auspicious prospects than before. I mentioned all that had taken place, with what I understood to be the present position of the University, to [John] Fitzpatrick, whom you no doubt recollect at Trinity, as a Pensioner two years senior to yourself. He is so interested in the cause of Art, and so entirely concerned in my views of the importance of a good collection of Antique Casts, especially in a seat of classical learning that he has very nobly resolved to present them to the Fitzwilliam. (SP A: 19 June 1850).

The museum accepted this assistance even though it had to absorb the cost of the collection's transportation. Before its transport Fitzpatrick, whose name henceforth was attached to the collection, wrote to the museum, assuring the institution of the collection's value for educational purposes: "In reply to a part of your letter I beg to say, I make the gift free from any condition, having no doubt that the University will use the Collection as a means of instruction both in art and literature, and also as a means of acquiring a knowledge of some of the noblest works of human imagination and skill" (SP A: 11 July 1850). Upon its arrival in Cambridge, this collection would have been incorporated into the already existing Disney cast

collection within the museum. Three years later, the Fitzwilliam's cast collection was further expanded, this time from material offered by Lord Stratford (SP A: 26 April 1853). By the 1880s, both the size and perceived importance of the cast collection had grown to such an extent that the museum was forced to consider plans to re-house it. The decision to make a formal application to purchase land for the purpose of erecting a new, "archaeological" gallery and lecture room was recorded in 1881 (SP B: 22 October 1881). The following year, a two page report was issued, stressing the need for new premises:

> In the opinion of the Syndicate an adequate museum of Greek and Roman Art, consisting principally of casts from works of ancient sculpture historically arranged, is urgently needed in the University alike for the study of Art and for that of Classical Antiquity ... A Museum of this kind in question forms part of the educational apparatus of nearly every important University on the Continent and of some in America: one such is in course of formation in London, another at Oxford ... The collection thus formed remains, however, quite inadequate for the purposes of systematic study and teaching: at the same time it is already too extensive for the room in which it is placed. This room, moreover, is not well suited to the exhibition of sculpture, and might, if the casts were moved elsewhere, be turned to better account for the exhibition of other portions of the Fitzwilliam Museum collections. (SP 2: 14 March 1882).

The report goes on to discuss a possible site, citing old malt houses that might be converted for the purpose of a museum:

> These buildings cover an area of about 5000 square feet; they are in good repair, and could be converted at a comparatively trifling cost into excellent sculpture galleries. The site is moreover well adapted for the erection of additional buildings, which might be made sufficient to accommodate not only the required collection of ancient sculpture, but also, for some time at least, the archaeological collections of the University, as well as a library and lecture-room for the study of ancient art and archaeology. ... The Fitzwilliam Museum Syndicate on Nov. 17, 1881, unanimously agreed that it was desirable to purchase the leases ... They further caused plans to be prepared showing how the present and the proposed additional buildings might be divided between the Fitzwilliam Museum collection of Ancient Sculpture and the Archaeological Collections. These plans have been submitted to, and unanimously approved by, the Archaeological Collections Syndicate. (SP B: 14 March 1882).

There is nothing in the syndicate papers to suggest that the Egyptian material was included in plans to re-house objects in the categories of "Ancient Sculpture" or "Archaeological Collections."

Despite the priority given both to the picture and cast collections, Egyptian material continued to find its way into the Fitzwilliam throughout the nineteenth century. One example is the sarcophagus lid of Ramesses III, now a centerpiece of the collection. While it was no less famous at the time of its acquisition its acceptance by the Fitzwilliam raised eyebrows. Questions as to what purpose it might serve in the Fitzwilliam were asked. A letter dated 3 December 1834 from Francis Chantrey and addressed to George Peacock, concerning its transportation highlights this sentiment:

> The proper way to convey the granite sarcophagus to Cambridge will be by employing some person in London accustomed to move heavy blocks of stone . . . But what you will do with it I know not. Its weight – size and rough workmanship render it unfit for furniture in the Fitzwilliam Museum – This is your concern – I think it would be better placed in the British Museum – look before you leap! (FC: E.1.1823, 3 December 1834)

Although accommodated as part of the collection, dissatisfaction with the lid was once again expressed fifty years later. In 1875, the British Museum's Samuel Birch undertook a study of the lid (SP B: 9 and 23 October 1875). Upon the completion of this study, and upon Birch's recommendation, the museum syndicate began laying the groundwork to exchange casts of the lid for casts of the sarcophagus' trough, still held in the Louvre (SP B: 6 November 1875). The lid's size, workmanship, and incomplete nature appear to have been ongoing cause for concern from the time of its acquisition. An un-signed letter, dating to the 1950s, in the Fitzwilliam's Department of Antiquities discusses this very issue, and proposes transferring the lid to the Louvre in exchange for a statue of the goddess Sekhmet. Several reasons in favor of a transfer are listed, including the fact that the lid cannot be considered an "artistic" piece and therefore is inappropriate to the museum's perceived mandate:

> The reasons which have weighed with the Syndicate in making this recommendation are as follows. The sarcophagus lid, though from the archaeological point of view one of the most important objects of Egyptian antiquity belonging to the Fitzwilliam, and one of its earliest possessions, is bound always, owing to its great size and horizontal shape, to take up a much greater amount of space than the Museum can afford to allot to an object of primarily archaeological importance. The value of the lid in this respect is appreciably diminished by its severely damaged state, for at least one third of it is made up with modern concrete. Its utility to students is much diminished by its being separated from the much larger, better preserved and more interesting body of the sarcophagus in the Louvre. Finally, in making this recommendation, the Syndicate have had in mind the character and purpose of the Fitzwilliam's collection of Egyptian antiquities as it has developed in the century and a quarter since the lid was accepted. The character of the collection was at that early date clearly undecided. It has not in fact followed the lines which the acceptance of the sarcophagus lid might suppose. In keeping with a uniform tendency throughout all departments of the Fitzwilliam, the Egyptian collections have developed along lines of aesthetic rather than of strictly archaeological interest. It is, however, certainly not due to the deference to any mere change of taste and fashion that the Syndics consider it not now necessary, in the circumstances, to insist upon retaining the lid in the Museum. Considering that the Fitzwilliam is not a Museum of archaeology, and that in due time other primarily archaeological objects from its Egyptian collections, may well have to be transferred to another Department in the University; considering also that the recent acceptance of the Gayer-Anderson gift and of the Greg bequest has enlarged the collections by several thousand objects and permanently determined the character of that part of the Museum as a collection chiefly of works of art; and considering that these numerous accessions have created a most acute problem of exhibition space, the Syndicate conclude that they may properly submit that it would be to the advantage of the museum to exchange the lid for an admirable work of art more in keeping with the character of the rest of the collections and very much more economical of space.

> The Professor of Egyptology, as Honorary Keeper of the Museum's collections, and likewise the Director, have both in the course of their duty visited the Louvre to inspect the Sekhmet statue. They have reported to the Syndicate that it is an object of high artistic merit, of the finest period of Egyptian sculpture in the round, the best, and the best-preserved, of the several Sekhmet statues belonging to the Louvre, and an example of sculpture which would most strikingly enhance the interest of the Fitzwilliam's collection, which very noticeably lacks monumental sculpture of the best period. Owing to its vertical form it could be happily exhibited in the narrow confines of the Museum's larger Egyptian Room, as the sarcophagus lid never can be. (FC: E.1.1823).

A footnote after the last mention of the Louvre in this passage states: "Eighty-five examples are known in all; of these comparatively few are undamaged; … No small museum possesses a single example" (FC: E.1.1823). This letter has a note stapled to it, dated to 1956, and signed by Stephen Glanville, Honorary Keeper of the collection in 1950 and Chairman of the Fitzwilliam Syndicate from 1955–56, endorsing the exchange (FC: E.1.1823). From a conversation with Ms Janine Bourriau, former Assistant Keeper of Antiquities at the Fitzwilliam Museum, I understand this tension between the museum's perceived archaeological material versus its art-historical material to have persisted well into the 1980s, the last time the museum considered exchanging the sarcophagus lid for an object with more aesthetic value.

With the above information in mind, it might be fair to say that, at times, the Egyptian material within the museum was considered to be "second-best" to other material, such as the cast and picture collections, during the mid-to-late 1800s. If this were the case, such opinions would not be out of character for British institutions. Stephanie Moser's study of the collection of Egyptian material in the British Museum suggests that similar attitudes pervaded that institution. More specifically, Moser argues that Classical material in the British Museum was given more value and greater academic attention as a subject in its own right than its Egyptian collection for much of the 1800s (Moser 2006).

In many ways, the British Museum has, since its founding, been the foremost British institution for the collecting of antiquities. As such, its influence and personnel would have been able to affect the tone, at the very least, of the collecting practices of other institutions. The institutional study of Egyptian antiquities, after all, was undertaken by a relatively small number of people in the 1800s, as it still is today. Those people working for institutions with such material would generally have been aware of staff at institutions with similar material, or people with links to institutions with similar material, and the practices undertaken by those institutions. Edmund Oldfield's letter from 1850, cited above, concerning what became known as the Fitzpatrick cast collection, proves this point. To begin with, Oldfield himself was associated with the British Museum. In his correspondence, he mentions the idea of the collection going to one of the "great provincial towns, for their Athenaeums or Institutes" but then stresses his preference that it go to "an institution, both of higher interest to me, and of greater influence on public education and taste than any at Liverpool or Manchester" (SP A: 25 May 1850). These statements indicate, provided he was not simply playing to the academic sensibilities of those attached to the Fitzwilliam, that Oldfield had very high regard for the Fitzwilliam's potential to educate, more so than he had for institutions in the major urban centers of

Liverpool and Manchester. The possible influence of the British Museum is also evident in the 1853 syndicate papers entry involving the increased professionalization of the staff. While discussing changes to the museum, the Syndicate holds the British Museum up as an ideal model, stating: "That Collections like that in our Museum are always most scrupulously guarded elsewhere, as must be well known to all who have had occasion to consult Manuscripts or examine Engravings in Foreign Libraries, or in similar Collections in our own country, such as the British Museum and Bodleian Library" (SP A: 18 May, 1853). By the 1880s, as will be discussed shortly, the influence of the staff at the British Museum on the Fitzwilliam and its Egyptian collection became particularly clear.

While the Fitzwilliam's concern for its picture and cast collections remained constant throughout the 1800s its interaction with the wider public changed throughout this period. As part of the university, the Fitzwilliam demonstrated an early concern for its collections to be used in the instruction of students. As stated above, Oldfield's 1850 correspondence refers to the instructional value of the Fitzpatrick cast collection. Yet the syndicate papers show an early concern for the Fitzwilliam's galleries to be opened to the public and for those galleries to become generally more accessible. The syndicate regulations of 1849, for example, establish two "public days" in every week for the galleries (SP A: 27 March 1849). A particularly striking account related to the museum engaging with and instructing the public takes the form of a letter from the Vice-Chancellor in 1856, in which he outlines his discomfort over the display of paintings in the galleries and their removal:

> The exhibition of nude figures in a public gallery is always a matter of some embarrassment. Even where the gallery is visited by those only who are habituated to regard merely the pictorial interest of such, they ought not, it would seem, to be obtruded on the eye of the visitor. But since, in recent times, we have opened the Fitzwilliam Gallery to the public indiscriminately, and to very young persons of both sexes, it appears to be quite necessary, for the credit of the University, that it should be possible to pass through the Gallery without looking at such pictures; and therefore, that they should not be in prominent places in the Large Room by which the spectator enters. When I was Vice-Chancellor on a former occasion, I received a strong remonstrance, in a letter from a highly respected Member of the Senate, on the subject of three such pictures, belonging to the Museum; and especially, of one, which has, on such grounds, been repeatedly removed by preceding Vice-Chancellors. (SP A: 22 January 1856).

In 1857 the Syndicate requested, and was granted, an increase in the number of days on which the public might view the collection free of charge (SP A: 31 March and 30 April 1857).

A similar concern for how the museum was to instruct the public about, and possibly through, its objects, this time Egyptian, is evident in a passage written by Budge in his *Catalogue of the Egyptian Collection in the Fitzwilliam Museum*, dated 1893. Budge writes:

> In December 1886, the Vice-Chancellor, Dr Swainson, Master of Christ's College, informed me while in Egypt that a sum of £100 had been voted by the University for the purchase of Egyptian antiquities and asked me to expend this money as advantageously

as possible. With the permission of Dr Edward A. Bond … I did so, and purchased as large a number of objects which I knew to be unrepresented in the collection of the Fitzwilliam Museum as the funds placed at my disposal would allow … This attempt to fill up gaps in the collection was continued by the Rev. Greville J. Chester … which have helped to make the Egyptian collection more representative. The expenditure of a comparatively small sum of money would now make it a valuable instrument for teaching purposes, and as complete as any collection without constant government support. (Budge 1893: vii).

Precedents for this sort of catalogue are stated in the syndicate papers. As early as 1849 the museum laid plans for a catalogue of its pictures and curiosities (SP A: 12 November 1849). Nor does Budge's passage indicate an entirely new means of acquiring objects for the museum. In 1876 money was allocated "to supply deficiencies in the existing collection of the University." Which objects were purchased with these funds is not, regrettably, listed in the syndicate papers (SP B: 27 May 1876). In 1886, however, 175 scarabs appear to have been reluctantly purchased from Greville Chester (SP C: 5 June 1886).

Budge's statement is a clear indication that by the late 1800s the museum had grown concerned that its Egyptian collection was no longer on par with that of other institutions. It was no longer sufficient to have Egyptian material in one's museum, nor was it sufficient to await for objects to find their way into the museum: it was now necessary to engage an agent to flesh it out. Budge's statement also brings two immediate questions to mind: of what does a desirable, "representative" Egyptian collection consist in the late 1800s in Britain?; and exactly which objects did he consider to be unrepresented in the Fitzwilliam? The first question is difficult to answer succinctly at this stage in our understanding of Egyptian collections. The second question, however, can be addressed through correspondence concerning Budge in the Fitzwilliam. A letter to the Vice-Chancellor from one Alec Macalister states:

From the copies of inscriptions which have been brought home we know that the district at and about Assûan [Aswan] is rich in monuments of the twelfth dynasty, a period quite unrepresented by anything in the Fitzwilliam. Mr Budge is a very judicious man, who knows the kind of monuments which would be useful for the collection, and who could well be trusted to expend a little money to the best advantage. (FB: 2 December 1886).

Macalister wrote again the following month, authorizing £100 for Budge's purchase, and once again re-iterating that Budge understands the "requirements" of the museum (FB: 10 January 1887). The museum contains two lists of the objects brought back by Budge from Egypt, one of which states "All the objects are from Luxor, the modern representative of ancient Thebes, & Ahmîm, in ancient days called Panopolis. They represent some of the best artistic work of the 18th and 19th Dynasties (about 1400 BC)" (FB: 1886–7). What happened to the supposed Twelfth Dynasty material from Aswan requested by the museum? Why did Budge bring back nineteenth dynasty material from Thebes and Akhmim? Did Budge disagree with Macalister's assessment of what the museum needed, or were his actions mitigated by other factors?

By the end of the century, Budge was not the sole agent who had worked on behalf of the museum to acquire Egyptian objects and build up areas considered to be

unrepresented. Other professionals were commissioned to acquire objects on behalf of the museum. The opinions of these professionals were also sought when the museum considered purchasing from a third party. Lastly, it was at this point in time that the museum began to buy subscriptions to excavations for the express purpose of acquiring newly-found material. The syndicate papers and correspondence in the Fitzwilliam reveal that Petrie functioned in all of these capacities. The museum bought a subscription to his Egyptian Research Account in 1895, increased the amount that it paid to it in 1896 (SP C: 29 October 1895 and 27 October 1896), and bought a portion of his finds in 1898 (SP C: 5 February, 3 and 31 May 1898). That same year Petrie responded to a request by the Fitzwilliam to purchase objects while in Egypt:

> I shall be very glad to help in getting together some suitable things for Cambridge. I have but little that I should care to let go of my own things; here and there a specimen wanted to supplement others I might have to spare. But broadly it would be best for me to buy in Egypt some suitable things, which I should be very glad to do. I always keep account of prices, so that I could say exactly what things cost. And we hope to send from excavations from time to time such things as are most suitable. We sent this year both from Exploration Fund and Research Account & hope for some subscriptions. What classes of things however should you definitely aim at?
>
> *sculpture* of various ages will come from excavations
> *pottery* likewise, + ostraca
> *beads* say 5 to 10 £ of <u>typical</u> string of each age
> *writing material* palettes, papyrus, etc.
> *funeral furniture* a set of ushabtis boxes, headrest, etc.
> Any small objects characteristic of style in each main period.
> That's what I should suggest as a good aim to begin with. (FB: 12 November 1898).

The museum renewed its subscription to Petrie's excavations (SP C: 22 November 1898, 5 December 1899, and 1 December 1903) and used him as a source of information for the purchase of objects. Other excavations were also supported, including: the British School at Athens' work at Naukratis (SP C: 7 February 1899); the Egypt Exploration Fund's excavations (SP C: 28 February 1899); John Garstang's work at Beni Hasan (SP C: 21 October 1902); and the Graeco-Roman branch of the Egypt Exploration Fund's efforts (SP C: 27 January and 20 October 1903).

An analysis of the Fitzwilliam's syndicate papers and correspondence reveals a history very different from the one we might imagine when we consider Britain's long interest in ancient Egypt and when we today view the museum's important Egyptian collection. Despite the early presence of Egyptian material in the museum it does not appear to have been accorded the same status or priority as other material for most of the 1800s. Similarly, it would appear that the museum did not make the same effort to use Egyptian material, as it did other material, for the education of Cambridge students and the wider public. Lastly, the above information suggests that major efforts to flesh out the Egyptian collection, to make it more "representative" for educational purposes, only began to appear in the 1880s.

8   The Late Nineteenth and Twentieth Century

As suggested above, the period of the late 1800s and early 1900s continued the story of important, and occasionally captivating, archaeological efforts in Egypt, as well as developments in the understanding of its ancient language. In the 1870s while the Egyptian antiquities service was under the direction of the French, a cache of royal mummies was found in the Valley of the Kings, marking the first find of ancient Egyptian royalty (Baines and Malek 1980: 28). During this period, as mentioned, foreign organizations with the singular purpose of exploring ancient Egypt were developed. In England, with the help of Amelia Edwards, the Egypt Exploration Fund (now Society) was founded in 1882. The Fund was established to conduct a Biblically motivated exploration of Egypt's Nile Delta, and chose the Swiss scholar Henri Edouard Naville to act as its first field director in 1883. Through its efforts, the EEF contributed greatly to the amassment of antiquities both in England and the United States. Jacques Jean Marie de Morgan was made Director-General of the Egyptian Antiquities Service in 1892. His important discoveries were many and, along with Petrie, he proved fundamental in linking the record of Pre-Dynastic, ancient Egypt to that of the Dynastic Period (Bierbrier 1995b: 297). The first extensive study of ancient Egyptian architecture was undertaken by the German Ludwig Borchardt (1863–1938), who also excavated at Tell el Amarna and discovered the Berlin Bust of Nefertiti (Bierbrier 1995b: 54–5). Gaston Camille Charles Maspero succeeded Mariette in the Egyptian Antiquities Service and, amidst his legion of publications, produced the first edition of the Pyramid Texts in 1894 (Bierbrier 1995b: 278–79). By the early 1900s, Howard Carter had spent many years working and traveling in Egypt. He was, for example, appointed Chief Inspector of Antiquities for Upper Egypt in 1899 and for Lower Egypt in 1904. Yet it is his discovery of the tomb of Tutankhamun in 1922, after years of conducting painstaking archaeology in the Valley of the Kings, for which he is most often remembered (Bierbrier 1995b: 84–5). Finally, George Reisner's (1867–1942) progression beyond Petrie's archaeological methods to a more fully systematic method of excavation should be mentioned (Bierbrier 1995b: 351–2).

Along with the refinement of nineteenth-century methodological and conceptual tools, the early twentieth century witnessed the introduction of technologies that had a profound effect upon the way in which Europeans interacted with Egypt's past. Obvious scientific developments that have greatly affected the study of Egypt include carbon-14 dating and remote sensing. Yet less obvious technological developments have affected the place of ancient Egypt in Western culture. Tutankhamun's golden burial mask has become a canonical image associated with ancient Egypt, symbolizing the civilization's wealth and artistic achievements. For Europeans it has also symbolized the romantic exoticism of the land of the Nile. This priority placed on the mask is largely the result of several historical factors: at the time of its discovery it was found in the least disturbed king's tomb in Egypt; prior to its discovery, Tutankhamun was a little-known historical figure; the young king's ascension to the throne and eventual death marks the end of the anomalous Amarna period; the historical data about his life facilitate speculation rife with political intrigue; and Carter's work occurred at a time

when new technologies could disseminate both the story and images of the discovery in manners never before imagined. Newspapers, movie footage, and innumerable consumer objects capitalized on the discovery, catering to the wealthy and less well-off, which, in turn, both created and fueled a public fascination with ancient Egypt (Frayling 1992).

Twentieth-century technology has also directly affected the way in which Europeans interact with ancient Egyptian monuments. The conservation of these monuments has long been of concern to European scholars, as evidenced in the writings of such leading figures as Jean-François Champollion and Emilia Edwards. Perhaps the most dramatic example of European interest blended with twentieth-century technology was the 1960s UNESCO salvage campaign. In 1959, after plans to construct a dam were unveiled, an international donations campaign was launched to save endangered Egyptian and Nubian monuments south of Aswan. Between 1964 and 1968 the entire temples of Abu Simbel were dismantled and reassembled on higher ground. The completed project is a testament to human engineering skills and international co-operation, and has succeeded in preserving temples that continue to attract thousands of tourists a day.

Several European-Egyptian projects, developments, and discoveries in the twentieth century have demonstrated the importance of archaeology, not only for the procurement of artefacts, but also for a holistic comprehension of ancient Egyptian civilization. The long-term, and ongoing, exploration of two sites in particular underscores this fact. Tell el-Amarna, the capitol city of Akhenaten, is one of the most important sites for the study of settlement archaeology in the Near East. The discovery of cuneiform tablets in the 1880s drew attention to the site, prompting Urbain Bourriant to undertake the first official excavations in the area, publishing his findings in 1884 (Bierbrier 1995b: 59). Petrie was next to excavate at Amarna between 1891–1892, followed by Ludwig Borchardt's expedition of 1913–14. British excavations took place over several seasons in the 1920s and 1930s with the Egypt Exploration Society maintaining, until recently, an on-going project under the direction of Barry Kemp. Similarly, the archaeological and textual data yielded from the site of Deir el-Medina changed our understanding of ancient Egyptian village life. Many objects found at the site throughout the nineteenth century prompted further work last century, with an Italian excavation followed by German and then French efforts (Baines and Malek 1980: 28). Another example of important twentieth-century archaeology is Pierre Montet's work at Tanis between 1929 and 1939, which significantly expanded the available information on what was an obscure period of Egyptian history (Bierbrier 1995b: 294). Complementing, and acting as a starting point, for all archaeological activities in Egypt is the *Topographical Bibliography*. The work was the brainchild of Francis Llewellyn Griffith (1862–1934) and the product of efforts by Bertha Porter (1852–1941) and Rosalind Moss (1890–1990). The first volume was produced in 1927 and the series continues to be enlarged.

As with Egyptian archaeology, the study and recording of ancient Egyptian texts, the traditional focus of Egyptology, also experienced great advances and important projects in the twentieth century by European efforts. Alan Gardiner's (1879–1963) grammar remains the foundation for learning ancient Egyptian. Kurt Sethe's (1869–1934) publications of texts have proven invaluable to the study of the language. Our understanding of

ancient Egyptian, as well as Coptic, its final form, was revolutionized by Hans Jacob Polotsky (1905–1991). Similarly, Jaroslav Černý's (1898–1970) efforts with the textual material from Deir el-Medina were significant. Gerhard Fecht has significantly changed the way in which people look at the organization of Egyptian texts (Baines and Malek 1980: 29). The *Wörterbuch*, the principal dictionary for ancient Egyptian, published between 1926 and 1953, was largely the efforts of Jean Pierre Adolphe Erman and Hermann Grapow and the Berlin School. Finally, epigraphic missions to the country continue to add to our understanding of ancient Egypt. Perhaps the best well-known mission of this sort is the University of Chicago's epigraphic survey, established in 1924 by James Henry Breasted, which continues to operate.

9   Conclusion

The discipline of Egyptology has, for most of its history, been the product of European enquiry. European, academic efforts to explore and to engage with the subject of ancient Egypt continue apace. Similarly, European public interest in ancient Egypt remains strong, as suggested by the number of tourists who visit the country every year, by the number of TV documentaries produced, and by the countless books published and purchased on the subject. Despite a similarly long interest by Egyptians and Middle Eastern scholars in the study of ancient Egypt (El-Daly 2005), European efforts have, at times, hampered their participation (Reid 2002). The exclusion of Egyptians from their own history has been changing for quite some time and the future of exploration now rests soundly within the country of contemporary Egypt. This is, of course, only fitting. As the above narrative has demonstrated, European understanding of ancient Egypt, and the ways in which Europeans learn about it, is constantly changing. It seems certain that the next two millennia of exploration will be as varied and as exciting as the past two.

FURTHER READING

Bednarski (2005) *Holding Egypt: Tracing the Reception of the* Description de l'Égypte *in Nineteenth-century Great Britain*, London; Bret (ed.) (1999) *L'expédition d'Égypte, une entreprise des Lumières 1798–1801*, Paris; El-Daly (2005) *Egyptology: The Missing Millennia: Ancient Egypt in Medieval Arabic Writings*, London; Greener (1966) *The Discovery of Egypt*. London; Reid (2002) *Whose Pharaohs? Archaeology, Museums, and Egyptian National Identity from Napoleon to World War I*, Cairo; Wortham (1971) *British Egyptology 1549–1906*, Devon.

The Reception of Pharaonic Egypt in Islamic Egypt

Michael Cooperson

I   Introduction

During the summer of 1987 I made my first trip to the Giza plateau. I had gone to Egypt to study at the Center for Arabic Study Abroad, a yearlong program based at the American University in Cairo. Soon after our arrival, my fellow students and I followed Shahinda Karim, an art historian, on a tour of Giza. When we reached Cheops, she pointed out the roughhewn entrance where streams of tourists were pouring in and out of the pyramid. This opening, she said, was not the original entrance, which had been covered over by the original builders. Rather, it was the work of a ninth-century visitor, the caliph al-Mamūn. I had heard of him: he was a member of the Abbasid dynasty, which had dominated Southwest Asia from 750 until the mid-tenth century and come to symbolize the so-called golden age of Islamic civilization. Though not as famous as his father Harūn al-Rashīd, the high-living caliph of the *Thousand and One Nights*, he was known for his interest in science and his sponsorship of translations from ancient Greek into Arabic. But what was he doing in Egypt, so far from his capital of Baghdad? And why did he make an opening in the Great Pyramid?

When I asked Prof. Karim these questions, she referred me to the *Khiṭaṭ* (Topography), by the 15th-century Muslim scholar al-Maqrīzī. Al-Maqrīzī turned out to be a figure of interest in his own right. Born in Cairo, he served as a Friday preacher at two of the city's major institutions: the mosque of ‘Amr, the oldest in Egypt, and the *madrasah* (law school) of al-Ḥasan, which still stands at the base of the Citadel. He went on to serve as chief administrator of the mosque of al-Ḥākim, which stood then as it stands now at the end of Shāri‘ al-Mu‘izz. At the *madrasah* of al-Mu’ayyad, he taught Hadith: the reports of the Prophet's words and deeds, and the criteria for judging whether particular reports had been accurately transmitted. After working for a time in Damascus, he returned to Cairo and devoted himself to writing history until his death in 1442. Besides the *Topography*, which describes the major monuments of Egypt, he wrote treatises on the history of the world and the life of

the Prophet, as well as essays on famines, price inflation, minerals, honeybees, and coins (Rosenthal 1991 and 2008; Rabbat 2003).

According to al-Maqrīzī's sources, the Giza pyramids were built by one Sūrīd, a king of Egypt, who foresaw in a dream that the earth would be destroyed by flood and fire:

> He ordered that the pyramids be built and filled with figures and wonders and treasures and statues and the bodies of their kings. He commanded the priests to inscribe everything the sages had said, so they recorded on the ceilings, walls, and columns all of the occult sciences claimed by the people of Egypt, including pictures of all the stars and planets, the names of drugs along with their beneficial and harmful effects, and the arts of spell-casting, arithmetic, geometry, and the other sciences, explained for anyone who could read their script and understand their language. (Maqrīzī 1970: 112; cf. Suyūṭī 1939: 21–2)

Many years later, the pyramids attracted the attention of the caliph al-Ma'mūn, who "decided to demolish one to find out what was inside it." Told this was impossible, he insisted on breaking into a pyramid, evidently Cheops. "So fire was lit, and vinegar was sprayed, and crowbars were applied, and blacksmiths set to work, and the fissure was created that remains open today." After "breaking though the wall," the workers stumbled across a precious vessel whose market value turned out to be exactly the amount spent on the excavation up to that point. Apparently, the pyramid builders had planted the vessel as an incentive to stop the demolition. Realizing that he could never prevail against a civilization capable of such accurate predictions, the caliph stopped work on the pyramid (Maqrīzī 1970: 113; cf. Suyūṭī 1939: 24). But some of al-Maqrīzī's sources tell a different story. One claims that the caliph's workmen succeeded in reaching the interior of the pyramid. There they found a sarcophagus containing a figure wearing golden armor and a green gemstone the size of a chicken's egg (Maqrīzī 1970: 116; cf. Suyūṭī 1939: 24). Another source offers more detail and a different ending:

> In [the pyramid] were passages going down and others going up, all of them frightening and difficult to move through. At the top was a square chamber some eight cubits on each side. In the middle of it was a closed marble basin. When the cover was removed, it was found to contained nothing but decayed remains. Al-Ma'mūn then put a stop to further excavations.(Maqrīzī 1970: 118; cf. Suyūṭī 1939: 28–9, 30)

What is one to make of this account? For many European readers, al-Maqrīzī's inclusion of mutually contradictory and often bizarre reports created the impression that his account – and by extension all Arabic accounts of ancient Egypt – are largely fanciful. To correct this impression, it is useful to recall that al-Maqrīzī was trained as a Hadith scholar. In the field of Hadith, a transmitter is bound to convey reports verbatim and to attribute them to their sources without concerning himself with contradictions, absurdities, or questions left unanswered. True to this standard, al-Maqrīzī includes one report that says that the caliph succeeded in breaking into the pyramid and another that says he failed, but offers no explanation for the discrepancy. Even in the case of patent absurdities, such as the story of the buried vessel, "responsibility lies with the source,"

as the Arabic saying has it. As it happens, al-Maqrīzī did not necessarily believe everything he reports: the first thing he says about the pyramids is that the structures have inspired many stories, "most of them false" (Maqrīzī 1970: 111).

Al-Maqrīzī's account of the pyramids was known in Europe as early as 1801, when it was picked apart by the French Orientalist Silvestre de Sacy (d. 1838; on him see further Irwin 2006: 141–50). In his article, de Sacy points out that the caliph cannot have entered the pyramid by the original entrance since the latter had been deliberately concealed by the builders. Nor could he have made the tunnel that leads to the ascending corridor: ignorant as he must have been of the internal structure of the pyramid, he is hardly likely to have struck upon the corridor merely by removing blocks at random from the outside. De Sacy thus concludes that the expedition never happened. To support his conclusion, he adds that the Syriac chronicle of Denis of Tell Mahre, a Jacobite clergyman who accompanied al-Ma'mūn to Egypt, mentions the pyramids but says nothing to indicate that the caliph tried to break into one (de Sacy 1801: 498).

Given the information available at the time, de Sacy's arguments against al-Maqrīzī are quite cogent. But they have been allowed to stand largely unchallenged for some two centuries (see, e.g., Graefe and Plessner 1965 and 2008) despite the discovery of new evidence, both archaeological and literary, about the nature of the caliph's project. A modern Egyptologist, Rainer Stadelmann, has proposed what in retrospect seems an obvious solution: al-Ma'mūn entered the pyramid by clearing out a tunnel originally torn out by someone else (Stadelmann 1991: 110 ff., a solution actually suggested in passing by de Sacy himself; see 'Abd al-Laṭīf 1810: 220). But Stadelmann gives the caliph no credit for curiosity, calling him a plunderer and a treasure hunter (Stadelmann 1991: 264–66). References by other scholars, who usually have no access to Arabic sources, are often equally dismissive and condescending (see, e.g., Lepre 1990: 71). Worst of all are the amateur accounts, which favor garbled versions of al-Maqrīzī's reports retold in high Orientalist baroque. One particularly imaginative website describes the caliph as "struggling up the Grand Gallery, his men cautiously pushing his bulk from behind," "sweating and cursing" as he crawls into the burial chamber, and "absolutely livid" when he finds the sarcophagus empty (Ellis 2008). All of this, of course, is nonsense.

The idea that Arabic sources have nothing of interest to say about ancient Egypt may well go back to de Sacy, who complained about the many authors who provide nothing but "childish fables, ridiculous stories, and traditions apparently devoid of any basis in historical truth." Yet de Sacy himself went on to acknowledge that some Arabic authors "have added to the mythological history of the country a large number of useful facts and observations" ('Abd al-Laṭīf 1810: ix–x). Modern scholars, unfortunately, have often proven less perceptive. In their approaches to the tradition, they have made a number of unwarranted assumptions. They assume, for example, that a fantastic story is somehow less of a historical document – that is, a piece of evidence for what people believed to be true – than an archaeological report. They assume that any interest Muslims might have taken in the ancient monuments was confined to robbery and plunder. Most oddly, they often seem to assume that there existed an obvious alternative to fantasy and tomb robbery – namely, modern science – that medieval Muslims perversely declined to pursue. Such a claim does an

injustice both to the integrity of classical Arabic responses to ancient history and to the uniquely modern nature of scientific Egyptology.

To assess al-Maqrīzī's reports about the caliph and the pyramids – or indeed any reports from the Arabic sources – we can examine them as both as records of the collective imagination and as potential sources of new facts about events in the past. In what follows, we will return to the example of al-Ma'mūn both to establish what he was really doing in Egypt and to speculate about the significance his activities might have had. To do so, we must venture beyond the reports compiled by al-Maqrīzī, who is far from being the only Arabic author to write about Egyptian antiquities. A recent survey by El-Daly lists 26 Arab writers" (an inaccurate term, as will be seen) on the subject, ranging from Ibn 'Abd al-Ḥakam, who died in 871, to Jalāl al-Dīn al-Suyūṭī, who died in 1505 (El-Daly 2005: 161–82). Various studies by Haarmann add the names of several later authors who wrote about Egypt in Ottoman Turkish (Haarmann 1996 and further references cited). Of the Arabic authors, three – al-Mas'ūdī (d. 956), 'Abd al-Laṭīf al-Baghdādī (d. 1231 or 32), and al-Idrīsī (d. 1251) – have especially interesting things to say about the reception of Pharaonic Egypt in later times. Before looking at their work, however, it will be useful to address a few matters of historical background.

2   Parameters

The title of this chapter, "The Reception of Pharaonic Egypt in Islamic Egypt," raises two problems of definition. The first is that of chronology. By historiographic convention, Egypt becomes Islamic in AD 640, when the Arab Muslim commander 'Amr ibn al-'Āṣ seized Alexandria and put an end to Byzantine rule. (In Arabic names, *al-* means "the," *ibn* means "son of," and *Abū* "father of"; the latter two elements in particular cannot be omitted without causing confusion.) For centuries, however, Arabic-speaking Muslims remained a decided minority: the great majority of Egyptians were Coptic-speaking Christians. (It should also be noted in passing that at the time of the conquests "Muslim" probably did not mean exactly what it does today, since many of the beliefs and practices now considered inseparable from Islam appear to have crystallized at a later date.) As the Arabic sources make clear, the Christians – not only in Egypt but also in Syria and Iraq – had a rich tradition of stories about ancient Egypt. Clearly, then, the term "Islamic Egypt" should not be taken to imply that Muslims were the only people with something to say about Pharaonic history during this period.

If the so-called Islamic period began in AD 640, when did it end? There is no obvious answer. If the mere presence of Muslims suffices as a condition, then Egypt is decidedly still "Islamic." Historians who require more precision speak instead of "pre-modern" and "modern" eras. In the pre-modern era, Egypt was subject to the caliphs of Medina (632–661), to the Umayyad dynasty of Damascus (661–750), and then to the Abbasid dynasty of (mostly) Baghdad. Al-Ma'mūn, the alleged pyramid-breaker, was the seventh Abbasid caliph; he ruled from 813 to 833. Soon after his death, Egypt became virtually independent under a series of

dynasties: the Tulunids (868–905), the Ikhshidids (935–968), and most notably the Shiite Fatimids (969–1171), who founded Cairo. The Fatimids were ousted by Saladin's Ayyubid dynasty, which held power until 1250, when Shajarat al-Durr, the first woman to rule Egypt since Cleopatra, was toppled by the Mamluks. The Mamluks, originally slave soldiers from Central Asia, ruled not only Egypt but also Syria and parts of Arabia, and they continued to govern Egypt even after it fell to the Ottoman Turks in 1517. In 1798, Napoleon briefly seized control of the country. Nominal Ottoman rule was restored by a viceroy, Muḥammad ʿAlī, whose accession in 1805 marks for some historians the beginning of the modern period. But there is no sense in which Egyptian Muslims stopped being Muslim in 1805 or any other year. Since the nineteenth century, Muslims have frequently been compelled to reflect on their religion in ways that their predecessors were not. But to declare that twentieth- or twenty-first century Egypt is no longer "Islamic" is in effect to decide the outcome of those deliberations on behalf of all Egyptian Muslims, some of whom, at least, would find such a declaration bizarre if not offensive.

At the end of this essay, I will return briefly to the question of when (or if) the so-called Islamic period can be said to have ended. For now, let us turn to the second problem raised by the title: the implication that the Arabic literature of Egypt can be studied on its own. In modern times, it doubtless can. In pre-modern times, however, Arabic literature was a trans-regional phenomenon. In the wake of the conquests, the Arabic language was adopted by members of different ethnic groups, at first as a means of communicating with their new rulers and later as a liturgical language by converts to Islam. Until the tenth century, Muslims everywhere wrote almost exclusively in Arabic, regardless of what their mother tongue may have been. Eventually, many non-Muslims, too, found it easier to write in Arabic than in their traditional Hebrew, Aramaic, Pahlavi, Greek, or Syriac. In modern scholarship, "Arabic literature" covers all of this material: that is, works written in Arabic regardless of the ethnicity or religion of their authors. (It is therefore distinct from "Islamic literature," which properly refers to writings of a religious nature, not to writings by anyone who happens to be Muslim.)

With so many people contributing to it, it is hardly surprising that Arabic literature should include a great deal of material from other cultural traditions. Particularly important are the scientific, historical, and literary works translated into Arabic from Sanskrit, Middle Persian, Syriac, and Greek during the eighth and ninth centuries. Among the patrons of the so-called translation movement was the caliph al-Maʾmūn, who hired Christian experts in Syriac and Greek to put the works of Aristotle, Euclid, Galen, and others into Arabic for him (see further Cooperson 2005). Muslim scholars interested in the history of the ancient world had also recorded the oral traditions of many peoples, including Jews, Greeks, "Nabateans" (meaning, in this case, Christian speakers of Aramaic), Yemenis, Persians, and Copts. All of this material circulated freely wherever Arabic was used: that is, across a region that in the fifteenth century extended from Tabriz to Timbuktu. Thus it is that any survey of the Muslim reception of ancient Egypt must consider all of Arabic literature, not simply the part of it that happens to have been written in Cairo or Fustat. For example, the legend of Sūrīd, the king who built the pyramids, is not an Egyptian story at all but rather an Iraqi one (Fodor 1970; Cook 1983). And two

of the most famous Islamic-period writers on Egypt, al-Mas'ūdī and 'Abd al-Laṭīf al-Baghdādī, were both from Baghdad.

3   al-Mas'ūdī

The writings of al-Mas'ūdī, who was a historian and a geographer, tell us a great deal about how educated Arabic-speaking visitors viewed Egypt in the early Islamic period. Al-Mas'ūdī was extraordinarily well traveled, even by the peripatetic standards of the day. Born in Baghdad, he had visited Persia, the Indus Valley, the Deccan, Oman, East Africa, Yemen, the eastern Mediterranean coast, northern Syria, Iraq, the Caspian Sea region, and the Caucasus before settling in Egypt. From approximately 940 until his death in 956, he lived in Fustat. There he worked on a series of books about:

> the configuration of the earth, its cities and its marvelous places, its oceans, valleys, mountains, and rivers; its unusual minerals, its variety of watercourses, the story of its great forests and jungles and islands and lakes, and the tales of its sacred buildings and noble habitations; as well as the story of creation, the origin of the human race, and the diversity of nations . . . as far back as the division of peoples from the beginning in India; the varieties of unbelievers; and what can be learned about these matters from the traditions of those who accept divine law, from books, and from the revelations vouch-safed to adherents of deistic faiths. (Mas'ūdī 1966: §1 [text and translation] = 1:9 [Arabic text])

Retold four different ways, this information filled four separate works, of which only two – the shortest, unfortunately – have survived. These works tell us not only what Islamic-period observers knew (or thought they knew) about the world in general and ancient Egypt in particular, but also what they wanted to learn and why.

According to al-Mas'ūdī, human beings can acquire many kinds of knowledge on their own. The quest for the best possible form of political organization had begun in India and reached its pre-Islamic apogee in Iran. Even relatively primitive societies, such as those he had heard of in East Africa, have well-defined notions of just kingship. To reach perfection man nevertheless needed divine assistance. God thus sent the Prophet, the Qur'an, and the Imams to help mankind establish a community that would ensure justice in this world and salvation in the next. All communities, Muslim or otherwise, collapse into anarchy unless they are justly ruled. Such a collapse occurred, he says, after the death of Alexander the Great, and another is occurring during his own time because of the weakness of the Abbasid caliphate (Khalidi 1975).

To flesh out his vision of universal history, al-Mas'ūdī draws on a good deal of (mostly) accurate information about the world and its peoples. He has a rough idea of how big the earth is, and he is aware of places as distant as Korea and Britain. He can correlate the ancient Iranian, Hellenistic, Christian, and Muslim calendars. He quotes the Hebrew Bible, the Greek Gospels, and the epic histories of ancient Iran, all in Arabic translation. He is familiar with the cosmological theories of the Indians and

the Zoroastrians, as well as the Indian practice of ritual suicide. He knows when and where the Christians held their ecumenical councils and what they discussed; he also knows about the division of Jews into Karaite and Rabbanite sects. He can name all the Sasanian emperors and Byzantine emperors down to his own day, and he even has a list of the kings of France (see further Shboul 1979).

Imagine, then, al-Mas'ūdī's frustration when it came time for him to describe Egypt's place in world history (Mas'ūdī 1966: §773–843 = 2: 65–109). Everywhere around him were monuments attesting to the existence of a great civilization. Everywhere, too, were examples of ancient writing. But no one could tell him what the monuments were for or what the writing said. In Persia, he had visited Persepolis, and although he did not know exactly what the ruins represented, he had some notion that they had been built by the so-called first dynasty of Persian kings, about whom he was able to collect information from the oral-epic tradition. Moreover, he had access to the written literature of the Sasanian period, which had been translated into Arabic. In Egypt, however, he could not read anything the ancient Egyptians had written, either in the original or in Arabic translation. The case was not unique: Arabic historians could not read cuneiform either. But then the ancient Mesopotamian civilizations had not left such well-preserved monuments as the Egyptians had. Built of stone rather than perishable mud brick, the latter seem to have demanded attention in a way the former did not.

Difficult though the task was, al-Mas'ūdī did his best. In the larger of his surviving histories, he reports – on the authority of "experts" he does not name – that the first to settle in Egypt was Miṣr, a grandson of Ham, one of the three sons of Noah. The annual flooding of the Nile attracted people "so that the whole country was filled with towns and settlements." The settlers, he says, "channeled the water, dug canals, and set up waterwheels," adding that "all of this took place so long ago that no one can remember how it happened" (§785 = 2:73) Miṣr's son Qibṭ, the eponymous ancestor of the Copts, succeeded his father as Pharaoh. Several generations later, the Egypt was conquered by the Amalekites. One Amalekite king, al-Rayyān ibn al-Walīd, is the Pharaoh mentioned in the Qur'anic story of Joseph. Three generations later came al-Walīd ibn Muṣ'ab, the Pharaoh who was challenged by Moses. After his death, the Egyptians appointed a queen, Dalūkā, who is credited with building many monuments, including temples containing depictions of her enemies, along with their ships and beasts. If attacked, the Egyptians would put the pictures underwater and their enemies, wherever they were, would drown. (As if to confirm this account, al-Mas'ūdī notes that the temples are in fact covered with pictures and that certain natural forces such as magnetism do work at a distance.)

At some point in their history, al-Mas'ūdī reports, the Egyptians built temples to preserve their knowledge from a catastrophe that they had foreseen with the help of astrological calculations. It was unclear what the catastrophe would be, so they built two kinds of structures: some of clay to withstand fire and others of stone to withstand a flood. In the event, the disaster may have been a plague, as he deduces from "the mounds made up of people, young and old, men and women, piled high as mountains, in the region of Tinnīs" and "the bodies stacked in caves, caverns, temples, and other parts of Upper and Lower Egypt … still dressed in their

clothes" (§813 = 2:89–90). He adds that Jews, Christians, and Muslims alike have no idea who the bodies belong to, suggesting that they must be the corpses of the ancients.

Al-Mas'ūdī then brings the history of Egypt up to the present. After Dalūkā came a long line of Pharaohs, including Balūnā ibn Mīnākīl, who attacked the Children of Israel and destroyed the Temple. Egypt later fell to Nebuchadnezzar, who taxed the country on behalf of the Persians, and then to the Romans, who brought Christianity, which remained the dominant faith until the coming of Islam. Al-Mas'ūdī concludes his chronological survey by reporting that his sources agree on the following:

> There were 32 Pharaohs, five kings who ruled Egypt from Babylon, four Moabite – that is, Amalekite – kings who invaded Egypt from Syria, seven Roman rulers, and ten Greek ones, all before Christ, along with some governors who ruled on behalf of the Persian emperors. All together, the reigns of the Pharaohs, Persians, Romans, Amalekites, and Greeks add up to 1300 years.(§821 = 2:95).

Al-Mas'ūdī does not reveal where his king-lists come from, but the form of some of the names suggests a Greek source translated into Arabic (Shboul 1979: 122).

Turning to the monuments, al-Mas'ūdī draws on a relatively recent source: the testimony of an aged Copt who in 873 or thereabouts had visited the court of the Muslim viceroy Aḥmad ibn Ṭūlūn. In response to questions posed by the viceroy and his courtiers, the old man discussed such matters as the source of the Nile, the kings of Nubia, and the grounds for his belief in Christianity (whose doctrines, he says, are so absurd that they must be true). Asked about the pyramids, he explained that they were built to enclose the tombs of kings. The ancients first built up the foundation; then, placing the sarcophagus in the center, they built the rest of the pyramid up around it. Finally, they smoothed the faces of the pyramid by working from the top down.

Of particular interest for al-Mas'ūdī and his sources were "those pictures of camels and the like that appear in the temples" (Mas'ūdī 1966: §810 = 2:87–88), a description that suggests that writing and pictures were not clearly distinguished. Al-Mas'ūdī reports that the well-known Muslim mystic Dhū al-Nūn claimed to be able to read Hieroglyphic inscriptions by staring at them. Not surprisingly, the resulting translations bear a striking resemblance to Arabic aphorisms. "Beware of manumitted slaves, arrogant young men, unruly soldiers, and Arabized Copts," says one. "Man proposes, but God disposes," says another (§812 = 2:88–89). A more modest response comes from the aged Copt, who when asked about "the unreadable writing on the pyramids and the temples," replied as follows:

> The learned men who lived at the time when people used that script are all dead now. As one nation after another came to Egypt, the people took up the Greek script and the Greek forms of the letters. The Copts can read [Coptic] to the extent that they have learned the Greek letters and supplemented them with letters of their own based on something between Greek and ancient Coptic. In the end they forgot the writing used by their ancestors.(§793 = 2:78)

Characteristically, al-Mas'ūdī wanted to see for himself whether the Copts had preserved any memory of their ancestral language:

I asked a number of well-informed Copts from Upper Egypt and elsewhere about the meaning of the word "pharaoh." They could not answer, and evinced no knowledge of their language. It may be that the word was a title for the king of the region and that the language subsequently changed, just as Pahlavi – that is, ancient Persian – changed into modern Persian, and ancient Greek into Byzantine, as Himyarite and other languages have changed.(§822 = 2:95)

Of all the reports in al-Mas'ūdī's account of Egypt, only two refer to tomb robbery. The first is a legend about an expedition that reportedly took place during the caliphate of 'Abd al-Malik (65–86/685–705). Told that a particular underground chamber is full of treasure, the governor of Egypt, 'Abd al-'Azīz ibn Marwān, sends an expedition to dig it out. His men uncover a paved floor and then steps leading down to a pedestal topped by the statue of a rooster. When one of the workmen places his foot on the step, two swords pop out of the ground and cut him in half, and the rooster crows and flaps its wings. The work continues, but the curse cannot be beaten: "Of the thousand men involved in digging, working, hauling earth, survey-ing the ground, and issuing orders, all died. Terrified, 'Abd al-Malik said: 'This is a strange ruin, and an unbreachable one; let us take refuge in God!'" (§823–24 = 2: 95–96).

More typical of al-Mas'ūdī's general approach is the second account, which describes the opening of a tomb by treasure hunters during the reign of al-Ikhshīd ibn Tughj (r. 935–946):

After a great deal of digging, they reached a vaulted passage and a room hollowed out of the rock. Inside it were statues made of wood coated in a protective varnish, representing standing figures. They were of varied appearance: some were old men, while others were young men, women, or children. Their eyes were made of different gems, including rubies, emeralds, turquoise, and peridot (or topaz). Some had faces made of silver and gold. Some of the figures were broken open. Inside them were the decayed remains of human bodies. Next to each figure were containers like amphorae and other vessels made of marble and alabaster. Inside them was the remainder of the varnish that had been used to coat the body inside the statue. The varnish itself consisted of medicinal powder and mixed ingredients that had no odor. When a flame was applied to it, it gave off various fragrances that could not be identified with any known perfume. Each of the wooden figures had been made to match the appearance of the person inside it, with the differences in features and their ages represented. Across from each figure was an idol made of green marble and alabaster, in keeping with their worship of figures. The figures displayed various inscriptions that no member of any religious community could decipher. Some knowledgeable [Egyptian] people claimed that the script had been forgotten four thousand years ago. This account serves as evidence that these people were neither Jews nor Christians.(§825 = 2: 97–8 reading *ḥujrah* for *ḥajārah*).

Though the excavators were searching only for treasure, al-Mas'ūdī is interested in what the objects that they found might reveal about the ancient Egyptians. His conclusion that the ancients were idolaters, not Jews or Christians, would have helped him find a place for them within his scheme of universal history (see further El-Daly 2005: 75–94). But as he seems to acknowledge, it was difficult to say more without being able to read Egyptian writing. The treasure hunters apparently thought so too,

as is evident from their search for a Jew or Christian who could decipher the mysterious ancient writing.

4   al-Ma'mūn and the Great Pyramid

Having looked at what tenth-century observers knew – and wanted to know – about Egypt's ancient history, we may return to al-Ma'mūn and his reported attempt to break into the pyramid of Cheops. As it turns out, the caliph's activities in Egypt were not limited to pyramid breaking. According to a recently published Arabic source, he also tried to decipher the hieroglyphs. Our source for this information is a book about pyramids by one Abū Ja'far Muḥammad 'Abd al-'Azīz al-Idrīsī, who again is a figure of interest in his own right.

Al-Idrīsī was born in 1173 to an Upper Egyptian family of Moroccan origin that traced its ancestry back to the Prophet. As a boy, he once went with his father to see the temple of Karnak. Noticing that people had been removing blocks to use for building, his father exclaimed that the temple should be left undisturbed to serve as a reminder of the transitory character of human glory. In his pyramid book, al-Idrīsī describes the scene in the rhymed prose typical of Arabic writing during this period:

> Among the events of bygone days and the scenes of life now passed away is a visit I paid to the temple of Karnak with my father, may God rest his soul … At that time, the hand of ruin had not yet struck the halls, nor effaced the writing that adorned the walls. It was a spacious temple and wide, with lofty walls on every side. Yet the marks of crowbars marred its stones, which seemed to feel the scars and moan. My father said: "Behold, my son, a temple raised by Pharaoh's might, toppled now by foolish spite. Yet such temples, if allowed to stand, serve to chasten mortal man!" (Idrīsī 1991: Arabic text 45–6)

Al-Idrīsī's one surviving work on Egypt is *Anwār 'ulwiyy al-ajrām fī l-kashf 'an asrār al-ahrām* ("Lights of the translunar bodies: on uncovering the secrets of the pyramids"). Despite its unusual subject matter, the book, like al-Maqrīzī's *Topography*, bears the hallmarks of being written by a Hadith scholar. It consists largely of citations, which are (usually) traced back to their sources; and its author does not seem to mind that some of his accounts are contradictory. The book was also transmitted in the traditional way: that is, by being read aloud to his students in the author's house. Beyond the names of his teachers and students, and the few auto-biographical remarks he makes in his book, little more is known of al-Idrīsī's life. He lived to see Louis IX's crusade against Egypt and the overthrow of Shajarat al-Durr by the Mamluks, and died in 1251 at the age of 78 (introduction, 42–66; Haarmann 1996: 605–6).

In a chapter on the Muslim rulers who had visited the pyramids, al-Idrīsī combines reports from at least five different Arabic sources to provide an account of al-Ma'mūn's expedition. The caliph, according to the sources, had long been inter-ested in Greek learning and had commissioned scholars to translate philosophical books from Greek into Arabic. When he arrived in Egypt, he was "moved by his lofty ambition and noble spirit to expose the secrets concealed by the pyramids and to learn

their true meaning" (Arabic text, 33–35). The first step was to decipher the writing on the ancient monuments. This was a daunting prospect: the Great Pyramid alone was covered with writing in no less than ten different scripts. Asked to help, the sages of Egypt directed the caliph to one Ayyūb ibn Maslamah, a sage who supposedly could read *al-qalam al-birbāwī*, "temple writing." Unfortunately, he could read only four of the ten scripts: "The reason," al-Idrīsī quotes him as saying, "is that the wise men of Egypt . . . used depictions of the stars and planets to cast [their writing] in riddles, symbols, and obscurities, such that no one has been able to figure it out." Even so, Ayyūb "translated for al-Ma'mūn what was written on the Pyramids, the two obelisks of Heliopolis, a stela found in a village stable near Memphis, another stela from Memphis itself, [as well as writings found] in Busir and Sammanud." The translations were copied into a book called *The Book of Priestly Talismans*, of which al-Idrīsī claims to have seen a few damaged pages (Arabic text, 60–62).

As we have seen, interest in Hieroglyphic writing was hardly unusual (for more examples see El-Daly 2005: 57–73). Moreover, as al-Idrīsī points out, al-Ma'mūn had a proven record of interest in the ancient sciences. There is, therefore, nothing unlikely in the claim that he sought an expert to translate Egyptian for him. Also reassuring is how honest the expert turns out to be: like al-Mas'ūdī's Coptic sage, Ayyūb admits that he cannot read hieroglyphs. As for the writing "in ten different scripts," al-Idrīsī's sources make it clear that much of it consisted of graffiti in various languages. Of these, Ayyūb may have been able to read Coptic and possibly also Greek. Admittedly, it is suspicious that he could also "translate" texts from stelas and obelisks. Perhaps here, too, he worked only on non-Egyptian graffiti. Assuming, in any case, that he did produce translations – honest or otherwise – there is nothing unlikely in his having written them down. Several Arabic works contain purported translations of Egyptian inscriptions, and a few even contain copies of Hieroglyphic signs (Blochet 1914–15: 6: 49–67; El-Daly 2006: Figures 12, 14–32). Viewed as part of the tradition of curiosity about pre-Islamic civilizations, al-Ma'mūn's attempt to decipher the hieroglyphs is perfectly plausible (see further Cooperson 2008).

What about the caliph's alleged attempt to break into the pyramid? If he was interested only in texts, there was no need to go to the trouble of breaking into a pyramid to find them: there were plenty of them lying about outside. But his insistence seems strange only because we already know that the pyramid contained no texts for him to find. He, of course, cannot have known this. Moreover, given the information he did have available, he is likely to have thought that the pyramids *did* contain texts – possibly very important ones.

According to the Arabic chroniclers, al-Ma'mūn had gone to Egypt in 832 to put down a rebellion against Abbasid rule. Because many of the rebels were Copts, the caliph decided to bring a Christian clergyman along to help persuade the rebels to desist. The clergyman was Denis of Tell Mahre, the Jacobite archbishop of Antioch. According J. M. F. van Reeth, Denis is likely to have been familiar with the legend of the Cave of Treasures, a place that according to Syriac tradition contained the body of Adam as well as the riches he had brought with him from Paradise. At some point, elements of the Cave-of-Treasures story appear to have been transferred to the pyramids: the story of Sūrīd contains several odd words that only make sense if read as translations from the Syriac. Informed of this tradition by Denis, al-Ma'mūn may

thus have expected to find the pyramid full of treasures dropped from Heaven (van Reeth 1994).

As far as I know, van Reeth is the first to propose a real explanation for the caliph's interest in Cheops – that is, an explanation based on the likely interests of the people involved. Unfortunately, there is no direct evidence for his proposal. Moreover, there is one major piece of evidence against it. Denis's Syriac chronicle offers us two theories – including his own – of what the pyramids were, and neither mentions the Cave. His account (as cited in the chronicle of his successor Michael the Syrian) runs as follows:

> In Egypt we also beheld those edifices mentioned by the Theologian [= St. Gregory of Nazianze] in one of his discourses. They are not, as some believe, the granaries of Joseph. Rather, they are marvelous shrines built over the tombs of ancient kings, and in any event oblique [= consisting of inclined planes] and solid, not hollow and empty. They have no interior, and none has a door. We noticed a fissure in one of them and ascertained that is approximately 50 cubits [= c 33 m] deep. Evidently the stones [in this place] had been solidly packed before being broken by people who wanted to see whether the pyramids were solid. (Michel 1905:82)

Given this account, it is difficult to insist that Denis thought of the Great Pyramid as the Cave of Treasures.

Nevertheless, van Reeth is correct, I think, in seeking to explain the caliph's behavior by looking at the interests he shared with those around him. In addition to the story of the Cave of Treasures, there were legends that associated the pyramids with Hermes Trismegistus, the demigod whom Greek tradition credits with knowing the secrets of various arts and sciences (e.g. Idrīsī 1991: Arabic text, 22, 96–7, and index; Suyūṭī 1939: 27). Certain other reports claimed that the pyramids played a role in the Hellenistic astral cult of the Sabeans, a community then (and now) still active in northern Syria (Idrīsī 1991: Arabic text, 12 and index; Suyūṭī 1939: 29). If the caliph knew of these legends, or of others like them, he may well have imagined that the pyramid contained the key to all knowledge: perhaps the Tablet of Hermes, or some other book or inscription.

But did he really get in? In the passage cited above, Denis reports visiting the pyramids, guessing correctly what they were, and founding a passage that led part of the way into one of them. Yet he says nothing to suggest that al-Ma'mūn tried to break into one, leading de Sacy to conclude that he cannot have tried (de Sacy 1801: 498). Here too van Reeth has proposed a solution, one that *is* convincing. As he points out, Denis had visited Egypt on his own five years before. His description of the pyramids may therefore refer to a visit he undertook on his first trip, not his second, when the caliph's pyramid-expedition would have taken place. Why, in that case, does Denis say nothing about a pyramid-expedition in his account of the second trip? Perhaps because he left Egypt before the caliph did: according to his own account, he failed to win over the rebels and was given permission to return to Syria. If al-Ma'mūn tried to break into the pyramid later, Denis would never have known (van Reeth 1994: 232). Still, the caliph would have had to work quickly: the Arabic sources report that he spent only 47 days in Egypt.

As it happens, Denis's account, along with testimony collected by the Egyptian pyramid-scholar al-Idrīsī, allows us to confirm Stadelmann's hypothesis that the caliph broke into the pyramid by using someone else's tunnel. Denis reports finding a fissure that extended some 50 cubits (approximately 33 m) into the pyramid. Clearly, then, there was already some sort of passage – albeit a blocked one – leading into the pyramid even before al-Ma'mūn arrived. The existence of this passage is confirmed by an Arabic account, that of al-As'ad ibn Mammātī (d. 1209), which as quoted by al-Idrīsī runs as follows:

> Among the marvelous tales of the pyramids is that when al-Ma'mūn entered Egypt and saw them, he wanted to demolish one and see what was inside. He was told that this was impossible. He said: "I must open one of them." So excavations were carried out, at great expense, *on the existing breach*. Fires were lit and ballistas were used to hurl projectiles at it. It was thus discovered that the wall was nearly twenty cubits thick.
>
> (Idrisi 1991: 34–5; my emphasis)

From this account, it seems that al-Ma'mūn, like the visitors mentioned by Denis, imagined at first that the pyramid was hollow. After failing to knock it down, he decided to take advantage of the fact that someone had already tried to get inside. Whoever it was created a "breach," which is evidently the same as the "fissure" earlier explored by Denis. As the report explains, the passage into the pyramid was blocked at a certain point by a wall, which the caliph's workmen proceeded to demolish.

The work of modern Egyptologists makes it clear that this reconstruction is plausible. According to Stadelmann, there was indeed a tunnel leading into the pyramid: namely, the tunnel opened by tomb robbers during the First Intermediate Period (2081–2055 BC). The robbers had made a breach below and to the west of the original entrance, which had been blocked over on the outside. They then excavated a tunnel into the corridor that ascends from the original entrance. This corridor had been sealed with three granite plugs. After digging around the last of the plugs, the robbers followed the ascending corridor up to the gallery and the burial chamber. There they broke open the sarcophagus of Cheops and removed the grave goods placed around it (Stadelmann 1991: 110 ff. For a helpful illustration of the robbers' tunnel – not the same as the so-called *Grabraübergang,* a misnomer for the well shaft [idem: 116–18] – see Lehner 1997: 40). Then, at some point during the Ramesside period (1295–1069 BC), the desecrated burial chamber was restored. After the restoration was finished, the tunnel was re-blocked to prevent further violations of the tomb. This blockage – what Ibn Mammātī calls the "wall" – stood for some two millennia, at which point the caliph knocked it down. The description of what his party found on the other side – the "passages going up and others going down," the "cubical room," the "closed basin of marble" containing "nothing but decayed remains" – leaves little doubt that they did get through.

To some modern readers, the account of al-Ma'mūn's pyramid-expedition appears to be a patchwork of legendary elements familiar from other sources: the inquisitive ruler, the "native informant," the triumph of ancient wisdom over modern impertinence. But a closer reading reveals that none of the seemingly legendary elements behaves the way it is supposed to. If the account were pure fantasy, we would expect

the caliph's informant to produce reminders of the vanity of human endeavor, like Dhū al-Nūn's mystical "translations" of ancient writing. As for the pyramid break-in, the Arabic sources claim only that the caliph entered the pyramid and found nothing there of interest. Legendary treatments of similar episodes – such as, for example, al-Mas'ūdī's story about the tomb guarded by sword-wielding automata – have it the other way around: the pyramid or temple is full of treasure but no one can get in. If al-Idrīsī's account is a barefaced lie, it is surely one of the most timid lies in the history of Arabic letters. None of this means, of course, that al-Ma'mūn was practicing Egyptology in the modern sense of the word. Rather, it seems, he was seeking to satisfy his curiosity about the occult sciences of the ancients, precisely as he had done with the works of Aristotle. Our modern awareness that his efforts cannot have succeeded makes it no less likely that they did take place.

5   'Abd al-Laṭīf

Al-Idrīsī's veracity on the matter of the pyramids notwithstanding, much of the material on ancient Egypt preserved in the works of Arabic authors is clearly legendary. Many of the legends come from Greek, Syriac, and Coptic sources, meaning that the Arabic authors can hardly be accused of having especially lively imaginations. As we have seen in the case of al-Mas'ūdī, the recourse to legend seems often to have been a response to the lack of genuine historical information. One author, 'Abd al-Laṭīf al-Baghdādī, is noteworthy for a different reason: he was able – in one book at least – to eschew legends almost completely. Instead of telling stories about the objects he sees, he describes them in great detail. This response is hardly typical, but it certainly merits our attention.

Like al-Ma'mūn and al-Mas'ūdī, 'Abd al-Laṭīf came to Egypt from Baghdad. Born in 1162, he received an education in Hadith, grammar, and the other religious sciences. He then traveled to Jerusalem to meet Saladin, who was fighting the Crusaders in Palestine. Having obtained the patronage of Saladin's secretary, he went to Egypt to meet fellow scholars, among them the famous Jewish thinker Moses Maimonides. After studying the ancient philosophers, taking up medicine, and renouncing alchemy, he went on to teach the religious and philosophical sciences in Damascus, Cairo, Jerusalem, and elsewhere. He wrote extensively on medicine and produced an autobiography that has been partially preserved. He eventually returned to Baghdad, where he died in 1231 or 1232 (Stern 1960; Toorawa 2001). The only work of his to have survived in its entirety is a description of Egypt, ancient and modern, called *al-Ifādah wa l-i'tibār* (Information and contemplation). Along with al-Maqrīzī's *Topography*, it was one of the first Arabic accounts of Egypt to become known to European scholars. The pioneering Orientalist Edward Pococke (d. 1691) helped his son translate some of it into Latin, though the complete work was not published until 1800 (de Sacy 1801: xii–xv). It was also translated into German in 1790; into French (by de Sacy) in 1801; and into English in 1965 by translators who claimed to have received supernatural communications from the author but whose rendering is nevertheless riddled with errors (see the review by Serjeant 1966).

In his description of Memphis, 'Abd al-Laṭīf says that the monuments, despite the ravages of four thousand years, "contain wonders that overwhelm the observer and stymie the eloquent." The more one looks, the more astonishing the place seems, "and no matter how many insights come to mind as you contemplate it, beyond them lie glimpses of something greater still" ('Abd al-Laṭīf 1983: 54). Yet does not try to explain what he sees by repeating legends, which he calls *al-manqūl*, "transmitted material," and which he claims to have recorded in another book. Here he describes and analyzes only *al-mushāhad*, "the observable" (p. 48). Accordingly, the book contains many precise descriptions of ancient artifacts. Describing the obelisks he saw in Heliopolis, he writes:

> A base measuring ten spans by ten spans by ten spans is planted firmly in the earth. On top of it is placed a tapered rectangular solid some one hundred spans in height. Its radius at the base seems to be about five spans, and it ends in a point. The peak is covered with a cap of brass, like a funnel, to a length of some three spans. Because of rain and age, the brass is covered in verdigris, which has run down onto the sides of the obelisk. (51)

As this passage indicates, 'Abd al-Laṭīf was intent on taking measurements whenever he could. In his account of Alexandria, he gives estimates for the height of Pompey's Pillar and the dimensions of the lighthouse (pp. 51, 53). In Giza, he tried to calculate the length of the buried body of the Sphinx based on the proportions of the head. He also sent a man to the top of the Great Pyramid to measure the flat space at the peak using his turban-cloth. His remarks about the pyramid support Stadelmann's reconstruction of its history: the interior, he says, is fully accessible, not by the original entrance but through "a tunnel discovered by chance" by the caliph al-Ma'mūn. Hoping to see the interior for himself, 'Abd al-Laṭīf went some distance down the tunnel but then "fainted at the terrifying prospect of the ascent" and "barely made it out alive" (p. 47).

On the basis of his observations, 'Abd al-Laṭīf tries to guess the thinking behind the objects he sees. For example, he points out that the shape of the pyramids distributes weight evenly and makes the structure more stable, while the orientation of the edges lessens the impact of the wind. In Memphis, he noticed that one of the building stones had split, revealing a sort of drill-hole surrounded by rust and verdigris; this, he reasons, must be where the builders poured molten metal to hold the stones together (p. 55). Even when he cannot make sense of what he sees, he has no doubt that every object has a purpose. In Heliopolis, for example, he saw "images of planets and celestial spheres and people and animals in all sorts of positions, some standing, some walking, some with their legs outstretched and others with their feet together, some with their sleeves rolled up for work, and others carrying tools, some using them to point." These images, he says, cannot have been put there for mere decoration. Rather, they must have been intended to depict "matters of grave importance," although he cannot guess what they may have been (pp. 54–5).

As we have seen, it is common for Islamic-period observers to make sense of the monuments by imposing interpretations derived from the rich body of legend

about the ancient world. ʿAbd al-Laṭīf does the opposite: that is, he uses his observations of the monuments to help explain features of the narrative tradition. So impressive are the Egyptian "idols," he says, that it is little wonder that the Children of Israel, who lived in Egypt for a long time, should have wanted one of their own. He even tries to explain contemporary religious practices by reference to the supposed beliefs of the ancients. The Coptic practice of "using images in their churches," he says, including images of "their god with the angels around him," can be traced back to "the practice of their forefathers." Strikingly, he defends the ancient Egyptians against the charge of idolatry: regardless of what their descendants may think, the ancients cannot have been so ignorant as to imagine that God could be reduced to material form (pp. 60–1).

Several remarks that ʿAbd al-Laṭīf makes in passing reveal aspects of popular attitudes toward ancient Egypt and its monuments. So marvelous are some of the ancient constructions that "a discerning observer might well forgive the common people for thinking that the ancients were long-lived men of gigantic proportions who could make stones fly wherever they wanted by striking them with sticks" (p. 57). Unfortunately, the rulers of his day have not maintained the custom of preserving the monuments as testaments to the truth of scripture and as evidence for the genius of the ancients. Instead, when they see a magnificent building, people's minds "turn first to what they love most, namely the dirham and the dinar." In their search for hidden treasures, they have toppled statues, drilled through stone walls, and dug their way into hillsides, often wasting all of their own money in the process. Treasure hunters are encouraged by the discovery of mummies, which are sometimes covered partially or completely in gold leaf. Usually, though, the tomb robbers are disappointed. In one case, a large jar turned out to contain nothing but tiny mummified fish, each of which turned to dust on being opened (pp. 61, 65; see further El-Daly 2005: 95–107).

Eager though he is to understand and explain what he sees, ʿAbd al-Laṭīf is also capable of responding to works of ancient Egyptian art as objects of aesthetic interest in themselves. Commenting on the lifelike symmetry of the ancient statues, he writes:

> When you look at a graven image, you notice how the chest separates from the neck at the collarbone with extraordinary symmetry. The chest then rises, with the breasts extending outwards in marvelous proportion and projecting outward to the nipples, which are depicted on a scale appropriate to the enormous size of the figure. The breasts slope inward to the sternum, to where the heart and the cleft of the throat are, then down to the place where the flanks are ribbed and curved, exactly as they are on a living creature. (ʿAbd al-Laṭīf 1983: 56)

With his physician's eye, he goes on to describe the rest of the figure, adding that "some images are depicted with hands grasping a cylinder . . . apparently representing a scroll, with indications of the folds and wrinkles that appear on the palm of the hand near the little finger when a person closes his fist" (p. 57). It is not clear why ʿAbd al-Laṭīf's sober reflections on Egyptian antiquities, though available to Orientalists from an early date, should have been overshadowed by the more fanciful account of al-Maqrīzī.

6 Islamic Egypt and Modern Egypt

One of the places where conventional labels fail us is the borderland between "Islamic Egypt" and "Modern Egypt." Taken literally, the labels imply that Islam has no place – or no legitimate place – in the modern world. Yet the Muslim population of Egypt, both in absolute terms and as a proportion of the total population, is greater than at any time during the so-called "Islamic period." More to the point, perhaps, many Egyptian thinkers have expended a good deal of energy trying to reconcile Islam and modernity, making it difficult to declare the problem solved by terminological fiat. To address this difficulty, we might decide to place the beginning of the modern period at the moment when the harmonization of Islam and modernity first presents itself as a problem. Even then, however, no single date presents itself as the obvious candidate. In the course of the nineteenth and twentieth centuries, Egypt developed the institutions characteristic of the modern nation-state. Today, the courts apply traditional Islamic law only in cases dealing with marriage, divorce, and the like. Even so, Egypt has never ceased to be a Muslim country, if by that one means that the majority of citizens profess Islam and consider it normative in the public sphere as well as in private life. The upshot of all this is that the modern period began some time ago without the Islamic period ever having ended. To live up to its title, then, this essay must offer an account – if necessarily a sketchy one – of the image of ancient Egypt in the modern as well as the pre-modern period.

The last author cited in El-Daly's recent survey of classical Arabic writings on ancient Egypt is Jalāl al-Din al-Suyūṭī (d. 1505), who wrote a short essay consisting of old reports and poems about the pyramids (Suyūṭī 1939). Over the next three centuries, other treatises on Egyptian history and antiquities were doubtless written in Arabic. If al-Suyūṭī's little essay is any guide, such works may well have included citations from earlier works now lost. Unfortunately, these three centuries fall into a period called the "decline" or the "decadence" (*al-inḥiṭāṭ*), which for ideological reasons has until recently been neglected by Arab and Western scholarship alike (Fieni 2005; Bauer 2007). As a result, there is little if any published evidence for the period between 1500 and 1800, at least not in Arabic. (For a discussion of Ottoman materials, and of Arabic sources in manuscript, see Haarmann 1996 and further references cited.)

The author most commonly associated with the Egyptian transition to modernity is ʿAbd al-Raḥmān al-Jabartī (d. 1822), who witnessed and wrote about the French occupation. In one of his chronicles, he mentions a group of Englishmen who explored the pyramids and sent home the head of a large statue found in Upper Egypt (Reid 2002: 36–37, 39–40). After al-Jabartī, classical Arabic images of ancient Egypt came to be supplemented and eventually replaced – at least among the literate – by ideas derived from European scholarship. A pioneer in this process was Rifāʾah al-Ṭahṭāwī, a traditionally trained Muslim who studied in France from 1826 to 1831. (While in Paris, he met Silvestre de Sacy, whom he describes as wonderfully adept at reading and writing Arabic but "unable to speak it unless he has a book in his hands." After returning home, al-Ṭahṭāwī founded an official School of Languages and translated – or supervised the translation of – scientific works, including a history of

ancient Egypt. In 1868, he published his own history of the country. Although it drew heavily on current European Egyptology, the *Anwār tawfīq al-jalīl* (Lights of divine guidance) nevertheless attempted to salvage some elements of the classical Arabic tradition, including the designation of the ancient Egyptians as Sabians (Reid 2002: 108–112).

In the course of the nineteenth century, Egypt's rulers began to adopt Pharaonic images as official tokens, and to sponsor or sanction the foundation of Egyptological institutions. In 1829, the government journal *al-Waqā'i' al-miṣriyyah* (Egyptian events) placed a drawing of a pyramid on its masthead. In 1835, Muhammad 'Alī issued a decree banning the export of antiquities and calling for them to be sent to al-Ṭahṭāwī, who was to display them in Cairo (Reid 2002: 54–56). Even so, a permanent museum was not built until 1863. Founded by Auguste Mariette (d. 1881), it was intended not only for European visitors but also for Egyptians seeking to learn about "the history of their country." The museum's guidebook, originally written in French by Mariette, was translated by one of al-Ṭahṭāwī's students into Arabic (pp. 103–7). From 1867 to 1914, Egyptian postage stamps featured an image of the Sphinx with a pyramid in the background. In 1876, the Sphinx along with two pyramids appeared on the masthead of *al-Ahrām*, now Egypt's semi-official daily newspaper. The "garbled history of the pyramids of Giza" that appeared in the first issues included "speculations that the pyramids were built to preserve knowledge before the Flood, to store grain, or to observe the stars" (p. 118), indicating that some elements of the classical tradition still survived.

In his monograph on Egyptology and national identity, Donald Malcolm Reid has traced the careers of several indigenous scholars who joined their European counterparts in the scientific study of the past. These include Joseph Hekekyan (d. 1875), an Armenian who carried out archaeological excavations in Heliopolis and Memphis; Maḥmud al-Falakī (d. 1885), an astronomer who reconstructed the topography of ancient Alexandria; Ali Mubārak (d. 1893), the author of a massive topographical study modeled on the work of al-Maqrīzī; and Aḥmad Nagīb (d. 1910), translator of the first Hieroglyphic textbook in Arabic. The most prominent figure is Aḥmad Kamāl (d. 1923), who studied Egyptology at the school founded by Mariette but had to earn a living as a translator until, with the help of the French scholar Gaston Maspéro (d. 1916), he was able to found an institute of his own. Although the institute was short-lived, Kamāl went on to publish numerous site reports, translations, and works of original research, and to lecture in ancient history at the newly founded Egyptian University. Even so, in an era when Lord Cromer, the British Consul-General, could declare that "the Egyptians are as yet [not] civilized enough to care about the preservation of their ancient monuments," Kamāl rarely received the recognition he deserved (pp. 172–212).

In the course of the twentieth century, the Pharaonic past – filtered largely though not exclusively through the work of Egyptologists – became an inseparable part of the nation's image of itself. Egypt achieved formal independence from Britain the same year that Tutankhamun's tomb was brought to light, a coincidence that "linked archaeology and politics as never before" (p. 293). The monumental Pharaonic-themed sculptures of Mahmud Mukhtar (d. 1934), including the famous *Nahḍat Miṣr* (The Awakening of Egypt), which features a woman lifting her veil beside the

Sphinx, have become iconic symbols of continuity with the past. The first three books published by the Nobel-Prize winning author Nagīb Maḥfūẓ (often spelled Naguib Mahfouz, d. 2006) were historical novels set in ancient Egypt. After the revolution of 1952, Egyptians assumed full control of its museums and archaeological sites, and soon after began making findings of their own, including a ceremonial boat in Giza. "Today, the busts of Aḥmad Kamāl and several other Egyptian Egyptologists have joined the once exclusively European gallery of scholars that frame the Mariette monument in the Garden of the Egyptian Museum" (p. 294).

Now re-indigenized, the symbols of the past have become commonplace: Cairo's central train station is called Ramses, Egypt Air's fleet features a depiction of Horus, and the local brand of cigarettes is called Cleopatra. Beyond these ubiquitous symbols, there survives what seems to be a genuinely popular tradition of superstitious reverence for certain monuments. *In The Collar and the Bracelet* (1977), a novel by Yaḥyā al-Ṭāhir ʿAbd Allāh (d. 1981), a rural woman who cannot have children is depicted as spending the night in an ancient temple, where she is impregnated, presumably by one of the guards. If at all true to life, this depiction suggests that the temple provided a socially sanctioned venue for working around the problem of male infertility. Even among educated urban Muslims, it is not uncommon to hear about remote villages "where they still speak Coptic." In reality, relatively few Coptic words survive in modern spoken Arabic (Bishai 1959; Hinds and Badawi 1986).

To some extent, the notion of proud continuity from ancient times is counterbalanced by reservations about the blatantly polytheistic and idolatrous character of ancient Egyptian religion. In the Qur'ān, Pharaoh is a tyrant, and in Islamic tradition a symbol of oppression and injustice. When the jihadist Khālid al-Islāmbūlī assassinated President Anwar al-Sadat in 1981, he reportedly called out: "I have killed the Pharaoh!" Conversely, some Egyptians take comfort in arguing that Ikhnaton was a monotheist prophet, like Abraham. But the ambivalence remains. It is perhaps most concisely symbolized by the banknotes, which display a Pharaonic monument on one side and an Islamic one on the other. In this respect, Egypt is hardly unique: both modern Greece and modern Iran, to take only two examples, have witnessed lively and often acrimonious debates over the relationship between past and present. Whether Egypt will follow Greece, which has largely embraced its ancient heritage, or Iran, which under the current regime has rejected significant parts of it, remains to be seen.

FURTHER READING

Few of the original Arabic sources on ancient Egypt are available in English, and even fewer are well translated. An exception is Suyūṭī (1939), although it offers only a glimpse of the tradition. Many sources – including Masʿūdī (1966) – have been translated into French, but most of the editions are old and hard to find. The most efficient way to consult the Arabic authors is, therefore, through El-Daly 2005, which brings together citations from a wide range of sources in summary or in translation. As a work of criticism and analysis, it is hardly exemplary: it takes the Arabic sources as representing some abstract field called "Egyptology," which seems to have the same goals and methods no matter where or when it is practiced. Specialists will also

find the arbitrary transliterations of Arabic irritating. Even so, El-Daly offers an excellent starting point for further research, not least because of the ample bibliography. Another good overview is Haarmann (1996), which is less a survey than a catalogue of the attitudes and approaches evident in the work of Arabic (and a few Ottoman Turkish) writers on ancient Egypt. It also contains many references to further studies, including others by Haarmann in English. Like El-Daly's, Haarmann's work might be criticized for paying little attention to the literary and historical context of the works it surveys. Nevertheless, any such study would have to take Haarmann and El-Daly as starting points, if only for the sheer volume of material they have unearthed. The period from roughly 1800 to the early twentieth century is covered in exhaustive detail in Reid (2002), which treats the European and Egyptian discourses in tandem.

Ancient Egypt in the Museum: Concepts and Constructions

Christina Riggs

1   Introduction

Writing in his journal in February 1888, the archaeologist Flinders Petrie considered the vividly naturalistic paintings he had just discovered in the Hawara necropolis, which were set into the wrappings of Roman Period mummies (figure 49.1):

> I have the notion — beside any special exhibition that we make of these — that it would be a grand joke to send in all the paintings that I bring home to the winter exhibition of Old Masters at Burlington House.

Since 1869, Burlington House in London's Piccadilly had been home to Britain's premier body of artists, the Royal Academy. Founded in 1768, the Royal Academy organized summer exhibitions of contemporary British painting and, from 1870, made good use of its new premises with an additional winter exhibition of Old Master paintings on loan from British collections. Conservative in taste and scope, these exhibitions were popular enough to support the Academy's schools and running costs (Fenton 2005).

Diagonally across the street from Burlington House, opposite Old Bond Street, stood a very different exhibition venue: the Egyptian Hall. William Bullock constructed this venue, with its Egyptian revival façade, in 1812 to house "Bullock's Museum," his collection of assorted antiquities, ethnographic curios, and natural history objects inspired by the "cabinets of curiosities" of old. By 1816, however, Bullock had abandoned the permanent display and instead turned his "museum" into a space for changing exhibitions that would bring the world to Britain (Pearce 2008; Yanni 2005: 26–8; Werner 2003: 82–6). Laplanders and their reindeer, the arts of Mexico, and Giovanni Belzoni's reconstruction of the tomb of Sety I were popular, reasonably priced, and open to the entire public. Belzoni's facsimiles of the Sety I tomb were part of a selling exhibition, albeit not a very successful one, with a range of antiquities and models of tombs and temples available for purchase (Pearce 2000).
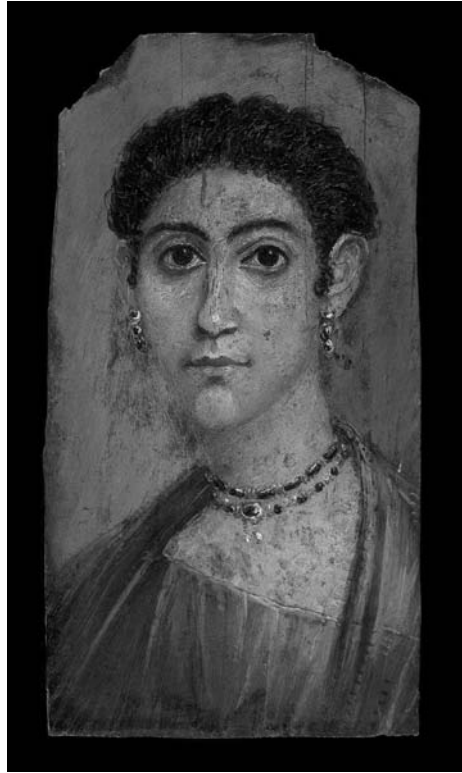
Figure 49.1 Portrait of a woman, from Petrie's 1888 season at Hawara. British Museum EA 74706; formerly National Gallery 1263. Copyright the Trustees of the British Museum.

In the late 1840s and 1850s, the Egyptian Hall featured a long-running "new and splendid MOVING PANORAMA of the NILE, exhibiting the whole of the stupendous works of Antiquity now remaining on its banks," which were based on the paintings of Joseph Bonomi and publicized in middle-class magazines like *Art-Journal*. By the late nineteenth century the Egyptian Hall alternated between exhibitions and performances, such as magic demonstrations, and advertised itself accordingly as "England's home of mystery and the arcane" (Montserrat 1998).

In the end, it was to the Egyptian Hall, not Burlington House, that Petrie took the panel portraits, funerary masks, and shrouded mummies he brought to England from Hawara, under the terms of the division of finds permitted foreign excavators in Egypt at that time. Petrie relied on income from subscriptions (in return for a share of finds), public lectures, and popular books to fund further excavations and scholarly publications, and the Egyptian Hall – at once emporium and museum – was deemed a fitting venue. The Hawara finds went on display in June and July 1888, within months of their discovery. The paintings that Petrie had privately likened to Old Masters caught the attention of the anonymous reviewer in the *Illustrated London News*, who reached a similar conclusion and name-checked the Royal Academician Leighton, as well as the French painter Bouguereau, both of whom favoured sentimentalized Classical themes:

These heads are by various artists, some of them wielding a brush as vigorous as Velasquez, others a pencil as delicate and refined as that of Sir Frederick Leighton or Bouguereau. There is no mistaking the fact that they are all veritable portraits of men and women who have been coffined these seventeen centuries. (quoted in Montserrat 1998: 174)

Petrie distributed his share of the Hawara mummy portraits to his financial backers, who included institutions like the Ashmolean Museum as well as wealthy individuals, such as railway scion Henry Martyn Kennard and Manchester cotton merchant Jesse Haworth. He also kept a selection for his own collection, which, as "The Petrie Collection," was sold to University College London during his lifetime. Among the national collections the British Museum received material that was catalogued in either the Egyptian or the Greek and Roman Departments, based on judgements about the cultural character of the objects: mummies belonged to the Egyptian Department, for instance. But more than a dozen portraits separated from their mummies, like that illustrated in figure 49.1, were given instead to the National Gallery in Trafalgar Square – the home of the nation's Old Master paintings. Thus Petrie almost had his "grand joke," although the mummy portraits were physically moved to the British Museum in the 1930s (followed by a transfer of title in 1994).

The collection history of the Hawara portraits follows a telling trajectory away from Egypt, the country in which they were made, used, and found. It is both a physical and a conceptual divide; for the portraits became first exotic (Egyptian Hall), then European (National Gallery), and finally settled somewhere between the two, in a leading repository of both Egyptian and classical antiquities. The difficulty of slotting the mummy portraits into an established taxonomy, whether in the 1880s or the 1990s, was, in part, to do with their "lifelike" representation of human physiognomy and their perceived affinity with the easel paintings familiar from a Renaissance and later European context. But such troubled and troubling taxonomies chiefly result from an ambiguity about Egypt itself. Museums confronted a problem of their own making: how to slot Egypt into Western categories of knowledge.

Petrie's jocular aside about the discoveries at Hawara reveals the extent to which Egyptian art and archaeology were enmeshed in the "exhibitionary complex" of the nineteenth century. In the industrializing, increasingly democratic societies of Europe, an array of institutions emerged which enshrined power and knowledge relations based around visual display, including the museum, amusement park, department store, and venues like the Great Exhibition of 1851 (Bennett 1988). As Petrie was well aware, the material remains of Ancient Egypt, together with representations of Egypt in the form of models, facsimiles, photographs, and written words, had played a key role in exhibitions throughout the nineteenth century. Egypt was, in fact, at the heart of developments not only in the exhibition and museum sphere, but also in the definition and professionalization of academic disciplines like archaeology and Egyptology, to the extent that Petrie himself would be dubbed "the father of Egyptian archaeology" and inaugurate a University College London chair, the first of its kind in Britain.

These developments, and debates about where Ancient Egypt belonged in the new exhibitionary order, took place in tandem with the development of Ottoman Egypt as

a colonized territory, whose infrastructure supported the cultivation and export of raw cotton foremost, and tourism and archaeology secondarily (Mitchell 1989, 2004). Museums provided a space where the fruits of colonial contact – art, artefacts, "knowledge" of the colonized country – could be ordered and arranged to create knowledge of oneself and one's own society, the colonizer. To this end, museums displayed objects in categories presented as intuitive (Europe or other? painting or sculpture? early or late?), little acknowledging their own role in the creation and promulgation of these categories. For a European audience familiar with an Ancient Egypt found in the Bible, or in Greek and Latin authors, museums offered an opportunity to see the monuments, craftwork, and even human bodies of antiquity in person. This powerful and power-driven act of seeing, within the wider institutional setting of the museum, constructed multiple "Ancient Egypts" whose presence continues to resonate, more than a century after Petrie displayed Egypt on the "arcane" side of Piccadilly.

This chapter considers how museums conceptualize and construct Ancient Egypt through practices of collecting, cataloguing, display, interpretation, and education. It traces historical developments in museum practice as well as examining contemporary issues. Analysis of museum histories and relevant cultural theory is marked by its absence from Egyptology, despite the centrality of museum collections in academic research and the number of trained Egyptologists employed by museums. Where Egyptologists have explicitly addressed the subject of Ancient Egypt in museums, the publications favour positivist accounts of "discovery" or hagiographic descriptions of collectors, revealing little or no engagement with the large body of critical and museological literature (for which see the summary in Preziosi and Farago 2004: xxi-xxiv). Originating outside the discipline of Egyptology, recent books by Reid (2003), Moser (2006), and Colla (2007) bring a more nuanced reading to the cultural undercurrents that shaped, and were shaped by, museum collections of Egyptian antiquities. By drawing on such literature and using specific examples of museum practice, this chapter explores the Ancient Egypts found in the vitrines, sculpture galleries, storerooms, and gift shops of that unreservedly modern institution, the museum.

2   Egypt in Early Collections: Natural or Not?

In seventeenth-century Verona, the "cabinet of curiosities" of Lodovico Moscardo was popular enough for him to describe it in a printed catalogue, neatly divided into three categories – antiquities; stones, minerals, and earths; and corals, shells, animals, and fruit. Moscardo's collection revealed his interest in objects that had mysterious associations, such as magical gems and amulets, Hieroglyphics, and a mummy, the last mentioned of which he classed with "corals, shells, animals, and fruit" (Pomian 1990: 74–8). Moscardo was typical of the scholarly collector of his day. A near-contemporary in France, a medical doctor named Pierre Borel, published a description of his museum which, he could boast, contained "every single rare thing" from the natural and artificial world, including pieces of a mummy (Pomian 1990: 45–8). It was this

Aristotelian distinction between artificialia (made by man) and naturalia (made by God, or nature) that informed private collecting in early modern Europe, and the availability of preserved human and animal remains, which were imported for use as mummia in pharmaceutical preparations and pigments, contributed to the tendency for Egyptian material to qualify as nature, rather than artifice. Stuffed or mummified crocodiles were also popular specimens, and shabti figures were perhaps the most common cultural artefact from Ancient Egypt, easily imported through trading contacts. Several are visible on the shelves of a Bolognese collection belonging to courtier Ferdinando Cospi in a 1677 engraving of his purpose-built display (Moser 2006: 26, fig. 1.6).

Whatever made Egypt mysterious and fascinating shared those traits with the natural products of the earth and sea as well as man-made marvels. Unlike the royal and princely *Wunderkammern* that focused on collecting for courtly prestige, collections like Moscardo's were explicitly centered on acquiring, organizing, and imparting knowledge, which was done in part by the creation of display rooms and cabinets. The physical space occupied by the collections became ever grander and more impressive: crocodiles were suspended from the ceiling, and every available wall space, from floor to ceiling, was filled with the "curiosities," whose close, almost chaotic, proximity expressed a sense of marvel at the diversity of cultural and natural forms. Owning and displaying such a collection was an expression of status and discernment, and the flora, fauna, and antiquities of Egypt contributed to the aura of exotica and rarity that such collections required (Moser 2006: 11–32; see also MacGregor 2007).

In England the best-known collection of "curiosities" belonged to the botanists John and John Tradescant, father and son, whose collection led to the founding of the first public museum in 1683, the Ashmolean Museum at Oxford University. The founding of the British Museum in 1753 was also indebted to earlier "cabinets of curiosities," acquired by the physician Sir Hans Sloane, who had collected natural history specimens since his youth in the 1680s and absorbed many other private collections into his own through purchases and gifts. His estate sold his vast array of scientific instruments, natural-history specimens, books and manuscripts, coins and medals, and ethnographic and ancient artefacts to the British Government, as a result of which an Act of Parliament established the British Museum, funded by the public purse. When it opened in Montagu House, Bloomsbury, in January 1759, small groups of visitors on guided tours could view a quantity of Egyptian antiquities on display for the first time – including a Twenty-sixth Dynasty coffin and mummy donated by the family of Colonel William Lethieullier (Bierbrier 1988). An aristocratic palace rather than a purpose-built structure, Montagu House displayed objects both free-standing and in display cases, in an arrangement based on their visual appeal, perceived significance, or shared donation. Only two of fourteen rooms included antiquities, and each room combined material in a fashion reminiscent of the private cabinets. In the first-floor vestibule, for instance, the Letheiullier mummy was displayed upright, its coffin was in a separate case, and natural history filled the rest of the space. Egyptian material occupied prime space in the vestibule and first exhibition room, but not in a coherent way. Although the Lethieullier mummy was in the sightline of visitors mounting the grand staircase, the next room, devoted to

antiquities, had ten cases of Classical objects and one of Egyptian (Moser 2006: 46–51). The Egyptian objects remained primarily curiosities, with the potential to surprise and entertain, but not to enlighten the eighteenth-century viewer. Recognized as a highlight of the Montagu House displays, Ancient Egypt was not yet a subject fit for academic study or public education; for Ancient Egypt had yet to be "discovered."

3   "Discovering" Egypt: The New Muse

With the success of the British Museum, the museum had arrived, and the material remains of Ancient Egypt, Greece, and Rome were secure in their place as museum objects. What museums would do with these remains over the course of the eighteenth and early nineteenth centuries depended very much on a discourse surrounding art, taste, and the antique. Enlightenment engagement with Kant's elucidation of the "sublime" – an instinctive appreciation of overwhelming and innate beauty – coincided with the rise of antiquarianism as a learned and upper class pursuit, in an élite educational system based on Greek and Latin. Noblemen like Sir William Hamilton helped set the vogue for collecting Greek and Roman art, and well-to-do young men on the Grand Tour visited Italy in the footsteps of Goethe. Egypt, a risky sea journey from Europe, and popularly described as "bandit-ridden," was a fringe concern reserved for hardier travelers and missionaries.

Working in the collection of Cardinal Albani at Rome, the German scholar Johann Winckelmann prepared his *History of Ancient Art*, published in 1764. Winckelmann placed Egypt at the start of a narrative of development that culminated in the sublime accomplishments of Greek art, a scheme informed by Hegel's interpretation of Egyptian art as an incomplete expression of human potential (Harten 1995). The influence of Winckelmann's work bolstered Hegel's ideas about Egypt, rather than those of the philosopher von Herder, who countered that Egyptian art should be understood on its own merits, as an expression of Egyptian religion and culture (Norton 1991). By the early nineteenth century, Egyptian objects were thus being redefined in the public perception as antiquities, rather than mere curiosities, and conceived in relation to the remains of ancient Greece and Rome.

This was the intellectual backdrop to the events of the Napoleonic Wars, in which Egyptian objects functioned as trophies of war and badges of national status. Rivalry between European powers – Britain and France in particular, but Russia, Scandinavia, Austria, and German and Italian principalities as well – played itself out in Egypt, through concerted collecting activities on the part of countries' consular officials, and at home, where the "cabinets of curiosities" of old became grand collections open to, and sometimes owned by, the public, like the British Museum. In Bavaria, a seventeenth-century collection, bolstered by the efforts of Ludwig I, formed the basis for a display of Egyptian art at the Glyptothek, a neo-Classical building opened in 1830; the collection was installed in chronological sequence (Potts 1980). In Turin, the royal house of Piedmont acquired the impressive collection the French consul Bernardino Drovetti had amassed in Egypt, installing it in a seventeenth-century

palazzo in 1824. Florence created an Egyptianizing set of rooms for the display of its Egyptian collection, also opened in 1824 (Vassilika 2006), and the Vatican likewise set the Museo Gregoriano Egiziano in an opulent Egyptian-inspired space, opened in 1839 (Grenier 1993).

Following the British defeat of Napoleon's forces in Egypt, Egyptian antiquities seized from the French reached London in 1802 (Moser 2006: 65–73). The monumentality of these objects – which included colossal statue fragments, two massive stone sarcophagi, two obelisk fragments, and the Rosetta Stone – changed the small-scale character of the Museum's Egyptian collection and brought it considerable public attention. Initially the British Museum housed its new Egyptian objects in makeshift huts in the courtyard of Montagu House, while putting in motion plans for a purpose-built extension. Opened in 1808, the new extension, known as the Townley Gallery, housed the Egyptian stone pieces as well as the Townley collection of Greek and Roman sculpture and, upstairs, displays of coins, medals, and prints. On the ground floor, which supported the weight of the sculptures, Classical antiquities occupied the sequence of rooms that visitors would encounter between the entrance and the stairway to the upper level. Two rooms (out of ten) held the Egyptian objects, with a further room beyond devoted to the highlights of the Classical collection. Egyptian pieces were arranged symmetrically around the walls of the gallery, giving a clear sightline through a Doric-columned entrance that framed the Townley copy of Myron's *Discobolus* (plate 34). The walls of the Egyptian gallery were a stony grey, and the only light came from side windows, rather than the top-lighting used for Greek and Roman marbles. The display thus created an Ancient Egypt that was shadowy, angular, and at odds with the Classical art and neo-Classical architecture surrounding it (Moser 2006: 73–84). This was an Egypt of arrested "spirit," as befitted the Enlightenment narrative of Greek artistic beauty.

The public impact of the Townley Gallery was instant and enormous. For the first time, people who visited the Museum, or read accounts of it in the popular press, could see Egypt as a civilization that made impressive stone statues and architecture as well as shabti figures, beads, and mummies. As Moser emphasizes (2006: 86), the political significance of the objects seized from the French was also integral to their appeal. The aesthetic of the objects themselves, however, was a source of condemnation: the press described Egyptian figures as "uncouth," "monstrous," and lacking in movement or expression, which was meant as a pejorative (Moser 2006: 87–9). Their size and durable materials inspired awe, but not their artistic form.

The Louvre Museum offers an informative contrast to the display and reception of Egyptian antiquities in Britain, and it epitomizes the nationalist endeavour at the heart of early museum expansion in Europe. Although it originated as a royal collection of paintings, the Louvre opened to the public in 1793, at the height of the French Revolution, and all citizens of the fledgling republic were welcome to visit its galleries (McClellan 1994; Gould 1965). Subsequent to the revolution, the Louvre's fortunes were irrevocably tied to the legacy of Napoleon's Egyptian campaign: expedition member Vivant Denon was made Director-General in 1804 and supervised its re-opening as the Musée Napoleon in 1810. In the Rotunda of Mars, which served as a vestibule to the galleries, ceiling medallions commemorated Egypt, Greece, Italy, and France as the four primary schools of art (Duncan 1995, 1999).

Presented as equal nation-states and pinnacles of artistic accomplishment, these four schools were mapped through the physical layout of the museum, a conscientious arrangement in marked contrast to the British Museum's more ambivalent division of Egyptian and Classical objects.

The Louvre had made up for its initial loss to the British, augmenting its Egyptian collection with some of Drovetti's acquisitions, and by purchases of several other collections, including the second collection of the British Consul Henry Salt, which the British Museum had declined on grounds of expense. When the sumptuous, first-floor galleries of the Musée Charles X opened in 1827, the expanded Egyptian collection filled gilded bronze-and-glass display cases amid faux-marble walls, in a dazzling and visually stimulating array. Renowned artists painted the ceilings with Egyptian-inspired themes which referenced Biblical Egypt and the Greeks but in an aggrandizing way, such as François-Edouard Picot's *L'Etude et le génie des arts dévoilant l'Egypte à la Grèce*. Staff had debated the merits of chronological and thematic display, installing the objects according to themes such as religion and history rather than aesthetic concerns (Moser 2006: 151). Champollion himself curated the displays and wrote the first catalogue; in the words of a 1990 collection guide, he "discovered" Egyptian art (Ziegler 1990: 5).

Museums like the British Museum and the Louvre made powerful claims on national identity (and state power) by collecting and displaying antiquities for public wonderment. Just as important as the antiquities – whose characteristics of age, scale, and distance made them suitable "objects" – were the members of the public, who could make themselves suitable "subjects" by visiting museums, behaving appropriately, and pursuing some educational end (Bennett 1985, 1988). Purpose-built galleries and permissible routes through the public spaces lent a ritualistic aspect to the museum visit, which chimed with the sense of awe that struck European viewers faced with large pieces of Egyptian sculpture, strange animal-headed statues, or the fabled Rosetta Stone. The new museums of the eighteenth and early nineteenth centuries were not neutral spaces, though they pretended to be, and the impact of this hushed make-believe has only intensified over time:

> [T]he museum environment itself is often ignored, as if its spaces were neutral or invisible. Most guidebooks sold in museums take this approach, representing the museum experience as almost solely a series of encounters with discrete art objects. (Duncan 1995: 1)

Moreover, in the British Museum and elsewhere, the most popular or intriguing Egyptian objects were of interest not for their inherent qualities alone, but for the stories of discovery, acquisition, and difficult transit that accompanied them – the first sign of another trait that continues to the present day. The "artefaction" of the colossal head of "Young Memnon" (Ramesses II) from his mortuary temple in Western Thebes is a case in point (Colla 2007: 24–66; Moser 2006: 95–6, 105–9, 114–15). Belzoni's efforts to remove and transport the head for Salt were reported in the European press for months before the head arrived in England, and inspired Shelley's sonnet *Ozymandias*. By the time the bust was craned into place on a pedestal in the Townley Gallery, it was the most famous Egyptian sculpture in the

world. Its acquisition had entailed multiple negotiations involving Salt and his agents, the British government, local, national, and regional officials in Egypt, and even the customs office in London, which did not charge import duty on the head because it was a gift for the British Museum. As with Elgin's acquisition of the Parthenon marbles, financial concerns had greased the wheel in Ottoman Egypt but were no less a consideration on British soil. Treating the massive sculpture as property, documenting its every move, and transporting it from Luxor to London all contributed to its recognition as a museum object, an artefact. Other objects Salt and Belzoni had collected were intended for sale, but the Young Memnon was always intended for the museum, setting a precedent for collecting with intention and authority.

The acquisition of ''Young Memnon'' and its 1819 installation in the Townley Gallery inspired some positive appreciation of its beauty in terms previously reserved for Classical art (Moser 2006: 115), yet the response to Egyptian art on the whole remained derogatory and perceived its strange, stiff, or exotic qualities. Funerary remains and sculpture fragments also elaborated a view of Ancient Egypt that emphasized monumentality, ruination, and the passing of time, sometimes accompanied, as in *Ozymandias,* by the implication of moral, despotic corruption. This conception of Ancient Egypt would become even more important as the colonization of nineteenth-century Egypt proceeded rapidly, in pace with the Industrial Revolution. An object-oriented way of seeing Egypt through its past helped objectify Egypt in the present, with widespread repercussions.

4 ''Othering'' Egypt: The Colonial Era

From the Napoleonic campaign onwards, European (and North American) engagement with Ancient Egypt was effected through contact with contemporary Egypt, and thus mediated through the colonialist project. The same infrastructure that was applied to maximize Egypt's economic potential, and exploit its strategic geopolitical position, also made possible the transport of objects, tourist-collectors, and archaeologists, and the organization of an Antiquities Service and a National Museum under French control. Although the British military did not occupy Egypt until 1882, the mechanisms of colonialism were well in place by the mid-1800s (Mitchell 1988). Egypt was a prime locus of the set of relations Said characterized as Orientalism, whereby the West conjured an ''Orient'' as a mirror in which to identify itself (Said 1978). If Egypt was passive, frozen in time, lazy, and backwards, the West was the opposite and could, therefore, ''discover'' the country and ''rescue'' its ancient past. Tales of Western derring-do gripped the public imagination through museums' collecting methods and the growth of archaeology in the latter nineteenth century, and in popular or quasi-academic publications the discovery narrative still holds sway, even when disguised as an account of the ''rape'' of a (weak and feminized) Egypt (Fagan 1975; France 1991; cf. Greener 1966; N. Thomas 1995).

As Mackenzie (1995) has observed, the fact that a genuine interest and positive intent lay behind the actions of collectors, archaeologists, and explorers does not

negate the effect of such actions, which was "to reinforce the sheer "otherness" of the cultures represented," in this case both contemporary and Ancient Egypt (Champion 2003a: 162). Museums played a fundamental role in the "othering" process; for collecting, cataloguing, and ordering Egyptian antiquities necessitated control of a physical object, metonymical for control over Egypt. Further, museums had already set the precedent for seeing Egypt as exotic and non-Western. Even after the decipherment of Hieroglyphs enabled scholars to limn Egyptian history and chronology, museums created displays that presented Ancient Egypt cut off from both space and time, like the museum itself. Europeans and North Americans could, if they had the means, travel to Egypt, but the penchant for exhibition made it possible for wider audiences to experience Egypt. Ancient implements, artworks, bodies, and even buildings could be removed from Egypt and reconstituted in a space specifically designed for viewing. Seeing things thus put on display gave viewers a perception of power over the object, and ownership of whatever responses the objects evoked. The object was the crux of a mediation between Ancient Egypt and the present day.

Objects and display were the talk of London in 1851, thanks to the Great Exhibition at the Crystal Palace, Hyde Park, and it was in this context that the London *Times* remarked on the object-phenomenon in 1851: "We are an objective people now. We want to place everything we can lay our hands on under glass cases, and to stare our fill" (quoted in Mitchell 1988: 20). The exhibition imbricated manufacturing prowess and imperial expansion, bringing together "the industry of all nations" with the aim of improving taste as well as design technology. Though plans to open a Museum of Ancient Art alongside the Great Exhibition had foundered, as the *Art-Journal* reported in 1850, the ancient past, conflated with the "timeless" Arab present, still informed the reception of the displays. In its 1851 issue devoted to the Exhibition, the *Art-Journal* declared that viewing the exhibition would advance the "National Taste" and delineated Egypt, Greece, and Rome as the ancient cultures that had influenced European culture. In this scheme, however, Egyptian art remained the poor relation of the Classical world:

> It is not till we come to Greece that we find the habitual introduction of forms for their own sake, purely as ornaments, and this is a very great step in art … [Egyptian art's] great prevailing characteristic, like that of all Oriental Art, is sumptuousness. (*Art-Journal* 1851)

Ancient Egypt and contemporary Egypt, recreated at Hyde Park and later Sydenham (from 1854), were thus equivalents – Orientalized others who valued "grandeur of proportion, simplicity of parts, and splendour or costliness of material: gold, silver, and ivory, precious stones, and colour" (*Art-Journal* 1851) but lacked Western refinement, creativity, and taste. Egypt required colonial control.

In Paris, the *Exposition universelle* in 1867 included an Egyptianizing pavilion, developed under the aegis of Mariette (on universal exhibitions and world's fairs, see Reid 2003: 125–30). The Paris pavilion combined a model Egyptian temple and an authentically "dirty" Cairo street, with an Arab-style café, and a display of mummies, skulls, and original works on loan from Boulaq. Thanks to Mariette, visitors to the

Figure 49.2 Honoré Daumier, "At the Universal Exhibition," captioned "The Egyptians weren't good-looking, were they?" First published 1867. Copyright www.daumier.org.

Paris exhibition could see works of art that became iconic: the diorite-gneiss statue of Khafre, the wooden statue known as "Sheikh el-Beled," and the recently discovered gold jewelery of queen Ahhotep, which Mariette refused to give to Empress Eugenie (Delamaire 2003: 129, fig. 7:5). A Daumier cartoon captures one possible, mildly horrified response that visitors had to the Ancient Egyptian display, and Daumier gently pokes fun at the idea that Egyptian art "looked like" the Egyptians (figure 49.2). Mitchell (1988) discusses the dismayed reaction of Egyptian visitors to the Paris exhibition, who were startled by the distinctly European practice of creating a false world that yet strove for authenticity, down to the peeling paintwork of the Cairo street. Mariette was not the only Egyptologist directly involved in the world exhibitions: Heinrich Brugsch closed his Cairo school, which had been training Egyptian Egyptologists, in order to organize the Egyptian exhibition for the 1872 Vienna Weltausstellung, and Petrie and the Vienna collector Theodore Graf both exhibited material at the Columbian Exhibition in Chicago in 1893 (Delamaire 2003). Casts from the Boulaq Museum – but no antiquities – circulated to the Vienna exhibition and to American venues.

The establishment of an Antiquities Service and National Museum in Egypt exemplifies the pervasive role of colonialism in conceptualizations of Ancient Egypt.

Muhammad Ali's 1835 decree banning the export of antiquities made explicit reference to the new museums of Europe:

> It is also well known that the Europeans have buildings for keeping antiquities … such establishments bring great renown to the countries which have them. (Reid 2003: 55–6)

With explicit reference to Europe, then, Muhammad Ali attempted to establish an Antiquities Service and a Museum, the latter to be overseen by the learned Egyptian author, scholar, and official Rifaa al-Tahtawi. European and American interference, as well as Ali's own actions, ensured that both the export ban and the Museum were failures. It was left to Auguste Mariette, who first went to Egypt as a junior employee of the Louvre, to found an effective Antiquities Service and National Museum in 1858. French political and financial interests in the construction of the Suez Canal helped secure the new arrangement; for Ferdinand de Lesseps had the ear of the new Ottoman governor, Said Pasha (Reid 2003: 99–107). Mariette began to deposit antiquities at an existing building in Boulaq, near the river in Cairo, and, as head of the new Antiquities Service as well, introduced a system of find division, whereby he could make first choice among the antiquities excavated by foreign expeditions.

Remodeled in Egyptian style, the Boulaq museum opened to the public in 1863. The displays were mainly thematic, as in the Louvre, but Mariette acknowledged that he had arranged some displays on "useless" aesthetic grounds that would be more accessible to Egyptian visitors, who could not appreciate or understand schemes based on "science" (Reid 2003: 106–7). Museum building in Egypt picked up pace, with the Graeco-Roman Museum in Alexandria founded – by Europeans – in 1892 (Reid 2003: 159–63; Butler 2007), a Museum of Arab Art in Cairo in 1898, at Lord Cromer's instigation (Reid 2003: 237–9), and in 1902, Pharaonic antiquities moved to a new, permanent home built in a neo-classical, Beaux Arts style in central Cairo, and called the Egyptian Museum (Reid 2003: 192–6). One of the few Egyptians involved in the new museum in any significant way was Ahmed Kamal, who translated French guidebooks into Arabic, wrote volumes of the *Catalogue générale,* and helped Mariette's successor, Maspero, establish regional archaeological museums in the Nile Valley (Reid 2003: 201–4). Otherwise, the Egyptian Museum and the Antiquities Service remained the preserve of the French, even during the period of the British protectorate. Colonial Egypt might have shared certain "Oriental" qualities with Ancient Egypt, but colonized Egyptians were not empowered to participate in any significant way in the museum-based construction of their ancient past. Only the Coptic Museum differed in this respect, having been founded in 1908 by Marcus Simaika, a Coptic politician who had grown up visiting the Boulaq Museum (Reid 2003: 264–78).

In 1841 the American consul in Egypt, George Gliddon, formulated a view that would find sympathy in some corners for years to come, namely that Egyptian antiquities were better cared for outside of Egypt (Gliddon 1841; see Reid 2003: 56–7). Throughout the late nineteenth and early twentieth centuries, when museums in Egypt were well established, museums in Europe, North America, and elsewhere benefited from the system of division of finds Mariette had introduced for foreign archaeological excavations in Egypt. Together with the professionalization

of museums and universities, this swell in collecting enabled Western museums to create new kinds of knowledge for visitors. Presented with an Ancient Egypt scrutinized by the "science" of archaeology, viewers could absorb more than the curious or the awe-inspiring, as more and more types of objects – predynastic palettes, Middle Kingdom objects of "daily life," Amarna art – entered the gallery space. Established museums needed more space as result, whether for storage or display, and society required more museums to meet this burgeoning need for orderly, consumable, and organized knowledge.

5   Organizing Egypt: Taxonomies of Museums, Objects, and Disciplines

The vogue for world exhibitions in Europe and North America went hand-in-hand with the founding of more museums, replicating or expanding on the "universal survey" model of the Louvre or the British Museum (Duncan and Wallach 1980). In England, new museums included the Victoria and Albert Museum (founded as the South Kensington Museum in 1852), natural history museums engaged in the Darwinian enterprise (such as the Oxford University Museum, opened 1860), and museums established by local councils in county towns or boroughs after the Museum Act of 1845 (such as the Salford, Bolton, and Rochdale museums in the industrial north). These last were an amalgam, combining fine and decorative arts, local archaeology, Egyptian antiquities, and natural history. Like the Victoria and Albert Museum, the local museums had a practical goal of improving and increasing British manufacturing exports by exposing the public to past models of taste and technology (Burton 1999).

   In the United States private initiatives by businessmen and civic leaders saw the founding of museums in major cities throughout the 1870s and 1880s: the Museum of Fine Arts, Boston, the Metropolitan Museum of Art, New York (both founded 1870), the Philadelphia Museum of Art (1876), the Art Institute of Chicago (1879), and the Detroit Institute of Arts (1885). Unlike European museums, all were run without government backing (Abt 2006: 130–2). These museums expressly concerned themselves with "fine arts," but this did not preclude collecting Ancient Egyptian material – far from it; for the Museum of Fine Arts, Boston and the Metropolitan Museum of Art both funded archaeological expeditions to Egypt in order to expand their collections. This successful tactic ensured Egypt's importance in the museums, and, once up the steps and through the grand façade of the Metropolitan Museum, today's visitor can still choose one of three axes: to the left for the Classical world, straight ahead and up more stairs for European art, and to the right for Ancient Egypt. Other areas – ethnographic, East Asian, modern – occupy spaces beyond or in between the main axes, mapping priorities in much the same way as the Louvre's Rotunda of Mars had. The American "survey" museums could draw on the vast financial resources of collectors like J.P. Morgan in New York, or the Detroit businessman Charles Freer, who collected in the 1890s and 1900s with the firm intention of establishing a gallery in his name at the Smithsonian Institution

(Gunter 2002). American universities also established museums and sponsored excavations, using the division of finds both to expand collections and promote academic research. The University of Pennsylvania Museum was founded in 1890, and the University of Chicago's Oriental Institute and its museum in 1919, with funding from John D. Rockefeller, Jr. (N. Thomas 1995: 44–69). The Canadian Charles Currelly, who developed a passion for collecting while excavating in Egypt, founded the Royal Ontario Museum in Toronto in 1914, with an explicitly typo- logical approach to collecting and display (Currelly 2008).

In the new American museums, as in the Louvre, Ancient Egypt sat comfortably in a discourse of "art," although some natural history-based museums also developed Egyptian collections, notably the Field Museum in Chicago (founded in 1893, in the wake of the Columbian exhibition) and the Carnegie Museum in Pittsburgh (founded 1896). In Britain, the new council-run museums slotted Egypt in between natural history specimens and local watercolours, as if the seventeenth-century art *versus* nature debate remained unresolved. In larger "survey" museums Ancient Egypt also sat alongside ethnographic collections, the two separate from, but related to, each other by dint of "otherness" in the time-arrested space of the museum. When hundreds of bronze plaques from the kingdom of Benin reached London in 1897, their display at the British Museum triggered public debate about Ancient Egypt's link to West Africa; for it was thought that only the Ancient Egyptians, not West Africans, could be responsible for such skilled bronze-casting. The Egyptian department at the British Museum was thus mooted as a home for the bronzes, until internal pressure for greater recognition of ethnography helped keep them in the ethnography section, at that point attached to the Department of Medieval and British Antiquities (Coombes 1994: 37–8, 57–60).

For the conceptualization of Ancient Egypt, it was – and is – significant what kind of museum a collection belongs to, even more so than what that collection contains. Fine-arts and ethnographic or archaeology-based survey museums may attract similar visitors, but they elicit quite different responses (Bal 1996; Beard 1992: 506). The classification of collections and objects within museums likewise affects the construction of meaning, as the example of the Benin bronzes demonstrates. In the latter nineteenth and early twentieth centuries, many museums acted as what Bennett (2004) terms "evolutionary museums," concerned with typologies as a tool for the classification of knowledge, and they applied this taxonomic approach to their administrative and gallery structures as well as their collections. When General Pitt Rivers offered his, largely ethnographic, collection to Oxford University in the 1880s, the Ashmolean Museum debated whether its archaeological collections could absorb material that did not seem to "fit" (Larson 2008). The deeply typologized and evolution-based Pitt Rivers collection became an independent museum instead, physically (and intellectually) attached to the University Museum of natural history – and both the Ashmolean and the Pitt Rivers continued to collect Ancient Egyptian material.

The professionalization of academic disciplines also influenced the classification of museums and collections (and *vice versa*). For instance, the recognition of an inde- pendent Egyptian Department at the British Museum immediately predated the founding of Egyptology posts at University College London in 1892, Oxford University in 1901, and the University of Liverpool in 1906 (Champion 2003a), and

Oxford's debate about the Pitt Rivers collection coincided with the establishment of anthropology as a subject of study (Larson 2008). In Britain, university education became the route to a university career, while the museum-based professions – curators, technicians, educators – emerged along a career path that did not require university training. As early as 1850 the British Museum emphasized that its staff received training on-the-job, as it were (Moser 2006: 175–7). From Birch and Budge at the British Museum, to Winifred Crompton, who was responsible for the Egyptian collection in Manchester from 1912 to 1932, museum work in Egyptology was separate from ''academic'' work, and in terms of professional status university teaching positions rapidly surpassed the museums that had helped establish them. The effect of this divergent professionalization has had a long tail: when women qualified in Egyptology in larger numbers, in the 1960s and 1970s, they became disproportionately represented in museums rather than universities, and there remains a feeling among many Egyptology curators that university colleagues judge them ''second class'' in academic terms (Schulz 2003:95; cf. discussions in Haxthausen 2002).

The growth in archaeology was the biggest influence on Egyptian collections and displays around the world in the late nineteenth and early twentieth century. Mariette's excavations at the Serapeum of Memphis added around 7000 objects to the Louvre, and French museums benefited from the division of finds from excavations carried out by the Institut français d'archéologie orientale (IFAO), founded in Cairo in 1880. Based in London, and reliant on the support of private individuals and museum subscriptions, the Egypt Exploration Fund (now Society) was founded in 1882 to support the work of Petrie and commission other archaeologists to work in Egypt, such as Edouard Naville (James 1982). Again, the partage system served museum collections well, with EEF finds distributed to places as far-flung as Kyoto, Boston, and Dublin. The local council museums in Britain received particular attention: Bolton, Norwich, Brighton, and many others swelled with predynastic pottery and Late Period shabti figures, and the *Museums Journal,* which started to publish in 1901, regularly included accession notices for EEF material. As a result, a 2006 survey counted almost 200 public collections of Egyptian antiquities in the United Kingdom (Stephens 2008).

The nature of the burgeoning, archaeology-derived collections altered yet again the Ancient Egypt formulated in museum displays. Museums like the British Museum also devoted greater resources to active collecting and devised strategies to fill perceived gaps or redistribute duplicates (Moser 2006: 171). Museums could display objects according to the more detailed historical and chronological information that became available and place excavated material in an archaeological context. More numerous and discursive labeling became the fashion, and exhaustive guidebooks or exhibition checklists were the norm. On a practical level museums needed more storage and display space to accommodate growing collections; unwieldy stonework and coffins, pottery and sherd collections, plus multiple small objects (amulets, scarabs), all presented logistical difficulties in terms of cataloguing, storage, and exhibition mounts, as they do today. The number of small-scale artefacts meant that vitrines could be packed with objects, the implication being that the quantity of material on display was directly proportional to the quantity of information visitors would absorb. Here was the taxonomic principle at work: overwhelming visual evidence, appropriately ordered and on view, would educate the masses.

Figure 49.3 The new Egyptian gallery in the 1912 extension to the Manchester Museum, with Winifred Crompton (in dark skirt and tie) standing next to the "Two Brothers" vitrines. Copyright The Manchester Museum/University of Manchester.

To accommodate their archaeological acquisitions, museums needed more space, and private initiative often funded the space as well as the actual collecting. In 1911, the Manchester Museum announced construction of a new block, paid for by Jesse Haworth; joined to the existing museum building by a bridge, the new block would display the collection Haworth had donated to the University of Manchester, the promise of financial support having finally overcome the university's reluctance. The plans accommodated a galleried display space for Egyptian antiquities, with offices for Egyptology and geology occupying the lower floors (*Museums Journal* 11, 1911, 179–80; *Museums Journal* 12, 1912, 172–7). Opened in 1912, with a keynote speech by Petrie, the gallery was light and airy, with displays arranged in chronological order, under Winifred Crompton's supervision (figure 49.3).

Chronological displays coexisted with thematic or aesthetic displays in many institutions, the most common thematic division being made between "daily life" and funerary practices. Although research has made the point that almost all "funerary" objects (the exception being coffins and canopic jars) have also been found in the context of quotidian religious practices (Pinch 2003), the distinction between death and life manifests itself in most museums today. This reinforces the concept of Egyptian culture as obsessed with death and the dead, which in turn feeds the Western public's fascination with Egypt. Where space permits, many museums devote a specific gallery to funerary themes (the Ny Carlsberg Glyptothek, Manchester Museum, and Museum of Fine Arts, Boston, to name three), often decorating the space with dark walls, lower ceilings, and reduced lighting that creates the imagined

feel of a tomb. The need to protect organic materials with low lux-levels is secondary and could be achieved in another way. Visitors may also need to pass through other galleries, or descend ramps and stairs, to reach the funerary display, recreating the hero-myth of the archaeologist discovering a burial (cf. MacDonald 2003: 89–90). Some museum professionals feel that a funerary display is essential, given the popularity of the subject, while others aver, rather disingenuously, that Egyptian objects function in museums just as they did in tombs, by ensuring the resurrection of the dead (e.g. Wildung 1995).

In current museological practice, thematic arrangements have gained favour in part because research suggests that visitors are unfamiliar with historical concepts and the expression of dates (MacDonald 2003: 96–8). Although a sharp contrast to the date- and data-packed labels of earlier practice, the move away from chronological display may be especially suited to museums and the timeless, unchanging Egypt they project. Museums are heterotopias, in Foucault's term, where "time never stops building up and topping its own summit":

> [T]he idea of constituting a place of all times that is itself outside of time and inaccessible to its ravages, the project of organizing in this way a sort of perpetual and indefinite accumulation of time in an immobile place, this whole idea belongs to our modernity. (Foucault 2004: 377)

In conversation with museum staff, visitors today will often ask how old an object is, and whether the answer is two, three, four, or five thousand years, the response is one of amazement that anything could last so long. Faced with Ancient Egyptian objects in the museum, nineteenth-century visitors perhaps were not so different from such visitors; for both experience an "Ancient Egypt" that circulates as a self-contained entity far removed in both time and space. Indeed, museums collapse both time and space through categories of display: Ancient Egypt "ends" variously at the Roman, Christian, or Islamic periods, and it occupies the Nile Valley, featured on gallery maps without reference to other geographical areas (Fazzini 1995; MacDonald 2003: 98–9). Museums have felt the need to create distinct and separate displays to present anything beyond these time and space boundaries, such as the Predynastic Period, or material from southern Egypt and Sudan.

The self-containment of Egypt, left floating physically and ideologically between Africa, the Middle East, and the Mediterranean, has had repercussions for conceptions of the Ancient Egyptians as people. Influenced by stage and cinema enactments, as well as museum representations, the popular Western idea of what Egyptians looked like has favoured a vaguely southern Mediterranean appearance, not unlike that seen in some mummy portraits (figure 49.1). Winifred Brunton, a trained artist and wife of British Egyptologist Guy Brunton, painted richly imagined, and quite pale-skinned, portraits on ivory depicting the Egyptian kings and queens, which were published in the 1920s (Brunton 1924, 1929) and remain popular enough today for them to be available as a screensaver. Archaeology had brought such intimate objects to light – combs and cosmetics, clothing and tools – that viewers could not help but imagine the physical appearance of these objects' owners. But, concomitantly, Egypt held a particular lure for anyone interested in developing schemes of

evolution and racial classification, sparking a debate that began in the late nineteenth century and continues in the present.

6 Embodying Egypt: Race and Mummies

Unlike the ancient cultures of Greece, Rome, and Assyria, Egypt had left behind its bodies – a gift like Pharaoh's gold to the nascent sciences of the nineteenth century. Examinations of mummies under the guise of science had been a feature of Western engagement with Egypt since the early nineteenth century, when Cailliaud unwrapped the mummy of Petamenophis, now in the Louvre (Cailliaud 1827: 1–22) and Pettigrew staged "unrollings" in London (Montserrat 1998: 180–3). Over the course of the nineteenth century, evolutionary concerns fueled the race-based science of ethnology: Bristol physician James Cowles Prichard classed Ancient Egyptians as Negro or Ethiopian, while the leading American ethnologist, physician Samuel George Morton, identified them as a Caucasian sub-type (Champion 2003a: 163–75). Conceived as being not-Africa – witness the dialogue surrounding the Benin bronzes – yet also not-Europe, Ancient Egypt was a problem to be solved by measurement and calculation, and the mummies entering museum collections offered ideal specimens for the racial classification of skulls and skin colour. Excavators collected human remains with ethnologic studies in mind: Petrie gathered skulls of the supposed "New Race" at predynastic Naqada, and George Reisner collected skeletons at Kerma for Grafton Elliott Smith to study.

Museums offered an authoritative setting in which to present the results of these scientific investigations to the public, both in dedicated displays and by mapping racial classification onto the organization of space. Extended in 1902, the Liverpool Free Public Museum (now World Museum Liverpool) arranged its collections of Egyptian and other antiquities, ethnographic materials, and Wedgwood ceramics to parallel the zoology displays, in other words, to classify the man-made and natural worlds in equal fashion. A *Museums Journal* reviewer observed:

> In this classification the Ancient Egyptians are treated as part of the Caucasian race, and the collection of Egyptian antiquities is now arranged in the spacious entrance hall. The plan is chronological, beginning with specimens of handmade pottery dating from 7000 B.C., and ending with reliques from the Egypt of Roman times.
>
> (*Museums Journal* 4, 1905, p. 241)

The Wedgwood was exhibited in a galleried display above, the "Caucasian collection" continued through the west side of the entrance hall – Greek, Roman, Anglo-Saxon, and other European antiquities – and the "Melanian" ethnographic material, "of great and varied interests," was in the basement.

Measurement of mummified skulls, even analysis of well-preserved facial features, was construed as quantifiable evidence for race. In Cairo Elliott Smith's 1912 catalogue of royal mummies from the Deir el-Bahri cache helped set the standard for this form of physical anthropology (Champion 2003b). In Manchester in 1907

the public unwrapping of one of the "Two Brothers," an élite Twelfth Dynasty burial from Deir Rifa, was a joint venture between visiting expert Margaret Murray and Manchester staff; the museum subsequently unwrapped the second mummy (Alberti 2007). Discovered intact by Petrie, the men's burial included similar sets of painted coffins identifying their mother by name and their father by title only. Due to the embalming techniques used, both men's bodies were reduced to disjointed skeletons, facilitating the detailed measurements made by local physician John Cameron. Cameron judged that the skull of one brother, Nakhtankh, was "feminine" and "European" in form, while the other, Khnumnakht, was "virile" and "Negroid." In fact, he considered the differences so pronounced that "it is almost impossible to convince oneself that they belong to the same race, far less to the same family" (Murray 1910: 34). Using comparisons to established ethnologic "types" – Andaman and Fijian islanders, Aboriginals, Eskimo, and the Guanche of Tenerife – Cameron used two small-scale statuettes of the brothers to reinforce his conclusions, ignoring the Hieroglyphic inscriptions with the men's names ("mislabeling"), not to mention the non-illusionistic character of Egyptian art, in order for the statuette he deemed "more negroid" in appearance to match the skeleton he had identified in the same way, that of Khnumnakht (Murray 1910: 35). Western science was better than the Ancient Egyptians at identifying their own bodies and family relationships, and Cameron cited Elliott Smith's work for the Archaeological Survey of Nubia to support his theory that the men's mother must have re-married a man with "negro ancestry" (Murray 1910: 36–7).

In 1912, the Manchester Museum's new extension featured the colourful painted coffins and tomb goods from Deir Rifa in central display vitrines, which visitors could walk around unhindered (figure 49.3). No part of the unwrapped mummies was on display, although local press coverage of the event might still have been fresh in visitors' minds. Cameron's racial science was not forgotten, however, and the subsequent history of the "Two Brothers" demonstrates the extent to which race continues to inform museum practice. In the 1970s the museum's "mummy project" commissioned facial reconstructions of the two men's skulls (Neave 1979). The results paralleled Cameron's outmoded methodology, even using an 1898 source for soft tissue measurements and making the misguided comparison with the funerary statuettes. The "negroid" skull, of Khnumnakht, had fused and projecting upper teeth, which the reconstruction duly depicted set in a mouth with large, full lips; this full-lipped reconstruction and its "strong features" seemed to offer circular proof of race (Neave 1979: 151, 154). When the museum revamped the 1912 building to create a gallery devoted to Egyptian funerary practices (opened in 1986), the Two Brothers still occupied their central space, but this time their skeletons were wired together and put on display as well, Nakhtankh in his coffin and Khnumnakht resting on top of his, pelvis backwards and curved, arthritic spine propped up. Text panels described the archaeological find and scientific investigations, relating the "fact" that the two men could not be brothers because one was "negroid" and the other was not. To add to the racial narrative, labels informed visitors that a mummiform coffin with its face painted in shades of cream and pink – divinely bright, in Egyptian thought – belonged to the "negroid" brother, while a mummiform coffin with its face painted black – for fertility – belonged to the "non-negroid" man.

The Manchester example is illustrative of two ways in which museums have presented Egyptian bodies: as objects for voyeuristic viewing and study, and as part of a racial discourse. Due to the legacy of the colonial and imperial past, museological representation exists over a "substrate of racial theory," whereby non-European cultures, whether ancient or modern, occupy "a past peopled by inferior races frozen in earlier stages of cultural and ethical development" (Preziosi and Farago 2004: 621). The work of Senegalese scholar Cheikh Anta Diop resonated in Africa and with the African diaspora in the West, fostering an Afrocentrist discourse that defines Ancient Egypt as a black African kingdom misrepresented by white scholarship (Roth 1998). Concerns about the presentation of Ancient Egypt in museums have become a feature of Afrocentrist discourse, especially in the US. When the Brooklyn Museum (now Brooklyn Museum of Art) hosted a loan exhibition of Amarna art in 1973, "Akhenaten and Nefertiti: Art from the Age of the Sun King," the prominently placed visitor book drew a large volume of comments praising the objects as symbols of black African art ("Egypt is Africa is Black"), and criticising some of the show's labeling, which had described Akhenaten as "grotesque": "Why do you insist he wanted his features exaggerated. Isn't it obvious he was a BLACK MAN?!!" (Wedge 1976: 53–9). In Britain the "Digging for Dreams" touring exhibition, organized by the Petrie Museum, was notable for explicitly engaging with questions of race (Montserrat 2000). Mainstream Egyptology rejects Afrocentric theories, however, and the subject of race and skin colour goes without mention in most museums. The 1980s and 1990s saw the opening of several galleries devoted to "Nubian" or "Kushite" art – terms unfamiliar to most visitors – where the "black" identity of individuals from southern Egypt and Sudan might be mentioned (Fazzini 1995), but objects displayed in these galleries are thus outside of "Ancient Egypt."

Egyptian bodies are also the subject of increasing concerns about the display and curation of human remains, shaped in part by requests that indigenous people, like the Maori, have made about their ancestral remains in museum collections (M. Simpson 1996: 173–89). Although Egypt has, as yet, expressed little concern about the care of Ancient Egyptian mummies, awareness of such issues in the museum profession means that the display of mummies is an area of debate. The long-standing fascination with mummies and the Ancient Egyptian lives they seem to represent – what Montserrat termed the "erotics of biography" (Montserrat 1998) – has helped fuel public expectations that wrapped and unwrapped mummies, and parts of mummies, will form part of museum displays. But the nature of display varies from museum to museum, and country to country: the "Ancient Egypts" in some museums have dead bodies, but others do not. The display of unwrapped mummies is rare, and not part of visitor expectations, in much of continental Europe and in the "fine arts" museums of the United States. In Britain, museums that draw a local audience from a mixture of social backgrounds, like Manchester and Bolton, have encountered negative reactions when the idea of removing or concealing mummies is mooted (Stephens 2008). Through their displays, the museums themselves have created an Ancient Egypt strongly associated with voyeurism of the dead.

The strategy adopted in the British Museum's renovated funerary galleries, opened in 1999, is to display several wrapped mummies and one unwrapped mummy, the latter associated with interpretive texts about mummification and partly concealed

under a cloth. A second mummy is exhibited in a separate gallery devoted to Early Egypt and is completely uncovered. This predynastic mummy, popularly known as "Ginger" after his reddish-coloured hair, was the subject of one of the museum shop's best-selling postcards in 1988–9 (Beard 1992); postcards of unwrapped mummies have been for sale at other museums as well, including Manchester and the Egyptian Museum in Cairo, whose exhibit of royal mummies is a tourist favourite. Museum visitors, who own the intimate experience of gazing on the faces of the dead, can own the souvenir postcard of their experience as well.

7   Owning Egypt: Interpretation, Consumption, and the Antiquities Trade

Intellectual and actual ownership lies at the heart of how museums construct Ancient Egypt. In intellectual terms, from the cabinets of curiosity to the present day, the material remains of Egypt have been used to construe an Ancient Egypt that was both natural and man-made, that was curious and awe-inspiring, that was exotic, sumptuous, and un-artistic, that was black or not-black (never entirely white), and that was resolutely dead and gone. It has been in the museum's non-public spaces, hidden from public view, that the museum as an institutional apparatus has decided what to collect and how to categorize, define, and display the collected. The interpretation of Egyptian collections has been an implicit part of the power relationship between museums and their visitors, but as museum visitors become reconfigured as late capitalist consumers, the consumer-driven experience of Ancient Egypt increasingly informs what museums do, and how they do it. In a departure from past practice, today's museums are no strangers to the focus group and to marketing directives (Schulz 2003). With large sums of money plus the public reception at stake, museums debate the "popular" *versus* "educational" content of both temporary exhibitions and long-term gallery installations. Recent trends have seen museums offer visitors the opportunity to record personal responses to objects on display, a popular feature of the Egyptian installation opened at the Bristol City Museum and Art Gallery in 2008 (Weeks 2008). The Egypt Centre at the Swansea University has enabled interested individuals to compose object labels that present alternative interpretations of Egypt. Several museums have sought to bring out the contemporary relevance of their collections by involving contemporary artists, for instance at Bristol, the Bolton Museum and Art Gallery, and the British Museum (Weeks 2008; Hardwick 2008; Walker 2003).

Education has been a central concern of museums since the nineteenth century, and in the first decade of the 1900s, museums in the United Kingdom described their educational efforts in the pages of the *Museums Journal.* Under the banner "Education for All," the Education Act of 1902 allowed schools to count museum visits as part of the curriculum, in a political move tied up with attempts to promote a unified national identity in the age of British imperialism (Coombes 1988). The Liverpool Museum was among the first to lend objects to schools for teaching purposes, while the Horniman Museum and the Manchester Museum both focused

efforts on hosting school visits, often attracting schools that served lower urban classes (Coombes 1994: 124). In the United Kingdom, recent government initiatives aimed at museum education appear old-fashioned in this light, with their emphasis on social inclusion and "inspiring learning for all." As crude as such initiatives and their visitor targets may be, however, they do force museums to look outwards and to gain a better understanding of both their existing and potential audiences (Swain 2007: 195–209). Hooper-Greenhill has characterized the ongoing process of re-imagining the relationship between museums, interpretation, and visitors as a movement towards the "post-museum." In the post-museum the dynamic force of education will be based on museums' ethical responsibility and will promote the utopian goal of an egalitarian society (Hooper-Greenhill 2007).

In today's non-egalitarian society, however, consuming Ancient Egypt takes place not only in the museum gallery and gift shop but also in the cinema, cyberspace, toyshop, and bookstore (MacDonald and Rice 2003). Photographs taken in the museum serve to document visitors' presence there (Walker 2003), as do postcards of Egyptian objects purchased in the gift shop (Beard 1992). The objects selected for replication as museum merchandise – Rosetta Stone tea towels and coffee mugs, or facsimiles of the Gayer-Anderson cat – reinforce the materiality of Ancient Egypt, which is desired and consumed (Meskell 2004: 179–207).The purchase of reproductions operates much like the collecting of antiquities, by collapsing the vast distance of space and time and bringing the present in direct contact with the past. Commodification yields an Ancient Egypt that is accessible in modern terms.

In addition to the popularity of Egyptian-themed products, Egyptian special exhibitions and long-term gallery installations rank among the most popular – and profitable – attractions in museums. The 1970s exhibition of Tutankhamun material, on loan from the Egyptian Museum in Cairo, was the original "blockbuster," and a recent Tutankhamun-based tour in the United States and the United Kingdom repeated this success, combining cultural diplomacy with cash flow. Ancient Egypt's popularity can be a boon and curse to museum staff, who may be frustrated by the preconceptions that visitors bring to Egyptian displays, for instance, expectations about pyramids, treasure, and mummies, and lack of awareness, or disparaging attitudes, about modern Egypt (Stephens 2008; MacDonald 2003). However, curatorial snobbery towards the visiting public is as misplaced as it is deep-seated. In museums that emphasize their "fine arts" credentials such snobbery has been based on ideas of connoisseurship long-debunked in the discipline of art history itself (e.g. Kozloff 2008b). Never questioning the constructed categories within which they operate, US-based curators, in particular, have wanted to present an Ancient Egypt that visitors would value as a genius of artistic production, rather than a historical civilization. American museums, unlike their European counterparts, have also tended to have departments of Egyptian "art" rather than "antiquities." Thus Bernard V. Bothmer, writing in the 1970s, could comment that ancient tools and technology had no place in the Brooklyn Museum, which would display "the best of art, and art alone," and that curators' pronouncements on aesthetic values should only appear in exhibition catalogues, rather than on labels, so as not to draw public ire (Wedge 1976: 156–8). Whether it was the curator's role to make such judgements was not in question.

Curatorial judgement is also at stake in the relationship between museums and the art market. Acquiring works with the aim of completing or perfecting a museum's collection is a practice dating back to ''Young Memnon,'' but with escalating competition in the late nineteenth and twentieth centuries, and the more stringent control exerted by Egypt over the export of antiquities, museums turned to private collectors and antiquities dealers, which poses ethical difficulties. Collectors may influence museums through donations and sponsorship and may seek to increase the value of their own collections by exhibiting them in the ''neutral'' museum space (e.g. Ortiz 1994). Dealers likewise have a financial stake in the antiquities trade, and curators over-confident of their own connoisseurial prowess, or their dealer's connections, have purchased outright forgeries or objects of dubious provenance, even if in good faith (e.g. Spanel 2001). Since 1983 Egypt has banned the export of all antiquities, which are state property; a new version of this law, with more stringent penalties, is currently before the Egyptian legislature. Over the past decade Egypt has used security and diplomatic measures to maintain ownership of its cultural objects, including actions to re-home questionably exported material. Not all museums and dealers have welcomed such measures:

> There is a certain amount of irony in an archaeologically rich country claiming sole ownership of its treasures at the same time that it raises money from the collector nations for renovation, restoration, and construction of museums and archaeological sites on the grounds that we all share the same heritage. There is also a certain amount of consternation among both public and private collectors who would rather see interesting and beautiful objects exhibited, published, and displayed than reburied in archaeological storerooms. (Kozloff 2008b: 152)

However, the evidence for antiquities smuggling from Egypt, and the inevitable damage to archaeological sites, makes it difficult not to empathize with Egypt's efforts. In the late 1990s, papyri, sculpture, textiles, and false doors surfaced in the United Kingdom, having been removed from storerooms and tombs in Egypt and exported in the guise of modern reproductions. This ring included New York dealer Frederick Schultz, who was convicted for conspiring to smuggle antiquities in contravention of the 1982 Egyptian law – the first time this law was upheld in an American court. Subsequently, the Supreme Council of Antiquities formed a Department of Retrieving Stolen Artefacts, which has successfully negotiated the return of looted antiquities from Switzerland and Australia. Other disputes are ongoing, such as Egypt's claim that a New Kingdom mummy mask in the Saint Louis Art Museum was stolen from a storeroom in the 1980s; the Museum believes that it exercised due diligence as required by ethical codes of practice, and that the mask had been in European private collections since the 1950s or 1960s (Waxman 2008; for two differing views of the antiquities trade, see Cuno 2008 and Renfrew 2000).

Hand-in-hand with issues of cultural patrimony is the rapid development that Egypt's own museums are experiencing. The near future will realize plans to transfer many objects from the 1902 Egyptian Museum to the Grand Egyptian Museum at Giza, and to build a UNESCO-sponsored National Museum of Egyptian Civilization at Fustat. The shift from the colonial to the post-colonial has seen Egyptian experts

spearheading these projects (see the special edition of *MUSEUM International* 57:1–2, May 2005, ''Heritage landscape of Egypt''). Museums in Egypt are looking to Western models for examples of best practice, such as conservation and display, educational resources, and the establishment of museum ''Friends'' groups, although there is the risk that merely grafting such models onto Egyptian institutions is a new form of colonialism not necessarily suited to the country's needs. Foreign tourism cannot help but be a concern in Egypt's museum development; for visits to the main antiquities museums – specifically the Egyptian Museum, Nubia Museum, Luxor Museum, and Graeco-Roman Museum – vastly outnumber visits to regional and non-Pharaonic museums, like the Coptic and Islamic museums in Cairo. In the years 2001–4, almost 6.5 million visits were recorded to the four big museums, compared to just over 90,000 to the Coptic Museum and 43,000 to the Islamic Museum (Doyon 2008: 29). Shaped by the Ancient Egypt they have seen in museums at home, it would appear that tourists travel to modern Egypt to see the same conceptualization, none the stranger in an antique land.

8 Conclusion

The development of any museum and its collection depends on an array of historic specificities, unique to each institution. Despite this *caveat*, the general trends explored in this chapter have affected many Egyptological collections, and their impact can be traced through the past up to their influence in the present day. Like the *Wunderkammern* of early modern Europe, museums continue either to twist, or to unravel, two narrative strands, one whereby Egypt is a natural phenomenon available for rational scientific study, and another in which Egypt is an artificial wonder, replete with miraculous feats of art, architecture, and engineering. Museums are the first point of contact for many people's conceptions of Egypt, whether they visit a museum in person or see museum objects on TV, as movie replicas or shop reproductions, or in books and on the internet. Having had unfettered, and unacknowledged, power to create Ancient Egypts for more than 200 years, museums now face the problem of how (not whether) they will evolve, in the face of challenges to the actual ownership of cultural property as well as the intellectual and ethical ownership of the act of representation in museums. Museums have been essential to the founding of Egyptology as an academic discipline, and to the ongoing work of recording, preserving, and interpreting the remarkable legacy of Egypt's past. Recognizing this important role, and adopting a more interrogative and self-reflective approach, will be a vital step in addressing the challenges that relate to Ancient Egypt and its projection in museums.

FURTHER READING

An essential study, based on the Egyptian collection of the British Museum, is Moser 2006. Several volumes from the University College London series *Encounters with Ancient Egypt* (series editor Peter J. Ucko) contain articles relevant to many of the topics discussed

here: see MacDonald and Rice 2003, Jeffreys 2003, Humbert and Price 2003, and Ucko and Champion 2003. Reid 2003 explores museums and archaeology in the context of Egyptian history and politics during the colonial period; Colla 2007 likewise uses examples from museum history and archaeology to examine the development of Egyptology as a discipline, from a postcolonial perspective. General information about the history of major museum collections can be found in Turner 1996, available in an updated version at www.oxfordartonline.com (subscription required). For literature in the field of museology the *Blackwell Companion to Museum Studies* (Macdonald 2006) and Preziosi and Farago's 2004 anthology, *Grasping the World*, are useful entrance points; Swain 2007 is relevant to understanding the growth of archaeology-based collections (especially pp. 18–34).

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Bibliography

'Abd Allāh and Yaḥyā al-Ṭāhir. 2008. *Al-ṭawq wa l-aswirah*. Cairo. al-Hay'ah al-Miṣriyyah al-'Āmmah li l-Kitāb, 1975. Tr. Samah Selim, *The Collar and the Bracelet*. Cairo.

['Abd al-Laṭīf al-Baghdādī.] 1810. *Kitāb al-ifādah wa l-i'tibār fi l-umūr al-mushāhadah wa l-hawādith al-mu'āyanah bi-arḍ miṣr. Relation de l'Egypte, par Abd-Allatif, médecin arabe de Bagdad; suivie de divers Extraits d'Ecrivains Orientaux, et d'un Etat des Provinces et des Villages de l'Egypte dans le XIVe siècle; le tout traduit et enrichi de notes historiques et critiques, par M. Silvestre de Sacy.* Paris.

'Abd al-Laṭīf al-Baghdādī. 1983. *Kitāb al-ifādah wa l-i'tibār fi l-umūr al-mushāhadah wa l-hawādith al-mu'āyanah bi-arḍ miṣr.* Ed. Aḥmad Ghassān Sabānū. Khālid b. Walīd. Damascus.

Abd el Salam, S. 2004. *Egyptian and Graeco-Roman Wall Plasters and Mortars: A Comparative Scientific Study.* BAR S1319. Oxford.

Abt, J. 2006. The origins of the public museum. In Macdonald 2006: 115–34.

Acosta-Hughes, B. 2002. *Polyeideia. The* Iambi *of Callimachus and the Archaic Iambic Tradition.* Berkeley.

Adams, B., in press. *Fancy Stone Vessels from the Early Dynastic Royal Tombs at Abydos.* SAGA. Heidelberg.

Adriani, A. 1940. *Annuaire du Musée gréco-romain* (1935–1939). Alexandria.

Adrom, F. 2006. *Die Lehre des Amenemhet.* BAe 19. Turnhout.

Ågyptologische Tempeltagung

  Gundlach R. and Rochholz, M. (eds.), 1994. *Ägyptische Tempel– Struktur, Funktion und Programm.* Akten der Ägyptologischen Tempeltagungen in Gosen 1990 und in Mainz 1992. HÄB 37. Hildesheim.

  Kurth, D. (ed.), 1995. *3. Ägyptologische Tempeltagung. Systeme und Programme der ägyptischen Tempeldekoration.* ÄAT 33.1. Wiesbaden.

  Beinlich, H., Hallof, J., Hussy, H., and von Pfeil, C. (eds.), 2006. *5. Ägyptologische Tempeltagung: Würzburg, 23.–26. September 1999.* Wiesbaden. 2002.

  Haring, B. and Klug, A. (eds.). 2007. *6. Ägyptologische Tempeltagung. Funktion und Gebrauch altägyptischer Tempelräume*: *Leiden,* 4.–7. September 2002. Wiesbaden.

Aksamit, J. 1998. The D-Ware from Abusir el-Meleq. In C. Eyre (ed.), *Proceedings 7th Int. Congress of Egyptologists.* Cambridge: 31–8.

Albersmeier, S. 2002. *Untersuchungen zu den Frauenstatuen des ptolemaïschen Ägypten.* Aegyptiaca Treverensia 10. Mainz am Rhein.

Alberti, S. J. M. M. 2007. Molluscs, mummies and moon rock: the Manchester Museum and Manchester science. *Manchester Region History Review* 18: 130–54.

Aldred, C. 1950. *Middle Kingdom Art in Ancient Egypt.* London.

Aldred, C. 1970. Some royal portraits of the Middle Kingdom in Ancient Egypt. *MMJ* 3: 27–50.

Aldred, C. 1973. *Akhenaten and Nefertiti.* London: 90–3.

Aldred C. 1978. Statuaire. In J. Leclant (ed.), *Les Pharaons. Le Temps des Pyramides.* Paris: 171–205.

Aldred C. 1988. An early image-of-the-king. In Baines et al. 1988: 41–7.

Aldred C. 1999. *L'Art de l'Ancien Empire égyptien. Actes du colloque organisé au musée du Louvre 1998.* Paris.

Aldred, C. et al. 1979. *L'Empire des conquérants: L'Égypte au Nouvel Empire (1560–1070). Le Monde égyptien: Les Pharaons.* 2. Paris.

Aldred, C. et al. 1980. *L'Égypte du crepuscule: De Tanis à Méroé, 1070 av.J-C. – IVe siècle apr. J.-C. Le Monde égyptien: Les Pharaons.* 3. Paris.

Allan, W. 2008. *Euripides: Helen.* Cambridge.

Allen, J. P. 1988. *Genesis in Egypt: The Philosophy of Ancient Egyptian Creation Accounts.* Yale Egyptological Studies 2. New Haven.

Allen, J. P. 1996. Coffin texts from Lisht. In H. O. Willems (ed.), *The World of the Coffin Texts: Proceedings of the Symposium held on the Occasion of the 100th Birthday of Adriaan de Buck, Leiden, December 17–19, 1992.* Egyptologische Uitgaven 9. Leiden: 1–15.

Allen, J. P. 2000. *Middle Egyptian: An Introduction to the Language and Culture of Ancient Egypt.* Cambridge.

Allen, J. P. 2002. *The Heqanakht Papyri.* Publications of the Metropolitan Museum of Art Egyptian Expedition 27. New York.

Allen, J. P. 2004. Traits dialectaux dans les Textes des Pyramides du Moyen Empire. In S. Bickel and B. Mathieu (eds.), *D'un monde à l'autre: Textes des Pyramides et Textes des Sarcophages, Actes de la table ronde internationale 'Textes des Pyramides versus Textes des Sarcophages,' IFAO – 24–26 september 2001.* BdE 139. Cairo: 1–14.

Allen, T. G. 1950. *Occurrences of Pyramid Texts with Cross Indexes of these and other Egyptian Mortuary Texts.* SAOC 27. Chicago.

Altenmüller, H. 1998. *Die Wanddarstellungen im Grab des Mehu in Saqqara.* Mainz.

Altenmüller, H. and Moussa, A. 1991. Die Inschrift Amenemhets II. aus dem Ptah-Tempel von Memphis: Ein Vorbericht. *SAK* 18: 1–48.

Altenmüller, H., and El Bialy, M. 2009. Eine spätzeitliche Topfscherbe aus Saqqara mit dem Anfang der "Lehre des Dua-Khety." In D. Kessler et al. (eds.), *Texte – Theben – Tonfragmente. Festschrift für Günter Burkard.* ÄAT 76. Wiesbaden: 21–6.

Andreu, G. (ed.). 2002. *Les Artistes de Pharaon. Deir el-Médineh et la Vallée des Rois.* Paris.

Annual Egyptological Bibliography. since 1947. Leiden.

Arnold, D. 1962. *Wandrelief und Raumfunktion in ägyptischen Tempeln des Neuen Reiches.* MÄS 2. Berlin.

Arnold, D. 1969. Zur frühen Namensformen des Königs Mn*t*w-ḥtp Nb-ḥpt-r*c*. *MDAIK* 24: 38–42.

Arnold, D. 1974–81. *Der Tempel des Königs Mentuhotpe von Deir el-Bahari.* Mainz am Rhein.

Arnold, D. 1976. *Gräber des Alten und Mittleren Reiches in El-Tarif.* Mainz am Rhein.

Arnold, D. 1979a. Das Labyrinth und seine Vorbilder. *MDAIK* 35: 1–9.

Arnold, D. 1979b. *The Temple of Montuhotep at Deir el Bahari.* New York.

Arnold, D. 1982. "*Per-nu*" and "*Per-wer*" *LÄ* 4: 932–5.

Arnold, D. 1987. *Der Pyramidbezirk des Königs Amenemhet III in Dahschur. I. Die Pyramide.* Mainz.

Arnold, D. 1988. *The Pyramid of Senwosret I.* New York.

Arnold, D. 1991a. Amenemhat I and the early Twelfth Dynasty at Thebes. *MMJ* 26: 5–48.

Arnold, D. 1991b. *Building in Egypt: Pharaonic Stone Masonry.* New York.

Arnold, D. 1992. *The Pyramid Complex of Senwosret I.* New York.

Arnold, D. 1997. The Late Period Tombs of Hor-Khebit, Wennefer and Wereshnefer at Saqqâra. In C. Berger, and B. Mathieu (eds.), *Études sur l'Ancien Empire et la nécropole de Saqqâra dédiées à Jean-Phillipe Lauer.* I. Montpellier: 31–54.

Arnold, D. 1998. Royal cult complexes of the Old and Middle Kingdoms. In B. E. Schafer (ed.), *Temples of Ancient Egypt.* London: 31–85.

Arnold, D. 1999. *Temples of the Last Pharaohs.* New York and Oxford.

Arnold, D. 2002. *The Pyramid Complex of Senwosret III at Dahshur: Architectural Studies.* New York.

Arnold, D. 2003. *The Encyclopedia of Ancient Egyptian Architecture.* Princeton.

Arnold, D. 2007. *Middle Kingdom Tomb Architecture at Lisht.* New York.

Arnold, D. and Arnold, Do. 1979. *Der Tempel Qasr el-Sagha.* Mainz.

Arnold, Do. 1996a. An artistic revolution: the early years of King Amenhotep IV/Akhenaten. In Arnold et al. 1996: 17–40.

Arnold, Do. 1996b. The workshop of the sculptor Thutmose. In Arnold et al. 1996: 70–6

Arnold, Do. 1996c. Youth and old age: the post-Amarna era. In Arnold et al. 1996: 121–8.

Arnold, Do. 1996d. Aspects of the royal female image during the Amarna Period. In Arnold et al. 1996: 85–120.

Arnold, Do. 2005. The destruction of the statues of Hatshepsut from Deir el-Bahri. In C. R. Roehrig (ed.), *Hatshepsut From Queen to Pharaoh.* New York: 270–6.

Arnold, Do. and Ziegler, C. (eds.) 1999. *Egyptian Art in the Age of the Pyramids.* New York.

Arnold, Do. et al. (eds.) 1996. *The Royal Women of Amarna: Images of Beauty from Ancient Egypt.* New York.

L'Art copte en Égypte. 2000 ans de christianisme. 2000. Paris.

Ashton, S.-A. 2001. *Ptolemaic Royal Sculpture from Egypt: The Interaction between the Greek and Egyptian Traditions.* BAR International Series 923. Oxford.

Ashton, S.-A. 2003. *Petrie's Ptolemaic and Roman Memphis.* London.

Ashton, S.-A. 2004a. *Roman Egyptomania.* Essex.

Ashton, S.-A. 2004b. Ptolemaic royal images: a review of P. E. Stanwick, *Portraits of the Ptolemies. JRA* 17: 543–50.

Ashton, S.-A. 2005. The double and triple uraeus and Egyptian royal women. In A. Cooke and F. Simpson (eds.), *Current Research in Egyptology* 2. Oxford: 1–10.

Asselberghs, H. 1962. *Chaos en beheersing: Documenten uit Aeneolithisch Egypte.* Leiden.

Assmann, J. 1974. Der literarische Text im Alten Ägypten. Versuch einer Begriffsbestimmung. *OLZ* 69: 117–26.

Assmann, J. 1977a. Fest des Augenblicks – Verheißung der Dauer: Die Kontroverse der ägyptischen Harfnerlieder. In J. Assmann et al. (eds.), *Fragen an die altägyptische Literatur. Studien zum Gedenken an Eberhard Otto.* Wiesbaden: 55–84.

Assmann, J. 1977b. Das ägyptische Zweibrüdermärchen (Papyrus d'Orbiney): eine Textanalyse auf drei Ebenen am Leitfaden der Einheitsfrage. *ZÄS* 104: 1–25.

Assmann, J. 1983. Schrift, Tod und Identität: Das Grab als Vorschule der Literatur im alten Ägypten. In J. Assmann, A. Assmann, and C. Hardmeier (eds.), *Schrift und Gedächtnis: Beiträge zur Archäologie der literarischen Kommunikation.* Munich: 64–93.

Assmann, J. 1985. Gibt es eine "Klassik" in der ägyptischen Literaturgeschichte? Ein Beitrag zur Geistesgeschichte der Ramessidenzeit. *ZDMG Supplement* 6: 35–52.

Assmann, J. 1989. Der schöne Tag. Sinnlichkeit und Vergänglichkeit im altägyptischen Fest. In W. Haug, and R. Warning, (eds.), *Das Fest*. Poetik und Hermeneutik 14. Munich. 1–28.

Assmann, J. 1990. *Ma'at. Gerechtigkeit und Unsterblichkeit im Alten Ägypten*. Munich.

Assmann, J. 1996a. Der literarische Aspekt des ägyptischen Grabes und seine Funktion im Rahmen des "monumentalen Diskurses." In Loprieno 1996: 97–104.

Assmann, J. 1996b. Kulturelle und literarische Texte. In Loprieno (ed.), 1996: 59–82.

Assmann, J. 1999a. *Ägyptische Hymnen und Gebete* (2nd edn.). Freiburg and Göttingen.

Assmann, J. 1999b. Cultural and literary texts. In Moers (ed.) 1999: 1–15.

Assmann, J. 2000. *Weisheit und Mysterium: Das Bild der Griechen von Ägypten*. Munich.

Assmann, J. 2008. *Altägyptische Totenliturgien 3. Totenliturgien in Papyri der Spätzeit*. Heidelberg.

Assmann, J. and Blumenthal, E. (eds.) 1999. *Literatur und Politik im pharaonischen und ptolemäischen Ägypten*. BdE 127. Cairo.

Aston, B., Harrell, J., and Shaw, I. 2000. Stone. In P. T. Nicholson and I. Shaw. (eds.), *Ancient Egyptian Materials and Technology*. Cambridge: 5–77.

Aston, D. A. 1999. Dynasty 26, Dynasty 30, or Dynasty 27? In search of the funerary archaeology of the Persian Period. In A. Leahy and J. Tait, (eds.), *Studies on Ancient Egypt in Honour of H.S. Smith*. London: 17–22.

Aston, D. A. 2003. The Theban west bank from the Twenty-fifth Dynasty to the Ptolemaic Period. In N. Strudwick, and J. H. Taylor (eds.), *The Theban Necropolis: Past, Present and Future*. London: 138–66.

Aubert, M.-F., Cortopassi, R., Nachtergael, G., et al. 2008. *Portraits funéraires de l'Égypte romaine*. II. *Cartonnages, linceuls et bois*. Paris.

Aufrère, S. 1991. *L'Univers minérale dans la pensée égyptienne*. BdE 105. Cairo.

Aufrere, S. 2001. The Egyptian temple, substitute for the mineral universe. In W. V. Davies 2001b: 158–63.

Aufrère, S. H. and Bosson N. (eds.) 2005. *Grammaire inédite du XVIIᵉ siècle*. [Guillaume Bonjour's *Elementa linguae copticae*]. Geneva.

Aufrère, S., Golvin, J.-C., and Goyon, J.-G. 1991–7. *L'Égypte restituée*. 3 vols. Paris.

Austin, M. 1981. *The Hellenistic World from Alexander to the Roman Conquest. A Selection of Ancient Sources in Translation*. Cambridge; London; New Rochelle; Melbourne; Sydney.

Auth, S. H. 2007. An intarsia glass panel of Thomas and the Cross: Egyptian and Roman interaction in the Late Antique. In C. Hourihane (ed.), *Interactions: Artistic Interchange between the Eastern and Western Worlds in the Medieval Period*. Pittsburgh: 133–46.

Backes, B. 2005. *Das altägyptische "Zweiwegebuch": Studien zu den Sargtext-Sprüchen 1029–1130*. ÄA 69. Wiesbaden.

Bacs, T. 2001. Art as material for later art: the case of Theban Tomb 65. In W. V. Davies (ed.) 2001b: 94–100.

Badawi, A. 1957. Das Grab des Kronprinzen Scheschonk, Sohnes Osorkon's II und Hohenpristers von Memphis. *ASAE* 54: 153–77.

Bagnall, R. and Rathbone, D. (eds.) 2004. *Egypt from Alexander to the Early Christians: An Archaeological and Historical Guide*. London.

Bailey, D. 1991. *Excavations at Ashmunein*. 4. London.

Baines, J. 1974. The inundation stela of Sebekhotpe VIII. *AcOr* 36: 39–54.

Baines, J. 1976. Temple symbolism. *Royal Anthropological Institute Newsletter* 15.3: 10–15.

Baines, J. 1988. An Abydos list of gods and an Old Kingdom use of texts. In Baines et al. 1988: 124–33.

Baines, J. 1990. Interpreting the story of the Shipwrecked Sailor. *JEA* 76: 55–72.

Baines, J. 1993. Symbolic roles of canine figures on early monuments. *Archéo-Nil* 3: 57–74.

Baines, J. 1996a. Classicism and modernism in the literature of the New Kingdom. In Loprieno (ed.), 1996: 157–74.

Baines, J. 1996b. Myth and literature. In Loprieno (ed.), 1996: 361–77.

Baines, J. 1999a. Prehistories of literature: performance, fiction, myth. In Moers (ed.), 1999: 17–41.

Baines, J. 1999b. An ancient text in a modern library. *EA* 14: 33–4.

Baines, J. 1999c. On *Wenamun* as a Literary Text. In J. Assmann and E. Blumenthal (eds.), *Literatur und Politik im pharaonischen und ptolemäischen Ägypten. Vorträge zum Gedenken an Georges Posener 5.–10. September 1996 in Leipzig.* BdE 127. Cairo: 209–33.

Baines, J. 2003a. On the genre and purpose of the "large commemorative scarabs" of Amenhotep III. In N. Grimal, A. Kamel, and C. May-Sheikholeslami (eds.), *Hommages à Fayza Haikal.* BdE 138. Cairo: 35–42.

Baines, J. 2003b. Research on Egyptian literature: background, definitions, prospects. In Z. Hawass, and L. Pinch Brock (eds.), *Egyptology at the Dawn of the Twenty-First Century. Proceedings of the Eighth International Congress of Egyptologists Cairo.* Cairo and New York: 1–26.

Baines, J. 2007. *Visual and Written Culture in Ancient Egypt.* Oxford.

Baines, J. and Malek, J. 1980. *Atlas of Ancient Egypt.* Oxford.

Baines, J., Donker van Heel, K., and Fischer-Elfert, H.-W. 1998. Abnormal hieratic in Oxford: Two new papyri. *JEA* 84: 234–6.

Baines, J., et al. (eds.) 1988. *Pyramid Studies and other Essays presented to I.E.S. Edwards.* EES Occasional Publications 7. London.

Bakker, E., de Jong, I., and van Wees, H. 2002. *Brill's Companion to Herodotus.* Leiden and Boston.

Bakry, H. S. K. 1971. Recent discoveries in the delta, *Rivista degli Studi Orientali* 46: 1–15.

Bal, M. 1996. The discourse of the museum. In R. Greenberg, B. W. Ferguson, and S. Nairne (eds.), *Thinking about Exhibitions.* London and New York: 201–18.

Baqué Manzano, L. 2002. Further arguments on the Coptos colossi. *BIFAO* 102: 17–61.

Barbotin, C. and Clère, J.-J. 1991. L'inscription de Sésostris Ier à Tôd. *BIFAO* 91: 1–32.

Bareš, L. 1999. *The Shaft Tomb of Udjahorresnet at Abusir.* Prague.

Bareš, L. and Strouhal, E. 2000. The shaft-tomb of Iufaa: season of 1997/98. *ZÄS* 127: 5–14.

Barguet, P. 1953. L'origine et signification du contrepoids de collier-menat. *BIFAO* 52: 103–11.

Barns, J. 1968. A new wisdom text from a writing board in Oxford. *JEA* 54: 71–6.

Barta, W. 1970. *Das Selbstzeugnis eines altägyptischen Künstlers (Stele Louvre C 14).* Berlin.

Barta, M. 1998. Serdab and statue placement in private tombs down to the Fourth Dynasty. *MDAIK* 54: 65–75.

Bartel, H.-G. 2002. Funktionale Aspekte des Täglichen Rituals im Tempels Sethos' I. In H. Beinlich, J. Hallof, H. Hussy, and C. von Pfeil (eds.), *5. Ägyptologische Tempeltagung. Würzburg 23–6. September 1999.* ÄAT 33.3. Wiesbaden: 1–16.

Baud M. 1998 *Études sur la statuaire de Rêdjedef, Les Critères de datation stylistiques à l'Ancien Empire.* BdE 120.

Baud, M. 1999. La statuaire de Rêdjedef. I. Rapport préliminaire sur la collection de l'IFAO. In C. Ziegler and N. Palayret (eds.), *L' Art de l'Ancien Empire égyptien. Actes du colloque organisé au musée du Louvre par le Service culturel les 3 et 4 avril 1998.* Paris.

Bauer, T. 2007. In search of "post-classical literature": a review article. *Mamluk Studies Review* 11.2: 137–67.

Baumgartel, E. J. 1955. *The Cultures of Prehistoric Egypt.* I. London.

Baumgartel, E. J. 1960. *The Cultures of Prehistoric Egypt*. II. London.

Beard, M. 1992. Souvenirs of culture: deciphering (in) the museum. *Art History* 15.4: 505–32.

Beaux, N. 2004. La pintade, le soleil et l'éternité. À propos du signe 🂻 (G 21). *BIFAO* 104: 21–38.

Beckerath, J. v. 1992. Zur Geschichte von Chonsemhab und dem Geist. *ZÄS* 119: 90–107.

Bednarski, A. 2005. *Holding Egypt: Tracing the Reception of the* Description de l'Égypte *in Nineteenth-Century Great Britain*. London.

Bednarski, A. 2007. Egypt and the modern world. In T. Wilkinson (ed.), *The Egyptian World*. New York: 476–87.

Behlmer, H. 2002. The city as metaphor in the works of two Panopolitans: Shenoute and Besa. In A. Egberts, B. P. Muhs, and J. van der Vliet (eds.), *Perspectives on Panopolis. An Egyptian Town from Alexander the Great to the Arab Conquest. Acts from an International Symposium Held in Leiden on 16, 17 and 18 December 1998*. Papyrologica Lugduno-Batava 31. Leiden: 13–27.

Beinlich, H. 1991. *Das Buch vom Fayum*. ÄA 51. Wiesbaden.

Beinlich, H. 2000. *Das Buch vom Ba*. Studien zum Altägyptischen Totenbuch 4. Wiesbaden.

Beinlich, H., Hallof, H., Hussy, H., and von Pfeil, C. (eds.) 2002. *5. Ägyptologische Tempeltagung, Würzburg, 23.–26. September 1999*. ÄAT 33,3. Wiesbaden: 1–16.

Bell, L. 1986. Une nouvelle version de l'inscription de Bakhtan de Ramsès II et la fête d'Opet dans la légende tardive. *Les Dossiers. Histoire et Archéologie* 101: 24.

Bell, L. 1997. The New Kingdom "divine" temple: the example of Luxor. In B. Shafer (ed.), *Temples of Ancient Egypt*. Ithaca: 127–84.

Belova, G. A. and Sherkova, T. A. (eds.) 2002. *Ancient Egyptian Temple at Tell Ibrahim Awad: Excavations and Discoveries in the Nile Delta*. Moscow.

Bennett, T. 1985. *The Birth of the British Museum: History, Theory, Politics*. London.

Bennett, T. 1988. The exhibitionary complex. *New Formations* 4. 73–102. Repr. in R. Greenberg, B. W. Ferguson, and S. Nairne (eds.), *Thinking about Exhibitions*. London and New York. 1996: 81–112, and in Preziosi and Farago 2004: 413–41.

Bennett, T. 2004. *Pasts without Memory: Evolution, Museums, Colonialism*. London.

Berger-El Naggar, C. and Labrousse A. 2005. La tombe de Rêhérychefnakht à Saqqâra-Sud, un chaînon manquant? *BSFE* 164: 18–20 and fig. 6.

Berry, M. 2002. The study of pigments from Shrine 1 at Ismant el-Kharab. In C. A. Hope and G. E. Bowen (eds.), *Dakhleh Oasis Project: Preliminary Reports on the 1994–1995 to 1998–1999 Field Seasons*. DOP Monograph 11. Oxford: 53–60

Bestock, L. D. 2008. The Early Dynastic funerary enclosures of Abydos. *Archéo-Nil* 18: 42–59.

Betrò, M. 1999. Asoka in un testo letterario demotico? *Studi Ellenistici* 12: 115–25.

Betz, H. D. (ed.) 1992. *The Greek Magical Papyri in Translation including the Demotic Spells* (2nd edn.). Chicago and London.

Beye, C. R. 1969. Jason as love-hero in Apollonius' *Argonautika*. *Greek, Roman and Byzantine Studies* 10: 31–55.

Bianchi, R. S. 1980. Not the Isis Knot. *Bulletin of the Egyptological Seminar* 2: 9–31.

Bianchi, R. S. (ed.) 1988. *Cleopatra's Egypt: Age of the Ptolemies*. Brooklyn.

Bianchi, R. S. 2006. Images of Isis and her cultic shrines reconsidered: towards an Egyptian understanding of the *interpretation* graeca. In L. Bricault, M. J. Versluys, and P. G. Meyboom (eds.), *Nile into Tiber. Egypt in the Roman World. Proceedings of the 3rd International Conference of Isis Studies, Leiden, May 11–14 2005*. Leiden: 470–505.

Bickel, S. and Mathieu, B. 1993. L'écrivain Amennakht et son *enseignement*. *BIFAO* 93: 31–51.

Bierbrier, M. L. 1988. The Lethieullier family and the British Museum. In Baines et al. 1988: 220–8.

Bierbrier, M. L. 1995a. The growth of museum collections. *Museum International* 47.2: 9–11.

Bierbrier, M. L (ed.). 1995b. *Who Was Who in Egyptology* (3rd edn.). London.

Bierbrier, M. L. 2003. Art and antiquities for government's sake. In D. Jeffreys (ed.), *Views of Ancient Egypt since Napoleon Bonaparte: Imperialism, Colonialism and Modern Appropriations*. London: 67–75.

Bietak, M. 1996a. *Avaris: The Capital of the Hyksos*. London.

Bietak, M. (ed.) 1996b. *House and Palace in Ancient Egypt*. Vienna.

Bishai, W. 1959. The Coptic influence on Egyptian Arabic. Johns Hopkins dissertation.

Bisson de la Roque, F. 1937. *Ṭôd: 1934 à 1936*. Cairo.

Bisson de la Roque, F. and Clère, J. J. 1928. *Les Fouilles de Médamoud (1928)*. Cairo.

Blackman, A. M. 1915. *The Rock Tombs of Meir*. III. London.

Blackman, A. M. 1924. *The Rock Tombs of Meir*. IV. London.

Blackman, A. M. 1953. *The Rock Tombs of Meir*. VI. London.

Blackman, A. M. and Apted, M. 1953. *The Rock Tombs of Meir*. V. London.

Blasius, A., and Schipper, B. U. (eds.) 2002. *Apokalyptik und Ägypten. Eine kritische Analyse der relevanten Texte aus dem griechisch-römischen Ägypten*. OLA 107. Leuven.

Blochet, E. 1908–15. Etudes sur le gnosticisme musulmane. *RSO* 2 (1908–9), pp. 717–56; 3 (1910), pp. 177–203; 4 (1911–12), pp. 27–79, 267–300; 6 (1914–15) pp. 5–67.

Blom-Böer, I. 1994. Zusammensetzung altägyptischer Farbpigmente und ihre Herkunftslagerstätten in Zeit und Raum. *OMRO* 74: 55–107.

Blondaux, L. 2002. Conservation of archaeological wall paintings in the temple of Tutu. In C. A. Hope and G. E. Bowen (eds.), *Dakhleh Oasis Project: Preliminary Reports on the 1994–1995 to 1998–1999 Field Seasons*. DOP Monograph 11. Oxford: 61–3.

Blum, R. 1991. *Kallimachos: The Alexandrian Library and the Origins of Bibliography*. Tr. H. H. Wellisch. Madison.

Blumenthal, E. 1984. Die Lehre des Königs Amenemhet (Teil I). *ZÄS* 111: 85–107.

Blumenthal, E. 1985. Die Lehre des Königs Amenemhet (Teil II). *ZÄS* 112: 104–15.

Blyth, E. 2006. *Karnak. Evolution of a Temple*. London and New York.

Boak, A. E. R. and Peterson, E. E. 1931. *Topographical and Architectural Report of Excavations during the Seasons 1924–28*. University of Michigan Studies. Humanistic Series 25. Ann Arbor.

Boardman, J. 1999. *The Greeks Overseas: Their Early Colonies and Trade* (4th edn.). London.

Bober, H. 1967. On the illumination of the Glazier Codex: a contribution to Early Coptic art and its relation to Hiberno-Saxon interlace. In H. Lehmann-Haupt (ed.), *Homage to a Bookman: Essays on Manuscripts and Printing, Written for Hans P. Kraus*. Berlin: 31–49.

Boehmer, R. M. 1974. Das Rollsiegel im prädynastischen Ägypten. *Archäologische Anzeiger* 4: 495–514.

Bohleke, B. 1996. In terms of fate: a survey of the indigenious Egyptian contribution to ancient astrology in light of Papyrus CtYBR inv. 1132(B). *SAK* 23: 46.

Bolman, E. S. 1998. *Mimesis*, metamorphosis and representation in Coptic monastic cells. *BASP* 35: 65–77.

Bolman, E. S. 2006a. Late Antique aesthetics, chromophobia and the Red Monastery, Sohag, Egypt. *Eastern Christian Art* 3: 1–24.

Bolman, E. S. 2006b. Veiling sanctity in Christian Egypt: visual and spatial solutions. In S. Gerstel (ed.), *Thresholds of the Sacred: Architectural, Art Historical, Liturgical, and Theological Perspectives on Religious Screens, East and West*. Washington: 73–104.

Bolman, E. S. 2007. The Red Monastery Conservation Project, 2004 campaign: new contributions to the corpus of Late Antique art. In C. Hourihane (ed.), *Interactions:*

Artistic Interchange between the Eastern and Western Worlds in the Medieval Period. Pittsburgh: 261–81.

Bomann, A. 1991. *The Private Chapel in Ancient Egypt.* London and New York.

Bommas, M. 2003. Heimweh nach Theben vor dem Hintergrund kultureller Lebensform. *GM* 193: 41–4.

Bonneau, D. 1992. Les *realia* du paysage égyptien dans le roman grec: remarques lexicographiques. In M.-F. Baslez, P. Hoffmann, and M. Trédé (eds.), *Le Monde du roman grec. Actes du colloque international tenu à l'École normale supérieure (Paris 17–19 décembre 1987).* Etudes de littérature ancienne 4. Paris: 213–19.

Bonnet, C. and Valbelle, D. 2006. *The Nubian Pharaohs: Black Kings on the Nile.* Tr. from the French by D. Dusinberre. Cairo and New York.

Bonnet, H. 1952. *Reallexikon der ägyptischen Religionsgeschichte.* Berlin.

Boozer, A. 2007. Housing Empire: the Archaeology of Daily Life in Roman Amheida, Egypt. Columbia University, doctoral dissertation.

Borchardt, L. 1910. *Das Grabdenkmal des König S'a3hu-re'.* I. *Der Bau.* WVDOG 6. Leipzig.

Borchardt, L. 1911, 1925. *Statuen und Statuetten von Königen und Privatleuten.* 1 and 2. Berlin.

Borchardt, L. 1930. *Statuen und Statuetten von Königen und Privatleuten. CGC 1–1294.* Bd. III. Berlin.

Borg, B. 1996. *Mumienporträts. Chronologie und kultureller Kontext.* Mainz am Rhein.

Borg, B. 1997. The dead as a guest at table? Continuity and change in the Egyptian cult of the dead. In M. L. Bierbrier (ed.), *Portraits and Masks: Burial Customs in Roman Egypt.* London: 26–32.

Bosse, K. 1936. *Die menschliche Figur in der Rundplastik der ägyptischen Spätzeit von der XXII. bis zur XXX. Dynastie.* Glückstadt.

Bothmer, B. V. 1960. *Egyptian Sculpture of the Late Period: 700 B.C. to A.D. 100.* Brooklyn.

Bothmer, B. V. 1962–1963. A Brooklyn head on a Cairo statue: the Egyptian priest Wesir-wer. *Brooklyn Museum Annual* 4: 42–51.

Bothmer B. V. 1971. A bust of Ny-user-ra from Byblos in Beirut, Lebanon. *Kêmi* 21: 11–16 and pls. I–II.

Bothmer B. V. 1974. The Karnak statue of Ny-user-ra (Membra dispersa IV). *MDAIK* 30: 165–70 and pls. 44–5, 47–9.

Bothmer, B. V. and De Meulenaere, H. 1986. The Brooklyn statuette of Hor, son of Pawen (with an excursus on eggheads). In L. H. Lesko (ed.), *Egyptological Studies in Honor of Richard A. Parker.* Hanover: 1–15 and pls. 1–4.

Botti, G. 1955. A fragment of the story of a military expedition of Thutmosis III to Syria. *JEA* 41: 64–71.

Botti, G. and Romanelli, P. 1961. *Le Sculture del Museo Gregoriano Egizio.* Vatican City.

Bourriau, J. 1988. *Pharaohs and Mortals: Egyptian Art in the Middle Kingdom.* Cambridge.

Bowman, A. 1986. *Egypt after the Pharaohs: 332 BC–AD 642: From Alexander to the Arab Conquest.* London.

Brand, P. 2000. *The Monuments of Seti I: Epigraphic, Historical and Art Historical Analysis.* Leiden.

Brand, P. 2007. Veils, votives, and marginalia: the use of sacred space at Karnak and Luxor. In P. F. Dorman and B. M. Bryan (eds.), *Sacred Space and Sacred Function in Ancient Thebes.* Chicago: 51–83.

Brandl, H. 2008. *Untersuchungen zur steinernen Privatplastik der Dritten Zwischenzeit: Typologie. Ikonographie. Stilistik.* 2 vols. Dissertation, Berlin (revd. 2nd edn. published in 2009 in the series Philippika. Marburger Altertumskundliche Abhandlungen, as Philippika 30.)

Brandl, H. 2009. Bemerkungen zur Datierung von libyerzeitlichen Statuen aufgrund stilistischer Kriterien. In G. P. F. Broekman, R. J. Demarée, and O. E. Kaper (eds.), *The Libyan Period in Egypt: Historical and Cultural Studies into the 21st–24th Dynasties*. Leiden and Leuven: 57–89.

Breccia, E. 1932. *Le Musée gréco-romain 1925–31*. Bergamo.

Brecoulaki, H. 2006. *La Peinture funéraire de Macedoine. Emplois et fonctions de la couleur IVe–IIe siècle avant J.-C.* Meletemata 48. Athens.

Bresciani, E. 1976. *Rapporto preliminare delle campagne di 1968 e 1969. Missione di scavo a Medinet Madi (Fayum, Egitto)*. Milan.

Bresciani, E. 1988. *Tomba di Bakenrenef (L. 24): Attività del cantiere scuola*. Pisa.

Bresciani, E. 2003. *Kom Madi 1977 e 1978. Le pitture murali del cenotafio di Alessandro Magno*. Pisa. Repr. with addenda and English tr.

Bresciani, E., Pernigotti, S., and Betrò, M. C. 1983. *Ostraka demotici da Narmuti I*. Pisa.

Bret, P. (ed.) 1999. *L'Expédition de l'Égypte, une entreprise des Lumières 1798–1801*. Paris.

Breyer, F. A. K. 2002. Die Schriftzeugnisse des Prädynastischen Königsgrabes U-j in Umm el-Qaab: Versuch einer Neuinterpretation. *JEA* 88: 53–65.

Bridgman, T. 2004. *Hyperboreans: Myth and History in Celtic-Hellenic Contacts*. Studies in Classics. New York.

Brink, K. O. 1946. Callimachus and Aristotle. *CQ* 40: 11–26.

Broc, N. 1975. *La Géographie des philosophes, géographies et voyageurs français au XVIIIe siècle*. Paris.

Brooklyn. 1960. *Egyptian Sculpture of the Late Period 700 BC to AD 100*. Ed. B. V. Bothmer et al. New York.

Brown, B. 1957. *Ptolemaic Paintings and Mosaics and the Alexandrian Style*. AIA Monographs on Archaeology and Fine Arts 6. Cambridge, MA.

Broze, M. 1989. *La Princesse de Bakhtan. Essai d'analyse stylistique*. MRE 6. Brussels.

Broze, M. 1996. *Les Aventures d'Horus et Seth dans le Papyrus Chester Beatty I*. OLA 76. Leuven.

Brubaker, L. and Haldon, J. 2001. Textiles. In L. Brubaker and J. Haldon, *Byzantium in the Iconoclast Era (ca 680–850): The Sources. An Annotated Survey*. Aldershot: 80–103.

Brunner, H. 1975. Apophis und Seqenenrê. *LÄ* 1: 353–4.

Brunner, H. 1977. *Die südliche Räume des Tempels von Luxor*. Mainz am Rhein.

Brunner, H. 1988. *Altägyptische Weisheit: Lehren für das Leben*. Munich.

Brunner-Traut, E. 1985. *Lebensweisheit der alten Ägypter*. Freiburg im Breisgau: 84–7.

Brunton, G. 1939. A monument of Amenemhet IV. *ASAE* 39: 177–81.

Brunton, W. 1924. *Kings and Queens of Ancient Egypt*. London.

Brunton, W. 1929. *Great Ones of Ancient Egypt*. London.

Bryan, B. 1987. Portrait sculpture of Thutmose IV. *JARCE* 24: 3–20.

Bryan, B. 1994. Amenhotep III united in eternity: a join for two statue parts from Medinet Habu. In B. B. Lorton (ed.), *Essays in Egyptology in Honor of Hans Goedicke*. Baltimore: 25–30.

Bryan, B. 1997. The statue program for the mortuary temple of Amenhotep III. In S. Quirke (ed.), *The Temple in Ancient Egypt: New Discoveries and Recent Research*. London: 57–81.

Bryan, B. 1999 (Fall). The artists in the tomb of Hormose. In R. Friedman (ed.), *Nekhen News* 11: 20.

Bryan, B. 2000. The artists in the tomb of Hormose. Part II. In R. Friedman (ed.), *Nekhen News* 12: 23.

Bryan, B. 2001. Painting techniques and artisan organization in the Tomb of Suemniwet, Theban Tomb 92. In W. V. Davies (ed.), 2001b: 63–72.

Bryan, B. 2002. Head of Thutmose I. In B. Bryan (ed.), *Quest for Immortality Treasure of Ancient Egypt*. Washington: 80–1.

Bryan, B. 2005. January 20. Ed. M. Hall. Retrieved from *Hopkins in Egypt Today*: www.jhu.edu/egypttoday/2005/pages/12005.html.

Bryan, B. 2008. A newly discovered statue of a queen from the reign of Amenhotep III. In S. D'Auria (ed.), *Servant of Mut. Studies in Honor of Richard A. Fazzini*. Leiden and Boston: 32–43.

Bryan, B. forthcoming. The ABCs of Egyptian painting in the Mid-18th Dynasty. In F. Tiradritti and V. Angenot (eds.), *Third Egyptological Colloquium of Montepulciano "Artists and Painting in Ancient Egypt*." Montepulciano.

Buckton, D. (ed.) 1994. *Byzantium: Treasures of Art and Culture*. London.

Budde, D. 2000. *Die Göttin Seschat*. Kanobos 2. Leipzig.

Bulloch, A. 1985. Hellenistic poetry. In P. Easterling and B. Knox (eds.), *The Cambridge History of Classical Literature*. I. *Greek Literature*. Cambridge: 541–621.

Bulloch, A., Gruen, E., Long, A., and Stewart, A. (eds.) 1993. *Images and Ideologies: Self-definition in the Hellenistic World*. Berkeley.

Burger-Robin, S. 2002. *Late Ramesside Three-dimensional Royal Statuary: From Ramesses IV through Ramesses XI*. Ann Arbor.

Burian, P. 1991. *Aeschylus: The Suppliants*. Princeton.

Burian, P. 2007. *Euripides: Helen. A Parallel-text Edition*. Warminster.

Burkard, G. 1988. *Spätzeitliche Osiris-Liturgien im Corpus der Asasif-Papyri. Übersetzung, Kommentar, formale und inhaltliche Analyse*. ÄAT 31. Heidelberg.

Burkard, G. 1994. Literarische Tradition und historische Realität: Die persische Eroberung Ägyptens am Beispiel Elephantine. *ZÄS* 121: 93–105.

Burkard, G. 1996. Metrik, Prosodie und formaler Aufbau ägyptischer literarischer Texte. In Loprieno (ed.), 1996: 447–63.

Burkard, G. 2000. Spätzeitliche Osirisliturgien. In M. Görg and G. Hölbl (eds.), *Ägypten und der östliche Mittelmeerraum im 1. Jahrtausend v.Chr*. ÄAT 44. Wiesbaden: 1–21.

Burkard, G. 2006. Drei Amulette für Neugeborene aus Elephantine. In G. Moers et al. (eds.), *jn.t ḏr.w. Festschrift für Friedrich Junge*. I. Göttingen: 109–24.

Burkard, G. and Thissen, H. J. 2003. *Einführung in die altägyptische Literaturgeschichte* I: *Altes und Mittleres Reich*. Einführungen und Quellentexte zur Ägyptologie 1. Münster.

Burkard, G., and Thissen, H. J. 2008. *Einführung in die altägyptische Literaturgeschichte II: Neues Reich*. Einführungen und Quellentexte zur Ägyptologie 6. Berlin.

Burkard, G., Grimm, A., Schoske, S., and Verbovsek, A. (eds.) 2004. *Kon-Texte: Akten des Symposions "Spurensuche – Altägypten im Spiegel seiner Texte", München 2. bis 4. Mai 2003*. ÄAT 60. Wiesbaden.

Burkert, W. 2004. *Babylon Memphis Persepolis: Eastern Contexts of Greek Culture*. Cambridge, MA.

Burn, A. R. 1972. Introduction. In A. de Sélincourt (tr.), *Herodotus: The Histories*. London: 7–37.

Burstein, S. 1978. *The Babyloniaca of Berossus: Sources and Monographs*. Sources from the Ancient Near East 1.5. Malibu.

Burstein, S. 1996. Images of Egypt in Greek historiography. In Loprieno (ed.), 1996: 591–604.

Burton, A. 1999. *Vision and Accident: The Story of the Victoria & Albert Museum*. London.

Butler, B. 2007. *Return to Alexandria: An Ethnography of Cultural Heritage Revivalism and Museum Memory*. Walnut Creek.

Cabrol, A. 2001. *Les Voies processionelles de Thèbes*. OLA 97. Leuven.

Cailliaud, F. 1827. *Voyage à Méroé, au Fleuve Blanc, au-delà de Fazoql dans le midi du royaume de Sennâr, a Syouah et dans cinq autres oasis; fait dans les années 1819, 1820, 1821 et 1822.* Paris.

Cairns, F. 1979. *Tibullus: A Hellenistic Poet at Rome.* Cambridge.

Calament, F. 2005. *La Révélation d'Antinoé par Albert Gayet. Histoire, archéologie, muséographie.* Cairo.

Callender. G. 2000. The Middle Kingdom Renaissance. In I. Shaw (ed.), *The Oxford History of Ancient Egypt.* Oxford: 148–83.

Cameron, A. 1995. *Callimachus and His Critics.* Princeton.

Caminos, R. A. 1954. *Late-Egyptian Miscellanies.* London.

Caminos, R. A. 1956. *Literary Fragments in the Hieratic Script.* Oxford.

Caminos, R. A. 1977. *A Tale of Woe from a Hieratic Papyrus in the A. S. Pushkin Museum of Fine Arts in Moscow.* Oxford.

Caminos, R. A. 1982. Musterbriefe. *LÄ* 4: 243–4.

Capart, J. 1905. *Primitive Art in Egypt.* London.

Capart J. 1927. *Documents pour servir à l'étude de l'art égyptien.* 1. Paris.

Capuani, M. 1999. *Christian Egypt. Coptic Art and Monuments through Two Millennia.* Collegeville.

Cardon, P. 1979. Amenmesse: an Egyptian royal head of the Nineteenth Dynasty in the Metropolitan Museum. *MMJ* 14: 5–14.

Carré, J. M. 1932. *Voyageurs et écrivains français en Égypte: du début à la fin de la domination Turque (1517–1840).* Cairo.

Carré, J. M. 1956. *Voyageurs et écrivains français en Égypte: deuxième édition revue et corrigée.* Cairo.

Carspecken, J. 1952. *Apollonius Rhodius and the Homeric Epic.* Yale Classical Studies 13: 33–143.

Carter H. and Mace, A. C. 1923–33. *The Tomb of Tut.ankh.Amen.* 3 vols. London.

Cartledge, P. 1993. *The Greeks: A Portrait of Self and Others.* Oxford.

Cartwright, C. R. 1997. Egyptian mummy portraits: examining the woodworker's craft. In M. L. Bierbrier (ed.), *Portraits and Masks: Burial Customs in Roman Egypt.* London: 106–11.

Case, H. and Crowfoot Payne, J. 1962. Tomb 100: the decorated tomb at Hierakonpolis. *JEA* 48: 5–18.

Castiglione, L. 1961. Dualité du style dans l'art sépulcrale égyptien à l'époque romaine. *AAASH* 9: 209–30.

Cauderlier, P. 1992. Réalités égyptiennes chez Héliodore. In M.-F. Baslez, P. Hoffmann, and M. Trédé (eds.), *Le Monde du roman grec. Actes du colloque international tenu à l'Ecole normale supérieure (Paris 17–19 décembre 1987).* Études de littérature ancienne 4. Paris: 221–31.

Cauville, S. 1987. *Essai sur la théologie du temple d'Horus à Edfou.* BdE 102. Cairo.

Cauville, S. 1990. *Le Temple de Dendera: guide archéologique.* Cairo.

Cauville, S. 1998–. *Dendera: traduction.* Leuven.

Cenival, F. de. 1985. Les nouveaux fragments du mythe de l'œil du soleil de l'Institut de papyrologie et d'égyptologie de Lille. *CRIPEL* 7: 95–115.

Cenival, F. de. 1988. *Le Mythe de l'œil du soleil.* Demotische Studien 9. Sommerhausen.

Ceram, C. W. 1954. *Gods, Graves and Scholars: The Story of Archaeology.* London.

Černý, J. and Gardiner, A. H. 1957. *Hieratic Ostraca.* Oxford.

Chadefaud, C. 1982. *Les Statues porte-enseignes de l'Égypte ancienne (1580 1085 av. J.C.). Signification et insertion dans le culte du Ka royal.* Paris.

Chaîne, M. 1960. *Le Manuscrit de la version copte en dialecte sahidique des "Apophthegmata Patrum."* Cairo.

Champion, T. 2003a. Beyond Egyptology: Egypt in 19th and 20th century archaeology and anthropology. In P. Ucko and T. Champion (eds.), *The Wisdom of Egypt: Changing Visions through the Ages*. London: 161–85.

Champion, T. 2003b. Egypt and the diffusion of culture. In D. Jeffreys (ed.), *Views of Ancient Egypt since Napoleon Bonaparte: Imperialism, Colonialism and Modern Appropriations*. London: 127–45.

Charles-Gaffiot, J. and Lavagne, H. 1999. *Hadrien. Trésors d'une villa impériale*. Milan.

Chassinat, E. 1892–1960. *Le Temple d'Edfou*. Vols. 1–9. Cairo.

Chassinat É. 1921–2. À propos d'un tête en grès rouge de Didoufri conservée au musée du Louvre. *Monuments Piot* 25: 53–75.

Chauveau, M. 1992. Un traité d'astrologie en écriture démotique. *CRIPEL* 14: 101–5.

Chauveau, M. 2003. Les richesses méconnues de la littérature démotique. *BSFE* 156: 20–36.

Cherpion N. 1984. De quand date la tombe du nain Seneb? *BIFAO* 84: 35–54.

Cherpion N. 1989. *Mastabas et hypogés d'Ancien Empire, Problèmes de datation*. Brussels.

Cherpion N. 1997. *Études sur l'Ancien Empire et la nécropole de Saqqâra dédiées à J.-Ph. Lauer*. Orientalia Monspeliensa 9. Montpellier.

Cherpion N. 1998. La statuaire privé d'Ancien Empire: indices de datation. In Grimal (ed.), 1998: 97–142 and figs 1–37.

Cherpion N. 1999a. *Egyptian Art in the Age of the Pyramids*. New York.

Cherpion N. 1999b. Sandales et porte-sandals à l'Ancien Empire. In C. Ziegler and N. Palayret (eds.), *L'Art de l'Ancien Empire égyptien, Actes du colloque organizé au musée du Louvre 1998*. Paris: 227–80.

Cherpion, N., Corteggiani, J.-P., and Gout, J.-Fr. 2007. *Le Tombeau de Pétosiris à Touna el-Gebel. Relevé photographique*. IFAO Bi Gen 27. Cairo.

Chiavari, G., Fabbri, D., Galletti, G. and Mazzeo, R. 1995. Use of analytical pyrolysis to characterize Egyptian painting layers. *Chromatographia*, 40: 594–600.

Chłodnicki, M. and Ciałowicz, K. M. 2007. Golden figures from Tell el-Farkha. *Studies in Ancient Art and Civilization* 10: 7–21.

Ciałowicz, K. M. 1987. *Les Têtes de massues des périodes prédynastique et archaïque dans la vallée du Nil*. Prace archeologiczne 41. Warsaw and Cracow.

Ciałowicz, K. M. 1992. Problèmes de l'interprétation du relief prédynastique tardif. Motif du palmier et des girafes. In J. Sliwa, (ed.), *Studies in Ancient Art and Civilization* 4. Cracow: 7–18.

Ciałowicz, K. M. 1998. Once more the Hierakonpolis wall painting. *Proceedings of the 7th International Congress of Egyptologists Cambridge, 3–9 September 1995*. OLA 82. Leuven: 273–9.

Ciałowicz, K. M. 2001. *La naissance d'un royaume. L'Égypte dès la période prédynastique à la fin de la 1ère dynastie*. Cracow.

Ciałowicz, K. M. 2007. *Ivory and Gold. Beginnings of Egyptian Art*. Poznan.

Clare, R. J. 2002. *The Path of the Argo*. Cambridge.

Colinart, S. M. (ed.). 1998. *La Couleur dans la peinture et l'émaillage de l'Égypte ancienne*. Actes de la Table Ronde, Ravello, 2–22 mars 1997. Bari.

Colinart, S. 2001. Analysis of inorganic yellow colour in ancient Egyptian painting. In W. V. Davies (ed.), 2001b: 1–4.

Colla, E. 2007. *Conflicted Antiquities: Egyptology, Egyptomania, Egyptian Modernity*. Raleigh.

Collier, M. and Quirke, S. 2002. *The UCL Lahun papyri: Letters*. BAR. International Series 1083. Oxford.

Collier, M. and Quirke, S. 2004. *The UCL Lahun Papyri: Religious, Literary, Legal, Mathematical and Medical*. BAR. International Series 1209. Oxford.

Collier, M. and Quirke, S. 2006. *The UCL Lahun Papyri: Accounts*. BAR. International Series 1471. Oxford.

Collombert, Ph. 1999. Le conte de l'hirondelle et de la mer. In K. Ryholt (ed.), *Acts of the Seventh International Conference of Demotic Studies*. CNI Publications 27. Copenhagen: 59–76.

Collombert, Ph. 2008. Omina brontoscopiques et pluies de grenouilles. Lecture at the 10th International Congress of Demotic Studies. Leuven and Brussels August 26–30.

Collombert, Ph., and Coulon, L. 2000, Les dieux contre la mer. Le début du "papyrus d'Astarté" (pBN 202). *BIFAO* 100: 193–242.

Cook, M. 1983. Pharaonic history in Medieval Egypt. *Studia Islamica* 57: 67–103.

Coombes, A. E. 1988. Museums and the formation of national and cultural identities. *Oxford Art Journal* 11.2: 57–68. Repr. in Preziosi and Farago (eds.), 2004: 278–97.

Coombes, A. E. 1994. *Reinventing Africa: Museums, Material Culture and Popular Imagination in Late Victorian and Edwardian England*. New Haven and London.

Cooney, J. 1951. Equipment for eternity. *Bulletin of the Brooklyn Museum* 12.2: 1–12.

Cooney, J. 1956. *Five Years of Collecting Egyptian Art: 1951–1956*. Brooklyn. Repr. New York, 1969.

Cooperson, M. 2005. *Makers of Islam: al-Ma'mūn*. Oxford.

Cooperson, M. 2008. *Al-Ma'mūn*, the Pyramids, and the Hieroglyphs. In '*Abbasid Studies II. Occasional Papers of the School of 'Abbasid Studies*. Leuven.

The Coptic Encyclopaedia. 1990. New York.

Cottevielle-Giraudet, R. 1931. *Rapport sur les fouilles de Médamoud (1931)*. Cairo.

Crowfoot Payne, J. 1993. *Catalogue of the Predynastic Collection in the Ashmolean Museum*. Oxford.

Crudden, M. 2002. *The Homeric Hymns Translated with an Introduction and Notes*. Oxford.

Cruz-Uribe, E. 1987. The fall of the Middle Kingdom. *VA* 3: 107–11.

Cuno, J. B. 2008. *Who Owns Antiquity? Museums and the Battle over Our Ancient Heritage*. Princeton.

Curran, B. 2007. *The Egyptian Renaissance: The Afterlife of Ancient Egypt in Early Modern Italy*. Chicago.

Currelly, C. T. 2008. *I Brought the Ages Home*. Toronto. First pub. 1956.

Cutler, A. 1985. *The Craft of Ivory: Sources, Techniques, and Uses in the Mediterranean World: AD 200–400*. Washington.

Dale, A. 1967. *Euripides: Helen*. Oxford.

D'Amicone, E. and Vigna, L. 1998. Analysis of pigments and painting technique in the rock-cut tombs at Qau el-Kebir. In Colinart (ed.) 1998: 43–8.

Darnell, J. C. 2009. Iconographic attraction, iconographic syntax, and tableaux of royal ritual power in the Pre- and Proto-Dynastic rock inscriptions of the Theban Western Desert. *Archéo-Nil* 19: 81–105.

Dasen, V. 1993. *Dwarfs in Ancient Egypt and Greece*. Oxford.

Daszewski, W. A. 1985. *Corpus of Mosaics from Egypt*. I. *Hellenistic and Early Roman Period*. Mainz.

Daszewski, W. A. 1996. From Hellenistic polychromy of sculptures to Roman mosaics. In K. Hamma (ed.), *Alexandria and Alexandrianism. Papers Delivered at a Symposium Organized by the J. Paul Getty Museum and the Getty Center for the History of Art and the Humanities, 22–25 April 1993*. Malibu: 141–54.

Daszewski, W. A. 1997. Mummy portraits from northern Egypt: the necropolis in Marina el-Alamein. In M. L. Bierbrier (ed.), *Portraits and Masks: Burial Customs in Roman Egypt*. London: 59–65.

Daszewski, W. A. 2001. Un atelier 'royal' de mosaïques à Alexandrie. In D. Paunier and C. Schmidt (eds.), *La Mosaïque gréco-romaine*. VIII. *Actes du VIIIème Colloque international pour l'étude de la mosaïque antique et médiévale, Lausanne, 1997*. Cahiers d'archéologie romande, Lausanne: 266–81.

Daszewski, W. A. 2002. Marina el-Alamein. Season 2001. *PAM* 13, *Reports 2001*: 73–104.

Daszewski, W. A. 2005. Egypt, birds and mosaics. In H. Morlier, C. Bailly, D. Janneteau, and M. Tahri (eds.), *La Mosaïque gréco-romaine*. IX. Collection de l'École française de Rome 352. Rome: 1143–52.

David, R. 1981. *A Guide to Religious Ritual at Abydos*. Warminster.

Davies, N. de G. 1903–8. *The Rock Tombs of El Amarna*. London.

Davies, N. de G. 1920. *The Tomb of Antefoker, Vizier of Sesostris I, and of His Wife Senet* No. 60. London.

Davies, Nina de G. and Gardiner, A. H. 1915. *The Tomb of Amenemhat*. London.

Davies, N. de G. and Macadam, M. F. L. 1957. *A Corpus of Inscribed Egyptian Funerary Cones*. Oxford.

Davies, W. V. 1981. *A Royal Statue Reattributed*. London.

Davies, W. V. 2001a. The dynastic tombs at Hierakonpolis: the lower group and the artist Sedjemnetjeru. In W. V. Davies (ed.) 2001b: 113–25.

Davies, W. V. (ed.) 2001b. *Colour and Painting in Ancient Egypt*. London.

Davies, W. V. 2004. Statue of Amenhotep I. In D. A. Welsby and J. R. Anderson (eds.), *Sudan: Ancient Treasures: An Exhibition of Recent Discoveries from the Sudan National Museum*. Cat. No. 76. London: 102–3.

Davis, W. M., 1992. *Masking the Blow: The Scene of Representation in Late Prehistoric Egyptian Art*. Berkeley and Los Angeles.

Davoli, P. 1998. *L'archeologia urbana nel Fayyum di età ellenistica e romana*. Naples.

Dawson, G., Noakes, R., and Topham, J. R. 2004. Introduction. In G. Cantor, G. Dawson, G. Gooday, R. Noakes, S. Shuttleworth, and J. R. Topham (eds.), *Science in the Nineteenth-Century Periodical, Reading the Magazine of Nature*. Cambridge: 1–34.

De Buck, A. 1938. The building inscription of the Berlin leather roll. In *Studia Aegyptiaca*. I. Analecta Orientalia 17: 48–57.

De Lagarde, P. 1866. *Gesammelte Abhandlungen*. Leipzig.

De Meulenaere, H. and MacKay, P. 1976. *Mendes II*. Warminster.

De Putter, T., Bielen, S., De Paepe, P., Hendrickx, S., and Schelstraete, V. 2000. Les mille et un vases de pierre des premières dynasties à Bruxelles. In C. Karlshausen and T. De Putter (eds.), *Pierres égyptiennes … Chefs-d'oeuvre pour l'éternité*. Mons: 49–62.

De Sacy, A. I. Silvestre. 1801. Observations sur l'origine du nom donné par les Grecs et les Arabes, aux Pyramides d'Egypte, et sur quelques autres objets relatifs aux Antiquités ægyptiennes. *Magasin encyclopédique, ou Journal des sciences, des lettres et des arts, an IX* [=1801]. VI: 446–503.

De Vos, M. 1980. *L'Egittomania in pitture e mosaici romano-campani della prima età imperiale*. EPRO 84. Leiden.

Decker, W. and Herb, M. 1994. *Bildatlas zum Sport im alten Ägypten. Corpus der bildlichen Quellen zu Leibesübungen, Spiel, Jagd, Tanz und verwandten Themen*. HdO I: 14/1–2. Leiden.

Deckers, J. G. 1979. Die Wandmalerei im Kaiserkultraum von Luxor. *JDAI* 94: 600–52.

Delamaire, M.-S. 2003. Searching for Egypt: Egypt in 19th century American world exhibitions. In J.-M. Humbert and C. Price (eds.), *Imhotep Today: Egyptianizing Architecture*. London: 123–34.

Delange, E. 1987. *Statues égyptiennes du Moyen Empire*. Paris.

Depauw, M. 1997. *A Companion to Demotic Studies*. Papyrologica Bruxellensia 28. Brussels.

Depauw, M. and Smith, M. 2004. Visions of ecstasy. In F. Hoffmann and H. J. Thissen (eds.), *Res severa verum gaudium. Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004*. Studia Demotica 6. Leuven: 67–93.

Depuydt, L. 1989. In Sinuthium graecum. *Or* 59: 67–71.

Depuydt, L. 1993a. *Catalogue of Coptic Manuscripts in the Pierpont Morgan Library*. Leuven.

Depuydt, L. 1993b. "Wisdom made a weapon." On Manichaeism in Egypt. *CdE* 78: 301–15.

Depuydt, L. 1994. A demotic table of terms. *Enchoria* 21: 1–9.

Depuydt, L. 1998. The demotic mathematical astronomical papyrus Carlsberg 9 reinterpreted. In W. Clarysse et al. (eds.), *Egyptian Religion: The Last Thousand Years. Studies Dedicated to the Memory of Jan Quaegebeur* II. OLA 85. Leuven: 1277–97.

Der Manuelian P. 2003. *Slab Stelae of the Giza Necropolis*. New Haven.

Der Manuelian, P. and Freed, R. 1996. *Studies in Honor of William Kelly Simpson*. 2 vols. Boston.

Derchain, P. 1962. Un manuel de géographie liturgique à Edfou. *CdE* 37: 31–65.

Derchain, P. 1992. Les débuts de l'histoire. Rouleau de cuir Berlin 3029. *RdE* 43: 35–47.

Derchain, P. 1996. Auteur et société. In Loprieno (ed.), 1996: 83–94.

Derda, T., Markiewicz, T., and Wipszycka, E. (eds.) 2007. *Alexandria. Auditoria of Kom el-Dikka and Late Antique Education. JJP*. Supplement VIII. Warsaw.

Devauchelle, D. 2003. L'instruction d'Ânkhchechanky. *Egypte, Afrique & Orient* 29: 41–52.

Di Cerbo, C. 2004. Neue demotische Texte aus Tebtynis. Überblick zu den demotischen Papyri der italienisch/französischen Ausgrabung in Tebtynis aus den Jahren 1997–2000. In F. Hoffmann and H. J. Thissen (eds.), *Res severa verum gaudium. Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004*. Studia Demotica 6. Leuven: 582–94.

Dieleman, J. 2005. *Priests, Tongues, and Rites*. Religions in the Graeco-Roman World 153. Leiden.

Dieleman, J. 2006. Abundance in the margins: multiplicity of script in the demotic magical papyri. In S. L. Sanders (ed.), *Margins of Writing, Origins of Culture*. Oriental Institute Seminars 2. Chicago: 67–81.

Dijkstra, J. H. F. 2005. Religious encounters on the southern Egyptian frontier in late antiquity (AD 298–642). Rijksuniversiteit Groningen doctoral thesis.

Dils, P. 1998. La couronne d'Arsinoé II Philadelphe. In W. Clarysse et al. (eds.), *Egyptian Religion, the Last Thousand Years: Studies Dedicated to the Memory of Jan Quaegebeur*. II. OLA 85. Leuven: 1309–30.

Dodson, A. 1987. The tombs of the kings of the Thirteenth Dynasty in the Memphite Necropolis. *ZÄS* 114: 36–45.

Dodson, A. 1988. Some notes concerning the Royal Necropolis at Tanis. *CdE* 63: 221–33.

Dodson, A. 1997. Messuy, Amada, and Amenmesse. *JARCE* 34: 41–8.

Dodson, A. 2000a. *After the Pyramids*. London.

Dodson, A. 2000b. The layer pyramid at Zawiyet el-Aryan: its layout and context. *JARCE* 38: 81–90.

Dodson, A. 2003a. *The Pyramids of Ancient Egypt*. London.

Dodson, A. 2003b. The burial of members of the royal family during the Eighteenth Dynasty. In Z. Hawass and L. Pinch Brock (eds.), *Egyptology at the Dawn of the Twenty-First Century: Proceedings of the Eighth International Congress of Egyptologists, Cairo, 2000*. Cairo: 187–93.

Dodson, A. and Ikram, S. 2008. *The Tomb in Ancient Egypt*. London and New York.

Dodson, A. and Manley. W. forthcoming. *Catalogue of Egyptian Antiquities in National Museums Scotland*. I: *Coffins and Related Material*. Edinburgh.

Donadoni Roveri A. M. 1989. *Egyptian Museum of Turin, Egyptian Civilisation, Monumental Art.* Milan: 200 and fig. 301.

Donati, A. (ed.). 1998. *Romana Pictura. La pittura romana dalle origini all'età bizantina.* Milan.

Donati, A. (ed.). 2000. *La forma del colore. Mosaici dall'antichità al XX secolo.* Milan.

Doret, E. 1994. Ankhtifi and the description of his tomb at Mo'alla. In D. P. Silverman (ed.), *For His Ka. Essays Offered in Memory of Klaus Baer.* Chicago. Oriental Institute of the University of Chicago, 1994 = SAOC 55: 79–86.

Dorman, P. 1991. *The Tombs of Senenmut: The Architecture and Decoration of Tombs 71 and 353.* New York.

Dorman, P. 2005. The career of Senenmut. In C. R. Roehrig (ed.), *Hatshepsut from Queen to Pharaoh.* New York: 101–5.

Dorman P. and Bryan, B. M. 2007. *Sacred Space and Sacred Function in Ancient Thebes.* Chicago.

Dorn, A. 2004. Die Lehre Amunnachts. *ZÄS* 131: 38–55.

Doxiadis, E. 1995. *The Mysterious Fayum Portraits: Faces from Ancient Egypt.* London. Repr. 2000.

Doyon, W. 2008. The poetics of Egyptian museum practice. *British Museum Studies in Ancient Egypt and Sudan* 10: 1–37.

Dreyer, G. 1984. Eine Statue Thutmosis' II aus Elephantine. *SAK* 11: 489–99.

Dreyer, G., 1986. *Elephantine VIII. Der Tempel der Satet. Die Funde der Frühzeit und des Alten Reiches.* AV 39. Mainz.

Dreyer, G., 1998. *Umm el-Qaab I. Das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse.* AV 86. Mainz.

Dreyer, G. 1999. Motive und Datierung der dekorierten prädynastischen Messergriffe. In C. Ziegler (ed.), *L'Art de l'Ancien Empire égyptien.* Paris: 195–226.

Dreyer, G., 2005. Narmerpalette und Städtepalette. Die Unterwerfung des Deltas. In K. Daoud, S. Bedier and S. Abd el-Fatah (eds.), *Studies in Honor of Ali Radwan.* Supplement. ASAE 34.1. Cairo: 253–61.

Dreyer, G., Hartung, U., Hikade, T., Köhler, E.C., Müller, V., and Pumpenmeier, F. 1998. Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof 9./10. Vorbericht. *MDAIK* 54: 77–167.

Dreyer, G., Hartmann, R., Hartung, U., Hikade, T., Köpp, H., Lacher, C., Müller, V., Nerlich, A., and Zink, A.. 2003. Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof 13./14./15. Vorbericht. *MDAIK* 59: 67–138.

Droux, X., 2005–7. Une représentation de prisonniers décapités en provenance de Hiérakonpolis. *BSEG* 27: 33–42.

Dunand, F. 1973. *Culte d'Isis dans le bassin oriental de la Méditerranée.* 3 vols. EPRO 26. Leiden.

Dunand, F. 2007. Between tradition and innovation: Egyptian funerary practices in late antiquity. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700.* Cambridge: 163–84.

Dunbabin, K. M. D. 1999. *Mosaics of the Greek and Roman World.* Cambridge.

Duncan, C. 1995. *Civilising Rituals: Inside Public Art Museums.* London and New York.

Duncan, C. 1999. From the princely gallery to the public art museum: the Louvre Museum and the National Gallery, London. In D. Boswell and J. Evans (eds.), *Representing the Nation: A Reader. Histories, Heritage and Museums.* London: 304–31. Repr. in Preziosi and Farago (eds.), 2004: 250–78.

Duncan, C. and Wallach. A. 1980. The universal survey museum. *Art History* 3.4: 448–69.

Dunham, D. 1937. *Naga-ed-Der Stelae of the First Intermediate Period.* Boston.

Dunham, D. 1950–63. *The Royal Cemeteries of Kush.* 4 vols. Boston.

Dunham, D. 1970. *The Barkal Temples.* Boston.

Dunham D. and Simpson W. K. 1974. *The Mastaba of Queen Meresankh III: G 7530–7540.* Giza Mastabas I. Boston.

Dziobek, E. 1987. The architectural development of Theban tombs in the early Eighteenth Dynasty. In J. Assmann, G. Burkard, and V. Davies (eds.), *Problems and Priorities in Egyptian Archaeology.* London: 69–80.

Dziobek, E. 1994. *Die Gräber des Vezirs User-Amun Theben Nr. 61 und 131.* Mit Beiträgen von E. Hornung und Y. Marzoni Fecia di Cossato. AV 84. Mainz am Rhein.

Dziobek, E., Schneyer, Th., and Semmelbauer, N. 1992. *Eine ikonographische Datierungsmethode für thebanische Wandmalerein der 18. Dynastie.* Heidelberg.

Eaton-Krauss, M. 1984. Ramses II. *LÄ* 5: 108–14.

Eaton-Krauss M. 1995. Pseudo-groups. Kunst des Alten Reiches, Symposium 1991. *SDAIK* 28: 55–74 and pls. 14–19.

Eaton-Krauss M. 1998. Non-royal pre-canonical statuary. In Grimal (ed.), 1998: 209–25 and figs. 1–6.

Eaton-Krauss, M. 2008. L'art de la période post-amarnienne. In S. Bickel et al., *Akhénaton et Néfertiti Soleil et ombres des pharaons.* Geneva: 121–8.

Ebeling, F. 2007. *The Secret History of Hermes Trismegistus: Hermeticism from Ancient to Modern Times.* Tr. D. Lorton. Ithaca.

Edgar, C. C. 1915. Greek sculpture form Tell Timai. In G. Maspero (ed.), *Le Musée Égyptien: recueil de monuments et de notices sur les fouilles d'Égypte.* 3. Cairo: 1–13.

Edgerton, W. F. 1951. Early Egyptian dialect interrelationships. *BASOR* 122: 9–12.

Edwards, I. E. S. 1994. Chephren's place among the kings of the Fourth Dynasty. In C. Eyre, A. Leahy, and L.M. Leahy (eds.). *The Unbroken Reed: Studies in the Culture and Heritage of Ancient Egypt in Honour of A.F. Shore.* London: 97–105.

Egberts, A. 1995a. *In Quest of Meaning: A Study of the Ancient Egyptian Rites of Consecrating the Meret-Chests and Driving the Calves.* 2 vols. Leiden.

Egberts, A. 1995b. Praxis und System. Die Beziehungen zwischen Liturgie und Tempeldekoration am Beispiel des Festes von Behdet. In D. Kurth (ed.), *3. Ägyptologische Tempeltagung: Systeme und Programme der ägyptischen Tempeldekoration*: 13–38.

Eggebrecht, A. 1966. Zur Bedeutung des Würfelhockers. In S. Lauffer (ed.), *Festgabe für Dr. Walter Will, Ehrensenator der Universisät München, zum 70. Geburstag am 12. November 1966.* Cologne; Berlin; Bonn; Munich: 143–63.

Eigner, D. 1984. *Die monumentalen Grabbauten der Spätzeit in der Thebanischen Nekropole.* Vienna.

Eigner, D. 2000. Tell Ibrahim Awad: Divine Residence from Dynasty 0 until Dynasty 11. *Ä&L* 10: 17–36.

El-Daly, O. 2005. *Egyptology: The Missing Millennia. Ancient Egypt in Medieval Arabic Writings.* London.

El-Khouly, A. and Kanawati, N. 1989. *Quseir el-Amarna. The Tombs of Pepy-ankh and Khewenwekh.* Sydney.

Ellingsen, G. 2003. Some functions of imperial images in tetrarchic politics. *Symbolae Osloenses* 78.1: 30–44.

Ellis, R. and Foster. M. 2008. Tunnel vision: www.world-mysteries.com/gw_rellis8.htm. Accessed May 31.

El-Masry, Y. 1998. Seven seasons of excavation in Akhmim. In Eyre (ed.) 1998: 759–65.

El-Masry, Y. 2008. New Tombs at el-Mo'alla and the Family of Ankhtify. *BACE* 19: 119–38.

Elsner, J. 1998. *Imperial Rome and Christian Triumph: The Art of the Roman Empire AD 100–450.* Oxford and New York.

Elsner, J. 2002. The birth of late antiquity: Riegl and Strzygowski in 1901. *Art History* 25.3: 358–79.

Emery, W. B. 1949–58. *Great Tombs of the First Dynasty.* Cairo and London.

Emmel, S. 1986. Specimens of Coptic type from the Sacra Congregatio de Propaganda Fide in Rome. *Yale University Library Gazette* 61: 96–104.

Emmel, S. 2004a. Coptic studies before Kircher. In M. Immerzeel and J. van der Vliet (eds.), *Coptic Studies on the Threshold of a New Millennium: Proceedings of the Seventh International Congress of Coptic Studies Leiden, 27 August–2 September 2000.* I. Leuven: 1–11.

Emmel, S. 2004b. *Shenoute's Literary Corpus.* 2 vols. Leuven.

Empereur, J.-Y. 2000. *A Short Guide to the Graeco-Roman Museum Alexandria.* Alexandria.

Enmarch, R. 2008. *A World Upturned: Commentary on and Analysis of the Dialogue of Ipuwer and the Lord of All.* British Academy Postdoctoral Monographs Series. Oxford.

Erichsen, W. C. 1954. Aus einem demotischen Papyrus über Frauenkrankheiten. *Mitteilungen des Instituts für Orientforschung* 2: 363–77.

Erman, A. 1911. *Hymnen an das Diadem der Pharaonen aus einem Papyrus der Sammlung Golenischeff.* APAW. Berlin.

Erman, A. 1923. *Die Literatur der Aegypter: Gedichte, Erzählungen und Lehrbücher aus dem 3. und 2. Jahrtausend v. Chr.* Leipzig.

Erman, A. 1925. *Die ägyptischen Schülerhandschriften.* APAW. phil.-hist. Klasse Nr. 2. Berlin.

Erskine, A. 1995. Culture and power in Ptolemaic Egypt: the museum and library of Alexandria. *Greece and Rome* 42: 38–48.

Evelyn-White, H. 1914. *Hesiod, the Homeric Hymns and Homerica.* London and New York.

Evers, H. G. 1929. *Staat aus dem Stein.* 2 vols. Munich.

Eyre, C. J. 1990. The Semna stelae: quotation, genre and functions of literature. In S. Israelit-Groll (ed.), *Studies in Egyptology Presented to Miriam Lichtheim.* I. Jerusalem: 134–65.

Eyre, C. J. 1993. Why was Egyptian literature? In G. M. Zaccone, and T. R. di Netro (eds.), *Sesto congresso internazionale di Egittologia: Atti II.* Turin: 115–20.

Eyre, C. J. (ed.) 1995. *Proceedings of the 7th International Congress of Egyptologists.* Abstracts. Oxford.

Eyre, C. J. (ed.) 1998. *Seventh International Congress of Egyptologists Cambridge, 3–9 September 1995.* OLA 82. Leuven.

Eyre, C. J. 2000. The performance of the peasant. *LingAeg* 8: 9–25.

Fagan, B. 1975. *The Rape of the Nile: Tomb Robbers, Tourists, and Archaeologists in Egypt.* London.

Fakhry A. 1961. *The Monuments of Sneferu at Dahshur.* II. 2. Cairo: 3–4 and pls. XXXIII–XXXVII.

Fantuzzi, M. 1993. Il sistema letterario della poesia alessandrina nel III sec. A. C. In G. Cambiano, L. Canfora, and D. Lanza (eds.), *Lo spazio letterario della Grecia antica* I.2. Rome: 31–73.

Fantuzzi, M. and Hunter, R. L. 2004. *Tradition and Innovation in Hellenistic Poetry.* Cambridge.

Farid, A. 1997. Zwanzig demotische Apisinschriften. *MDAIK* 53: 23–56.

Farrell, J. 2003. Classical genre in theory and practice. *New Literary History* 34: 383–408.

Faulkner, R. O. 1973. *The Ancient Egyptian Coffin Texts.* I. *Spells 1–354.* Warminster.

Faulkner, R. O. 1978a. *The Ancient Egyptian Coffin Texts.* II. *Spells 355–787.* Warminster.

Faulkner, R. O. 1978b. *The Ancient Egyptian Coffin Texts.* III. *Spells 788–1185.* Warminster.

Fay, B. 1988. Amenemhat V – Vienna/Assuan. *MDAIK* 44: 67–77.

Fay B. 1995. The Louvre Sphinx, A 23. *Kunst des Alten Reiches. Symposium im Deutschen Archäologischen Institut Kairo am 29. und 30. Oktober 1991.* SDAIK 28: 75–9.

Fay, B. 1996. *The Louvre Sphinx and Royal Sculpture from the Reign of Amenemhat II.* Mainz.

Fay, B. 1997. Missing parts. In E. Goring, N. Reeves, and J. Ruffle (eds.), *Chief of Seers. Egyptian Studies in Memory of Cyril Aldred.* London: 97–112.

Fay B. 1998. Royal women as represented in sculpture during the Old Kingdom. In Grimal (ed.), 1998: 160, no. 2, and figs. 3–4.

Fay B. 1999. Royal women as represented in sculpture during the Old Kingdom. II: uninscribed sculpture. *L'Art de l'Ancien Empire égyptien. Actes du colloque organize au musée du Louvre 1998.* Paris: 97–147.

Fazzini, R. 1995. Presenting Egyptian objects: concepts and approaches. *Museum International* 47.2: 38–43.

Fazzini, R. A. et al. 1989. *Ancient Egyptian Art in the Brooklyn Museum.* New York and London.

Fazzini, R. A., Romano, J. F., and Cody, M. E. 1999. *Art for Eternity: Masterworks from Ancient Egypt.* Brooklyn.

Fazzini R. A., Bianchi, R. S., Romano, J. F., and Spanel, D. B. 1998. *Ancient Egyptian Art in the Brooklyn Museum of Art.* New York: no. 14.

Fecht, G. 1960. *Wortakzent und Silbenstruktur: Untersuchungen zur Geschichte der ägyptischen Sprache.* ÄF 21. Glückstadt

Fecht, G. 1982. Prosodie. *LÄ* 4. 1127–54.

Fenton, J. 2005. *School of Genius: A History of the Royal Academy of Arts.* London.

Fieni, D. 2005. Decadent orientalisms: configuring the decay of colonial modernity in French and Arabic. UCLA dissertation.

Firth C. M., Quibell J. E., and Lauer J.-P. 1935. *The Step Pyramid.* 2 vols. Cairo: pls. 29–30.

Fischer, H. G. 1959. An example of Memphite influence in a Theban stela of the Eleventh Dynasty. *Artibus Asiae* 22: 240–52.

Fischer, H. G. 1962. The cult and the nome of the goddess Bat. *JARCE* 1: 7–24.

Fischer, H. G. 1968. *Dendera in the Third Millennium B.C.* New York.

Fischer H. G. 1995. The Protodynastic Period and Old Kingdom in the Metropolitan Museum of Art. *Kunst des Alten Reiches, Symposium 1991. SDAIK* 28: 87 and pls. 27 b–d.

Fischer, H. G. 1996. Notes on some texts of the Old Kingdom and later. In P. Der Manuelian and R. Freed (eds.), *Studies in Honor of William Kelly Simpson.* 1. Boston: 267–74.

Fischer-Elfert, H.-W. 1983. *Die satirische Streitschrift des Papyrus Anastasi I. Textzusammenstellung.* KÄT 7. Wiesbaden.

Fischer-Elfert, H.-W. 1986a. *Die satirische Streitschrift des Papyrus Anastasi I. Übersetzung und Kommentar.* ÄA 44. Wiesbaden.

Fischer-Elfert, H.-W. 1986b. *Literarische Ostraka der Ramessidenzeit in Übersetzung.* KÄT 9. Wiesbaden.

Fischer-Elfert, H.-W. 1987. Der Pharao, die Magier und der General. Die Erzählung des Papyrus Vandier. *BiOr* 44: 5–21.

Fischer-Elfert, H.-W. 1995. Papyrus demot. Rylands no. 50. Ein in den Edfu- und Dendera-Mammisi wiederverwendeter hieratischer Zaubertext. *Enchoria* 22: 1–15.

Fischer-Elfert, H.-W. 1997. *Lesefunde im literarischen Steinbruch von Deir el-Medineh.* KÄT 12. Wiesbaden.

Fischer-Elfert, H.-W. 1999. *Die Lehre eines Mannes für seinen Sohn: Eine Etappe auf dem 'Gottesweg' des loyalen und solidarischen Beamten des Mittleren Reiches.* ÄA 60. Wiesbaden.

Fischer-Elfert, H.-W. 2003. Representations of the past in New Kingdom literature. In J. Tait (ed.), *"Never Had the Like Occurred": Egypt's View of Its Past.* Encounters with Ancient Egypt. London: 119–37.

Fischer-Elfert, H.-W. 2005. *Abseits von Ma'at. Fallstudien zu Außenseitern im Alten Ägypten. Wahrnehmungen und Spuren Altägyptens.* Kulturgeschichtliche Beiträge zur Ägyptologie 1. Würzburg.

Fischer-Elfert, H.-W. 2006. Literature as a mirror of private affairs: the case of Menna and his son Mery-Sekhmet. In A. Dorn and T. Hoffmann (eds.), *Living and Writing*

in Deir el-Medine. Socio-historical Embodiment of Deir el-Medineh Texts. AH 19. Basel: 87–92.

Fitzenreiter, M. 2001. Grabdekoration und die Interpretation funerärer Rituale im Alten Reich. In H. Willems (ed.), *Social Aspects of Funerary Culture in the Egyptian Old and Middle Kingdoms.* Leuven: 67–140.

Fitzwilliam Museum material: FB: correspondence in Antiquities Department archival boxes. FC: correspondence in Antiquities Department filing cabinets. SP A: The Fitzwilliam Museum Syndicate Papers, 1849–1869. SP B: The Fitzwilliam Museum Syndicate Papers, 1868–1885. SP C: The Fitzwilliam Museum Syndicate Papers, 1886–1908.

Fluck, C. and Vogelsang-Eastwood, G. 2004. *Riding Costume in Egypt: Origin and Appearance.* Studies in Textile and Costume History 3. Leiden.

Fodor, A. 1970. The origins of the Arabic legends of the pyramids. *Acta Orientalia Academiae Hungaricae* 23.3: 335–63.

Forsyth, G. 1965. *The Monastery of Saint Catherine at Mount Sinai: The Church and Fortress of Justinian.* Ann Arbor.

Foster, J. L. 1975. Thought couplets in Khety's "Hymn to the Inundation." *JNES* 34: 1–29.

Foster, J. L. 1999. Some comments on Khety's instruction for little Pepi on his way to school (Satire on the Trades). In E. Teeter and J. A. Larson (eds.), *Gold of Praise: Studies on Ancient Egypt in Honor of Edward F. Wente.* SAOC 58. Chicago: 121–9.

Foster, J. L. 2002. *Ancient Egyptian Literature: An Anthology.* Austin.

Foucault, M. 2004. Texts/contexts: of other spaces. In Preziosi and Farago (eds.) 2004: 371–9. Originally pub. in *Diacritics* 16.1. 1986: 22–7.

Fowden, G. 1993. *The Egyptian Hermes: A Historical Approach to the Late Pagan Mind.* Princeton.

Fox, M. V. 1977. A study of Antef. *Or* 46: 393–423.

Fox, M. V. 1985. *The Song of Songs and the Ancient Egyptian Love Songs.* Madison.

France, P. 1991. *The Rape of Egypt: How Europeans Stripped Egypt of Its Heritage.* London.

Franke, D. 1984. *Personendaten aus dem Mittleren Reich.* Wiesbaden.

Franke, D. 1990. Erste und Zweite Zwischenzeit: Ein Vergleich. *ZÄS* 117: 119–29.

Franke, D. 1994. *Das Heiligtum des Heqaib auf Elephantine: Geschichte eines Provinzheiligtums im Mittleren Reich.* SAGA 9. Heidelberg.

Franke, D. 1995. The Middle Kingdom in Egypt. In J. Sasson (ed.), *Civilizations of the Ancient Near East.* I. New York: 735–48.

Franke, D. 1998. Kleiner Mann (*nḏs*) – was bist Du? *GM* 167: 33–48.

Franke, D. 2003 Middle Kingdom hymns and other sundry religious texts: an inventory. In S. Meyer (ed.), *Egypt, Temple of the Whole World: Studies in Honour of Jan Assmann.* Studies in the History of Religions 97. Leiden: 95–135.

Frankfurter, D. (ed.) 1998a. *Pilgrimage and Holy Space in Late Antique Egypt.* Leiden.

Frankfurter, D. 1998b. *Religion in Roman Egypt: Assimilation and Resistance.* Princeton.

Fraser, P. M. 1972. *Ptolemaic Alexandria.* 3 vols. Oxford.

Frayling, C. 1992. *The Face of Tutankhamun.* London.

Freed, R. 1981. A private stela from Naga ed-Der and relief style of the reign of Amenemhet I. In W. K. Simpson and W. Davis (eds.), *Studies in Ancient Egypt, the Aegean, and the Sudan: Essays in Honor of Dows Dunham on the Occasion of his 90th birthday, June 1, 1980.* Boston: 68–76.

Freed, R. 1984. The development of Middle Kingdom Egyptian relief: sculptural schools of Dynasty XI with an appendix on the trends of Early Dynasty XII. Unpublished doctoral dissertation, New York University.

Freed, R. 1996. Stela workshops of Early Dynasty 12. In P. Der Manuelian (ed.), *Studies in Honor of William Kelly Simpson.* Boston: 297–36.

Freed, R. 1999a. Akhenaten's artistic legacy. In R. Freed, Y. Markowitz, and S. D'Auria (eds.), *Pharaohs of the Sun*. Boston: 187–98.

Freed, R. 1999b. Observations on some Amenhotep IV Colossi from Karnak. *Memnonia* 10: 195–200.

Freed, R. 2000. Observataions on the dating and decoration of the tombs of Ihy and Hetep, In M. Barta and J. Krejčí (eds.), *Abusir and Saqqara in the Year 2000*. Prague: 2007–14.

Freed, R. 2002a. Defending connoisseurship: a thrice reinscribed sphinx of Dynasty XII. In E. Ehrenberg (ed.), *Leaving No Stones Unturned: Essays on the Ancient Near East and Egyptian Honor of Donald P. Hansen*. Winona Lake: 77–88.

Freed, R. 2002b. Another look at the sculpture of Amenemhat III. *RdE* 53.

Freed, R., Berman, L., and Doxey, D. 2003. *MFA Highlights: Arts of Ancient Egypt*. Boston.

Frend, W. H. C. 1979. *The Rise of the Monophysite Movement*. Cambridge.

Friedman, F. D. (ed.). 1998. *Gifts of the Nile: Ancient Egyptian Faience*. Providence.

Friedman F. D. 2008. The Menkaure Dyad(s). In S. E. Thompson and P. Der Manuelian (eds.), *Egypt and Beyond: Essays Presented to Leonard Lesko*. Providence: 109–44.

Friedman, R. F. 1996. The ceremonial centre at Hierakonpolis locality HK 29A. In A. J. Spencer (ed.), *Aspects of Early Egypt*. London: 16–35.

Friedman, R. F. 2001. The dynastic tombs at Hierakonpolis: painted tombs of the early Eighteenth Dynasty. In W. V. Davies (ed.) 2001b: 106–12.

Friedman, R. F. 2008. Excavating Egypt's early kings: recent discoveries in the elite cemetery at Hierakonpolis. In B. Midant-Reynes and Y. Tristant (eds.), *Egypt at Its Irigins*. 2 OLA 172. Leuven: 1157–94.

Fritz, U. 2004. *Typologie der Mastabagräber des Alten Reiches: Strukturelle Analyse eines Altägyptsches Grabtyps*. Berlin.

Froidefond, C. 1971. *Le Mirage égyptien dans la littérature grecque d'Homère à Aristote*. Gap.

Froschauer, H. 2008. *Zeichnungen und Malereien aus den Papyrussammlungen in Berlin und Wien*. MPER 31. Berlin and New York.

Funk, W.-P. 1988. Dialects wanting homes: a numerical approach to the early varieties. In J. Fisiak (ed.), *Historical Dialectology: Regional and Social*. Berlin; New York; Amsterdam: 149–92.

Gaballa, G. 1970. Nufer, third prophet of Amun. *MDAIK* 26: 49–54.

Gabolde, M. 2008. De la fin du regne d'Akhenaton à l'avènement de Toutankhamon. In J.-L. Chappaz and F. Tiradritti (eds.), *Akhénaton et Néfertiti: Soleil et ombres des pharaons*. Geneva: 95–108.

Gabra, G. (ed.) 2001. *Be Thou There: The Holy Family's Journey in Egypt*. Cairo.

Gabra, G. 2002. *Coptic Monasteries: Egypt's Monastic Art and Architecture*. Cairo.

Gabra, S. and Drioton, E. 1954. *Peintures à fresques et scènes peintes à Hermoupolis-Ouest (Touna el-Gebel)*. Cairo.

Gabra, G. and Eaton-Krauss, M. 2007. *The Treasures of Coptic Art in the Coptic Museum and Churches of Old Cairo*. Cairo.

Gabra, S. with Drioton, E., Perdrizet, P., and Waddell, W. G. 1941. *Rapport sur les fouilles d'Hermoupolis Ouest (Touna el-Gebel)*. Cairo.

Galan, J. 2007. An apprentice's board from Dra Abu el-Naga. *JEA* 93: 95–116.

Gallazzi, C. and Settis, S. (eds.) 2006. *Le tre vite del Papiro di Artemidoro. Voci e sguardi dall'Egitto greco-romano*. Milan.

Gallazzi, C., Kramer, B., and Settis, S. 2008. *Il Papiro di Artemidoro*. Milan.

Gallo, P. 1997. *Ostraca demotici e ieratici dall'archivio bilingue di Narmouthis II*. Pisa.

Gardiner, A. H. 1932. *Late-Egyptian Stories*. BAe 1. Brussels.

Gardiner, A. H. 1937. *Late-Egyptian Miscellanies*. BAe 7. Brussels.

Gardiner, A. H. 1947. *Ancient Egyptian Onomastica*. London.

Gardiner, A. H. 1955. *The Ramesseum Papyri*. Oxford.

Gardiner, A. H. 1957. Hymns to Sobk in a Ramesseum papyrus. *RdE* 11: 43–56.

Gardiner, A. H. 1961. *Egypt of the Pharaohs: An Introduction*. Oxford.

Gardiner, A. H. and Sethe, K. 1928. *Egyptian Letters to the Dead Mainly from the Old and Middle Kingdoms*. London.

Garstang, J. 1907. *The Burial Customs of Ancient Egypt*. London.

Garvie, A. 1969. *Aeschylus'* Supplices: *Play and Trilogy*. Cambridge.

Gaudard, F. P. 2005. The demotic drama of Horus and Seth (P. Berlin 8278a, b, c; 15662; 15677; 15818; 23536; 23537a, b, c, d, e, f, g). Ph.D. thesis, University of Chicago.

Gautier, P. 1993. Analyse de l'espace figuratif par dipôles. La tombe décorée No. 100 de Hiérakonpolis. *Archéo-Nil* 3 (May). 35–47.

Gautier, P. and Midant-Reynes, B., 1995. La tête de massue du roi Scorpion. *Archéo-Nil* 5: 87–127.

Gazda, E. (ed.) 1983. *Karanis: An Egyptian Town in Roman Times: Discoveries of the University of Michigan Expedition to Egypt (1924–1935)*. Ann Arbor.

George, M. D. 1942. *Catalogue of Political and Personal Satires, Preserved in the Department of Prints and Drawings in the British Museum vol. vii 1793–1800*. London.

Gestermann, L. 2005. *Die Überlieferung ausgewählter Texte altägyptischer Totenliteratur ("Sargtexte") in spätzeitlichen Grabanlagen*. ÄA 68. Wiesbaden.

Gibson, C. A. 2007. Alexander in the Tychaion: Ps.-Libanius on the statues. *Greek, Roman, and Byzantine Studies* 47: 431–54.

Gillam, R. A. 2000. The Mehy Papers: Texts and Lifestyle in Translation. *CdE* 75: 207–16.

Glanville, S. R. K. 1955. *The Instructions of 'Onchsheshonqy (British Museum Papyrus 10508)*. Catalogue of Demotic Papyri in the British Museum 2. London.

Glick, T. F. 1974. *The Comparative Reception of Darwinism*. London.

Gliddon, G. 1841. *An Appeal to the Antiquaries of Europe on the Destruction of the Monuments of Egypt*. London.

Gnirs, A. M. 1996. Die ägyptische Autobiographie. In Loprieno (ed.), 1996: 191–241.

Gnirs, A. M. 2006. Das Motiv des Bürgerkriegs in Merikare und Neferti: zur Literatur der 18. Dynastie. In G. Moers, H. Behlmer, K. Demuss, and K. Widmaier (eds.), *jn.t ḏr.w: Festschrift für Friedrich Junge*. Göttingen: 207–65.

Goddio, F. and Bernand, A. 2004. *Sunken Egypt: Alexandria*. London.

Goehring, J. E. 2003. The dark side of landscape: ideology and power in the Christian myth of the desert. *Journal of Medieval and Early Modern Studies* 33.3: 437–51.

Goelet, O. 2001. The anaphoric style in Egyptian hymnody. *JSSEA* 28: 75–89.

Goelet, O. 2008. Writing Ramesside Hieratic: what the *Late-Egyptian Miscellanies* tell us about scribal education. In S. H. D'Auria (ed.), *Servant of Mut. Studies in Honor of Richard A. Fazzini*. PÄ 28. Leiden and Boston: 102–10.

Goldbrunner, S. 2006. *Der verblendete Gelehrte. Der erste Setna-Roman (P. Kairo 30646)*, Demotische Studien 13. Sommerhausen.

Goldstein, S. M. 1979. *Pre-Roman and Early Roman Glass in The Corning Museum of Glass*. Corning Museum of Glass. Corning.

Golénischeff, W. 1927. *Papyrus hiératiques I*. CG 58001–58036. Cairo.

Gould, C. 1965. *Trophy of Conquest: The Musée Napoleon and the Creation of the Louvre*. London.

Gould, J. 1989. *Herodotus*. London.

Gow, A. S. F. 1952. *Theocritus*. 2 vols. Cambridge.

Goyon, J.-C. 1972. *Confirmation du pouvoir royal au nouvel an [Brooklyn Museum Papyrus 47.218.50]*. BdE 52. Cairo.

Goyon, J.-C. 1974. *Confirmation du pouvoir royal au nouvel an [Brooklyn Museum Papyrus 47.218.50]*, plate volume. Wilbour Monographs 7. Brooklyn.

Graefe, E. 1990. Die gute Reputation des Königs ''Snofru.'' In S. Israelit-Groll (ed.), *Studies in Egyptology Presented to Miriam Lichtheim*. I. Jerusalem: 257–63.

Graefe, E. 2003. The royal cache and the tomb robberies. In N. Strudwick and J. H. Taylor (eds.), *The Theban Necropolis: Past, Present and Future*. London: 74–82.

Graefe, E. and Plessner, M. 1965. Haram. *Encyclopaedia of Islam*. 3. Leiden: 173. Also available at Brill Online at: www.brillonline.nl/subscriber/entry?entry=islam_SIM-4838. Accessed 2008.

Graff, G., 2009. *Les Peintures sur vases de Nagada I – Nagada II. Nouvelle approche sémiologique de l'iconographie prédynastique*. EPM 6. Leuven.

Grajetzki, W. 2003. *Burial Customs in Ancient Egypt: Life in Death for Rich and Poor*. London.

Grajetzki, W. 2006. *The Middle Kingdom in Egypt*. London.

Grandet, P. 1994. *Le Papyrus Harris I (BM 9999)*. BdE 109.1 and 2. Cairo.

Green, L. 2001. Colour transformations of ancient Egyptian pigments. In W. V. Davies (ed.), 2001b: 43–8.

Green, P. 1997. *The Argonautika: The Story of Jason and the Quest for the Golden Fleece*. Berkeley.

Greener, L. 1966. *The Discovery of Egypt*. London.

Grenier, J.-C. 1990. *La Décoration statuaire du "Canope" de la Villa Adriana*. Rome.

Grenier, J.-C. 1993. *Museo Gregoriano Egizio*. Rome.

Griffin, J. 1980. *Homer on Life and Death*. Oxford.

Griffith, F. L. 1900. *Stories of the High Priests of Memphis: The Sethon of Herodotus and the Demotic Tales of Khamuas*. Oxford.

Griffith, F. L, and Petrie, W. M. F. 1889. *Two Hieroglyphic Papyri from Tanis*. London.

Griffiths, J. G. 1967. Allegory in Greece and Egypt. *JEA* 53: 89–91.

Griffiths, J. G. 1970. *Plutarch's* De Iside et Osiride. Cardiff.

Griffiths, J. G. 1975. *Isis-Book: Metamorphoses, Book XI. Apuleius of Madauros*. Leiden.

Grimal N. (ed.) 1998. *Les Critères de datation stylistiques à l'Ancien Empire*. BdE 120. Cairo.

Grimm, A., Kessler, D., and Meyer, H. 1991. *Der Obelisk des Antinoos*. Munich.

Grimm A., Schoske S., and Wildung D. 1997. *Pharao. Kunst und Herrschaft im alten Ägypten*. Munich.

Grimm, G. and Johannes, D. 1975. *Kunst der Ptolemäer- und Römerzeit im Ägyptischen Museum Kairo*. Mainz am Rhein.

Grossmann, P. 1998a. In M. Krause (ed.), *Ägypten in spätantik-christlicher Zeit. Einführung in die koptische Kultur*. Sprachen und Kulturen des Christichen Orients 04. Wiesbaden.

Grossmann, P. 1998b. The pilgrimage center of Abu Mina. In D. Frankfurter (ed.), *Pilgrimage and Holy Space in Late Antique Egypt*. Leiden: 281–302.

Grossmann, P. 2007. Early Christian architecture in Egypt and its relationship to the architecture of the Byzantine world. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700*. Cambridge: 102–36.

Grossmann, P. and Pfeiffer, J. 2003. Report on the excavations at Abu Mina in spring 2002. *BSAC* 42: 21–41.

Guglielmi, W. 1983. Eine ''Lehre'' für einen reiselustigen Sohn (Ostrakon Oriental Institute 12074). *WdO* 14: 147–66.

Guglielmi, W. 1984. Zur Adaption und Funktion von Zitaten. *SAK* 11: 347–64.

Guglielmi, W. 1996. Die ägyptische Liebespoesie. In Loprieno (ed.), 1996: 335–47.

Guimier-Sorbets, A.-M. 1998a. Le pavement du triclinium à la Méduse dans une maison d'époque impériale à Alexandrie. In J.-Y. Empereur (ed.), *Alexandrina I*. Études alexandrines 1. Cairo: 115–39.

Guimier-Sorbets, A.-M. 1998b. Alexandrie: les mosaïques hellénistiques découvertes sur le terrain de la nouvelle Bibliotheca Alexandrina. *Revue archéologique*: 263–89.

Guimier-Sorbets, A.-M. 2001. Les ateliers de mosaïques à Alexandrie à l'époque hellénistique et au début de l'époque impériale: continuité et innovations. In D. Paunier and C. Schmidt (eds.), *La Mosaïque gréco-romaine* VIII: *Actes du VIIIème Colloque international pour l'étude de la mosaïque antique et médiévale, Lausanne, 1997.* Cahiers d'archéologie romande. Lausanne: 282–97.

Guimier-Sorbets, A.-M. 2004. Une interprétation des plafonds peints d'Alexandrie à l'époque hellénistique et au début de l'époque impériale. In L. Borhy (ed.), *Plafonds et voûtes à l'époque antique*. AIPMA Colloque 8. Budapest: 67–78.

Guimier-Sorbets, A.-M. 2005. Un nouvel embléma alexandrin (Terrain du Patriarcat Grec Orthodoxe). In H. Morlier, C. Bailly, D. Janneteau and M. Tahri, (eds.), *La Mosaïque gréco-romaine* IX. Collection de l'École française de Rome 352. Rome: 567–77.

Guimier-Sorbets, A.-M. and Nenna, M. D. 1995. Réflexions sur la couleur dans les mosaïques hellénistiques: Délos et Alexandrie. *BCH* 119: 529–63.

Guimier-Sorbets, A.-M. and Seif el-Din, M. 1997. Les deux tombes de Perséphone dans la nécropole de Kôm el-Chougafa à Alexandrie. *BCH* 121: 355–410.

Guimier-Sorbets, A.-M. and Seif el-Din, M. 2001. Les peintures de la nécropole de Kom el-Chougafa à Alexandrie. Éléments de méthode pour la lecture iconographique et l'interpretation du style 'bilingue'. In A. Barbet (ed.), *La Peinture funéraire antique IVe siècle av. J.-C. − IVe siècle ap. J.-C.* AIPMA Colloque 7. Paris: 55–9.

Guksch, H. 1994. Sehnsucht nach der Heimatstadt: ein ramessidisches Thema? *MDAIK* 50: 101–6.

Guksch, H. 1995. *Die Gräber des Nacht-Min und des Men-cheper-Ra-seneb. Theben Nr. 87 und 79.* Mainz am Rhein.

Guksch, H. and Polz, D., 1998. *Stationen. Beiträge zur Kulturgeschichte Ägyptens, Rainer Stadelmann gewidmet.* Mainz am Rhein: 63–71.

Gunn, B. 1926. Inscriptions from the Step Pyramid Site 1: an inscribed statue of King Zoser. *ASAE* 26: 177–96 and fig. 5.

Gunter, A. C. 2002. *A Collector's Journey: Charles Lang Freer and Egypt.* Washington.

Haarmann, U. 1996. Medieval Muslim perceptions of Pharaonic Egypt. In Loprieno (ed.) 1996: 605–27.

Haas, C. 1997. *Alexandria in Late Antiquity: Topography in Social Conflict.* Baltimore.

Habachi, L. 1954. Khatâ'na-Qantir: Importance, *ASAE* 52: 443–562.

Habachi, L. 1957. *Tell Basta.* Cairo.

Habachi, L. 1969. *Features of the Deification of Ramesses II.* Glückstadt.

Habachi, L. 1985. *Elephantine IV: The Sanctuary of Hekaib.* Mainz am Rhein.

Haeny, G. 1998. New Kingdom "mortuary temples" and "mansions of millions of years". In B. E. Schafer (ed.), *Temples in Ancient Egypt.* London: 86–126.

Hagen, F. 2005. The Prohibitions: a New Kingdom didactic text. *JEA* 91: 125–64.

Hallo, W. W. and Younger, K. L. (eds.) 2002. *The Context of Scripture.* 3 vols. Leiden.

Hanfmann, G. 1984. New fragments of Alexandrian wall painting. In N. Bonacasa and A. di Vita (eds.), *Alessandria e il mondo ellenistico-romano. Studi in onore di Achille Adriani.* 2. Rome: 242–55.

Hardwick, T. 2008. Ancient Egyptian textiles: contemporary paintings. *EA* 32: 18–19.

Harnack, A. 1913. *Das Leben Cyprians von Pontius: Die erste christliche Biographie.* Leipzig.

Harpur, Y. 1987. *Decoration in Egyptian Tombs of the Old Kingdom: Studies in Orientation and Scene Content.* London.

Harpur, Y. 2001. *The Tombs of Nefermaat and Rahotep at Maidum: Discovery, Destruction and Reconstruction.* Oxford.

Harrington, N., 2004. Human representation in the Predynastic period: the locality HK6 statue in context. In S. Hendrickx, R. F. Friedman, K. M. Ciałowicz, and M. Chłodnicki (eds.), *Egypt at its Origins: Studies in Memory of Barbara Adams*. OLA 138. Leuven: 25–44.

Harris, J. R. 1961. *Lexicographical Studies in Ancient Egyptian Minerals*. Berlin.

Harris, J. R. 1971. Medicine. In J. R. Harris (ed.), *The Legacy of Egypt* (2nd edn.). Oxford: 118–37.

Harrison, T. (ed.). 2002. *Greeks and Barbarians*. New York.

Harrison, T. 2003. Upside down and back to front: Herodotus and the Greek encounter with Egypt. In P. Ucko (ed.), *Ancient Perspectives on Egypt*. London: 145–55.

Harten, S. 1995. Archaeology and the unconscious: Hegel, Egyptomania, and the legitimation of Orientalism. In I. A. Bierman (ed.), *Egypt and the Fabrication of European Identity*. Los Angeles: 3–33.

Hartog, F. 1988. *Mirror of Herodotus: The Representation of the Other in the Writing of History*. Tr. J. Lloyd. Berkeley and London.

Hartog, F. 2001. *Memories of Odysseus: Frontier Tales from Ancient Greece*. Tr. J. Lloyd. Chicago.

Hartung, U. 2001. *Umm el-Qaab II. Importkeramik aus dem Friedhof U in Abydos (Umm el-Qaab) und die Beziehungen Ägyptens zu Vorderasien im 4. Jahrtausend v. Chr.* AV 92. Mainz am Rhein.

Hartung, U. 2007. Das prädynastische Friedhof U: Nilpferdjäger und erste Bürokraten. In G. Dreyer and D. Polz (eds.), *Begegnung mit der Vergangenheit - 100 Jahre in Ägypten. Deutsches Archäologisches Institut Kairo 1907–2007*. Mainz am Rhein: 187–92.

Hartwig, M. 2004. *Tomb Painting and Identity in Ancient Thebes, 1419–1372 BCE*. Brepols.

Harvey, S. P. 1994. Monuments of Ahmose at Abydos, *EA* 4: 3–5.

Harvey J. C. 1998. Old Kingdom wooden statues. In Grimal (ed.), 1998: 355–79 and fig. 1–14.

Harvey, S. 1998. *The Cults of King Ahmose at Abydos*. University Microfilms. Ann Arbor.

Harvey, S. 2004. New evidence at Abydos for Ahmose's funerary cult. *EA* 24: 1–6.

Haslam, M. W. 1993. Callimachus' *Hymns*. In M. A. Harder, R. F. Regtuit, and G. C. Wakker (eds.), *Callimachus*. Groningen: 111–25.

Hassan, S. 1953. *The Great Sphinx and Its Secrets: Historical Studies in the Light of Recent Excavations*. Excavations at Giza 1936–1937. S Cairo.

Hassan, S. with Farid, S. 1960 *The Mastabas of the Eighth Season and Their Description*. Excavations at Gîza, Season 1936–37–38, IX. Cairo.

Hawass, Z. 1991. Statue of the dwarf *Pr-n(j)-ꜥnḫ(w)* recently discovered at Giza. *MDAIK* 47: 157–62 and pls. 13–14.

Hawass, Z. 1995. A group of unique statues discovered at Giza I: statues of the oveseers of the pyramid builders. *Kunst des Alten Reiches. Symposium im Deutschen Archäologischen Institut Kairo am 29. und 30. Oktober 1991*. SDAIK 28. Mainz am Rhein: 91–5.

Hawass Z. 1998. A group of unique statues discovered at Giza III: the statues of *Jnty-šdw* from Tomb GSE 1915. In Grimal (ed.), 1998: 187–208.

Hawass, Z. 1999. The pyramid builders: a group of unique statues discovered at Giza IV – the statue of an overseer of the craftsmen and his wife. In C. Ziegler (ed.), *L'Art de l'Ancien Empire égyptien. Actes du colloque organisé au musée du Louvre par le Service culturel les 3 et 4 avril 1998*. Paris: 79–98.

Hawass, Z. 2002. *Hidden Treasures of the Egyptian Museum*. Cairo.

Hawass, Z. (ed.) 2003. *Treasures of the Pyramids*. Vercelli.

Hawass, Z. 2005. Unique statues from Giza V: the exceptional statue of the priest Kai and his family. In K. A. Daoud (ed.), *Studies in Honor of Ali Radwan. ASAE* Supplement 34. Cairo: 25–30 and figs. 2–7.

Hawass, Z. 2008. *Tutankhamun the Golden King and the Great Pharaohs*. Washington.

Haxthausen, C. W. (ed.) 2002. *The Two Art Histories: The Museum and the University*. New Haven and London.

Hayes, W. C. 1942. *Ostraka and Name Stones from the tomb of Sen-Mūt (no. 71) at Thebes*. New York.

Hayes, W. C. 1953. *The Scepter of Egypt*. I. New York.

Hayes W. C. 1955. *A Papyrus of the Late Middle Kingdom in the Brooklyn Museum (Papyrus Brooklyn 35.1446)*. Brooklyn.

Hayes, W. C. 1959. *The Scepter of Egypt*. II. New York.

Hayes, W. C. 1960. A selection of Tuthmoside Ostraca from Dēr el-Baḥri. *JEA* 46: 29–52.

Hayes, W. C. 1971. The Middle Kingdom in Egypt. In I. E. S. Edward et al. (eds.), *The Cambridge Ancient History* 1, 2 (3rd edn.). Cambridge: 464–531.

Helck, W. 1956. *Untersuchungen zu Manetho und den ägyptischen Königslisten*. Berlin.

Helck, W. 1957. *Urkunden der 18. Dynastie Heft 20*. IV. Berlin.

Helck, W. 1968. *Die Ritualszene auf der Umfassungsmauer Ramses' II in Karnak*. Wiesbaden.

Helck, W. 1970. *Die Lehre des Dwꜣ–ḫtjj* I. KÄT. Wiesbaden.

Helck, W. 1987. Die Erzählung vom verwunschenen Prinzen. In J. Osing and G. Dreyer (eds.), *Form und Mass. Beiträge zur Literatur, Sprache und Kunst des Alten Ägypten. Festschrift für Gerhard Fecht*. ÄAT 12. Wiesbaden: 218–25.

Helck, W. 1992. Die "Geschichte des Schiffbrüchigen": Eine Stimme der Opposition? In J. Osing and E. K. Nielsen (eds.), *The Heritage of Ancient Egypt: Studies in Honour of Erik Iversen*. Copenhagen: 73–6.

Hendrickx, S. 1995. *Analytical Bibliography of the Prehistory and the Early Dynastic Period of Egypt and Northern Sudan*. EPM 1. Leuven.

Hendrickx, S., 1996. Two Protodynastic objects in Brussels and the origin of the bilobate cult-sign of Neith. *JEA* 82: 23–42.

Hendrickx, S. 1998. Peaux d'animaux comme symboles prédynastiques. À propos de quelques représentations sur les vases white cross-lined. *CdE* 73: 203–30.

Hendrickx, S. 2002. Bovines in Egyptian Predynastic and Early Dynastic iconography. In F. A. Hassan (ed.), *Droughts, Food and Culture: Ecological Change and Food Security in Africa's Later Prehistory*. New York: 275–318.

Hendrickx, S., 2006. The dog, the *Lycaon pictus* and order over chaos in Predynastic Egypt. In K. Kroeper, M. Chłodnicki, and M. Kobusiewicz (eds.), *Archaeology of Early Northeastern Africa: In Memory of Lech Krzyżaniak*. Poznan: 723–49.

Hendrickx, S. and Bavay, L. 2002. The relative chronological position of Egyptian Predynastic and Early Dynastic tombs with objects imported from the Near East and the nature of interregional contacts. In E. C. M. van den Brink, and T. E. Levy (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium BCE*. London: 58–80.

Hendrickx, S. and Depraetere, D. 2004. A theriomorphic Predynastic stone jar and hippopotamus symbolism. In S. Hendrickx, R. F. Friedman, K. M. Ciałowicz, and M. Chłodnicki (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams*. OLA 138. Leuven: 801–22.

Hendrickx, S. and Eyckerman, M. In press a. Continuity and change in the visual representations of Predynastic Egypt. In I. Incordino, M. Nuzzolo, and F. Raffaele (eds.), ANSE conference. Wiesbaden.

Hendrickx, S. and Eyckerman, M. In press b. Decorated rhomboid palettes from Predynastic Egypt. *BMRAH*.

Hendrickx, S. and Friedman, R. F. 2003. Chaos and order: a Predynastic "ostracon" from HK29A. *Nekhen News* 15: 8–9.

Hendrickx, S. and Friedman, R. F. 2007. The falcon has landed: falcons in "the city of the falcon." *Nekhen News* 19: 9–10.

Hendrickx, S. and Gatto, M. C. 2009. A rediscovered Late Predynastic–Early Dynastic royal scene from Gharb Aswan. *Sahara* 20: 147–50.

Hendrickx, S., Huyge, D., and Adams, B., 1997–8. Le scorpion en silex du Musée royal de Mariemont et les silex figuratifs de l'Égypte pré- et protodynastique. *Les Cahiers de Mariemont* 28–9: 6–33.

Herb, M. 1991. Das durch die Luft wirbelnde Wurfholz in den Bildern der Vogeljagd des fürstlichen Grabherrn. In *Religion und Philosophie. Festgabe Derchain*: 165–77.

Herbin, F.-R. 1994. *Le Livre de parcourir l'éternite*. OLA 58. Leuven.

Herbin, F.-R. 2008. *Books of Breathing*. Catalogue of the Books of the Dead and Other Religious Texts in the British Museum 4. London.

Hermann, A. 1940. *Die Stelen der Thebanischen Felsgräber der 18. Dynastie*. Glückstadt.

Hermann, A. 1959. *Altägyptische Liebesdichtung*. Wiesbaden.

Heyob, S. 1975. *The Cult of Isis among Women in the Graeco-Roman World*. EPRO 51. Leiden.

Heywood, A. 2001. The use of huntite as a white pigment in ancient Egypt. In W. V. Davies (ed.), 2001b: 5–9.

Heywood, C. 2002. The Kushite town and cemetery at Kawa, the 2001–2002 season: stabilisation and investigation of the wall paintings. *Sudan Archaeological Research Society Bulletin* 6: 38–41.

Hill, D. (ed.). 1976. *The Satirical Etchings of James Gillray*. New York.

Hill, M. 1999. Pepy I kneeling. *Egyptian Art in the Age of the Pyramids*. New York.

Hill, M. (ed.). 2007. *Gifts for the Gods: Images from Egyptian Temples*. New Haven and London.

Hinds, M. and Badawi, El-S. M. 1986. *A Dictionary of Egyptian Arabic: Arabic–English*. Beirut.

Hoch, J. E. 1994. *Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period*. Princeton.

Hoffmann, F. 1994a. Die Länge des P. Spiegelberg. *Acta Demotica, Acts of Fifth International Conference for Demotists, Pisa, 4th–8th September 1993*. EVO 17: 145–55.

Hoffmann, F. 1994b. Seilflechter in der Unterwelt. *ZPE* 100: 339–46.

Hoffmann, F. 1995. Neue Fragmente zu den drei grossen Inaros–Petubastis–Texten. *Enchoria* 22: 27–39.

Hoffmann, F. 1996. Der literarische demotische Papyrus Wien D6920–22. *SAK* 23: 167–200.

Hoffmann, F. 1999. Die Hymnensammlung des P. Wien D6951. In K. Ryholt (ed.), *Acts of the Seventh International Conference of Demotic Studies*. CNI Publications 27. Copenhagen: 219–28.

Hoffmann, F. 2007. Die ägyptischen literarischen Texte. In B. Palme (ed.), *Akten des 23. Internationalen Papyrologen-Kongresses*. Papyrologica Vindobensia 1. Vienna: 279–94.

Hoffmann, F. and Quack, J. F. 2007. *Anthologie der demotischen Literatur*. Einführungen und Quellentexte zur Ägyptologie 4. Berlin.

Hofmann, B. 2004. *Die Königsnovelle: "Strukturanalyse am Einzelwerk."* ÄAT 62. Wiesbaden.

Hofmann, E. 1995. *Das Grab des Neferrenpet Gen. Kenro (TT 178)*. Mainz am Rhein.

Hofmann, E. 2004. *Bilder im Wandel: die Kunst der Ramessidischen Privatgräber*. Mainz am Rhein.

Hölbl, G. 2001. *A History of the Ptolemaic Empire*. London.

Hollis, S.T. 1990. *The Ancient Egyptian "Tale of Two Brothers": The Oldest Fairy Tale in the World*. Oklahoma Series in Classical Culture 7. Norman.

Holm, T. L. 2007. The Sheikh Fadl inscription in its literary and historical context. *Aramaic Studies* 5: 193–224.

Hölscher U. 1912. *Das Grabdenkmal des Königs Chephren*. Leipzig: 88–99: pl. XVI and figs. 80–153.

Hölscher, U. 1954. *The Excavation of Medinet Habu*. V. *Post-Ramessid Remains*. Chicago.

Hooper-Greenhill, E. 2007. *Museums and Education*. London and New York.

Hope, C. A. 1988. Three seasons of excavation at Ismant el-Gharab in Dakhleh Oasis, Egypt. *Mediterranean Archaeology* 1: 160–78.

Hope, C. A. 2002. Excavations in the settlement of Ismant el-Kharab in 1995–1999. In C. A. Hope and G. E. Bowen (eds.), *Dakhleh Oasis Project: Preliminary Reports on the 1994–1995 to 1998–1999 Field Seasons*. DOP Monograph 11. Oxford: 167–208.

Hope, C. A. and Whitehouse, H. 2006. A painted residence at Kellis in the Dakhleh Oasis. *JRA* 19: 313–28.

Horak, U. 1992. *Illuminierte Papyri, Pergamente und Papiere*. I. Vienna.

Hornbostel, W. 1973. *Sarapis: Studien zur Überlieferungsgeschichte, den Erscheinungsform und Wandlungen der Gestalt eines Gottes*. EPRO 32. Leiden.

Hornemann, B. 1951–69. *Types of Ancient Egyptian Statuary*. I–VII. Munksgaard.

Hornung, E. 1990a. *Valley of the Kings: Horizon of Eternity*. New York.

Hornung, E. 1990b. *Gesänge vom Nil: Dichtung am Hofe der Pharaonen*. Zürich.

Hornung, E. 1999. *The Ancient Egyptian Books of the Afterlife*. Ithaca and London.

Hornung, E. 2001. *The Secret Lore of Egypt: Its Impact on the West*. Tr. D. Lorton. Ithaca.

Hornung, E. 2005. *Der Eine und die Vielen: Altägyptische Götterwelt* (6th edn.) Darmstadt.

Horváth, Z. 2007. Remarks on the temple of Heqet and a sarcastic letter from el-Lahun. In S. Grallert and W. Grajetzki (eds.), *Life and Afterlife in Ancient Egypt during the Middle Kingdom and the Second Intermediate Period*. Egyptology 7. London: 81–90.

Houlihan, P. F. 2001. *Wit and Humour in Ancient Egypt*. London.

Hughes, G. R. 1951. A demotic astrological text. *JNES* 10: 256–64.

Hughes, G. R. 1986. An astrologer's handbook in demotic Egyptian. In L. H. Lesko (ed.), *Egyptological Studies in Honor of Richard A. Parker. Presented on the Occasion of his 78th Birthday December 10, 1983*. Providence: 53–69.

Humbert, J.-M. and Price, C. (eds.) 2003. *Imhotep Today: Egyptianizing Architecture*. London.

Humphrey, J. H. 1986. *Roman Circuses: Arenas for Chariot Racing*. Berkeley.

Hunter, R. L. 1989. *Apollonius of Rhodes: Argonautica Book III*. Cambridge.

Hunter, R. L. 1992. Writing the God: form and meaning in Callimachus, *Hymn to Athena*. *Materiali e discussioni per l'analisi dei testi classici* 29: 9–34.

Hunter, R. L. 1993a. *The* Argonautica *of Apollonius: Literary Studies*. Cambridge.

Hunter, R. L. 1993b. *Jason and the Golden Fleece*. Oxford.

Hunter, R. L. 1996. *Theocritus and the Archaeology of Greek Poetry*. Cambridge.

Hunter, R. L. 1999. *Theocritus: A Selection*. Cambridge.

Hunter, R. L. 2003. Literature and its contexts. In A. Erskine (ed.), *A Companion to the Hellenistic World*. Oxford: 477–93.

Hussein, A. 2000. *Le Sanctuaire rupestre de Piyris à Ayn al-Labakha*. MIFAO 116. Cairo.

Hutchinson, G. O. 1988. *Hellenistic Poetry*. Oxford.

Huyge, D. 2002. Cosmology, ideology and personal religious practice in ancient Egyptian rock art. In R. F. Friedman (ed.), *Egypt and Nubia: Gifts of the Desert*. London: 192–206.

Huyge, D. 2004. A double-powerful device for regeneration: the Abu Zaidan knife handle reconsidered. In S. Hendrickx, R. F. Friedman, K. M. Ciałowicz, and M. Chłodnicki (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams*. OLA 138. Leuven: 823–36.

Ibrahim, L., Scranton, R., and Brill, R. 1976. *Kenchreai, Eastern Port of Corinth*. II. *The Panels of Opus Sectile in Glass*. Leiden.

[Idrīsī, al-.] 1991. *Anwār 'ulwiyy al-ajrām fī l-kashf 'an asrār al-ahrām. Das Pyramidenbuch des Abū Ǧa'far al-Idrīsī (st. 649/1251)*. Ed. U. Haarmann. Beiruter Texte und Studien 38. Beirut.

IFAO. 1970–. *Collection des voyageurs occidentaux en Égypte*. Cairo.

Irwin, R. 2006. *Dangerous Knowledge: Orientalism and Its Discontents*. Woodstock.

Iversen, E. 1939. *Papyrus Carlsberg No. VIII: With Some Remarks on the Egyptian Origin of Some Popular Birth Prognoses*. Det Kgl. Danske Videnskabernes Selskab. Historisk-filologiske Meddelelser XXVI.5. Copenhagen.

Iversen, E. 1953. Wounds in the head in Egyptian and Hippocratic medicine. *Studia orientalia Ioanni Pedersen. Septuagenario a.d. vii id. nov. anno mcmliii a collegis discipulis amicis dicata*. Copenhagen: 163–71.

Iversen, E. 1958. *Papyrus Carlsberg No. VIII: Fragments of a Hieroglyphic dictionary*. Det Kongelige Danske Videnskabernes Selskab, Historisk-filologiske Skrifter III.2. Copenhagen.

Iversen, E. 1984. The inscription of Harwerrēʿ at Serâbit-al-Kâdem. In F. Junge (ed.), *Studien zu Sprache und Religion Ägyptens zu Ehren von Wolfhart Westendorf* I: *Sprache*. Göttingen: 507–19.

Jacoby, F. 1957. *Die Fragmente der griechischen Historiker*. 1.1. Leiden.

Jacoby, F. 1958. *Die Fragmente der griechischen Historiker*. 3.609. Leiden.

Jaeschke, H. F. 2004. The HK6 statue fragments. In S. Hendrickx, R. F. Friedman, K. M. Ciałowicz, and M. Chłodnicki (eds.), *Egypt at Its Origins: Studies in Memory of Barbara Adams*. OLA 138. Leuven: 45–65.

James, T. G. H. (ed.) 1982. *Excavating in Egypt: The Egypt Exploration Society 1882–1982*. London.

Janosí, P. 1996. *Die Pyramidenanlagen der Königinnen: Untersuchungen zu einem Grabtyp des Alten und Mittleren Reiches*. Vienna.

Janowski, B. and Wilhelm, G. (eds.) 2004–. *Texte aus der Umwelt des Alten Testaments. Neue Folge*. Gütersloh.

Janssen, J. J. 1992. Literacy and letters at Deir el-Medîna. In R. J. Demarée and A. Egberts (eds.), *Village Voices: Proceedings of the Symposium 'Texts from Deir el-Medîna and their Interpretation,' Leiden, May 31–June 1, 1991*. CNWS Publications 13. Leiden: 81–94.

Jaroš-Deckert, B. 1984. *Das Grab des Jnj-jtj.f. Die Wandmalereien der XI. Dynastie, nach Vorarbeiten von Dieter Arnold und Jürgen Settgast*. AVDAIK 12. Mainz am Rhein.

Jaroš-Deckert, B. and Rogge E. 1993. *Statuen des Alten Reiches, Kunsthistorisches Museum Wien, Ägyptisch Orientalischer Sammlung*. CAA 15.

Jasnow, R. 1987. Review of M. Lichtheim, *Late Egyptian Wisdom Literature in the International Context* (1983). *BiOr* 44: 103–9.

Jasnow, R. 1991. A demotic wisdom papyrus in the Ashmolean Museum (P. Ashm. 1984.77 Verso). *Enchoria* 18: 43–54 and pls. 9–11.

Jasnow, R. 1992. *A Late Period Hieratic Wisdom Text (P. Brooklyn 47.218.135)*. SAOC 52. Chicago.

Jasnow, R. 1999. Remarks on continuity in Egyptian literary tradition. In E. Teeter and J. A. Larson (eds.), *Gold of Praise: Studies on Ancient Egypt in Honor of Edward F. Wente*. SAOC 58. Chicago: 193–210.

Jasnow, R. and Zauzich, K.-Th. 2005. *The Ancient Egyptian Book of Thoth: A Demotic Discourse on Knowledge and Pendant to the Classical Hermetica*. 2 vols. Wiesbaden.

Jay. J. E. 2007. Religious literature of Late Period and Greco-Roman Egypt. *Religion Compass* 1: 93–106.

Jeffreys, D. 1998. The Topography of Heliopolis and Memphis: some cognitive aspects. In H. Guksch and D. Polz (eds.), *Stationen. Beiträge zur Kulturgeschichte Ägyptens Rainer Stadelmann gewidmet*. Mainz: 63–71.

Jeffreys, D. (ed.). 2003. *Views of Ancient Egypt since Napoleon Bonaparte: Imperialism, Colonialism and Modern Appropriations*. London.

Jiménez-Serrano, A. 2003. Chronology and local traditions: the representation of power and the royal name in the Late Predynastic period. *Archéo-Nil* 13: 93–142.

Joffe, A. H., 2000. Egypt and Syro-Mesopotamia in the 4th millennium: implications of the new chronology. *Current Anthropology* 41: 113–23.

Johansen, H. and Whittle, W. (1980). *Aeschylus: The Suppliants*. 3 vols. Copenhagen.

Jones, A. M. 1997. On the reconstructed Macedonian and Egyptian lunar calendars. *ZPE* 119: 157–66.

Jones, A. M. 1999. *Astronomical Papyri from Oxyrhynchus (P. Oxy. 4133–4300a)*. Philadelphia.

Jørgensen, V. E. F. 2005. Papyrus Carlsberg 89: a case study of an astrological text, MA dissertation, University of Copenhagen.

Josephson, J. A. 1992. Royal sculpture of the later XXVIth Dynasty. *MDAIK* 48: 93–7 and pls. 19.

Josephson, J. A. 1997. *Egyptian Royal Sculpture of the Late Period 400–246 B.C.* Mainz am Rhein.

Josephson, J. A. and Eldamaty, M. M. 1999. *Catalogue Général of Egyptian Antiquities in the Cairo Museum, Nrs. 48601–48649: Statues of the XXVth and XXVIth Dynasties*. Cairo.

Journal Asiatique 260. 1972. Articles on the statue of Darius found at Susa, by Monique Kervan (pp. 237–9); David Stronach (pp. 241–6); François Vallat (pp. 247–51); and Jean Yoyotte (pp. 253–66).

Junge, F. 1985. In L. Habachi (ed.), *The Sanctuary of Hekaib: Elephantine 4*. AV 33. Mainz.

Junge, F. 1994. Mythos und Literarizität: Die Geschichte vom Streit der Götter Horus und Seth. In H. Behlmer (ed.), *Quaerentes Scientiam. Festgabe für Wolfhart Westendorf zu seinem 70. Geburtstag überreicht von seinen Schülern*. Göttingen. 83–101.

Junge, F. 2003. *Die Lehre Ptahhoteps und die Tugenden der ägyptischen Welt*. OBO 193. Freiburg.

Junker, H. 1957. Der Maler Irj. *Anzeiger der Österreichischen Akademie der Wissenschaften. Philologisch-historische Klasse, Jahrgang 1956, Nr.93(3)*: 59–79.

Kahl, J. 1999. *Siut-Theben. Zur Wertschätzung von Tradition im Alten Ägypten*. PÄ 13. Leiden.

Kahl, J., 2001. Hieroglyphic writing during the fourth millennium BC: an analysis of systems. *Archéo-Nil* 11: 101–34.

Kahl, J. 2002–4. *Frühägyptisches Wörterbuch*. Wiesbaden.

Kahl, J. 2003. Die frühen Schriftzeugnisse aus dem Grab U-j in Umm el-Qaab. *CdE* 78: 112–35.

Kahl, J. 2007. *Ancient Asyut: The First Synthesis after 300 years of Research*. Wiesbaden.

Kahl, J. et al. 2008. The Asyut Project: fifth season of fieldwork (2007). *SAK* 37: 199–218.

Kahle, P. E. 1954. *Bala'izah. Coptic Texts from Deir al-Bala'izah in Upper Egypt*. London: esp. 48–192 and 193–290.

Kaiser, O. (ed.). 1982–97. *Texte aus der Umwelt des Alten Testaments*. Gütersloh.

Kaiser, W. 1995. Zu den Königsgräbern der 2. Dynastie in Sakkara und Abydos. In B.M. Bryan and D. Lorton (eds.), *Essays in Egyptology in Honor of Hans Goedicke*. San Antonio: 113–23.

Kákosy, L. 1999. *Egyptian Healing Statues in Three Museums in Italy (Turin, Florence, Naples)*. Turin.

Kammerer, W, Husselman, E. M., and Shier, L. A. 1950. *A Coptic Bibliography*. Ann Arbor.

Kammerzell, F. 1995, Vom Streit zwischen Leib und Kopf. In O. Kaiser (ed.), *Texte aus der Umwelt des Alten Testaments III, 5: Mythen und Epen III*. Gütersloh: 951–4.

Kampp, F. 1996. *Die thebanische Nekropole: zum Wandel des Grabgedankens von der XVIII. bis zur XX. Dynastie*. Mainz.

Kanawati, N. 2001. *The Tomb and Beyond: Burial Customs of Ancient Egyptian Officials*. Warminster.

Kaper, O. 1995. Doorway decoration patterns in the Dakhleh oasis. In D. Kurth (ed.), *3. Ägyptologische Tempeltagung: Systeme und Programme der ägyptischen Tempeldekoration*: 99–114.

Kaper, O. 1997. A painting of the gods of Dakhla in the temple of Ismant el-Kharab. In S. Quirke (ed.), *The Temple in Ancient Egypt: New Discoveries and Recent Research*. London: 204–15.

Kaplan, I. 1999. *Grabmalerei und Gabreliefs der Römerzeit. Wechselwirkung zwischen der ägyptischen und griechisch-alexandrinischen Kunst*. Veröffentlichungen der Institut für Afrikanistik und Ägyptologie der Universität Wien 86. Beiträge zur Ägyptologie 16. Vienna.

Kaplony, P. 1966. *Kleine Beiträge zu den Inschriften der ägyptischen Frühzeit*. ÄA 15. Wiesbaden.

Kaplony, P. 1977. Die Definition der Schönen Literatur im Alten Ägypten. In J. Assmann, E. Feucht and R. Grieshammer (eds.), *Fragen an die altägyptische Literatur: Studien zum Gedenken an Eberhard Otto*. Wiesbaden: 289–314.

Kasser, R. 1960. *Papyrus Bodmer VI: Livre des proverbes*. Leuven.

Kasser, R. 1971. *Papyrus Bodmer III: Évangile de Jean et Genèse I–IV, 2*. Leuven.

Kasser, R. and Funk W.-P. 1990. A standard system of sigla for referring to the dialects of Coptic. *Journal of Coptic Studies* 1: 141–51.

Kasser, R. 2006. Kat' aspe aspe. In L. Painchaud and P.-H. Poirier (eds.), *Coptica – Gnostica – Manichaica: Mélanges offerts à Wolf-Peter Funk*. Leuven: 389–492.

Katary, S. L. D. 1994. *The Two Brothers* as folktale: constructing the social context. *JSSEA* 24: 39–70.

Keller, C. 2001. A family affair: the decoration of Theban Tomb 359. In W. V. Davies (ed.), 2001b: 73–93.

Keller, C. 2005a. The statuary of Hatshepsut. In C. R. Roehrig (ed.), *Hatshepsut: From Queen to Pharaoh*. New York: 158–72.

Keller, C. 2005b. The statuary of Senenmut. In C. R. Roehrig (ed.), *Hatshepsut: From Queen to Pharaoh*. New York: 117–19.

Kemp, B. J. 1973. Photographs of the decorated tomb at Hierakonpolis. *JEA* 59: 36–43.

Kemp, B. J. (with A. Boyce and J. Harrell) 2000. The colossi from the early shrine at Coptos in Egypt. *CAJ* 10: 211–42.

Kemp, B. 2006. *Ancient Egypt: Anatomy of a Civilization* (2nd edn.). London and New York.

Khalidi, T. 1975. *Islamic Historiography: The Histories of Mas'udi*. Albany.

Kirk, G. S. 1983. *The Presocratic Philosophers: A Critical History with a Selection of Texts* (2nd edn.) Cambridge.

Kiss, Z. 1984. *Études sur le portrait impériale romain en Egypte. Travaux du Centre d'archéologie méditerranéenne de l'Académie polonaise des sciences* 23. Warsaw.

Kiss, Z. 2006. Deux peintures murales de Marina el-Alamein. *BIFAO* 106: 163–70.

Kiss, Z. 2007. Alexandria in the fourth to seventh centuries. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700*. Cambridge: 187–206.

Kitchen, K. 1979. *Ramesside Inscriptions: Historical and Biographical. II*. Oxford.

Kitchen, K. 1995. *The Third Intermediate Period in Egypt (1100–650 B.C.)* (2nd edn.). Warminster.

Klebs, L. 1922. *Die Reliefs und Malereien des Mittleren Reiches*. Heidelberg.

Kleingünther, A. 1933. *Prōtos Heuretēs: Untersuchungen zur Geschichte einer Fragestellung*. Philologus Supplementband 26. Leipzig.

Knigge, C. 2006. *Das Lob der Schöpfung. Die Entwicklung ägyptischer Sonnen- und Schöpfungshymnen nach dem Neuen Reich*. OBO 219. Fribourg.

Knight, V. 1995. *The Renewal of Epic*. Leiden.

Kockelmann, H. 2008a. *Untersuchungen zu den späten Totenbuch-Handschriften auf Mumien-binden*. Studien zum Altägyptischen Totenbuch 12. Wiesbaden.

Kockelmann, H. 2008b. Two demotic mythological narratives in the Carlsberg Papyrus collection (PC 460 and PC 284). Lecture at the 10th International Congress of Demotic Studies. Leuven and Brussels. August 26–30.

Koenen, L. 1993. The Ptolemaic king as a religious figure. In Bulloch et al. (eds.), 1993: 25–115.

Köhler, E. C. 2002. History or ideology? New reflections on the Narmer palette and the nature of foreign relations in Pre- and Early Dynastic Egypt. In E. C. M. van den Brink, and T. E. Levy (eds.), *Egypt and the Levant: Interrelations from the 4th through the Early 3rd Millennium BCE*. London: 499–513.

Kolataj, W., Majcherek, G., and Parandowska, E. 2007. *Villa of the Birds: The Excavation and Preservation of the Kom el-Dikka Mosaics*. ARCE Conservation Series 3. Cairo.

Kötzsche, L. 2004. *Der bemalte Behang in der Abegg-Stiftung in Riggisberg. Eine alttestamente Bildfolge des 4. Jahrhunderts*. Riggisberger Berichte 11. Riggisberg.

Kozloff, A. P. 2008a. Amenhotep IV sandstone colossi. *Abstracts ARCE Annual Meeting*. Seattle.

Kozloff, A. P. 2008b. Ancient Egypt in museums today. In R. H. Wilkinson (ed.), *Egyptology Today*. New York: 144–62.

Kozloff A. P. and Bryan, B. 1992. *Egypt's Dazzling Sun: Amenhotep III and his World*. Cleveland.

Krause, M. 1979. Koptische Literatur. *LÄ* 3: 694–728.

Krauspe R. 1997. *Statuen und Statuetten, Katalog Ägyptischer Sammlungen in Leipzig*. 1. Mainz.

Krautheimer, R. 1983. *Three Christian Capitals: Topography and Politics*. Berkeley.

Krautheimer, R. 1986. *Early Christian and Byzantine Architecture*. Revd. by Richard Krautheimer and Slobodan Ćurčić. New Haven.

Kroll, W. 1924. *Studien zum Verständnis der römischen Literatur*. Stuttgart.

Kunst des Alten Reiches. 1995. *Symposium im Deutschen Archäologischen Institut Kairo am 29. und 30. Oktober 1991*. SDAIK 28. Mainz am Rhein.

Kurth, D. 1983. *Die Dekoration der Säulen im Pronaos des Tempels von Edfu*, GOF IV.11. Wiesbaden.

Kurth, D. 1998. *Treffpunkt der Götter: Inschriften aus dem Tempel des Horus von Edfu*, Düsseldorf and Zurich.

Kurth, D. 1998–2004. *Die Inschriften des Tempels von Edfu*. Several volumes of translation and commentary published, Wiesbaden. *Edfu: Studien* on many aspects of temple iconography, texts and vocabulary published 1990 Wiesbaden.

Kyrieleis. H. 1975. *Bildnisse der Ptolemäer*. AF 2. Berlin.

Laboury, D. 1997. Une relecture de la tombe de Nakht (TT52), Cheikh 'Abd el-Gourna. In R. Tefnin (ed.), *La Peinture égyptienne: Un monde de signes à préserver*. Brussels: 49–81.

Laboury, D. 1998. *La Statuaire de Thoutmosis III. Essai d'interprétation d'un portrait royal dans son contexte historique*. Liège.

Laboury, D. 2002. Mise au point sur l'iconographie de Néfernéférouaton, le prédécesseur de Toutankhamon. In M. el-Damaty and M. Trad (eds.), *Egyptian Museum Collections around the World. Studies for the Centennial of the Egyptian Museum, Cairo*. 2. Cairo: 711–22.

Laboury, D. 2007. Sennefer et Aménémopé: une affaire de famille. *Egypte, Afrique et Orient* 45: 43–52.

Laboury, D. 2008. L'art selon Akhénaton, une révolution dans la tradition et l'histoire de l'art pharaonique. In J.-L. Chappaz, and F. Tiradritti, *Akhénaton et Néfertiti soleil et ombres des pharaons*. Geneva: 77–85.

Labrousse, A. 1996–2000. *L'Architecture des pyramides à textes.* Cairo.

Labrousse, A. 1999. *Les Pyramides des reines. Une nouvelle nécropole à Saqqâra.* Paris.

Lacau, P. and Chevrier, H. 1956–69. *Une Chapelle de Sésostris Ier à Karnak.* Cairo.

Laidlaw, A. 1985. *The First Style in Pompeii. Painting and Architecture.* Rome.

Laisney, V. P.-M. 2007. *L'Enseignement d'Aménémopé.* Studia Pohl: Series Major 19. Rome.

Lalouette, C. 1984–7. *Textes sacrés et textes profanes de l'ancienne Égypte.* 2 vols. Paris.

Laming Macadam, M. F. et al. 1955. *The Temples of Kawa* II: *History and Archaeology of the Site.* Oxford: pl. 14.

Lankowski, P. 2006. Monumental architecture and the royal building program of Thutmose III. In E. Cline (ed.), *Thutmose III: A New Biography.* Ann Arbor: 183–237.

Lapp, G. 1993. *Typologie der Särge und Sargkammern von der 6. bis 13. Dynastie.* Heidelberg.

Larson, F. 2008. Anthropological landscaping: General Pitt Rivers, the Ashmolean, the University Museum, and the shaping of an Oxford discipline. *Journal of the History of Collections* 20.1: 85–100.

Lauer, J.-P. and Lacau, P. 1936–61. *La Pyramide à degrés.* 5 vols. Cairo.

Laurens, H. 1987. *Les Origines intellectuelles de l'expédition d'Égypte: l'orientalisme islamisant en France (1698–1798).* Istanbul.

Laurens, H. 1999. Introduction, les Lumières et l'Égypte. In P. Bret (ed.), *L'Expédition d'Égypte, une entreprise des Lumières 1798–1801.* Paris: 1–6.

Lawall, G. 1966. Apollonius' *Argonautica*: Jason as anti-hero. *Yale Classical Studies* 19: 119–69.

Layton, B. 1995. *The Gnostic Scriptures: A New Translation with Annotations and Introductions.* New York.

Layton, B. 2004. *Coptic Gnostic Chrestomathy: A Selection of Coptic Texts with Grammatical Analysis and Glossary.* Leuven and Paris.

Leach, E. W. 2004. *Doctus spectare lacunas*: Roman ceilings in verbal contexts. In A. Barbet (ed.), *La Peinture funéraire antique IVe siècle av. J.-C. – IVe siècle ap. J.-C.* AIPMA Colloque 7. Paris: 55–9.

Leahy, A. 1984. Saite royal sculpture: a review. *GM* 80: 59–76.

Leahy, A. 1990. Abydos in the Libyan Period. In A. Leahy (ed.), *Libya and Egypt c.1300–750 BC.* London: 155–200.

Leahy, A. 1994. Kushite monuments at Abydos. In C. Eyre, A. Leahy, and L. M. Leahy (eds.), *The Unbroken Reed: Studies in the Culture and Heritage of Ancient Egypt In Honour of A.F. Shore.* London: 171–92.

Leahy, L. M. 1980. The Roman wall-paintings from Amheida. *JSSEA* 10: 331–78 and pls. xxxi–vi.

Leblanc, C. 1989. *Ta Set Neferou: une nécropole de Thebes-Ouest et son histoire* I. Cairo.

Leblanc, C. 1999. Le "Jeune Memnon": un colosse de Ramsès II nommé Ousermaâtrê-Setepenrê-d'Amon Rê. *Memnonia* 10: 79–100.

Leclant, J. 1961. *Montouemhat: Quatrième Prophète d'Amon, Prince de la Ville.* BdE 35. Cairo.

Leclant, J. 1965. *Recherches sur les monuments thébains de la XXVe dynastie dite éthiopienne.* BdE 36. Cairo.

Leclant, J. 1978. *Ägypten. Das Alte und das Mittlere Reich.* Munich.

Leclant, J. 1999. L'égyptologie avant l'expédition d'Égypte. In P. Bret (ed.), *L'Expédition d'Égypte, une entreprise des Lumières 1798–1801.* Paris: 121–8.

Lee, L. and Quirke, S. 2000. Painting materials. In Nicholson and Shaw (eds.), 2000: 104–20.

Lefebvre, G. 1923–4. *Le Tombeau de Petosiris.* I–III. Cairo. Repr. 2007.

Lefebvre, G. 1949. *Romans et contes égyptiens de l'époque pharaonique.* Paris.

Lefort, L.Th. 1948. Eimēti dans le N.T. sahidique. *Le Muséon* 61: 153–70.

Lefort, L. Th. 1950. Gréco-copte. In *Coptic Studies in Honor of Walter Ewing Crum. Bulletin of the Byzantine Institute* 2: 65–71.

LeFur, D. 1994. *La Conservation des peintures murales des temples de Karnak.* Paris

Legrain, G. 1909. *Statues et statuettes de rois et de particuliers.* II. Cairo.

Lehner, M. 1997. *The Complete Pyramids.* Cairo.

Leitz, C. 1997. *Die Schlangennamen in den ägyptischen und griechischen Giftbüchern.* Akademie der Wissenschaften und der Literatur. Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse, 1997. 6. Mainz am Rhein.

Leitz, C. 2000. Review of J. Osing, *The Carlsberg Papyri 2: Hieratische Papyri aus Tebtunis 1* (1998). *BiOr* 57: cols. 270–8.

Leitz, C. 2008. *Kurzbibliographie zu den übersetzten Tempeltexten der griechisch-römischen Zeit.* 4th edn. BdE 136. Cairo.

Lembke, K. 1994. *Das Iseum Campense in Rom. Studie über den Isiskult unter Domitian.* Archäologie und Geschichte 3. Heidelberg.

Lembke, K. 2004. Aus der Oase des Sonnengottes – Das Grab des Siamun in Siwa. In P. C. Bol, G. Kaminski and C. Maderna (eds.), *Fremdheit-Eigenheit. Ägypten, Griechenland und Rom. Austausch und Verständnis.* Städel Jahrbuch N.F. 19: 363–73.

Lepper, V. 2008. *Untersuchungen zu Papyrus Westcar: Eine philologische und literaturwissenschaftliche (Neu-)Analyse.* ÄA 70. Wiesbaden.

Lepper, V. and Depuydt, L. (eds.) 2007. *H. J. Polotsky, Scripta Posteriora on Egyptian and Coptic.* Göttingen.

Lepre, J. P. 1990. *The Egyptian Pyramids: A Comprehensive Illustrated Reference.* Jefferson.

Leprohon, R. 1980. The reign of Amenemhat III: A thesis submitted in conformity with the requirements of the Degree of Doctor of Philosophy in the University of Toronto. Toronto.

Lexa, F. 1926. *Papyrus Insinger. Les Enseignement moraux d'un scribe égyptien du premier siècle après J.C.* Paris.

Lichtheim, M. 1945. The songs of the harpers. *JNES* 4: 178–212.

Lichtheim, M. 1973. *Ancient Egyptian Literature: A Book of Readings.* I. *The Old and Middle Kingdoms.* Berkeley.

Lichtheim, M. 1976. *Ancient Egyptian Literature: A Book of Readings.* II. *The New Kingdom.* Berkeley.

Lichtheim, M. 1980a. *Ancient Egyptian Literature; A Book of Readings.* III. *The Late Period.* Berkeley.

Lichtheim, M. 1980b. The praise of cities in the literature of the Egyptian New Kingdom. In S. M. Burstein (ed.), *Panhellenica: Essays in Ancient History and Historiography in Honor of Truesdell S. Brown.* Lawrence: 15–23.

Lichtheim, M. 1983. *Late Egyptian Wisdom Literature in the International Context: A Study of Demotic Instructions.* OBO 52. Freiburg and Göttingen.

Lichtheim, M. 1988. *Ancient Egyptian Autobiographies Chiefly of the Middle Kingdom: A Study and an Anthology.* OBO 84. Freiburg and Göttingen.

Lieu, S. 2006. "My church is superior . . . ": Mani's missionary statement in Coptic and Middle Persian. In L. Painchaud and P.-H. Poirier (eds.), *Coptica – Gnostica – Manichaica: Mélanges offerts à Wolf-Peter Funk.* Leuven: 519–27.

Lieven, A. von. 1999. Divination in Ägypten. *AF* 26: 77–126.

Lieven, A. von. 2004a. Die myteriöse Geschichte von den Wortlisten, die Ritualnotizen waren (p. Carlsberg 42 + 44 + 45 + 453). In F. Hoffmann and H. J. Thissen (eds.), *Res severa verum gaudium: Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004.* Studia Demotica 6. Leuven: 369–87.

Lieven, A. von. 2004b. Das Göttliche in der Natur erkennen. Tiere, Pflanzen und Phänomene der unbelebten Natur als Manifestationen des Göttlichen (mit einer Edition der Baumliste P. Berlin 29027). *ZÄS* 131: 156–72.

Lieven, A. von. 2005. Religiöse Texte aus der Tempelbibliothek von Tebtynis - Gattungen und Funktionen. In S. Lippert and M. Schentuleit (eds.), *Tebtynis und Soknopaiu Nesos. Leben im römerzeitlichen Fajum. Akten des Internationalen Symposions vom 11. bis 13. Dezember in Sommerhausen bei Würzburg*. Wiesbaden: 57–70.

Lieven, A. von. 2007. *The Carlsberg Papyri 8: Grundriss des Laufes der Sterne. Das sogenannte Nutbuch*. CNI Publications 31. Copenhagen.

Lilyquist, C. 1985. Egyptian art. *Metropolitan Museum of Art: Notable Acquisitions 1984–1985*: 5.

Lindblad, I. 1984. *Royal Sculpture of the Early Eighteenth Dynasty* 5. Stockholm.

Ling, R. 1991. *Roman Painting*. Cambridge; New York; Melbourne.

Linseele V. and Van Neer, W. in press. *Exploitation of Desert and Other Wild Game in Ancient Egypt: The Archaeozoological Evidence from the Nile Valley*.

Lippert, S. L. 2004. *Ein demotisches juristisches Lehrbuch. Untersuchungen zu Papyrus Berlin P 23757 rto*. ÄA 66. Wiesbaden.

Livingstone, N. 2001. *A Commentary on Isocrates' Busiris*. Mnemosyne Supplement 223. Leiden.

Lloyd, A. B. 1975–88. *Herodotus Book II*. 3 vols. EPRO 43. Leiden.

Lloyd, A. B. 1982. Nationalist propaganda in Ptolemaic Egypt. *Historia* 31: 33–55.

Lloyd, A. B. 1988. Manetho and the Thirty-first Dynasty. In Baines et al. (eds.) 1988: 154–60.

Lloyd, A. B. 1990. Herodotus on Egyptians and Libyans. In O. Reverdin and B. Grange (eds.), *Hérodote et les peuples non grecs*. Entretiens sur l'antiquité classique 35. Geneva: 215–44.

Lloyd, A. B. 2002. Egypt. In E. J. Bakker, I. J. F. de Jong, and H. van Wees (eds.), *Brill's Companion to Herodotus*. Leiden: 415–35.

Lloyd, A. B. 2007. In D. Asheri, A. Lloyd, and A. Corcella (eds.), *A Commentary on Herodotus Books I–IV*. Oxford.

López, J. 1984. *Ostraca ieratici N. 57450–57568, Tabelle lignee N. 58001–58007*. Catalogo del Museo Egizio di Torino. Seria seconda: Collezioni, III, Fascicolo 4. Milan.

Loprieno, A. 1988. *Topos und Mimesis: Zum Ausländer in der ägyptischen Literatur*. ÄA 44. Wiesbaden.

Loprieno, A. 1991-2. La letteratura fra topos e mimesis. *EVO* 14–15: 9–21.

Loprieno, A. 1995. *Ancient Egyptian: A Linguistic Introduction*. Cambridge.

Loprieno, A. 1996. Defining Egyptian literature: ancient texts and modern theories. In Loprieno (ed.) 1996: 39–58.

Loprieno, A. (ed.) 1996. *Ancient Egyptian Literature: History and Forms*. PÄ 10. Leiden.

Luft, U. (ed.). 1992. *Hieratische Papyri aus den Staatlichen Museen zu Berlin, Presussischer Kulturbesitz* I*: Das Archiv von Illahun, Briefe* I. Berlin.

Lull, J. 2002. *Las tumbas reales egipcias del Tercer Perí odo Intermedio (dinastías XXI–XXV)*. Oxford.

Ma, J. 2003. Kings. In A. Erskine (ed.), *A Companion to the Hellenistic World*. Oxford: 177–95.

Maayan-Fanar, E. 2006. Cemetery as New Jerusalem: the Jewish and Christian concepts of two unique necropolises in the Holy Land. In A. Lidov (ed.), *New Jerusalems: The Translation of Sacred Spaces in Christian Culture*. Moscow: 41–5.

MacDonald, S. 2003. Lost in time and space: ancient Egypt in museums. In S. MacDonald and M. Rice (eds.), *Consuming Ancient Egypt*. London: 87–99.

MacDonald, S. and Rice, M. (eds.) 2003. *Consuming Ancient Egypt*. London.

Macdonald, Sh. (ed.) 2006. *A Companion to Museum Studies*. Malden and Oxford.

MacGregor, A. 2007. *Curiosity and Enlightenment: Collectors and Collections from the Sixteenth to the Nineteenth Century*. New Haven and London.

MacKenzie, J. M. 1995. *Orientalism: History, Theory, and the Arts*. Manchester.

Majcherek G. 2002. Kom el-Dikka: excavations 2000/2001. *PAM* 13. *Reports 2001*: 31–43.

Majcherek, G. 2003. Mosaic floors from Roman triclinia in Alexandria. In Z. A. Hawass and L. P. Brock (eds.), *International Congress of Egyptologists, Egyptology at the Dawn of the Twenty-First Century. Proceedings of the Eighth International Congress of Egyptologists, Cairo 2000.* Cairo: 319–27.

Malaise, M. 1966. Sésostris, Pharaon de légende et d'histoire. *CdE* 41: 244–72.

Malek, J. 2003. *Egypt: 4000 Years of Art*. London.

Mallon, A. 1906–7. Une école de savants égyptiens. *Mélanges de la Faculté orientale Université Saint-Joseph* 1: 109–31; 2: 213–64.

Mallon, A. 1956. *Grammaire copte*. Beirut.

Manassa, C. 2007. *The Late Egyptian Underworld. Sarcophagi and Related Texts from the Nectanebid Period*. ÄAT 72. Wiesbaden.

Manniche, L. 1987. *City of the Dead: The Tombs of the Nobles at Luxor*. London and Cairo.

Manniche, L. 1997. Reflections on the banquet scene. In R. Tefnin (ed.), *La Peinture égyptienne. Un monde de signes à préserver. Actes du Colloque international de Bruxelles, avril 1994.* Monumenta Aegyptiaca 7. Brussels: 29–36.

Maqrīzī, Taqī al-Dīn al-. 1970. *Kitāb al-mawāʿiz wa l-iʿtibār*. Bulaq, 1877 [?]. Repr. Baghdad.

Maragioglio, V. and Rinaldi, C. A. 1964–77. *L'architettura delle Piramidi Menfite*. Rapallo.

Martin, C., and Ryholt, K. 2006. Put my funerary papyrus in my mummy please. *JEA* 92: 270–4.

Martin, G. T. 1974–89. *The Royal Tomb at El-ʿAmarna*. 2 vols. London.

Martin, G. T. 1989. *The Memphite Tomb of Horemheb, Commander-in-Chief of Tutʿankhamūn*. London.

Martin, G. T. 1991. *The Hidden Tombs of Memphis*. London.

Martin, G. T. 2001. Wall paintings in Memphite tombs of the New Kingdom. In W. V. Davies (ed.), 2001b: 101–5.

Martin-Pardey E. 1977–8. *Plastik des Alten Reiches*. 1 and 2. CAA 1 and 4.

[Masʿūdī, al-.] *Murūj al-dhahab wa-maʿadin al-jawhar*. 1962–79. 7 vols. Ed. Ch. Pellat. Beirut, al-Jamiʿah al-Lubnaniyyah, 1965–79. Tr. C. Barbier de Menard, A. Pavet de Courteille, and Ch. Pellat. *Les Prairies d'or*. Paris. 1962.

Mathews, T. F. 1982. Private liturgy in Byzantine architecure: toward a re-appraisal. *Cahiers archéologiques* 30: 125–37.

Mathews, T. F. 2001. The emperor and the icon. *Acta AArtHist* 15: 163–77.

Mathews, T. F. 2006. Early icons of the holy monastery of Saint Catherine at Sinai. In R. Nelson (ed.), *Holy Image, Hallowed Ground: Icons from Sinai*. Malibu: 38–55.

Mathieson, I., Bettles, E., Davies S., and Smith, H. S. 1995. A stela of the Persian Period from Saqqara. *JEA* 81: 23–41.

Mathieson, I. et al. 1997. The National Museums of Scotland Saqqara Survey Project 1993–1995. *JEA* 83: 17–53.

Mathieu, B. 1996. *La Poésie amoureuse de l'Égypte ancienne. Recherches sur un genre littéraire au Nouvel Empire*. BdE 115. Cairo.

Mathieu, B. 1997. Études de métrique égyptinne, IV. Le Tristique ennéamétrique dans l'hymne à Amon de Leyde. *RdE* 48: 109–64.

McCarthy, B. 2001. Technical analysis of reds and yellows in the tomb of Suemniwet, Theban Tomb 92. In W. V. Davies (ed.), 2001b: 17–21.

McDowell, A. G. 1999. *Village Life in Ancient Egypt: Laundry Lists and Love Songs*. Oxford.

McFadden, S. 2007. Courtly places and sacred spaces: the social and political significance of monumental wall painting in late antiquity. University of Pennsylvania doctoral dissertation.

McKenzie, J. 2007. *The Architecture of Alexandria and Egypt, c. 300 BC to AD 700*. New Haven and London.

McKenzie, J., Gibson, S., and Reyes, A. 2004. Reconstructing the Serapeum at Alexandria from the archaeological evidence. *JRS* 94: 73–121.

McClellan, A. 1994. *Inventing the Louvre: Art, Politics, and the Origins of the Modern Museum in Eighteenth-Century Paris*. New York.

Meeks, D. 2006. *Mythes et légendes du Delta d'après le papyrus Brooklyn 47.218.84*. MIFAO 125. Cairo.

Meeks, D. and Favard-Meeks, 1997. *Daily Life of the Egyptian Gods*. London.

Menchetti, A., and Pintaudi, R. 2007. Ostraka greci e bilingui da Narmuthis. *CdE* 82: 227–80.

Menu, B. 1998. Le tombeau de Pétosiris (4). Le souverain de l'Égypte. *BIFAO* 98: 247–62.

Menu, B. 2003. La mise en place des structures étatiques dans l'Égypte du IVe millénaire. *BIFAO* 103: 307–26.

Merkelbach, R. 1995. *Isis Regina, Zeus Sarapis: die griechisch-ägyptische Religion nach den Quellen dargestellt*. Stuttgart.

Merkelbach, R. 2001. *Isis Regina, Zeus Sarapis: die griechisch-ägyptische Religion nach den Quellen dargestellt* (2nd edn.). Munich.

Meskell, L. 2002. *Private Life in New Kingdom Egypt*. Princeton.

Meskell, L. 2004. *Object Worlds in Ancient Egypt: Material Biographies Past and Present*. Oxford and New York.

Metropolitan Museum of Art. 1999. *Egyptian Art in the Age of the Pyramids*. New York.

Meyboom, P. G. P. 1995. *The Nile Mosaic of Palestrina*: *Early Evidence of Egyptian Religion in Italy*. Leiden; New York; Cologne.

Meyboom, P. G. P. and Versluys, M. J. 2007. The meaning of dwarfs in Nilotic scenes. In L. Bricault, M. J. Versluys, and P. G. P. Meyboom (eds.), *Nile with Tiber: Egypt in the Roman World*. Leiden: 113–27.

Meyer, C. 1986. Stelophor. *LÄ*. 6: 8–9.

Michel. 1963. *Chronique de Michel le syrien, patriarque jacobite d'Antioch (1166–1199)*. Ed. and tr. J.-B. Chabot. Paris, 1905. Repr. Brussels. 1963.

Midant-Reynes, B. 2000. *The Prehistory of Egypt: From the First Egyptians to the First Pharaohs*. Oxford.

Midant-Reynes, B. 2003. *Aux Origines de l'Egypte. Du Néolithique à l'émergence de l'état*. Paris.

Middleton, A. S. 2001. Pigments on some Middle Kingdom coffins. In W. V. Davies (ed.), 2001b: 10–16.

Miguel Angel Corzo, M. A. (ed.) 1993. *Art and Eternity: The Nefertari Wall Paintings Conservation Project 1986–1992*. Santa Monica.

Mikhail, M. S. A. 2004. An historical definition for the Coptic Period. In M. Immerzeel and J. van der Vliet (eds.), *Coptic Studies on the Threshold of a New Millennium: Proceedings of the Seventh International Congress of Coptic Studies Leiden, 27 August–2 September 2000*. 1. Leuven: 971–81.

Mitchell, T. 1989. *Colonising Egypt*. Cambridge.

Mitchell, T. 2004. Orientalism and the exhibitionary order. In Preziosi and Farago (eds.), 2004: 442–6.

Moers, G. (ed.) 1999. *Definitely: Egyptian Literature. Proceedings of the Symposion "Ancient Egyptian Literature: History and Forms", Los Angeles, March 24–26, 1995*. LingAeg Studia Monographica 2. Göttingen.

Moers, G. 2001. *Fingierte Welten in der ägyptischen Literatur des 2. Jahrtausends v. Chr.: Grenzüberschreitung, Reisemotiv und Fiktionalität*. PÄ 19. Leiden.

Moers, G. 2002. Reenactment and memory in the *Complaints of Khakheperreseneb. LingAeg* 10: 293–308.

Moers, G. 2004. Der Spurensucher auf falscher Fährte? Überlegungen zu den Voraussetzungen einer ägyptologischen Literaturwissenschaft In G. Burkard et al. (eds.), *Kon-Texte. Akten des Symposions* "*Spurensuche – Altägypten im Spiegel seiner Texte*" *München 2. bis 4. Mai 1993.* ÄAT 60. Wiesbaden: 37–50.

Moers, G. 2009. Der "Autor" und sein "Werk." Der Beginn der *Lehre des Ptahhotep* in der Tradition des Neuen Reiches. In D. Kessler et al. (eds.), *Texte – Theben – Tonfragmente. Festschrift für Günter Burkard.* 1. ÄAT 76. Wiesbaden: 319–32.

Mojsov, B. 2007. *The Sculpture and Relief of Ramesses III.* Ann Arbor.

Möller, G. 1900. *Über die in einem späthieratischen Papyrus des Berliner Museums erhaltenen Pyramidentexte.* Berlin.

Montet, P. 1947–60. *La Nécropole royale de Tanis* I–III. Paris.

Montserrat, D. 1998. Unidentified human remains: mummies and the erotics of biography. In D. Montserrat (ed.), *Changing Bodies, Changing Meanings: Studies on the Human Body in Antiquity.* London and New York: 162–97.

Montserrat, D. 2000. *Ancient Egypt: Digging for Dreams: Treasures from the Petrie Museum of Egyptian Archaeology, University College London.* Glasgow.

Moreno García, J. C. 1997. *Études sur l'administration, le pouvoir et l'idéologie en Égypte, de l'Ancien au Moyen Empire.* Ægyptiaca Leodiensia 4. Liège.

Morenz, L. 1996. *Beiträge zur Schriftlichkeitskultur im Mittleren Reich und in der 2. Zwischenzeit.* ÄAT 29. Wiesbaden.

Morenz, L. 1998. Sa-mut/*kyky* und Menna, zwei reale Leser/Hörer des *Oasenmannes* aus dem Neuen Reich? *GM* 165: 73–81.

Morenz, L. 2003. Literature as a construction of the past in the Middle Kingdom. In Tait (ed.), 2003: 101–17.

Morrison, A. D. 2005. Sexual ambiguity and the identity of the narrator in Callimachus' *Hymn to Athena. Bulletin of the Institute of Classical Studies* 48: 27–46.

Morrison, A. D. 2007. *The Narrator in Archaic Greek and Hellenistic Poetry.* Cambridge.

Moseley, C. W. R. D. 1983. *The Travels of Sir John Mandeville.* New York.

Moser, S. 2006. *Wondrous Curiosities: Ancient Egypt at the British Museum.* Chicago and London.

Mosshammer, A. c.1979. *The Chronicle of Eusebius and Greek Chronographic Tradition.* Lewisburg.

Muhammed, A.-Q. 1966. *The Development of the Funerary Beliefs and Practices Displayed in the Private Tombs of the New Kingdom at Thebes.* Cairo.

Müller, D. 1961. Ägypten und die griechischen Isis-Aretalogien. Abhandlungen der sächsischen Akademie der Wissenschaften zu Leipzig. Phil.-Hist. Klasse 53.1. Berlin.

Müller, H. 1938. *Die formale Entwicklung der Titulatur der Ägyptischen Könige.* Glückstadt.

Müller, H. W. 1964. *Ägyptische Kunstwerke, Kleinfunde und Glas in der Sammlung E. und M. Kofler-Truniger, Luzern.* MÄS 5. Berlin.

Müller, H. W. 1971. *Il culto di Iside nell'antica Benevento. Catalogo delle sculture provienienti dai santuari egiziani dell'antica Benevento nel Museo del Sannio.* Benevento.

Müller, M. 1980. Malerei. *LÄ* 3: 1168–73.

Müller, V. 2008. Nilpferdjagd und geköpfte Feinde – zu zwei Ikonen des Feindvernichtungs-rituals. In E.-M. Engel, V. Müller and U. Hartung (eds.), *Zeichen aus dem Sand. Streiflichter aus Ägyptens Geschichte zu Ehren von Günter Dreyer.* Menes 5. Wiesbaden: 477–93.

Münch, H. and Moers, G. 2005. Kursorisches zur Konstruktion liebender Körper im pharaonischen Ägypten. In A. C. Hagedorn (ed.), *Perspectives on the Song of Songs – Perspektiven der Hoheliedauslegung*. Beihefte zur Zeitschrift für Alttestamentliche Wissenschaft 346. Berlin and New York: 136–49.

Munro, I. in press. *Der Totenbuch-Papyrus der Ta-schep-en-Chonsu aus der späten 25. Dynastie (pMoskau Puschkin-Museum I, 1b, 121)*. Handschriften des Altägyptischen Totenbuches 10,

Münster, M. 1968. *Untersuchungen zur Göttin Isis vom Alten Reich bis zum Ende des Neuen Reiches*. MÄS 11. Berlin.

Murnane, W. 1980. *United with Eternity: A Concise Guide to the Monuments of Medinet Habu*. Cairo.

Murray, M. A. 1910. *The Tomb of Two Brothers*. Manchester.

Murray, O. 1970. Hecataeus of Abdera and Pharaonic Kingship. *JEA* 56: 141–71.

Myśliwiec, K. 1984. Zwei Sphinxköpfe der Spätzeit. *MDAIK* 40: 221–6

Myśliwiec, K. 1988. *Royal Portraiture of the Dynasties XXI–XXX*. Mainz am Rhein.

Nagel, P. 1965. Der frühkoptische Dialekt von Theben. In *Koptologische Studien in der DDR*. Wissenschaftliche Zeitschrift der Martin-Luther-Universität Halle-Wittenberg, Sonderheft: 30–49.

Naples 2006. *Egittomania. Iside e il mistero*. Ed. S. de Caro. Naples and Milan.

Nauerth, C. 2004. Die 'Vela Alexandrina' der Basilika des Iunius Bassus in Rom. In P. C. Bol, G. Kaminski, and C. Maderna (eds.), *Fremdheit-Eigenheit. Ägypten, Griechenland und Rom. Austausch und Verständnis. Städel Jahrbuch* N.F. 19: 221–8.

Neave, R. A. H. 1979 The reconstruction of the heads and faces of three ancient Egyptian mummies. In A. R. David (ed.), *The Manchester Museum Mummy Project: Multidisciplinary Research on Ancient Egyptian Mummified Remains*. Manchester: 149–57.

Nelson, R. S. (ed.). 2006. *Holy Image, Hallowed Ground: Icons from Sinai*. Malibu.

Neugebauer, O. and Parker, R. A. 1960. *Egyptian Astronomical Texts I: The Early Decans*. Brown Egyptological Studies 3. Providence and London.

Neugebauer, O. and Parker, R. A. 1969. *Egyptian Astronomical Texts III: Decans, Planets, Constellations and Zodiacs*. Brown Egyptological Studies 6. Providence and London.

Neugebauer, O., Parker, R. A., and Zauzich, K.-Th. 1981. A demotic lunar eclipse text of the first century, B.C. *Proceedings of the American Philosophical Society* 125: 312–27.

Newberry, P. 1893. *El Bersheh* I. London: 24.

Newberry, P. and Griffith, F. L. 1893–4. *Beni Hasan*. London,

Newman, R. and S. Halpine. 2001. The binding media of ancient Egyptian painting. In W.V. Davies (ed.), 2001b.

Newman, R., and Serpico, M. 2000. Adhesive and binders. In P. T. Nicholson and I. Shaw (eds.), *Ancient Egyptian Materials and Technologies*. Cambridge: 475–94.

Nicholson, P. I. and Shaw, I. (eds.). 2000. *Ancient Egyptian Materials and Technology*. Cambridge.

Nisetich, F. 2001. *The Poems of Callimachus*. Oxford.

Nishimoto, S. 1992. The ceiling paintings of the harem rooms at the palace of Malqata. *GM* 127: 69–80.

Niwinski, A. 1988. *21st Dynasty Coffins from Thebes: Chronological and Typological Studies*. Mainz am Rhein.

Norton, R. E. 1991. *Herder's Aesthetics and the European Enlightenment*. Ithaca.

Nowicka, M. 1979. La peinture dans les papyrus grecs. *Archeologia* Polska Akademia Nauk. 30: 21–8.

Nowicka, M. 1984. Théophilos, peintre alexandrin, et son activité. In N. Bonacasa and A. di Vita (eds.), *Alessandria e il mondo ellenistico-romano. Studi in onore di Achille Adriani* 2. Rome: 256–9.

Nowicka, M. 1993. *Le Portrait dans la peinture antique*. Bibliotheca Antiqua 22. Warsaw.

O'Connell, E. R. 2007. Transforming monumental landscapes in Late Antique Egypt: monastic dwellings in legal documents from western Thebes. *Journal of Early Christian Studies* 15.2: 239–73.

O'Connor, D. 1972. The geography of settlement in ancient Egypt. In P. J. Ucko, R. Tringham, and G. W. Dimbleby (eds.), *Man, Settlement and Urbanism*. London: 681–98.

O'Connor, D. 1991. Mirror of the cosmos: the palace of Merenptah. In E. L. Bleiberg and R. Freed (eds.), *Fragments of a Shattered Visage: The Proceedings of the International Symposium on Ramesses the Great. Monographs of the Institute of Egyptian Art and Archaeology 1*. Memphis, TN: 167–97.

O'Connor, D. 1996. Sexuality, statuary and the afterlife: scenes in the tomb-chapel of Pepyankh (Heny the Black): an interpretive essay. In Der Manuelian and Freed (eds.), 1996: 2.621–33.

O'Connor, D. 2009. *Abydos: Egypt's First Pharaohs and the Cult of Osiris*. London and New York.

O'Connor, D. et al. 1989. New funerary enclosures (*Talbezirke*) of the Early Dynastic Period at Abydos. *JARCE* 26: 62–71.

Obsomer, C. 1995. *Sésostris Ier: étude chronologique et historique du règne*. Brussels.

Ogden, D. 2007. *In Search of the Sorcerer's Apprentice: The Traditional Tales of Lucian's Lover of Lies*. Swansea.

Oppenheim, A. L. 1977. *Ancient Mesopotamia: Portrait of a Dead Civilization*. Chicago.

Orlandi, T. 1970. *Elementi di lingua e letteratura copta*. Milan.

O'Rourke, P. F. 2002. An Egyptian royal book of protection of the Late Period (P. Brooklyn 47.218.49), Ph.D. Thesis, New York University,

Ortiz, G. 1994. *In Pursuit of the Absolute: Art of the Ancient World. The George Ortiz Collection*. Berne.

Osing, J. 1998. *The Carlsberg Papyri 2: Hieratische Papyri aus Tebtunis 1*. CNI Publications 17. Copenhagen.

Osing, J. 2000. La science sacerdotal. In D. Valbelle and J. Leclant (eds.), *Le Décret de Memphis*. Paris: 127–40.

Osing, J., and Rosati, G. 1998. *Papiri geroglifici e ieratici da Tebtynis*. Florence.

Osing, J., Moursi, M., Arnold, D., et al. 1982. *Denkmäler der Oase Dachla aus dem Nachlass von Ahmed Fakhry*. AV 28. Mainz.

Otto, E. 1960. *Das ägyptische Mundöffnungsritual*. ÄA 3. Wiesbaden.

Page, A. 1983. *Ancient Egyptian Figured Ostraca in the Petrie Collection*. Warminster.

Pagès-Camagna, S. 1998. Pigments bleu et vert égyptiens en question: vocabularies et analyses. In S. Golinart and M. Menu (eds.), *La Couleur dans la peinture et l'émaillage de l'Égypte ancienne. Actes de la table ronde*. Bari: 163–76.

Paris 1998. *La Gloire d'Alexandrie*. Catalogue of Exhibition held at the Musée du Petit Palais 7 May–26 July 1998.

Parker, R. A. 1959a *A Vienna Demotic Papyrus on Eclipse- and Lunar-Omina*. Brown Egyptological Studies 2. Providence.

Parker, R. A. 1959b. A demotic mathematical papyrus fragment. *JNES* 18: 275–9.

Parker, R. A. 1972. *Demotic Mathematical Papyri*. Brown Egyptological Studies 7. Providence.

Parker, R. A. 1975. A mathematical exercise, P. Dem. Heidelberg 663. *JEA* 61: 189–96.

Parker, R. A., and Zauzich, K.-Th. 1981. The seasons in the first century B.C. In D. W. Young (ed.), *Studies Presented to Hans Jakob Polotsky*. East Gloucester, MA: 472–9.

Parkinson, R. B. 1991. *Voices from Ancient Egypt: An Anthology of Middle Kingdom Writings*. London.

Parkinson, R. B. 1992. Literary form and the Tale of the Eloquent Peasant. *JEA* 78: 163–78.

Parkinson, R. B. 1995. "Homosexual" desire and Middle Kingdom literature. *JEA* 81: 57–76.

Parkinson, R. B. 1996. Individual and society in Middle Kingdom literature. In Loprieno (ed.), 1996: 137–55.

Parkinson, R. B. 1997. *The Tale of Sinuhe and Other Ancient Egyptian poems, 1940–1640 BC.* Oxford.

Parkinson, R. B. 1999. Two new ''literary'' texts on a Second Intermediate Period papyrus? In Assmann and Blumenthal 1999: 177–96.

Parkinson, R. B. 2002. *Poetry and Culture in Middle Kingdom Egypt: A Dark Side to Perfection*. Athlone Publications in Egyptology and Ancient Near Eastern Studies. London.

Parkinson, R. B. 2004a. The Discourse of the Fowler: Papyrus Butler verso (P. BM EA 10274). *JEA* 90: 81–111.

Parkinson, R. B. 2004b. The history of a poem: Middle Kingdom literary manuscripts and their reception In G. Burkard et al. (eds.), *Kon-Texte. Akten des Symposions ''Spurensuche – Altägypten im Spiegel seiner Texte'' München 2. bis 4. Mai 1993*. ÄAT 60. Wiesbaden: 51–63.

Parkinson, R. B. 2009. *Reading Ancient Egyptian Poetry: Among Other Histories*. Oxford.

Parkinson, R. B. and Franke, D. 2007. A song for Sarenput: texts from Qubbet el-Hawa tomb 36. In Z. Hawass and J. Richards (eds.), *The Archaeology and Art of Ancient Egypt: Essays in Honor of David B. O'Connor*. II. Cahiers ASAE 36. Cairo: 219–35.

Parlasca, K. 1969. *Repertorio d'arte dell'Egitto greco-romano*, B I: *Ritratti di mummie*, I. Palermo.

Parlasca, K. 1975. Hellenistische und römische Mosaiken aus Ägypten. In H. Stern and M. Le Glay (eds.), *La Mosaïque gréco-romaine. IIe Colloque international pour l'étude de la mosaïque antique, Vienne 1971*. Paris: 363–9.

Parlasca, K. 1975–80. *Repertorio d'arte dell'Egitto greco-romano*, B I: *Ritratti di mummie*, II–III. Rome.

Parlasca, K. 1991. Hellenistische und kaiserzeitliche Holzsarkophage aus Ägypten. *StMisc* 28: 115–27.

Parlasca, K. 1998. ''Verschränkte Kreise'' bei Decken und Mosaiken: Zur Dekoration der grossen Portikus des Thot-Tempels von Hermopolois Magna. In M. Krause, and S. Schaten (eds.), *THEMELIA. Spätantike und koptologische Studien. Peter Grossmann zum 65. Geburtstag*. Wiesbaden: 267–72.

Parlasca, K. and Frenz, H. G. 2003. *Repertorio d'arte dell'Egitto greco-romano*, B I: *Ritratti di mummie*, IV. Rome.

Patočková, B. 1998. Fragments de statues découverts dans le mastaba de Ptahchepses à Abousir. In N. Grimal (ed.), *Les Critères de datation stylistiques à l'Ancien Empire*. BdE 120. Cairo: 227–33.

Pearce, S. M. 2000. Giovanni Battista Belzoni's exhibition of the reconstructed tomb of Pharaoh Set I in 1821. *Journal of the History of Collections* 12.1: 109–25.

Pearce, S. M. 2008. William Bullock: collections and exhibitions at the Egyptian Hall, London, 1816–25. *Journal of the History of Collections* 20.1: 17–35.

Peet, T. E., Woolley, C. L., and Pendlebury, J. D. S. 1923, 1933, 1951. *The City of Akhenaten*. 3 vols. London.

Peretti, A. 1979. *Il Periplo di Scilace. Studio sul primo portolano del Mediterraneo*. Pisa.

Petrie Museum 2005. *Excavating Egypt, Great Discoveries from the Petrie Museum of Egyptian Archaeology*. London.

Petrie, W. M. F. 1901. *The Royal Tombs of the Earliest Dynasties*. London.

Petrie, W. M. F. 1902. *Abydos. Part I. 1902*. EEF 22. London.

Petrie, W. M. F. 1903. *Abydos. Part II. 1903*. EEF 24. London.

Petrie, W. M. F. 1908. *Athribis*. BSAE and ERA 14. London.

Petrie, W. M. F. 1909. *Qurneh*. ERA 15. London.

Petrie, W. M. F. with Brunton G. and Murra, M. 1923. *Lahun* II. London: pls. 16–19.

Peust, C. 1999. *Egyptian Phonology: An Introduction to the Phonology of a Dead Language.* Monographien zur Ägyptischen Sprache 2. Göttingen.

Pezin, M. 1982. Fragment de sagesse démotique (P. Inv. Sorbonne 1260). *Enchoria* 11: 59–61.

Pezin, M. 1986. Premiers raccords effectués sur les documents démotiques de Lille. *CRIPEL* 8. 89–98.

Pfeiffer, R. 1968. *History of Classical Scholarship from the Beginnings to the End of the Hellenistic Age.* Oxford.

Picton, J., Quirke, S., and Roberts, P. C. 2007. *Living Images: Egyptian Funerary Portraits in the Petrie Museum.* Walnut Creek.

Pinch, G. 1993. *Votive Offerings to Hathor.* Oxford.

Pinch, G. 1994. *Magic in Ancient Egypt.* Austin.

Pinch, G. 2003. Redefining funerary objects. In Z. A. Hawass (ed.), *Egyptology at the Dawn of the Twenty-first Century: Proceedings of the Eighth International Congress of Egyptologists, Cairo 2000. 2: History, Religion.* Cairo and New York: 443–7.

Pittman, H. 1996. Constructing context: the Gebel el-Arak Knife. Greater Mesopotamian and Egyptian interaction in the late Fourth Millennium B.C.E. In J. Cooper and G. Schwartz (eds.), *The Ancient Near East in the Twenty-first Century: The William Foxwell Albright Centennial Conference.* Winona Lake: 9–32.

Polotsky, H. J. 1935. Manichäismus. In *Paulys Real-Encyclopädie der classischen Altertumswissenschaft.* Supplement 6. Stuttgart: 240–71.

Polotsky, H. J. 1944. *Études de syntaxe copte.* Cairo.

Polotsky, H. J. 1965. *Egyptian Tenses.* The Israel Academy of Sciences and Humanities, Proceedings 2.5. Jerusalem.

Polotsky, H. J. 1970. Coptic. In T. A. Sebeok (ed.), *Current Trends in Linguistics* 6: *Linguistics in South West Asia and North Africa.* The Hague and Paris: 558–70. Repr. in V. M. Lepper and L. Depuydt (eds.), 2007: 32–44.

Polotsky, H. J. 1976. *Les Transpositions du verbe en égyptien classique.* Israel Oriental Studies 6. Tel Aviv.

Polotsky, H. J. 1987. Egyptology, Coptic studies and the Egyptian language. In J. D. Ray (ed.), *Lingua Sapientissima: A Seminar in Honour of H.J. Polotsky Organised by the Fitzwilliam Museum, Cambridge, and the Faculty of Oriental Studies in 1984.* Cambridge: 5–21. Repr. in V. M. Lepper and L. Depuydt (eds.), 2007: 141–57.

Polz, F. 1995. Die Bildnisse Sesostris' III. und Amenemhets III. Bermerkungen zur königlichen Rundplastik der späten 12. Dynastie. *MDAIK* 51: 227–54.

Polz, D. 2003. Ihre Mauern sind verfallen … ihre Stätte ist nicht mehr. Der Aufwand für den Toten im Theben der Zweiten Zwischenzeit. In H. Guksch, et al. (ed.), *Grab und Totenkult im Alten Ägypten.* Munich: 75–87.

Polz, D. and Seiler, A. 2003. *Die Pyramidenanlage des Königs Nub-Cheper-Re Intef in Dra Abu el-Naga.* Mainz am Rhein.

Pomian, K. 1990. *Collectors and Curiosities: Paris and Venice, 1500–1800.* Cambridge.

Porten, B. 2004. The prophecy of Hor bar Punesh and the demise of righteousness: an Aramaic papyrus in the British Museum. In F. Hoffmann and H. J. Thissen (eds.), *Res severa verum gaudium. Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004.* Studia Demotica 6. Leuven: 427–66.

Porter, B. and Moss, R. 1960. *Topographical Bibliography of Ancient Egyptian Hieroglyphics Texts, Reliefs, and Paintings.* I, part 1. Oxford (2nd edn.).

Porter, B., and Moss, R. L. B. assisted by E. W. Burney. 1972. *Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings.* II. *Theban Temples* (2nd edn.) Oxford.

Porter, R. and Teich, M. 1981. *The Enlightenment in National Context.* Cambridge.

Posener, G. 1956. *Littérature et politique dans l'Égypte de la XIIe dynastie.* BEHE 307. Paris.

Posener, G. 1957. Le conte de Neferkarê et du général Siséné. *RdE* 11: 119–37.

Posener, G. 1976. *L'Enseignement loyaliste: Sagesse égyptienne du Moyen Empire.* Centre de Recherches d'Histoire et de Philologie II. Hautes Études Orientales 5. Geneva.

Posener, G. 1985. *Le Papyrus Vandier.* Bibliothèque Générale IFAO 7. Cairo.

Posener, G. 1987. *Cinq figurines d'envoûtement.* BdE 101. Cairo.

Potts, A. D. 1980. Die Skulpturenaufstellung in der Glyptothek. In K. Vierneisel and G. Leinz (eds.), *Glyptothek München 1830–1980.* Munich: 258–83.

Preziosi, D. and Farago, C. (eds.). 2004. *Grasping the World: The Idea of the Museum.* Aldershot.

Pritchard, J. B. (ed.). 1969. *Ancient Near Eastern Texts relating to the Old Testament.* Princeton.

Quack, J. F. 1992. *Studien zur Lehre für Merikare.* GOF IV.23. Wiesbaden.

Quack, J. F. 1993a. Ägyptisches und südarabisches Alphabet. *RdE* 44: 141–51; with corrections in *RdÉ* 45 (1994): 197.

Quack, J. F. 1993b. Ein neuer ägyptischer Weisheitstext. *Die Welt des Orients* 24: 5–19.

Quack, J. F. 1994. *Die Lehren des Ani. Ein neuägyptischer Weisheitstext in seinem kulturellen Umfeld.* OBO 141. Freiburg and Göttingen.

Quack, J. F. 1998. Kontinuität und Wandel in der spätägyptischen Magie. *Studi epigrafici e linguistici sul vicino oriente antico* 15: 77–94.

Quack, J. F. 1999a. A new bilingual fragment from the British Museum (Papyrus BM EA 69574). *JEA* 85: 153–64.

Quack, J. F. 1999b. See Quack, J. F. 2002a.

Quack, J. F. 1999c. Ein neues medizinisches Fragment der Spätzeit (pAshmolean Museum 1984.55 rt.). *ZÄS* 126: 141–9.

Quack, J. F. 2000. Das Buch vom Tempel und verwandte Texte - ein Vorbericht. *ARG* 2: 1–20.

Quack, J. F. 2001a. Bemerkungen zum Ostrakon Glasgow D 1925.91 und zum Menu-Lied. *SAK* 29: 283–306.

Quack, J. F. 2001b. Ein Standardhymnus zum Sistrumspiel auf einem demotischen Ostrakon (Ostrakon Corteggiani D 1). *Enchoria* 27: 101–19.

Quack, J. F. 2001c. Ein neuer Versuch zum Moskauer literarischen Brief. *ZÄS* 128: 167–81.

Quack, J. F. 2002a. Die Dienstanweisung des Oberlehrers aus dem Buch vom Tempel. In ed. H. Beinlich, J. Hallof, H. Hussy, and C. von Pfeil (eds.), *5. Ägyptologische Tempeltagung,* Würzburg, 23.–26. September 1999. Ägypten und Altes Testament Band 33.3: 159–71.

Quack, J. F. 2002b. Die Spur des Magiers Petese. *CdE* 77: 76–92.

Quack, J. F. 2002c. Königsweihe, Priesterweihe, Isisweihe. In J. Assmann and M. Bommas (eds.), *Ägyptische Mysterien?* Munich: 91–108.

Quack, J. F. 2002d. La magie au temple. In Y. Koenig (ed.), *La Magie en Égypte: à la recherche d'une définition.* Paris: 41–68.

Quack, J. F. 2003. Aus einer spätzeitlichen literarischen Sammelhandschrift. *ZÄS* 130: 182–5.

Quack, J. F. 2005a. *Einführung in die altägyptische Literaturgeschichte III. Die demotische und gräko-ägyptische Literatur.* Einführungen und Quellentexte zur Ägyptologie 3. Berlin.

Quack, J. F. 2005b. Review of M. Stadler, *Isis, das göttliche Kind und die Weltordnung* (2004). *AfP* 51: 174–9.

Quack, J. F. 2006a. A black cat on the right, and a scarab on your head. In K. Szpakowska (ed.), *Through a Glass Darkly.* Swansea: 175–87.

Quack, J. F. 2006b. Die hieratischen und hieroglyphischen Papyri aus Tebtynis – Ein Überblick. In Ryholt (ed.), 2006: 1–7.

Quack, J. F. 2006c. Eine Papyruskopie des Textes der Votivellen. In Ryholt (ed.), 2006: 39–52.

Quack, J. F. 2006d. Ein neuer Zeuge für den Text zum neunköpfigen Bes. In Ryholt (ed.), 2006: 53–64.

Quack, J. F. 2006e. Eine Handschrift des Sokarrituals. In Ryholt (ed.), 2006: 65–8.

Quack, J. F. 2006f. Fragmente des Mundöffnungsrituals aus Tebtynis. In Ryholt (ed.), 2006: 69–150.

Quack, J. F. 2006g. Inaros, Held von Athribis. In R. Rollinger and B. Truschnegg (eds.). *Altertum und Mittelmeerraum: Die antike Welt diesseits und jenseits der Levante. Festschrift für Peter W. Haider zum 60. Geburtstag*. Oriens et Occidens 12. Stuttgart: 499–505.

Quack, J. F. 2000h. Zur Lesung und Deutung des Dramatischen Ramesseumpapyrus. *ZÄS* 133: 72–89.

Quack, J. F. 2007a. Die Götterliste des Buches vom Tempel und die gauübergreifenden Dekorationsprogramme. In B. Haring and A. Klug (eds.), *6. Ägyptologische Tempeltagung. Funktion und Gebrauch altägyptischer Tempelräume*. Königtum, Staat und Gesellschaft früher Hochkulturen 3.1. Wiesbaden: 213–35.

Quack, J. F. 2007b. Die Initiation zum Schreiberberuf im Alten Ägypten. *SAK* 36: 249–95.

Quack, J. F. 2007c. Ein ägyptischer Dialog über die Schreibkunst und das arkane Wissen. *ARG* 9: 259–94.

Quack, J. F. 2007d. Kritische Bemerkungen zur Bearbeitung von ägyptischen Hymnen nach dem Neuen Reich. *Die Welt des Orients* 37: 90–111.

Quack, J. F. 2008a. Corpus oder Membra disjecta. Zur Sprach- und Redaktionskritik des Papyrus Jumilhac. In W. Waitkus (ed.), *Diener des Horus: Festschrift für Dieter Kurth zum 65. Geburtstag*. Aegyptiaca Hamburgensia 1. Gladbeck: 203–28.

Quack, J. F. 2008b. Demotische magische und divinatorische Texte. In B. Janowski and G. Wilhelm (eds.). *Omina, Orakel, Rituale und Beschwörungen*. Texte aus der Umwelt des Alten Testaments, Neue Folge, IV. Gütersloh: 331–85.

Quack, J. F. in press a. Ein Setne-Fragment in Marburg (pMarburg inv. 38). *Enchoria* 30: 71–4.

Quack, J. F. in press b. ’Neue Kopenhagerner Fragmente des großen demotischen Weisheitsbuches. *The Carlsberg Papyri 11: Demotic Literary Texts from the Tebtunis Temple Library.*

Quack, J. F., and Ryholt, K. in press. Manuals on dream interpretation. *The Carlsberg Papyri 11: Demotic Literary Texts from the Tebtunis Temple Library.*

Quatremère, É. 1808. Recherches critiques et historiques sur la langue et la littérature de l'Égypte. Paris.

Quecke, H. 1970. *Untersuchungen zum koptischen Stundengebet*. Leuven.

Quibell, J. E. 1898a. *The Ramesseum*. London.

Quibell, J. E. 1898b. Slate palette from Hierakonpolis. *ZÄS* 36: 81–4.

Quibell, J. E. 1900. *Hierakonpolis* I. ERA 4: London.

Quibell, J. E. 1908. *Excavations at Saqqara (1906–1907)*. Cairo.

Quibell, J. E. 1913. *Excavations at Saqqara (1911–12): The Tomb of Hesy*. Cairo.

Quibell, J. E. 1923. *Excavations at Saqqara (1912–14): Archaic Mastabas*. Cairo.

Quibell, J. E. and Green, F. W. 1902. *Hierakonpolis*. II. ERA 5: London.

Quirke, S. 1990. *The Administration of Egypt in the Late Middle Kingdom: The Hieratic Documents*. New Malden.

Quirke, S. 1996. Archive. In Loprieno (ed.), 1996: 379–401.

Quirke, S. (ed.) 1997. *The Temple in Ancient Egypt: New Discoveries and Recent Research*. London.

Quirke, S. 2001. *The Cult of Re: Sun-Worship in Ancient Egypt.* London.

Quirke, S. 2004. *Egyptian Literature, 1800 BC: Questions and Readings.* London.

Quirke, S. and Spencer, J. 1992. *The British Museum Book of Ancient Egypt.* London.

Rabbat, N. 2003. Who Was al-Maqrīzī? A biographical sketch. *Mamlūk Studies Review* 7.2: 1–19.

Radwan, A. 1969. *Die Darstellungen des regierenden Königs und seiner Familienangehörigen in den Privatgräbern der 18. Dynastie.* MÄS 21. Berlin.

Raeder, J. 1983. *Die statuarische Ausstattung der Villa Hadriana bei Tivoli. Europäische Hochschulschriften* 4. Reihe 38. Frankfurt am Main.

Ragazzoli, C. 2008. *Éloges de la ville en Égypte ancienne. Histoire et littérature.* Les Institutions dans l'Égypte ancienne 4. Paris.

Ranke, H. 1910. *Keilschriftliches Material zur altägyptischen Vokalisation.* APAW. Berlin.

Rassart-Debergh, M. 1990. De l'icône païenne à l'icône chrétienne. *Le Monde Copte* 18: 39–70.

Raven, M. 2006. Feldarbeit in der Nekropole des Neuen Reiches in Sakkara: Ergebnisse der niederländischen Grabungskampagnen 1999–2006. *Sokar: Das ägyptische Pyramidzeitalter* 13: 58–67.

Ray, J. 2001. Alexandria. In S. Walker and P. Higgs (eds.), *Cleopatra of Egypt: From History to Myth.* London: 32–7.

Redford, D. B. 1986. *Pharaonic King-lists, Annals and Day-books: A Contribution to the Study of the Egyptian Sense of History.* SSEA Publication 4. Mississauga.

Redford, D. B. 2001. The so-called "codification" of Egyptian law under Darius I. In J. W. Watts (ed.), *Persia and Torah: The Theory of Imperial Authorization of the Pentateuch.* Symposium Series 17. Atlanta.

Redford, D. B. 2004. *Excavations at Mendes.* I. *The Royal Necropolis.* Leiden and Boston.

Reeth, J. M. F. van. 1994. *Caliph al-Maʾmūn* and the treasure of the Pyramids. *OLP* 25: 221–36.

Reeves, N. 2001. *Akhenaten Egypt's False Prophet.* London.

Reid, D. M. 2002. *Whose Pharaohs? Archaeology, Museums, and Egyptian National Identity from Napoleon to World War I.* Los Angeles.

Reisner, G. A. 1942. *A History of the Giza Necropolis.* I. Cambridge, MA.

Renfrew, C. 2000. *Loot, Legitimacy and Ownership: The Ethical Crisis in Archaeology.* London.

Reymond, E. A. E. 1969. *The Mythological Origin of the Egyptian Temple.* Manchester.

Reymond, E. A. E. 1976. *From the Contents of the Libraries of the Suchos Temples in the Fayyum. Part I. A Medical Book from Crocodilopolis. P. Vindob. D. 6257*, Mitteilungen aus der Papyrussammlung der Österreichischen Nationalbibliothek, Neue Serie 10. Vienna.

Reymond, E. A. E. 1984. From an ancient Egyptian dentist's handbook P. Vindob. D 12287. *Mélanges Adolphe Gutbub.* Montpellier: 183–99.

Rice, E. E. 1983. *The Grand Procession of Ptolemy Philadelphus.* Oxford.

Richter, T. S. 2006. Coptic. In K. Versteegh (ed.), *Encyclopedia of Arabic Language and Linguistics* I. Leiden and Boston: 495–501.

Riggs, C. 2002. Facing the dead: recent research on the funerary art of Ptolemaic and Roman Egypt. *AJA* 106: 85–101.

Riggs, C. 2005. *The Beautiful Burial in Roman Egypt: Art, Identity, and Funerary Religion.* Oxford.

Ritner, R. K. 1995. Egyptian magical practice under the Roman Empire: the demotic spells and their religious context. In W. Haase (ed.), *ANRW* 2. Berlin and New York: 3333–79.

Ritner, R. K. 1997. *The Mechanics of Egyptian Magical Practice.* SAOC 54. Chicago. Repr. with corrections.

Ritner, R. K. 2000. Innovations and adaptations in ancient Egyptian medicine. *JNES* 59: 107–17.

Roberts, C. H. 1983. *The Birth of the Codex*. Oxford.

Robins, G. 1983. The god's wife of Amun in the 18th Dynasty of Egypt. In A. Cameron and A. Kuhrt (eds.), *Images of Women in Antiquity*. London and Canberra.

Robins, G. 1993. The representation of sexual characteristics in Amarna art. *JSSEA* 23: 29–41.

Robins, G. 1994. *Proportion and Style in Ancient Egyptian Art*. Austin.

Robins, G. 2001. *Egyptian Statues*. Princes Risborough.

Robins, G. and Shute, C. 1987. *The Rhind Mathematical Papyrus: An Ancient Egyptian Text*. London.

Robinson, J. M. 1977. *The Nag Hammadi Library in English*. New York.

Roehrig C. 1999. In D. Arnold, K. Grzymski, and C. Ziegler (eds.), *Egyptian Art in the Age of the Pyramids*. New York: 73–81.

Roehrig, C. 2005a. Senenmut, royal tutor to Princess Neferure. In C. R. Roehrig (ed.), *Hatshepsut, from Queen to Pharaoh*. New York: 112–16.

Roehrig, C. 2005b. Catalogue entries 27–28. In C. R. Roehrig (ed.), *Hatshepsut, from Queen to Pharaoh*. New York: 57–9.

Rogge, E. 1990. *Statuen des Neuen Reiches und der III. Zwischenzeit*. Vienna.

Romano, J. F. 1976. Observations on early Eighteenth Dynasty royal sculpture. *JARCE* 13: 97–111.

Romano, J. F. 1989. Block statue of Senwesret-Senbefny. In R. Fazzini et al. (eds.), *Ancient Egyptian Art in the Brooklyn Museum*. Brooklyn: 22.

Romano J. F. 1998. Sixth Dynasty royal sculpture. In Grimal (ed.), 1998: 235–303 and fig. 1–74.

Romer, F. 1998. *Pomponius Mela's Description of the World*. Ann Arbor.

Römheld, D. 1989. *Wege der Weisheit. Die lehren Amenemopes und Proverbien 22,17–24,22*, Beiheft zur Zeitschrift für die alttestamentliche Wissenschaft 184. Berlin and New York.

Rondot, V. 1998. Min Maître de Tebtynis. In W. Clarysse, A. Schoors, and H. Willems (eds.), *Egyptian Religion: The Last Thousand Years*. I. Leuven: 241–55.

Rondot, V. 2001. Le dieu à la bipenne, c'est Lycurgue. *RdE* 52: 219–36 and pls. xxix–xxxv.

Rosati, G. 1990. Un modello di cubito "votivo"? (PSI inv. 1 I). *Oriens Antiquus* 39: 125–34.

Rosenthal, F. 1991. al-Makrīzī, Takī al-Dīn. *Encyclopaedia of Islam* 6. Leiden: 193. Also available at Brill Online at: www.brillonline.nl/subscriber/entry?entry=islam_SIM-4838.

Ross, M. 2006. An introduction to the Horoscopic Ostraca of Medînet Mâdi. *EVO* 29: 147–78.

Rossi, L. E. 1971. I generi letterari e le loro leggi scritte e non scritte nelle letterature classiche. *Bulletin of the Institute of Classical Studies* 18: 69–94.

Rössler-Köhler, 1982. U. Pap. Jumilhac. *LÄ* 4: 708–12.

Rostovtseff, M. I. 2004. *La Peinture décorative antique en Russie méridionale. Saint-Pétersbourg 1913–1914*. I, *Texte. Descriptions et études des monuments*. II, *Planches*. Tr. A. Fraysse and A. Rychtecky, under the direction of A. Barbet, with V. Schiltz. Mémoires des Académies des inscriptions et belles-lettres, n.s. 28. Paris.

Roth, A. 1998. Ancient Egypt in America: claiming the riches. In L. Meskell (ed.), *Archaeology under Fire: Nationalism, Politics and Heritage in the Eastern Mediterranean and Middle East*. London and New York: 217–29.

Roth, A. 2002. Coffin lid of Queen Ahhotep. In B. Bryan (ed.), *Quest for Immortality Treasures of Ancient Egypt*. Washington: 108–9.

Roullet, A. 1972. *Egyptian and Egyptianizing Monuments in Imperial Rome*. EPRO 20. Leiden.

Rubensohn, O. 1905. Aus griechisch-römischen Häusern des Fayum. *JDAI* 20: 1–25 and pls. 2–3.

Russmann, E. R. 1974. *The Representation of the King in the XXVth Dynasty*. MRE 3. Brussels and Brooklyn.

Russmann, E. R. 1989. *Egyptian Sculpture. Cairo and Luxor*. Austin.

Russmann, E. R. 1997. The Egyptian character of certain Egyptian painting techniques. In S. Sherratt (ed.), *The Wall Paintings of Thera; Proceedings of the First International Symposium*, Athens: 71–6.

Russmann, E. R. 2001. *Eternal Egypt: Masterworks of Ancient Art from the British Museum* (exhibition catalogue). London; New York; Berkeley; Los Angeles.

Russmann, E. R. 2002. Sculptural representations of the 26th Dynasty Divine Consorts of Amun, Nitocris and Ankhnesneferibre. In M. Eldamaty and M. Trad (eds.), *Egyptian Museum Collections around the World: Studies for the Centennial of the Egyptian Museum, Cairo*. Cairo: 1035–45.

Russmann, E. R. 2005. The rise of the Eighteenth Dynasty and the emergence of the Thutmoside style in sculpture and relief. In C. R. Roehrig (ed.), *Hatshepsut: from Queen to Pharaoh*. New York: 23–43.

Russmann, E. R. 2009. *Unearthing the Truth: Egypt's Pagan and Coptic Sculpture*. Brooklyn.

Ryholt, K. 1998. A parallel to the Inaros story of P. Krall (P. Carlsberg 456 + P. CtYBR 4513). *JEA* 84: 151–69.

Ryholt, K. 1999. *The Carlsberg Papyri 4: The Story of Petese Son of Petetum and Seventy Other Good and Bad Stories*. CNI Publications 23. Copenhagen.

Ryholt, K. 2000. A new version of the introduction to the teachings of 'Onch-Sheshonqy. In P. J. Frandsen and K. Ryholt (eds.), *The Carlsberg Papyri* 3: *A Miscellany of Demotic Texts and Studies*. CNI Publications 22. Copenhagen: 113–40.

Ryholt, K (ed.). 2002a. *Acts of the Seventh International Conference of Demotic Studies. Copenhagen, 23–27 August 1999* CNI Publications 27. Copenhagen.

Ryholt, K. 2002b. An elusive narrative belonging to the cycle of stories about the priesthood of Heliopolis. In Ryholt (ed.), 2002a: 361–6.

Ryholt, K. 2002c. Nectanebo's dream or the prophecy of Petesis. In A. Blasius and B. U. Schipper (eds.), *Apokalyptik und Ägypten. Eine kritische Analyse der relevanten Texte aus dem griechisch-römischen Ägypten*. OLA 107. Leuven: 221–41.

Ryholt, K. 2004. The Assyrian invasion of Egypt in Egyptian literary tradition. In J. G. Derksen (ed.), *Assyria and Beyond: Studies Presented to Mogens Trolle Larsen*. Leiden: 384–511.

Ryholt, K. 2005a. On the contents and nature of the Tebtunis temple library: a status report. In S. Lippert and M. Schentuleit (eds.), *Tebtynis und Soknopaiu Nesos. Leben im römerzeitlichen Fajum. Akten des Internationalen Symposions vom 11. bis 13. Dezember 2003 im Sommerhausen bei Würzburg*. Wiesbaden: 141–70.

Ryholt, K. 2005b. *The Carlsberg Papyri 6: Petese Stories II*. CNI Publications 29. Copenhagen.

Ryholt, K. (ed.) 2006. *The Carlsberg Papyri 7: Hieratic Texts from the Collection*. CNI Publications 30. Copenhagen.

Ryholt, K. in press a. *The Carlsberg Papyri 10: Narrative Literature from the Tebtunis Temple Library*. CNI Publications 35. Copenhagen.

Ryholt, K. in press b. The Life of Imhotep (P. Carlsberg 85). In M. Chauveau et al. (eds.), *Actes, 10e Congrès International des Études démotiques*.

Ryholt, K. in press c. New light on King Nechepsos.

Ryholt, K. in press d. A Sesostris story in demotic Egyptian and demotic literary exercises.

Ryholt, K. in press e. Onomastica on occupations and planets. *The Carlsberg Papyri 11: Demotic Literary Texts from the Tebtunis Temple Library*.

Ryholt, K. in press f. Fragment from an illustrated manual on the Pantheistic Bes? *The Carlsberg Papyri 11: Demotic Literary Texts from the Tebtunis Temple Library*.

Saad, Z. Y. 1951. *Royal Excavations at Helwan (1945–1947)*. ASAE, supplement 14. Cairo.

Sack, S., Christopher Tahk, F. and Peters, Jr., T. 1981. A technical examination of an ancient Egyptian painting on canvas. *Studies in Conservation* 26: 15–23.

Sacks, K. 1990. *Diodorus Siculus and the First Century.* Princeton.

Sacy, A. I. Silvestre de. 1801. Observations sur l'Origine du nom donné par les Grecs et les Arabes, aux Pyramides d'Egypte, et sur quelques autres objets relatifs aux Antiquités ægyptiennes. *Magasin encyclopédique, ou Journal des sciences, des lettres et des arts*, an IX (=1801). 6: 446–503.

Sadeek, W. el- 1984. *Twenty-sixth Dynasty Necropolis at Giza*. Vienna.

Said, E. 1978. *Orientalism*. London.

Saleh, M. and Sourouzian H. 1987. *The Egyptian Museum Cairo. Official Catalogue*. Mainz am Rhein and Cairo.

Salis, C. K. 2008. Die makedonischen Herrscher als ägyptische Könige – Zu zwei Statuen in Frankfurt am Main und Braunschweig. *Imago Aegypti* 2: 71–86 and pls. 8–22.

Sandin, P. 2003. *Aeschylus' Supplices. Introduction and Commentary on vv.1–523.* Göteborg.

Saradi, H. 2006. *The Byzantine City in the Sixth Century: Literary Images and Historical Reality*. Athens.

Satzinger, H. 1985. On the origin of the Sahidic Dialect. In T. Orlandi, and F. Wisse (eds.), *Acts of the Second International Congress of Coptic Studies*. Rome: 307–12.

Satzinger, H. 1991. Old Coptic. In A. S. Atiya (ed.), *The Coptic Encyclopedia* 8. New York: 169–75.

Sauneron, S. 1970. *Le Papyrus magique illustré de Brooklyn [Brooklyn Museum 47.218.156].* Wilbour Monographs 3. Oxford.

Sauneron, S. 1980. Deux pages d'un texte littéraire inédit. In J. Vercoutter (ed.), *Livre du Centenaire*. MIFAO 104. Cairo: 135–41.

Sauneron, S. 1989. *Un Traité égyptien d'ophiologie (Papyrus du Brooklyn Museum N°s 47.218.48 et 85)*. IFAO Bibliothéque général 11. Cairo.

Sauneron, S. 2000. *The Priests of Ancient Egypt*. New York and London.

Säve-Söderbergh, T. 1953. *On Egyptian Representations of Hippopotamus Hunting as a Religious Motive*. Lund.

Scamuzzi, E. 1965. *Egyptian Art in the Egyptian Museum of Turin*. Turin.

Schad, B. 2006. *Die Entdeckung des "Briefes" als literarisches Ausdrucksmittel der Ramessidenzeit*. Hamburg.

Schäfer, H. 1986. *Principles of Egyptian Art*. Tr. J. Baines. Oxford.

Schenke, H.-M. 2001. *Das Matthäus-Evangelium im mittelägyptischen Dialekt des Koptischen (Codex Schøyen)*. Oslo.

Schentuleit, M. 2007. Satabus aus Soknopaiu Nesos: Aus dem Leben eines Priesters am Beginn der römischen Kaiserzeit. *CdE* 82: 101–25.

Schipper, B. U. 2005. *Die Erzählung des Wenamun. Ein Literaturwerk im Spannungsfeld von Politik, Geschichte und Religion*. OBO 209. Freiburg and Göttingen.

Schlick-Nolte, B. 2004. Tradition und Innovation in der Glaskunst der Ägypter, Griechen und Römer. In P. C. Bol, G. Kaminski, and C. Maderna (eds.), *Fremdheit-Eigenheit. Ägypten, Griechenland und Rom. Austausch und Verständnis = Städel Jahrbuch* N.F. 19: 249–67.

Schmitz, T. A. 1999. I hate all common things. *Harvard Studies in Classical Philology* 99: 151–78.

Schneider, H. and Raven, M. 1981. *Die Egyptische Oudheid*. Gravenhage.

Schneider, T. 1997. Das Schriftzeichen "Rosette" und die Göttin Seschat. *SAK* 24: 241–67.

Schott, S. 1950. *Altägyptische Liebeslieder mit Märchen und Liebesgedichten*. Zürich.

Schott, S. 1957. *Die Reinigung Pharaos in einem memphitischen Tempel (Berlin P 13242)*, Nachrichten der Akademie der Wissenschaften in Göttingen. I. Philologisch-historische Klasse, Jahrgang 1957, Nr. 3. Göttingen: 45–92.

Schott, S. 1990. *Bücher und Bibliotheken im alten Ägypten*. Wiesbaden.

Schulz, R. 1992. *Die Entwicklung und Bedeutung des kuboiden Statuentypus* I–II. Hildesheim.

Schulz R. 1995. Überlegungen zu einigen Kunstwerken des Alten Reiches im Pelizaeus-Museum, Hildesheim. *Kunst des Alten Reiches, Symposium 1991. SDAIK* 28: 117–31 and pls. 44–9.

Schulz, R. 2003 Museology, Egyptology and marketing interests: a contradiction? In Z. A. Hawass (ed.), *Egyptology at the Dawn of the Twenty-first Century: Proceedings of the Eighth International Congress of Egyptologists, Cairo 2000. 3: Language, Conservation, Museology.* Cairo and New York: 95–106.

Schulz, R. and Seidel, M. et al. 2009. *Egyptian Art: The Walters Art Museum*. Baltimore and London.

Scott, G. D. 1992. *Temple, Tomb and Dwelling: Egyptian Antiquities from the Harer Family Trust Collection*. San Bernardino.

Seidel, M. 1980. Königsplastik. *LÄ* 3: 568–77, nn. 198–466.

Seidel M. 1996. *Die Königlichen Statuengruppen I. Die Denkmäler vom Alten Reich bis zum Ende der 18. Dynastie*. HÄB 42. Hildesheim.

Seidlmayer, S. 2000. The First Intermediate Period. In I. Shaw (ed.), *The Oxford History of Ancient Egypt*. Oxford: 118–47.

Seipel, W. 1992. *Gott, Mensch, Pharao; Catalogue 106.* Vienna.

Selden, D. 1998. Alibis. *Classical Antiquity* 17: 289–412.

Senner, W. M. (ed.) 1989. *The Origins of Writing*. Lincoln and London.

SERaT Ritual scenes in Ptolemaic-Roman temples: www.serat.aegyptologie.uni-wuerzburg.de/.

Serjeant, R. B. 1966. Untitled review. *Bulletin of the School of Oriental and African Studies* 29.2: 378–9.

Serpico, M. and White, R. 2001. The use and identification of varnish on New Kingdom funerary equipment. In W. V. Davies (ed.), 2001b: 33–42.

Sethe, K. 1928. *Aegyptische Lesestücke zum Gebrauch im akademischen Unterricht: Texte des Mittleren Reiches* (2nd edn.). Leipzig.

Settgast, J. 1985. *Ägyptisches Museum Berlin. Ägyptisches Museum der Staatlichen Museen Preussischer Kulturbesitz in Berlin*. Berlin.

Settis, S. 2008. *Artemidoro. Un papiro dal I secolo al XXI*. Turin.

Seyfried, K.-J. 1981. *Beiträge zu den Expeditionen des Mittleren Reiches in die Ost-Wüste*. Hildesheim.

Seyfried, K.-J. 1998. Kammern, Nischen und Passagen in Felsgräbern des Neuen Reiches. In H. Guksch and D. Polz (eds.), *Stationen. Beiträge zur Kulturgeschichte Ägyptens. Rainer Stadelmann gewidmet*. Mainz: 387–406.

Shafer, B. E. (ed.). 1997. *Temples of Ancient Egypt*. London and New York.

Shaltout, M., Fekri, M., and Belmonte, J. A. 2003. The ancient Egyptian monuments and their relation to the position of the sun, stars and planets. Report on the first phase, Upper Egypt and Lower Nubia, February 2003. In K. Daoud and S. Abd el-Fatah (eds.), *The World of Ancient Egypt. Essays in Honor of Ahmed Abd el-Qader el-Sawi*. Supplément aux *ASAE*, Cahier 35. Cairo: 93–112.

Shaw, I. 2000. Egypt and the outside world. In I. Shaw (ed.), *Oxford History of Ancient Egypt*. Oxford: 308–23.

Shboul, A. M. H. 1979. *Al-Masʿūdī and His World: A Muslim Humanist and his Interest in Non-Muslims*. London.

Shedid, A. G. 1988. *Stil der Grabmalereien in der Zeit Amenophis' II. untersucht an den Thebanischen Gräbern Nr. 104 und Nr. 80*. AV 66. Mainz am Rhein.

Shedid, A. G. 1994. *Die Felsgräber von Beni Hassan in Mittelägypten*. Mainz am Rhein.

Sheikholeslami, C. M. 2003. The burials of priests of Montu at Deir el-Bahari in the Theban necropolis. In N. Strudwick and J. H. Taylor (eds.), *The Theban Necropolis. Past, Present and Future*. London: 131–7.

Shirun-Grumach, I. 1991. Die Lehre des Amenemope. In O. Kaiser (ed.), *Texte aus der Umwelt des Alten Testaments III.2: Weisheitstexte II*. Gütersloh: 222–50.

Shupak, N. 1993. *Where Can Wisdom Be Found? The Sage's Language in the Bible and in Ancient Egyptian Literature*. OBO 130. Freiburg and Göttingen.

Silverman, D. 2000. Middle Kingdom tombs in the Teti pyramid cemetery. In M. Barta and J. Krejčí (eds.), *Abusir and Saqqara in the Year 2000*. Prague: 259–82.

Simon, H. 2003. Die Erzählung vom Verwunschenen Prinzen. Gattungstheoretische Untersuchungen zur Literatur des Neuen Reiches. MA thesis, Göttingen.

Simon, J. 1948–67. Bibliographie copte. *Orientalia*. Rome.

Simpson, M. 1996. *Making Representations: Museums in the Post-Colonial Era*. London and New York.

Simpson, W. K. 1958. Allusions to *The Shipwrecked Sailor* and *The Eloquent Peasant* in a Ramesside text. *JAOS* 78: 50–1.

Simpson, W. K. 1963. *Papyrus Reisner I: The Records of a Building Project in the Reign of Sesostris I*. Boston.

Simpson, W. K. 1965. *Accounts of the Dockyard Workshop at This in the Reign of Sesostris I: Papyrus Reisner II. Transcription and Commentary*. Boston.

Simpson, W. K. 1974a. *The Terrace of the Great God at Abydos: The Offering Chapels of Dynasties 12 and 13*. New Haven and Philadelphia.

Simpson, W. K. 1974b. Polygamy in Egypt in the Middle Kingdom? *JEA* 60: 100–5.

Simpson, W. K. 1976. *The Mastabas of Qar and Idu. G 7101 and 7102*. Giza Mastabas 2. Boston.

Simpson, W. K. 1981. *The Art and Architecture of Ancient Egypt*. London. Revd. with additions by W. K. Simpson.

Simpson, W. K. 1984. Sesostris II. *LÄ* 5: 899–903.

Simpson, W. K. 1986. *Papyrus Reisner IV: Personal Accounts of the Early Twelfth Dynasty. Transcription and Commentary*. Boston.

Simpson, W. K. 1988. Lepsius Pyramid LV at Dahshur: The Mastaba of Si-Ese, Vizier of Amenemhat II. In Baines et al. (eds.), 1988.

Simpson, W. K. 1991. The political background of the Eloquent Peasant. *GM* 120: 95–9.

Simpson, W. K. (ed.) 2003. *The Literature of Ancient Egypt: An Anthology of Stories, Instructions, Stelae, Autobiographies, and Poetry* (3rd edn.). New Haven and London.

Sist, L. 1997. Riflessi sociali nella statuaria ramesside. In *L'impero ramesside. Convegno internazionale in onore di Sergio Donadoni*. Rome: 173–92.

Sitzler, D. 1995. *Vorwurf gegen Gott: Ein religiöses Thema im Alten Orient (Ägypten und Mesopotamien)*. Studies in Oriental Religions 32. Wiesbaden.

Smith, H. S. 1958. A Cairo text of part of the ''Instructions of 'Onchsheshonqy.'' *JEA* 44: 121–2.

Smith, H. S. 1980. The story of Onchsheshonqy. *Serapis* 6: 134–56.

Smith, H. S., and Tait, W. J. 1983. *Saqqâra Demotic Papyri I*. Texts from Excavations 7. London.

Smith, M. J. 1977. A new version of a well-known Egyptian hymn. *Enchoria* 7: 115–49.

Smith, M. J. 1987. *The Mortuary Texts of Papyrus BM 10507*. Catalogue of Demotic Papyri in the British Museum 3. London.

Smith, M. J. 1993a. *The Liturgy of Opening the Mouth for Breathing*. Oxford.

Smith, M. J. 1993b. New Middle Egyptian texts in the demotic script. *Atti del VI Congresso Internazionale di Egittologia*. 2. Turin: 491–5.

Smith, M. J. 1994. Budge at Akhmim, January 1896. In C. Eyre et al. (eds.), *The Unbroken Reed: Studies in the Culture and Heritage of Ancient Egypt in Honour of A. F. Shore*. EES Occasional Publications 11. London: 293–303.

Smith, M. J. 1999. O. Hess = O. Naville = O. BM 50601: An elusive text relocated. In E. Teeter and J. A. Larson (eds.), *Gold of Praise: Studies on Ancient Egypt in Honor of Edward F. Wente*. SAOC 58. Chicago: 397–404.

Smith, M. J. 2002. *The Carlsberg Papyri 5: On the Primaeval Ocean*. CNI Publications 26. Copenhagen.

Smith, R. R. R. 1988. *Hellenistic Royal Portraits*. Oxford.

Smith, W. S. 1946. *A History of Egyptian Sculpture and Painting in the Old Kingdom*. London.

Smith W. S. 1949. *A History of Egyptian Sculpture and Painting in the Old Kingdom* (2nd edn.). Boston.

Smith, W. S. 1951. Paintings of the Egyptian Middle Kingdom at Bersheh. *AJA* 55: 321–32.

Smith, W. S. 1957. A painting in the Assiut tomb of Hepzefa. *MDAIK* 15: 221–4.

Smith, W. S. 1981. *The Art and Architecture of Ancient Egypt*. Harmondsworth. Revd with additions by William Kelly Simpson.

Smither, P. C. 1945. The Semnah dispatches. *JEA* 31: 1–10.

Snape, S. 1996. *Egyptian Temples*. Princes Risborough.

Solmsen, F. 1979. *Isis among the Greeks and Romans*. Martin Classical Lectures 25. Cambridge, MA.

Sourouzian, H. 1988. Standing royal colossi of the Middle Kingdom reused by Ramesses II. *MDAIK* 44: 229–54.

Sourouzian, H. 1989. *Les Monuments du roi Merenptah*. Mainz am Rhein.

Sourouzian, H. 1991. La statue d'Amenhotep fils de Hapou, âgé, un chef-d'oeuvre de la XVIIIe dynastie. *MDAIK* 47: 341–55.

Sourouzian, H. 1993. Statues et représentations de statues royales sous Séthi I. *MDAIK* 49: 239–57.

Sourouzian H. 1995a. L'iconographie du roi dans la statuaire des trois premières dynastie. *Kunst des Alten Reiches, Symposium 1991. SDAIK* 28: 134–54 and pls. 50–6.

Sourouzian, H. 1995b. Les colosses du IIe pylône du temple d'Amon-Rê à Karnak, remplois ramessides de la XVIIIe dynastie. *Cahiers de Karnak* 10: 505–43.

Sourouzian, H. 1998a. Raccords Ramessides. *MDAIK* 54: 279–92 and pls. 40–7.

Sourouzian, H. 1998b. Les statues colossales de Ramsès II à Tanis: un colosse fragmentaire de quartzite, remploi du Moyen Empire (Blocs N 1471–1486). In P. Brissaud (ed.), *Tanis; travaux récents sur le Tell Sân El-Hagar* I: 398–419.

Sourouzian H. 1998c. Concordances et écarts entre les statues et les représentations à deux dimensions des particuliers de l'époque archaïque. In Grimal (ed.), 1998: 305–52 and figs. 1–50.

Sourouzian H. 1999. La statue du musicien Ipi jouant de la flûte et autres monuments du règne de Snofrou à Dahchour, *L'Art de l'Ancien Empire égyptien, Actes du colloque organisé au musée du Louvre 1998*. Paris: 151–67.

Sourouzian H. 2003. Chap. XIII. In Hawass (ed.), 2003.

Sourouzian, H. 2005. Features of Early Twelfth Dynasty royal sculpture. *Bulletin of the Egyptian Museum* 2: 103–24.

Sourouzian, H. 2006. Les sphinx dans les allées processionnelles. In *Sphinx, Les gardiens de l'Egypte*. Brussels: 99–111.

Sourouzian, H. 2008. Recent discoveries at the temple of Amenhotep III. *EA* 33: 33–5.

Sourouzian H. and Stadelmann, R. 1997. La statue de Niankhnetjer, un nouveau document de la période archaïque à Sakkara. *Études sur l'Ancien Empire et la nécropole de Saqqâra dédiées à J.-Ph. Lauer*. Orientalia Monspeliensa IX. Montpellier: 395–402 and figs. 1–2.

Sourouzian, H. and Stadelmann, R. 2004. The temple of Amenhotep III at Thebes: excavation and conservation at Kom el-Hettân; Third Report on the Fifth Season in 2002/2003. *MDAIK* 60: 171–236.

Sourouzian, H. and Stadelmann, R. 2007. Die Memnonskolosse und der Totentempel Amenophis' III. in Theben. In G. Dreyer (ed.), *Begegnung mit der Vergangenheit: 100 Jahre in Ägypten. Deutsches Archäologisches Institut Kairo 1907–2007*. Mainz am Rhein: 251–9.

Sourouzian, H., Stadelmann, R. et al. 2006. Three seasons of work at the temple of Amenhotep III at Kom el Hettan 3: works in the dewatered area of the peristyle court and the hypostyle hall. *ASAE* 80: 401–87.

Spalinger, A. J. 1984. Sobekhotep IV. *LÄ* 5: 1039–41.

Spalinger, A. J. 2002. *The Transformation of an Ancient Egyptian Narrative: P. Sallier III and the Battle of Kadesh*. GOF IV.40. Wiesbaden.

Spanel, D. 2001. Two groups of Coptic sculpture and relief in the Brooklyn Museum of Art. *JARCE* 38: 89–114.

Spatharakis, I. 1976. *The Portrait in Byzantine Illuminated Manuscripts*. Byzantine Neerlandica 6. Leiden.

Spiegelberg, W. 1902. *Demotische Papyrus aus den Königlichen Museen zu Berlin*. Berlin.

Spiegelberg, W. 1906–8. *Die demotischen Denkmäler* II. *Die demotischen Papyrus*. CG. Strassburg 1906 (plates) and Cologne 1908 (text).

Spiegelberg, W. 1910. *Der Sagenkreis des Königs Petubastis nach dem Strassburger demotischen Papyrus sowie den Wiener und Pariser Bruchstücken*. Demotische Studien 3. Leipzig.

Spiegelberg, W. 1914. *Die sogenannte demotische Chronik des Pap. 215 der Bibliothèque Nationale zu Paris*. Demotische Studien 7. Leipzig.

Spiegelberg, W. 1917. *Der ägyptische Mythus vom Sonnenauge (der Papyrus der Tierfabeln - 'Kufi') nach dem Leidener demotischen Papyrus I 384*. Strasburg.

Stadelmann, R. 1971. Das Grab im Tempelhof. Der Typus des Königsgrabes in der Spätzeit. *MDAIK* 27: 111–23.

Stadelmann, R. 1985. *Die ägyptischen Pyramiden, Vom Ziegelbau zur Weltwunder*. Kulturgeschichte der Antiken Welt 30. Mainz am Rhein.

Stadelmann, R. 1991. *Die ägyptischen Pyramiden. Vom Ziegelbau zum Weltwunder*. Kulturgeschichte der antiken Welt 30. Mainz am Rhein.

Stadelmann R. 1995. Der strenge Stil der frühen Vierten Dynastie. *Kunst des Alten Reiches. Symposium im Deutschen Archäologischen Institut Kairo am 29. und 30. Oktober 1991. SDAIK* 28: 155–66 and pls. 57–62.

Stadelmann, R. 1996. Temple palace and residential palace. In M. Bietak (ed.), *Haus und Palast im alten Ägypten*. Vienna: 225–30.

Stadelmann, R. 1997. The development of the pyramid temple in the Fourth Dynasty. In S. Quirke (ed.), *The Temple in Ancient Egypt: New Discoveries and Recent Research*. London: 1–16.

Stadelmann, R. 1998. Formale Kriterien zur Datierung der königlichen Plastik der 4. Dynastie. In Grimal (ed.), 1998: 353–87 and figs. 1–25.

Stadelmann R. 1999a. Le grand sphinx de Giza, chef-d'œuvre du règne de Chéops. *CRAIBL*: 865–79.

Stadelmann R. 1999b. Représentations de la famille royale dans l'Ancien Empire. *L'Art de l'Ancien Empire égyptien. Actes du colloque organisé au musée du Louvre 1998*. Paris: 172–3 and figs. 3 a–b.

Stadelmann R. 2005. The copper statues of Pepi I in the Egyptian Museum. *Bulletin of the Egyptian Museum* 2: 125–9 and pls. I–XII.

Stadelmann R. 2006. Le grand sphinx de Giza. *Sphinx, Les gardiens de l'Égypte*. Brussels: 37–44.

Stadelmann, R. 2008. Personal communication.

Stadler, M. 2003. *Der Totenpapyrus des Pa-Month (P. Bibl. nat. 149)*. Studien zum Altägyptischen Totenbuch 6. Wiesbaden.

Stadler, M. 2004. *Isis, das göttliche Kind und die Weltordnung. Neue religiöse Texte aus dem Fayum nach dem Papyrus Wien D. 12006 Recto*. Mitteilungen aus der Papyrussammlung der österreichischen Nationalbibliothek, Neue Serie 28. Vienna.

Stadler, M. 2005. Das Ritual, den Tempel des Sobek, des Herrn von Pai, zu betreten. Ein Ritualtext aus dem römischen Fayum. In B. Dücker and H. Roeder (eds.), *Text und Ritual. Kulturwissenschaftliche Essays und Analysen von Sesostris bis Dada.*, Heidelberg: 150–62.

Stadler, M. 2006. Isis würfelt nicht. *Studi di egittologia e di papirologica* 3: 187–203.

Stambaugh, J. E. 1972. *Sarapis under the early Ptolemies*. EPRO 25. Leiden.

Stanwick, P. E. 2002. *Portraits of the Ptolemies: Greek Kings as Egyptian Pharaohs*. Texas.

Stauffer, A. 2008. *Antike Musterblätter. Wirkkartons aus dem spätantiken und frühbyzantinischen Ägypten*. Wiesbaden.

Steckeweh, H. 1936. *Die Fürstengräber von Qaw*. Leipzig.

Steel, L. 2007. Egypt and the Mediterranean World. In T. Wilkinson (ed.), *The Egyptian World*. London: 459–75.

Steindorff, G. 1946. *Catalogue of the Egyptian Sculpture in the Walters Art Gallery*. Baltimore.

Steindorff, G. 1950. Bemerkungen über die Anfänge der koptischen Sprache und Literatur. In: *Coptic Studies in Honor of Walter Ewing Crum*. Bulletin of the Byzantine Institute 2. Boston: 189–213.

Steiner, R. C. 2000. Semitic names for utensils in the demotic word-list from Tebtunis. *JNES* 59: 191–4.

Stephens, S. 2003. *Seeing Double: Intercultural Poetics in Ptolemaic Alexandria*. Berkeley.

Stephens, S. 2008. New perspectives. *Museums Journal* 108.8: 22–7.

Stern, S. M. 1960. Abd al-Laṭīf al-Baghdādi. *Encyclopaedia of Islam* 1. Leiden: 74. Also available at Brill Online at: www.brillonline.nl/subscriber/entry?entry=islam_SIM-0102.

Stewart, A. 1993. *Faces of Power: Alexander's Image and Hellenistic Politics*. Berkeley; Los Angeles; Oxford.

Stewart, A. 1996. The Alexandrian style: a mirage? In K. Hamma (ed.), *Alexandria and Alexandrianism. Papers Delivered at a Symposium Organized by the J. Paul Getty Museum and the Getty Center for the History of Art and the Humanities, 22–25 April 1993*. Malibu: 231–46.

Stewart, H. 1966. Traditional Egyptian sun hymns of the New Kingdom. *Bulletin of the Institute of Archaeology* 6: 29–74.

Stierlin, H. and Ziegler, C. 1987. *Tanis: Trésors des Pharaons*. Freiburg.

Stoneman, R. 1991. *The Greek Alexander Romance*. Harmondsworth.

Strauss-Seeber, C. 1998. Amenophis III. in Medinet Habu. *4. Ägyptologische Tempeltagung; Köln, 10.-12. Oktober 1996; Feste im Tempel; Akten der ägyptologischen Tempeltagungen*. Wiesbaden: 143–53.

Strudwick, N. 1994. Change and continuity at Thebes: the private tomb after Akhenaten. In C. Eyre, A. Leahy, A., and L. Montagno Leahy (eds.), *The Unbroken Reed: Studies in the Culture and Heritage of Ancient Egypt in Honour of A.F. Shore*. London: 321–36.

Suyūṭī, Jalāl al-Dīn al-. 1939. The treatise on the Egyptian pyramids (*Tuḥfat al-kirām fī akhbār al-ahrām*). Ed. and tr. Leon Nemoy. *Isis* 30.1: 17–37.

Swain, H. 2007. *An Introduction to Museum Archaeology*. New York.

Szczudłowska, A. 1972. Pyramid Texts Preserved on Sękowski Papyrus. *ZÄS* 99: 25–9.

Ṭahṭāwī, Rifā'ah Rāfi'. 2004. *Al-dīwān al-nafis fī Īwan Bārīs*. Ed. 'Ali Aḥmad Kin'ān. Amman, al-Mu'assasah al-'Arabiyyah li l-Dirāsāt wa l-Nashr, 2002. Tr. Daniel L. Newman. *An Imam in Paris*. London.

Tacke, N. 2001. *Verspunkte als Gliederungsmittel in ramessidischen Schülerhandschriften*. SAGA 22. Heidelberg.

Tait, W. J. 1977. *Papyri from Tebtunis in Egyptian and in Greek*. Texts from Excavations 3. London.

Tait, W. J. 1982. A Demotic word list from Tebtunis: P.Carlsberg 41A. *JEA* 68: 210–27.

Tait, W. J. 1984. A Demotic list of temple and court occupations: P. Carlsberg 23. In H.-J. Thissen and K.-Th. Zauzich (eds.), *Grammata demotika. Festschrift für Erich Lüddeckens*. Würzburg: 211–33,

Tait, W. J. 1991a. P. Carlsberg 207: two columns of a Setna-text. In P. J. Frandsen (ed.), *The Carlsberg Papyri 1: Demotic Texts from the Collection*. CNI Publications 15. Copenhagen: 19–46.

Tait, W. J. 1991b. P. Carlsberg 230: eleven fragments from a Demotic Herbal. In P. J. Frandsen (ed.), *The Carlsberg Papyri. 1. Demotic Texts from the Collection*. CNI Publications 15. Copenhagen: 47–92.

Tait, W. J. 1991c. P. Carlsberg 236: another fragment of a Demotic legal manual. In P. J. Frandsen (ed.), *The Carlsberg Papyri. 1. Demotic Texts from the Collection*. CNI Publications 15. Copenhagen: 93–101.

Tait, W. J. 1994. Egyptian fiction in Demotic and Greek. In J. R. Morgan and R. Stoneman (eds.), *Greek Fiction: The Greek Novel in Context*. London and New York: 203–22.

Tait, W. J. 1996. Demotic literature: forms and genres. In Loprieno (ed.), 1996: 175–87.

Tait, W. J. 1999. How to read the hieroglyphs? In A. Leahy and J. Tait (eds.), *Studies on Ancient Egypt in Honour of H. S. Smith*. London: 317–19.

Tait, W. J. 2000a. P. Carlsberg 433 and 434: two versions of the text of P. Spiegelberg. In P. J. Frandsen and K. Ryholt (eds.), *The Carlsberg Papyri. 3. A Miscellany of Demotic Texts and Studies*. CNI Publications 22. Copenhagen: 59–82.

Tait, W. J. 2000b. P. Carlsberg 450–5: fragments of Demotic word-lists. In P. J. Frandsen and K. Ryholt (eds.), *The Carlsberg Papyri. 3. A Miscellany of Demotic Texts and Studies*. CNI Publications 22. Copenhagen: 83–93.

Tait, W. J. (ed.). 2003. *"Never Had the Like Occurred": Egypt's View of its Past*. Encounters with Ancient Egypt. London.

Takács, S. 1995. *Isis and Sarapis in the Roman World*. Religions in the Graeco-Roman World 124. London and New York.

Tammisto, A. 1997. *Birds in Mosaics: A Study on the Representation of Birds in Hellenistic and Romano-Campanian Tessellated Mosaics to the Early Augustan Age*. Acta Instuti Romani Finlandiae 18. Rome.

Tawfik, S. 1991. Recently excavated Ramesside tombs at Saqqara 1. Architecture. *MDAIK* 47: 403–9.

Tawfik, T. S. 2003. The extent of the New Kingdom cemetery in the Memphite necropolis. In Z. Hawass and L. P. Brock (eds.), *Egyptology at the Dawn of the Twenty-first Century: Proceedings of the Eighth International Congress of Egyptologists, Cairo, 2000*. Cairo 1: 508–13.

Taylor, J. 2001. Patterns of colouring on ancient Egyptian coffins from the New Kingdom to the Twenty-sixth Dynasty: an overview. In W. V. Davies (ed.), 2001b: 164–81.

Teeter, E. 1997. *The Presentation of Maat: Ritual and Legitimacy in Ancient Egypt*. Chicago.

Teeter E. 2003. *Treasures from the Collection of the Oriental Institute University of Chicago*. Chicago: 7.

Tefnin, R. 1979. *La Statuaire d'Hatshepsout: portrait royal et politique sous la 18e Dynastie*. Brussels.

Tefnin R. 1991. Les têtes magiques de Gizeh. *BSFE* 120: 25–37.

Tefnin, R. 1997. Réflexions liminaires sur la peinture égyptienne, sa nature, son histoire, son déchiffrement et son avenir. *La Peinture égyptienne ancienne. Un monde de signes à préserver. Actes du Colloque international de Bruxelles, avril 1994*. Monumenta Aegyptiaca 7. Brussels: 3–9.

Tefnin, R. and Perier-D'Ieteren, C. 2002. Archéologie et conservation-restauration dans les cha-pelles de Sennefer (TT 96) et Aménémopé (TT 29), à Cheikh Abd el-Gournah. *BSFE* 154: 7–28.

Terrace, E. and Fischer, H. 1970. *Treasures of Egyptian Art from the Cairo Museum*. Boston.

Thissen, H.-J. 1984. *Die Lehre des Anchscheschonqi (P. BM 10508)*. Papyrologische Texte und Abhandlungen 32. Bonn.

Thissen, H.-J. 1990. Demotistik und Ägyptologie. Anmerkungen zu demotischen literarischen Texten. *ZÄS* 117: 63–9.

Thomas, N. 1995. *The American Discovery of Ancient Egypt*. Los Angeles.

Thomas, R. 1995. *Die Dekorationssysteme der römischen Wandmalerei von augusteischer bis in trajanische Zeit*. Mainz am Rhein.

Thomas, T. K. 1989. An introduction to the sculpture of Late Roman and Early Byzantine Egypt. In F. Friedman (ed.), *Beyond the Pharaohs. Egypt and the Copts in the 2nd to 7th Centuries A.D.* Providence: 54–64.

Thomas, T. K. 2000. *Late Antique Egyptian Funerary Sculpture: Images for This World and the Next*. Princeton.

Thomas, T. K. 2007. Coptic and Byzantine textiles found in Egypt: corpora, collections, and scholarly perspectives. In R. S. Bagnall (ed.), *Egypt in the Byzantine World, 300–700*. Cambridge: 137–62.

Thompson, D. J. 1987. Ptolemaios and the "lighthouse": Greek culture in the Memphite Serapeum. *Proceedings of the Cambridge Philological Society* 213 = New Series 33: 105–21.

Thompson, D. J. 1988. *Memphis under the Ptolemies*. New Jersey.

Thompson, J. 1992. *Sir Gardner Wilkinson and His Circle*. Texas.

Thompson, K., and Laboury, D. (n.d.). *Statue Pair*. Retrieved from Amarna Project: www.amarnaproject.com/pages/recent_projects/material_culture/statuary/pair_statue.shtml.

Tkaczow, B. 1993. *The Topography of Ancient Alexandria (An Archaeological Map)*. Travaux du Centre d'Archéologie Méditeranéenne de l'Academie polonaise des sciences 32. Warsaw.

Tkaczow, B. 1995. An imitation of opus alexandrinum in wall painting? Two wall paintings from Kom el-Dikka. *ET* 17: 319–26.

Tomoum, N. 2005. *The Sculptors' Models of the Late and Ptolemaic Periods: A Study of the Type and Function of a Group of Ancient Egyptian Artefacts*. Cairo.

Toorawa, S. M. 2001. The Autobiography of 'Abd al-Laṭīf al-Baghdādī. In D. F. Reynolds (ed.), *Interpreting the Self: Autobiography in the Arabic Literary Tradition*. Berkeley: 156–64.

Török, L. (ed.) 2005a. *After the Pharaohs. Treasures of Coptic Art from Egyptian Collections*, Budapest.

Török, L. 2005b. *Transfigurations of Hellenism: Aspects of Late Antique Art in Egypt, AD 250–700*. PÄ. Leiden.

Török, L. 2006a. The conversion of city centres in fifth-century Egypt: the case of the episcopal complex at Hermopolis Magna. *Acta Archaeologica Acadamiae Scientiarum Hungaricae* 57: 247–57.

Török, L. 2006b. Strzygowski's Coptic art. *Acta Historiae Artium* 47: 305–11.

Trapani, M. 1998. The monument of Imeneminet (Naples, Inv. 1069): an essay of interpretation. In Eyre (ed.), 1998: 1165–76.

Trichet, J. and Vallat, F. 1990. L'origine égyptienne de la statue de Darius. In F. Vallat (ed.) *Contribution à l'histoire de l'Iran: Mélanges offerts à Jean Perrot*. Paris: 205–8.

Turner, E. G. 1973. The Charioteers from Antinoe. *JHS* 93: 192–5.

Turner, J. (ed.). 1996. *The Dictionary of Art*. Basingstoke.

Tylor, J. J. 1990. *The Tomb of Renni*. London.

Ucko, P. and Champion, T. (eds.). 2003. *The Wisdom of Egypt: Changing Visions through the Ages*. London.

Uggeri, G. 1974. Mosaico con stagioni e aucupium. In *Antinoe (1965–1968). Missione archeologica in Egitto dell' Università di Roma*. Università di Roma, Istituto di Studi del Vicino Oriente. Serie archeologica 21. Rome: 125–8 and pls. 57–60.

Van der Plas, D. 1986. *L'Hymne à la crue du Nil*. 2 vols. Egyptologische Uitgaven 4. Leiden.

Van Walsem, R. 2005. *The Iconography of Old Kingdom Elite Tombs*. Leuven.

Vandersleyen, C. 1982. Porträt. *LÄ* 4: 1074–80.

Vandersleyen C. 1983. La date du Cheikh el-Beled. *JEA* 69: 61–5.

Vandersleyen, C. 1984–5. L'Iconographie de Toutankhamon et les effigies provenant de sa tombe. *BSEG* 9–10. 309–21.

Vandier, J. 1950. *Moʻalla: La Tombe d'Ankhtifi et la tombe de Sébekhotep*. BdE 18. Cairo.

Vandier, J. 1952. *Manuel d'archéologie égyptienne*. 1. *Les Époques de formation*. Paris.

Vandier J. 1958. *Manuel d'archéologie égyptienne*. 3. *Les Grandes époques. La Statuaire*. Paris

Vandier, J. 1961. *Le Papyrus Jumilhac*. Paris.

Vandier, J. 1969. *Manuel d'archéologie égyptienne*. 5. *Bas-reliefs et peintures. Scènes de la vie quotidienne. [Seconde partie]*. Paris.

Vassilika, E. 2006. *The Egyptian Museum in Turin*. Turin.

Vasunia, P. 2001. *The Gift of the Nile: Hellenizing Egypt from Aeschylus to Alexander*. Berkeley.

Venit, M. S. 1997. The tomb from Tigrane Pasha Street and the iconography of death in Roman Egypt. *AJA* 101: 701–29.

Venit, M. S. 2001. Style, substance, and the efficacy of the image in tomb paintings of Roman Alexandria. In A. Barbet, (ed.), *La Peinture funéraire antique IVe siècle av. J.-C.–IVe siècle ap. J.-C.* AIPMA Colloque 7. Paris: 137–42.

Venit, M. S. 2002. *Monumental Tombs of Ancient Alexandria: The Theater of the Dead*. Cambridge.

Verhoeven, U. 1993. *Das saitische Totenbuch der Iahtesnacht: P. Colon. Aeg. 10207*. Papyrologische Texte und Abhandlungen 41. Bonn.

Verhoeven, U. 1996. Ein historischer ''Sitz im Leben'' für die Erzählung von Horus und Seth des Papyrus Chetser Beatty I. In M. Schade-Busch (ed.), *Wege öffnen. Festschrift für Rolf Gundlach zum 65. Geburtstag*. ÄAT 65. Wiesbaden: 347–63.

Verhoeven, U. 1999a. *Das Totenbuch des Monthpriesters Nespasefy aus der Zeit Psammetichs I.* Handschriften des Altägyptischen Totenbuches 5. Wiesbaden.

Verhoeven, U. 1999b. Von hieratischen Literaturwerken in der Spätzeit. In J. Assmann and E. Blumenthal (eds.), *Literatur und Politik im pharaonischen und ptolemäischen Ägypten*. BdE 127. Cairo: 255–66.

Verhoeven, U. 2004. Literarische Ansichtskarten aus dem Norden versus Sehnsucht nach dem Süden. In Burkard et al. (eds.) 2004: 65–80.

Verhoeven, U. 2009. Von der ''Loyalistischen Lehre'' zur ''Lehre des Kairsu'': Eine neue Textquelle aus Assiut und deren Auswirkungen. *ZÄS* 136: 87–98.

Verity, A. 2002. *Theocritus: Idylls*. Oxford.

Verner M. 1985. Les sculptures de Rêneferef découvertes à Abousir. *BIFAO* 85: 267–80 and pls. xliv–lix.

Verner, M. 2002. *The Realm of Osiris*. Cairo.

Verner M. et al. 2006. The pyramid complex of Raneferef: the archaeology. *Abusir IX*. Prague.

Vernus, P. 1979. Un hymne à Amon, protecteur de Tanis, sur une tablette hiératique (Caire J.E. 87889). *RdE* 31: 101–19.

Vernus, P. 1993. *Affaires et scandales sous les Ramsès. Le Crise des valeurs dans l'Égypte du Nouvel Empire*. Paris.

Versluys, M. J. 2002. *Aegyptiaca Romana, Nilotic Scenes and the Roman Views of Egypt*. Religions in the Graeco-Roman World 144. Leiden and Boston.

Vidman, L. 1970. *Isis und Sarapis bei den Griechen und Römern: Epigraphische Studien zur Verbreitung und zu den Trägern des ägyptischen Kultes.* Religionsgeschichtliche Versuche und Vorarbeiten 29. Berlin.

Viereck, P. 1928. *Philadelpheia. Die Gründung einer hellenistischen Militärkolonie in Ägypten.* Morgenland 16. Leipzig.

Vittmann, G. 1996. The hieratic texts. In B. Porten (ed.), *The Elephantine Papyri in English: Three Millennia of Cross-Cultural Continuity and Change.* Documenta et Monumenta Orientis Antiqui. Studies in Near-Eastern Archaeology and Civilisation 22. Leiden; New York; Cologne: 277–385.

Vittmann, G. 1998a. *Der demotische Papyrus Rylands 9.* ÄAT 38. Wiesbaden.

Vittmann, G. 1998b. Tradition und Neuerung in der demotischen Literatur. *ZÄS* 125: 62–77.

Vittmann, G. 2007. Eine spätzeitliche Schülertafel aus dem Asasif. *Ä&L* 16: 187–93.

Volten, A. 1940. *Kopenhagener Texte zum Demotischen Weisheitsbuch (Pap. Carlsberg II, III verso, IV verso und V).* Analecta Aegyptiaca 1. Copenhagen.

Volten, A. 1942. *Demotische Traumdeutung (Pap. Carlsberg XIII und XIV verso).* Analecta Aegyptiaca 3. Copenhagen

Volten, A. 1955. Die moralischen Lehren des demotischen Pap. Louvre 2414. In G. Botti and A. Breccia (eds.), *Studi in memoria di Ippolito Rosellini nel primo centenario della morte (4 giugno 1843–4 giugno 1943).* 2. Pisa: 269–80.

Von Beckerath, J. 1975. Amenemhet V. *LÄ* 1: 192.

Von Falck, M. et al. (eds.) 1996. *Ägypten. Schätze aus dem Wüstensand. Kunst und Kultur der Christen am Nil.* Hamm and Berlin.

Vörös, G. 1998. *Temple on the Pyramid of Thebes. Hungarian Excavations on Thoth Hill at the Temple of Pharaoh Montuhotep Sankhkara 1995–1998.* Budapest.

Vyse, R. H. and Perring, J. S. 1840. *Operations Carried on at the Pyramids of Gizeh in 1837.* 3 vols. London.

Walker, J. 2003. Acquisitions at the British Museum, 1998. In S. MacDonald and M. Rice (eds.), *Consuming Ancient Egypt.* London: 101–9.

Walker, S. and Bierbrier, M. 1997. *Ancient Faces: Mummy Portraits from Roman Egypt.* London.

Walker, S. and Higgs. P. (eds.). 2001. *Cleopatra of Egypt: From History to Myth.* London.

Waxman, S. 2008. *Loot: The Battle over the Stolen Treasures of the Ancient World.* New York.

Weber, G. 1993. *Dichtung und höfische Gesellschaft: die Rezeption von Zeitgeschichte an Hof der ersten drei Ptolemäer.* Stuttgart.

Wedge, E. F. 1976. *Nefertiti Graffiti: Comments on an Exhibition.* Brooklyn.

Weeks, J. 2008. Review of Egypt Gallery, Bristol's City Museum and Art Gallery. *Museums Journal* 108/6: 46–9.

Weeks, K. R. 2000. *Atlas of the Valley of the Kings.* Cairo.

Weeks, K. R. 2006. *KV5: A Preliminary Report* (2nd edn.). Cairo.

Wegner, J. 1995. South Abydos: burial place of the Third Senwosret? Old and new excavations at the Abydene complex of Senwosret III. *KMT* 6.2: 58–71.

Wegner, J. 1996. The nature and chronology of the Senwosret III–Amenemhat III regnal succession: some considerations based on new evidence from the mortuary temple of Senwosret III at Abydos. *JNES* 55: 249–79.

Weitzmann, K. 1977. *Late Antique and Early Christian Book Illumination.* New York.

Welsby, D. A. and Anderson, J. R. (eds.) 2004. *Sudan: Ancient Treasures.* London.

Wengrow, D. 2006. *The Archaeology of Early Egypt: Social Transformation in North-east Africa, 10,000 to 2650 BC.* Cambridge.

Wente, E. F. 1990. *Letters from Ancient Egypt.* Writings from the Ancient World 1. Atlanta.

Werner, A. 2003. Egypt in London: public and private displays in the 19th century metropolis. In J.-M. Humbert and C. Price (eds.), *Imhotep Today: Egyptianizing Architecture*. London: 75–104.

West, M. 2003. *Greek Epic Fragments from the Seventh to the Fifth Centuries BC*. Cambridge, MA.

Westendorf, W. 1968. *Painting, Sculpture, and Architecture of Ancient Egypt*. New York.

Westendorf, W. 1974. Papyrus Berlin 10456. Ein Fragment des wiederentdeckten medizinischen Papyrus Rubensohn. *Festschrift zum 150jährigen Bestehen des Berliner Ägyptischen Museums*. Mitteilungen aus der Ägyptischen Sammlung 8. Berlin: 247–54.

Westendorf, W. 1978. Uräus und Sonnenscheibe. *SAK* 6: 201–26.

Westendorf, W. 1999. *Handbuch der altägyptischen Medizin*. HdO I.36. Leiden; Boston; Cologne.

Westerfeld, J. T. 2003. Christian perspectives on Pharaonic religion: the representation of paganism in Coptic literature. *JARCE* 40: 5–12.

Wettengel, W. 2003. *Die Erzählung von den beiden Brüdern. Der Papyrus d'Orbiney und die Königsideologie der Ramessiden*. OBO 195. Freiburg and Göttingen.

Whitehouse, H. 1977. *In praedis Iuliae Felicis*: the provenance of some fragments of wall-painting in the Museo Nazionale, Naples. *PBSR* 45: 52–68 and pls. xvii–xx.

Whitehouse, H. with Coulton, J. J. 2007. Drawing a fine line in Oxyrhynchus. In A. K., Bowman, R. A. Coles, N. Gonis, D. Obbink, and P. J. Parsons (eds.), *Oxyrhynchus: A City and its Texts*. EES Graeco-Roman Memoir 93. London: 296–306 and pls xxvi–xxx.

Whitehouse, H. with Hope, C. A. 1999. A painted panel of Isis. In C. A. Hope and A. J. Mills (eds.), *Dakhleh Oasis Project: Preliminary Reports on the 1992–1993 and 1993–1994 Field Seasons*. DOP Monograph 8. Oxford: 95–100.

Whitmarsh, T. J. G. 2004. *Ancient Greek Literature*. Cambridge.

Widmaier, K. 2009. *Landschaften und ihre Bilder in ägyptischen Texten des zweiten Jahrtausends v. Chr.* GOF IV.47. Wiesbaden.

Widmer, G. 1998. Un papyrus démotique religieux du Fayoum: P. Berlin 6750. *BSEG* 22: 83–91.

Widmer, G. 2002. Pharaoh Maâ-Rê, Pharaoh Amenemhat and Sesostris: three figures from Egypt's past as seen in sources of the Graeco-Roman period. In Ryholt (ed.), 2002a: 377–93.

Wiebach, S. 1981. *Die ägyptische Scheintür: Morphologische Studien zur Entwicklung und Bedeutung der Hauptkultstelle in den Privat-Gräbern des Alten Reiches*. Hamburg.

Wildung, D. 1981. Ein Würfelhocker des Generals Nes-Month. *MDAIK* 37: 503–7.

Wildung, D. 1982. Naophore. *LÄ* 4: 341–2.

Wildung, D. 1984a. *Sesostris und Amenemhet. Ägypten im Mittleren Reich*. Munich.

Wildung, D. 1984b. *Ni-user-Rê. Sonnenkönig - Sonnengott, München, Staatliche Sammlung Ägyptischer Kunst*. Schriften aus der Ägyptischen Sammlung 1. Munich.

Wildung, D. 1995. What visitors want to see. *Museum International* 47.2: 4–8.

Wildung, D. (ed.). 1997. *Sudan: Ancient Kingdoms of the Nile* (Exhibition catalogue). Paris and New York.

Wildung, D. (ed.). 2000. *Ägypten 2000 v. Chr.: Die Geburt des Individuums*. Munich.

Wilkinson, R. 2000. *The Complete Temples of Ancient Egypt*. London.

Wilkinson, T. A. H. 1999. *Early Dynastic Egypt*. London.

Wilkinson, T. A. H. 2000. *Royal Annals of Ancient Egypt: The Palermo Stone and its Associated Fragments*. London.

Williams, B. B. 1988. *Decorated Pottery and the Art of Naqada III: A Documentary Essay*. MÄS 45. Munich.

Wilson, P. 1997. *A Ptolemaic Lexikon: A Lexicographical Study of the Texts in the Temple of Edfu.* OLA 78. Leuven.

Wilson, R. M. (ed.) 1978. *The Future of Coptic Studies.* Leiden.

Winlock, H. E. 1924. The tombs of the kings of the Seventeenth Dynasty at Thebes. *JEA* 10: 217–77.

Winlock, H. E. 1942. *Excavations at Deir el Bahri 1911–1931.* New York.

Winter, E. 1968. *Untersuchungen zu den ägyptischen Tempelreliefs der griechisch-römischen zeit.* Vienna.

Wipszycka, E. 1991. Textiles, Coptic, Organization of Production. In A.Atiya (ed.), *The Coptic Encyclopedia.* 7. New York. 2218–21.

Witt, R. 1971. *Isis in the Graeco-Roman World.* Aspects of Greek and Roman Life. London.

Witte-Orr, J. 1993. Die Wandmalereien von Karm al-Ahbariya. Malerein des späten 6. Jahrhunderts aus der Umgebung Alexandria. Bonn: Rheinische Friedrich-Wilhelms-Universität doctoral dissertation.

Worrell W. H. 1934. *Coptic Sounds.* Ann Arbor.

Wortham, J. D. 1971. *British Egyptology 1549–1906.* Newton Abbott.

Yanni, C. 2005. *Nature's Museums: Victorian Science and the Architecture of Display.* New York.

Yoshimura, S., Kawai, N., and Kashiwagi, H. 2005. A sacred hillside at Northwest Saqqara: a preliminary report on the excavations 2001–2003. *MDAIK* 61: 361–402.

Yoyotte, J. and Charvet, P. 1997. *Strabon: le voyage en Egypte. Un Regard romain.* Paris.

Yurco, F. 1979. Amenmesse: six statues at Karnak. *Metropolitan Museum Journal* 14: 15–31.

Žabkar, L. 1968. *A Study of the Ba Concept in Ancient Egyptian Texts.* SAOC 34. Chicago.

Zanker, G. 1987. *Realism in Alexandrian Poetry.* London.

Zauzich, K.-Th. 1980. Auf zwei demotischen Traumbüchern. *APF* 27: 91–8.

Zauzich, K.-Th. 1984. Der Streit zwischen Horus und Seth in einer demotischen Fassung. In H.-J. Thissen and K.-Th. Zauzich (eds.), *Grammata demotika. Festschrift für Erich Lüddeckens.* Würzburg: 275–81.

Zauzich, K.-Th. 1987. Das topographische Onomastikon im P.Kairo 31169. *GM* 99: 83–91.

Zauzich, K.-Th. 1991. Schmähworte gegen eine Frau. *Enchoria* 18: 135–51.

Zauzich, K.-Th. 1994. Die Aufgaben der Demotistik – Freude und Last eines Faches. *Acta Demotica, Acts of Fifth International Conference for Demotists, Pisa, 4th-8th September 1993 = EVO* 17: 9–16.

Zauzich, K.-Th. 2000. Ein antikes demotisches Namenbuch. In P. J. Frandsen and K. Ryholt (eds.), *The Carlsberg Papyri 3: A Miscellany of Demotic Texts and Studies.* CNI Publications 22. Copenhagen: 27–52.

Zetzel, J. E. G. 1981. On the opening of Callimachus, Aetia II. *ZPE* 42: 31–3.

Ziegler, C. 1990. *Le Louvre: Les Antiquités égyptiennes.* Paris.

Ziegler, C. 1997a. *Les Statues égyptiennes de l'Ancien Empire.* Paris.

Ziegler C. 1997b. Les statues d'Akhethotep. *RdE* 48: 227–45.

Ziegler, C. 1999. Meriyre-ha-ishetef standing, no. 188; Merire-ha-ishetef with a staff, no. 189. In J. Leclant et al. (eds.), *Egyptian Art in the Age of the Pyramids.* New York: 461–3.

Ziegler, C. 2001. Une nouvelle statue royale du Moyen Empire au Musée du Louvre: La Reine Khénémet-Nefer-Hedjet-Ouret. *Monuments et Mémoires de la Fondation Eugène Piot.* Paris.

Zivie, A.-P. 1990. *Decouverte à Saqqarah. Le vizir oublié.* Paris.

Zivie, A.-P. 2000. La résurrection des hypogées du Nouvel Empire à Saqqara. In M. Bárta and J. Krejčí. *Abusir and Saqqara in the Year 2000.* Prague: 173–92.

Zivie-Coche C. 2006. Le sphinx de Giza et le culte d'Harmachis. *Sphinx, Les Gardiens de l'Égypte.* Brussels: 58–64.

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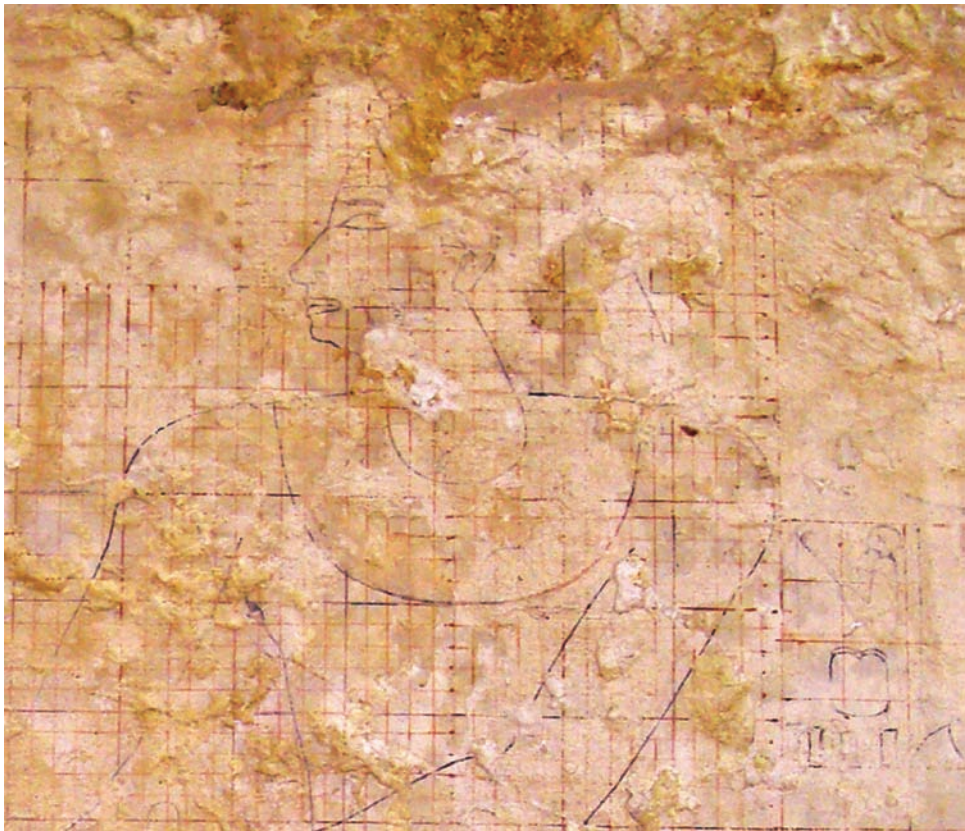
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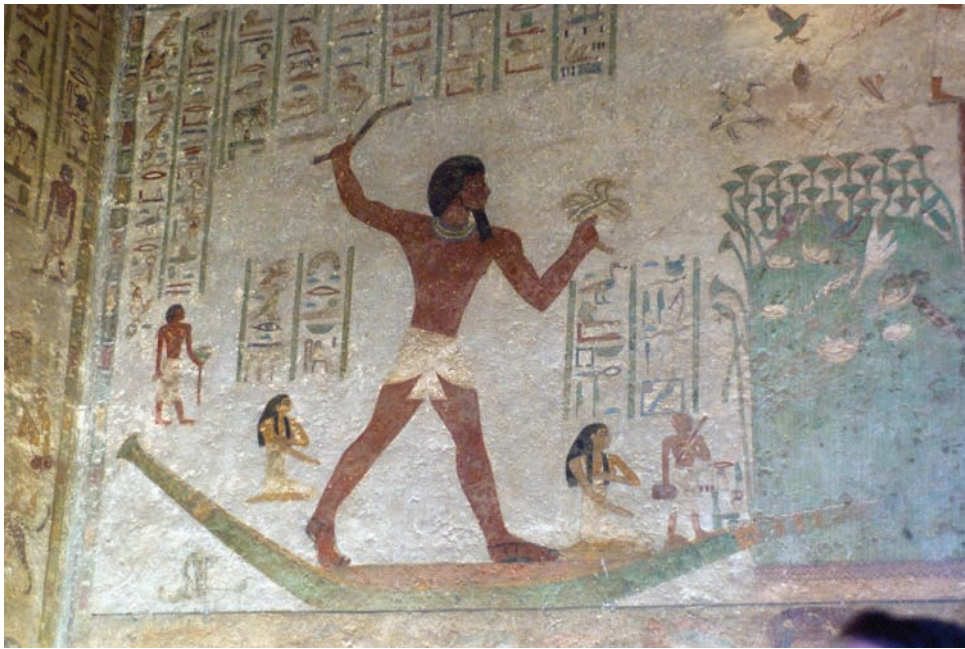**Plate 14** Beni Hasan. Tomb of Bakt III. Photograph Courtesy the Author.

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