

## The "Kernbau" of the Temple of Mentuhotep II at Deir al-Bahari

Luc Gabolde

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# JOYFUL IN THEBES EGYPTOLOGICAL STUDIES IN HONOR OF BETSY M. BRYAN

# MATERIAL AND VISUAL CULTURE OF ANCIENT EGYPT

NUMBER ONE



JOYFUL IN THEBES
EGYPTOLOGICAL STUDIES IN HONOR OF BETSY M. BRYAN

# JOYFUL IN THEBES EGYPTOLOGICAL STUDIES IN HONOR OF BETSY M. BRYAN

Edited by Richard Jasnow and Kathlyn M. Cooney

With the assistance of Katherine E. Davis



LOCKWOOD PRESS ATLANTA, GEORGIA

# JOYFUL IN THEBES EGYPTOLOGICAL STUDIES IN HONOR OF BETSY M. BRYAN

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 $Betsy\ Bryan\ in\ the\ Johns\ Hopkins\ University\ Archaeological\ Museum.\ Photograph\ courtesy\ of\ James\ T.\ Van Rensselaer.$ 

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Richard Jasnow Kara (Kathlyn) Cooney

#### INTRODUCTION

The editors of this book were deeply moved by the enormously positive response to the invitation to contribute to this collection of articles in honor of our friend and colleague, Betsy Bryan. Distinguished scholars, despite all of their other pressing obligations, volunteered to write. Even more remarkable, perhaps, most actually submitted their articles on time. While we could not predict the response to our initial invitation, we had in fact suspected that undertaking this project would indeed be a joyful experience. Having worked with Betsy for years, we knew that few Egyptologists have as many friends and colleagues as she throughout the world. Frankly, a major challenge to the editors was simply compiling a list of possible contributors from such a large circle of potential invitees. It seemed necessary to maintain an Egyptological focus for the volume while at the same time keeping it within practical bounds. We know well that we have omitted some who would have gladly participated. We apologize to them and hope they will understand our dilemma. The present volume is only a token of the great good will and esteem which Betsy has earned; it hardly represents the sum total of all her friends and well-wishers within the Academe.

It is often said of a particular scholar that she or he has a wide a range of interests. While this is sometimes mere rhetoric, in Betsy's case the phrase is perfectly apt. The imposing breadth of topics treated in this Festschrift, from Pre-Dynastic to Late Antiquity, truly reflects Betsy's Egyptological interests. A glance at the table of contents reveals, fittingly, that many authors wrote about New Kingdom objects from an art historical perspective or dealt with excavations and standing monuments, particularly those located in Thebes. Nevertheless, several articles treated philological subjects from the Middle Kingdom to the Roman period. Other contributors examined historical or gender issues. A few explored topics strictly speaking outside of Egypt proper; thus both Nubia and the Near East are represented. Those not knowing Betsy may doubt that she should be seriously interested in so many subjects. Nevertheless, her friends will surely agree that this rich diversity of interests is one of the most striking characteristics of Betsy's scholarly persona. Not only is she receptive to topics outside of her "formal" specialties, but she has the background knowledge and intellectual curiosity to engage productively with them. This point was quickly impressed upon Richard when in 1995 he began team-teaching Egyptian texts with her. Once, aware that Betsy had returned to Baltimore from Egypt around midnight, after a long excavation season, he hardly expected her for class early the next morning. Betsy nevertheless appeared, enthusiastic as always, declaring, "she could not bear to miss reading this particular Coptic Gnostic text." Some time after that he was equally amazed to learn that, before Richard's arrival at Hopkins she had also taught Demotic. We suspect few art historians have felt the urge to teach Demotic, but, as Betsy has said, "she thought it was important that the students know this stage of Egyptian." And so she taught it. Richard thus realized early on that Betsy was no "narrow specialist." Here was a colleague with whom one could talk about many scholarly topics in the expectation of receiving really constructive feedback and advice.

Of course, Betsy's interest in Coptic Gnostic texts and Demotic should hardly have been surprising. The graduate program at Yale was strongly historical and philological. She wrote her very much text-based thesis on the reign of Thutmose IV under the supervision of William Kelly Simpson, a scholar equally at home in art and language. Philology is therefore very much at the core of her Egyptological soul. It was really after receiving the doctorate that she proceeded to make her name as an art historian, with such groundbreaking exhibitions as that on Amenhotep III in the Cleveland Museum and the Louvre (in collaboration with Arielle Kozloff and Larry Berman). Already as a student she had participated in archaeological excavations, beginning with Donald Redford at the Akhenaten

Temple Project (1977–1980). Since 1993 she has staged annual expeditions—first at the Tomb of Suemniwet (Theban Tomb 92) on the West Bank and then at the Temple of Mut in Karnak.¹ This last project is a massive undertaking, involving excavation, epigraphy, conservation, and restoration of the monuments on a large scale. In addition to the many significant finds, Betsy and her team have been able to reconstruct such structures as the "Drinking Portico of Hatshepsut," which now forms part of an "open-air" museum at the site. Many of us have had the opportunity to learn something about the various subdisciplines comprising Egyptology. A philologist may join an excavation for a season or two, an archaeologist may intern at a museum for a semester. However, Betsy's intense work in these very different fields is clearly of an entirely different order. It is precisely this sustained engagement with philology, archaeology, and art history which gives her a unique Egyptological profile. The most casual reader of her articles and books quickly observes that she marshals evidence from all three subdisciplines (if not more) in her investigations of a given subject.

If Betsy's scholarly work is nothing else, it is holistic—taking into account the materiality, production history, social importance, ritual place, and visual quality. She never looks at a tomb painting without considering the entire chaine d'opératoire—which craftsmen painted which parts of a given tomb scene, whether sparkling yellow orpiment or the bright orange of realgar were included and in which scenes, what social markers were included in a painting and why. Her work always treats the entire monument or the entire assemblage, and beyond. It goes without saying that she can rattle off most of the Theban Tomb numbers together with their owners and titles, to the consternation of her graduate students. Her recent work, lectures, and articles on the festivals of drunkenness in Thebes are a tour de force of holistic examination, drawing on Theban tomb scenes, religious hymns, temple scenes and architecture, historical treatises, and arcane ritual instructions.<sup>2</sup> All are marshaled into a nuanced and beautifully intricate discussion of human behavior. She teaches her graduate students to look at Egyptian production, be it text or object, in the same holistic manner—what stone was the statue made of and what does this tell us about craft production? Where was the text placed and who was its intended audience? Was the piece reworked or recut? Where was the focus of attention meant to be drawn? Her work on women's studies is particularly illuminating: simultaneously social, historical, anthropological, and visual, she has, for example, deftly swept aside outdated patriarchal assumptions about female kings like Hatshepsut (including some about her possible affairs) and placed Egyptian female power in its larger context of kingship, dynastic succession, elite power systems, and the Egyptian desire for continuity.

Teaching has always been central to Betsy's scholarly activity. Having begun as an Adjunct Assistant Professor in Ancient History at Marymount Manhattan College (1978–1986) and as a lecturer at Yale (1980–1982), she came to Johns Hopkins in 1986. She was named the Alexander Badawy Professor of Egyptian Art and Archaeology in 1997. Thanks to her efforts, Hopkins has a vigorous graduate program in Egyptology. It is no surprise that applicants from all over the world have sought to study with her. Betsy has always taught far more than was required, both on the undergraduate and graduate levels. She has carefully balanced her offerings in language and art history. She has also presented regularly the essential introductory survey classes to ancient Egypt. Having led the effort to renovate the Johns Hopkins Archaeological Museum and to arrange for the long-term loan of many pieces from the Eton Collection, discussed in more detail below, Betsy has made first-hand examination of the objects an integral part of her art-historical classes.

As a teacher, Betsy impresses upon her students the importance of approaching a particular problem of ancient Egypt using all the available evidence. A theoretical framework is important, but lasting results require a first-rate knowledge of the material. You must "own the material," as she says. Naturally, this is an aspirational goal; a scholar

<sup>1.</sup> The large site is divided between the Brooklyn Museum of Art Archaeological Expedition to the Precinct of Mut, directed by Richard Fazzini, and the Johns Hopkins University Expedition, directed by Betsy.

<sup>2.</sup> See, e.g., "Hatshepsut and Cultic Revelries in the New Kingdom," in *Creativity and Innovation in the Reign of Hatshepsut*, ed. J. Galán, B. Bryan, and P. Dorman, SAOC 69 (=Occasional Proceedings of the Theban Workshop = Papers from the Theban Workshop 2010) (Chicago, 2014), 93–123.

constantly seeks to deepen his or her knowledge. A scholar never stands still and must be prepared to take risks. Clearly, Betsy herself has always been ready to explore new lines of research and to ask new questions. This willingness to face fresh challenges and never repeat herself makes her an exciting teacher and popular lecturer. Kara remembers a particular teaching moment that made an impression. In her first year of graduate school, in her first art-history seminar, Betsy asked Kara to present and critically compare the exhibition catalogue on Amenhotep III (the lauded *Egypt's Dazzling Sun*) with other academic work on the Eighteenth Dynasty king. Not only was this a daunting assignment for a beginning graduate student to be performed in front of her advisor, but it made clear to Kara that Betsy was entirely open to scrutiny and criticism. Betsy once said that some scholars are willing to change their minds and admit they were wrong; others stick to their story forever, especially once it has been immortalized in print. Betsy is, thankfully, of the former category.

While certainly an innovative scholar, Betsy can be proudly "old school" as a teacher. Students in Betsy's Egyptian language classes know her systematic approach to texts. They can expect questions about the grammar and vocabulary of every sentence. Of course, there is a purpose to this preoccupation with philological detail; her goal is to enable the students to recognize the meaning and significance of the text. Aware that a simple resolution is often impossible in ancient Egyptian, she tries to ensure that the students understand clearly the nature of the problems. Her abomination is a superficial explanation of a text or the easy acceptance of an "establishment" rendering. Betsy happily reads with students from virtually every genre known from ancient Egypt: literature, religion, medicine, magic, history, or economics. While of course not neglecting the core works, such as Ptahhotep or Sinuhe, she always keeps in mind the individual interests of her students in such reading classes. If a student would like to explore more specialized areas, Betsy has never hesitated to set up independent studies in such topics as Nubian period Texts or Hieratic ostraca from Deir el-Medina.

Betsy has been closely associated with museums through her entire career. While living in New York, she was a Research Associate with the Brooklyn Museum (1983–1986), establishing enduring scholarly and personal relationships of great importance in her academic development. Having moved to Baltimore, Betsy became deeply involved in the reinstallations of the Egyptian collections in both the National Museum of Natural History at the Smithsonian (1993–2000) and the Walters Art Museum (1996–2000). A particular highpoint was the exhibition "The Quest for Immortality," which she organized with Erik Hornung for the National Gallery of Art. The above mentioned 1992 Cleveland Amenhotep III exhibition, hailed as "extraordinary," certainly stimulated the study of that seminal period of Egyptian history.<sup>3</sup> It is thus natural that, in addition to her teaching, research, and fieldwork, Betsy is the Director of the Johns Hopkins University Archaeological Museum. Together with her colleagues at the Museum and with the students, she has been working to set up an online catalogue of the objects in the Museum. She and her Museum colleagues have successfully applied for substantial grants to fund this catalogue project. Visitors to the Museum can often see groups of students, both undergraduate and graduate, closely examining a scarab or seal under microscopes. Sanchita Balachandran, the Curator/Conservator at the Archaeological Museum, who collaborated with Betsy on the new installation, has been ideally placed to observe Betsy's interaction with Egyptian objects. We quote here Sanchita's remarks, reflecting the point of view of a scientifically trained conservator:

I've long admired the fact that she loves the full object, the weight of it, the materiality of it, and doesn't see an object as a mere substrate upon which text is inscribed. And she wants to know the details, the tiny technological details—such as her obsession with how the bow drill really worked—that have everything to do with how the final object was produced.

Betsy's friends will immediately recognize how accurate is another of Sanchita's observations: "What I love about talking to Betsy about objects is that she immediately gets drawn into them, and often loses track of the many other meetings she has scheduled."

<sup>3.</sup> See, e.g., D. O'Connor and E. Cline, eds., Amenhotep III: Perspectives on His Reign (Ann Arbor, 1998), v.

Having traveled yearly (often twice yearly) to Egypt since at least 1977, Betsy has developed a close attachment to the land and people. She has made a special point of training young Egyptian Egyptologists in the Hopkins graduate program. The articles of these scholars in this volume bear witness to her mentorship. Betsy's dedication to strengthening cultural ties between Egypt and the United States also finds expression in her activity on behalf of the American Research Center in Egypt (ARCE), which promotes and expedites fieldwork in Egypt. Despite her heavy scholarly and university obligations, she has selflessly served on many important committees of the American Research Center in Egypt.

As colleagues have probably noted, the title of this Festschrift, *Joyful in Thebes*, evokes the various New Kingdom eulogies to the ancient capital. Certainly, Betsy has been closely associated with both ancient Thebes and modern Luxor through the years. However, her contributions to our knowledge of this important city go beyond her own personal research. Some years ago, for example, she began a series of extremely productive workshops with Peter Dorman of the Oriental Institute (and now of the American University in Beirut) for the purpose of bringing together scholars involved in all aspects of Theban Studies. These meetings have encouraged an open exchange of ideas and information in a most congenial setting. The workshops have explored such subjects as Ptolemaic Thebes, sacred space, and the iconography and ideology of war in New Kingdom Thebes. The latest publication of papers from this series is *Creativity and Innovation in the Reign of Hatshepsut* (2014), co-edited with Peter Dorman and Jose Galán.

Art Historian, Archaeologist, Philologist, and Historian, an impressive list of designations no doubt ... Still, academic credentials and achievements only partly explain why so many felt honored to contribute to this Festschrift. Betsy Bryan has always been more than a researcher; she has been a benevolent, if exacting, mentor to her students and a supportive ally to her colleagues. A true lover of Egypt and Egyptology, a believer in the importance of Near Eastern Studies to the Humanities, she has often sacrificed her own work (and time) for the good of our discipline and of the University. She is one of those fortunate people who have truly made a difference both as a scholar and as a person.

We conclude in the second person singular. As a modest individual, Betsy, this display of affection by your colleagues and students may well embarrass you. Still, we know you will accept this Festschrift with your characteristic grace and good will. May you continue for many years to be "joyful in Thebes!"

#### Richard Jasnow Kara Cooney



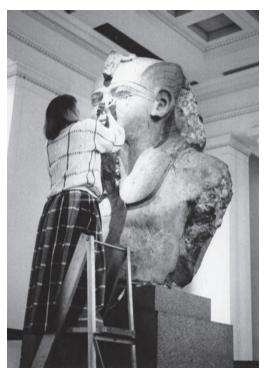
Betsy examining archaeological plan drawn by a graduate student; back of the Mut Precinct. Photograph courtesy of James T. VanRensselaer.



Betsy in conversation with the conservator Hiroko Kariya at the Open Air Museum at the Temple of Mut. Photograph courtesy of James T. VanRensselaer.



Betsy recording excavation pottery from the Temple of Mut. Photograph courtesy of James T. VanRensselaer.





Betsy (with Dr. Zahi Hawass, then secretary general of the Egyptian Supreme Council of Antiquities, and others) at the discovery of the recarved statue of Queen Tiy (now on display at the Cairo Museum), the Temple of Mut, 2006 season. Photograph courtesy of James T. VanRensselaer.



Above: Betsy at Sedinga Temple, Sudan, 1989. Photograph courtesy of Larry Berman

Left: Betsy measuring a colossal statue in the British Museum. Photograph courtesy of Arielle Kozloff

### FROM THE DEPARTMENT OF NEAR EASTERN STUDIES AT JOHNS HOPKINS UNIVERSITY

The Department of Near Eastern Studies at Johns Hopkins prides itself on its collegial atmosphere and the harmonious cooperation between its subdisciplines. We are happy to acknowledge that we owe a great deal of this tradition of mutual interest and encouragement to our much admired and cherished colleague Betsy Bryan. Since joining the Department as an Assistant Professor of Egyptian Art and Archaeology in 1986, working with Professor Hans Goedicke to build the Egyptology Program, Betsy has always reached out to colleagues and students in the other subfields and encouraged a free flow of ideas and interactions. Having studied Akkadian at Yale, where she first developed a deep interest in the interaction between Egypt and the Near East, Betsy effortlessly established collegial and intellectual relationships with her other fellow departmental faculty members, Jerry Cooper, Del Hillers, Georg Krotkoff, Kyle McCarter, Glenn Schwartz, and Ray Westbrook. This group fostered a spirit of scholarly interaction, encouraged students to explore classes in other fields, and supported one another's projects. Indeed, Betsy already knew Glenn and Ray from Yale, all three having been graduate students there.

While the core faculty of the Department has, of course, changed and grown since the 1980s, the spirit of cooperation has continued. Betsy's empathy for, and interest in, sister-fields served her well when she chaired the Department of Near Eastern Studies for a number of years and helped to solidify and expand our program. In a broader context, Betsy has also been an extremely active university citizen, serving on high level committees and advising the administration on strategy. In this arena, she has been an advocate and eloquent spokesperson for the role of the Humanities (and of Near Eastern Studies) in university education, and we greatly appreciate her work in this regard, as we do all her efforts on behalf of Near Eastern Studies and Egyptology.

Prof. Glenn Schwartz, Chair

Jerry Cooper
Paul Delnero
Marian Feldman
Michael Harrower
Richard Jasnow
Jacob Lauinger
Ted Lewis
Kyle McCarter

#### **ABBREVIATIONS**

#### GENERAL

/// indicates damage **BCE** before the Common Era Bd. (German) Band, "volume" BD Book of the Dead ВМ British Museum, London BP before the present Brooklyn Brooklyn Museum, Brooklyn ca. circa, approximately

cat. catalogue
CE Common Era
cf. confer, compare
CG Catalogue Général
cm(s) centimeter(s)

CNI Carsten Niebuhr Institute

col(s). column(s)
Dem Demotic
diss dissertation

ed(s). editor(s), edited by, edition e.g. exempli gratia, for example

esp. especially
et al. et alii, and others
etc. et cetera, and so forth

fasc. fascicle
ff. following
fig(s). figure(s)
frag(s). fragment(s)

GEM Grand Egyptian Museum

ht. height

ibid. *ibidem,* in the same place

IFAO Institut français d'archéologie orientale du Caire

JE JdE = Journal d'Entrée, Cairo Museum

KV Valley of the Kings

lit. literally m meter

MFA Museum of Fine Arts, Boston

MMA Metropolitan Museum of Art, New York

n(n). note(s)

NK New Kingdom no(s). number(s)

NYHS New York Historical Society

o. ostracon

OI Oriental Institute (Chicago)

OIM Oriental Institute Museum, Chicago

P., Pap. Papyrus p(p). page(s) pl(s). plate(s)

PC Papyrus Carlsberg
PT Pyramid Text(s)
q.v. quo vide, which see

RSV Revised Standard Version (Old Testament)

SCA Supreme Council of Antiquities

SR Special Register

s.v. sub verbo, under the word

Taf. Tafel (German) trans. translator

TT Theban tomb (tomb number)
UC University College (London)
UCL University College London

var. variant vol(s). volume(s) vs. verso

#### **BIBLIOGRAPHIC**

ÄA
 Ägyptologische Abhandlungen, 1960-.
 ÄAT
 Ägypten und Altes Testament, 1979-.
 ACE
 Australian Centre for Egyptology

ACER Australian Centre for Egyptology: Reports. Sydney, 1989–. ACES Australian Centre for Egyptology: Studies. Sydney, 1989–.

AcOr Acta Orientalia

ActAnt Acta Antiqua Academiae Hungaricae

ADAIK Abhandlungen des deutschen archäologischen Instituts Kairo. Ägyptologische Reihe. Glück-

stadt, 1958-.

AegHel Aegyptiaca Helvetica. Geneva, 1974–. AegLeod Aegyptiaca Leodiensia, Liège, 1987–.

ÄF Ägyptologische Forschungen. Glückstadt, 1936-.

Ä&L Ägypten und Levante

AHAW Schriften der Philosophisch-historischen Klasse der Heidelberger Akademie der Wissen-

schaften. Heidelberg, 1997-.

ÄIB G. Roeder, Ägyptische Inschriften aus den königlichen Museen zu Berlin. 2 volumes. Leipzig: Hin-

richs, 1913-24.

AJA American Journal of Archaeology

AJP American Journal of Philology

AJSLL American Journal of Semitic Languages and Literatures
AnAe Analecta Aegyptiaca. Copenhagen, 1940–1959.

AOAT Alter Orient und Altes Testament. Neukirchen-Vluyn, 1969-.

AOB Acta Orientalia Belgica AoF Altorientalische Forschungen

AOS American Oriental Series. New Haven, 1925–. ASE Archaeological Survey of Egypt. London, 1893–.

ASAE Annales du Service des Antiquités d'Égypte

ASCEVOA Archeologia e storia della civiltà egiziana e del Vicino Oriente antico. Materiali e studi. Bologna,

1996-

AVDAIK Archäologische Veröffentlichungen/Deutsches Archäologisches Institut, Abteilung Kairo.

Mainz, 1970-.

BÄBA Beiträge zur ägyptischen Bauforschung und Altertumskunde

BACE Bulletin of the Australian Centre for Egyptology
BAe Bibliotheca Aegyptiaca. Brussels, 1932–.
BAR British Archaeological Reports. Oxford, 1978–.

BARIS British Archaeological Repots. International Series. Oxford, 1974-.

BdE Bibliothèque d'Étude. Cairo, 1908-.

BeiBf Beiträge zur ägyptischen Bauforschung und Altertumskunde. 11 volumes. Cairo, Zürich, Wies-

baden, 1937-1997.

BEM Bulletin of the Egyptian Museum
BES Bulletin of the Egyptological Seminar

BEStud Brown Egyptological Studies. Oxford, Providence, 1954–79.

BidE Bulletin de l'Institut du désert d'Égypte

BIE Bulletin de l'Institut égyptien, later Bulletin de l'Institut d'Égypte BIFAO Bulletin de l'Institut Français d'Archéologie Orientale au Caire

BiOr Bibliotheca Orientalis

BMFA Bulletin of the Museum of Fine Arts

BMJ Brooklyn Museum Journal

BMMA Bulletin of the Metropolitan Museum of Art

BMOP British Museum Occasional Papers. London, 1978-.

BMQ British Museum Quarterly

BMSAES British Museum Studies in Ancient Egypt and Sudan

BSA British School of Archaeology in Egypt. London, 1905–1953.

BSAC Bulletin de la Société d'archéologie copte
BSAK Studien zur Altägyptischen Kultur, Beihefte
BSEG Bulletin de la Société d'Égyptologie Genève
BSFE Bulletin de la Société Française d'Égyptologie

CAD I.J. Gelb et al., eds. The Assyrian Dictionary of the Oriental Institute of the University of Chicago. 21

volumes. Chicago: The Oriental Institute of the University of Chicago, 1956–2010.

CD W. E. Crum, A Coptic Dictionary. Oxford: Clarendon, 1939.

CDD J. Johnson, ed., The Demotic Dictionary of the Oriental Institute of the University of Chicago. 2001-.

http://oi.uchicago.edu/research/publications/demotic-dictionary-oriental-institute-univer-

sity-chicago.

CdE Chronique d'Égypte. Bulletin périodique de la Fondation Égyptologique Reine Élisabeth

Cahiers "Égypte Nilotique et Méditerranéenne." Montpellier, 2008-. **CENIM** 

**CGC** Catalogue Général des Antiquités Égyptiennes du Musée du Caire. Cairo, 1901-.

CHANE Culture and History of the Ancient Near East. Leiden, 2000-.

**CRIPEL** Cahiers de Recherches de l'Institut de Papyrologie et d'Égyptologie de Lille

**CSEG** Cahiers de la Société d'Égyptologie. Geneva, 1991-.

DAWW Denkschriften der kaiserlichen Akademie der Wissenschaften in Wien, philos.-hist. Kl., 1850-

1918.

**DCH** Dictionary of Classical Hebrew. Edited by David J. A. Clines. 9 volumes.

DDD Karel van der Toorn, Bob Becking and Pieter W. van der Horst, eds. Dictionary of Deities and

Demons in the Bible. Leiden: Brill, 1995.

DE Discussions in Egyptology

DemStud Demotische Studien. Leipzig 1901-1929; Sommerhausen, 1988-.

DGÖAW Österreichische Akademie der Wissenschaften, Denkschriften der Gesamtakademie. Vienna,

1947-.

EAEgyptian Archaeology, The Bulletin of the Egypt Exploration Society

EG Alan Gardiner, Egyptian Grammar Being an Introduction to the Study of Hieroglyphs. 3rd rev. ed.

Oxford: Griffith Institute, 1957.

**ENiM** Égypte nilotique et méditerranéenne

**EPRO** Études préliminaires aux religions orientales dans l'empire romain, Leiden, 1961–1992.

**FIFAO** Fouilles de l'Institut Français d'Archéologie Orientale du Caire. Cairo, 1921-.

GMGöttinger Miszellen. Beiträge zur ägyptologischen Diskussion

**GOF** Göttinger Orientforschungen (IV. Reihe: Ägypten), Göttingen, 1973-.

HÄB Hildesheimer ägyptologische Beiträge. Hildesheim, 1976-.

HALOT Ludwig Koehler, Walter Baumgartner, and Johann J. Stamm, The Hebrew and Aramaic Lexicon

of the Old Testament. Translated and edited under the supervision of Mervyn E. J. Richardson. 4

volumes. Leiden: Brill, 1994-1999.

Hannig, Wb. I Rainer Hannig, Ägyptisches Wörterbuch I: Altes Reich und Erste Zwischenzeit. Hannig-Lexica 4;

Kulturgeschichte der antiken Welt 98. Mainz: von Zabern, 2003.

Hannig, Wb. II Rainer Hannig, Ägyptisches Wörterbuch II: Mittleres Reich und Zweite Zwischenzeit, 2 vols. Han-

nig-Lexica 5; Kulturgeschichte der antiken Welt 112. Mainz: von Zabern, 2006.

НО Handbuch der Orientalistik, erste Abteilung: Der Nahe und Mittlere Osten. Leiden, 1952-.

HP Georg Möller, Hieratische Paläographie. Die ägyptische Buchschrift in ihrer Entwicklung von der

fünften Dynastie bis zur römischen Kaiserzeit. 3 volumes. Leipzig: Hinrichs, 1909–2012.

Hieroglyphic Texts from Egyptian Stelae, &c., in the British Museum. London, 1911-.

HTBMInternet-Beiträge zur Ägyptologie und Sudanarchäologie. Berlin, 1998-. **IBAES** 

International Journal of African Historical Studies IJAHS

**JANER** Journal of Ancient Near Eastern Religion **JAOS** Journal of the American Oriental Society

**JARCE** Journal of the American Research Center in Egypt

The Journal of Egyptian Archaeology JEA

Journal of Egyptian History **JEH** 

**JEOL** Jaarbericht van het Vooraziatisch-egyptisch

**JES** The Journal of Egyptian Studies JFA Journal of Field Archaeology JHS Journal of Hebrew Scriptures **JNES** Journal of Near Eastern Studies JRASup Journal of Roman Archaeology, Supplementary Series. Ann Arbor, 1990-.

JSS Journal of Semitic Studies

JSSEA Journal of the Society for the Study of Egyptian Antiquities

KÄT Kleine ägyptische Texte. Wiesbaden, 1969–. KAW Kulturgeschichte der antiken Welt. Mainz, 1977–.

KHWB Wolfhart Westendorf, Koptisches Handwörterbuch. Heidelberg: Winter, 1977.

KRI Kenneth A. Kitchen Ramesside Inscriptions: Historical and Biographical. 8 volumes. Oxford:

Blackwell, 1968-1999.

KSG Königtum, Staat und Gesellschaft früher Hochkulturen. Wiesbaden, 2004-.

KTU Manfried Dietrich, Oswald Loretz, and Joaquín Sanmartín, eds. Die keilalphabetischen Texte aus

Ugarit. Münster: Ugarit-Verlag, 2013.

LÄ Wolfgang Helck, Eberhard Otto, and Wolfhart Westendorf, eds., Lexikon der Ägyptologie, 7 vol-

umes. Wiesbaden: Harrassowitz, 1972–1992.

LAAA (Liverpool) Annals of Archaeology and Anthrolopogy

LD Richard Lepsius, Denkmäler aus Ägypten und Äthiopien. 12 volumes. Berlin: Nicolaische Buch-

handlung, 1849-56.

LGG Christian Leitz, ed., Lexikon der ägyptischen Götter und Götterbezeichnungen, 8 volumes. OLA

110-116 and 129. Leuven: Peeters, 2002-2003.

LingAeg Lingua Aegyptia

LingAegSM Lingua Aegyptia Studia Monographica. Hamburg, Göttingen, 1994-.

MAe Monumenta Aegyptiaca. Brussels, 1968-.

MÄS Münchener Ägyptologische Studien. Berlin, 1962-.

MDAIK Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo
MEEF Memoir of the Egyptian Exploration Fund. London, 1885–1936.
MEES Memoir of the Egyptian Exploration Society. London, 1885–.

MEOL Mededeelingen en verhandelingen van het Vooraziatisch-Egyptisch Gezelschap "Ex Oriente

Lux." Leiden, 1934-1946.

MIFAO Mémoires publiés par les membres de l'Institut Français d'Archéologie orientale du Caire. Paris,

Cairo, 1902-.

MIO Mitteilungen des Instituts für Orientforschung der deutschen Akademie der Wissenschaften zu Berlin

MMAF Mémoires publiés par les membres de la Mission archéologique française au Caire

MMJ Metropolitan Museum Journal

MonAeg Monumenta Aegyptiaca. Brussels, 1968–.

MVAeG Mitteilungen der Vorderasiatisch-Ägyptischen Gesellschaft

MVAG Mitteilungen der Vorderasiatischen Gesellschaft

NAWG Nachrichten von der Akademie der Wissenschaften zu Göttingen, philologisch-historische

Klasse. Göttingen, 1941–2006.

NH Natural History (Pliny the Elder)

OAJ Oxford Art Journal

OBO Orbis Biblicus et Orientalis. Freibourg, Göttingen, 1973-.

OCA Orientalia Christiana Analecta. Rome, 1935-.

OEAE Donald Redford, ed. The Oxford Encyclopedia of Ancient Egypt. 3 volumes. Oxford: Oxford Uni-

versity Press, 2001.

OLC Oriental Institute Communications. Chicago, 1922–.
OIMP Oriental Institute Museum Publications. Chicago, 1941–.

OIP Oriental Institute Publications. Chicago, 1924-.

OIS Oriental Institute Seminars. Chicago, 2004–. OLA Orientalia Lovaniensia Analecta. Leuven, 1975–.

OLZ Orientalistische Literaturzeitung

OMRO Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden te Leiden

ORA Orientalische Religionen in der Antike. Tübingen, 2009-.

OrMonsp Orientalia Monspeliensia. Centre d'égyptol. de l'univ. Paul-Valéry (Montpellier). Montpellier,

1979-.

PÄ Probleme der Ägyptologie. Leiden, 1953-.

PM I<sup>1</sup> B. Porter and R. L. B. Moss. Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts,

Reliefs, and Paintings. Vol. 1: The Theban Necropolis, Part 1: Private Tombs. 2nd ed. Oxford: Clar-

endon, 1960.

PM I<sup>2</sup> B. Porter and R. L. B. Moss. Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts,

Reliefs, and Paintings. Vol. 1: The Theban Necropolis, Part 2: Royal Tombs and Smaller Cemeteries.

2nd ed. Oxford: Clarendon, 1964.

PM II<sup>2</sup> B. Porter and R. L. B. Moss, assisted by E. Burney. Topographical Bibliography of Ancient Egyptian

Hieroglyphic Texts, Reliefs, and Paintings. Vol. 2: Theban Temples. 2nd ed. Revised and augmented.

Oxford: Clarendon, 1972.

PM III<sup>1</sup> B. Porter and R. L. B. Moss, assisted by E. Burney. Topographical Bibliography of Ancient Egyptian

Hieroglyphic Texts, Reliefs, and Paintings. Vol. III: Memphis. Part 1. Abu Rawash to Abusir. 2nd edition, revised and augmented by J. Málek. Oxford: Griffith Institute, Ashmolean Museum,

1974.

PM III<sup>2</sup> fasc. 3 B. Porter and R. L. B. Moss, assisted by E. Burney. Topographical Bibliography of Ancient Egyptian

Hieroglyphic Texts, Reliefs, and Paintings. Vol. III<sup>2</sup>, Memphis. Part 2. Saqqara to Dahshur. Fascicle 3 (III<sup>2</sup>, 777–1014). 2nd edition, revised and augmented by J. Málek. Oxford: Griffith Institute,

Ashmolean Museum, 1981.

PM III<sup>2</sup> fasc. 2 B. Porter and R.L.B. Moss, assisted by E. Burney. Topographical Bibliography of Ancient Egyptian

Hieroglyphic Texts, Reliefs, and Paintings. Vol. III<sup>2</sup>. Memphis. Part 2. Saqqara to Dahshur. Fascicle 2 (III<sup>2</sup>, 575–776). 2nd edition, revised and augmented by J. Málek. Oxford: Griffith Institute,

Ashmolean Museum, 1979.

PM III<sup>2</sup> fasc. 1 B. Porter and R.L.B. Moss, assisted by E. Burney. Topographical Bibliography of Ancient Egyptian

Hieroglyphic Texts, Reliefs, and Paintings. Vol. III<sup>2</sup>: Memphis. Part 2. Saqqara to Dahshur. Fascicle 1 (III<sup>2</sup>, 393–574). 2nd edition, revised and augmented by J. Málek. Oxford: Griffith Institute,

Ashmolean Museum, 1978.

PM IV B. Porter and R. L. B. Moss. Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts,

Reliefs, and Paintings. Vol. 4: Lower and Middle Egypt (Delta and Cairo to Asyut). Oxford: Clar-

endon, 1934.

PM VI B. Porter and R.L.B. Moss. Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts,

Reliefs, and Paintings. Vol. 6: Upper Egypt: Chief Temples. Oxford: Clarendon, 1939.

PM VII B. Porter and R.L.B. Moss, assisted by E. Burney. Topographical Bibliography of Ancient Egyptian

Hieroglyphic Texts, Reliefs, and Paintings. Vol. 7: Nubia, The Deserts, and Outside Egypt. Oxford:

Griffith Institute, Ashmolean Museum, 1952.

PM VIII<sup>1</sup> J. Málek. Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings.

Vol. 8: Objects of Provenance Not Known, Part 1: Royal Statues Private Statues (Predynastic to Dy-

nasty XVII). Oxford: Griffith Institute, Ashmolean Museum, 1999.

PM VIII<sup>2</sup> J. Málek. Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings.

Vol. 8: Objects of Provenance Not Known, Part 2: Private Statues (Dynasty XVIII to the Roman

Period). Statues of Deities. Oxford: Griffith Institute, Ashmolean Museum, 1999.

PMMA Publications of the Metropolitan Museum of Art, Egyptian Expedition. New York, 1916—.

PSBA Proceedings of the Society of Biblical Archaeology PTT Private Tombs at Thebes. Oxford, 1957—.

RAPH Recherches d'archéologie, de philologie et d'histoire. Cairo, 1930-.

RB Revue biblique RdE Revue d'égyptologie

RecTrav Recueil de Travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes

RGRW Religions of the Graeco-Roman World. Leiden, 1992—.
RILT Reliefs and Inscriptions at Luxor Temple. Chicago, 1994—.

RIMAP Royal Inscriptions of Mesopotamia Assyrian Period. Toronto, 1987-.

RTA The Rock Tombs of El Amarna. London, 1903–1908.

SAGA Studien zur Archäologie und Geschichte Altägyptens. Heidelberg, 1990-.

SAK Studien zur altägyptischen Kultur

SAOC Studies in Ancient Oriental Civilization, Chicago, 1931-.

SASAE Supplément aux Annales du Service des Antiquités de l'Égypte. Cairo, 1946-.

SAT Studien zum altägyptischen Totenbuch. Wiesbaden, 1998-.

SAWW Sitzungsberichte der österreichischen Akademie der Wissenschaften, phil.-hist. Kl., Vienna,

1848-.

SDAIK Sonderschrift des deutschen archäologischen Instituts, Abteilung Kairo. Cairo, 1975-.

SÖAW Sitzungsberichte (Österreichische Akademie der Wissenschaften. Philosophisch-Historische

Klasse). Vienna, 1848-1946.

SSEA Society for the Study of Egyptian Antiquities. Toronto.1977-.

StudDem Studia Demotica. Leiden, 1987-.

TÄB Tübinger Ägyptologische Beiträge. Bonn, 1973–1976.

TLA Thesaurus Linguae Aegyptiae. Berlin, Brandenburg, 2004. http://aaew.bbaw.de/tla/

TTS The Theban Tomb Series, London, 1915–1933.

TUAT Texte aus der Umwelt des Alten Testaments. Gütersloh, 1982–2001.

TUATNF Texte aus der Umwelt des Alten Testaments, Neue Folge. Gütersloh, 2004–.

UEE UCLA Encyclopedia of Egyptology. Los Angeles, 2010–. https://escholarship.org/uc/nelc\_uee UGAÄ Untersuchungen zur Geschichte und Altertumskunde Ägyptens. Leipzig, 1896–1956.

Urk. I Kurt Sethe. Urkunden des Alten Reichs. Urkunden des ägyptischen Altertums 1. Leipzig: Hin-

richs, 1903.

Urk. IV Kurt Sethe. Urkunden der 18. Dynastie. Urkunden des ägyptischen Altertums 4, fasc. 1-16.

Leipzig: Hinrichs, 1906-09. 2nd rev. ed., 1927-1930. Continued by W. Helck, fasc. 17-22.

Berlin: Akademie, 1955-1958.

Urk. VII Kurt Sethe and Wolya Erichsen. Historisch-biographische Urkunden des Mittleren Reiches. Urkun-

den des ägyptischen Altertums 7. Leipzig: Hinrichs, 1935-.

VA Varia Aegyptiaca VT Vetus Testamentum

Wb. Adolf Erman and Hermann Grapow, eds., Wörterbuch der ägyptischen Sprache, 7 volumes, plus 5

volumes. Belegstellen. Berlin: Akademie, 1926–1963.

WAW Writings from the Ancient World. Atlanta, 1990–. WZKM Wiener Zeitschrift für die Kunde des Morgenlandes

WZKM-B Beihefte zur Wiener Zeitschrift für die Kunde des Morgenlandes. Vienna, 1936-.

YES Yale Egyptological Studies. New Haven, 1986–. ZÄS Zeitschrift für ägyptische Sprache und Altertumskunde ZDMG Zeitschrift für Deutschen Morgenländischen Gesellschaft

#### BIBLIOGRAPHY OF BETSY M. BRYAN

#### **Books**

#### Monographs

The Reign of Thutmose IV. Baltimore: The Johns Hopkins University Press, 1991.

#### JOINT PUBLICATIONS

Aménophis III, le Pharaon-Soleil. With Arielle Kozloff; also with Lawrence Berman and Elisabeth Delange. Paris: Réunion des musées nationaux, 1993.

Egypt's Dazzling Sun: Amenhotep III and his World. With Arielle Kozloff; also Lawrence Berman and an essay by Elisabeth Delange. Cleveland: The Cleveland Museum of Art, 1992.

#### Co-Editor and Primary Contributor

The Quest for Immortality: Treasures of Ancient Egypt. With Erik Hornung. Washington, DC: National Gallery of Art, 2002.

#### Edited Volumes

- Co-Editor with Peter Dorman and Jose Galán. Creativity and Innovation in the Reign of Hatshepsut. Studies in Ancient Oriental Civilization 69 (=Occasional Proceedings of the Theban Workshop = Papers from the Theban Workshop 2010). Chicago: Oriental Institute of the University of Chicago, 2014.
- Co-editor with Peter Dorman. Perspectives on Ptolemaic Thebes. Studies in Ancient Oriental Civilization 65 (=Occasional Proceedings of the Theban Workshop). Chicago: Oriental Institute of the University of Chicago, 2011.
- Co-editor with Peter Dorman. Sacred Space and Sacred Function in Ancient Thebes. Studies in Ancient Oriental Civilization 61 (=Occasional Proceedings of the Theban Workshop). Chicago: Oriental Institute of the University of Chicago, 2007.
- Co-editor with David Lorton and contributor. Essays in Egyptology in Honor of Hans Goedicke. San Antonio: Van Siclen, 1994.

#### ARTICLES, REVIEWS, CHAPTERS

- "The ABCs of Egyptian Painting in the Mid-Eighteenth Dynasty," forthcoming.
- "Icon Adaptation," forthcoming.
- "Sacred Environment." In M. Bommas, ed. Blackwell Companion to Ancient Egyptian Religion. West Sussex, UK: Wiley-Blackwell, forthcoming.
- "Just Say No." In O. Goelet and A. Oppenheim, eds. The Art and Culture of Ancient Egypt: Studies in Honor of Dorothea Arnold (=Bulletin of the Egyptological Seminar 19), forthcoming.
- "Portraiture." In M. Hartwig, ed. A Companion to Ancient Egyptian Art. Chichester: Wiley-Blackwell, 2015. Pp. 375–96.
- "Hatshepsut and Cultic Revelries in the New Kingdom." In B. Bryan, P. Dorman, and J. Galán, eds. Creativity and Innovation in the Reign of Hatshepsut. Studies in Ancient Oriental Civilization 69 (=Occasional Proceedings of the Theban Workshop = Papers from the Theban Workshop 2010). Chicago: Oriental Institute of the University of Chicago, 2014. Pp. 93–123.
- "Episodes of Iconoclasm in the Egyptian New Kingdom." In N. May, ed. Iconoclasm and Text Destruction in the Ancient Near East and Beyond. Oriental Institute Seminars 8. Chicago: Oriental Institute Publications, University of Chicago, 2012. Pp. 363–94.
- "The Egyptian Afterlife: What to Take with You and Why." AnthroNotes: Museum of Natural History Publication for Educators 33.1 (Spring 2012): 10–14.
- "New Kingdom Sculpture." In A. B. Lloyd, ed. A Companion to Ancient Egypt, vol. 2. West Sussex, UK: Wiley-Blackwell, 2010. Pp. 913–43.
- "Pharaonic Painting through the New Kingdom." In A. B. Lloyd, ed. A Companion to Ancient Egypt. vol. 2. Chichester: Wiley-Blackwell, 2010. Pp. 990–1007.
- "The New Kingdom Temple of Mut: An Emerging Image." In R. Danforth, ed. Preserving Egypt's Cultural Heritage: The Conservation Work of the American Research Center in Egypt 1995–2005. Cairo: American University in Cairo Press, 2010. Pp. 31–36.
- "Amenhotep III's Legacy in the Temple of Mut." In S. D'Auria, ed. Offerings to the Discerning Eye: An Egyptological Medley in Honor of Jack A. Josephson. Culture and History of the Ancient Near East 38. Leiden: Brill, 2010. Pp. 63–72.
- "Memory and Knowledge in Egyptian Tomb Painting." In E. Cropper, ed. *Dialogues in Art History, from Mesopotamian to Modern: Readings for a New Century, Studies in the History of Art 74.* Washington, DC: National Gallery of Art, 2009. Pp. 19–39.
- Contributor to R. Schulz and M. Seidel. Egyptian Art: The Walters Art Museum. Baltimore: Walters Art Museum, 2009.
- "The Golden Age." In Z. Hawass, ed. Tutankhamun the Golden King and the Great Pharaohs. Washington, DC: National Geographic Society, 2008. Pp. 46–57. Object entries in Zahi Hawass, Tutankhamun the Golden King and the Great Pharaohs: 98–105, 106, 112, 117–25, 128–31, 142–45, 151, 154–55, 160–61, 163–69, 176–77, 183, 185–88, 190–91, 198–99.
- "L'art et la culture sous la XVIIIe dynastie." In J.-L. Chappaz, F. Tiradritti, and M. Vandenbeusch, eds. Akhénaton et Néfertiti: soleil et ombres des pharaons. Milan-Geneva: Silvana; Musée d'art et d'histoire, 2008. Pp. 27–37.
- "2006 report on the Johns Hopkins University excavations at the Mut temple." *Annales du Service des Antiquités d'Egypte* 82 (2008): 27–38. In English and Arabic.
- "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. Probleme der Ägyptologie 28. Leiden: Brill, 2007. Pp. 32–43.

- "2006 Report on the Johns Hopkins University Excavations at the Mut Temple." Bulletin of the American Research Center in Egypt 191 (2007): 4–11.
- "A'New' Statue of Amenhotep III and the Meaning of the Khepresh Crown." In J. Richards and Z. Hawass, eds. The Archaeology and Art of Ancient Egypt: Essays in Honor of David B. O'Connor. Annales du Service des Antiquités de l'Égypte Cahier 36, vol. 1. Cairo: Conseil Suprême des Antiquités de l'Egypte, 2007. Pp. 151–67.
- "New Discoveries: Statue of Queen Tiye." In G. Scott, ed. American Contributions to Egyptian Archaeology. Cairo: American Research Center in Egypt, 2006. P. 55, plates facing p. 1 and # 50.
- "The Temple of Mut: New Evidence on Hatshepsut's Building Activity." In C. Roehrig with R. Dreyfus and C. Keller, eds. *Hatshepsut, from Queen to Pharaoh*. New York: Metropolitan Museum of Art; New Haven: Yale University Press, 2005. Pp. 181–83.
- "Administration in the Reign of Thutmose III." In E. Cline and D. O'Connor, eds. *Thutmose III: A New Biography.* Ann Arbor: University of Michigan Press, 2005. Pp. 69–122.
- "Property and the God's Wives of Amun." In D. Lyons and R. Westbrook, eds. Women and Property in Ancient Near Eastern and Mediterranean Societies. Washington, DC: Center For Hellenic Studies, Harvard University, 2005. http://chs.harvard.edu/CHS/article/display/1219.
- "Аменхотеп III и мемфисская теология" (The Memphite Theology and Amenhotep III). In V. Solkin, ed., Аменхотеп III и мемфисская теология. Петербургские сфинксы: солнце Египта на берегах Невы. St. Petersburg: Zurnal Neva, 2005. Pp. 153–90 and 270–90.
- "Temples of Millions of Year in Western Thebes"; "The Temple of Hatshepsut"; "Medinet Habu." In K. R. Weeks, ed. Valley of the Kings: The Tombs and Funerary Temples of Thebes West. Vercelli, Italy: White Star, 2001. Pp. 54–62, 66–76, 96–111.
- "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: British Museum, 2001. Pp. 63–72.
- "The 18th Dynasty before the Amarna Period (c. 1550–1352 BC)." In Ian Shaw, ed. The Oxford History of Ancient Egypt. Oxford: Oxford University Press, 2000. Pp. 218–71.
- "The Artists in the Tomb of Hormose, Part II." Nekhen News 12 (2000): 23.
- "The Egyptian Perspective on Mittani." In R. Cohen and R. Westbrook, eds. *Amarna Diplomacy: The Beginnings of International Relations*. Baltimore: Johns Hopkins University Press, 1999. Pp. 71–84.
- "The Artists in the Tomb of Hormose." Nekhen News 11 (1999): 20.
- "Antecedents to Amenhotep III." In D. O'Connor and E. Cline, eds. *Amenhotep III. Perspectives on His Reign*. Ann Arbor: The University of Michigan Press, 1998. Pp. 27–62.
- "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: British Museum Press, 1997. Pp. 57–79.
- "In Women Good and Bad Fortune Are on Earth: Status and Roles of Women in Egyptian Culture." In A. Capel and G. Markoe, eds. *Mistress of the House, Mistress of Heaven: Women in Ancient Egypt.* New York: Hudson Hills Press, in association with Cincinnati Art Museum, 1996. Pp. 25–46.
- "Art, Empire, and the End of the Late Bronze Age." In J. Cooper and G. Schwartz, eds. *The Study of the Ancient Near East in the Twenty-first Century: The William Foxwell Albright Centennial Conference*. Winona Lake, IN: Eisenbrauns, 1996. Pp. 33–79.
- "The Disjunction of Text and Image in Egyptian Art." In P. Der Manuelian, ed., Studies in Honor of William Kelly Simpson, vol. 1. Boston: Department of Ancient Egyptian, Nubian and Near Eastern Art, Museum of Fine Arts, 1996. Pp.161–68.
- "Striding Glazed Steatite Figures of Amenhotep III: An Example of the Purposes of Minor Arts." In E. Goring, N. Reeves, and J. Ruffle, eds. Chief of Seers: Egyptian Studies in Memory of Cyril Aldred. London: Kegan Paul, 1997. Pp. 60–82.

- "A Work in Progress: The Unfinished Tomb of Suemniwet." Egyptian Archaeology 6 (1995): 14–16.
- "Amenhotep III United in Eternity: A Join for Two Statue Parts from Medinet Habu." In B. Bryan and D. Lorton, eds. Essays in Egyptology in Honor of Hans Goedicke. San Antonio: Van Siclen, 1994. Pp. 25–30.
- "Egypt's Dazzling Sun: Amenhotep III and his World." With A. Kozloff. Minerva 3 (1992): 21–28.
- "An Early Eighteenth Dynasty Group Statue from the Asasif in the Johns Hopkins University Archaeological Collection." Bulletin of the Egyptological Seminar 10 (1989/1990): 25–38.
- "Private Relief Sculpture outside Thebes and its Relationship to Theban Relief Sculpture." In L. 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: Indiana University Press and the Cleveland Museum of Art, 1990. Pp. 65–80.
- "The Tomb Owner and His Family." In E. Dziobek and M. Abdel Raziq. Das Grab des Sobekhotep: Theben Nr. 63. Archäologische Veröffentlichungen, Deutsche Archäologisches Institut, Abteilung Kairo 71. Mainz: von Zabern, 1990. Pp. 81–88.
- "Portrait Sculpture of Thutmose IV." JARCE 24 (1987): 3-20.
- "The Career and Family of Minmose, High Priest of Onuris." Chronique d'Égypte 61 (1986): 5-30.
- "A New Stela of Thutmose IV from the Luxor Temple." With el-Sayed Higazy. Varia Aegyptiaca 2 (1986): 93–100.
- "Non-royal Women's titles in the 18th Egyptian Dynasty." Newsletter of the American Research Center in Egypt 134 (1986): 13–16.
- "Evidence for Female Literacy from Theban Tombs of the New Kingdom." Bulletin of the Egyptological Seminar 6 (1984): 17–32.
- "The Etymology of *Inn* Group of Musical Performers." *Bulletin of the Egyptological Seminar* 4 (1982): 35–54. "The Hero of the Shipwrecked Sailor." *Serapis* 5 (1979): 3–13.
- "The Title 'Foster Brother of the King." Journal of the Society for the Study of Egyptian Antiquities 9 (1978–1979): 117–23.
- "A note on an obscure title, By Infyt pd(t) n nb t3wy." With Edmund Meltzer. Journal of the Society for the Study of Egyptian Antiquities 8 (1977–1978): 60–65.

#### **Book Reviews**

- Review of Antiquities from the Collection of Christos G. Bastis. Part I Egyptian Antiquities by Bernard V. Bothmer. Journal of Egyptian Archaeology 77 (1991): 202-4.
- Review of Studies in the Reign of Amenophis II by Peter Der Manuelian. Journal of the American Research Center in Egypt 28 (1991): 232–33.
- Review of Eighteenth Dynasty before the Amarna Period by Karol Mysliwiec. Bibliotheca Orientalis 46 (1989): 579–82.

#### CHILDREN'S BOOK

You Can Be a Woman Egyptologist, Careers in Archaeology, Part 1, with Judith Love Cohen. Art by David Katz. Marina del Rey, CA: Cascade Pass, 1993.

### TABULA GRATULATORIA

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# THE "KERNBAU" OF THE TEMPLE OF MENTUHOTEP II AT DEIR AL BAHARI: A MONUMENTAL SUN ALTAR?

#### Luc Gabolde

to Betsy, great lady of Thebes

### The "Kernbau" of Mentuhotep's Temple and the Related Reconstruction Hypothesis

The excavations of the German Institute at Deir al Bahari have provided us with a splendid and comprehensive study of the funerary complex of Mentuhotep II at Thebes. One of the most debated features of the monument is the reconstruction of the structure in the central area, the "Kernbau." The discussion was initiated by Naville and Winlock who both believed that it was once some kind of pyramid (fig. 1A).¹ The accurate study of the remains by D. Arnold, after numerous and remarkable research campaigns, had led this scholar to the conclusion that the central structure was in fact a square mastaba-like building adorned with cavetto cornices (fig. 1B).² R. Stadelmann elaborated another variant of the hypothesis, an Osirian mound crowned with trees (fig. 1C).³ More recently, D. Polz, through his close examination of the place and typology of the burial complex of Nubkheperrê Antef in the series of funerary monuments of the west bank, has reverted to Winlock's idea, and suggested that Mentuhotep II's monument was in fact crowned by a pyramid, though of a much smaller size than that proposed by his predecessors (fig. 1D).⁴ One of the major observations of Arnold was that not a single casing stone with an appropriately sloping side, potentially fitting with the casing of a pyramid, has ever been found among the debris left on the spot. The hypothesis of a pyramid—at least a big one—appears thus rather unlikely.

In order, once more, to contribute to the debate initiated by these prominent scholars, I would like to present here another avenue of exploration, and to offer it to Betsy Bryan, as a tribute to her constant curiosity.

<sup>1.</sup> E. Naville, The XIth Dynasty temple at Deir el Bahari I, MEEF 28 (London, 1907), 28–29; H. E. Winlock, The Rise and Fall of the Middle Kingdom in Thebes (New York, 1947), 40.

<sup>2.</sup> D. Arnold, Der Tempel des Königs Mentuhotep von Deir el-Bahari I, AVDAIK 8 (Mainz, 1974), fig. on p. 6; 27–32, pl. 31.

<sup>3.</sup> R. Stadelmann, Die ägyptischen Pyramiden, vom Ziegelbau zum Weltwunder, KAW 30 (Mainz, 1991), 232 and fig. 74.

<sup>4.</sup> D. Polz, "New Archaeological Data from Dra' Abu el-Naga and their Historical Implications," in *The Second Intermediate Period* (Thirteenth–Seventeenth Dynasties). Current Research, Future Projects, ed. M. Marée, OLA 192 (Leuven, 2010), 349–50 and fig. 4.

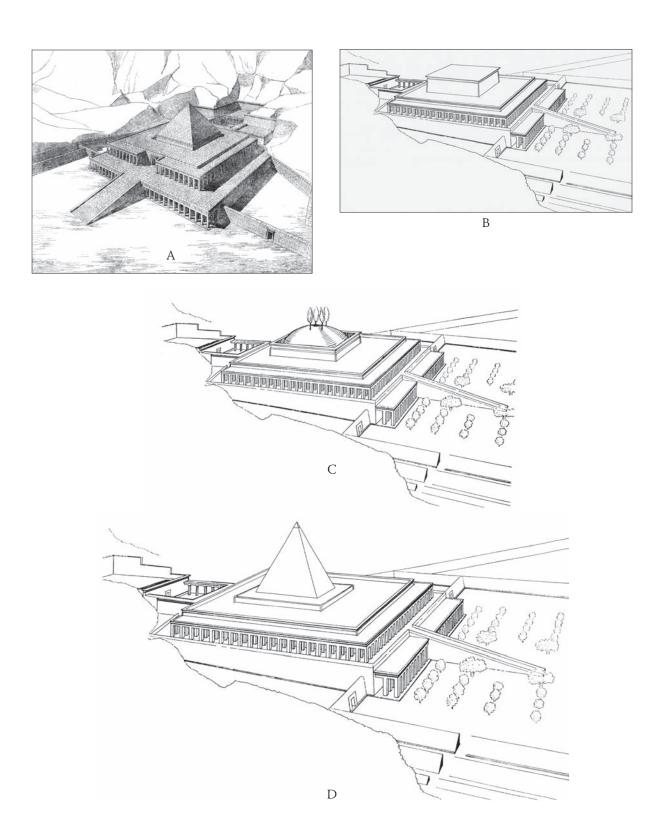


Fig. 1. The various proposed hypotheses for the reconstruction of Mentuhotep II's temple. A) Naville's and Winlock's reconstructions; B) Arnold's reconstruction; C) Stadelmann's reconstruction; D) Polz's reconstruction.

#### PECULIARITIES IN THE LAYOUT OF MENTUHOTEP'S TEMPLE

The plan of Mentuhotep's temple shows a rather strange feature: contrary to all the other structures of the building (passages, courtyards, burial chamber, sanctuary), the gate leading from the western corridor of the "Kernbau" to the western courtyard located behind the central building is not aligned with the main axis of the temple but shifted to the north. This peculiar arrangement is probably the consequence of an asymmetrical enlargement to the south of the original layout which included the six princesses' mortuary shrines. However, the off-centered gate also allowed there to be an available space on the western side of the "Kernbau" left free for any architecture planned in the axis of the sloping corridor of the burial chamber (fig. 2).

#### THE QUESTION OF THE SOLAR ALTARS IN MORTUARY TEMPLES

Most of the mortuary temples of the west bank of Thebes seem to have been equipped with solar altars, intimately linked to the liturgies performed for the deceased king (they are probably connected with the solar-osirian concept underlying chapter 182 of the *Book of the Dead* and brilliantly expressed in the tomb of Nefertary as "Osiris who rests in Re, it is Re who rests in Osiris").

The best preserved exemplars of such altars are the one in Hatshepsut's temple at Deir al -Bahari (fig. 3)<sup>6</sup> and the one in Seti I's temple at Gurna.<sup>7</sup> Traces of others have been found, in the mortuary temple of Thutmosis III, in that of Merenptah, and by Ramses III's temple at Medinet Habu.<sup>8</sup> Their general shape is that of a mastaba topped with cavetto cornice and accessible through stairs that abut their eastern side.

A close examination of the very accurate plans of Mentouhotep II's temple drawn by Dieter Arnold fails, however, to reveal any trace of such an altar, though the presence of this kind of element in a mortuary temple seems to have been likely and perhaps even mandatory.

Moreover, as we know now that solar altars existed already in the reign of Sesostris I at Karnak, we can legit-imately expect that some version of the altar existed only a few decades earlier, under the reign of Mentuhotep II (fig. 4).

#### Solar Altars and Obelisks

Solar altars seem to have regularly been associated with obelisks. Originally a solar altar was attached to a monumental obelisk in the Old Kingdom sun temples, as is demonstrated by Neuserra's solar sanctuary at Abu-Gorab (fig. 5).<sup>10</sup>

<sup>5.</sup> Arnold, Der Tempel des Königs Mentuhotep, 64, "Bauphase B." Note, however, that the door is not centered on the symmetrical axis between the two groups of three chapels.

<sup>6.</sup> E. Naville, The Temple of Deir el Bahari I, MEEF 13 (London, 1895), 8, pl. VIII; J. Karkowski, The Temple of Hatshepsut: The Solar Complex, 2 volumes, Deir el-Bahari 6 (Warsaw, 2003), 1:250; 2:pl. 50-50bis.

<sup>7.</sup> J. Osing, Der Tempel Sethos' I. in Gurna. Vol. 1: Die Reliefs und Inschriften, AVDAIK 20 (Mainz, 1977), 51-52 and pl. 36 a-c.

<sup>8.</sup> H. Jaritz et al., "Der Totentempel des Merenptah in Qurna, 3. Grabungsbericht," MDAIK 52 (1996), 208–9, fig. 2 and pl. 36a; U. Hölscher, Excavations at Medinet Habu III, OIP 54 (Chicago, 1941), 10, fig. 5 (no. 18) and 15, fig. 8.

<sup>9.</sup> L. Gabolde, Karnak, Amon-Rê: la genèse d'un temple, la naissance d'un dieu, forthcoming. This altar was not yet known when Rainer Stadelmann wrote his article on the Šwt-R<sup>c</sup>w ("Šwt-R<sup>c</sup>w als Kultstätte des Sonnengottes im Neuen Reich," MDAIK 25 [1969], 125–78), and therefore this scholar considered that the solar temples had played no role in the royal offerings. The existence of Sesostris I's altar from Karnak now fills this gap.

<sup>10.</sup> F. W. von Bissing and L. Borchardt, Das Re-Heiligtum des Königs Ne-woser-Re (Rathures), 3 volumes (Berlin, 1905–1928), 1:43–45, figs. 33–34, pl. I.

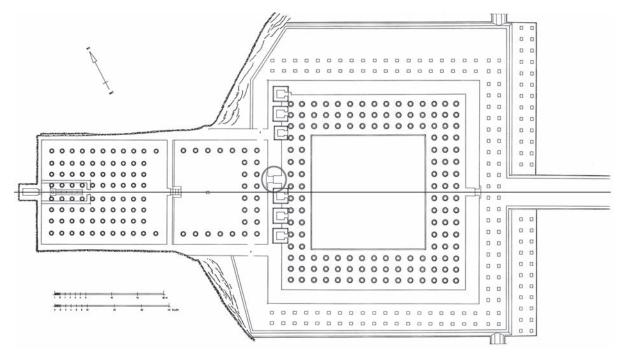


Fig. 2. Plan of the temple of Mentuhotep II (after Arnold, Der Tempel des Königs Mentuhotep, pl. 27. Circled: the gate out of the axis).

Later on, small obelisks appear to have been frequently associated with solar altars. Obelisks of Amenhotep II and Thutmosis IV (fig. 6) found at Elephantine recall this architectural link as they mention: Model "Two obelisks for the sun-altar."

In the following dynasty, Ramses II built at Abu-Simbel a solar altar equipped with two small obelisks (fig. 7).

#### THE HYPOTHESIS OF A MONUMENTAL SUN ALTAR FOR MENTUHOTEP II

Consequently, the possibility that the central building of Mentuhotep's temple possessed a monumental solar altar, probably topped with a single or a pair of obelisks, is an interpretation of the archaeological data which deserves consideration.

The access to the altar would have been possible through a monumental wooden ramp that elongated the corridor leading to the burial chamber and that followed along the axis, taking advantage of the positioning of the intermediate gate which was not aligned with the axis.

<sup>11.</sup> Urk. IV:1561, 4–5; C. Kuentz, Obélisques, Catalogue Général du Musée du Caire, n° 1308–1315 et 17001–17036 (Cairo, 1932), pl. X, Nr. CGC 17016; similar text on the obelisk of Amenhotep II at Alnwick Castle: Urk. IV:1355, 1–2.

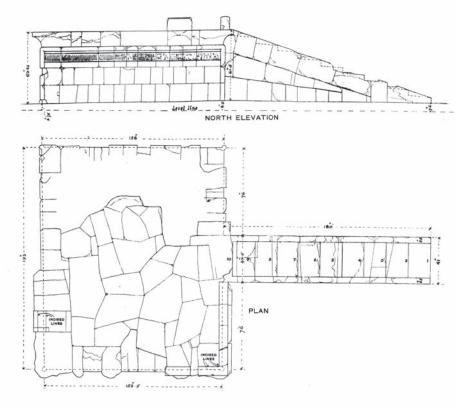


Fig. 3. Solar altar at Deir al Bahari. After Naville, *Deir el-Bahari* I, pl. VIII).

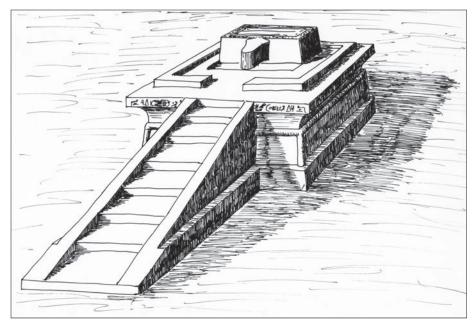


Fig. 4. Sun altar of Sesostris I at Karnak. Reconstruction by the author.

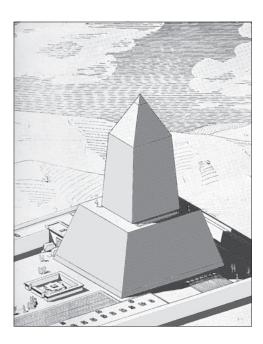


Fig. 5. Sun temple of Neuserra with a sun altar adjoined to the obelisk. After von Bissing and Borchardt, *Das Re-Heiligtum*, pl. I.



Fig. 6. Obelisk from a sun altar of Thutmosis IV at Elephantine.

CGC 17016.

17016

Fig. 7. Solar altar of Ramses II at Abu-Simbel, framed with two small obelisks.

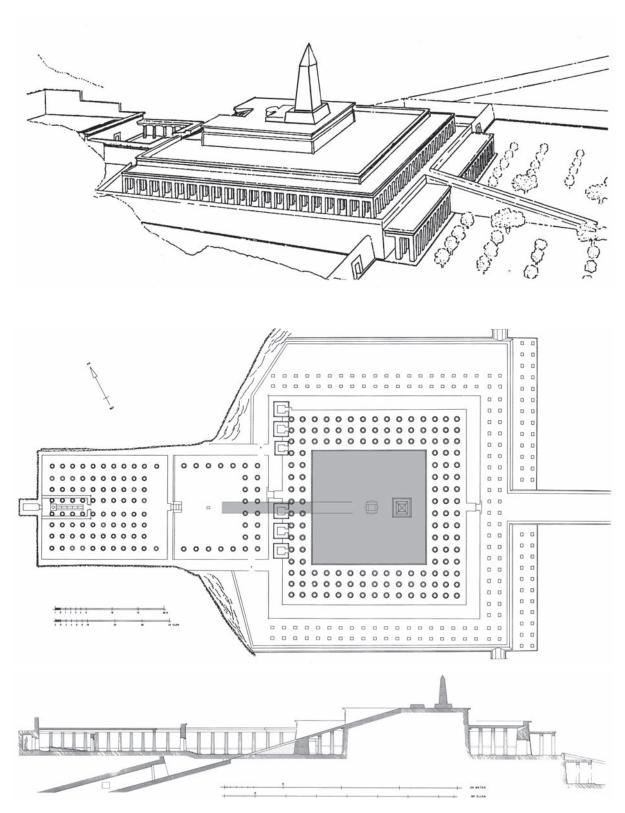


Fig. 8. Hypothesis 1: suggestion of an altar-shaped terrace with a sun-offering table and a sole obelisk (adapted after D. Arnold, *Der Tempel des Königs Mentuhotep*, pls. 27 and 28).

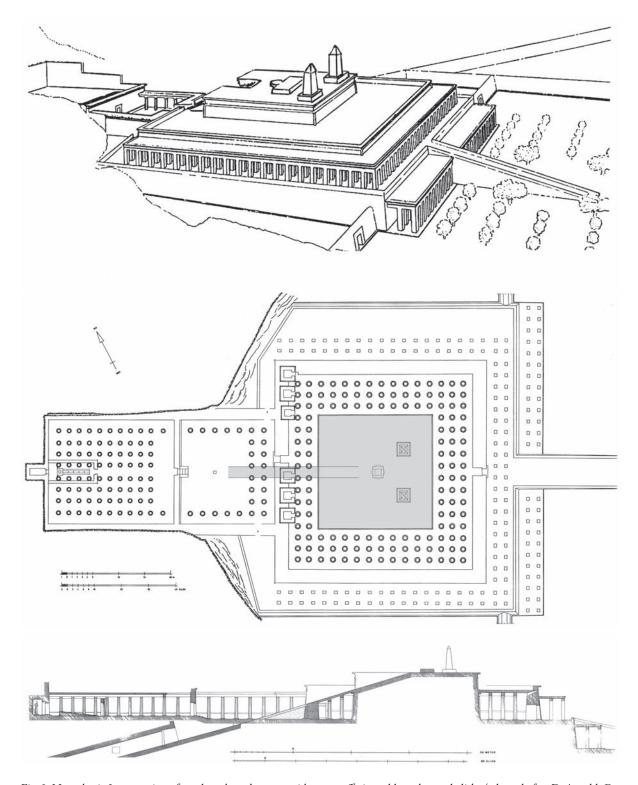


Fig. 9. Hypothesis 2: suggestion of an altar-shaped terrace with a sun-offering table and two obelisks (adapted after D. Arnold, *Der Tempel des Königs Mentuhotep*, pls. 27 and 28).

#### THE TEXTS, GRAFFITI, AND QUARRY MARKS

The mention in a stele, as well as the graffiti collected by Winlock, which seem to imply a pointed structure, either a pyramid  $^{12}$  (figs. 10A, B), or more interestingly an obelisk  $^{13}$  (fig. 10C), as the central part of the monument, further support such an hypothesis. One of them even appears to show an obelisk topped with the sun disk and its rays  $^{14}$  (fig. 10D).

This last quarry mark (fig. 10D) echoes significantly the determinatives of some of the obelisk-shaped sun temples of the Old Kingdom, as collected in the seventies by Georges Goyon (fig. 11).<sup>15</sup>

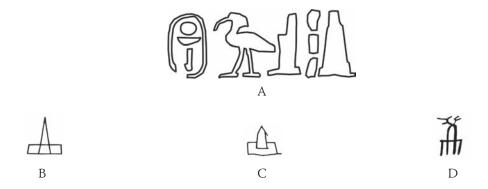


Fig. 10. A) Stele of *Ttw* Abydos CGC 20088 = Mariette Cat. 605; B) Graffito Spiegelberg S.952; C) Graffito Spiegelberg S.948; D) Mark from the temple.

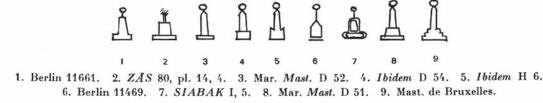


Fig. 11. Determinative signs of Sun Temples. After G. Goyon, RdE 22 (1970), 95, figs. 1–9.

#### THE ORIENTATION OF THE TEMPLE

In that respect, it is overall interesting to note that the orientation of the main axis of the temple did approximately point towards the direction where the sun would rise at the winter solstice.<sup>16</sup>

<sup>12.</sup> Stele of *Itw* Abydos CGC 20088, H. O. Lange and H. Schäfer, *Grab und Denksteine des Mittleren Reiches* I (Berlin, 1902), 105–97 and IV, pl. VIII; A. Mariette, *Catalogue général des monuments d'Abydos* (Paris, 1880), no. 60; W. Spiegelberg, *Ägyptische und andere Graffiti* (*Inschriften und Zeichnungen*) aus der thebanischen Nekropolis (Heidelberg, 1921), no. 948.

<sup>13.</sup> Spiegelberg Ägyptische und andere Graffiti, no. 952.

<sup>14.</sup> H. Winlock, The Slain Soldiers of Neb-hep-et-Re' Mentu-hotpe, PMMA 16 (New York, 1945), 26; Arnold, Der Tempel des Königs Mentuhotep, 91, §4.6.

<sup>15.</sup> G. Goyon, "Nouvelles observations relatives à l'orientation de la pyramide de Khéops," RdE 22 (1970), 95, fig. 1-9.

<sup>16.</sup> Personal data and calculations. The orientation of the temple itself is given in M. Shaltout and J-A. Belmonte, "On the Orientation of Ancient Egyptian Temples: (1) Upper Egypt and Lower Nubia," *Journal for the History of Astronomy* 36.3, no. 124 (2005), 273–98, table 1, 278.

Deir al Bahari Dynasty 11 Temple	Longitude	Latitude λ	Azimut a	Altitude h	Angle to horizont α	Sunrise at winter solstice
Mentuhotep II	25° 44′ 14.47″ N	32° 36′ 22.73″ E	≈ 118°	125 m	0° 43′ 55.46′′	116° 44′ 20′′

#### Conclusion

Though the present hypothesis does not answer all the questions raised by the problematic "Kernbau" of Mentuhotep's temple at Deir al Bahari and leaves some uncertainties unsolved, it may, however, fill the gap created by the absence of a solar altar in the temple and can explain some puzzling graffiti and quarry marks related to this building. The problem of reconstructing a wooden ramp in the absence of any remaining trace is of course crucial. However, it should be kept in mind that in some circumstances, such as the emblematic case of the main naos of Amun in the Akhmenu sanctuary, the accessibility to a shrine raised on a high podium (1.05 m high) and to its gates, for the daily ritual opening ceremony and for the complete liturgical services, was possible only through a wooden staircase of which, nevertheless, no material, iconographic, or textual trace has survived. 19

<sup>17.</sup> Urk. IV:362, 15-16.

<sup>18.</sup> Most of the masonry covered by the hypothetical wooden ramp is destroyed down to the foundations: see Arnold, Der Tempel des Königs Mentuhotep, pl. 26.

<sup>19.</sup> J.-F. Carlotti, L'Akh-Menou de Thoutmosis III à Karnak: étude architecturale, 2 vols. (Paris, 2001), 1:133, 230.