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Gilders: makers and making of gold leaf

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Citation

Staring, N. T. B. (2025). Gilders: makers and making of gold leaf. In G. Menéndez, I. Vivas Sainz, & B. G. Davies (Eds.), *Clever minds and expert hands* (pp. 195-224). Wallasey: Abercromby Press. Retrieved from <https://hdl.handle.net/1887/4281820>

Version: Publisher's Version

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Note: To cite this publication please use the final published version (if applicable).

CLEVER MINDS AND EXPERT HANDS

Clever Minds and Expert Hands

Egyptian Art and Artists in the New Kingdom

Edited by

**Gema Menéndez, Inmaculada Vivas Sainz
and Benedict G. Davies**



ABERCROMBY PRESS

ISBN: 978 1 912246 35 9

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A CIP catalogue record of this book is available from the British Library

First published in the United Kingdom in 2025

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Front Cover:

Artists at work, Theban Tomb 217 of the sculptor Ipuy, Deir el-Medina
(photograph by Gema Menéndez, 2025)

Typeset in Myriad Pro & Minion Pro
Designed and typeset by Benedict G. Davies

Published by:
Abercromby Press
12 Elm Park Road
Wallasey
CH45 5JH

PRINTED IN THE UNITED KINGDOM

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Preface

Ancient Egyptian art has been admired since the Graeco-Roman times, when the land of the Nile was considered as the cradle of wisdom and full of astonishing and sacred monuments. The fascination for Egyptian monuments and artworks developed notably during the Renaissance and increased until modern times, reinforced by new discoveries. However, Egyptological studies have been traditionally followed a philological or archaeological perspective, somehow considering that art was of lesser importance. The aim of this volume is to reinforce the value of the artistic legacy of ancient Egypt during one of the most outstanding periods of its history, the New Kingdom, paying special attention to the role of the artists.

The concept of artist is understood in a broad sense, including sculptors, painters, woodworkers, goldsmiths, etc. Our mentality, heir to Renaissance Humanism, asks us for names, originality, skills, imagination and creativity to believe in the talent of an artist. As much as it is hard for some to believe, we find this in ancient Egypt. We know their names, their genealogies, their skills, relate them to specific works, observe their performance as apprentices or as teachers, outline and follow their lines, recognize their own styles. We can admire his ability to design the human figure with the same ability as any Renaissance sculptor, reproduce the flight of birds, show the fear of an enemy, tell stories and even transmit essences and smells as we will hear from one of our contributors. Names such as the sculptor Thutmose from Amarna, the chief of craftsmen Didia, the chief of painters Pashed, the draftsman and painter Amenhotep, the sculptor Userhat Hatiay, and the hundreds of names that have come down to us from Deir el-Medina.

Some left us autobiographies telling us about their achievements and merits, but they were not enough. Many others were hidden among the documentation, images and archaeological evidence. And it is that the Egyptian artist, except on rare occasions, did not lavish upon himself flattery and presumptions of his work. Of course, he wanted to stand out. And although he did not usually sign his artworks, some of them did. The satisfaction that his art would last forever was merit enough, as was being able to reproduce the face of a divinity or a king. As is known, in Egyptian art everything represented came to life, had an existence. From the most magnificent bird to the smallest fig on the offering table, eternal life was assured by the mere fact of having been drawn by the painter or sculpted by the most modest of sculptors.

To bring him to light after 4,000 years and share with others those investigations that had them as protagonists. Make their names last and distinguish them from the rest.

The idea of creating a book focused on the topic of New Kingdom art and artists came up after the celebration of a scientific meeting entitled *International Congress ‘Distinguished above others. The role of the artists in New Kingdom Art’* held in Madrid in 2022. We had the opportunity to meet foreign and Spanish researchers who were investigating varied topics, such as the role of the artists, the creative dimension of artworks (techniques, creativity, innovation, emulation, sources of inspiration, etc.), the process of negotiation between patrons and creators, the artists’ mobility in New Kingdom art, the diffusion of icons and styles, or the identification of workshops and authorship.

The expression ‘Distinguished above others’ comes from the stela of the artist Userhat Hatia, kept at the *Rijks Museum Van Oudheden* in Leiden, containing one of the few autobiographies that have been preserved from ancient Egyptian artists. It reflects the admiration towards the work of the artists in general, and in particular to the Egyptian painters, called “scribes of contours”, distinguished above apprentices. In the past few decades several scholars have tried to restore the importance of the somehow neglected figure of Egyptian the artist, chiefly Dimitri Laboury, Guillemette Andreu-Lanoë or Alisée Devillers, among others. There is clear evidence of the existence of real artists, and not mere artisans, who can be identified in the textual and visual record, especially during the New Kingdom.

Following our feeling of admiration towards the work of the artists and the need to develop studies on New Kingdom art from a different perspective, we decided to engage several scholars in a publication focused on both topics. This volume has been possible thanks to the generosity and enthusiasm of the authors who have participated. We extend to you our deepest gratitude for sharing your recent research. And last but not least, we would like to thank Benedict G. Davies for accepting our proposal from the outset, and for his invaluable help as co-editor of the volume.

The first contribution of the present book could not be more outstanding, and we could not feel more honoured. Tamás A. Bács has devoted a study to the late Ramesside images of royalty in royal and non-royal tombs, exploring the possibility for artists’ self-expression in the forms of ancient Egyptian visual representation. The evidence analysed includes not only images from tombs in the Valley of the Kings, but especially ostraca with royal images that are a clear demonstration of skill in the technique of painting, suggesting the artists themselves considered the portrait-like head studies as finished works and intended them to be appreciated as such.

Miriam Bueno’s article is focused on the iconography of acrobatic dance in the New Kingdom, looking for hints of iconographic transfer between tombs and temples, as well as the innovations developed by the creators of these scenes who were not merely copying scenes but rather reinventing them in each new context.

The village of Deir el-Medina has been the subject of numerous studies, but the investigation developed by Kathlyn M. Cooney published in this volume offers an enriched and new perspective, as it cannot be otherwise, being one of the main experts on coffin decoration and the reuse of coffins. The author focuses on the Deir el-Medina crew during the Twentieth Dynasty, a period of instability and crisis of royal power (evidenced by the decline of the royal gang during the Twentieth Dynasty), and exploring the shift in patronage and the new role of the workers from the village.

Belen del Barrio has devoted her study to an interesting artwork known as the Little Golden Shrine of Tutankhamun, offering a state of the art study of this piece. Her perspective offers a new vision of the role of the artists of the late Amarna period who had to adapt to the traditional iconography but who retained traces of the Amarna style in their creations.

The role of the artist is one of the central topics in this publication, so the research conducted by Lonneke Delpeut is highly relevant. She proposes that artists of Theban tomb decorations from the New Kingdom function as mediators between the tomb owner and his target audience, the visitors, based on the evidence analysed.

Alisée Devillers is one of the main scholars who has investigated the iconographical and textual evidence of the ancient Egyptian artists. Her contribution focuses on an interesting case study in Theban Tomb 181, the funerary chapel of Nebamun and Ipuky, which offers an example of artists self-presentation within the workshop scene.

The tomb of Amenwahsu (TT 111) provides an excellent case study for our understanding of the artists' working practices, due to the superior preservation of its painted decoration. Deanna Kiser-Go has devoted her contribution to this small but interesting tomb-chapel, which even contains a statement in one inscription that indicates Amenwahsu, himself, most likely took part in the decisions about what to include in the imagery.

Gema Menéndez's contribution focuses on the role of sculptors in ancient Egypt, based on the evidence provided by scenes of sculpture workshops. Her in-depth research offers a new insight of the sculptors during the Eighteenth and early Nineteenth Dynasties, concluding that they enjoyed an important role within the artistic guild.

A similar topic has been addressed by Nico Staring, but in this case dealing with iconographical and textual sources from Memphis during the New Kingdom. In his comprehensive article the role of the goldsmiths is explored, based on diverse evidence such as the unique workshop scenes in the tomb of Meryneith and the recently discovered tomb chapel of Yuyu.

The funerary coffins and sarcophagi preserved in collections of ancient Egypt are profuse, but only recently these objects have been considered from the perspective of their makers, techniques or the creative process. Jaume Vilaró-Fabregat has devoted his article in the present volume to the study of a group of non-Theban yellow coffins and mummy boards dated to the Third Intermediate Period, analysing their style, layout, iconography, texts, names of the owners, etc.

The idea of innovation and creativity of ancient Egyptian artists is a rather controversial question that deserves special attention. Inmaculada Vivas has addressed this topic on her research regarding the appearance of a new motif in the New Kingdom Theban repertoire. Her article analyses the representation of the mountain in private tombs, connected not only to the image of the goddess Hathor but also to the image of the architecture of the tomb-chapel, paying particular attention to the sources of inspiration of Egyptian artists when developing this type of scene.

Our knowledge of Theban tombs and the work of the artists who took part in their decoration is constantly evolving thanks to the field work developed by excavations projects. One of the most recent projects is the Argentinian mission working at the tomb of Amenmose (TT 318), which contains two interesting banquet scenes analysed in the contribution by Andrea Zingarelli and Silvana Fantechi. Both scholars have conducted an in-depth study of the tomb of Amenmose which seems to be one of the first ones to include dancers and musicians represented in banquet scenes.

To sum up, the present book comprises the recent research of several scholars who have investigated the art of ancient Egypt from a different perspective, exploring the role of their creators as people responsible for the transmission of techniques and iconography, but also capable of creativity and innovation. Our intention was none other than to give the ancient Egyptian artist the importance he deserves.

Abbreviations

I. General

Anon.	Anonymous
ARCE	American Research Center in Egypt
BD	Book of the Dead
BM	British Museum, London
c.	<i>circa</i> , ‘approximately’
Cat.	Catalogue
cf.	<i>confer</i> , ‘compare’
CG / CGC	Catalogue Générale du Musée du Caire, Cairo, with number. Definitive museum numbers of monuments used in the official Catalogue volumes
cm	centimetre(s)
col(s).	column(s)
CT	Coffin Text(s)
ed. / eds	editor / editors
DeM	Deir el-Medina
e.g.	<i>exempli gratia</i> , for example
esp.	especially
et. al.	<i>et alii</i> , and others
etc.	<i>et cetera</i> , and so forth
Fig(s).	Figure(s)
<i>ibid.</i>	<i>ibidem</i> , ‘in the same place’
idem	‘the same’
i.e.	<i>id est</i> , that is
Ifao	L’institut français d’archéologie orientale, Cairo

JE / JdE	Journal d'Éntrée, accession register and accession numbers for monuments in Cairo Museum
kv	Valley of the Kings, tomb number
km(s)	kilometre(s)
lit.	literally
<i>loc. cit.</i>	<i>loco citato</i> , in the passage or place already cited
L.P.H.	Life, Prosperity and Health!
m	metre
MFA	Museum of Fine Arts, Boston
MMA	Metropolitan Museum of Art, New York
Ms. / Mss	Manuscript(s)
n. d.	no date
NK	New Kingdom
n(n).	note(s)
no(s).	number(s)
<i>op. cit.</i>	<i>opus citatum</i> , in the work already cited
O.	Ostrakon
O. Ash. Mus.	Ostrakon, Ashmolean Museum, Oxford (formerly O. Gardiner)
O. BTdK	O. Basel, Tal der Könige
O. CGC / O. Cairo CG	Ostrakon, Cairo Museum, Catalogue Générale
O. DM / O. DeM	Ostrakon, Deir el-Medina
O. IFAO	Ostrakon, Institut Français d'Archéologie Orientale, Cairo
p(p).	page(s)
p / Pap.	Papyrus
pl(s).	plate(s)
PT	Pyramid Text(s)
qv	Valley of the Queens, tomb number,
rto	recto
Taf.	Tafel (German), Table
TT	Theban Tomb (number)
UCL	University College, London
unpubl.	unpublished
vol(s).	volume(s)
vso	verso
wv	West Valley (of the Kings), tomb number

II. Bibliographical

AAALiv	<i>Annals of Archaeology and Anthropology</i> , University of Liverpool
ACER	Australian Centre for Egyptology Reports, Macquarie University (Sydney)
Ä&L	<i>Ägypten und Levante. Zeitschrift für ägyptische Archäologie und deren Nachbargebiete</i> , Vienna
ÄgAbh	<i>Ägyptologische Abhandlungen</i> , Wiesbaden
AegGreg	<i>Aegyptiaca Gregoriana</i> , Museo gregoriano egizio, Vatican City
AegHelv	<i>Aegyptiaca Helvetica</i> , Bâle–Geneva
ÆgLeo	<i>Ægyptiaca Leodiensia</i> , Liège
ÄAT	<i>Ägypten und Altes Testament</i> , Wiesbaden
AmarnLett	<i>Amarna Letters</i>
AnchHist	<i>Ancient History. Resources for Teachers</i> , Ancient History Association, University of New South Wales, Macquarie, Australia
ASAE	<i>Les Annales du Service des Antiquités de l'Égypte</i> , Cairo
ASEg	Archaeological Survey of Egypt, London
BACE	<i>Bulletin of the Australian Centre for Egyptology</i> , Macquarie University (Sydney)
BdÉ	Bibliothèque d'Étude, Cairo
BES	<i>Bulletin of the Egyptological Seminar</i> , New York
BiAeg	<i>Bibliotheca aegyptiaca</i> , Brussels
BIE	<i>Bulletin de l'Institut égyptien</i> , then <i>Bulletin de l'Institut d'Égypte</i> , Cairo
BIFAO	<i>Bulletin de l'Institut Français d'Archéologie Orientale</i> , Cairo
BiOr	<i>Bibliotheca Orientalis</i> , Leiden
BMMA	<i>Bulletin. Museum of Arts and Archaeology</i> , University of Michigan, Ann Arbor, Michigan
BMH	<i>Bulletin du Musée Hongrois des Beaux-Arts</i> , Budapest
BMPES	British Museum Publications on Egypt and Sudan
BMSAES	British Museum Studies in Ancient Egypt and Sudan, London
BSEG	<i>Bulletin de la Société d'égyptologie de Genève</i> , Geneva
BSFE	<i>Bulletin de la Société française d'égyptologie</i> , Paris
CANE	Classical Association of New England
CdÉ	<i>Chronique d'Égypte</i> , Bruxelles
CENiM	Cahiers «Égypte Nilotique et Méditerranéenne», Montpellier
CHANE	Culture and History of the Ancient Near East, Leiden

CRIPeL	<i>Cahiers de recherches de l'Institut de papyrologie et égyptologie de Lille</i> , Lille
Davies, RITANC III	B. G. Davies, <i>Ramesside Inscriptions. Translated and Annotated. Notes and Comments III</i> , Malden–Oxford, 2013
DE	<i>Discussions in Egyptology</i> , Oxford
DFIFAO	Documents de fouilles de l'Institut Français d'Archéologie Orientale, Cairo
EA	<i>Egyptian Archaeology</i>
EAO	<i>Égypte. Afrique & Orient</i> , Centre vaclusien d'égyptologie, Avignon–Paris–Montségur
EgAnt	Egitto Antico, Rome
EgUit	Egyptologische Uitgaven, Leiden
ENiM	<i>Égypte nilotique et méditerranéenne</i> , Institut d'égyptologie Fr. Daumas, université Paul Valéry, Montpellier
FIFAO	Fouilles de l'Institut Français d'Archéologie Orientale, Cairo
GM	<i>Göttinger Miszellen</i> , Göttingen
HÄB	Hildesheimer Ägyptologische Beiträge, Hildesheim
HdO	Handbuch der Orientalistik, Leiden–Cologne
HES	Harvard Egyptological Studies
IBAES	Internet-Beiträge zur Ägyptologie und Sudanarchäologie, Berlin
ImagAeg	<i>Imago Aegypti. Intern. Magazin für ägyptol. und koptol. Kunstforschung, Bildtheorie und Kulturwissenschaft</i> , Munich
ISIMU	<i>Isimu. Rev. sobre Oriente Próximo y Egipto en la Antigüedad</i> , Madrid
JAAUTH	<i>Journal of Association of Arab Universities for Tourism and Hospitality</i> , Suez Canal University, Egypt
JAEl	<i>Journal of the Ancient Egyptian Interconnections</i> , University of Arizona, Tucson
JAH	<i>Journal of African History</i> , Cambridge
JARCE	<i>Journal of the American Research Center in Egypt</i>
JBm	<i>Jahrbuch der Berliner Museen</i> , Berlin
JEa	<i>The Journal of Egyptian Archaeology</i> , London
JEH	<i>Journal of Egyptian History</i> , Leiden
JEOL	<i>Jaarbericht "Ex Oriente Lux"</i> , Leiden
JESHO	<i>Journal of the Economic and Social History of the Orient</i> , Leiden
JNES	<i>Journal of the Near Eastern Studies</i> , Chicago
JPKult	<i>Jahrbuch preußischer Kulturbesitz</i> , Berlin
JSSEA	<i>The Journal of the Society for the Study of Egyptian Antiquities</i> , Toronto

<i>JTHH</i>	<i>Journal of Tourism, Hotels and Heritage</i> , Matrouh University, Egypt
<i>KRI</i> I–VIII	K. A. Kitchen, <i>Ramesside Inscriptions</i> I–VIII, Oxford, 1969–1990
<i>KRITA</i> I–VII	K. A. Kitchen, <i>Ramesside Inscriptions. Translated & Annotated. Translations</i> I–VII, Malden–Oxford, 1993–2014
<i>LÄ</i>	<i>Lexikon der Ägyptologie</i> , Wiesbaden
<i>LD</i> I–VI	C. R. Lepsius, <i>Denkmaeler aus Aegypten und Aethiopine nach den Zeichnungen der von seiner Majestaet dem Koenige von Preussen Friedrich Wilhelm IV, nach diesen Laendern Gesendeten und in den Jahren 1842–1845 ausgefuehrten wissenschaftlichen Expedition auf Befehl seiner Majestaet</i> , Abt. I–VI in 12 vols, Berlin 1849–1859 (& reduced repr., Geneva, 1971 ff.). Available online: http://edoc3.bibliothek.uni-halle.de/lepsiuss/start.html
<i>LD Text</i> I–V	C. R. Lepsius, <i>Denkmaeler aus Aegypten und Aethiopine nach den Zeichnungen der von seiner Majestaet dem Koenige von Preussen Friedrich Wilhelm IV, nach diesen Laendern Gesendeten und in den Jahren 1842–1845 ausgefuehrten wissenschaftlichen Expedition auf Befehl seiner Majestaet</i> , Text, I–V, Berlin 1897–1913 (& reduced repr., Geneva, 1975)
<i>LGG</i>	C. Leitz et al., <i>Lexikon der ägyptischen Götter und Götterbezeichnungen</i> , OLA 110–116, 7 vols, Louvain, 2002
<i>LingAeg</i>	<i>Lingua Aegyptia. Journal of Egyptian Studies</i> , Seminar für Ägyptol. und Koptol., Göttingen
<i>LingAeg SM</i>	<i>Lingua Aegyptia. Studia Monographica</i> , Seminar für Ägyptol. und Koptol., Göttingen
<i>MDAIK</i>	<i>Mitteilungen des deutschen archäologischen Instituts, Abt. Kairo</i> , Wiesbaden, Mayence
<i>MDOG</i>	<i>Mitteilungen der deutschen Orientgesellschaft zu Berlin</i> , Berlin
<i>MIFAO</i>	Mémoires publiés par les membres de l'Institut Français d'Archéologie Orientale, Cairo
<i>MKS</i>	Middle Kingdom Studies, Golden House Publications, London
<i>MMAF</i>	Mémoires publiés par les membres de la Mission archéologique française au Caire. Institut français d'archéologie orientale, Cairo
<i>MMS</i>	<i>Metropolitan Museum Studies</i> , Metropolitan Museum, New York
<i>MonAeg</i>	<i>Monumenta aegyptiaca</i> , Brussels
<i>MVEOL</i>	Mededelingen en Verhandelingen van het Vooraziatisch-Egyptisch Genootschap, Leiden
<i>NARCE</i>	Newsletter of the American Research Center in Egypt
<i>NEA</i>	<i>Near Eastern Archaeology</i> , American Schools of Oriental Research, Boston
<i>OBO</i>	<i>Orbis biblicus et orientalis</i> , Fribourg–Göttingen
<i>OIP</i>	Oriental Institute Publications, University of Chicago

OLA	Orientalia Lovaniensia Analecta, Louvain
OLZ	<i>Orientalistische Literaturzeitung</i>
OMRO	<i>Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden</i> , Leiden
PALMA-Eg	<i>PALMA. Papers on Archeology of the Leiden Museum of Antiquities, Egyptology</i> , Turnhout
PAM	<i>Polish Archaeology in the Mediterranean</i> , Polish Centre of Mediterranean Archaeology, University of Varsovie
PES	<i>Pražské egyptologické studie</i> , Univ. Karlova, Prague
PM ² I/1	B. Porter & R. L. B. Moss, <i>Topographical Bibliography of ancient Egyptian hieroglyphic Texts, Reliefs, and Paintings I. The Theban Necropolis. 1. Private Tombs</i> , Oxford, 1970 (2nd edition, revised and augmented)
PN	H. Ranke, <i>Die ägyptischen Personennamen</i> , 3 vols, 1935–1952, Glückstadt–Hamburg
RdÉ	<i>Revue d'Égyptologie</i> , Paris–Louvain
REgA	<i>Revue de l'Égypte ancienne</i> , Paris
RIHAO	<i>Revista del Instituto de Historia Antigua oriental</i> , Buenos Aires
RiME	<i>Rivista del Museo Egizio</i> , Turin
RT	<i>Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes, pour servir de bulletin à la Mission Française du Caire</i> , Cairo
SAK	<i>Studien zur altägyptischen Kultur</i> , Hamburg
SAOC	<i>Studies in Ancient Oriental Civilizations</i> , Chicago
Sci Rep	<i>Scientific Reports. Nature</i> , London
SDAIK	<i>Sonderschrift des deutschen archäologischen Instituts, Abteilung Kairo</i> , Mayence
TdE	<i>Trabajos de Egiptología</i> , Univ. de La Laguna, Tenerife
TLA	<i>Thesaurus Linguae Aegyptiae</i>
TTS	<i>Theban Tomb Series</i> , London
Urk. IV	K. Sethe, <i>Urkunden des 18th Dynastie</i> , Leipzig: J. C. Hinrichsche Buchhandlung, 1906
USE	<i>Uppsala Studies in Egyptology</i> . Department of Archaeology and Ancient History, Uppsala University, Uppsala
VA	<i>Varia Aegyptiaca</i> , San Antonio
Wb	A. Erman & H. Grapow, <i>Wörterbuch der Ägyptischen Sprache</i> , Bd. 1–5, Leipzig, 1926–1955
YES	<i>Yale Egyptological Studies</i> , New Haven, Connecticut
ZÄS	<i>Zeitschrift für ägyptische Sprache und Altertumskunde</i> , Leipzig–Berlin

Gilders — Makers and Making of Gold Leaf

Nico Staring*

Memphis: A Place of Artistic Production

The ancient Egyptian city of Memphis is synonymous with artistic production (Figure 1). Its prime local deity was the creator god Ptah, a divine artist closely associated with craftsmanship,¹ and identified by the Greeks with Hephaestus, likewise a god of craftsmen and artisans such as metalworkers, carpenters, sculptors and blacksmiths. Ptah was not the only craftsman-god believed to reside in Memphis. The same was said of the Ugaritic god Kothar-wa-Khasis, whose name translates as ‘skilled craftsman’.² Ptah’s high priest at Memphis was titled *wr-hrp-hmw.w*, ‘greatest of directors of craftsmen’,³ and the god was the patron deity of individuals belonging to the socio-professional category of *hmw.w*, craftsmen, or artists.⁴ Imhotep is probably the most famous artist to have worked at Memphis. He was the architect of the Step Pyramid complex of Third Dynasty King Netjerikhet (Djoser), Egypt’s oldest surviving stone-made monument (c. 2592–2566 BCE). Some 1,500 years after his death, Imhotep was remembered as a wise man due to great intellectual abilities ascribed to

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¹ H. Te Velde, ‘Ptah’, in W. Helck and W. Westendorf (eds), *LÄ IV*, cols 1177–1180. For the Memphite theology, consult: B. G. Ockinga, ‘The Memphite Theology — Its Purpose and Date’, in A. Woods, A. McFarlane, and S. Binder (eds), *Egyptian Culture and Society: Studies in Honour of Naguib Kanawati*, SASAE 38, Cairo, 2010, pp. 99–117.

² M. H. Feldman, *Diplomacy by Design: Luxury Arts and an “International Style” in the Ancient Near East*, Chicago, 2006, p. 125. Kothar-wa-Khasis made weapons and furniture and built homes for the other gods out of silver and gold. The god was additionally associated with Caphtor (Crete).

³ C. Maystre, *Les grands prêtres de Ptah de Memphis*, OBO 113, Freiburg, 1992.

⁴ The Egyptian word *hmw.w* is often translated as ‘craftsman’. More recent scholarship suggests the translation ‘artists’ (D. Laboury and A. Devillers, ‘The Ancient Egyptian Artist: A Non-Existing Category?’, in K. M. Cooney, D. Candelora, and N. Ben-Marzouk (eds), *Ancient Egyptian Society: Challenging Assumptions, Exploring Approaches*, Oxford/New York, 2023, pp. 165–168; D. Laboury, ‘Le scribe et le peintre : à propos d’un scribe qui ne voulait être pris pour un peintre’, in P. Collombert, D. Levevre, S. Polis, and J. Winand (eds), *Aere Perennius : mélanges égyptologiques en l’honneur de Pascal Vernus*, OLA 242, Leuven, 2016, pp. 374–376) or ‘master’ (S. Baumann, ‘From Artistry to Erudition: On Craftsmanship and Knowledge (*hmw.w*) in Egyptian Language and Thought’, in T. Pommerening and A. Warner-Imhausen (eds), *Beyond Modern Science*, in press).

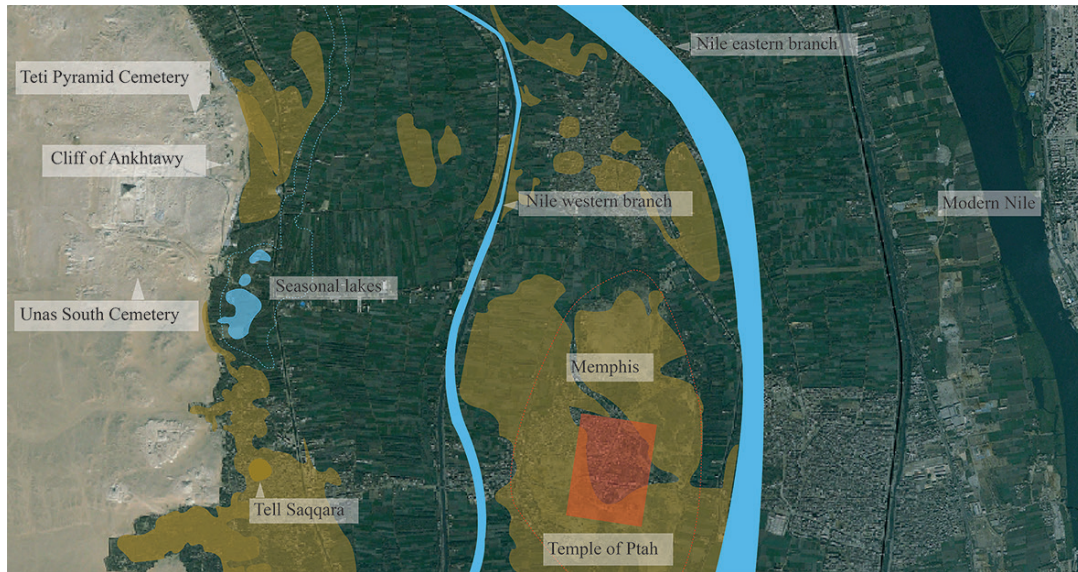


FIGURE 1 • Memphis and its three main cemeteries on the North Saqqara plateau during the New Kingdom (c. 1539–1078 BCE). Satellite image after Google Earth, 2022; adapted by Nico Staring.

him.⁵ He later became a minor god, a son of Ptah. The Old Kingdom (c. 2543–2120 BCE) non-royal cemeteries at Saqqara also bear witness to high level artistic production. A group of Sixth Dynasty (c. 2305–2118 BCE) relief-decorated *mastaba* tombs acquired something of a classic status already more than 4,000 years ago,⁶ though their artistic creators remain largely anonymous to us. Some of the foremost artists of New Kingdom Egypt (c. 1539–1078 BCE) built their tombs in a cemetery that had developed on top of the earlier, “classic” mastabas, by that time already several hundred years old. The group of late-Eighteenth Dynasty (c. 1378–1290 BCE) tomb owners included painters, sculptors, makers of lapis lazuli, chariots, and goldsmiths.⁷ The latter group of artisans possibly included the (group of) individual(s) responsible for making one of the most valuable creations of

⁵ See e.g., B. J. Kemp, *Ancient Egypt: Anatomy of a Civilization*, Oxford, 1989, p. 106. The pedestal of a statue of Horus Netjerikhet (Djoser), found at the Step Pyramid complex, enumerates the titles held by Imhotep. These include administrative titles (seal bearer of the king of Lower Egypt and administrator of the great temple, *ḥw.t-ʿ3*), a sacerdotal title (greatest of seers, i.e. high priest of Re in Heliopolis), and titles linked to artistic production (carpenter, *mdḥ*, and sculptor, *gnw.ty*). For the pedestal, see: J.-P. Lauer, *Saqqara: The Royal Cemetery of Memphis. Excavation and Discoveries since 1850*, London, 1976, pl. 89; B. Gunn, ‘Inscriptions from the Step Pyramid Site’, *ASAE* 26 (1926), pp. 177–196.

⁶ G. Pieke, ‘Remembering Forward: On the Transmission of Pictorial Representations in Tomb Decoration up to the New Kingdom’, in L. Weiss, N. Staring and H. Twiston Davies (eds), *Perspectives on Lived Religion II: The Making of a Cultural Geography*, Leiden, 2022, pp. 49–70; A. B. Lloyd, A. J. Spencer, and A. el-Khouli, *Saqqara Tombs III: The Mastaba of Neferseshemtah*, *ASEg* 41, London, 2008, p. 2.

⁷ N. Staring, *The Saqqara Necropolis through the New Kingdom: Biography of an Ancient Egyptian Cultural Landscape*, *CHAN* 131, Leiden, 2023, pp. 221–228, 380–417. See also: A. Herzberg-Beiersdorf, *Prosopographia Memphitica: Individuelle Identitäten und kollektive Biographien einer königlichen Residenzstadt des neuen Reichs*, *ZÄS-B* 15, Berlin, 2023, pp. 463–467, tables 108–112.

ancient goldsmithing: the golden mask of Tutankhamun (c. 1319–1310 BCE).⁸ The group of artists with a tomb at Saqqara also included the individuals responsible for making gold leaf and gilding objects, which earned Egypt international renown.⁹ The ancient Egyptians believed the flesh of gods was made of gold, and therefore, statues or coffins covered in gold effected their divinity.¹⁰ Despite the great number of gilded objects that have survived from ancient Egypt, we know little about the makers of gold leaf and the gilders that covered in gold the objects made of a variety of materials. The iconographic programmes of tombs, in particular those from the Old Kingdom, include a fair number of scenes depicting select stages of the process of metal working.¹¹ Yet, the corpus of iconographic motifs includes just one scene depicting the making of thin metal (probably copper, not gold),¹² and no more than two scenes depicting the gilding¹³ (for which the Egyptians used the verb *sšr*, ‘overlaying’ or *shꜥ*, ‘gilding’)¹⁴ of different (funerary) objects.¹⁵ The recent discovery of the

⁸ Egyptian Museum Cairo JE 60672. For the suggestion that the goldsmith Amenemone may have been responsible for its creation, see: D. Laboury, ‘L’artiste qui créa le masque funéraire le plus célèbre au monde ?’, in S. Connor and D. Laboury (eds), *Toutankhamon : À la découverte du pharaon oublié*, Liège, 2019, pp. 76–77; for a material analysis of the object, see: K. Broschat and C. Eckmann, *Tutanchamuns Mumienmaske — Chronographie einer Ikone*, RGZM Monographien 162, Mainz, 2022.

⁹ Though not always in a positive way, see for example cuneiform tablet EA 26, 30–48, in which the king of Mitanni, Tušratta, complains to Queen Tiye about her son, Akhenaten, who allegedly sent him gold plated (i.e. gilded) wooden statues instead of statues of solid cast gold that were promised to him by Amenhotep III: A. F. Rainey, *The El-Amarna Correspondence: A New Edition of the Cuneiform Letters from the Site of El-Amarna Based on Collations of All Extant Tablets*, Boston, 2015, pp. 276–281; W. L. Moran, *The Amarna Letters*, Baltimore, 1992, p. 85. The practice of gilding objects made of other material, such as copper, in order to appear as solid gold long pre-dates the Late Bronze Age, see e.g. M. Odler, *Copper in Ancient Egypt: Before, During and After the Pyramid Age (c. 4000–1600 BC)*, CHANE 132, Leiden, 2023, p. 622.

¹⁰ R. Nyord, *Seeing Perfection: Ancient Egyptian Images beyond Representation*, Cambridge, 2020, p. 31.

¹¹ The sub-theme ‘metal working’ (main theme: ‘trades’) occurs 21 times in 16 Memphite tombs dated to the Old Kingdom: R. van Walsem, *Mastabase: A Research Tool for the Study of the Secular or ‘Daily Life’ Scenes and Their Accompanying Texts in the Elite Tombs of the Memphite Area in the Old Kingdom*, Leuven, 2008.

¹² M. Verner, *The Mastaba of Ptahshepses, Reliefs I/1*, Abusir 1, Prague, 1977, pp. 54–56, 207 (photo 43), pl. 27 (top left) = Room 4, east wall. The inscription that accompanies the scene reads: *sḫr ir(i) m p3ḫ.t*, ‘Strike! Make it into foil!’ See also: B. Scheel, ‘Studien zum Metallhandwerk im Alten Ägypten I: Handlungen und Beischriften in den Bildprogrammen der Gräber des Alten Reiches’, *SAK* 12 (1985), p. 171.

¹³ M. F. Guerra, ‘Gold, An Exceptional Material’, in M. F. Guerra, M. Martínón-Torres, and S. Quirke (eds), *Ancient Egyptian Gold: Archaeology and Science in Jewellery*, Cambridge, 2023, p. 15 n. 1, defines gilding as the application of a thin gold layer (a gold leaf or gold powder) on the surface of another material. The application of thicker coatings is referred to as gold plating.

¹⁴ *Wb* IV, 294.8–15. See: B. Scheel, *SAK* 12 (1985), p. 173; H. Jüngst, ‘Zur Interpretation einiger Metallarbeiterszenen auf Wandbildern altägyptischer Gräber’, *GM* 59 (1982), pp. 25–26.

¹⁵ The first scene is from the *mastaba* of Niankhkhnum and Khnumhotep at Saqqara (Fifth Dynasty), during the late Fifth Dynasty covered by the causeway of King Unas: A. M. Moussa and H. Altenmüller, *Das Grab des Nianchchnum und Chnumhotep*, AV 21, Cairo, 1977, pp. 136–137, scene 30.2.2, pls 62–63 (east wall of the rock-cut room); the second is the rock-cut tomb of Baqet III at Beni Hasan, tomb no. 15 (Eleventh Dynasty): N. Kanawati and L. Evans, *Beni Hassan, Volume IV: The tomb of Baqet III*, ACER 42, Oxford, 2018, p. 29, pls 9, 29, 60, 71–72; P. E. Newberry, *Beni Hasan: Part II*, London, 1893, pl. 4 (main chamber, north

early-Nineteenth Dynasty tomb chapel of a maker of gold leaf at Saqqara calls for an examination of the title holders and their socio-professional environment. The present article complements the thorough survey of available sources of gold workers and working in Egypt published by Stephen Quirke, which forms part of a publication that covers in depth all aspects of the archaeology and science of ancient Egyptian gold.¹⁶ Despite the exhaustive nature of the publication, the available Memphite New Kingdom sources for makers and making of gold leaf have been partly overlooked. The present article aims to fill this small gap in the existing literature. I will focus on the iconography (tomb scenes illustrating stages in the process of making gold leaf and gilding objects), prosopography (names and titles of individuals engaged in the making of gold leaf) and present some notes on the social organisation of work (siting and professional affiliation of makers of gold leaf and gilders).

The Maker of Gold Leaf Yuyu and His Household

The tomb chapel of Yuyu (511/USC) was found by the Leiden-Turin Expedition to Saqqara in March 2023 (Figures 2–3), and excavation is ongoing.¹⁷ The structure (architecture) and its wall decoration (style) can be dated (provisionally) to the early Nineteenth Dynasty (c. 1290–1250 BCE). The chapel is made of mud bricks and measures less than one metre high, one metre wide and one metre deep. The door jambs and cult stela in the west wall were missing upon excavation;¹⁸ the limestone revetment blocks of the north and south walls were found *in situ*, both well preserved. The tomb owner bears a single title: , *ir(i).w nbw p3k*,¹⁹ ‘maker of thin gold’, that is, gold foil or

wall). Note that the two tombs share a number of the items being gilded, which raises the possibility that the artistic creator of the latter tomb drew inspiration from the former (or another tomb with the scene at Saqqara, now lost or undiscovered).

¹⁶ S. Quirke, ‘Centres of Goldworking in Ancient Egypt: Egyptological Questions and Sources’, in Guerra et al. (eds), *Ancient Egyptian Gold*, pp. 27–74. For tomb scenes as a source of information, the study relies on the following, still-essential publications: B. Scheel, ‘Studien zum Metallhandwerk im alten Ägypten II: Handlungen und Beischriften in den Bildprogrammen der Gräber des Mittleren Reiches’, *SAK* 13 (1986), pp. 181–205; R. Drenkhahn, *Die Handwerker und ihre Tätigkeiten im Alten Ägypten*, ÄgAbh 31, Wiesbaden, 1976, pp. 18–42, to which add: H. Jüngst, ‘Zur Interpretation einiger Metallarbeiterszenen auf Wandbildern altägyptischer Gräber’, *GM* 59 (1982), pp. 15–27.

¹⁷ The chapel forms part of a larger, unexcavated mud-brick structure, which at present “disappears” in the north section of the excavation square: L. Weiss and N. Staring, ‘The Tomb Chapel of Yuyu’, in P. Del Vesco et al., ‘The Leiden-Turin Archaeological Expedition to Saqqara: Preliminary Results of the 2022 and 2023 Fieldwork Seasons’, *RiME* (forthcoming). The numbering of Saqqara New Kingdom tombs follows that introduced in: N. Staring, *The Saqqara Necropolis through the New Kingdom: Biography of an Ancient Egyptian Cultural Landscape*, CHANE 131, Leiden, 2023. The tomb of Yuyu was excavated after publication and therefore it could not be included.

¹⁸ Since 1927 held in the collection of the Musée Picardie in Amiens, France, inv. nos M.P. 88.3.4.2 and M.P. 88.3.4.1: A. Herzberg-Beiersdorf, *Prosopographia Memphitica: A Prosopographical Database*, online database, <https://anneherz.github.io/ProM/>, version 2020, ID 34; O. Perdu and E. Rickal, *La collection égyptienne du Musée de Picardie*, Paris, 1994, pp. 14–15, cat. 1–2.

¹⁹ For the adjective *p3k*, ‘thin’, see: *Wb* I, 499 (in New Kingdom sources); in the Old Kingdom attested as , *p3k.t*, ‘sheet’ (*Blech*): *Wb* I, 499.8. *p3k(.t)* is also the word for thin biscuits and fine linen. The *Belegstellen* for the title *hr.y ir.w nbw p3k* (*Wb* I, 499.6) have references to four sources: two references for reliefs of Ptahmay (see below), one beneficiary (Ptahmose) of a Book of the Dead papyrus in Budapest

SELECT TOMBS:

009/USC Iniua
028/USC Maya
032/USC Meryneith
038/USC Ry
039/USC Ramose
046/USC Horemheb
050/USC Khay
067/USC Tatia
082/USC *NV*
108/USC *NV*
511/USC Yuyu

LEGEND:

Old Kingdom

Eighteenth Dynasty
Pre-Amarna

Eighteenth Dynasty
(post-)Amarna

Nineteenth Dynasty, early
Seti I-Ramesses II

Nineteenth Dynasty
Ramesses II, first half

Nineteenth Dynasty
Ramesses II, second half

Twentieth Dynasty

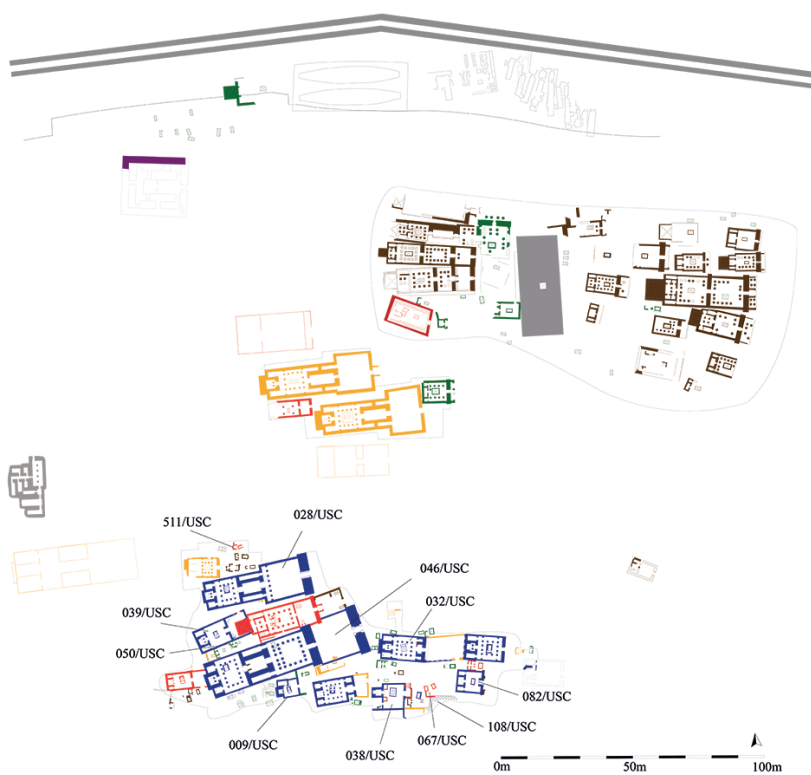


FIGURE 2 • The Unas South Cemetery at Saqqara, showing the location of tombs mentioned in the text. Image by Nico Staring.



FIGURE 3 • Tomb chapel of Yuyu at Saqqara, March 2023. Photo © Leiden–Turin Expedition to Saqqara/Nico Staring.



FIGURE 4 • Tomb chapel of Yuyu at Saqqara, north wall, middle register, detail. Photo © Leiden–Turin Expedition to Saqqara/Nicola Dell'Aquila.

leaf (*feuille d'or*; *Goldblech*).²⁰

The chapel's iconographic programme is composed of a collection of “stock motifs” revealing little about the owner's professional life. The south wall has scenes in three superimposed registers depicting the chapel owner and members of his household offering and giving adoration to different deities. The north wall is also divided in three registers; two scenes depict stages of Yuyu's funeral (Ritual of Opening the Mouth and funeral procession) and the bottom register shows him with members of his household offering to his parents.

Short text labels identify the participants at the funeral (middle register) and offering scene (bottom register), providing information about Yuyu's socio-professional network. One of three individuals attending the funeral procession is identified as *ḥr.y ir(i).w nbw p<3>k nfr-rnp.t*, ‘chief of makers of thin gold, Neferrenpet’ (Figure 4). It is unclear what the relationship between him and Yuyu might have been. Since he is not named as one of Yuyu's family members in any of the south-wall scenes, he should probably be regarded as a member of his professional network (a colleague). The name, title and date allow him to be identified as the owner of a well-known Book of the Dead papyrus held in the collection of the British Museum (Figures 5a–b).²¹ The name of the beneficiary

(note that Ptahmay also had a son with the same name), and another beneficiary (Neferrenpet Kerten) of a Book of the Dead papyrus in the British Museum (see below).

²⁰ P. Hatchfield and R. Newman, ‘Ancient Egyptian Gilding Methods’, in D. Bigelow, E. Cornu, G. J. Landrey, and C. van Horne (eds), *Gilded Wood Conservation and History*, Madison, 1991, p. 31, use gold leaf for thin sheet gold unable to support its own weight (samples in their study range from less than 1 µm to under 11 µm). Gold foil describes thicker sheet gold.

²¹ The papyrus entered the museum in 1839 as part of the second collection of Giovanni d'Anastasi (1765–1860), who excavated mainly in the Memphite necropolis. Therefore, it is highly likely that the papyrus derives from Saqqara, perhaps from the tomb of Yuyu. Nineteenth Dynasty tombs contained larger numbers of individuals, including several generations of the same family and extended households, and it is therefore possible that several individuals depicted and named in Yuyu's iconographic programme, including Neferrenpet, were buried in one of the subterranean spaces (not yet excavated by the Leiden–Turin Expedition).



FIGURE 5a • Book of the Dead papyrus British Museum EA 9940,2 of Neferrenpet Kerten, chief of makers of gold leaf, and his spouse Huner. Photo © The Trustees of the British Museum. Shared under a CC BY-NC-SA 4.0 licence.

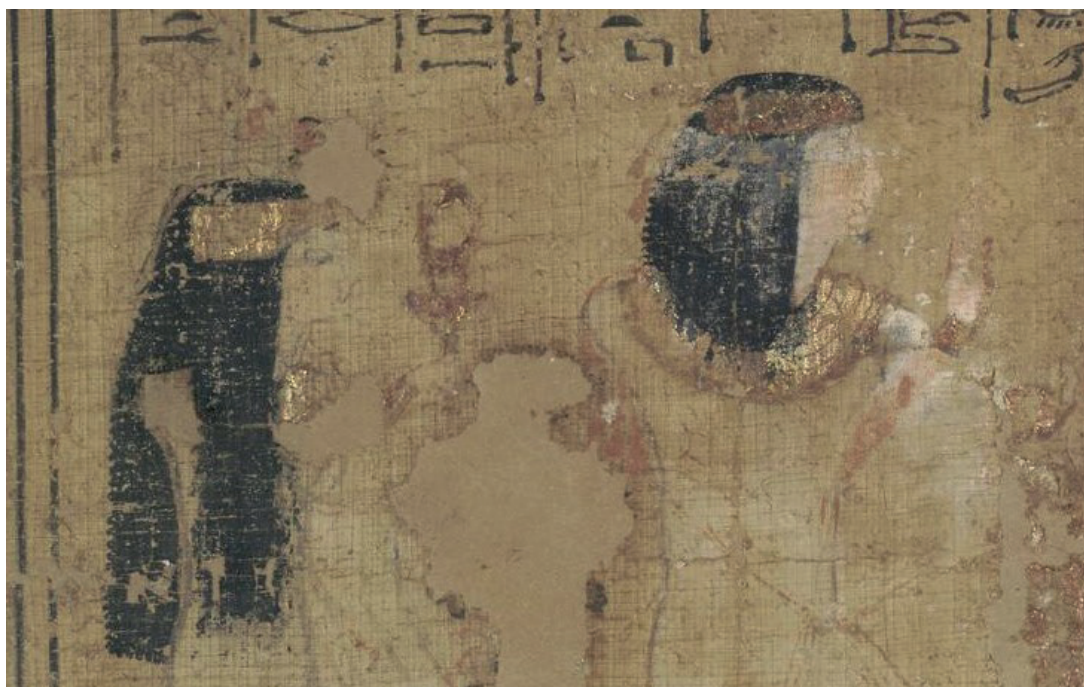


FIGURE 5b • Detail of Book of the Dead papyrus British Museum EA 9940,2 of Neferrenpet Kerten, chief of makers of gold leaf, and his spouse Huner, with various details decorated in gold leaf. Photo © The Trustees of the British Museum. Shared under a CC BY-NC-SA 4.0 licence.



FIGURE 6 • Tomb chapel of Yuyu at Saqqara, north wall, bottom register, detail. Photo © Leiden–Turin Expedition to Saqqara/Nicola Dell’Aquila.

of the papyrus is Neferrenpet Kerten who bears the exact same title, chief of makers of thin gold.²² The papyrus is often cited in studies of Egyptian gold work(ers), because various details of the depiction of Kerten and his spouse Huner are decorated in gold leaf, namely their fillet, collar and bracelets. The papyrus thus expresses a direct relation with the profession of its beneficiary.²³

Back to the chapel of Yuyu, the scene in the bottom register of the north wall depicts the tomb owner at the centre of the composition (Figure 6). He wears a leopard skin as he takes the role of ritualist and pours a libation of water at the offering table of his deceased parents. His father Ptahmay(?)²⁴ is identified as *ḥr.y nby.w n pr.wy-ḥd n pr-ʿ3 ʿ.w.s.*, ‘chief of goldsmiths of the treasury of pharaoh/the palace l-p-h’. His mother is Nefertari. Yuyu’s four children are depicted in his lead, all

For more information about the papyrus, consult the museum online collection database: https://www.britishmuseum.org/collection/object/Y_EA9940-2 (last accessed on 10.07.2024).

²² The name Kerten might be indicative of foreign descent: T. Schneider, *Asiatische Personennamen in ägyptischen Quellen des Neuen Reiches*, OBO 114, Freiburg, 1992, p. 217, N 456, notes that it might be the personal name Kuruttani mentioned in texts from the North-Mesopotamian city of Nuzi (located within the territory of the Hurrian-speaking state of Mitanni, referred to as Naharin in contemporary Egyptian texts), see: E. E. Cassin and J. J. Glassner, *Anthroponymie et anthropologie de Nuzi*, vol. 1: *Les anthroponymes*, Malibu, 1977, p. 88. For another goldsmith of foreign descent attested at Saqqara, see: Kanya alias Pakharu (‘the Syrian’) named Paraemheb, father of the king’s interpreter of Babylonian, Pakana (216/TPC): M. M. Youssef and N. Staring, ‘Tutankhamun’s Interpreter of Babylonian: Pakana and His Memphite Tomb-stela in Context’, *BIFAO* 125 (2025), in press.

²³ Guerra, ‘Gold’, in Guerra et al. (eds), *Ancient Egyptian Gold*, p. 13; Quirke, ‘Centres of Goldworking’, in Guerra et al. (eds), *Ancient Egyptian Gold*, pp. 56–57, fig. 2.14. For more examples of gold leaf in BD papyrus decoration, see: S. Alexander, ‘Notes on the Use of Gold-Leaf in Egyptian Papyri’, *JEA* 51 (1965), pp. 48–52 (with addendum by T. G. H. James).

²⁴ The reading of the name is uncertain; the element *ptḥ* appears to be followed by the sign for *pr* (Gardiner O1), which would result in the rather unusual personal name ‘temple of Ptah’. It is perhaps more likely that the *m* (Gardiner Aa15) was meant, to write the name Ptahmay. It means one of Yuyu’s sons would have been named after his paternal grandfather.

bearing offerings. Only the first, his son Hery, is titled, though the reading is uncertain, perhaps *nby*, ‘goldsmith’.

Given the proposed date of the tomb (early Nineteenth Dynasty) and considering that it was made sometime during Yuyu’s lifetime, his father would have worked at a palace-dependent gold workshop at Memphis during the reign of Horemheb, possibly even earlier. At the time, the state treasury and all the king’s work(shop)s were directed by Maya, the official who oversaw the restoration campaign launched during the reign of Tutankhamun.²⁵ The professional affiliation of Yuyu’s family with the treasury — which spanned at least three generations — and their likely association with Maya may explain the choice of location of the family chapel alongside the latter’s temple-tomb (o28/usc) (see Figure 2).²⁶

The chapel of Yuyu is exemplary for the spatial patterning of tombs in the Unas South Cemetery at Saqqara, when during the Ramesside period the cemetery’s socio-professional demographic changed. Earlier, during the late-Eighteenth Dynasty, the commissioning patrons of tombs had been the highest ranking court officials resident at Memphis. They built their temple-tombs each at a short distance to those of their neighbouring peers. Ramesside high-ranking officials continued to observe a small distance to pre-existing monuments and, as a result, the cemetery grew laterally to the north and west. At the same time, smaller tombs built for lower-ranking officials were built in the spaces available between the monumental tombs located in the ageing core cemetery. Thus, Yuyu selected a plot of land between the much larger late-Eighteenth Dynasty tombs of Maya and his presumed, unexcavated northern neighbour.

The tomb chapels of two more Ramesside gold workers have been excavated in the spaces between the extant late-Eighteenth Dynasty tombs.²⁷ A gold-washer and troop-commander of merchants of the king’s treasury named Khay (o5o/usc, late-Nineteenth–Twentieth Dynasty),²⁸ lies between the monuments of Horemheb (o46/usc) and Ramose (o39/usc), and the chief of goldsmiths in the house of gold and priest of the front of Ptah, Tatia (o67/usc, Nineteenth Dynasty, middle reign Ramesses II; roughly contemporary with Yuyu), is wedged in between the monuments of Meryneith (o32/usc), Ry (o38/usc), and two tombs of unknown ownership (o82/usc and 1o8/usc).²⁹ Tombs of gold workers were not located in this part of the Saqqara necropolis before the Ramesside period. During the Eighteenth Dynasty, they clustered in the Teti Pyramid Cemetery, located c. 1 km to the

²⁵ See the restoration stela of Tutankhamun, Egyptian Museum Cairo CG 34183: *Urk* IV, pp. 2025–2032; J. van Dijk, ‘De restauratiestèle van Toetanchamon’, in R. J. Demarée and K. R. Veenhof (eds), *Zij schreven geschiedenis: Historische documenten uit het Oude Nabije Oosten (2500–100 v. Chr.)*, MVEOL 33, Leiden, 2003, pp. 226–237.

²⁶ For Maya and his tomb, see: G. T. Martin, *The Tomb of Maya and Meryt I: The Reliefs, Inscriptions, and Commentary*, EES-ExcMem 99, London, 2012.

²⁷ Decontextualised tomb elements point to the former presence of more chapels built for individuals belonging to the same socio-professional category: Staring, *The Saqqara Necropolis*, pp. 350–379, 423–463.

²⁸ G. T. Martin, *The Tombs of Three Memphite Officials: Ramose, Khay and Pabes*, EES-ExcMem 66, London, 2001.

²⁹ M. J. Raven argues (unconvincingly) that Tatia’s offices included no manual aspect of gold working, and that his title *nby* formed an extension of his sacerdotal titles: V. Oeters and M. J. Raven, ‘The Tomb of Tatia’, in M. J. Raven, *Five New Kingdom Tombs at Saqqara*, PALMA-Eg 31, Leiden, 2024, pp. 175–176.

north (see Figure 2). Amenemone (213/TPC)³⁰ and Apuia (212/TPC),³¹ two of Tutankhamun's chiefs of goldsmiths (*ḥr.y-nby.w n nb t3.wy*) and overseers of craftsmen (*im.y-r ḥmw.w n nb t3.wy*), built their tombs in that part of the necropolis. The only other known maker of gold leaf, Ptahmay, built his tomb probably in the same cemetery during the Amarna period.

The Head of Makers of Gold Leaf Ptahmay

Ptahmay held the title *ḥr.y ir(i).w nbw p3k n pr itn*, 'head of makers of thin gold of the domain of Aten'. The *floruit* of his career lies in the reign of Akhenaten and the late-Eighteenth Dynasty post Amarna.³² His now-lost tomb (309/TPC) stood probably in the Teti Pyramid Cemetery amongst those of his peers. Relief blocks from his tomb are now held in the Egyptian Museum Cairo.³³ The iconographic programme includes two scenes tailored to Ptahmay's profession. Thus, the bottom register of a scene that covers two joining blocks (Cairo TN 14.6.24.2 and 5.7.24.8) depicts him supervising a carpenter working on a shrine, perhaps chiselling details on a surface to be covered in gold leaf (Figure 7). The fragmentarily preserved top register of the same reliefs depicts various stages of the work-process of making gold leaf.³⁴ Ptahmay sits on the right where he oversees the workshop activities and accounts the produce, weighing the gold leaf on a composite standing balance.³⁵ The foot of the individual operating the balance is just visible on the left. On the floor next to the balance is a rectangular chest, probably for keeping the gold. Behind the keeper of the

³⁰ B. G. Ockinga, *Amenemone the Chief Goldsmith: A New Kingdom Tomb in the Teti Pyramid Cemetery at Saqqara*, ACER 22, Oxford, 2004.

³¹ J. E. Quibell and A. G. K. Hayter, *Excavations at Saqqara: Teti Pyramid, North Side*, Cairo, 1927, pp. 10–11, 32–36, pls 2, 8–14.

³² The homonymity of Ptahmay (I), head of makers of gold leaf, and Ptahmay (II) father of Yuyu, is probably a coincidence. Yuyu is not amongst the five children documented for Ptahmay I (they are: Nanefer, Ptah-ankh, Hori, Kaka, Ptahmose) and the names of the spouses of both men named Ptahmay differ — Ty versus Nefertari — though the former might be a hypocorism. However, since the name Ptahmay runs through the family (see Ptahmay son of Yuyu), it is possible that the two were somehow related along family lines.

³³ The tomb is known from relief-decorated fragments now held in the Egyptian Museum Cairo, see: C. M. Zivie, 'À propos de quelques reliefs du Nouvel Empire au musée du Caire, 1 : la tombe de Ptahmay à Giza', *BIFAO* 75 (1975), pp. 285–310. C. M. Zivie suggested the tomb formed part of a now-lost New Kingdom cemetery at Giza. More recently, I have proposed the Teti Pyramid Cemetery at Saqqara, where it would have stood amongst those of Ptahmay's peers: N. Staring, 'The Memphite Necropolis through the Amarna Period: A Study of Private Patronage, Transmission of Iconographic Motifs, and Scene Details', in F. Coppens (ed.), *Continuity, Discontinuity and Change: Perspectives from the New Kingdom to the Roman Era*, Prague, 2021, pp. 37–41.

³⁴ Quirke, 'Centres of Goldworking', in Guerra et al. (eds), *Ancient Egyptian Gold*, p. 57, only refers to the scene in the lower register, depicting Ptahmay supervising a carpenter. The scene depicting the making of gold leaf is neither mentioned nor listed in tables 2.18 (New Kingdom metalworking depictions) and 2.20 (Summary of New Kingdom metalworking scenes).

³⁵ Compare, e.g., to the composite standing balance depicted in the temple treasury scene of Neferrenpet Kener, TT 178: E. Hofmann, *Das Grab des Neferrenpet Kenro (TT 178)*, Theben 9, Mainz, 1995, pl. 40. While it is unclear from the relief carving what lies on the best-preserved scale nearest Ptahmay, the parallel from TT 178 suggests it concerns the gold product, which means the weight is nearest the keeper of the balance.



FIGURE 7 • Reliefs from the lost tomb of Ptahmay (309/TPC), Egyptian Museum Cairo TN 14.6.24.2 and 5.7.24.8. The scene in the upper register depicts stages in the process of making thin gold. Photo © The Geoffrey Thorndike Martin Memphite New Kingdom Archive.

balance³⁶ are two men seated on three-legged stools beating the gold sheet to leaves.³⁷ In their upraised hands they hold a rectangular tool, ready to strike. The man on the left secures with his left hand the leaves perhaps piled up with protective goldbeater's skins on the anvil in front of him.³⁸ Once the beaters had achieved the desired thickness, the leaves would have been cut to square sheets and, perhaps like today, piled up and held together in what is called a gilder's book. Just one example of an ancient Egyptian gilder's book (or rather perhaps a kind of saving stock of a

³⁶ Operating the balance is the responsibility of an individual bearing the title *ir.y mh3.t*, 'keeper of the balance': Hofmann, *Grab des Neferrenpet Kenro* (TT 178), pl. 40.

³⁷ Not to be confused with hammering, which is seen in workshop scenes more frequently, often in combination with annealing, see e.g. Quirke, 'Centres of Goldworking', in Guerra et al. (eds), *Ancient Egyptian Gold*, tables 2.19 (Old Kingdom sources) and 2.20 (New Kingdom sources).

³⁸ Guerra, 'Gold', in Guerra et al. (eds), *Ancient Egyptian Gold*, pp. 12–13, notes that today, gold leaves are obtained by reduction of gold sheets in a rolling mill, the resulting leaves then cut into small squares, piled up with goldbeater's skins, and reduced by beating; a second operation of cutting, piling up and hammering ultimately results in 0.10 µm thick leaves, which is significantly thinner than that produced in ancient Egypt. For a video illustrating select traditional methods employed in gold beating, see, e.g., the short documentary about a family business in Venice, Italy: <https://www.youtube.com/watch?v=ZelxPH-B6pMQ> (last accessed 04.07.2024), or the 1959 British Pathé *The Art of Gold Beating*: <https://www.youtube.com/watch?v=2Lak64SAaIY> (last accessed 04.07.2024).

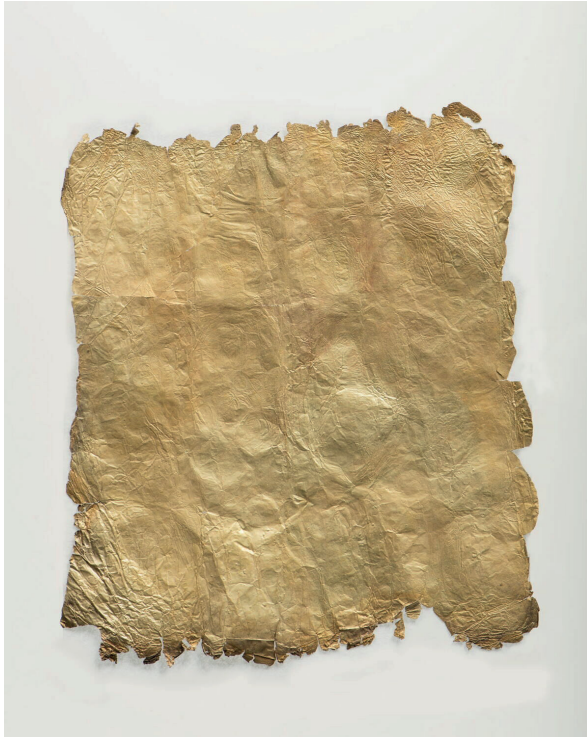


FIGURE 8 • Sheet of gold leaf measuring c. 10 × 15 cm, Louvre N 3041. Photo © 2020 Musée du Louvre, Dist. Grand Palais Rmn / Christian Décamps.

goldsmith) has survived.³⁹ It includes eight leaves of c. 10 × 15 cm with a thickness varying between 4 µm (0.004 mm) and >15 µm (Figure 8).

The man depicted standing on the left appears to be operating a furnace (annealing the gold sheets to be rolled out?). The smaller-scale man sitting on a three-legged stool appears to be filling (with an elongated tool, perhaps tweezers or tongs?) a flat container with a product (thinned gold sheets?) identical to that kept in the rectangular chest depicted above him. Or, alternatively, he might be annealing the thinned sheets of gold, to be beaten to leaf by the men sitting on the right. The sub-register in the top left depicts an individual kneeling and bending over something unidentified, perhaps rolling out a (heated) bar of gold.⁴⁰

The activities depicted in the tomb scene of Ptahmay seamlessly complement the activities depicted in a scene observed in the tomb of Meryneith, the steward of the Memphite domain (*pr*) of Aten who was Ptahmay's superior in office. The scenes of Ptahmay show select stages in the process of making gold foil, and the scene of Meryneith shows the leaves being used for gilding items made of wood.

³⁹ Acquired for the Louvre in 1837, ex-coll. Jean-François Mimaout, provenance unknown. The book's front cover is made of a copper alloy. See: É. Delange, 'Livret de doreur ou matériel d'orfèvre?', *RdE* 72 (2022), pp. 199–201 (suggesting a New Kingdom date); E. Darque-Ceretti, E. Felder, and M. Aucouturier, 'Gilding of Cultural Heritage Artefacts: An Elaborated Technology', *Surface Engineering* 29/2 (2013), p. 148, fig. 7a; E. Darque-Ceretti and M. Aucouturier, *Dorure : décor et sublimation de la matière*, Paris, 2012, p. 24, figs 2–7.

⁴⁰ Compare the pose to the so-called servant's statuettes depicting millers, kneeling and bending over the grinding stone so as to apply as much force as possible.

Tomb of Meryneith: Temple Workshop and Royal Dockyard

The *floruit* of the career of Meryneith alias Meryre spanned the reigns of Akhenaten and Tutankhamun. His tomb is located in the Unas South Cemetery (032/USC, see Figure 2), c. 1 km south of where the tomb of Ptahmay was probably situated. He was a high-ranking court official of Akhenaten who served as steward of the domain of Aten in Memphis, being the sole individual known to have held the title.⁴¹ After the Amarna period, he served as the greatest of seers (high priest) of Aten in Memphis.

The construction and decoration of Meryneith's tomb were both multi-year projects, and the progress of time is reflected in the different phases that have been identified by the excavators.⁴² Phase I saw the construction of the perimeter walls of mud brick and the chapels in the west part of the tomb. At this time, the central chapel and the west colonnade received a limestone revetment bearing relief decoration. This phase has been dated between years 5 and 8 of Akhenaten. One important argument for a date after year 5 is that the Memphite *pr itn* is not listed in the letter Ipy, chief steward of Memphis, sent to Amenhotep IV in year 5 of the king's reign.⁴³ Phase I cannot date much later than year 9, which is probably when Meryneith changed his name to Meryre, marking Phase II.

Phase I of Meryneith's tomb decoration includes three walls with scenes pertaining to the tomb owner's work environment. The scenes inform us about the wide range of responsibilities he held at the Memphite domain of Aten. These included the administration of stables, the delivery by boat and storage of grain, and the supervision of (temple) workshops, one of which connected to a royal dockyard.⁴⁴ The latter workshop will be treated in closer detail in the next paragraphs.

⁴¹ Two more officials with a tomb at Saqqara were professionally affiliated with the Aten temple. The first was a scribe of the temple treasury, Hatiay, who had a rock-cut tomb in the Cliff of Ankhtawy (360/Bub): A.-P. Zivie, 'Le point sur les travaux de la Mission archéologique française du Bubasteion à Saqqara', *BSFE* 162 (2005), pp. 28–45 (Bub. I.27). The tomb was discovered in 2001–2002 and awaits full publication. The second was the head of makers of gold leaf, Ptahmay (309/TPC), see above. In addition, Huy (230/TPC) was a head of merchants of the temple of the Aten (*ḥw.t p3 itn*). The tomb was rediscovered by the archaeological expedition of the SCA in 2002–2003: M. M. Youssef, 'The New Kingdom Tomb-chapels at the Teti Pyramid Cemetery in Saqqara According to the Recent Discoveries — Comparison Studying', unpublished PhD thesis, Cairo University, Cairo, 2017, 83–105, pls 56–64.

⁴² M. J. Raven and R. van Walsem, *The Tomb of Meryneith at Saqqara*, PALMA-Eg 10, Turnhout, 2014. Meryneith alias Meryre is almost certainly the same individual as the greatest of seers of the Aten in Akhenaten, Meryre (I), owner of a rock-cut tomb at Tell el-Amarna, AT 04: No. de G. Davies, *The Rock Tombs of El-Amarna*. Part I: *The Tomb of Meryra*, ASE 13, London, 1903.

⁴³ Dated year 5, third month of winter (*pr.t*), day 19. The letter is the last-dated document that names the king as Amenhotep (he changed his name to Akhenaten). Two copies of the letter are preserved, found at Gurob: London UC 32782–32783, see: L. Griffith, *The Petrie Papyri: Hieratic Papyri from Kahun and Gurob (Principally of the Middle Kingdom)*, London, 1898, pp. 91–92, pl. 38. B. Löhr, 'Aḥanjāti in Memphis', *SAK* 2 (1975), p. 169, identifies the name of Akhenaten's palace at Memphis as *pr 3ḥ-n-itn*, after an inscription of a limestone *talatat* block from Memphis, now in Sydney (Chau Chak Wing Museum NMR 1143). The early form of the Aten, carved on the same block, points to a date before year 9. Löhr further suggests that the palace plus temple of Aten probably lay east of the temple of Ptah.

⁴⁴ Raven and van Walsem, *The Tomb of Meryneith*, scenes [17], [42] and [26], respectively.

Gilding in the House of Gold

The workshop connected to a royal dockyard forms part of the relief decorated north wall of the tomb's west colonnade (h: 128.5 cm; Figure 9). The scenes of this wall are arranged in four superimposed registers of sunk relief. All scenes are thematically linked to the royal state barge of Akhenaten.⁴⁵ The eye of the beholder was meant to be drawn to the tallest register (h: 43.4 cm) that covered the middle section of the wall. It depicts the launching of the king's barge — a scene unique in Egyptian art history. The two registers below depict festivities and rituals connected to the ship's launching; the register above depicts the making of the various parts of the ship. The scene in the upper register is only fragmentarily preserved (max. h: 16.1 cm). Originally, it would have formed part of multiple registers with scenes presumably illustrating more workshop activities.⁴⁶

The scene depicts the tomb owner Meryneith overseeing the workshop activities playing out under his responsibility. He sits on a latticed chair on the right, watching 'gold working (*nby.w*) in front of the house of gold (*hw.t-nbw*)'.⁴⁷ The house of gold was a centre of artistic production⁴⁸

⁴⁵ Raven and van Walsem, *The Tomb of Meryneith*, pp. 113–117, scene [26]. The personnel professionally affiliated with the different branches of the domain of Aten, including the metal workers, may have worked for the palace and/or the temple of Ptah before the foundation of the domain of Aten. For an offering list attesting to the redistribution of offerings for various temples, including those at Memphis, to the Aten early in the reign of Amenhotep IV, see: R. Saad and L. Manniche, 'A Unique Offering List of Amenophis IV Recently Found at Karnak', *JEA* 57 (1971), pp. 70–72, pl. 21.

⁴⁶ Compare relief block Leiden AP 40: N. Staring, 'Relief with a Workshop Scene', in P. Giovetti and D. Picchi (eds), *Egypt: Millenary Splendour. The Leiden Collection in Bologna*, Milan, 2016, cat. no. V.34). I suspect the block formed the top-left corner of the wall. The block preserves two registers depicting activities in a carpentry workshop, which includes craftsmen working on the two-storey cabin of a ship, identical to that of Akhenaten's state barge depicted in the scene under study. The dimensions of the individuals depicted are identical to those featuring in the *in situ* reliefs of Meryneith, and the style also points to a date in the Amarna period. My only hesitation concerns the fragmentarily preserved text below the carpentry scene set in 8+ columns. The text alludes to a funeral scene (i.e. 'receiving [...] after an old age'). The tomb owner's honorific titles that follow could well be those held by Meryneith. It suggests the wall would have depicted the *chaîne opératoire* from carpentry to gilding. Note that the tomb relief of Ptahmay discussed above (see Figure 7) also depicts carpentry and metalworking (making of gold). The scene depicted in the register below the ship's launching may offer a further link to carpentry. The scene depicts two men each slaughtering a goat. They do so not with a knife, but with an adze, an essential item in every carpenter's tool-box. According to Raven and van Walsem, *The Tomb of Meryneith*, p. 117, the use of an adze is without parallels in such slaughtering scenes.

⁴⁷ The *hw.t nbw* should not be confused with the *pr nbw* or *pr.wy ḥd-nbw*, the latter commonly translated as 'treasury', being the storage facility of valuables of temple or palace. For a representation of the *pr.wy ḥd-nbw* and its contents, see e.g. the tomb of vizier Rekhmire, TT 100: No. de G. Davies, *The Tomb of Rekh-mi-Rē' at Thebes*, PMMA EE 11, New York, 1943, II, pl. 48. A contemporary of Meryneith and also his necropolis neighbour, Maya (o28/USC), was professionally affiliated with the 'state' treasury, holding titles such as *im.y-r pr nbw* and *im.y-r pr ḥd-nbw*: Martin, *The Tomb of Maya and Meryt*.

⁴⁸ For scenes in Theban tombs depicting the house of gold as a centre of artistic production, see TT 106 of the vizier, Paser (*temp.* Ramesses II): J. Assmann, 'Ein Gespräch im Goldhaus über Kunst und andere Gegenstände', in I. Gamer-Wallert and W. Helck (eds), *Gegengabe: Festschrift für Emma Brunner-Traut*,



FIGURE 9 • Tomb of Meryneith (o32/USC), west colonnade, north wall, with scenes thematically linked to the launching of the royal state barge of Akhenaten. Photo © Rijksmuseum van Oudheden, Leiden; adapted by Nico Staring.



FIGURE 10a • Kiosk on the aft of the state barge of king Akhenaten, depicted in the tomb of Meryneith at Saqqara. Photo by Nico Staring.



FIGURE 10b • Gold workers gilding one of two kiosks of the state barge of king Akhenaten, depicted in the tomb of Meryneith at Saqqara. Photo by Nico Staring.

accessible only to the initiated,⁴⁹ its heavy portals well-protected by guards.⁵⁰ The workshop scene depicts the artists gilding items that can be identified as ship's parts: two ships' kiosks and the head of a steering oar.

Gilding the Ship's Relief-decorated Kiosks

The two ship's kiosks depicted in the house of gold are also prominently on view at the fore and aft of the barge launched in the register below. The ship's kiosks have side panels decorated with the iconographic motif of the striding king (now largely erased) smiting a kneeling enemy whilst standing under the radiant sun-disk (Figures 10a–b). The king, Akhenaten, is in the company of Nefertiti and another female depicted on a smaller scale, undoubtedly their eldest daughter Meritaten, born

Tübingen, 1992, pp. 43–60; and TT 178 of the scribe of the treasury and gold house of Amun, Neferrenpet Kener (*temp.* Ramesses II): Hofmann, *Das Grab des Neferrenpet Kenro*, scenes 42–43, pls 7, 10, 40, colour pls 10–11.

⁴⁹ As narrated in the autobiography of Userhat Hatiay, chief chisel bearer (sculptor) of the king, who refers to his fashioning the images of the gods: Abydos-stela Leiden AP 12, lines 12–13: *bs.kwi r ḥw.t-nbw r msi<.t> sšm.w ḥm.w n.w ntr.w nb.w n<n> imn.wy im=sn r=i ink ḥr.y-sšt3*, 'I was initiated into the house of gold in order to fashion the cult statues and the divine statues of all the gods, none among them remaining hidden from me. I was a master of secrets (...)' (translation: H. Willems, 'The One and the Many in Stela Leiden V1', *CdÉ* 73 (1998), pp. 233, 237; also J. M. Kruchten, 'Le sculpteur des images divines ramesside', in M. Broze and P. Talon (eds), *Latelier de l'orfèvre : mélanges offerts à Ph. Derchain*, Leuven, 1992, pp. 108–118.

⁵⁰ Compare the representation of the house of gold in TT 178: the portal to the inner workshop space that accommodates the gold workers is guarded by an *ir.y-ʿ3*, 'door keeper', armed with a whip: Hofmann, *Das Grab des Neferrenpet Kenro*, fig. 49.

a few years before her father ascended the throne.⁵¹ The ship's kiosks preserve ample traces of yellow paint. The kiosks would have been made of wood (cedar/ebony?), but the workshop scene does not depict them being worked by craftsmen holding tools normally associated with carpentry. Given the siting of the scene in the house of gold, the kiosks are being gilded, hence coloured yellow.

The two craftsmen working on the left kiosk are only partially preserved, offering limited information about the nature of their work. The two craftsmen engaged with the kiosk on the right are more revealing (Figure 10b). The man on the left holds a pencil-like tool⁵² in the clenched fist of his right hand and he presses it with his left hand. In the context of gilding, he might be using the pencil-shaped tool to press the gold leaf to reach lower-lying parts of the relief-decoration whilst keeping the sheet of gold leaf in place with his hand. His colleague on the right applies a sheet of gold leaf on the side panel, handling it with his bare hands.

Gilding the Head of a Steering Oar

The group of men on the right side of the scene are engaged in gilding the larger-than-life size head of the king wearing a *nemes* head cloth and double crown, again probably made of ebony (Figure 11).⁵³ The head is placed upon a low base and flanked by two craftsmen seated on three-legged stools. The oblique position of the head strongly suggests that it was meant to decorate the steering oar butt (see below).⁵⁴ Like their colleagues working on the ship's kiosks, the two antithetic craftsmen apply the sheets of gold leaf with their bare hands.⁵⁵ Handling the extremely thin⁵⁶ and thus exceedingly

⁵¹ For a parallel, see the *talatat* block New York, Metropolitan Museum of Art 1985.328.15 (provenance probably Hermopolis, thus originally employed in Akhetaten): <https://www.metmuseum.org/art/collection/search/544682> (last accessed 03.07.2024). See further: E. L. Ertman, 'Smiting the Enemy in the Reign of Akhenaten: A Family Affair', *KMT* 17/4 (2006), pp. 59–65.

⁵² The pencil-like tool cannot be an actual pencil, because the fingers of the (outline-)scribes handling their pencils are normally depicted differently, holding the pencil between thumb and index finger.

⁵³ The excavators of the tomb interpreted the scene as depicting craftsmen polishing a royal head. In the commentary following the scene description the excavators also float the idea that the craftsmen are gilding, though without further elaboration: Raven and van Walsem, *The Tomb of Meryneith*, pp. 113, 117.

⁵⁴ I owe this suggestion to W. Raymond Johnson. For *ib3.yt* as the possible ancient Egyptian term for the butt of an oar, see: D. Jones, *A Glossary of Ancient Egyptian Nautical Titles and Terms*, Studies in Egyptology, London, 1988, p. 152.5.

⁵⁵ In my initial discussion of this scene (Staring, 'The Memphite Necropolis', in Coppens (ed.), *Continuity, Discontinuity and Change*, p. 36 n. 88), I remarked that my interpretation was not without problems, because one would have expected the craftsmen to use tools such as a pencil, thereby pointing to the Nebamun wall paintings in the British Museum that are embellished with gold leaf and thus perhaps the work of (a) painter. Sheets of gold leaf can indeed be applied using a brush, but this is just one of multiple methods employed.

⁵⁶ The eight leaves in the Louvre gilder's book (N 3041) analysed by Darque-Ceretti and Aucouturier, *Dorure*, measure *c.* 4 to >15 µm. The gold leaf of Queen Tiye's shrine recovered from KV 55 in the Valley of the Kings (roughly contemporary in date to the scene in the tomb of Meryneith) has a thickness of 5 µm: K. Bosse-Griffiths, 'Gold-Leaf from the Shrine of Queen Tiye', in K. Bosse-Griffiths, *Amarna Studies and Other Selected Papers*, OBO 182, Zurich, 2001, p. 109. The 30 gold foils analysed by Hatchfield and Newman, 'Ancient Egyptian Gilding Methods', in Bigelow et al. (eds), *Gilded Wood Conservation*, pp. 27–47, are all under 10 µm thick. Finally, the two gold leaf samples from Tutankhamun's coffin analysed by M. M. Rifai



FIGURE 11 • Gold workers gilding the crowned head of the king, forming part of king Akhenaten's state barge steering oar, depicted in the tomb of Meryneith at Saqqara. Photo © Rijksmuseum van Oudheden, Leiden.

fragile sheets of gold leaf is indeed possible in this manner,⁵⁷ provided that the craftsmen powdered their hands to avoid the leaf to stick to their moist hands. Alternatively, the men might have been wearing (linen) gloves, though this is not indicated in relief. The two craftsmen gilding the king's head are flanked by two standing scribes, the one on the right largely preserved. He clenches a scribe's palette under his left armpit and holds an elongated, rectangular item in his right hand. He extends his right arm towards the craftsman seated on the left.

In the context of the type of work depicted, the scribe probably hands the craftsman (a) sheet(s) of gold leaf.⁵⁸ The gilder's scene depicted in the Eleventh-Dynasty tomb of Baqet III at Beni Hasan, depicting the process from weighing and smelting to gilding, provides an excellent parallel (Figure 12).⁵⁹ One of the two individuals gilding a shrine turns back and extends his left hand towards a man depicted in a sub-register crouched alongside a chest. Given that the text label written over the scene reads *rdi.t nbw*, 'giving the gold', the latter hands out what can only be a sheet of gold leaf, which is no longer visible, however. He might be holding the same material in his right

and N. M. El Hadidi, 'Investigation and Analysis of Three Gilded Wood Samples from the Tomb of Tutankhamun', in J. Dawson, C. Rozeik, and M. M. Wright (eds), *Decorated Surfaces on Ancient Egyptian Objects, Technology, Deterioration and Conservation*, London, 2010, pp. 16–24, measure less than 20 µm and 48 µm in thickness, respectively.

⁵⁷ Compare to the gilding of assorted items as depicted in the tomb of Niankhkhnum and Khnumhotep, which shows the gilders pressing the gold leaf with one (index finger) or two fingers (index and middle finger): Moussa and Alternmüller, *Nianchchnum und Chnumhotep*, pp. 136–137, scene 30.2.2, pls 62–63. The scenes do not show the stage of applying an adhesive (e.g. a gesso, beeswax, honey, glue made of animal fat) on the surface of the wooden objects before applying the gold leaf. For binding media, see Hatchfield and Newman, 'Ancient Egyptian Gilding Methods', in Bigelow et al. (eds), *Gilded Wood Conservation*, p. 38.

⁵⁸ Raven and van Walsem, *The Tomb of Meryneith*, p. 117 with n. 96, interpreted the rectangular item as a scroll of papyrus, which, according to them, implies the transfer of work orders to the "sculptor".

⁵⁹ North wall, register 5: Kanawati and Evans, *The tomb of Baqet III*, p. 29, pls 9, 29, 60, 71–72.

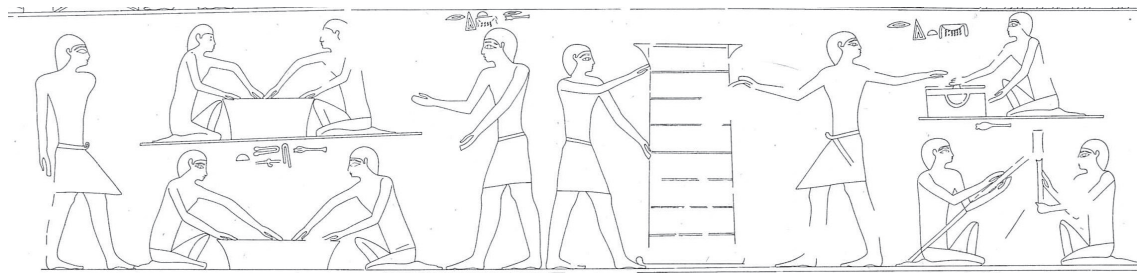


FIGURE 12 • Gilders at work as depicted in the tomb of Baqet III at Beni Hassan (north wall, register 5). Image after Kanawati and Evans, *The Tomb of Baqet III*, pl. 60 (detail); courtesy of The Australian Centre for Egyptology, Macquarie University.

hand, which touches the shrine's side panel. Further to the left, another male individual approaches four men, one pair each crouched at a low table. The text label informs us that he is 'giving the gold for the covering/gilding' (*rdi.t nbw r sšr*). While his hand is now empty, his pose compares quite well to that observed in the tomb of Meryneith of the man handing out gold foil (Figure 11). In the tomb of Baqet III, the recipients of the gold are indeed said to be 'spreading the (gold) cover' (*st3.t sšr*). One wonders if the scribe in the scene of Meryneith hands over a single sheet of gold foil, or whether it concerns a stack of piled-up sheets held together in a sort of gilder's book. The scribe handing out the sheets of gold leaf probably kept a stock of such 'books' in the chest depicted behind him (now largely lost). It is perhaps the same (type of) chest observed earlier in the tomb-scene of Ptahmay, accounting the produce of his gold-leaf workshop (Figure 7).

Steering Oar Butt Decorated with the Crowned Head of the King

The scene depicting the king's barge launched under supervision of Meryneith depicts it without steering oars. These would have been transported separately while leaving the dockyard. There is ample iconographic evidence for steering oar butts decorated with the crowned head of the king (or queen). Examples are particularly plentiful for the (post-)Amarna period. The barges and their tow-boats depicted in the festival procession of Opet scenes in the temple of Luxor dated to the reign of Tutankhamun (Figure 13)⁶⁰ and a model ship from the tomb of the same king, KV 62,⁶¹ have steering oars with the king's crowned head. In addition, all depictions of the state barges of Akhenaten and Nefertiti and their tow-boats were equipped with steering oars bearing their image.⁶² One *talatat* block from the (now-lost) Memphite temple of Aten preserves a barge of the king. It is equipped

⁶⁰ The Epigraphic Survey, *Reliefs and Inscriptions at Luxor Temple: The Festival Procession of Opet in the Colonnade Hall. With Translations of Texts, Commentary, and Glossary*, OIP 112, Chicago, 1994, pls 29, 82–84.

⁶¹ Cairo, Egyptian Museum JE 61328–62 (Carter no. 276), though equipped with a different type of kiosk. D. Jones, *Model Boats from the Tomb of Tutankhamun*, Oxford, 1990; See also: The Griffith Institute, *Tutankhamun: Anatomy of an Excavation. The Howard Carter Archives*, Harry Burton photograph no. p1172: <http://www.griffith.ox.ac.uk/gri/carter/276-p1172.html> (last accessed on 03.07.2024). Another example from the Valley of the Kings is preserved in the wall decoration of the tomb of Ramesses III, KV 11, Side Chamber Bb, right wall, upper section, the king on pilgrimage to Abydos, see: <https://thebanmappingproject.com/tombs/kv-11-ramesses-iii> (last accessed on 03.07.2024).

⁶² First pointed out to me by W. Raymond Johnson.

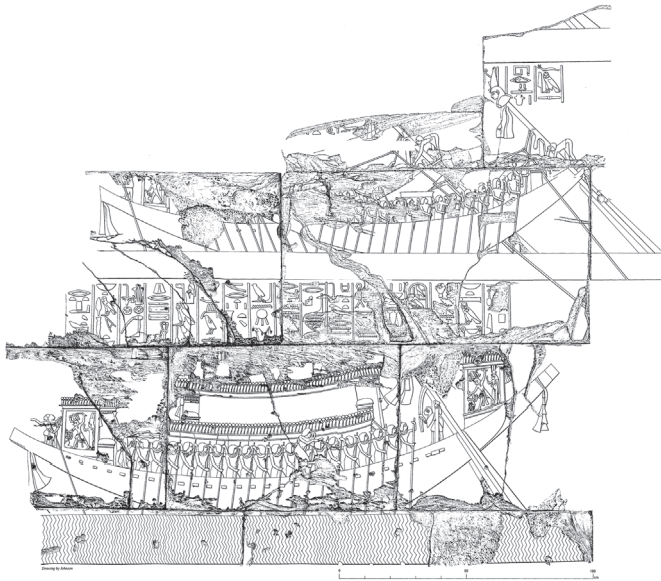


FIGURE 13 • Towboat with a steering oar crowned with the crowned head of the king above the barge of the queen, festival procession of Opet, temple of Luxor. After The Epigraphic Survey, *The Festival Procession of Opet*, pls 83–84 (digitally joined by Nico Staring). Reproduction courtesy of the Institute for the Study of Ancient Cultures of the University of Chicago.

with a steering oar decorated with the king's head wearing the white crown.⁶³ The temple block forges a direct link to Meryneith, as steward possibly responsible for construction and decoration of the temple.⁶⁴ The iconographic programmes of the temples of Aten featured elaborate processions of the barges of the king and queen and their towboats.⁶⁵ With such emphasis on the royal state barges, it is not surprising that Meryneith wished to emphasize his involvement in their making by commissioning multiple relief-decorated scenes tied to the subject.

The names of a number of royal barges (*wi3 nsw*) are known from epigraphic sources, though not the ship of Akhenaten. The barge of his

father, Amenhotep III, was named *itn-tḥn*, 'Dazzling Sun-disk', which was also an epithet of Amenhotep III and the name of his Theban palace at Malkata.⁶⁶ One Memphite official with a tomb at Saqqara, Nebansu (223/TPC), held the title *s3w.ty n itn-tḥn*, 'guardian of Dazzling Sun-disk', perhaps a guard on the king's ship or at the king's palace at Memphis.⁶⁷ Another ship attested during the reign of Seti I bears a name similar to that of Amenhotep III: *wi3 tḥn.w-mi-itn*, 'dazzling like the sun-disk'.⁶⁸ Given that ships before and after the reign of Akhenaten bore names making reference

⁶³ The present location of the block is unknown, see: Löhr, 'Aḥanjāti', *SAK* 2 (1975), pp. 160–161, Dok. II.14, pl. IV.3; W. M. Flinders Petrie, 'Memphis VI', in R. Engelbach, *Riqqeh and Memphis VI*, BSAE ERA 19, London, 1915, p. 32, pl. 54.7.

⁶⁴ A suggestion further corroborated by the title '[overseer] of works of the king', preserved in his Saqqara tomb and most probably associated with him: Raven and van Walsem, *The Tomb of Meryneith*, pp. 82–83, scene [7].

⁶⁵ R. Johnson, 'Windows into the Vanished World of Akhenaten, Nefertiti, and Tutankhamun: Amarna-period Talatat Blocks in the Collection of the Museo Egizio', lecture at Museo Egizio, Turin, 13.06.2024, <https://www.youtube.com/watch?v=gZLoS-UxdBw&list=PLg2dFdDRRCIF74nChY2umnUoTU4Xzlv4A&index=2> (last accessed on 03.07.2024).

⁶⁶ For references to titles related to the royal barge *itn-tḥn*, see: Jones, *A Glossary*, p. 231, no. 4.

⁶⁷ Stela Cairo JE 33107 = CG 34055. See: Staring, *The Saqqara Necropolis*, p. 213; B. Gessler-Löhr, 'Pre-Amarna Tomb Chapels in the Teti Cemetery North at Saqqara', *BACE* 18 (2007), p. 73 with n. 63.

⁶⁸ As recorded in the title of a the ship's standard bearer in the Memphite palace accounts of Seti I, dated to year 3: W. Spiegelberg, *Rechnungen aus der Zeit Setis I. (circa 1350 v. Chr.) mit anderen Rechnungen des neuen*

to the dazzling sun-disk, and given that Akhenaten was so closely associated with the sun, it is quite possible that he named his royal barge in a similar manner. The gilded parts of his barge, made in the workshop directed by Meryneith, would have certainly emphasized the sun's dazzling qualities.

The Temple Workshop (*pr nbw*) and Treasury (*pr ḥd*) of Amun

The workshop scene in the tomb of Meryneith is unique for depicting the gilding of parts of the king's ship in the house of gold, a temple workshop. However, the Memphite tomb is not unique for making explicit the connection between the production of steering oars and a temple's workshop. The Theban tomb of Neferrenpet Kener, TT 178 (*temp.* Ramesses II), is well-known for the unique depiction of an architectural setting for a Theban temple workshop (*pr nbw*) and its associated treasury (*pr ḥd*).⁶⁹ Neferrenpet Kener was professionally affiliated with the temple of Amun at Karnak as a scribe of the treasury and scribe the house of gold.

In the tomb's wall painting, the two buildings, *pr nbw* and *pr ḥd*, are separated by a space lined with trees, the entrance portal to the treasury guarded by a doorkeeper. The treasury (temple magazine) is divided in various spaces. Kener is depicted seated in the first courtyard supervising the weighing and accounting of incoming goods. The portal located behind his back gives access to three courtyards in sequence, each giving access to a series of lateral storage rooms. Assorted valuables are kept in the rooms, including amphorae, chests, hides (or so-called oxhide ingots of copper) and sacks with unknown contents. The full length of the second courtyard is used for storage of six tall steering oars (Figure 14). The lower group of four oars includes two decorated with the head of a falcon and two with the head of a woman; the two oars above are both crowned with a ram's head. The steering oars are those of the processional barks of the Theban triad, Amun, Mut and Khonsu.⁷⁰ All heads are coloured yellow, which suggests they were gilded, and this would have happened in the neighbouring house of gold.⁷¹

Reiches, Strassburg, 1896, p. 84, no. 15, pl. 14b (pBN 211 verso 2/3). See also: Jones, *A Glossary*, p. 239, no. 43.

⁶⁹ Quirke, 'Centres of Goldworking', in Guerra et al. (eds), *Ancient Egyptian Gold*, p. 65; E. Hofmann, *Bilder im Wandel: Die Kunst der ramesseidischen Privatgräber*, Theben 17, Mainz, 2004, colour fig. 67; Hofmann, *Das Grab des Neferrenpet Kenro*, pp. 74–79, scenes 42–43, figs 49–50, colour pls 10–11 (room II, north wall, house of gold, and adjoining west wall, treasury). For more about the house of gold depicted in TT 178, see also the contribution by Gema Menéndez in the present volume.

⁷⁰ For the iconography of processional barges of gods, see: C. Karlshausen, *L'iconographie de la barque processionnelle divine en Égypte au Nouvel Empire*, OLA 182, Leuven, 2009.

⁷¹ One individual perhaps affiliated with the workshop was Djehutynakht, owner of TT 189, overseer of carpenters and chief of goldworkers, responsible for the gilding of major gateways and door leaves in the precinct of Amun and the refurbishing of portable barks for the images of different deities in Upper Egypt. See: K. A. Kitchen, 'Nakht-Djehuty: Servitor of Sacred Barques and Golden Portals', *JEA* 60 (1974), pp. 168–174. The shipbuilder Iuna (stela BM EA 1332, provenance Abydos), who fashioned the *Neshmet*-barks of the gods of various temples (*ḥmw n nšm.t*), including that of Atum of Heliopolis and Ptah of Memphis, might be his northern counterpart, dating to the reign of Amenhotep III. Also note the now-lost tomb of Khaemwaset at Saqqara (334/TPC), *ḥr.y wdh.w nsw*, 'chief of carpenters (shipbuilders?) of the king'. His tomb reliefs now held in the Egyptian Museum Cairo were found together with those of Ptahmay, the maker of gold leaf. See: C. Zivie-Coche, 'À propos de quelques reliefs du Nouvel Empire au musée du Caire: ii. La tombe de Khaemouas, chef des charpentiers du roi, à Giza', *BIFAO* 76 (1976), pp. 17–36.

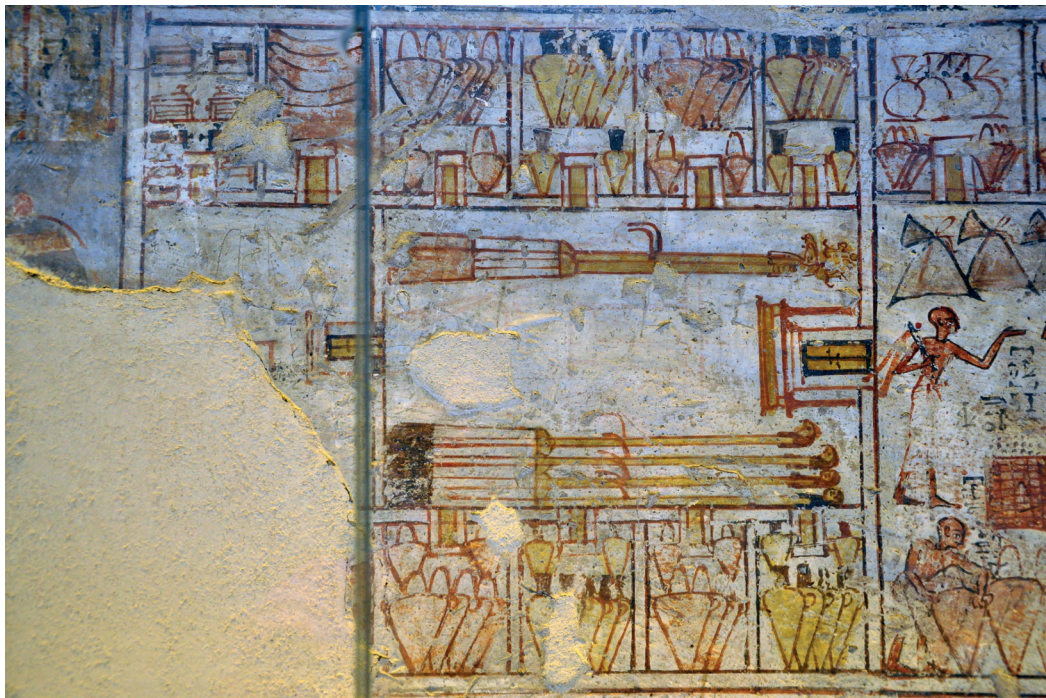


FIGURE 14 • Steering oars stored in the treasury of the temple of Amun at Karnak, depicted in the tomb of Neferrenpet Kener, TT 178. Photo © MANT – ULiège/Gema Menéndez.



FIGURE 15 • Gold workers beating gold in the house of gold of the temple of Amun in Karnak. Photo © MANT – ULiège/Gema Menéndez.

The house of gold of the temple of Amun has been described and discussed at length by others.⁷² In the context of the present article I would like to draw the attention to the unnamed chief of goldsmiths (*hr.y nby.w*) handing Neferrenpet Kener a pile of three yellow-coloured items (Figure 15). The items have been described as metal bars. However, given that their shape is similar to that depicted in the workshop scenes of Ptahmay (Figure 7, gold beaters) and Meryneith (Figure 11, scribe handing gold leaf to the gilder), I would suggest the elongated items may in fact represent a stack of gold leaf. Accordingly, the gold workers depicted on the two sub-registers on the right are beating not bars of gold but sheets of gold, piled up with protective goldbeater's skins; compare the tools they hold to beat the gold with those of the beaters in the workshop of Ptahmay (Figure 7). And like the workshop of Ptahmay, Neferrenpet Kener's gold beaters are accompanied by one individual sitting at a fire bowl, most probably annealing the thinned sheets of gold, to be beaten to leaf by the men sitting on the right.

The Institutional Context of Workshop and Dockyard at Memphis with a Note on Perunefer

The wall decoration in the tomb of Meryneith suggests a close relation between the Memphite royal dockyard and the temple of Aten carpentry and gold workshops. The same association is found in the Memphite palace (storehouse) accounts.⁷³ Thus, pHermitage 1116B (verso, lines 56–59) mentions the royal barge of Amenhotep II, named *ʿ3-ḥpr.w-rʿ(-smn)-t3.wy*,⁷⁴ in the context of the deliveries of wood and other exotic commodities including ebony and ivory to carpenters, sculptors, and Syrians (with Egyptian names) working in the household of the king.⁷⁵ Some of the deliveries were linked to the decoration of luxury carpentry and furniture making. The two gold workshops depicted in the tomb of Meryneith are also linked to a dockyard and the production of luxury goods. The first has been discussed in the present article; the second scene is on the north wall of the antechapel and depicts the making of luxury items such as gold jewellery and ornamental chests.⁷⁶ The latter is of the type made of ebony and inlaid with stained ivory and knobs of wood gesso-gilt well-known

⁷² See n. 68, above.

⁷³ For a succinct overview of the sources, see: F. Hagen, with a contribution by Daniel Soliman (3.8), 'Archives in Ancient Egypt, 2500–1000 BCE', in A. Bausi, C. Brockmann, M. Friedrich, and S. Kienitz (eds), *Manuscripts and Archives: Comparative Views on Record-keeping*, Berlin, 2018, pp. 109–115.

⁷⁴ The barge is also known from other sources, see: M. Danilova, 'La carrière et la famille de Minhotep Houtoutou : Avec une note sur la date de pErmitage 1116-B verso', *ENiM* 12 (2019), p. 131. Danilova (p. 133) further suggests that the barges of Amenhotep II and Thutmose IV, also mentioned in the document, are not the recipients of the materials, but rather the sources, their material being recycled when no longer in use. This practice compares well with the timber accounts of Seti I (Spiegelberg, *Rechnungen*) that deal with the 'requisitioning' (*nḥm*) of timber in various city districts of Memphis by house or institution (Hagen, 'Archives', in Bause et al. (eds), *Manuscripts and Archives*, p. 111). One of the Memphite institutions was the temple of the Aten (*ḥw.t p3 itn*).

⁷⁵ W. Golenischeff, *Les papyrus hiératiques No 1115, 1116A et 1116B de l'Ermitage Impérial à St Petersburg*, St Petersburg, 1913.

⁷⁶ Raven and van Walsem, *The Tomb of Meryneith*, scene [42]. See further discussion in: Staring, 'The Memphite Necropolis', in Coppens (ed.), *Continuity, Discontinuity and Change*, pp. 33–37.

from the tomb of Tutankhamun, kv 62,⁷⁷ and mentioned in contemporary diplomatic correspondence (Amarna Letters).⁷⁸ The workshops directed by Meryneith serviced both temple and palace.

The papyri Hermitage 1116A and B (perhaps originally a single administrative roll) have long been dated to the (early) reign of Amenhotep II due to reference made to the king's ship.⁷⁹ However, a recent study has made a strong case to date the papyri later in time.⁸⁰ One important argument for a later date is a scribe of the treasury mentioned in pHermitage 1116B verso, Minhotep Hututu.⁸¹ A scribe of the treasury with the same name had a tomb at Saqqara (318/TPC, now lost). His tomb stela (Cairo TN 17.5.25.7) enumerates various titles that link him to (one of) the Sed festivals celebrated by Amenhotep III. The titles imply that the stela was made after year 30 of the king's reign, a date that agrees well with the style and iconography of the stela. If Minhotep Hututu had his *floruit* during the late third and fourth decades of Amenhotep III, it is perhaps unlikely that he exercised the same office already during the reign of Amenhotep II, more than 30 years before.⁸² The date of the papyrus could possibly be narrowed down to (a date after) year 18 of Amenhotep III, following the mention of 'grain of year 18' in pHermitage 1116A verso. This date brings the papyrus nearer the *floruit* of Meryneith, who may have directed the very same palace storehouse twenty years later, when it was administratively attached to the domain of Aten.⁸³

Papyrus Hermitage 1116A verso lists, amongst other things, quantities of beer and grain for visiting messengers from foreign lands (Syria-Palestine).⁸⁴ They might be predecessors of the messengers

⁷⁷ A necropolis neighbour of Meryneith, Iniua (009/usc), scribe of the treasury of silver and gold of the Lord of the Two Lands, may have directed the gold workshops on behalf of Meryneith. The iconographic programme of his tomb includes a scene inspired on the lid of Tutankhamun's ornamental chest, depicting the king standing vis-à-vis Ankhesenamun, which might suggest Iniua had been personally responsible for the production of the chest in the Memphite palace/temple workshop. See: Staring, 'The Memphite Necropolis', in Coppens (ed.), *Continuity, Discontinuity and Change*, pp. 48–50. Iniua later became chief steward of Memphis, succeeding Ipy (who wrote a letter to Amenhotep IV, see above), probably early in the reign of Seti I. For the tomb of Iniua, see further: H. D. Schneider, *The Tomb of Iniua in the New Kingdom Necropolis at Saqqara*, PALMA-Eg 8, Turnhout, 2012.

⁷⁸ See, e.g., EA 14, letter with an inventory of Egyptian gifts of Akhenaten to Burna-Buriash II, which includes (IV.11): '13 boxes, of stained ivory, (called) *upta*'. The Akkadian word *upta* is an Egyptianism of *ʿfd.t* (*Wb* I, 183.15–18; T. O. Lambdin, 'Egyptian Words in Tell El Amarna Letter No. 14', *Orientalia* 22/4 (1953), p. 368, no. 31), 'a chest of wood or metal'.

⁷⁹ Golenischeff, *Les papyrus hiératiques*.

⁸⁰ Danilova, 'Minhotep Houtoutou', *ENiM* 12 (2019), pp. 130–133. Consequently, the ship of Amenhotep II may not have been the recipient of the materials recorded, but perhaps rather the source, which means it was disassembled for reuse of its valuable materials.

⁸¹ pHermitage 1116B verso: Golenischeff, *Les papyrus hiératiques*, pl. 27, line 39.

⁸² Golenischeff, *Les papyrus hiératiques*, pl. 15, line 19.

⁸³ Temple and palace were in fact two sides of the same coin, as also commented by Quirke, 'Centres of Goldworking', in Guerra et al. (eds), *Ancient Egyptian Gold*, p. 52: "(...) temple estates and staff seem to operate within an overall system of kingship or royal administration in 2nd millennium BC Egypt, despite the separation into two sectors of *pr nswt* 'domain of the king' and 'temple'".

⁸⁴ Hagen, 'Archives', in Bause et al. (eds), *Manuscripts and Archives*, p. 126, concludes that the institutional context of pHermitage 1116A seems to be that of a state department, because the two most prominent

so well-known from the Amarna correspondence.⁸⁵ The latter correspondence offers a glimpse of a palace-dependent gold workshop. Tušratta king of Mitanni dedicated two letters to what he clearly considered a pressing issue, namely that Akhenaten had sent him gilded statues of wood instead of statues of solid cast gold that Amenhotep III had promised him.⁸⁶ In letter EA 27 (19–33), Tušratta writes Akhenaten, saying:⁸⁷

And as for the gold for the statues, all my envoys who were posted in Egypt saw with their own eyes, and as for the statues, it was your father, in the presence of my envoys, who recast them, fashioned them, finished them, purified them. And when the recasting took place, my envoys saw with their own eyes and when they were finished and they were purified, with their own eyes they saw.

And he showed much other gold, without limit, which he was sending to me. And he said to my envoys, “Now the statues and now much gold and goods without limit am I sending to my brother, so see with your own eyes”. So my envoys saw with their own eyes.

And now, my brother, the solid statues that your father was going to send, you have not sent. But you have sent plated ones of wood; the goods that your father was sending me, you have not sent and you have reduced (them) greatly.

Tušratta does not mention at what palace his messengers allegedly saw with their own eyes Amenhotep III cast the statues. It may have been at the king’s well-preserved palace at Malkata or the king’s palace at Memphis, which has not been attested archaeologically. Whichever palace was meant, the example vividly illustrates that at the king’s palace, international diplomatic relations and the production of luxury goods were closely intertwined.⁸⁸

The gold workshop and launching of the royal state barge depicted in the tomb of Meryneith naturally calls to mind the enigmatic harbour of Memphis, Perunefer. Perunefer has long been considered as the naval base and royal dockyard of Memphis.⁸⁹ However, the identification has equally been long contested, and scholarly consensus is gradually shifting towards siting Perunefer in Tell el-Dab’a/Ezbet Helmy in the Eastern Delta.⁹⁰ While the evidence for a palace and harbour

departments in the account are the ‘household of the overseer of the treasury’ and the ‘household of the adoratrice’, i.e. the queen.

⁸⁵ As suggested by Danilova, ‘Minhotep Houtoutou’, *ENiM* 12 (2019), p. 133 n. 20.

⁸⁶ The complaint is the subject of letters EA 26 (sent to Tiye, mother of Akhenaten) and EA 27 (sent to Akhenaten): Rainey, *The El-Amarna Correspondence*, pp. 276–295; Moran, *The Amarna Letters*, pp. 84–90. See also n. 9, above.

⁸⁷ Translation after Rainey, *The El-Amarna Correspondence*, pp. 285–287.

⁸⁸ Also well illustrated by the stela of the king’s interpreter of Babylonian, Pakana (511/TPC), who was the son of a goldsmith of foreign descent (Pakharu, ‘the Syrian’). Pakana’s tomb chapel is located in the Teti Pyramid Cemetery at Saqqara, amongst those built for individuals engaged in artistic production. See: Youssef and Staring, ‘Tutankhamun’s Interpreter’, *BIFAO* 125 (2025), in press.

⁸⁹ A. Badawi, *Memphis als zweite Landeshauptstadt im Neuen Reich*, Cairo, 1948.

⁹⁰ R. Gundacker, ‘Papyrus British Museum 10056: Ergebnisse einer Neukollationierung und Anmerkungen zur inhaltlichen Auswertung im Rahmen der militärischen Ausbildung Amenophis II.’, *Ä&L* 27 (2017),

at Tell el-Dab'a is indeed convincing, the problem is that not a single epigraphic source identifies the site with Perunefer. In fact, most textual evidence for Perunefer derives from Memphis. The latest addition is the tomb stela of Hornefer/nakht (342/TPC), the deputy of Perunefer (*idn.w n pr.w-nfr*), found in the Teti Pyramid Cemetery at Saqqara and dated to the Amarna period.⁹¹ Of course, the choice of location of the man's tomb needs not imply that he officiated at Memphis. The tomb of the chief steward of the city (*niw.t*) of Perunefer (spanning the reigns of Thutmosis III and Amenhotep II), Qenamun, TT 93, presents a case in point.⁹² However, Hornefer/nakht's necropolis neighbours all resided at Memphis and were professionally affiliated with the city's palace and/or temples (of Ptah and Aten). The fact that the sole representation of an actual dockyard, depicting the construction of a royal barge, is found in the Memphite tomb of the steward of the Memphite domain of Aten, provides strong evidence for situating Perunefer in or close to Memphis.⁹³

It has been suggested that during the Ptolemaic period the Memphite metal worker's quarter was located at Kôm el-Nawa and Kôm el-Arba'in, along the Nile east/northeast of the temple of Ptah.⁹⁴ The Twenty-Sixth Dynasty palace at Apries further north at Kôm Tumâm may have been erected over a former palace,⁹⁵ perhaps continuing a much longer tradition. Text sources indicate that Perunefer lay north of Memphis also.⁹⁶ The location of the palace metal workshops and dockyard on the north side of the city might perhaps explain why tombs of individuals engaged in artistic production clustered in the Teti Pyramid Cemetery, which is likewise on the north side of the city. The suggestion is tantalizing and deserves further research.

pp. 281–334; A. M. Gnirs, 'Coping with the Army: The Military and the State in the New Kingdom', in M. Moreno García (ed.), *Ancient Egyptian Administration*, HdO 1, Leiden, 2013, pp. 11–12; M. Bietak, 'Minoan Presence in the Pharaonic Naval Base of "Peru-Nefer"', *British School at Athens Studies* 18 (2010), pp. 11–24; idem, 'Perunefer: The Principal New Kingdom Naval Base', *EA* 34 (2009), pp. 15–17; idem, 'A Thutmosid Palace Precinct at Peru-nefer (Tell el-Dab'a)', in M. Bietak and S. Prell (eds), *Ancient Egyptian and Ancient Near Eastern Palaces*, Vol. 1, Vienna, 2018, pp. 223–250; W. Spiegelberg, 'La ville de prw-nfr, dans le delta', *REgA* 1, pp. 215–217;

⁹¹ M. M. Youssef, 'An Amarna Stela of Hornefer/Hornakht from Saqqara', in J. Kamrin, M. Bárta, S. Ikram, M. Lehner, and M. Megahed (eds), *Guardian of Ancient Egypt: Studies in Honor of Zahi Hawass*, Vol. 3, Prague, 2020, pp. 1701–1710.

⁹² No. de Garis Davies, *The Tomb of Ken-Amun at Thebes*, PMMA 5, New York, 1930.

⁹³ Thus also Herzberg-Beiersdorf, *Prosopographia Memphitica*, p. 89. Hagen, 'Archives', in Bause et al. (eds), *Manuscripts and Archives*, p. 126, concludes that while the site Perunefer is mentioned in both pHermitage 1116A ("only tangentially") and the royal dockyard account BM EA 10056, the connection between both is not obvious. Note that the Memphite stela of Amenhotep II, which commemorates his Asiatic campaigns, has the gods Amun-Re in (*hr.y-ib*) Perunefer and Ptah Lord of Maat depicted in the lunette: A. M. Badawi, 'Die neue historische Stele Amenophis' II.', *ASAE* 42 (1943), pp. 1–23.

⁹⁴ D. J. Thompson, *Memphis Under the Ptolemies*, Princeton, 2012, p. 61.

⁹⁵ A. Gräzer Ohara, *Treasures from the Lost City of Memphis: Objects from the Museum Sculpture Garden*, Boston, 2020, p. 227; D. G. Jeffreys, 'House, Palace and Islands at Memphis', in M. Bietak (ed.), *Haus und Palast im alten Ägypten*, Vienna, 1996, pp. 287–294; idem, *The Survey of Memphis I: The Archaeological Report*, London, 1985, p. 41.

⁹⁶ *Urk* IV, 1315.1–18: Karnak stela of Amenhotep II, lines 33–35: "Departing of His Majesty from Perunefer, moving down to Mennefer (...)."

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