

# Current Research in Egyptology 2023

Proceedings of the Twenty-Third Annual Symposium,  
University of Basel, 10-14 September 2023

Edited by

L. Dogaer, C.H.W. Fong, E.L. Hertel,  
M. Kilani, G.K.H. Lunden



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# Introduction

We at the department of Egyptology of The University of Basel, Switzerland, were excited to be elected as the hosts for the twenty-third Current Research in Egyptology Conference, which was held on 10<sup>th</sup>-15<sup>th</sup> September 2023. Despite the age of the university itself, the chair of Egyptology in Basel was established comparatively recently, in 1957 for Ursula Schweizer. She can be considered the founder of German-speaking Swiss Egyptology which was the culmination of work in and cooperation with Egyptological institutes in Germany and France, not to forget those of French-speaking Switzerland who at this point already had a long history of independent and international cooperative work with France concentrated around, for example, the Universities of Geneva and Neuchâtel. From the very beginning, this form of cooperation has been central to Egyptology in Switzerland and Basel, and the current department of Egyptology strives to uphold this legacy. It was therefore our great pleasure to invite more than 70 young Egyptologists from around the world to join us in person, with several more joining us online, to present research from Italy, Egypt, Portugal, England, Wales, the USA, Australia, France, Japan, Cuba, Brazil, and several other countries in the form of 87 paper presentations and 17 poster presentations on a variety of topics, such as religion, history of Egyptology, archival research, scientific and digital methods, reports on archaeological excavations, methodological issues and many others.

As a new trial, we also introduced a new 10 minute-presentation format to the regular CRE structure, next to the already existing 20 minute and poster presentations. The 10 minute-presentations were aimed at introducing newly started projects or still ongoing research.

The organising committee, consisting of a team of ten doctoral candidates and postdoctoral researchers, would like to express its gratitude to all the people who have helped to realise this conference. First and foremost, our gratitude goes towards the University of Basel and the Department of Ancient Civilizations, especially the Basel Egyptology team and Prof. Dr. Susanne Bickel in particular. She moreover welcomed all the participants in the opening keynote lecture, presenting Egyptological research at Basel. Our other two keynote speakers, Dr. Giuseppina Lenzo and Prof. Dr. Sandrine Vuilleumier, completed the presentation of Egyptological research in Lausanne and Basel respectively.

The organisation of the conference would not have been possible without our sponsors. A heartfelt thank you goes towards the Egyptology Research Group at the University of Basel, Freiwillige Akademische Gesellschaft, eikones - Zentrum für die Theorie und Geschichte des Bildes, Studentische Körperschaft der Universität Basel (SKUBA), Basler Forum für Ägyptologie, Fonds zur Förderung der Altertumskunde, Max Geldner Stiftung, Uni Basel Forschungsfonds Nachwuchsförderung and the Doktoratsprogramm der Basler Altertumswissenschaften.

After four days filled with presentations, the last day of the conference was used to explore the broader Basel area. While one group went for a hike in the mountains, another group visited the Roman site Augusta Raurica. Two tours were kindly offered by Dr. Thomas Hufschmid and Cedric Grezet, one in the ancient theatre and one of the current excavations. The excursions were a nice ending to a successful conference!

We would of course also like to thank all the contributors who sent in a paper as well as extend our gratitude towards Archaeopress and to Mike Shurer in particular. Finally, we would like to thank the members of our scientific committee, and the additional scholars who reviewed the articles. We are looking forward to CRE 2024 in Liverpool and wish the organisers all the luck in the world!

The Editors

## Organizing Committee

**Alexis Den Doncker**, postdoctoral assistant at the Department of Egyptology at the University of Basel.

**Lauren Dogaer**, doctoral candidate in the SNF-PRIMA Project ‘Beyond the Text: New Funerary Compositions from the Greco-Roman Period: Textualities and Archaeology in Thebes’.

**Cyprian H.W. Fong**, doctoral candidate in the SNF-PRIMA project ‘Beyond the Text: New Funerary Compositions from the Greco-Roman Period: Textualities and Archaeology in Thebes’.

**Elena Hertel**, doctoral candidate in the SNF-FNRS project ‘Crossing Boundaries: Understanding Complex Scribal Practices in Ancient Egypt’.

**Charlotte Hunkeler**, doctoral candidate and university assistant at the Department of Egyptology at the University of Basel.

**Jacqueline M. Huwylar**, doctoral candidate at the Department of Egyptology at the University of Basel.

**Marwan Kilani**, postdoctoral fellow, head of the SNF Ambizione project ‘Like the conversation of a Delta man with a man from Elephantine! Exploring the interactions between dialectal realities, Levantine loanwords, and sociolinguistic dynamics in New Kingdom Egypt’.

**Geirr Lunden**, doctoral candidate in the graduate school of eikones – Center for the Theory and History of the Image.

**Tarek Mohamed**, doctoral candidate and ESKAS scholarship holder at the Department of Egyptology at the University of Basel.

**Sayed Soliman**, doctoral candidate and ESKAS scholarship holder at the Department of Egyptology at the University of Basel.

## Student Members

Felix Bloch

Melina Jakobs

Anna Khoury

Najara Merki

Bettina Schulz

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Giuseppina Lenzo

*The Decoration of the Tombs of Osorkon II (Tanis) and His Son Sheshonq D (Memphis).*

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*Deir el-Medina in Graeco-Roman Times. Meaning, Intentions and Implementation.*

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# The Discoveries at the Quesna Cemetery Site: The West Delta and Northern Coast Scientific Training Center's Excavation Field School Season of February – March 2022

Samar Ahmed Abu-Dahab  
Ministry of Tourism and Antiquities

## Abstract

The excavations were carried out at the Quesna cemetery site, Menoufia Governorate, Egypt, as part of a beginner field school, which was held by the Training Center to train Ministry of Tourism and Antiquities (MoTA) inspectors on archaeological field practices and documentation. The field was supervised and funded by the Central Training Unit at MoTA. The site dates to the Late to Roman periods. It was first discovered by the Supreme Council of Antiquities (SCA) in the 1990s. After that a geophysical survey was carried out in 2006 in co-operation with the British mission and the Egypt Exploration Society (EES) to determine the full extent of the cemetery. Parts of the Ptolemaic and Roman cemetery were excavated along with the entrance to the falcon cemetery, in addition to the Old Kingdom mastaba. The aim of the paper is to describe the burials which were excavated during the field school, to analyse the data, to determine the relationship and chronological sequence between the excavated area and the Ptolemaic and Roman cemetery, and to explore the association between the excavated area and the Late Period cemetery, which is located to the southeast of the field site. During the excavation, 37 graves were found, from which 31 graves were excavated. The site includes burials in the form of pits or coffins in addition to one mudbrick-lined grave. It also gives information about the coffin types (double-vessels and anthropoid coffin) and the burial practices (burial orientations, burial positions, body treatments and grave goods). The purpose of this preliminary study is to estimate biological sex and age of the recovered human remains, as well as identifying some common diseases.

## Keywords

Quesna site, Cemetery, Grave Types, Burial Practices, Body Treatments, Double-vesselled Coffins, Anthropoid Coffins.

## Introduction

The cemetery is located in Quesna, Menoufia Governorate, Egypt in the middle of the Delta, about 50km to the north of Cairo (Rowland and Tassie 2018: 369; Figure 1 after Rowland and Strutt 2007: 4). It was located on a turtle back or *gezira*, which is a sandy plateau that rises above the level of the surrounding cultivated land, which was part of the plateau in the past. The cemetery is located in the nearby industrial area, where the brick and glue factories were located. The invasion of industry buildings has changed the area in addition to the sand quarrying and agriculture (Rowland and Hamdan 2012: 14). The sand hill consists of pure yellow sand, its height is approximately 20m at the highest point and about 3.5km long and up to 2.3km wide (Gomaà and Hegazy 2001: 7). It is located in the east of the Delta on the Damietta branch of the Nile near Tell Atrib (Hegazy 2002: 30). The quarries at Quesna, commonly known as Kofour el Raml, takes their name from the city that is located 2km north (Hegazy 2002: 30).

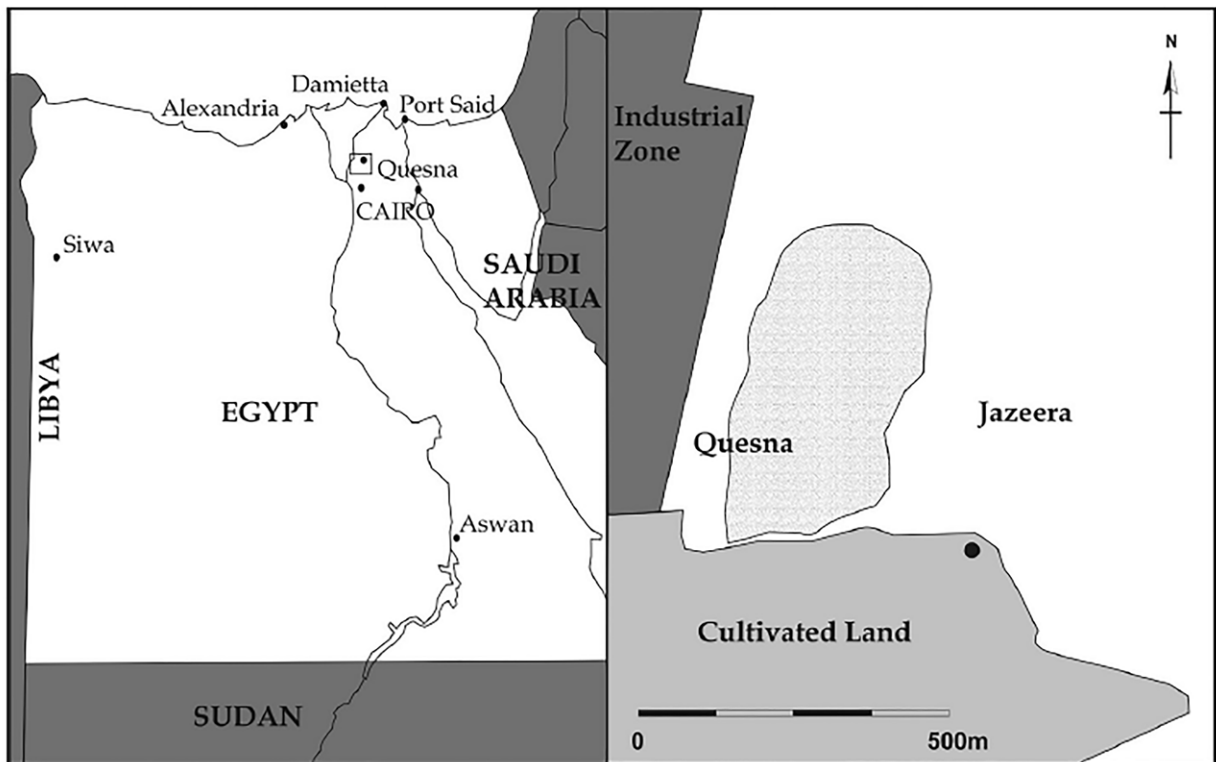


Figure 1. Location of Quesna. After Rowland and Strutt 2007: 4. Image by K.D. Strutt, courtesy of the Egypt Exploration Society.

Part of the site, located approximately 30m from Quesna inspectorate and 75m northwest from the Late Period tombs (Figure 2 and 3), was chosen to train the inspectors on archaeological field practices and recording. The field was directed and supported by the Central Training Unit at MoTA, which was supervised by Dr Bassem Gehad. It was carried out from 20 February until 13 March 2022 under the supervision of Mr Ahmed Omar (Field Director) and the excavation team: Rania Megahed (excavator), Dr Mohammed Helmy (excavator) Alaa Gaber (surveyor) and myself (bio-archaeologist). Support was also provided by additional specialists: Mohamed Atef (ceramicist), Said El-Assal (illustrator), Imam Salah (drawing), and Ismail Saaid (conservator). During the field school 18 archaeologists were trained; H. Mohamed, A. Ismaael, H. Gomaa, M. Mostafa, E. Gamal, M. Nabil, S. Mandor, R. Atef, M. Anour, H. Fayez, N. Mohamed, Y. Gamal, E. Abdelazeem, S. Shaaban, A. Mohamed, A. Ismaael, N. Sabry, and M. Abdalla.

### Previous work

The site was excavated through the work of a construction company in the area while removing the sand, mud brick remains and sarcophagus were discovered. The excavations by SCA in the 1990s resulted in the discovery of a huge cemetery dating back to the Late Period, which continued to be used until the Roman Period (Hegazy 2002: 30). The huge cemetery is divided into three main areas (Figure 4). Area A, which is the oldest, is located in the southern part of the site. It consists of four units built of brick dated back to the Late Period, the Early Ptolemaic Period, and the Roman Period. Excavations at this site began in 1990/1. Two limestone coffins were found in the first unit in the southern part of the excavated area. The second unit contained an inscribed granite sarcophagus, limestone coffins, canopic jars, shabtis, and amulets in the burial chambers. The third unit was perhaps used as a place for visitors. The fourth unit contained nine rooms. Fire was set in some of the rooms in ancient times. In Area A

## THE DISCOVERIES AT THE QESNA CEMETERY SITE

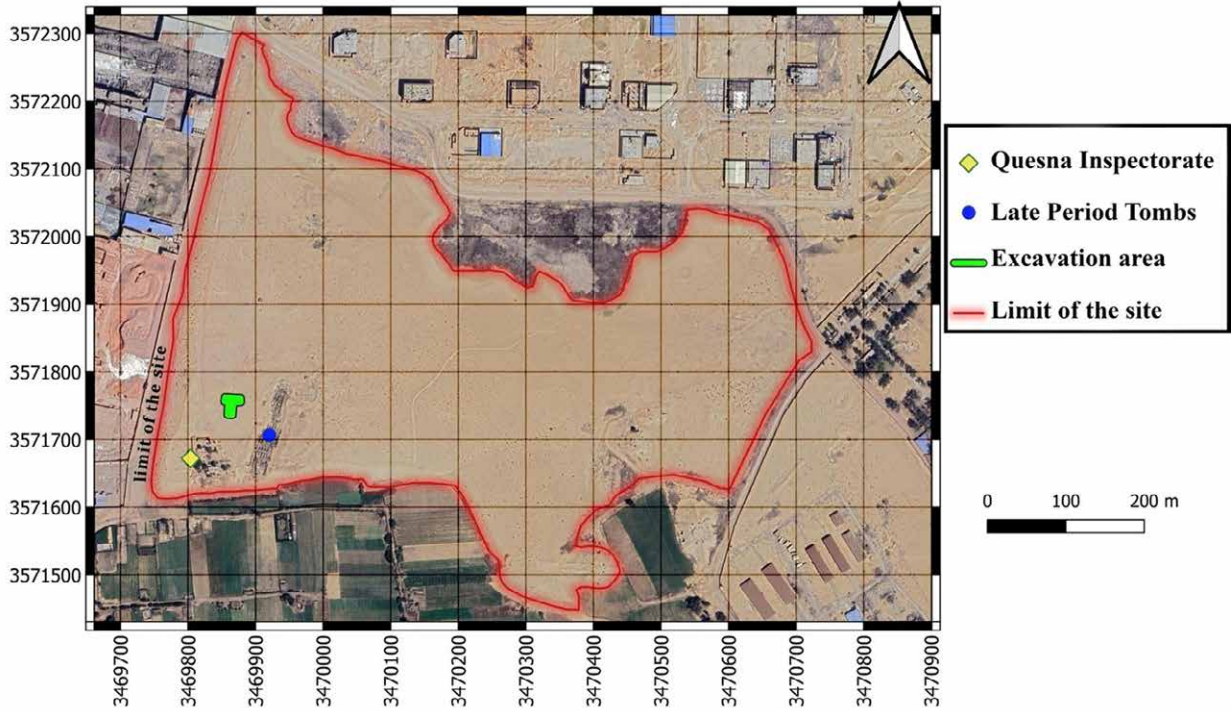


Figure 2. QGIS.org (24 August 2023). QGIS Geographic Information System. Open Source Geospatial Foundation Project. <http://qgis.org> (modified by Alaa Gaber)



Figure 3. Google (2022) 30°31'45.2"N 31°10'13.0"E. Available at: <http://maps.google.co.uk> (viewed 9 August 2022). Plan locating the Field School (modified by Alaa Gaber)

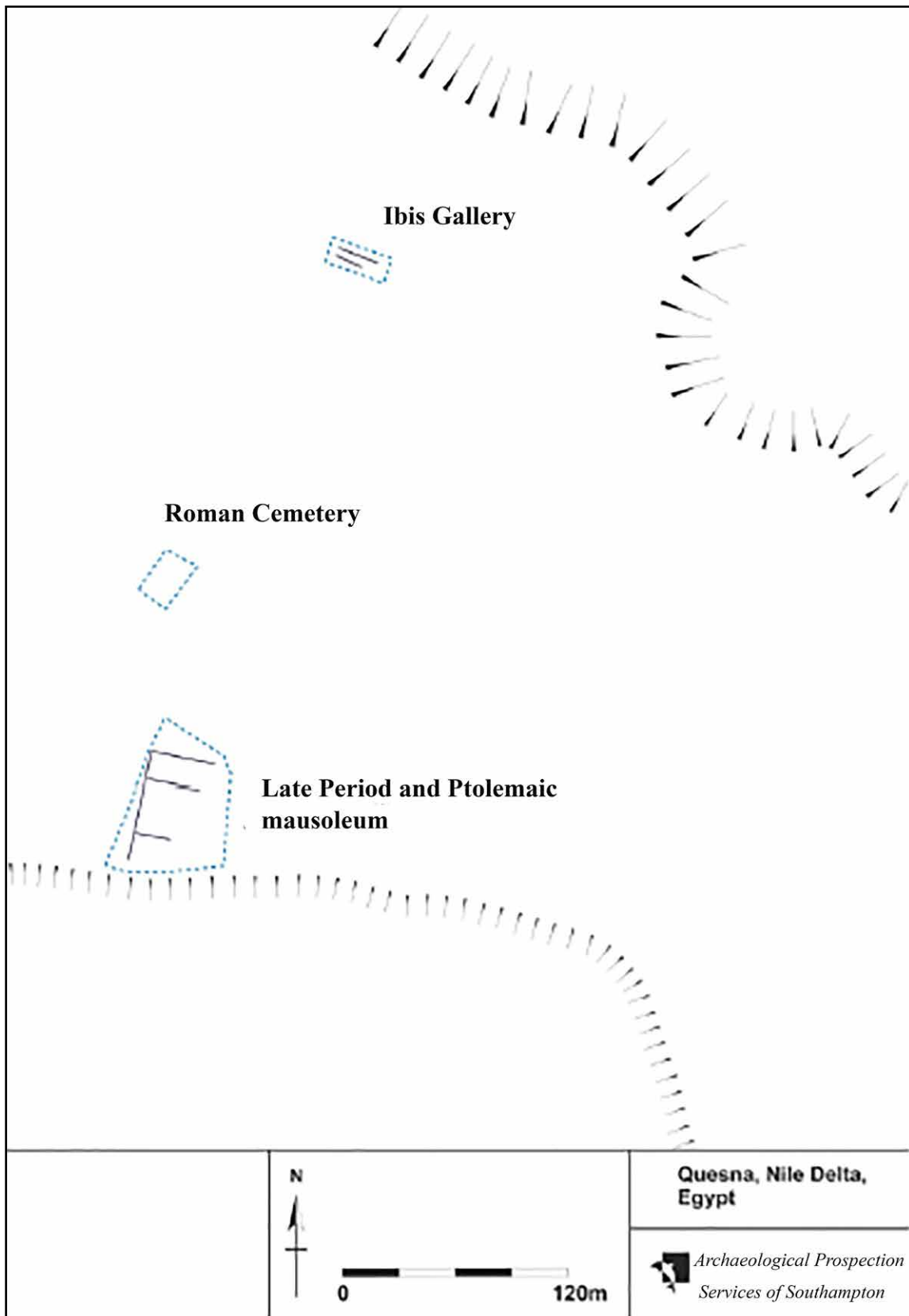


Figure 4. The three areas of the cemetery. After Rowland and Strutt 2005: 5. Image by K.D. Strutt, courtesy of the Egypt Exploration Society.

some people were buried in stone coffins and wooden coffins, which were completely destroyed, while others were buried without coffins in simple graves made of mud bricks or only in pits in the sand. Area B is located approximately 100m north of Area A. A huge cemetery was found there. It contained burials in pottery coffins, simple graves made of mud bricks and a simple burial pit in sand. The cemetery has been dated to the Roman Period due to the discovery of few finds such as a woman terracotta figure, vessels, gold earring and pottery sherds. The site is probably an extensive cemetery for members of the middle classes, because the pottery coffins contained only human remains without objects. Area C is located to the north of Area B. It is a cemetery dedicated to the sacred falcons. Excavated in 1997, the finds from the cemetery confirmed the dating to the late Ptolemaic until the Roman Period. The falcons were buried in vessels and are in a very poor condition; they were partially mummified. In addition to the vessels containing eggs and bone remains of birds, votive offerings made from different materials were also found (Gomaà and Hegazy 2001: 8-12, 15).

The archaeological survey started in 2005 followed by the geophysical survey that was carried out in 2006 in cooperation with the British mission and the EES to determine the extent of the cemetery (Rowland 2007b: 65). Parts of the Ptolemaic and Roman cemetery were excavated in Area B to the west of the mausoleum in Area A. During the 2007-2008 excavation seasons, burial pits, mud-brick graves and pottery coffins were excavated in area B. The entrance building of the falcon cemetery was also investigated (Rowland 2008: 69, 93). The work continued in 2009 in the southwest and the east of the site to investigate the north-western side of the falcon cemetery (Rowland *et al.* 2010: 31). The most interesting discovery in 2012 was the eastern wall of the falcon cemetery and the abutting walls which form together the original eastern wall (Rowland and Ikram 2013: 5). It is worth mentioning that during the 2010 season, a mudbrick mastaba tomb was excavated to the north of the falcon cemetery. It dates back to the Old Kingdom (Rowland 2011: 11). The mastaba was further dated to the Third Dynasty, as a seal impression with the name of the ruler Khaba was found during the 2014 excavation season (Rowland and Tassie 2018: 369).

The main aim of this paper is to establish the relationship between the area excavated in the 2022 field school and the previous excavations in the cemetery done by the SCA and the British mission with EES. The paper will present selected burials from the site to shed light on the burial practices in the excavated area. The article will give an overview of grave, burial and coffin types, in addition to subjects related to the body treatment, burial orientation, burial position, and grave goods. Finally, it will analyze and discuss the human remains.

### **Methodology**

A north/south grid divided in eight squares was established on the site (Figure 5). The dimensions of each square were 5 × 5m, the squares were given letters and numbers: K31, L31, M31, N31, O30, O31, O32, and O33. A temporary benchmark was established at a value of 18.82m above sea level (ASL), using a Total Station, which was used for excavation levels by the surveyor, Mr Alaa Gaber. The coffins and human remains were found about 0.20 m below the ground level (17.19-19.10m ASL). The burials and features recorded were based on the single context recording system established by the Museum of London (MoLAS, Museum of London 1994). Features were numbered from 500 sequentially, recorded, drawn, and photographed. The burials were numbered from 2000, coffins were numbered sequentially from 1 and so were the skeletons. The coffins have been described and dated by Mr Mohamed Atef, the ceramicist. The dating of the site depended on the excavated coffins,<sup>1</sup> which dated to the late Ptolemaic Period up to the early Roman Period. Except for the pottery sherds of a small vessel base were found

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<sup>1</sup> The pottery coffins will follow in a future publication.

SAMAR AHMED ABU-DAHAB

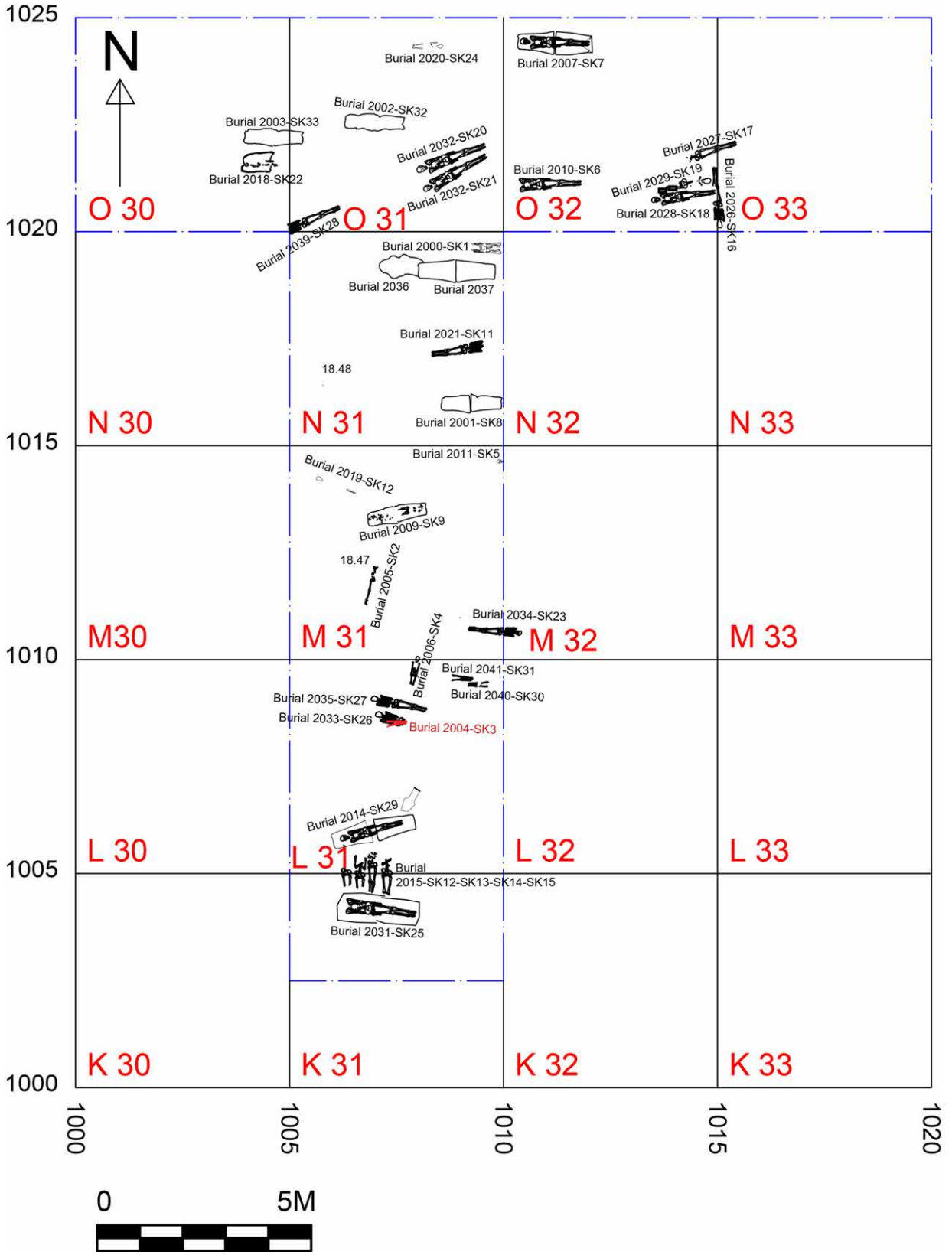


Figure 5. Plan of the site grid (plan by Alaa Gaber)

and a local amphora, which dated back to the end of the 1st century BCE until the 3rd century CE, there were no other dating archaeological finds, as the coffins contained only bones.

The coffins' types were determined as described in Michael 2004. The adult individuals' age estimation was based on the auricular surface (Lovejoy *et al.* 1985) because of their preservation, but this method places individuals into approximately five year-age bands, so it is considered indicative rather than precise. Age estimation based on pubic symphysis was limited because in many burials these bones were broken and eroded (Brooks and Suchey 1990). Juvenile age estimation was based on epiphyseal fusion (Schaefer *et al.* 2009). Long bone measurements and teeth development could not be used for age estimation because of the poor preservation of the burials. Biological sex estimation was scored using pelvic features as described in standards score (Buikstra and Ubelaker 1994) from the examination of sciatic notch. The scores were recorded in situ due to the poor preservation of the remains, which led to the fragmentation of the skeletal remains when the skeletons were removed from the burials. Additionally, using the preauricular sulcus was less common than the sciatic notch because of its poor preservation. Usage of the skulls in sex estimation was very restricted because most of the skulls were found fragmented, crushed, or absent. Osteoarthritis was recorded using methods outlined by Waldron (2009). Non-metric traits were recorded using methods outlined by Mann and Hunt (2016).

### ***Summary of the burials***

The squares of the site were covered by loose windblown sand features mixed with silt with light yellow color in some parts of the site, and grayish and brownish yellow color in other parts, which were formed over time by weather factors. These features formed the abandonment phase, which contained bone fragments, pottery sherds, limestone pebbles, mud brick fragments, planets and modern rubbish. After removing the abandonment phase, the occupation phase (cemetery phase) appeared (Figure 6). It contained the burials, which were excavated in silty sand features<sup>2</sup> varied between firm and loose deposits with yellow color, grayish and brownish yellow colors. The burials were excavated by hoe and trowel. Since they were close to the ground surface, most of the excavated coffins were broken and contained firm silty sand deposit with dark grayish yellow color filling the remains of the coffins that contained bone fragments, such as yellowish white remains of ribs, phalanges, broken shafts and heads of long bone. In addition, white bone powder was also found. The skeletal remains of the burial pits were less preserved than the burials in the coffins. Some burial pits had missing elements, legs and skulls in particular. Crushed skulls were discovered in other burials. The bone surface texture has been changed by the heat of the sun: as the bone dried out, the surface cracked, flaked, and fragmented. Moreover, some skeletal remains were very fragile and had a black color, they would powderize upon touching. Some other skeletal elements turned white due to the sun.

The excavation resulted in 37 burials, the plan shows the burials in squares O30, O31, N30, N31 (Figure 7), the burials in squares O32, O33, N32, N33 (Figure 8), and the burials in squares K31, L31, M31, M32 (Figure 9). The burials varied between single burials in pits or coffins, multiple burials and a mudbrick-lined grave (Figure 10). Thus, 31 burials were excavated (Table 1), in which four of them were partially excavated, while the rest of the six burials in coffins have not been excavated yet. It was noted that there were two types of excavated coffins: anthropoid coffin and double-vesselled pottery coffin (Figure 11). This excavated phase dated back to the Late Ptolemaic Period until the early Roman Period. The following section will introduce the three types of single burials: with double-vesselled pottery coffin, with anthropoid pottery coffin, and without coffin. This will be followed by a discussion of the multiple burials.

<sup>2</sup> The features of the site were described in detail in the data structure report, which will be published.



Figure 6. View of the site shows the difference between features of the abandonment phase and the occupation phase (cemetery phase) (Photograph by Rania Megahed)

TABLE 1. FOR 31 EXCAVATED BURIALS

Burial N.	Square N.	Coffin N.	Skeleton N.	Observation
2000	N31	-	1	single burial pit
2001	N31	1	8	double-vesselled Coffin
2002	O31	2	32	double-vesselled Coffin
2003	O30, O31	3	33	double-vesselled Coffin
2004	L31	-	3	Single burial pit
2005	M31	-	2	Single burial pit
2006	L31	-	4	Single burial pit
2007	O32	4	7	double-vesselled Coffin
2009	M31	5	9	double-vesselled coffin
2010	O32	-	6	single burial pit
2011	M31	-	5	single burial pit
2014	L31	12	29	double-vesselled coffin
2015	L32	-	12, 13, 14, 15	multiple burial
2018	O30	7	22	double-vesselled Coffin

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Burial N.	Square N.	Coffin N.	Skeleton N.	Observation
2019	M31	-	10	single burial pit
2020	O31	-	24	single burial pit
2021	N31	-	11	single burial pit
2026	O32, O33	-	16	single burial pit
2027	O32, O33	-	17	single burial pit
2028	O32	-	18	single burial pit
2029	O32	-	19, 34	multiple burial
2031	K31	8	25	double-vesselled coffin
2032	O31	-	20, 21	multiple burial
2033	L31	-	26	Single burial pit
2034	N31	-	23	Single burial pit
2035	L31	-	27	Single burial pit
2036	N31	9	-	anthropoid coffin (partially excavated)
2037	N31	10	-	double-vesselled Coffin (partially excavated)
2039	O30, O31, N31	-	28	single burial pit
2040	L31	-	30	single burial pit (partially excavated)
2041	L31	-	31	single burial pit (partially excavated)

***Single burials with double-vesselled pottery coffins***

Pottery coffins, i.e. vessels being reused as coffins, were found in several places in Egypt. A pottery coffin was excavated by the SCA team at Area B. The coffin has a tube attached to the upper edge of one of the two vessels. Perhaps it was a storage vessel for liquid (Gomaà and Hegazy 2001: 15). The reuse of the domestic objects within a funerary context came from the belief of facilitating communication between the dead and the living. In addition, the pottery vessels were considered excellent coffins for storing bodies because the bodies buried in vessels were better preserved than the other buried in the cemetery. Thus, the pottery coffins might have been regarded as clay-coated tomb walls that protect and separate the body from the surrounding soil. Moreover, the double-vesselled coffins probably refer to the idea of rebirth: the symbolic connection between vessels and wombs in ancient Egypt supports the rebirth into the afterlife as symbols of life (Power and Tristant 2016: 1476, 1483, 1484).

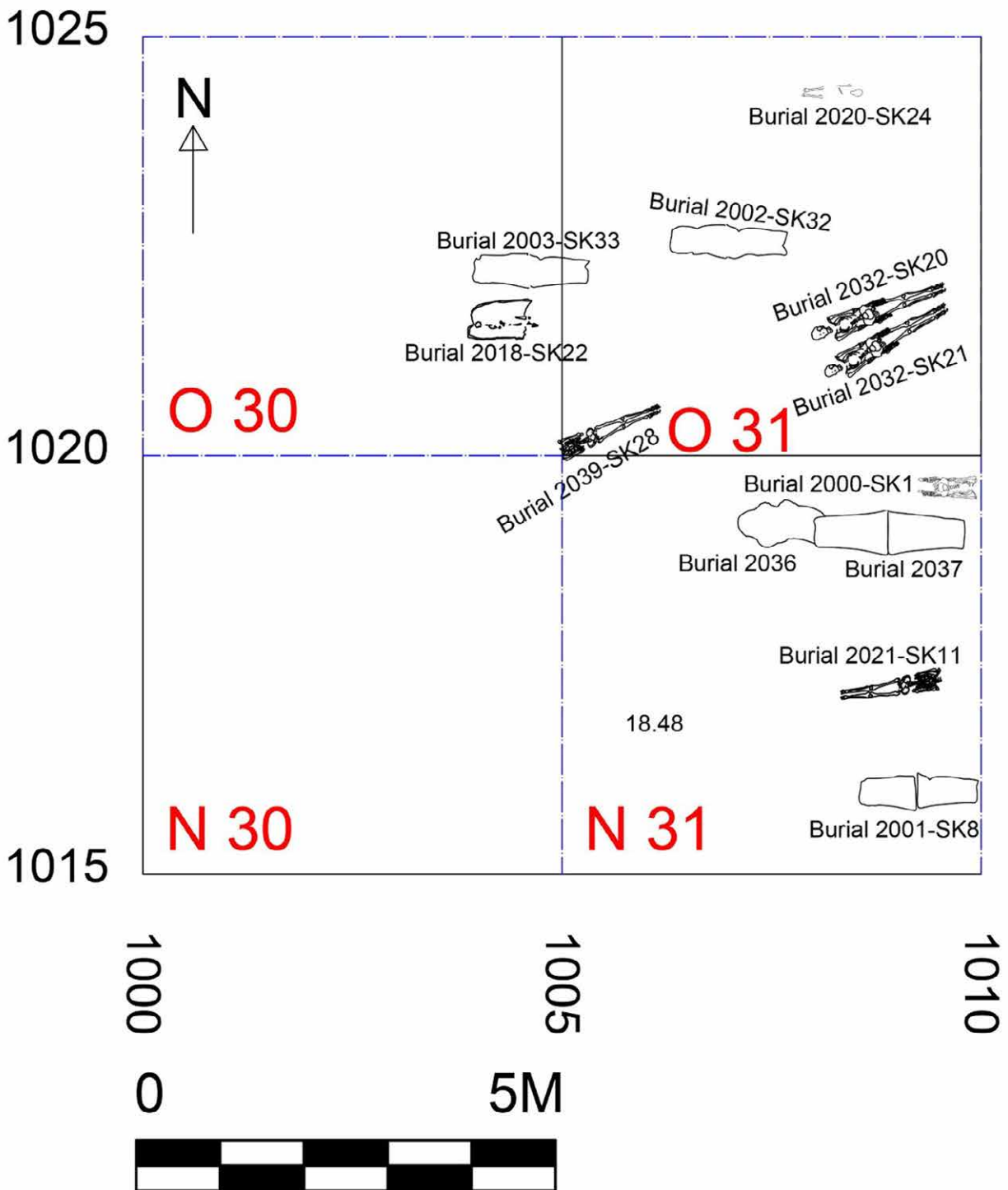


Figure 7. Plan of burials in squares O30, O31, N30, N31 (plan by Alaa Gaber)

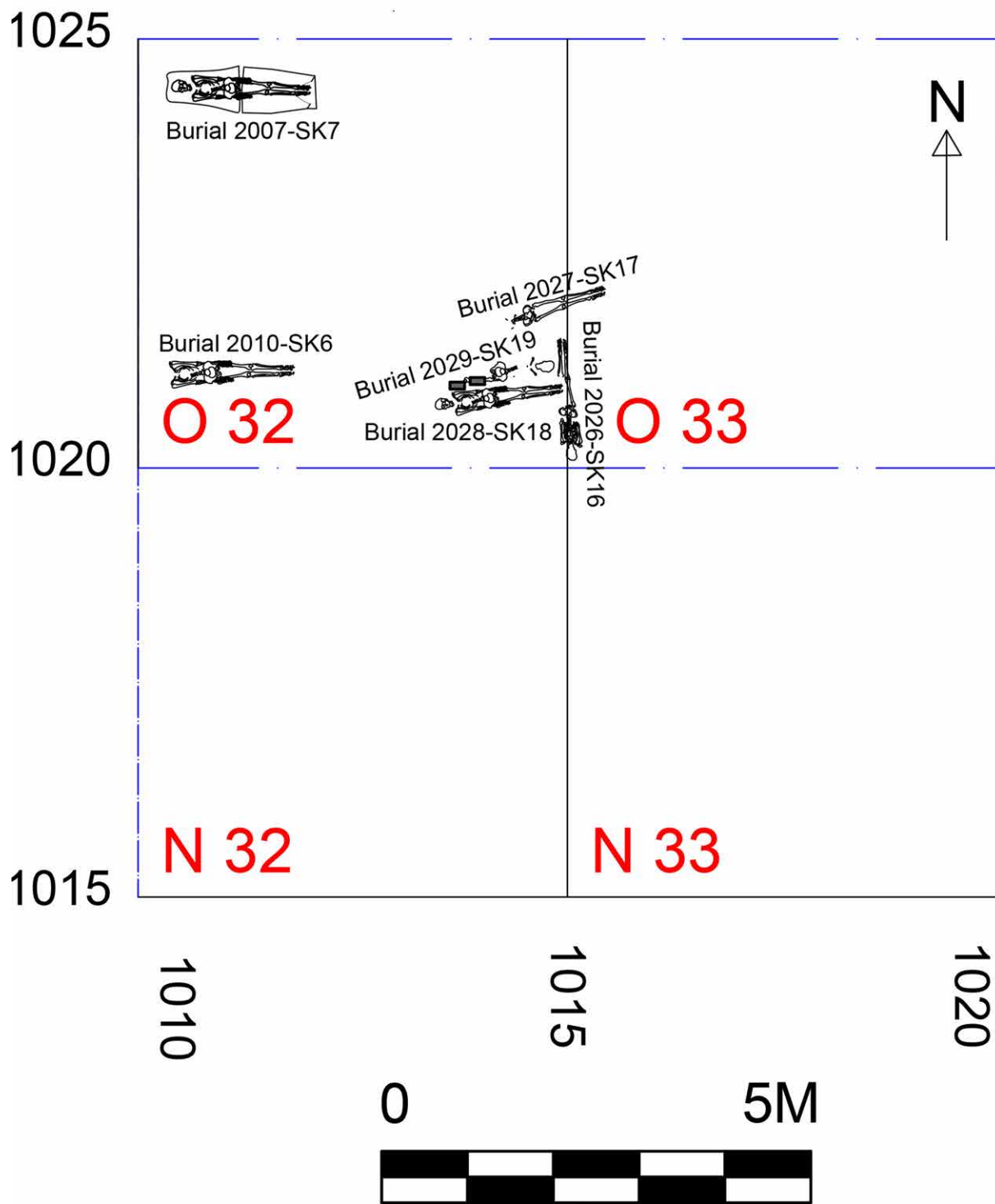


Figure 8. Plan of burials in squares O32, O33, N32, N33 (plan by Alaa Gaber)

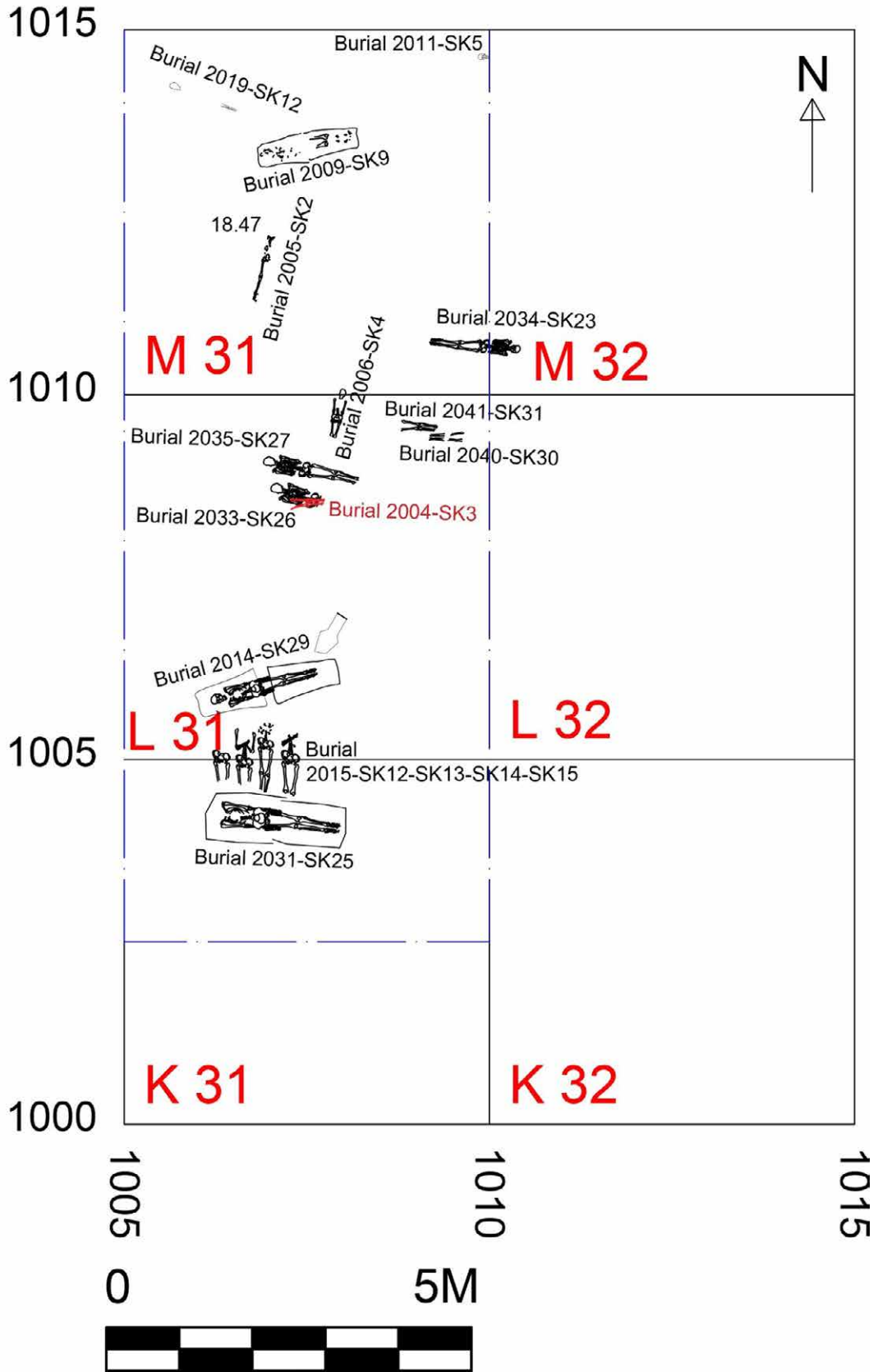


Figure 9. Plan of burials in squares K31, L31, M31, M32 (plan by Alaa Gaber)

THE DISCOVERIES AT THE QUESNA CEMETERY SITE

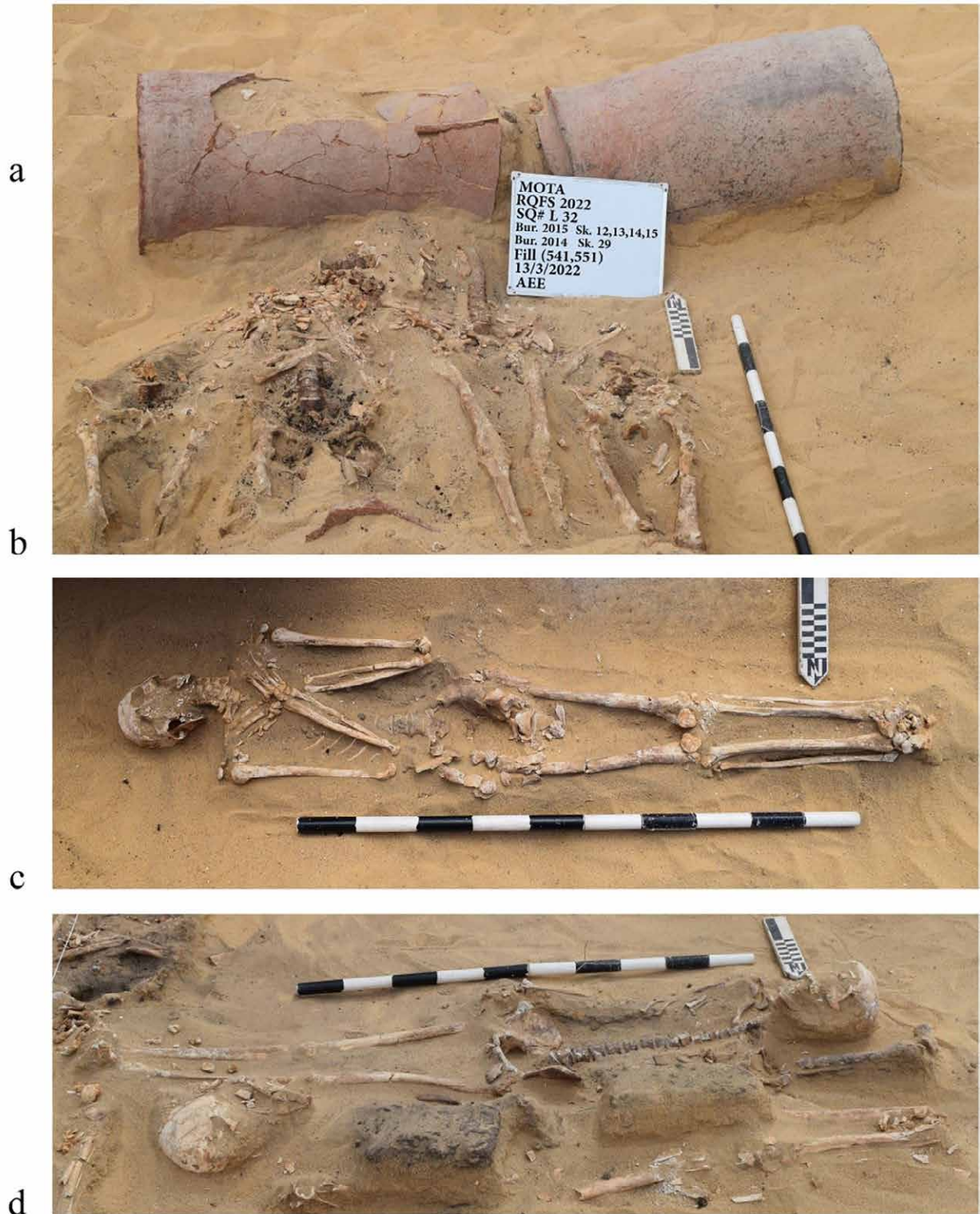


Figure 10. Grave types:

- a) Double-vessel pottery coffin (single burial pit) (Photograph by Atef Elkordy)
- b) Multiple burial - four skeletons (Photograph by Atef Elkordy)
- c) Single burial (burial pit) (Photograph by Haidy Fayz)
- d) Single burial (mudbrick-lined grave) (Photograph by Hoda Gomma)

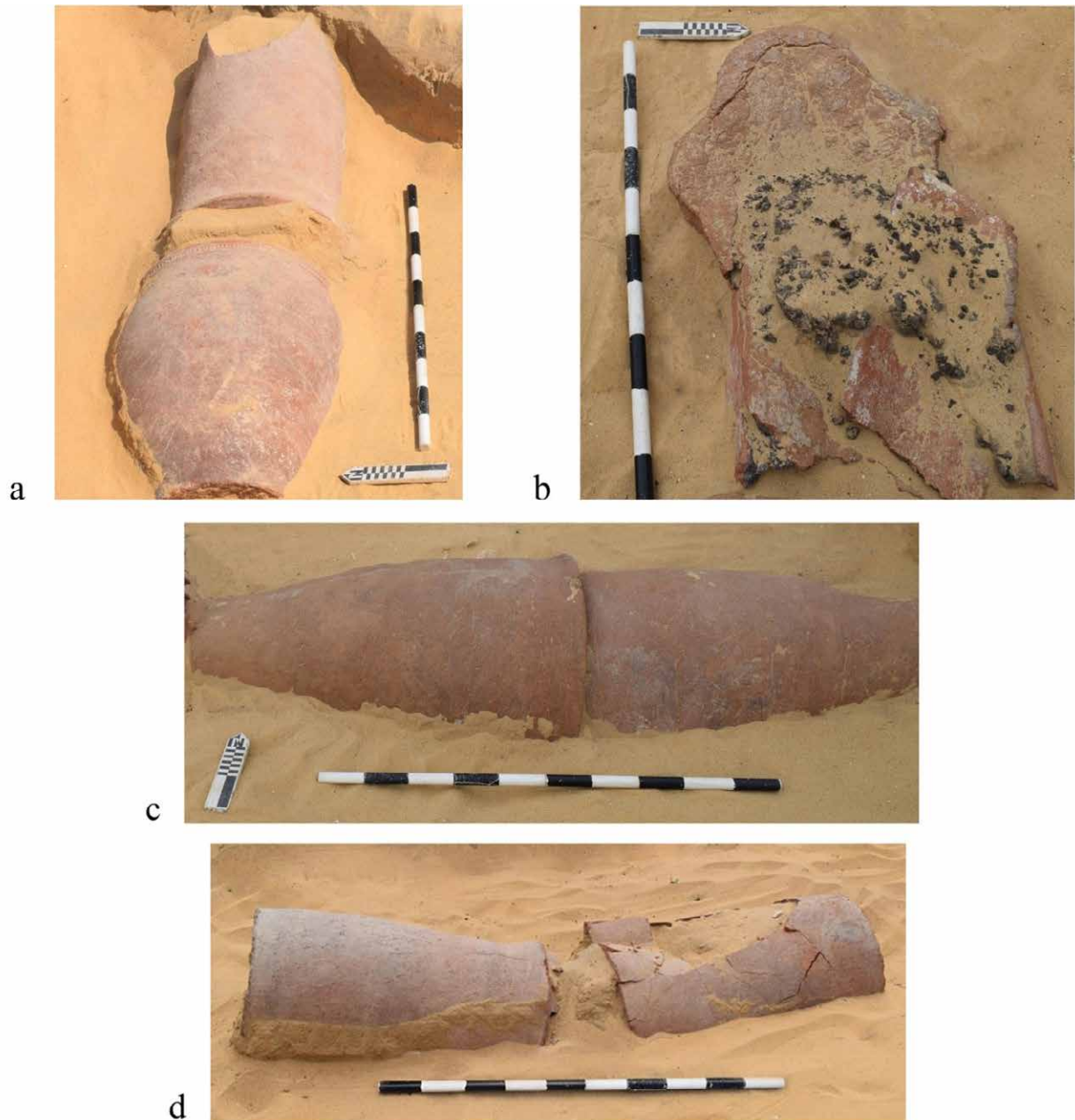


Figure 11. Coffin types:

- a) Decorated coffin with two vessels vary in their sizes (Photograph by Hoda Gomaa)
- b) Anthropoid coffin (Photograph by Rania Megahed)
- c) Coffin with two vessels vary in their sizes without decoration (Photograph by Rania Megahed)
- d) Undecorated coffin that had the same size of the vessels (Photograph by Rania Megahed)

Most of the coffins found in the excavated site were broken due to their direct location below the ground level. The types of the excavated nine double-vesselled coffins are: one decorated coffin with two vessels vary in their sizes, four coffins with two vessels vary in their sizes, one undecorated coffin that had the same size of the vessels, and the remains of three damaged coffins. There were also six unexcavated burials with six pottery coffins.

The most significant intact Burial 2007-Sk no. 7, was located at the north west of Square O32. It contained a double-vesselled decorated pottery coffin no. 4 in different sizes (Figure 12), measured 1.56m long west/east, 0.89m wide north/south. The coffin is made from Nile silt clay and consists of two large vessels, in which one of them had a cylindrical body. It was broken from the base and had a flat rolled-out rim, and flat base without decorations. The diameters of the rim and the base were 0.53m and 0.46m respectively. The other large vessel (vat- basin) had an ovoid body shape with an incurved wall with flat base, straight flat rim in addition to incised dots line decoration under the direct rim on its exterior side, in addition to three wavy incised lines below. The diameters of the rim and the base were 0.46m and 0.19m respectively. The coffin contained an adult skeleton no. 7, which was probably male based on the score of the narrow sciatic notch. The estimated age ranges from 45 to 49 years according to the right auricular surface. The skeleton was laying on its back, oriented west/east, with yellowish and brownish white color. Traces of black color on the ribs and pelvis are observed. The face oriented upwards, and the hands were extended under the pelvis with extended feet.

Signs of osteoarthritis were observed on the vertebral body of this skeleton (Figure 13), using descriptive evaluation (Waldron 2009), probably because of deceased's ageing conditions and physical activity. It seems that the deceased used to exert extra physical work due to the presence of lipping, pitting on the body of cervical vertebrae, and Schmorl's nodes osteophytes on the thoracic vertebrae (Figure



*Figure 12. Burial 2007-Sk no. seven- Coffin no. four*

*Decorated coffin with two vessels varies in their sizes*

*(Burial Photograph by Hodaa Gomaa - vessel photograph by Rania Megahed)*



Figure 13. Burial 2007-Sk no. 7

a) Lipping, and Schmorl's nodes on the body of the thoracic vertebrae (T5, T11), b) The destruction in the joint tissue on the lumbar vertebrae, c) Ante-mortem teeth loss in all mandibular molars.  
(Photographs by Samar Abu-Dahab)

13a). Moreover, it was observed that there was destruction in the joint tissue on the broken lumbar vertebrae, and spread porous, new bone on the joint surface and marginal osteophytes especially on the fifth vertebrae (Figure 13b). There was also lipping on the facet of left radius on the elbow joint and radial tuberosity. In addition, there was ante-mortem tooth loss of all mandibular molars (Figure 13c), probably because of the severe dental decay. This condition showed the beginning of osteophytosis.

To the south west of Square L31, another Burial 2014-Sk no. 29 named by the two vessels pottery coffin no. 12. It has the same size but without decorations (Figure 11d). It was partly broken from one vessel. Both vessels had cylindrical shape with a flat rim. The diameters of the rim of the broken vessel and the base were 0.55 m and 0.50 m respectively, while those of the other vessel were 0.50 m and 0.49 m. The coffin measured 2m long west/east, 0.43m width north/south. It contained the young adult skeleton no. 29, which was probably male due to the existence of the narrow sciatic notch. The age was estimated according to the left pubic symphysis to be between 19 and 34 years. An extended supine skeleton oriented west/east with yellowish white color, traces of black color on the vertebrae was observed. The face oriented upwards, arms were under the pelvis with extended legs. To the north east corner of the coffin, there was a broken double hand amphora with bioconical body and in-turned rim. The handle was placed below the rim to the middle of neck. The amphora dated back to the early Roman Period. It was 0.49m long and 0.24m wide. The diameter of the rim was 0.12m, that of the base was 0.15m, while the neck's height was 0.23m.

It was also noticed that one of the excavated double-vesselled pottery coffins had only one vessel, in which the legs of the skeleton were extended outside (Figure 14). This probably suggests that there was another missing pottery vessel. This Burial 2018-Sk no. 22 was placed to the east of Square O30. The broken coffin no. 7 measured 1.22m long west/east, 0.60m width north/south. The rim's diameter of the broken vessel was 0.43m and that of the base was 0.26m. This coffin was significant as it had a juvenile skeleton with brownish yellow color, with traces of textiles in a black color. The skeleton was oriented west/east. The estimated age according to the epiphyseal fusion was seven to eight years old (Schaefer *et al.* 2009), it was noticed that the femoral head was not fused yet and also the tibia, in addition to the



Figure 14. Textile remains were found in Burial 2018-Sk no. 22.

(Burial Photograph by Amira Ismail - Textile remains photograph by Samar Abu-Dahab)



a



b

Figure 15. a) Burial 2009-Sk no. nine (Photographs by Nagwa Mohamed) b) Non-metric trait was noted on the patella (Vastus notch), right patella in anterior position and left patella in posterior position (Photographs by Samar Abu-Dahab)

sacrum, which had five unfused sacral vertebrae. The skeleton was laying on his back, with extended hands and feet.

Another significant destroyed coffin was discovered with the remains of two vessels. It gave information about non-metric traits even though it had few elements of the skeleton in Burial 2009-Sk no. 9 (Figure 15a). It was discovered in the middle of Square M31. It included coffin no. 5, which measured 0.90m long west/east, 0.60m width north/south. The coffin contained disturbed burial which had the remains of a brownish white color for an adult skeleton no. 9, which was oriented west/east. The skeletal elements discovered did not allow estimating the sex or age, but non-metric trait was noted on the patella (Vastus notch) (Mann and Hunt 2016: 623) (Figure 15b).

To the north of square K31 Burial 2031-SK 25, there was a destroyed coffin no. 8 with different-sized vessels, in which one of the vessels was found inside the other from the rim. It measured 1.63m long east/west, 0.62m wide north/south. The coffin contained probably a female skeleton according to the wide sciatic notch. The skeleton was for a young adult; her age was estimated to be 30-34 years old based on the left auricular surface. The skeleton oriented west/east with yellow color, laying on back, the head was absent with arms and legs extended. In addition to Burial no. 2037 which included partially an excavated double-vesselled coffin no. 10 with conical shape (Figure 11c). It is located at the northeast of Square N31. It is 1.85m long west/east and 0.61m wide north/south. The diameter of the big vessel's rim was 0.62m and that of the other vessel was 0.59m. The coffin is considered to be a truncated burial because it truncated another Burial no. 2036. The skeleton has not been excavated yet.

#### ***Single burial with anthropoid pottery coffin***

It was observed that only one coffin (no.9) of this type was found inside the Burial no. 2036. It was located at the north of Square N31. The burial contained partially excavated broken anthropoid pottery coffin (Figure 11b), with few charcoal and broken vertebrae. The coffin was oriented west/east, measured 0.91m long west/east and 0.50m wide north/south. It was truncated by coffin no. 10 Burial no. 2037.

#### **Burial pits**

The burial pits that were excavated had provided us with information about the skeletal remains; some of them were partially disturbed and have some missing elements such as skulls or legs. Some of the skeletal elements turned white as a result of weathering conditions. In addition, other elements were fragmented and did not allow the estimation of sex or age. There were single and multiple burial pits; the most noticeable in both is that most of the skeletons had a black and gray color on the pelvis and the ribcage. Two of these burials gave information about grave finds, as there were sherds of a small bowl base on the remains of an adult pelvis. The burial contained only fragments of pelvis and extended right leg. Furthermore, an amphora was excavated to the north of a multiple burial.

#### ***Single burial pits***

The next part will shed light on some examples of the 17 single burial pits that were fully excavated and two that were partially excavated. Most of these burials were found in bad conditions, yet they gave us a lot of information about the funerary practices. Burial 2005-SK no. 2 at the western south of Square M31, oriented north/south, contained only the remains of a pelvis and an extended right leg that were found in a very bad condition, with white color. Nevertheless, this burial gave much information about the grave goods since there were pottery sherds of a small vessel base on the fragments of the pelvis of the adult skeleton no. 2. Burial 2010-SK no. 6 gave information about the pathology. This burial was located at the southwest of Square O32, oriented west/east. The skeleton was of a young adult with

yellowish white color, the estimated age range was 30-34 years according to the auricular surface, and it was estimated to be a male according to the right sciatic notch. The skeleton was laying on its back with the head absent, extended legs and arms under the pelvis. There were black and gray colors on the skeleton. The pathologies noted that there was a lipping on the lumber vertebrae. Another example of burial pits is the burial 2034-SK no. 23 (Figure 10c) found at the southeast of Square M31, and southwest of Square M32, oriented east/west. The skeleton, with yellowish white color, belonged to a young adult. The estimated age range was 30-34 years according to the auricular surface, and the individual was probably female according to the wide sciatic notch. The skeleton was extended supine, the face oriented upwards, with crossed arms on chest (right hand on left hand) and the feet were extended.

Moreover, there were three truncated burials (Figure 16), one of them was truncated with another and it is considered to be the only mudbrick-lined grave in the site. Burial 2026-SK no. 16 was located at the southwest of Square O33, southeast of Square O32, oriented south/north. It was truncated by Burial 2028-SK no. 18. It contained poorly preserved skeleton no. 16 with yellowish white color and black color on the ribs and pelvis, it probably belonged to a female according to the wide sciatic notch. The skeleton was laying on its back, the face oriented upwards, the arms crossed on the chest (right on left), the feet were extended. Burial 2027-SK no. 17 was located at the west of Square O33 and at the east of square O32, oriented west/east. The color of the skeleton was yellowish white color. The skeleton belonged to a male based on the sciatic notch; its estimated age was that of a middle-aged adult (35-49 years old) based on left auricular surfaces. The skeleton was lying on its back, the head and arms were absent, the feet were extended. Burial 2028-SK no. 18 was located at the southeast of Square O32, truncated Burial 2026-SK no. 16 and 2029-SK no. 19. This burial had two mud brick blocks probably belonging to a mudbrick-lined grave and a grave that were destroyed (Figure 17b). This burial was probably similar to the mud-brick coffin excavated by the British mission in season 2008 (Figure 17a; Rowland 2008: 77). It contained a female skeleton no. 18 according to the sciatic notch; the estimated age was that of a young adult (20-34



Figure 16. Burial 2026-SK no.16, 2028-SK no. 18, Burial 2029-SK no. 19, no. 34  
(Photograph by Shima Shaaban)



a



b

Figure 17. a) Mud-brick coffin grave (after Rowland 2008: 77) b) Burial 2028-SK no. 18 (Photograph by Shima Shaaban)

years old) according to the right auricular surface. The color of the skeleton was yellowish white color and gray color on the vertebrae and pelvic. The extended supine skeleton oriented west/east, the face oriented upwards, the right hand extended and the left under the pelvis. The feet were extended. There are two other burial pits that were not fully excavated which contained poorly preserved truncated skeletons nos 40, 41 with light yellow color. There was a wasp or insect nest of mud in the skull remains of skeleton no. 40.

### **Multiple burials**

The cemetery has three multiple burials. One of them had four skeletons (three adult and one adolescent), while the other burials had only two skeletons. Burial 2015-SK nos 12, 13, 14 and 15 (Figure 18) was at the south of Square L31 and north of Square K31. It contained four extended supine disturbed skeletons

without skulls in a bad condition, oriented north/south, with a yellowish white color and black color on vertebrae and pelvis. Skeleton no. 12 was located to the west of the other three skeletons nos 13, 14 and 15. The elements discovered were two femurs and pelvic remains. Skeleton no. 13 was located to the east of skeleton no. 12. The estimated age of the adolescent ranges from 12 to 15 years old. The arms were crossed on chest (left on right), the elements discovered were two femurs, pelvis and vertebrae, with traces of charcoal on the pelvis. Skeleton no. 14 was located to the east of the other skeletons nos 12, 13. The skeleton belonged to a male according to the narrow sciatic notch, the middle adult estimated age ranges from 21 to 46 years based on the right pubic symphysis. The elements discovered were of two femurs, pelvis and lumbar vertebrae. Skeleton no. 15 was located to the east of the other three skeletons nos 12, 13 and 14. The arms were crossed on chest, the elements discovered were of two femurs, pelvis and vertebrae.

The second multiple Burial 2029-SK nos 19 and 34 was located at the southeast of Square O3, oriented east/west (Figure 16). It contained poorly preserved skeleton no. 19, probably of a female according to the wide sciatic notch. The estimated age was that of a middle-aged adult (35-38 years old), based on the auricular surfaces. The skeleton was laying on its back, the head and feet were absent, arms were crossed on the chest. There was a femur for another skeleton no. 34, which was found below skeleton no. 19. The third burial 2032-SK nos 20 and 21 were either a multiple burial or two single burials. They lay together and had nearly the same orientation and level: they were most probably buried together. They were located at the southeast of Square O31, oriented west/east. Skeleton no. 20 was a young male according to the sciatic notch. The estimated age ranges from 20 to 34 years old. There was a lipping on the cervical vertebrae. Skeleton no. 21 was a female due to the sciatic notch. The estimated age ranged



Figure 18. Burial 2015-SK nos 12, 13, 14 and 15  
(Photograph by Atef Elkordy)

## THE DISCOVERIES AT THE QUESNA CEMETERY SITE

from 30 to 40 years old based on the left and right auricular surface. The two skeletons nos 20 and 21 were extended supine with yellowish white color, the heads were damaged, and hands were extended under pelvis, with extended feet.

The excavation resulted in the discovery of 31 graves in addition to six unexcavated coffins:

- 17 single burial pits, two of which were not fully excavated.
- One mudbrick-lined grave was excavated. 16 coffins, six of which are not excavated yet, while two other coffins were partially excavated.
- Three multiple burials were also discovered.

Most of the 34 skeletons were oriented west/east. The skeletons excavated earlier under the surface cleaning layer were found in: three burials oriented south/north, seven burials oriented north/south, and seven burials oriented east/west. However, the later 17 burials and the anthropoid coffin were oriented west/east. All the 34 supine skeletons were extended with the face oriented upwards, the arms (Table 2) in nine skeletons were extended under the pelvis, ten skeletons had arms crossed on chest: nine had the right arm on the left one, and one had the left arm on the right one. It was difficult to determine the arm position for the rest of the burials because two were disturbed, and arms were absent in 12 burials. Also, a skeleton was only partially excavated. All skeletons, except those with legs absent, had their legs in extended positions.

TABLE 2. THE ORIENTATION AND ARM POSITION

Burial	Skeleton no.	Orientation	Arm position
2000	1	East\west	under pelvis
2001	8	East\west	Absent
2002	32	East\west	Absent
2003	33	West\east	Absent
2004	3	West\east	Absent
2005	2	North\south	Absent
2006	4	North\south	under pelvis
2007	7	West\east	extended hand under pelvis
2009	9	West\east	Absent
2010	6	West\east	under pelvis
2011	5	West\east	Absent
2014	29	West\east	under pelvis
2015	12	North\south	Absent
2015	13	North\south	crossed on chest left on right
2015	14	North\south	Absent
2015	15	North\south	crossed on chest

Burial	Skeleton no.	Orientation	Arm position
2018	22	West\east	Disturbed
2019	10	West\east	Absent
2020	24	East\west	crossed on chest, right hand on left hand
2021	11	East\west	crossed on chest, right hand on left hand
2026	16	South\north	crossed on chest, right hand on left hand
2027	17	West\east	Absent
2028	18	West\east	right hand extended, left under pelvis
2029	19	East\west	crossed on chest
2029	34	South\north	Absent
2031	25	West/east	extended under pelvis
2032	20	West\east	under pelvis
2032	21	West\east	under pelvis
2033	26	West\east	crossed on chest, right hand on left hand
2034	23	East\west	crossed on chest, right hand on left hand
2035	27	West\east	crossed on chest, right hand on left hand
2039	28	West\east	crossed on chest, right hand on left hand
2040	30	South\north	Disturbed
2041	31	North\south	-

The primary age and sex estimation for the 34 skeletons were recorded; see tables 3 and 4 for the determination.

TABLE 3.AGE ESTIMATION

Age / Sex	juvenile	Adolescent	Young adult	Middle adult	Old adult	Adult (over 20 yrs.)
Male	-	-	6	1	1	1
Female	-	-	6	2	-	1
Unknown	1	1	-	-	-	14
<b>Total</b>	<b>1</b>	<b>1</b>	<b>12</b>	<b>3</b>	<b>1</b>	<b>16</b>

## THE DISCOVERIES AT THE QUESNA CEMETERY SITE

TABLE 4. SEX ESTIMATION FOR 32 ADULT SKELETONS

Sex	Male	Probably male	Female	Probably female	Unknown
Total	5	4	6	3	14

### Conclusion

The main objective of the excavation was to train MoTA inspectors in archaeological field techniques and methods of recording and documentation. According to the discovery of the pottery coffins and the amphorae, these burials could be dated back to the Late Ptolemaic Period up to the Early Roman Period so the excavated area probably represented an extension of the Ptolemaic and Roman cemetery where the British mission worked in Area B. The burials in the site were in pits or coffins, yet there was a single burial that had two mudbrick blocks. It was probably a mudbrick-lined grave that was built above the ground but was eventually destroyed. Concerning the coffins, most of them were double-vesselled pottery coffins and one of them was an anthropoid coffin. In addition, three multiple burials were discovered. The burials were not well preserved; only an amphora was found to the north of a burial, and the remains of a small bowl on the pelvis of an adult skeleton.

As for the skeletons' positions, they were extended supine with the face oriented upwards, while the arms were extended under the pelvis or crossed on the chest, with extended legs. Most of the burials were oriented west/east. The same result was noticed by the British mission in season 2009, which suggests certain cohesiveness inside the burial system. It was noticed that there was a black color on the pelvis and on the chest of most of the skeletons. In addition, the textile remains found on a juvenile skeleton suggested that the body was probably wrapped. As for the sample, most of the skeletons discovered belonged to young adults, nine males and nine females were estimated, in addition to the discovery of a juvenile and an adolescent. Moreover, there were 16 skeletons of unknown age, 14 of unknown sex because of the poor preservation. Signs of osteoarthritis were observed in the sample but the most degenerated example was an old adult male skeleton; probably because of his age, beside the physical activity that he practiced during his life. Finally, the sample gives information about non-metric traits. And the future analysis of human remains will clarify a lot of information about the people buried in this cemetery.

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# Garlands in Graeco-Roman Egypt

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## Abstract:

Floral compositions and ornamental plants always had an important role in the life of Ancient Egypt, as evidenced by numerous iconographic and textual attestations. Nevertheless, floral arrangements from the Graeco-Roman Period have been little studied compared to those of the New Kingdom-Third Intermediate Period. In my doctoral research, I analysed Graeco-Roman garlands in many European museums, identifying the plant species used and the method of manufacture. Here I outline the cycle of production, the plant species used, and the shapes of manufacture. I found major differences to New Kingdom compositions in manufacture and the introduction of numerous non-native species. These transformations may have been connected with the period's political, social, and economic changes.

## Keywords:

Plant Introductions, Funerary, Wreaths, Wreath-maker, Death.

## Introduction

The arrival of new people in Egypt from the Greek-speaking area during the Ptolemaic Period (332-30 BCE), and the subsequent entry of Egypt into the Roman Empire in 30 CE, led to profound changes in the socio-political situation of the Graeco-Roman Period (332 BCE-641 CE). My doctoral research focused on the transformation in the use of funerary garlands made from plants in Egypt during the Graeco-Roman Period, in comparison to practices during the New Kingdom-Third Intermediate Period (c. 1550-664 BCE). Garlands are well-suited to such a comparative study as both the species used and the modes of manufacture can be compared.

My findings are based on the analysis of material preserved in 11 museums,<sup>1</sup> and on the work of Barakat and Baum (1992) on the floral compositions found in Douch (1st-4th century CE) and of Hamdy (2015) on the garlands preserved in Cairo (Egyptian Museum, Dokki Museum, and Cairo Herbarium). In-person analysis of the individual wreaths and garlands enabled examination of their manufacture and species composition, often adding several plants that had not been recorded or published. The work was conducted through the usual archaeobotanical methods (use of the stereoscope and optical microscope, reference to European and Egyptian floras, and comparison with herbarium specimens). I also researched textual references to garlands.

The results that emerge from such analyses show a much greater diversity in plant species and means of manufacture compared to the Pharaonic Period, particularly compared to the New Kingdom (c. 1550-1077 BCE) and Third Intermediate Period (c. 1077-664 BCE). This observation opens up the possibility

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<sup>1</sup> Botanisches Museum Dahlem, Ägyptisches Museum Berlin, Manchester Museum, World Museum Liverpool, Royal Botanic Gardens Kew, British Museum, Petrie Museum, Rijksmuseum van Oudheden, Musée du Quai Branly, Louvre Museum, Zurich Botanical Garden.

of asking how such changes can be traced back to more general social, economic, and political transformations of the period.

## Garlands in the Graeco-Roman time

### *A word for 'garland'*

In this article, I use: 'garland' to indicate any floral arrangement with a closed or open shape, meant for the human body; 'wreath', to indicate just a closed circular floral arrangement mainly made to be put on the head; and 'collar' for a floral arrangement meant for the neck/breast that uses as a foundation a papyrus sheet (Hamdy and Fahmy 2018).

The world of garlands of the Graeco-Roman Period is much more complex and varied compared to that of the New Kingdom-Third Intermediate Period.<sup>2</sup> The linguistic perspective reveals this as much as the analysis of the species used and their manufacture.

The main detectable change is the appearance in Demotic of a new word to indicate floral wreaths, i.e. *qrm/qlm* (DG: 546), while two older terms for garlands continue to be used: *wʒh* (Wb 1: 257.13-15), the oldest one, attested as early as the Old Kingdom, indicated both metal fillets and vegetal garlands for the body; and *mʒh* (Wb 2: 31.1-5), used since the New Kingdom, designated more specifically floral garlands for the head and the body.

Nevertheless, during the Graeco-Roman Period, the meaning of both the latter terms slightly changed. Already in the Late Period (c. 664-332 BCE), the word *mʒh* is indeed attested to indicate also metal headbands in hieroglyphic texts (as in Cairo JE 48862 (+ JE 47086 - JE 47089), l. 112, *mʒh.w nt tp*, Grimal 1981: 145, 149), while, in the Graeco-Roman Period, it continued to be used for plant garlands to be placed on the body and in formulas in religious texts that were by now fixed, such as 'the garland of justification'. Furthermore, the word is attested in Demotic as *mḥ*, which indicated just floral garlands for the body (see below). As for the word *wʒh*, it appears to be mostly semantically degraded and is only rarely attested as a synonym of *mʒh*. In the Brooklyn Mythological Papyrus (P. Brooklyn 47.218.84, 9; Meeks 2006), it also presents a new determinative (the lock of hair, D3), and in this case, it could be perhaps translated as 'wig'.

The reason for the emergence of a new word for garlands in Demotic is unknown. One can observe that its appearance coincides, as for *mʒh*, with a period when the shape and technique of garland manufacture changed; however, such a link remains difficult to prove. The new word *qrm* (DG: 546: 'Kranz'; CDO, q: 77: 'crown, wreath') seems to have had a specialized meaning, indicating the garlands in the function of their position on the body, rather than their material, and designated then (at least mainly) plant or metal headbands for the head.

There are two significant attestations of this word supporting this idea. The first one is in the text of the Myth of the Sun's Eye. When the small cynocephalus praises the goddess for the amenities of the Egyptian land, he lists the good things that come from the palmtree (*bny.t*). Among them are the *mḥ* that is on the body (*ḥ.t*), and the palm wreath for the head (*wn bny.t n qlm r dʒy=k*, P. Mythus, XIX, 16; de Cenival 1988: 58-9). The passage suggests contraposition between *qlm* on the head, and *mḥ* on the body, both made with palm fibers. In the same text, the *mḥ* also appears on the goddess's neck (P. Mythus, XIII, 6; de Cenival 1988: 38-9).

<sup>2</sup> The pioneer of the study of garlands of this period was the botanist Georg August Schweinfurth (1836-1925), who studied plant material from the cachette of Deir el-Bahari (Schweinfurth 1884a; 1884b). For more recent synthesis about the floral compositions of the period see Hepper 1990; Jacquat and Rogger 2013; Manniche 1989).

An even more significant attestation of *qrm* can be found in the Canopus Decree, where the Demotic word can be compared with its Greek and Egyptian hieroglyphs translations. The Decree establishes a crown procession for a feast for the royal couple. The Greek text uses the name στεφανηφορίας (Pfeiffer 2004: 131, l. 40), while in the Demotic one, the expression 'iw>w t qrm' (Pfeiffer 2004: 132, l. 38) is used, and in the hieroglyphic one, 'mdh tp=sn m mʒh.w'. That the wreaths are indeed brought to the head, as the Greek word presupposes, is confirmed by the hieroglyphic text (tp=sn). By contrast, the Demotic version instead does not specify the position of the wreaths, as if the information must have been already implied by the word *qrm* itself. The latter is then translated into the Greek 'στεφάνη', which generically designates 'anything that surrounds or encircles' (LSJ: 1641) and specifically indicating wreaths and crowns regardless of their material. Furthermore, *qrm* could also designate metal crowns (Letter, Claude 2, l.4; Chauveau 2002: 53-5), the crown of the (Hellenistic) king (the diadem), and also the correspondent tax (P. Reinach 6, l. 20; Boswinkel and Pestman 1982: 115-118). At least in the occurrence examined, I could not find any certain reference of *qrm* used to designate garlands on the body/neck. For the latter, *mḥ* was instead used as in the Myth of the Sun's Eye.

### **The wreath-makers**

The profession of wreath-makers in the Graeco-Roman Period can be investigated thanks to the Greek and Demotic textual sources on papyri. In both languages, the wreath-maker was designated by a compound word: στεφανηπλόκος and *hnt-mḥ*, both indicating the 'wreath-maker' (στεφάνη and *mḥ*: 'wreath, garland'; πλέκω and *hnt*: 'to plait, twine'). The Demotic term is a derivation of *hnd-mʒh*. The latter is attested once, in a list of temple occupations of the 21st-22nd dynasties (Gardiner 1947: I, 66). This list mentions a *hnd mʒh.w*, 'weaver of crowns', before the gardener and the bearer of floral offerings to Amun (ʒy htp) (cf. Dittmar 1986: 42). These professions must have been interconnected: the gardener grew trees and flowers, which were then woven by the weaver.

In the Graeco-Roman Period, the attestations are much more numerous, especially in Greek papyri. It must be underlined, however, that the sources do not allow us to differentiate the socio-economic status of the wreath-maker (that is the financial and social resources he had access to) between the Ptolemaic and Roman periods, since they are too few and often attested in fragmentary texts.

Moreover, it remains rather complex to delineate the identity of wreath-makers, as well as their numbers and distribution across the Egyptian territory, as we have only scattered and incomplete evidence. Yet, we can get a very generic idea about this from a group of papyri that Clarysse and Thompson (2006) put together to record the Greek presence in the Ptolemaic Arsinoites *nomos*. *P. Count* 3 (Arsinoites; Clarysse and Thompson 2006: 98-99). The text dated to 229 BCE, deals with the salt tax in villages of the Arsinoites *nomos* and attests at least eight wreath-makers (στεφανοπλόκοι, l.78, of which three male) for the Themistos *meris*. According to the same papyrus, the population of the Themistos *meris* was 2518 people, so the number of eight wreath-makers does not look impressive, just representing 0.32-0.47% of the population. Other wreath-makers are mentioned by *P. Count*. 6 and by *P. Count*. 30, both from the 3rd century BCE.

As for their identities, when names are preserved, they are of Egyptian origin, and in the 3rd century BCE, such characteristic may be taken as a proxy for their cultural identity, as it is assumed that many first-generation Greeks of the Fayum had names of Greek origin.

In the Roman Period (30 BCE-641 CE), according to several documentary papyri, the status of the wreath-maker emerges as that of a self-employed craftsman: the wreath-maker was taxed for the χειρωνάξιον, as were other craftsmen (*P. Oxy.* 24 2412; Lobel *et al.* 1957: 164-171; *P. Strasb.* 7 607, Arsinoites; Schwartz 1976: 12-13). In addition, if a craftsman wanted to sell his products at markets, such as those in front of

temples, he would need to pay an additional tax, as the list of taxes at the market of the Serapeum at Oxyrhynchus (SB 16 12695; Rea 1982) specifies. As professionals, it must be considered that their income may not have depended exclusively on the sale of garlands, but perhaps also on other plant products. The raw material for their compositions might have been produced by themselves in the fields of which they were tenants. An example comes from *P. Panop.* 14 (4th century CE, Akhmim; Youtie *et al.* 1971: 34-40), which mentions several wreath-makers as curators of plots of cleruchic land. It is possible that these fields were not only used to produce ornamental species but also for food. Moreover, flowers could also be sold in bulk as is clear from *P. Oxy.* 46 3313 (Rea 1978: 100-103), where Apollonius and Serapias search for single roses and lilies to give as gifts for Alexander's wedding. Finally, at least in the 7th century CE, professionals could organise themselves into guilds (*P. Lond.* 3 1028; Kenyon and Bell 1907: 276-277).

The sale price of a garland was usually two or four obols in the 1st-2nd centuries CE (*P. Brook.* 22, ll. 3, 20, 29, 37, see Shelton 1992: 34-6; *P. Oxy.* 4 736, ll.56-7, see Grenfell and Hunt 1904: 228-32; BGU 2 362, col. 9, l. 10, see Wilcken *et al.* 1898: 9), i.e. a little less than a drachma. If we consider larger orders, or two or three orders per day, the sum of around 30-40 drachmas could be reached per month. This was approximately the monthly wage in Hermopolis for canal bank workers, who can be considered non-specialised workers, at the beginning of the 2nd century CE (West 1916: 296). A rather extraordinary sale appears to have been that of 100 drachmas to a crown-maker, reported by an ostrakon from the end of the 3rd century to the beginning of the 2nd century BCE from Philadelphia (BGU 7 1528; Viereck and Zucker 1926: 41). This perhaps constituted an order for a great event, even if the temporal distance from the Roman era does not directly permit a clear comparison in prices, as they may have changed in time.

Overall, the documentation of the Graeco-Roman Period underlines the presence of a probable private (or 'middle-class') production, not directly linked to the temple or palatial contexts, which certainly continue to be present. Indeed, one of the two Demotic attestations of the term 'wreath-maker' seems to refer to the temple context. This is preserved in *P. Carlsberg* 23, 31/x+7 (Tait 1984: 215) – a list of temple and court occupations from Tebtynis, dated to the Ptolemaic Period. The garland-maker is mentioned before the beginning of the occupations of the House of Pharaoh and therefore belongs to the previous group, which perhaps concerns the temple occupations, suggesting the role of this occupation among the temple professions. It can also be naturally assumed that even if many wreath-makers of the sources do not appear directly attached to the temple, they could still have produced garlands for it, as garlands were also used for funerary purposes.

The sources, therefore, although more abundant compared to the Pharaonic Period, still leave several open questions about the identity of the wreath-maker, as well as the practice of the profession itself: little is known about the wreath-makers' genders, ages, cultural uniformities and their workplaces.

### ***The plant material***

The textual sources concerning the profession of the wreath-maker do not provide then much information on the organisation of their work. Similarly, textual sources mentioning the raw material of garland manufacture are rather scarce.

To understand something about the wreath-makers' work and the production chain of garlands, one can start with archaeobotanical remains from the Graeco-Roman Period. Based on the review of the material of 11 museums mentioned above and conducted during the PhD, and adding the results of the work of Barakat and Baum (1992) and Hamdy (2015), it was possible to identify at least 36 species that were used for garlands in this period (see Table 1).

## GARLANDS IN GRAECO-ROMAN EGYPT

 TABLE 1. SPECIES USED IN GARLANDS' MANUFACTURE DURING THE GRAECO-ROMAN TIME<sup>3</sup>

Species	Part used	Examples	Literature	Status*	Used for wreath before? **	Habitat***
<i>Acacia nilotica</i> (L.) Delile	Inflorescence	ÄM 19542*		Native	yes	Woodlands; cultivated
<i>Acacia seyal</i> Delile	Inflorescence	Schw. Nr. 217, 218, 227, 244 (R)	Germer 1988: 18	Native	yes? <sup>i</sup>	Savannah; cultivated
<i>Alcea rosea</i> L.	Petals	Kew 26817?		(Long) introduced	yes	Cultivated in gardens
<i>Celosia argentea</i> L.	Inflorescence	Kew 26684, 26711, 26818		(Newly) introduced	no	Cultivated in gardens
<i>Chrysanthemum coronarium</i> L.	Inflorescence	Kew 26819; BM 1890,0519.9		Native	yes	Waste places; cultivated in gardens
<i>Citrus medica</i> L.	Leaves	E 31967		(Newly) introduced	no	Cultivated in gardens
<i>Cyperus alopecuroides</i> Rottb.	Culm/pith	Schw. Nr. 245; 240		Native	no?	Swamps
<i>Cyperus papyrus</i> L.	Culms and piths	Schw. Nr. 227; 216		Native	yes <sup>ii</sup>	Swamps; cultivated in gardens?
<i>Desmostachya bipinnata</i> (L.) Stapf / <i>Imperata cylindrica</i> (L.) Raeusch.	Culms	Kew 26841		Both native	no? <sup>iii</sup>	savannah or scrubland/ sandy habits by rivers
<i>Epilobium hirsutum</i> L.	Flower	ÄM 19539*		Native	yes?	Ditches and damp places; cultivated in gardens?
<i>Hibiscus</i> sp.	Flowers or petals	Kew 26698		Native?	no	Cultivated in gardens?
<i>Helichrysum stoechas</i> (L.) Moench	Inflorescence	Kew 26883; 40728		(Newly) introduced	no	Cultivated in gardens
<i>Hyphaene thebaica</i> (L.) Mart.	Strips from leaves		Täckholm and Drar 1950: 238	Native	yes	Grasslands and desert; cultivated
<i>Lawsonia inermis</i> L.	Twigs with flowers or fruits	ÄM 19542*; Schw. Nr. 227		Likely (long) introduced	yes?	Cultivated in gardens

<sup>3</sup> In the table, several species mentioned by Newberry (1890: 46) as explicitly used for wreaths at Hawara, still mentioned by Hamdy (2015: 249-252), have been excluded, since they have not been found in the collections. These are *Reseda odorata* L., *Tilia europaea* L., *Heliotropium nubicum* Bunge, *Convolvulus spinosus* Burm. f., *Iris sibirica* L., *Hedera helix* L., *Papaver rhoeas* L., *Nymphaea lotus* L., *Conyza dioscoridis* (L.) Desf., *Convolvulus hystrix* Vahl, *Euphorbia aegyptiaca* Boiss. *Sesbania sesban* (L.) Merr. has been also excluded from the table, since only flowers from Antioe (2nd-4th centuries CE), (Schw. Nr. 305, Germer 1988: 17) are known. They may have been part of a wreath, but it is unclear. *Stachys aegyptiaca* Pers. and *Thymus bovei* Benth., which are considered as part of the bouquet of type 1 in Barakat and Baum (1992) but considered as a garland by Hamdy (2015: 156), who has studied them in Cairo Herbarium, have been instead included in the table.

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Species	Part used	Examples	Literature	Status*	Used for wreath before?***	Habitat***
<i>Matthiola humilis</i> DC.	Flowers or petals	Kew 26664		Native	no	Open areas; cultivated in gardens?
<i>Malus sylvestris</i> (L.) Mill.	Leaves		Barakat and Baum 1992: 27	(Long?) introduced	no	Cultivated in gardens
<i>Mimusops laurifolia</i> (Forssk.) Friis	Leaves	ÄM 19546*	Hamdy 2015: 146	(Long) introduced?	yes	Cultivated in gardens
<i>Myrtus communis</i> L.	Twigs with leaves and/or fruits	Manchester Museum 6679 (1)		(Newly) introduced	no	Cultivated in gardens
<i>Narcissus tazetta</i> L.	Flowers	Kew 26697; 40740		Introduced?	no	Fields and damp places, Mediterr.; cultivated in gardens
<i>Nelumbo nucifera</i> Gaertn.	Petals	ÄM 14154*, Schw. Nr. 246		(Newly) introduced	no	Cultivated?
<i>Nymphaea caerulea</i> Savigny	Flowers or petals	Kew 26684		Native	yes	Swamps; cultivated
<i>Olea europaea</i> L.	Leaves	ÄM 19546*	Hamdy 2015: 146	(Long) introduced	yes	Cultivated in gardens
<i>Origanum majorana</i> L.	Twigs with leaves and/or flowers	ÄM 3346; ÄM 3351; Schw. Nr. 246		(Newly) introduced	no	Cultivated in gardens
<i>Phoenix dactylifera</i> L.	Strips from leaves	Schw. Nr. 244; Kew 26565; 26678		Native	yes	?; cultivated
<i>Punica granatum</i> L.	Petals	Schw. Nr. 289		(Long) introduced	yes <sup>iv</sup>	Cultivated in gardens
<i>Rosa richardii</i> Rehder	Flowers or petals	LDUCE-UC72697; Kew 26664; 26698		(Newly) introduced	no	Cultivated in gardens
<i>Rosmarinus officinalis</i> L.			In sample 157, absent in Barakat and Baum 1992: 16, but noticed by Hamdy 2015: 159	(Newly) introduced?	no	Cultivated in gardens
<i>Salix subserrata</i> Willd.	Leaves		Just Äg. M. Nr. 19544, destroyed (Germer 1988: 19, period not explicated)	Native	yes	Sides of rivers; cultivated
Sedge ( <i>Cyperus</i> sp. or <i>Scirpus</i> sp.)	Culms or piths	Kew 26721; ÄM 3347		Native	yes? rare	Swamps
<i>Senecio glaucus</i> L.	Inflorescence	Schw. Nr. 241		Native	no	Cultivated in gardens?
<i>Schoenoplectus corymbosus</i> (Roth ex Roem. & Schult.) J.Raynal (= <i>Scirpus inclinatus</i> Asch. & Schweinf. ex Boiss.)	Culms or piths	Schw. Nr. 241; ÄM 3328		Native	no	Swamps

## GARLANDS IN GRAECO-ROMAN EGYPT

Species	Part used	Examples	Literature	Status*	Used for wreath before? **	Habitat***
<i>Silene coeli-rosa</i> (L.) Godr.	Flowers	ÄM 17614; 3346		(Newly) introduced	no	Cultivated in gardens
<i>Stachys aegyptiaca</i> Pers.	Flowers		Barakat and Baum 1992: 20, n. 208	Native	no	Desert, shrub-steppes
<i>Thymus bovei</i> Benth.	Twigs with leaves or leaves		Barakat and Baum 1992: 20, n. 208	Native	no	Desert, steppes
<i>Vitis vinifera</i> L.	Leaves	Schw. Nr. 228		(Long) introduced	yes?	Cultivated in gardens
<i>Withania somnifera</i> (L.) Dunal	Berries	Schw. Nr. 239; Kew 26721		Native	yes	Disturbed soil, woodlands; cultivated

Newly = from Late Period.

Long = before Late Period.

\* Based on Kew Gardens Database (< <https://powo.science.kew.org/> >, viewed 11 January 2024).

\*\* Mainly based on Vartavan *et al.* 2010 and Hamdy 2015.

\*\*\* Based on Useful Tropical Plants Database (< <https://tropical.theferns.info/> >, viewed 11th January 2024) and Useful Temperate Plants Database (< <https://temperate.theferns.info/> >, viewed 11 January 2024).

<sup>i</sup> = see Hamdy 2015: 130 (G.3338, from the New Kingdom to Late Period?)

<sup>ii</sup> = see Hamdy 2015: 122 (binding for wreaths of Tutankhamun)

<sup>iii</sup> = see Hamdy 2015: 187 (mummy of the chief Uaiu, 26th dynasty)

<sup>iv</sup> = Hamdy and Fahmy 2018, floral collars

From the information collected and shown in the table, it is possible to subdivide the plant species used into four groups according to the native status of the species and evidence of previous use in garlands (Figure 1): newly introduced non-native species, historically-imported non-native species already used for garlands, native species not attested as used for garlands before, native species already attested as used for garlands before (the data are shown in the graphic below).

The first group refers to newly introduced plants that were not used before for floral compositions. These plants are neither native to Egypt nor archaeologically or textually attested before Late Period.<sup>4</sup> It is interesting to note that many of these are Mediterranean species well known in the use of flower arrangements in Greek culture, such as myrtle, helichrysum, rose, and marjoram (Theophrastus, *Enquiry into plants*, VI, 8; see Hort 1926: 48-55). Others, however, are of Asian origin, such as *Citrus medica*,<sup>5</sup> or tropical, such as *Celosia argentea*, and their introduction must have followed other paths.

It is also noteworthy that all the historically-imported non-native species were already used before for garlands. However, some species introduced in the New Kingdom and commonly used for garlands are no longer attested for this use, such as *Centaurea depressa* M.Bieb.<sup>6</sup> (even if scattered remains of their flowers have been found at Douch, see Barakat and Baum 1992: 18).

<sup>4</sup> I have done this check for each plant in Table 1 during my PhD.

<sup>5</sup> From here on, the authors of the scientific names are understood to be those in Table 1.

<sup>6</sup> Some examples from the New Kingdom time are in Germer 1989: 5, 7-8, 10; Hamdy 2015: 107.

Overall, the largest group of species used for garlands in the Graeco-Roman Period remains the native species. It can be subdivided into two groups: species already used for this purpose (such as date palm strips, which continued to be widely used as binding material), and those becoming predominant in contemporary garland production. Among the former, their use also changed: *Cyperus* sp. culms used to create fake flowers are attested only in the Graeco-Roman Period. The culms of the indigenous *Schoenoplectus corymbosus* are only attested in Graeco-Roman garlands as core, binding or decorative materials, and represents one of the most innovative elements of the period.

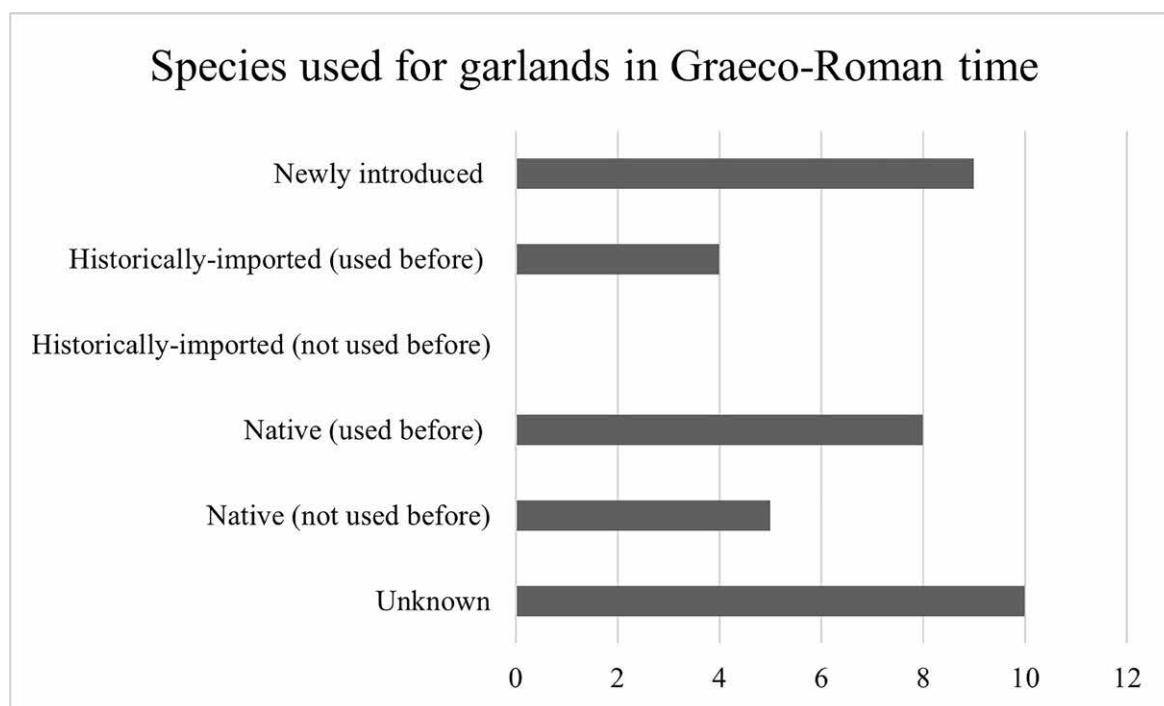


Figure 1. Species used for garlands in Graeco-Roman times.

### ***Sourcing plant material***

The first question to be discussed in the *chaîne opératoire* for garlands is how the raw material just described might have been obtained. Two sources can be distinguished: wild and cultivated. Wild species will generally be included within those native to Egypt. For the garlands of such period, the number of native species is reduced to the plants of the Cyperaceae family (*Cyperus* spp. and *Scirpus* spp. in particular), and of the Poaceae family (*Imperata cylindrica* and *Desmostachya bipinnata*). The greatest number of plants must have been cultivated in gardens since they were not native to Egypt (as discussed above). This also helped to ensure their immediate availability. Some wreath-makers are known to have owned or at least cultivated garden plots with roses (*P. Panop.* 14), a common flower for Roman garlands. The importance of networks in gathering plant material is indicated by a private letter found at Oxyrhynchos and dated to the 2nd century CE (*P. Oxy.* 46 3313; Rea 1978: 100-103). The two senders wrote that they went around the various estates and visited wreath-makers of the place to procure roses and lilies to give as gifts at the wedding to which they were invited. Temple gardens, in which some plants for offerings were grown, would also have been a source. Texts about temple gardens have been collated by Thiers (1999), who underlined their role in producing flowers and fruit for the cultic rituals.

It is more difficult instead to postulate a palace production from palace gardens since I have not found any clear evidence for this in Graeco-Roman times.

### ***Preparing the material, plaiting, and binding***

After all the necessary vegetal material was collected and transported to a place of manufacture, the wreath-maker had to move on to the phase of production. Many questions about this phase remain open: what was the exact mode of transport? Was there a specific place dedicated to making garlands?

The stages of the manufacture of objects like garlands mainly depend on their final shape and many technical aspects are better discussed below according to their type, but they generally involve the preparation of the material, the plaiting, and the binding/piercing. Firstly, the culm of the sedges *Scirpus* sp. and *Cyperus* sp., which are used for the core of most of the garlands, must have been cut or better broken at the right length, probably just by hand, since the ends of the culms often appear frayed.<sup>7</sup> After that, the culms could also have been folded back on themselves several times, up to the desired length of the core. Further, in many cases, just the pith was used for the core: the culms were then peeled off or broken into two halves. It is possible, in the latter case, that one of the halves was used for the core and the other one for external ornamental aim (some examples:<sup>8</sup> Kew 26817; Schw. Nr. 242; Manchester Museum 5371 (?), 1; ÄM 3352).

Alongside the sedges which mainly had a structural function, the ornamental material must have been prepared. Some species, such as myrtle or marjoram, consisted of twigs with leaves. These must have been prepared and broken at the necessary length. Flowers and petals were equally used as a single decorative element and must have been detached from the collected plant; and the petals, if applied singularly, should be further detached. Furthermore, in some types of composition, the petals and/or leaves could also be pierced individually. The palm leaflets must have also been cut into strips by hand.

The two further steps, namely plaiting (the juxtaposing and shaping of individual elements to create the desired shape) and binding (tying the decorative elements to the core/foundation), mainly depend on the type of garland, and they often go together. In the case of core-type garlands (see below), for example, the ornamental elements were directly juxtaposed to the core and then tied progressively by a palm strip as they were added to it. The culms of the core could be further progressively squeezed to make the latter more compact (or this operation may have been done at the beginning all at once). In the case of traditional 'flat' wreaths (see below), the elements (single leaves and flowers) were firstly folded on the foundation and then tied to it by palm strips, which perforated them; while for pierced wreaths (see below), there was no proper plaiting or binding, but rather just piling the pierced elements on a vegetal string. For other garlands, such as the circular type (see below), plaiting and binding almost appear as synonyms, since the sedge culms were given a circular shape and then tied transversally by a palm/papyrus strip.

### ***The shapes of the manufacture***

The moment of plaiting and binding, as said, could differ according to the final shape of the wreath or garland. According to the museum material analysed, four main kinds of types of shapes could

<sup>7</sup> The well-made cuts at the ends of the garland portions were probably made in modern times to divide the compositions and arrange them on cardboard.

<sup>8</sup> Naturally, even if in these examples halves of the culm were used for the core and the decoration, I cannot totally prove that those halves were exactly the halves of the *same* culm, but it may have been a way to spare material.

be detected. Such types, whose definition is mainly of my invention, should not be considered as a functional typological differentiation, but rather as descriptive types of manufacture divided here to better discuss the material.

### *Circular wreaths*

The denomination of ‘circular type’ indicates the type of wreaths that can be also better simply called ‘crown’ or ‘fillet’. They are structurally closed wreaths that would be put on the head like a modern crown. I found just four examples (two were analysed in person). They are a wreath placed on the head of a child (one-three years old) in a burial (B.35) at Saqqara; a wreath from Metropolitan Museum (86.1.51), a wreath from the Louvre Museum (E 2614), and another wreath from the Louvre Museum (N 2738 B). The first two are dated to the Ptolemaic Period, while the latter two are undated. The strong difference between the first two and those at the Louvre Museum (both undated and similar to each other), may suggest a difference in dating between the two groups.

The first wreath, which is the simplest, is a wreath placed on the head of a child (one to three years old) at a burial (B.35) at Saqqara published by Radomska (2016). The wreath on his head has a circular shape, around 20 cm in diameter, and it has been described as made of ‘a rope of date-palm leaf fiber (*Phoenix dactylifera* L.) wrapped in grass blades and covered with bandages wrapped around this core’ (Radomska 2016: 177, 201, 23a (photo)). The burial of the cemetery reflects the ancient Egyptian tradition, although, as Radomska underlines, ‘the evidence does not exclude Memphite individuals of different ethnic origin who were already assimilated into the local religion system’ (Radomska 2016: 183).

The second is now at the Metropolitan Museum (86.1.51). It is the wreath/fillet placed above the mummy mask of Nesmin, a priest for Min in Akhmim during the Ptolemaic Period. Several amulets have been found infolded inside the wrappings of the mummy through a CT scan (Minimberg 2001). The wreath has not been botanically studied, but at least from the photo I could obtain, is simply made of single strips twisted together with no further floral decorations.

The third example, seen in person, is stored at the Louvre Museum (E 2614). The wreath/crown is particularly complicated compared to the other two discussed above, but shares with them the absence of floral ornaments. It measures around 19 cm in diameter (although not perfectly circular) and it is made of leaves of *Phoenix dactylifera*, shaped in a circular thick (approximately 3cm) tube, which has been then tied in all its length by a strip of a sedge pith (*Cyperus* sp.), 0.3-0.5cm wide. The binding also served to fix in almost two opposite and specular positions the ornamental decoration, which is constituted by strips of date palm, which have been bent as several single loops whose extremities are tied on the central core, while the loop shape on the other side had the decorative function. It is possible that the two undecorated spaces corresponded to the fore- and back head, even if not provable.

The Louvre Museum also stores another crown (N2738 B, Figure 2), undated and of unknown provenience, very similar to the previous one. It is 19cm in diameter, 61cm long, and approximately 5cm high. It is made of two circular crowns one on top of the other, each one made of entire leaves of *Phoenix dactylifera* and possibly other sedge culms, which have been shaped in circular tubes of approximately 2cm thickness, and which have been then tied together by a strip of *Cyperus* sp. 0.5cm wide. The latter also serves to fix the ornamental decorations, made as in the previous case of strips of date palm, 0.5cm large, shaped in single loops, whose lower extremities are tied to the core. In this case, the decoration covers just half of the crown.

Overall, these garlands are formed mostly by sedge (*Cyperaceae*) culms or strips of date palm leaves, placed in such a way as to create a more or less thick closed circular ring (Figure 3). They usually do not

have decorative elements such as leaves or flowers. In any case, all the species seen are native and were already used for the manufacture of garlands as early as the New Kingdom. To the best of my knowledge, such a circular closed shape is not attested in archaeology during the Pharaonic period, but it can be well compared with the hieroglyph of the fillet (S10), and with the representation of the wreaths of justification in the panels of Spell 19 of the *Book of the Dead* (in practice, the hieroglyph in enlarged form). Although Spell 19 has been known in its form since the Third Intermediate Period (Quirke 2013: 75), the vignettes linked to the spell appear only during the Ptolemaic Period (e.g. *P. Cologne XIV*, Quirke 2013: 78; *Leiden XVII*, Pleyte 1884: pl. II), and therefore seem to match the archaeological objects described above. Nonetheless, it must be taken into account that the hieroglyph S10 existed long before the Ptolemaic Period and that similar composition in plant material may simply have not survived.



Figure 2. An exemplar of a circular wreath at the Louvre Museum (N 2738 B). (picture taken by the author, with the permission of the Louvre Museum).

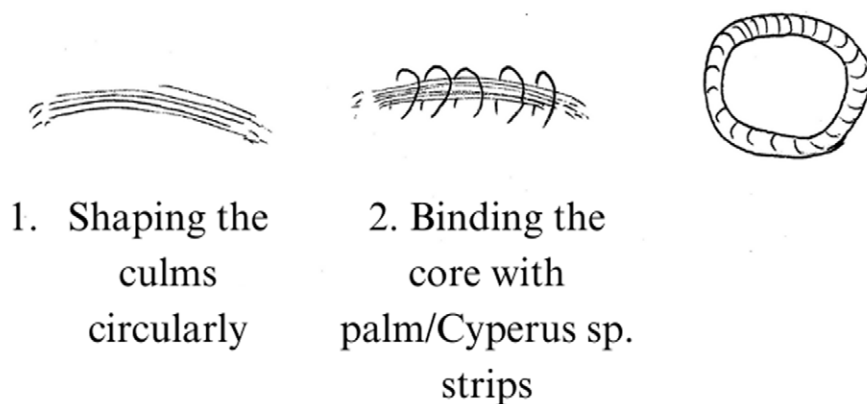


Figure 3. Schematic representation of circular wreath manufacturing.

Core type

The core-type garlands constitute the vast majority – more than 200 pieces – of the Graeco-Roman garlands stored in the museums I have visited. Although it is not possible to describe each in detail, they are presented in the diagram below (Figure 4) in 8 large groups, each defined by the ornamental species that appears (at least today) dominant on the garland.

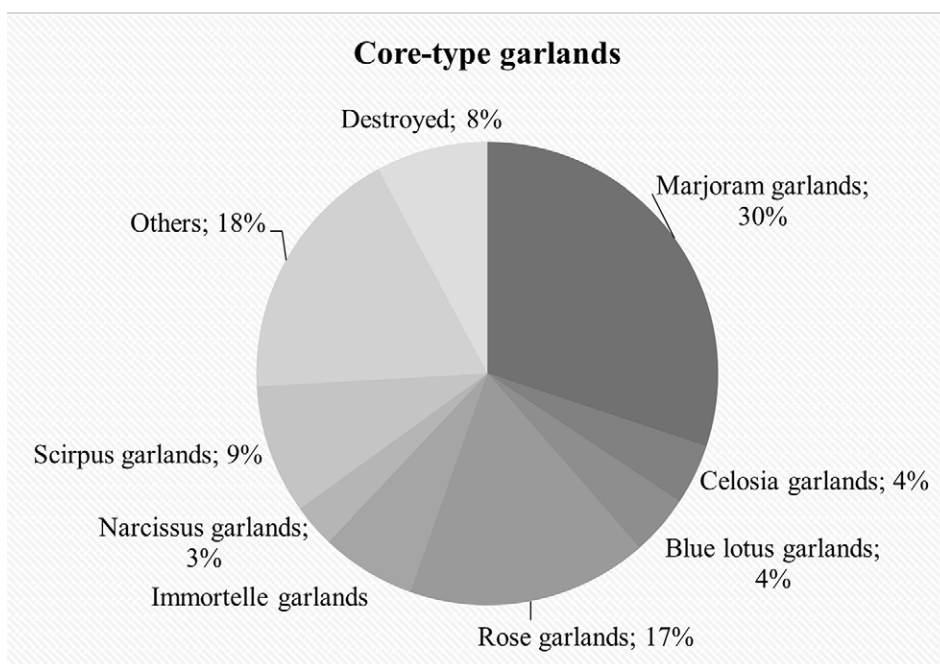


Figure 4. Main groups of core-type garlands according to their principal decorative species.

The largest group is that of the marjoram garlands, which makes up 30% of the core-type garlands analysed. These can be associated, for reasons that will be explained, with the *Celosia argentea* L. garlands (4 %) and those with the blue lotus as the dominant element (4%). This macro-group alone constitutes 38% of the core types. One of the main characteristics of marjoram garlands is that they have a core almost exclusively of *Scirpus* sp. The most common decorative species tied to it and associated with marjoram are *Chrysanthemum coronarium*, *Celosia argentea*, *Hibiscus* sp., *Withania somnifera*, and to a lesser extent *Nymphaea caerulea* and *Silene coeli-rosa*. Further characteristic decorative elements peculiar to these garlands are the use of coils of split culms of *Scirpus inclinatus*, whose spongy inner part is used as an ornamental component (many examples, see Kew 26816, 26817; Liverpool World Museum 56.20.513; ÄM 3352), and the use of copper coils (ÄM 17615; ÄM 14896<sup>9</sup>). Thirdly, some aesthetic features that cannot be accidental and must have been well-thought-out arrangements are observable in many garlands of marjoram. These are usually special symmetries, which use the chrysanthemum inflorescences, cut into two halves and placed at the edges of the garland and/or also in the centre of it (e.g. ÄM 3350; Kew 26811); or decorative elements placed only in the central part of the garland (such as the *Silene coeli-rosa* flowers in the three garlands of ÄM 3346; Figure 5). Finally, marjoram garlands are sometimes decorated with a coil of copper put over the flowers (as ÄM 17615; ÄM 14896<sup>9</sup>). Similar characteristics are presented by the few garlands whose predominant component is *Celosia argentea*: a core of *Scirpus* sp., use of copper coils (e.g. ÄM 3342) and spongy pith of *Scirpus* sp. (e.g. Louvre Museum E 11644 bis), and parallel arrangements of ornamental elements such as *Chrysanthemum coronarium* (e.g. ÄM 3335). Furthermore, the cockscomb is associated with decorative species used in marjoram garlands (*Chrysanthemum coronarium*, *Withania somnifera*, marjoram twigs themselves; e.g. ÄM 3342). Also, the few blue lotus garlands present the core exclusively of *Scirpus* sp. and supplementary decorative species similar to the previous ones (petals of *Hibiscus* sp., flowers of *Chrysanthemum coronarium*, or the marjoram twigs themselves; e.g. one of the garlands under the Manchester Museum number 5371). No coil of *Scirpus inclinatus* or copper foil is found in these garlands, but it may be the result of the low number of exemplars preserved. Therefore, the marjoram, *Celosia argentea*, and blue lotus garlands appear to be a rather homogeneous macro group. Even from an aesthetic point of view, they all seem to play on the contrast of green-pink-yellow or green-blue colours.

A second distinguishable (macro) group is that of the rose garlands (*Rosa richardii*, 17% of the core-type garlands; Figure 6). Their core is made by *Scirpus* sp. or *Cyperus* sp. culms, without a preference, while the petals or entire flowers of the rose are tied to it as decorative elements. In association, especially flowers of *Silene coeli-rosa* are used as ornamental species (e.g. Kew 26883; Kew 26721) as well as *Withania somnifera* berries (e.g. Kew 26721; Petrie Museum LDUCE-UC72718). Therefore, rose garlands show a homogeneous red-pink chromatic scale, compared to the colour contrast shown by the previous macro group. The most particular characteristic of the rose garlands, however, remains the use of 'fake flowers'. These are ornamental structures, exclusive to the Graeco-Roman era, formed by one or more (2-3cm long) pieces of *Scirpus* sp. culms or *Cyperus* sp. around which the actual flowers or petals are placed, to create a sort of flower made up of other flowers/petals (Petrie Museum LDUCE-UC72718; part of the 'fake flowers' of Kew 26883). In some cases, the structure becomes even more complex, and a ring of *Withania somnifera* berries is also placed at the apex (e.g. part of the 'fake flowers' of Kew 26883 and of Kew 26721). These structures are then joined to the core like common flowers but make the garland much richer.

Alongside these two macro groups that together constitute 55% of the core-type garlands analysed, two smaller groups stand out, with some common characteristics despite their diversities. These are the narcissus (*Narcissus tazetta*) garlands (e.g. Kew 26697; British Museum 1890,0519.4; Liverpool World Museum 56.20.511) and the helichrysum (*Helichrysum stoechas*) garlands (e.g. Kew 26617; Kew

<sup>9</sup> The asterisk for the ÄM (Ägyptisches Museum Berlin) catalogue numbers indicates that they are lost.

40728; British Museum 1890,0519.7). In these, the core is never made up of *Scirpus* sp, but strips of *Cyperus* sp., in both the narcissus and the helichrysum do not only constitute the dominant decorative species but also the only ornamental species used; and in both the colour yellow dominates. The main difference between the two is the different shapes of the flowers of the two species. In particular, the helichrysum flower heads are arranged compactly and form floral compositions that are quite recognizable at a glance and similar to large ‘tubes’.

Another minor but highly characteristic group is that of the garlands that use the *Scirpus* sp. as the dominant decorative element. It consists of small fragments (2-4cm long) of the pith of *Scirpus inclinatus*, the spongy inner part of which is used for the decorative aim. The piths are usually placed in consecutive circular layers around the core (Z 5005 (1)), or a spiral arrangement (Z 5005 (2)), or even transversally on the two symmetric sides (Z 5005 (2)). Mainly the consecutive layers alternate with



Figure 5. ÄM 3346 (2). A complete example of a marjoram garland with *Silene coeli-rosa* (L.) Godr. flowers on the edge. (picture taken by the author, with the permission of the Ägyptischen Museum und Papyrussammlung Berlin).

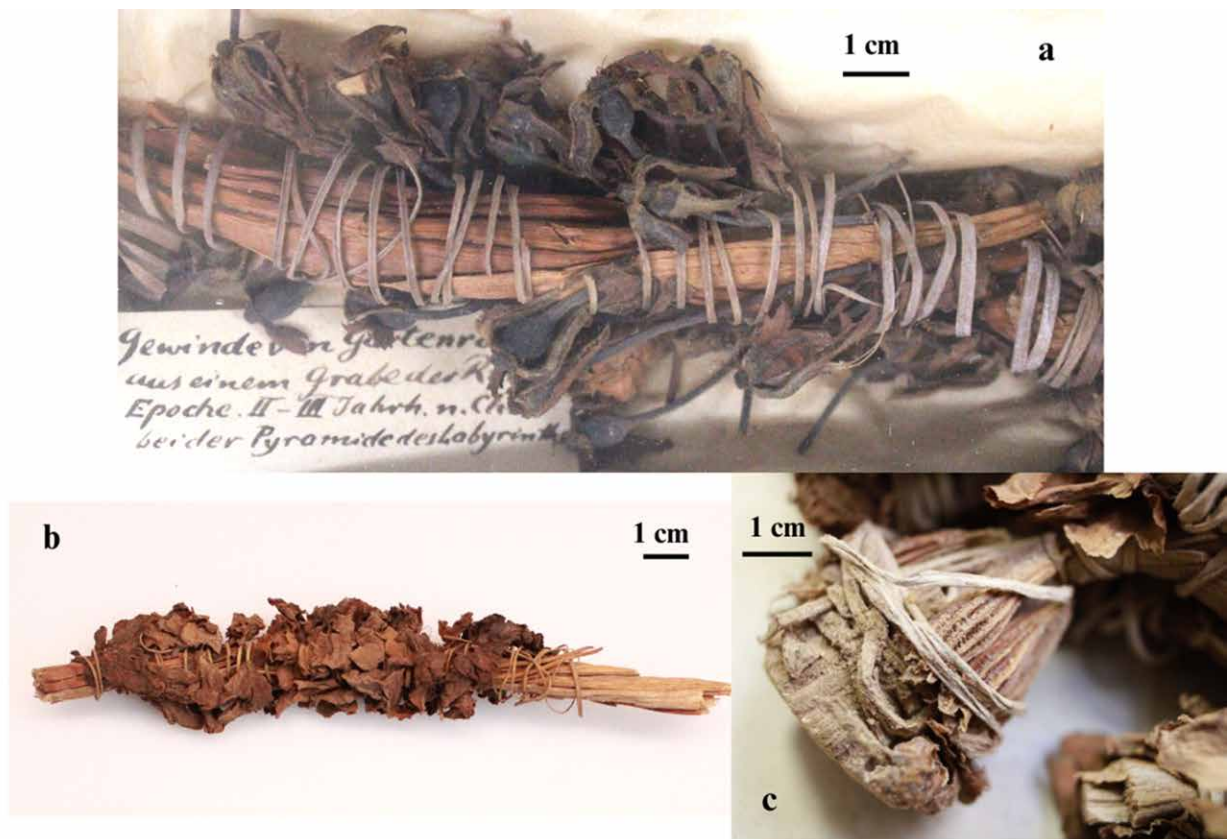


Figure 6. Rose garlands: (a) Schw. Nr. 298 (Deposited in Herbarium B), with entire *Rosa richardii* Rehder flowers; (b) E 11643 bis, garland with just petals of *Rosa richardii* Rehder (c) Kew 26883, fake flower, particular. (pictures taken by the author, with the permission of the (a) Botanischer Garten und Botanisches Museum Berlin, Freie Universität Berlin (Herbarium B); (b) Louvre Museum; (c) Kew Gardens Economic Botany Collection).

## GARLANDS IN GRAECO-ROMAN EGYPT

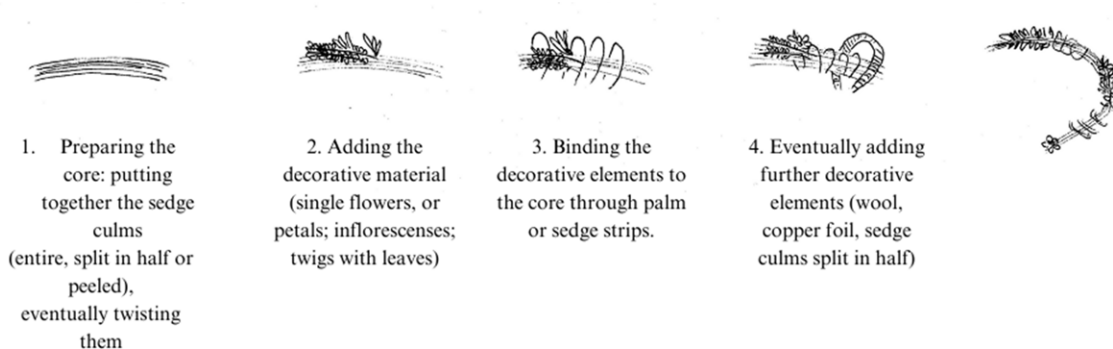


Figure 7. Schematic representation of the manufacturing of core-type garlands.

the *Withania somnifera* berries, which is the decorative plant most often coupled with them (e.g. some portions under the number ÄM 3329; Z 5005 (1); Z 5005 (2)).

Finally, the remaining garlands, the predominant elements of which are statistically less common, have been gathered into a single group ('others'). In these garlands, the predominating species are *Silene coelirosa* (e.g. Kew 26565; Kew 26647) or acacia (both *Acacia nilotica* and *Acacia seyal*) (e.g. Schw. Nr. 216; Schw. Nr. 217; Schw. Nr. 227). Among them, three specimens (all under the Manchester Museum Number 6679) are decorated with leaves of *Vitis vinifera*.

Overall, the core-type garlands display numerous innovations compared to the manufacturing of the garlands of the New Kingdom: the base is made up of a 'three-dimensional' and not flat core (see below), the decorative elements are not single leaves but twigs with leaves, petals or whole flowers, and are not attached to the core by perforation, but simply 'supported' and tied by a strip mostly of *Phoenix dactylifera*. Other innovations include the fake flowers and the use of a native and lake species as a decorative element in different forms, but in any case, exploited for its spongy interior. Further, most of the decorative species used are newly introduced and therefore represent a strong break concerning the past. A schematic representation of the manufacturing of core-type garlands can be seen in Figure 7.

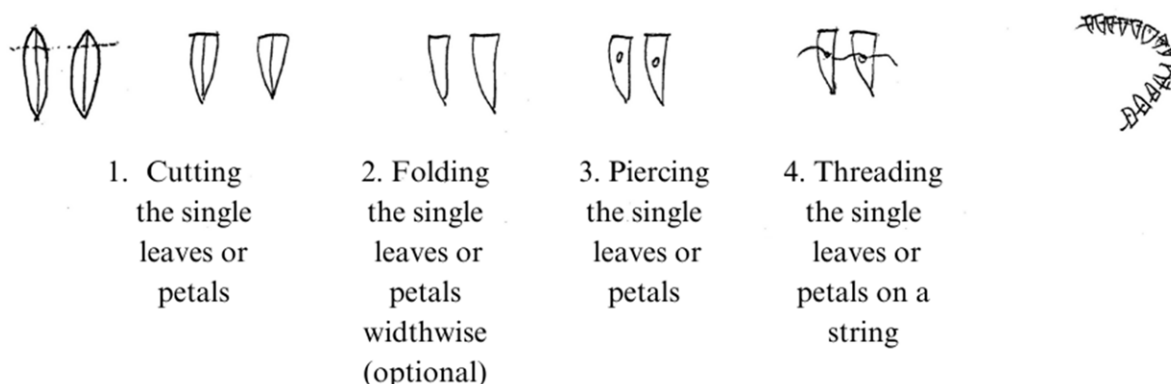


Figure 8. Pierced garlands. (a) Kew 26689, myrtle pierced garland; (b) 5371 (3), rose pierced garland; (c) E 2782, aromatic (henna?) pierced garland. (pictures taken by the author, with the permission of the (a) Kew Gardens Economic Botany Collection; (b) Manchester Museum, the University of Manchester; (c) Louvre Museum).

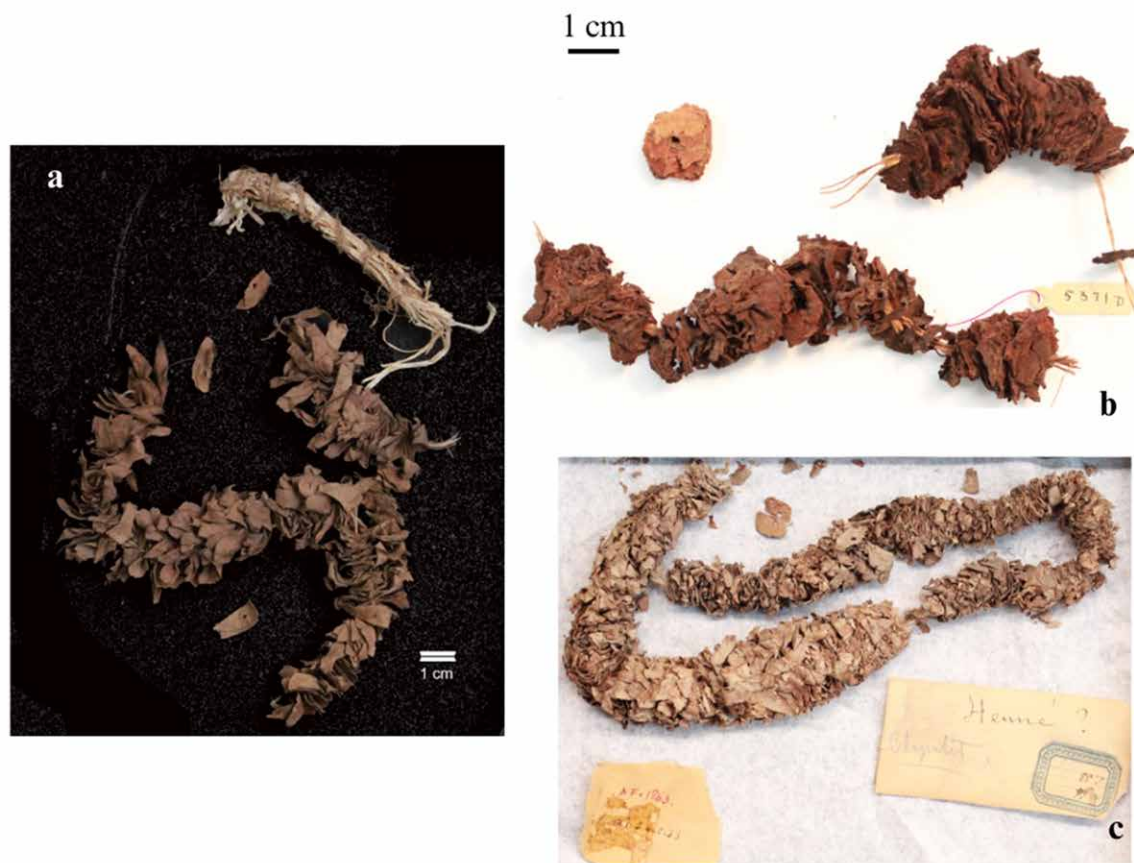


Figure 9. Schematic representation of the manufacturing of pierced garlands.

Finally, the chronology and the geographical distribution of this group of garlands must be also underlined. They are mostly dated from the 1st century BCE (only one example in the 3rd century BCE) up to at least the 4th century. But some of the examples preserved in museums may be earlier or later. Regarding the spatial distribution, they appear mainly concentrated in the Fayum and surrounding areas, while I know of no examples in museums from Upper Egypt, even if recent excavations could change the perspective.

#### *Pierced type*

The pierced-type garlands are made of single decorative elements which are pierced and then strung on a single thread. There are not many examples of this type, whose manufacture can be in some way understood as an extension of the one of a necklace. As the archaeological contexts are lost, the position of these garlands on the body (on the head, on the neck or breast, kept in the hand) cannot be known. Nonetheless, the lengths of some fragments between 50 and 60cm preserved under the number ÄM 14276 could permit us to suggest they were put on the breast and/or abdomen. To my knowledge, they had never yet been reported in the literature, and during the museum research, I found only four examples (Kew 26689; ÄM 14276; Manchester Museum 5371; Louvre Museum E 2782, Figure 8). Of these four examples, it is notable to underline that three use newly introduced species (Kew 26689, myrtle leaves; while ÄM 14276 and Manchester Museum 5371, *Rosa richardii* Rehder petals). The distinctive feature of these garlands is the exclusivity of the decorative element (only one species for each garland),

and the fact that these are carefully made identical to each other by cutting (the rose petals and the henna leaves are cut circularly; myrtle leaves have always been cut by one end, see Figure 9). Regarding provenance, two come from Hawara (ÄM 14276; Manchester Museum 5371), while one is from Saqqara (Kew 26689). They can be generally dated to the Roman era. For Louvre Museum E 2782 neither provenance nor dating is known.

#### *Traditional type*

Traditional type garlands are those still made according to the methods used for the New Kingdom to the Third Intermediate Period. Each garland was made on a foundation of one or two strips of doum or date palm obtained from their leaflets, on which ornamental leaves of other species were folded lengthwise, to obtain a total height of the garland of 1.5-2.5 cm. Flowers were added either directly on the leaves or clasped in them before being both placed on the palm strip as single elements. In both cases, the single elements were then fixed on the strip used as a foundation through two further palm strips (usually thinner, around 0.2-3cm).

It should be underlined that, unlike the core type, only single leaves and never leafy twigs are used. Such a way to create garlands is still attested during the Graeco-Roman Period although it is a minority, at least in respect to the core type and at least in the studied museum material. Since all the other types can be in some way assimilated to a circular core/tube, they can also be labelled as a 'flat' type since the result looks flat compared to the three-dimensionality of the others.

The species used as the ornamental leaves are also the same as those most commonly used in the New Kingdom to the Third Intermediate Period (Hamdy 2015: 151-153, Table 4), i.e. leaves of *Mimusops laurifolia* (Rijksmuseum van Oudheden Am 12-b, Louvre Museum E 11641, ÄM 8490, several exemplars) or *Olea europaea* (G.1424, Hamdy 2015: 146; Kew 26678). Among the floral species, the inflorescences of *Acacia nilotica* (Louvre Museum E 11641), the petals of *Nymphaea caerulea* (G.4240B, Hamdy 2015: 143-5), and perhaps the inflorescences of *Chrysanthemum coronarium* (ÄM 20165-7\*, Germer 1988: 16) are used.

For the foundation, mainly strips of palm, both date palm and doum palm, are attested, as in the New Kingdom-Third Intermediate Period. However, some details of the manufacture are also 'innovations' in this group of garlands. These involve the use of culms of *Cyperus* sp. as binding or foundation material, a use that appears rare in New Kingdom garlands rather than date or doum palm leaflets. Examples in the flat type group from the Graeco-Roman Period are in their turn rare, however. In the very well-preserved specimen of flat garland today under the number ÄM 8490, culms of *Cyperus* sp. were used as foundation and binding material, while the more classic *Mimusops laurifolia* leaves are folded on the latter for decorative purposes. Two other fragments labelled under the same number (G.1424) were studied by Hamdy (2015: 146). In this case, the *Cyperus papyrus* culms were used to tie together the more traditional single rows, composed of olive (*Olea europaea*) leaves and leaves of *Mimusops laurifolia* folded on and tied with strips of date palm. Can this innovative use of *Cyperus* sp. in flat traditional garlands be considered an extension of contemporary core types?

It is also worth reporting some personal observations regarding the flat garlands mentioned in Germer's catalogue (1988). Schw. 260 and 264, garlands both said to come from Hawara and to be dated 2nd-3rd century CE (Germer 1988: 16), no longer exist. The box of the former is empty, and that of the latter contains only a fragment of a leaf of *Olea europaea*. For Schw. 223 (Deir el-Medina, Roman time, Germer 1988: 16), only some scattered elements (leaves of *Mimusops laurifolia* and petals of *Nymphaea caerulea*) from the garland are preserved. Finally, for Schw. 234, which Germer (1988: 16) also includes among the flat garlands, only a frame with unfolded leaves of *Mimusops laurifolia* is preserved.

Finally, to be linked, I believe, to the aspect of the traditional nature of the manufacturing and to the species used, is perhaps also the regional distribution of these specimens: they mostly come from Upper Egypt (e.g. Rijksmuseum van Oudheden Am-12 b from Thebes; ÄM 17609 and 17610 from Abusir el Meleq; ÄM 21827 from Deir el-Medina; ÄM 20165-7\* from Gurna), thus mirroring the dominance of the core-type in Fayum.

**Summary of the production cycle**

It is possible to summarise here the main phases of the garland production cycle as it emerges from the documentation of the Graeco-Roman Period (Figure 10). Some of the phases depicted in Figure 10 have not been covered in detail in this contribution. They are the botanical and agricultural knowledge that the wreath-maker must have possessed, as well as the cultural image of wreaths contemporary to him and the skills to reproduce them. The combination of this knowledge allowed him to choose the plants to be used, the methods for their cultivation, or the wild places to harvest them. These preliminary stages were followed by those described above: collection of material, transport, preparation, and manufacture. The finished product then had to reach the markets to be sold, as the presence of wreath-sellers mentioned in SB 16 12695 (Rea 1982) testifies, and the moment of sale and subsequent use closed the production cycle.

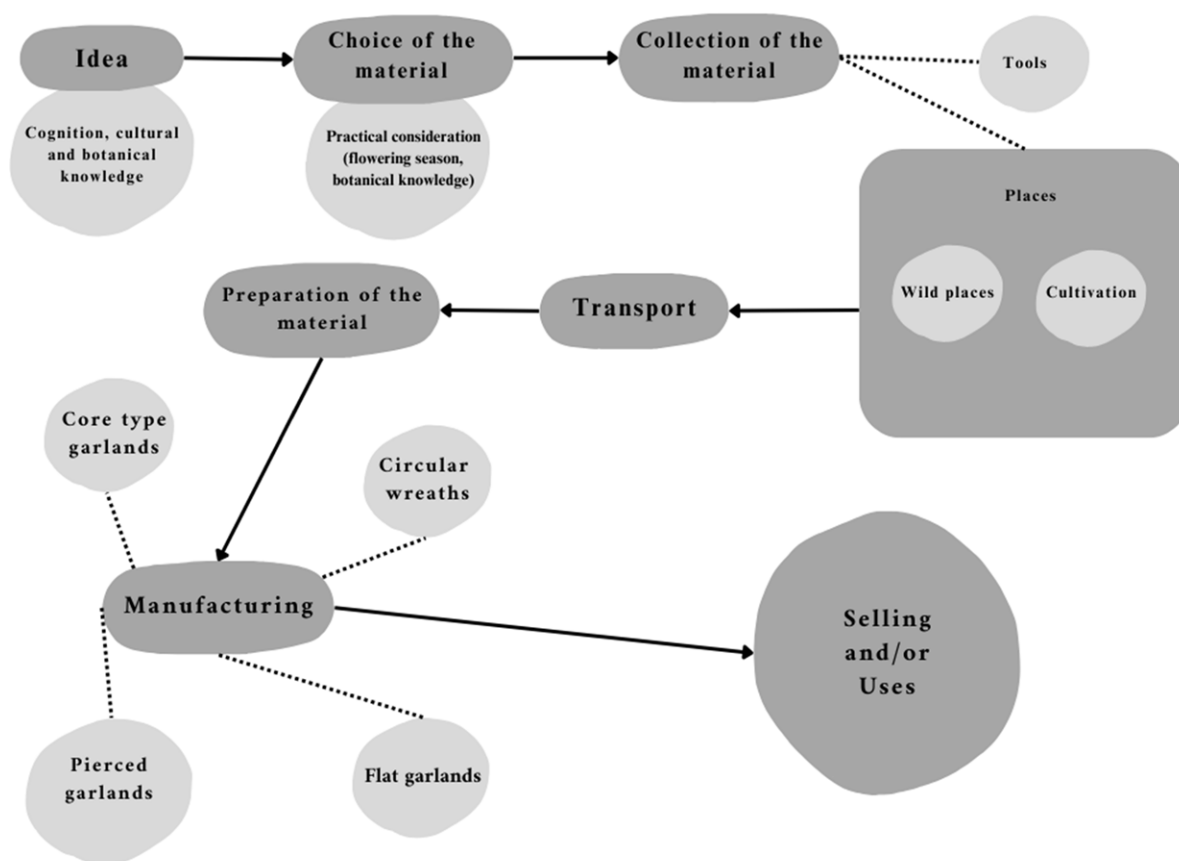


Figure 10. Proposal of the production cycle for garlands of the Graeco-Roman Period (see also McAleely 2005: fig. 1).

## Conclusions

The research highlighted a drastic change in garland manufacturing compared to New Kingdom floral arrangements. The introduction of new plant species, not native to Egypt and mostly of Mediterranean origin (such as rose, helichrysum, marjoram, and myrtle), was important. These must have arrived in the late Ptolemaic Period or early Roman Period at the latest.<sup>10</sup> These do not cause the disappearance of species already used for the manufacture of garlands in the New Kingdom, such as olive or *Mimusops laurifolia* leaves, which were still being used. At the same time, some of the decorative species that were quite common in the New Kingdom seem to have fallen out of use (such as the flowers of *Centaurea depressa* or *Carthamus tinctorius* L., see for examples Hamdy 2015: 130, 132, 138 and Germer 1989: 5, 7-8, 10).

In terms of manufacture, there is an increase in the number of forms, and, at least in the museum material, the core-type technique seems to be the majority. Flat garlands, which correspond to the most common New Kingdom technique, appear to be the minority. The few examples of the other forms (circular-type and pierced type) make it difficult to make a more in-depth evaluation, but they further diversify the range of techniques. In contrast, New Kingdom floral collars<sup>11</sup> (examples in Hamdy and Fahmy 2018) are practically absent during the Roman Period.

The changes that emerge from the description of the data naturally open the question of how these may relate to the political, social, and cultural changes in Graeco-Roman Egypt. The question cannot be fully answered in this context, but suggestions arise from this research. The first concerns the mostly Mediterranean origin of the newly introduced species, many of which were used in garlands in classical and Hellenistic Greece, as Theophrastus (*Enquiry into plants*, VI, 8; see Hort 1926: 48-55) testifies. The strong increase in the presence of people from the Greek-speaking area in Egypt in the Ptolemaic Period may have favored, if not caused, the introduction of these species and their use for floral compositions. For non-Mediterranean species, such as *Celosia argentea* from the tropical area or *Citrus* sp. from Asia, the role of the Roman Empire in trade may be significant. This was particularly important, especially in the first two centuries of the Christian era, as exemplified by the intense trade with the East and India, in which Egypt was a key hub (Tomber 2008). The second clue that suggests that the changes in the manufacture of garlands may be related to the broader social transformations of the period is the clear division in the use of species with regard to manufacture. Newly introduced species are only used in the core-type and pierced type, while they are absent in the traditional type. In turn, the latter only uses species already in use in the New Kingdom.

Superimposed on this strong division is the consideration of the geographical distribution of these two major types (core type and flat type). The former is concentrated in the Fayum region; on the contrary, traditional garlands dominate in Upper Egypt, while they are a minority in the Fayum. This leads one to wonder, therefore, what possible role the high concentration of Greek presence in the region at the beginning of the Ptolemaic era (Clarysse and Thompson 2006: 140) might have played in this differentiation, with the Fayum being an object of interest in the politics of the early Ptolemies (Manning 2003: 124-125). In the 3rd century, the Fayum also experienced 'agricultural experiments' by Greek inhabitants of the first generation, as Crawford (1973: 247) defined the introduction of new crops in the region. While the latter judged such experimentation to be unsuccessful, the garland data might instead suggest that overall, both the high Greek presence and such experimentation may have had a longer-term impact also on the material culture of the region.

<sup>10</sup> This consideration stems from the in-depth study of many case studies of these species conducted during my PhD.

<sup>11</sup> See Note 1 for the word definition.

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## Abbreviations

CDO = *Coptic Dictionary Online*. The Koptische/Coptic Electronic Language and Literature International Alliance (KELLIA), viewed on 8 January 2024, < <https://coptic-dictionary.org/> >.

DG = Erichsen, W. 1954. *Demotisches Glossar*. Kopenhagen: Ejnar Munksgaard.

LSJ = Liddell, H.G. and R.L. Scott 2003. *A Greek-English lexicon*. Logos Bible Software, Bellingham (Wash.). Viewed on 8 of January, < <http://stephanus.tlg.uci.edu/ljsj/#eid=1> >.

Wb = Erman, A. And H. Grapow. 1926-1955. *W rterbuch der aegyptischen Sprache im Auftrage der Deutschen Akademien herausgegeben von Adolf Erman und Hermann Grapow*. Berlin: Akademie-Verlag.

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# 'I Built the House of My Father': Remarks on the Origin of the Private Property

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## Abstract

The Ancient Egyptian state was ideologically based on an ordered and faultlessly hierarchical socio-economic structure governed by a ruler who owned the entire territory and resources. This image has been transmitted to us through monumental evidence. Nevertheless, in recent decades Egyptological investigation has reassessed this vision of ancient Egyptian society, leading to the understanding that the reality was much more complex. In fact, beyond the ideology, the state was run through a network of relations between the royal household and individual households of middle-high ranking officials, as well as those of the provincial elites. The concept of *pr nzwt* was associated to the royal household. The term *pr* ought to be understood as the household assets which constituted the basis of its economy, and consequently its wealth. Individual households also possessed assets (*pr nī dt*), which allowed them to maintain their socio-economic structure. This aspect is linked to the question of ownership and private property, which is a highly debated issues in Egyptological research. Ancient Egyptian inscriptions provide information about the wealth of a household. These included assets related to the office of an individual, as well as assets not attached to an office that were transmitted by inheritance within the family. The latter is known as *pr it* or *pr mwt*, depending on whether it was transmitted by paternal or maternal line respectively. This paper aims to join the debate on ownership relations in ancient Egypt by shedding light on the family assets (*pr it*). The main purpose is to provide a feasible comprehension on its origin and its interaction with the other categories of assets that can be identified in the Egyptian socio-economic system, namely the *pr nzwt* and the *pr* related to the office.

## Keywords

Household, *pr*, Assets, Inheritance, Property, Autobiography.

## Introduction

Egyptian sources have transmitted the idea of a state governed for millennia by the absolute power of a sovereign who controlled the entire territory and resources through a bureaucratic system unaltered over time. It must be borne in mind that these sources are mainly documents generated within the royal and elite environment, which constituted only a small percentage of the population.<sup>1</sup> Furthermore,

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<sup>1</sup> The documentation encompasses mostly royal inscriptions (e.g. decrees), inscriptions and images preserved in high officials' tombs, as well as temple archives. These sources testify to the reality of the ruling class and state institutions, leaving in background other social actors who operated through unofficial activities, that is, with a certain degree of independence from the state apparatus. About the latter we can only obtain information indirectly. The lack of evidence is also due to the meagre archaeological interests, as in the past archaeological research focused mainly on monumental evidence, such as royal funerary complexes, temples and elite necropolis. Recently, however, Egyptological research has been reorienting itself towards wider aspects of the socio-economic dynamics thanks to the application of the methodologies of settlement archaeology (Moreno García 2013b: 99-101; 2016: 492).

inscriptions and depictions of the elites, especially from the capital, were subjected to idealising canons dictated by the court, which transmitted a misleading picture of how royal power actually worked in ancient Egypt. In practice, the sovereign had to take into account the network of informal social relations behind local potentates, in order to maintain his authority throughout the country. Consequently, local elites enjoyed a certain degree of autonomy in the management of provinces and were involved in the government administrative system, so that their political support was preserved (Moreno García 2013a: 2-5). Therefore, the stability of the state depended on harmonious relationships between the sovereign and the provincial nobility.

From this point of view, ancient Egyptian socio-economic structure was based on the concept of household. This term refers to a kin group that involved members of extended family, servants, dependents, clients and other individuals related to the head of the household, as well as possessions, including buildings, infrastructure, livestock and other goods which enable them to operate economically (Gelb 1979: 3; Moreno García 2012: 2-3; Olabarria 2020: 82-83). Therefore, the household appeared as a socio-economic unit consisted of a certain patrimonial basis, which was managed through asymmetric patron-client relations between the one who held the authority and those who depended on him. This type of relationship implied reciprocity, whereby the head of household required his dependents loyalty and the performance of services, while in return he had to guarantee their protection and provisions (Moreno García 2016: 492; Olabarria 2020: 159-160).

#### ***Social network: Egyptian state as 'household of households'***

Several terms exist that highlight the different categories of social network that could be established in Egyptian society. In this regard, in her study on kinship, Olabarria draws the conclusion of how different kin groups corresponded to different terms. Indeed, kin groups are not fixed but polythetic categories, that is, based on a certain number of characteristics that can be included or not depending on specific contexts (Olabarria 2020: 77-96). Consequently, households were one of several kin groups which could be formed; specifically, it emphasised the economic sphere and the corporate aspect of Egyptian social networks.

Provincial reality witnessed an extensive network of socio-economic relationships concerned these entities. High officials and rural potentates were indeed at the head of rich households, in which the entire population under their jurisdiction was involved through patronal bonds that operated through informal channels as opposed to the state administrative apparatus. The development of provincial administration undertaken during the 5th and 6th dynasties in order to increase the presence of the state throughout the country provided greater visibility to local elites and their entourage, in particular thanks to the increase of necropolis and monumental attestations in the provinces (Martinet 2019: 43-44, 276). Nevertheless, this does not mean that these provincial social networks did not exist even in previous periods (Campagno 2011: 86-89; Moreno García 2006: 222). At the end of the Old Kingdom and the subsequent decentralisation, patronage relationships gained further prominence, as alternative circuits to maintain socio-economic stability at local level increased (Moreno García 2016: 497-499; Olabarria 2020: 165). This is noticeable in the monumental documentation. While during the Old Kingdom elite inscriptions were subjected to the palatine decorum which highlighted the dependence on the sovereign and the importance of obtaining his favour, those from the First Intermediate Period focused on new topoi which enhanced autonomy and individual initiative of the local ruler, as well as beneficent attitude towards those who were linked to him.

These informal relationships developed in a horizontal manner through alliances between various officers of same rank, each of whom was at the head of extended household, both vertically, namely between individuals of different social rank. Lower-ranking individuals could have their own households,

though less extensive than those of high-ranking officers. In this way, members of the lower classes found protection in the elite, as well as an opportunity to enrich themselves, in exchange for services and loyalty to their patrons (Campagno 2011: 90-91; Moreno García 2013b). On the other hand, through this patronal strategy members of the ruling class obtained a means to maintain the legitimacy of their local power, as well as strategic alliances with lords of other provinces, and likewise support for managing their economic spheres.

By reason of this social framework, sovereigns had to preserve harmonious relations with provincial authorities in order to keep the central government system steady, as local potentates acted as intermediaries between the state and the rest of the population. Sovereigns tied themselves to local lords using the same model of patronage relationship that was applied to individual households (Martinet 2019: 365). As a result, a network of socio-economic relations that linked all the households of the entire country was formed, generating a system that Lehner, taking up Gelb (Lehner 2000: 280), defines as a 'household of households'. Such a concept has been proposed to describe the Egyptian state (Moeller 2016: 2). In fact, the central government developed around the royal household (Engel 2013: 37), to which the households of high-ranking officers were tied. In turn, the latter used at local level the same governmental system as the royal one, establishing social networks independent of the state, but which were useful to the sovereign himself in order to maintain control over the entire territory.

### *The wealth of a household*

The concept of household is associated with that of *pr*. Literally, the term *pr* is translated as 'home' in order to denote a physical entity, which can be associated with residential or productive buildings, temple or tomb (Erman and Grapow 1971: 511-515; Hannig 2003: 448-450; Hannig 2006: 891-898). Other translations used by scholars are 'domain' or 'estate' in order to indicate territorial units with administrative and productive purposes, to which settlements and infrastructure are annexed (Moreno García 2008; Swinton 2012).<sup>2</sup> In recent decades it has been suggested that the term *pr* coincides with the concept of household.<sup>3</sup> Echoing Lévi-Strauss, Picardo (2015: 246-247) describes the 'social house' as an organisation that owns real estate and movable property, which is perpetuated through the transmission of such holdings, as well as titles and immaterial heritages in a line of descendants considered legitimate by kinship or other affiliation. Therefore, the term *pr* is also related to the issue of inheritance.

As regards, it has been observed that the concept of household requires the presence of a common dwelling (Olabarria 2020: 58-59, 62); hence the association with the term *pr* 'house'. Whereas a household is presented as a socio-economic unit, the concept of dwelling could be extended to anything that allows household economy to function and generate wealth. Workers and dependents are also included. Hence the presence of expressions such as *mrt n pr ni dt* (Blackman 1924: pl. IX), *ḫzt nt pr ni dt* (Seyfried 2005: 314-318) or *bꜣk n pr ni dt* (P. Berlin 10024A, see Luft 2006: 49-53). Consequently, the term *pr* could even be understood as 'household assets', definition that would accentuate its tie with the economic sphere of a kin group.

Furthermore, households preserved themselves through the sense of belonging to a prestigious lineage and defined their social status through the network of relationships in which they were included. Assets allowed formal and informal social networks to materialise, as they enabled the stipulation of alliances between equals, as well as subordination relationships, which extended both inside and outside the state system and generated the conformation of Egyptian society as 'household of households'. Consequently, social networks were functional to preserve collective identity, while wealth placed households within

<sup>2</sup> Specifically, Swinton (2012: 122) associates the concept of estate with the expression *pr-dt*, described as 'a system whereby officials were granted access to resources'. The issue of *pr ni dt* will be addressed in more detail below.

<sup>3</sup> Even in this case, some scholars refer to *pr ni dt* to denote the concept of household (such as Romanova 2011).

the social structure with a certain rank. This is especially observed in the maintenance of funerary cults, which involved all members of the household. In fact, one of their main duties was to maintain the memory of ancestors inasmuch as they were considered protectors of the kin group and sources of legitimacy. This implicated an economic circuit for the supply of offering, which used a certain asset (Olabarria 2020: 91-92).

On the other hand, in some papyri preserved from the archive of the Raneferef pyramid complex in Abusir (Posener-Krieger *et al.* 2007: 421), the term *pr* is associated with expenses that were made in a given institution, as opposed to *wḏꜣw*, which instead refers to the surplus. Therefore, it would seem to be associated with accounting. However, it must be remarked that this nuance of meaning seems to be limited to Old Kingdom documentation. Nevertheless, this circumscribed nexus of the term *pr* with accounting activities is indicative of its meaning within the reality of Egyptian households, namely its ties with the economic sphere.

As regards the royal household, scholars have advanced several hypotheses on the meaning of *pr nzw* (Lorton 1991). Based on 'The Duties of the Vizier' (van den Boom 1988: 75, 300-303), it was believed that it identified an architectural complex within the Residence (*ḥnw*)<sup>4</sup>. An economic interpretation has also been put forward, according to which the *pr nzw* represented all royal domains that formed the pivotal elements of Egyptian redistributive system managed by the central administration (Lorton 1988: 293-294). Helck (1975: 173) associates the *pr nzw* with the administrative system of royal domains located outside the Residence. Nevertheless, he specifies that this management took place through various departments of the court, which instead were located within the Residence, such as the office of vizier. Finally, Lorton (1988: 304-307) comes to the conclusion that the *pr nzw* indicated the palace and those who worked within it, namely the court, seat of the central government. According to him, the *pr nzw* was structured as a household, as formed by the sovereign, members of his family, as well as personnel.

This last interpretation of the *pr nzw* continues to be used currently, encompassing the most abstract meaning of state government, of which the *ḥnw* was its physical seat (Papazian 2013: 54-56). Since the ancient Egyptian state was established and developed around the royal household, it acquired the same socio-economic structure of a household in the broad sense. For this reason, the ancient Egyptian state appeared as a macro-household, which was not only supported by social network, but also by a wealth basis. Consequently, the term *pr nzw* could be understood as royal household assets, which encompassed public properties with which officials were endowed.

At the provincial level, since high-ranking officials' households imposed themselves as a microcosm with respect to the macrocosm represented by the state, a similar government system has been used. Individual households also possessed assets (*pr nī ḏt*), which allowed them to maintain their socio-economic structure and their local power. This aspect is linked to the question of the ownership and the private property, which is a highly debated issues in Egyptological research. Ancient Egyptian epigraphic sources provide information about the wealth of a household, although in a different manner between Old Kingdom, First Intermediate Period and Middle Kingdom (Moreno García 2016: 495-497, 507-508). As will be observed below, these included properties related to the office of an individual as well as assets which belonged to his family. The latter is known as *pr it*, on which this study focuses.

Following, some autobiographical sources, as well as contracts and decrees relating to funerary foundations, will be analysed, since they shed light on three essential questions concerning the *pr it*: 1) its origin; 2) its purpose; 3) its link with the *pr* related to the office and the *pr nzw*. At the same time,

<sup>4</sup> From the institutional point of view, *ḥnw* has been interpreted as the seat of government constituted by several departments. An in-depth analysis on terms related to the royal household (*pr nzw*), notably *ḥnw* (Residence) and *pr ʿ* (palace), is beyond the aim of this study. See Goelet 1982; Martin-Pardey 1995; Papazian 2013.

an attempt will be made to grasp developments and changes that occurred between Old Kingdom and Middle Kingdom. Consequently, the texts analysed are limited to these periods.<sup>5</sup>

### The *pr nī dt*

To better understand the concept of *pr it*, it is necessary to make an insight on the expression *pr nī dt*, which is observed frequently in private inscriptions. An example is offered in the autobiography of Sabni, governor of Elephantine during the reign of Pepy II (Edel *et al.* 2008: 50-52; Seyfried 2005: 314-318). The deceased reported that he left for the land of Uauat, in Nubia, in order to recover the body of his father, who had died during an expedition. He specified that he has left with a *tzt nt pr <nī> dt*.

*r 'rdit' rh(.i) ntt [it.i] smr wtī hry hbt 'Mhw' 'mnt' [iw hp.ki hr'] tzt nt pr {nī} dt(.i)*

in order 'to let' me know that [my father], the sole companion, lector priest 'Mekhu' had died. [I travelled together with] a troop of my *pr nī dt*.

Similar expression can be found in numerous documents and in relation to both people and material goods, as it can be observed, for example, in ceramics found in Qubbet el Hawa (Edel 1975: pl. 101).

The issue of *pr nī dt* has been submitted to several interpretation and continues to be matter of debate among scholars. Traditionally, the expression *pr nī dt* has been used as a definition for funerary domains (Pirenne 1935: 254), translated literally as 'house of eternity', or landed properties (Grdseloff 1943: 45-49; Helck 1975: 58-61), according to how the etymological origin of *dt* was understood (Fitzenreiter 2004: 65-66; Sánchez Casado 2020: 11). Nevertheless, taking into account the parallelism of the use of the term in the Pyramid Texts, Perepelkin (1966: 7-12) suggested that *dt* should be understood as 'body', whereby it referred to the physical essence of a person. Accordingly, the scholar proved that *dt* concerned neither funerary domains (Perepelkin 1966: 104-105) nor landed properties (Perepelkin 1966: 105-107). By examining the documentation available for the Old Kingdom, he reached the conclusion that *dt* was used as a method of expressing ownership relations in a broad sense, meaning that is identifiable both in the Pyramid Texts and private inscriptions; therefore, he translated it as 'own', 'personal', 'which belongs to the individual' (*nī dt*). As a consequence, Perepelkin (1966: 88) translated the expression *pr nī dt* as 'house that belongs to the individual', conceived as the ensemble of economic units that were scattered throughout the country and to which lands and infrastructure were associated (Perepelkin 1966: 88-92).

Other scholars have understood *pr nī dt* as territorial administrative units consisting of several villages (Moreno García 2013a: 97-98) or estates (Swinton 2012: 122), which would derive from royal granting (Málek 1986: 79-80; Moreno García 1999: 214; Sánchez Casado 2020: 11). Nevertheless, *pr nī dt* was not only used in relation to territorial properties. It was also related to a certain category of individuals who managed and maintained the household economy (Perepelkin 1966: 81-87). These categories constituted household workforce and administrative apparatus, which in inscriptions appear mainly in association with the *pr nī dt*, while kinship was usually identified only with the term *dt*, especially during the Old Kingdom (Berlev 1972: 175-177). Otherwise, terms referring to movable property and real estates were rarely defined simply as 'belonging to the *dt*'. Their relationship to individuals were widely expressed through the term *pr (pr nī dt)* (Perepelkin 1966: 81-82). These remarks would support the association of *pr* with household economic sphere (assets), rather than with its social sphere, since

<sup>5</sup> A further reason for this demarcation is due to the different socio-economic situation of the New Kingdom, during which the concept of small property arose (Menu 1971; Moreno García 2013c: 3; Zingarelli 2007).


land, infrastructures, workforce, dependants, and administrative officials (*n pr nī dt*) kept running the productive activities of a household, that is, its economy, and therefore were sources of its wealth.<sup>6</sup>

It is clear from Perepelkin's conclusions that *dt* expressed a generic bond with an individual, especially in association with social sphere, while *pr nī dt* pointed to property relations connected with economic sphere. It must be borne in mind that these two spheres were only two of the categories that characterise a kin group, which, depending on the context, could coexist and be emphasised or not (Olabarria 2020: 77-92). Such fluidity could be advanced when explaining the alternation in the use of *dt* and *pr (nī) dt* in inscriptions, as with *hmw kʿ* (Sánchez Casado 2020: 40-44). Some scholars have interpreted these expressions as different legal status (Menu-Harari 1974: 142-143), and others consider *dt* as a shortened form of *pr nī dt* (Fitzenreiter 2004: 62-63; Sánchez Casado 2020: 17). As regards the former, it does not seem to have been widely accepted. The latter could be considered valid as long as *dt* and *pr nī dt* are associated with titles, but it is also worth noting that the terms of kinship are related only to *dt* (Fitzenreiter 2004: 63), as in the case of the *sn dt*.<sup>7</sup> Therefore, it could be assumed that the alternation was intentional.

Returning to the different interpretations of *pr nī dt*, it has already been mentioned how Romanova (2011) translates it as household, while most scholars agree that the concept expressed possessions that guaranteed the maintenance of the funerary cult (Allam 1974: 131-146; Fitzenreiter 2004: 61-71; Pirenne 1935: 271). Accordingly, *pr nī dt* is seen as an economic institution formed by certain goods and individuals related to the owner of the tomb and responsible for the maintenance of his mortuary cult (Fitzenreiter 2004: 66); therefore, it would have represented only one section of the entire household assets.

Summing up, scholars are divided. Some conceive *pr nī dt* as an expression of property in the broad sense or as household, i.e. a socio-economic entity (Perepelkin 1966; Romanova 2011), focusing on the significance of *dt* as a body/individual. On the other hand, some associate it with properties dedicated to the maintenance of funerary cult (Allam 1974: 131-146; Fitzenreiter 2004: 61-71; Pirenne 1935: 271), without marking a distinction between the meaning of *dt* as body or as eternity, as it would have been property of an individual devoted to his eternity, so that this distinction is irrelevant.

As Romanova (2011: 230-231) pointed out, the maintenance of cults cannot be separated from the whole economic system of the household. Indeed, goods associated with them came from royal concessions or possessions acquired personally which were likewise bequeathed and their management involved all members of the household, as well as the relationships between different households (cf. Aprile 2023: 11-20; Olabarria 2020: 91-92). Moreover, if *pr nī dt* referred only to goods intended for cult supplying, it should also appear in relation to royal cults. Although the documentation is rather limited, it is possible to observe that the expression *pr nī dt* does not appear in the archive of Raneferef funerary complex (Posener-Krieger *et al.* 2007).

The use of the term *dt* as a body/individual, in essence, would perfectly express household socio-economic context, as it contemplates both its sphere of social relationships and its economic sphere. Such an interpretation would also be justified by the orthography of the word, in which Perepelkin (1966: 121) remarked that the snake sign  would depict the torso without limbs, an appropriate form to express individuality. In contrast, the limbs would represent people related to the individual with any kind of bond, that is, the social sphere in which he was involved, as well as production means, namely

<sup>6</sup> The titles were also part of the *pr nī dt*, since the office, especially if related to state administration, was the main source of wealth in ancient Egypt (Berlev 1972: 178; Perepelkin 1966: 96-98).

<sup>7</sup> For a deepening on this title and its association to patron-client relationship, see Moreno García 2007.

the economic sphere. Moreover, if we consider the term *pr* as 'household assets', it follows that *pr nī dt* should be understood as 'assets belonging to an individual and his household'.

### *pr nī dt* as individual household assets

Moreover, Perepelkin pointed out how *pr nī dt* expressed the concept of private property in opposition to what belonged to the state, in particular referring to the inscription in the tomb of Ibi (Davies 1902: pl. XIV; Perepelkin 1966: 84-87, 107), in which a distinction is made between shipwrights (*mdḥw*) who belonged to his *pr nī dt* and one who instead belonged to the Residence (*hnw*).

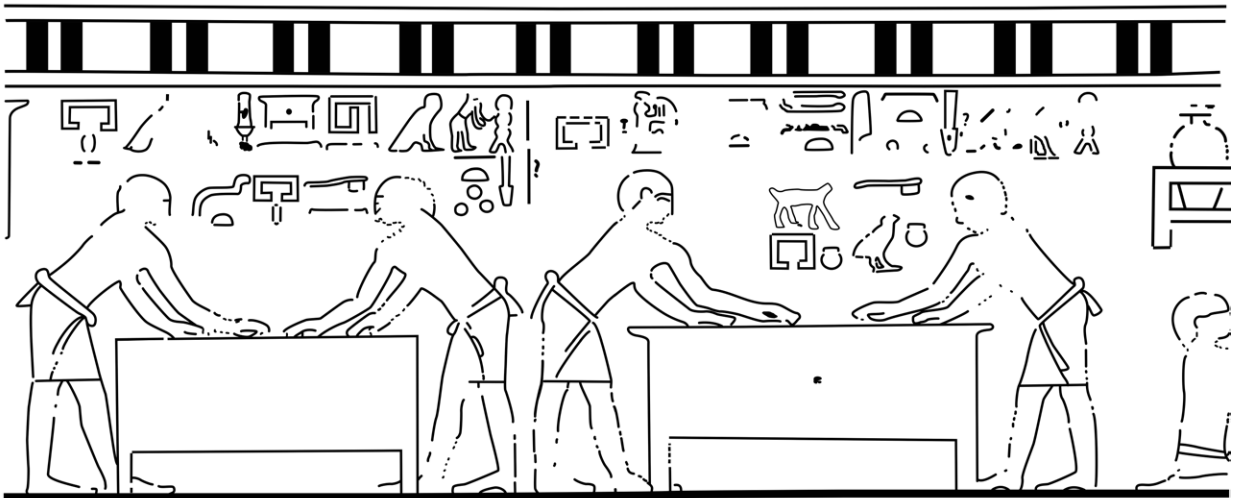


Figure 1. Shipwrights in the tomb of Ibi at Deir el-Gebrawi. North wall, east side. After Davies 1902: pl. XIV.

Nonetheless, property relations and concepts as private and demanial property are difficult to define as regards ancient Egyptian socio-economic history (Moreno García 2013a: 2). In fact, starting from Perepelkin's study and expanding the documentation with Middle Kingdom sources, Berlev (1972) interpreted the *pr nī dt* as the entire possessions belonging to an individual and his household.<sup>8</sup> Consequently, it expresses the concept of individual household assets, within which it is necessary to distinguish assets related to the office and assets that the person received in inheritance from his family. This distinction does not appear in Perepelkin's study, which instead focuses on the contrast between private and state. Such a difference does not concern the fact that family assets were permanent and office ones were provisional, since most of the offices were hereditary (Grajetzki 2009: 139-140). The essential distinction lies in the fact that office assets were inseparable from the position, that is the title (Berlev 1972: 255).

<sup>8</sup> Although there are works attributed to Perepelkin published in the 1980s, including 'Privateigentum in der Vorstellung der Ägypter des alten Reichs' (1986) and 'Хозяйство староегипетских вельмож' (1988), the former was a German translation edited by Müller-Wollermann, while the latter consists of a posthumous publication of studies carried out mainly during the 50s edited by Bogoslovsky (Perepelkin 1988: 4). Therefore, Berlev's interpretation of the *pr nī dt* is more current, and it has been considered more valid to undertake this intervention on family assets.

The contracts stipulated by the governor of Asyut, Hapydjefai, in order to organise his funerary cult, witness the existence of these two categories of assets that constituted the *pr nī dt* (Griffith 1889: pls VI-VIII; Spalinger 1985); in particular, the tenth contract reads:

*rdit.n.fn.fhṛ.s 3ht ḥ3<-t3> m w3bt m (i)ḥwt.fnw pr it.fn is m (i)ḥwt pr ḥ3ty<*

What he gave him for this: 10 arouras of arable land in the highlands from properties of the assets of his father and not from properties of the assets of governor's office.

However, it appears that the contrast between *pr* relating to the office and *pr it* is mainly found in Middle Kingdom documentation. This would seem to be related to social changes that occurred at the end of the Old Kingdom and during the First Intermediate Period. As mentioned above, Old Kingdom inscriptions emphasise the favour of the king as guarantor of wealth especially through donations, omitting any mention of acquisition of possessions outside state circuit (Moreno Garcia 2016: 494-495).<sup>9</sup> This is noted in the decree of Pepi II, through which the king granted a *ḥwt k3* and *ḥmw k3* to the governor of Dakhla Oasis for his funerary cult, as had been done with his predecessors (Goedicke 1989; Sánchez Casado 2020: 209-212).

As a result of the decentralisation at the end of the Old Kingdom, new topoi arose, especially in relation to acquisition of properties through own means and individual merits, which led to the exclusion of typical themes of the previous period. During the Middle Kingdom, however, following the restoration of central power, in autobiographies the motif of sovereign's favour returns, but in this case referring to the endowments derived from official position in the administrative system, as autobiography of Khnumhotep II recorded (see below). At the same time, as a legacy of changes occurred during the First Intermediate Period, the topos of acquisition of assets thanks to own merit was maintained. As will be observed, these acquisitions were used as family *pr*, since it did not present the same restrictions of the *pr* linked to the office.

The office *pr* comprised agricultural domains and infrastructure, as well as movable property, mainly livestock and personnel; the latter were composed of *ḥmw nzwt*, *mrt* or *nzwtiḥw*. The first two categories included free Egyptians who were employed in state works, while *nzwtiḥw* were individuals in servile condition tied to the crown foundations (Moreno García 1998: 81-82). These properties were given by the sovereign to the official at the time he received the charge and were indissolubly linked to the position. Therefore, an individual and his household could have held such properties in usufruct until he, or his descendants, held the office, but the ownership remained to the sovereign. Consequently, the *pr* related to the office derived directly from the *pr nzwt* and in some ways always remained tied to it.

This would explain the clause, or rather the wish, expressed by Hapydjefai in his contracts, when the services of the personnel are repaid through the *pr ḥ3ti<*. In the second contract (Griffith 1889: pl. VI) it is emphasised that:

*n grt ḥd.n ḥ3ti< nb imy ḥ3w.f ḥtmt ky ḥ3ti<*

and not even a governor who is in his time (that is, his successors) may destroy a contract of another governor.

This expression suggests that when his successors had held the office, they would have acquired usufruct rights over assets associated with it, so they could have claimed the part used by Hapydjefai.

<sup>9</sup> Exceptions can be found in the decrees of Metjen (4th dynasty), which will be dealt with later. However, it should be noted that this text dates back to a period when the state administration and canons dictated by the palace were not yet stable (cf. Martinet 2019).

On the basis of the ethical sense of the ancient Egyptians, it is unlikely that contracts were nullified, as the maintenance of the ancestor cults allowed to preserve the cohesion within the household and, furthermore, it legitimised the transmission of the office over several generations (Moreno García 2006: 217, 222). In essence, the presence of this clause in Hapydjefai's contracts shows that the properties of the *pr ḥṣti-ꜥ* have not been alienated and have continued to belong to the office of governor. This is also evidenced by the clause addressed to his servant of the *ka* (Griffith 1889: pl. VI), according to which these properties had to be transmitted intact to the son who would succeed him, as they constituted assets of *ḥm-kꜣ* office, which remains permanently linked to *pr ḥṣti-ꜥ*.

*m.k st ḥt.f ḥr.k m zhꜣ wnn nn (i)ḥwt n sꜣ.k wꜥ mr.k irt.f n ḥm-kꜣ.i ḥnt ḥrdw.k m wnm n sbnn.f nn rdit  
pzš.f st n ḥrdw.f*

Look, these are his possessions entrusted to you in the text. These goods are of your elder son, your beloved, who will act as my servant of the *ka* before your (other) children, and who will usufruct of them without them being divided among his children.

In addition, the *pr* related to the office remained attached to the *pr nzwt*, as it was the sovereign who granted the approval for the offices to be transmitted to successors. Furthermore, the sovereign determined administrative boundaries of officials' authorities. In this regard, a witness is offered by the autobiography of Khnumhotep II, governor of Menat-khufu during the reign of Amenemhat II (Newberry 1893: pl. XXV). It mentions how the governor obtained his positions from Amenemhat II in accordance with the inheritance of his mother's father, Khnumhotep I; moreover, it is the same king who fixed the boundary stela that delimit the governor's domain, in the same way that it was done for his grandfather when he was appointed governor by decree of Amenemhat I.

*rꜣ.f dd.f iw rdi.n wi ḥm ꜥn ḥr ḥknꜣ m [mꜣꜥt ...] r [iry pꜥt ḥṣti-ꜥ imi-rꜣ] ḥꜣswt iꜣbtt zmꜣ ḥr ꜥpꜣḥt r iwꜥt itꜣ  
[mwt.i] m ꜥmnꜥꜥꜣ [ḥwfw zmn].n.f [n.i wd rsi] ꜥsmnhꜣꜣ.n.f mḥti mi pt pzš.n.f itrw ꜣ ḥr iꜣt.f mi irt n it  
mwt.i m tꜣt-rꜣ pꜥt ꜥm rꜣ n ḥmꜣ n ꜥḥr wḥmꜣ [mswt ...] rdit.f sw r irt pꜥt ḥṣti-ꜥ imi-rꜣ ḥꜣswt iꜣbtt m mnꜥꜥ  
ḥwfw<sup>10</sup>*

His mouth says: 'The Majesty ꜥof Horus Hekenꜣem[maat ...], made me [noble, governor, overseer] of the Eastern desert, sema-priest of Horus and ꜥPakhetꜣ in [Menat-Khufu], ꜥaccording to the inheritance ofꜣ[my mother's] ꜥfatherꜣ. He ꜥfixedꜣ for me the southern boundary stela], he settled the northern one, like the sky, and he divided the Great River in its half, as what was done for my mother's father with a sentence come out of ꜥthe mouth of Majestyꜣ of ꜥHorus Uehenꜣ[mesut ...], that made him noble, governor, overseer of the Eastern desert in Menat-Khufu.

That the authority of the sovereign was decisive for the maintenance of assets related to offices is also proved by some royal decrees relating to the misconduct of officials, such as the Koptos decree of Nebukheperra Intef, sovereign of the 17th dynasty. The decree concerns the removal of Teti, son of Minhotep, from his position at the temple of Min because of his misconduct; consequently, that office, as well as assets associated with it, could not be transmitted to his successors (Berlev 1972: 258; Breasted 1906: 339-341; Sethe 2001: 98).

### The *pr it*: its origin and function in the household economy

Berlev discussed extensively about properties that an individual obtained through his position within the administrative apparatus, while aspects related to household family assets (*pr it*) have been hinted at, but not dealt with in depth. Literally, *pr it* means 'the house of the father', goods that an individual

<sup>10</sup> I omitted the transliteration and translation of the entire royal titulary.

received in inheritance from his paternal line and that were inalienable, as they were not tied to a position (Berlev 1972: 199). Since these properties had lost their direct contact with the *pr nzwt*, they could be exploited on a personal level without limitations. In a way, the concept of *pr it* is the patrimonial category related to ancient Egypt that was closer to our concept of private property, although the reality was more articulated; therefore, it is more appropriate to understand it as family assets.

In his autobiography (Griffith 1889: pl. V), Hapydjefai asserts

*iw qd.n.i pr it(.i)*

(literally) I built the house of (my) father.

In some cases, the term *pr* has been translated as ‘tomb’, so understanding the phrase as ‘I built my father’s tomb’. Nevertheless, we can observe that ‘tomb’ (*iz*) is never written with the only determinative (Sethe 1933: 187) and, as a general rule, the construction of a tomb was started during the life of the owner, so that it was uncommon for sons to complete it. For this reason, after considering in this context the term *pr* as a patrimonial basis, also in this attestation it might concern household assets. Consequently, the meaning of the statement is meant to be interpreted metaphorically, as though he had built his own family assets.

It is possible to observe a similar example from the autobiography of Harkhuf, governor of Elephantine during the reign of Pepy II, which reads reads (Edel 2008: 650; Strudwick 2005: 329)

*ii.n(.i) min m niwt(.i)*

*h3.n(.i) m sp3t(.i)*

*qd.n(.i) pr(.i)*

*s3h3.n(.i) 3wt*

*š3d.n(.i) š*

*srd(.n.i) nhwt*

*hz.n w(i) nzwt*

*ir.n n(.i) it(.i) imit-pr*

I went to (my) city, | I came down to (my) district. | I built my household assets (literally, my house) | and I set (its) limits (literally, doors). | I dug a garden | and I planted trees. | The king has favoured me | and (my) father made me a *imit-pr*.

This excerpt highlights the three elements that constituted assets of ancient Egyptian households. The first part refers to assets generated by Harkhuf in his own city and district, whereas the phrase ‘*hz.n w(i) nzwt*’ suggests assets which he received from the sovereign by formal or informal ways. Lastly, the phrase ‘*ir.n n(.i) it(.i) imit-pr*’ refers to family assets (*pr it*).

The matter to be clarified concerns the meaning of building family assets and the manner in which this aim was pursued. The maintenance of the wealth and the social status was one of the main issues for the ancient Egyptians, as wealth determined households’ social positions and preserved the legitimacy of their official power. In this regard, a stable patrimonial basis was needed, free from the bonds of the *pr nzwt*, in order to implement the network of patronal relations that functioned outside the state economic system. In fact, the use of office *pr* was subject to limitations, unlike the family *pr*, as observed in the clauses expressed by Hapydjefai addressed to his successors and to the personnel assigned to his funerary cult whose services were repaid through the *pr h3ti-3*.

It should be remarked that such a clause does not occur in contracts where compensation is taken from the governor’s *pr it*. This marks the difference between office assets and family assets, although both are

considered to belong to an individual (*pr nī dt*). Although a position can be passed on by inheritance for several generations within the same family, assets associated with it always remained subject to state control, hence its use remained subject to limitations. Otherwise, family assets were inalienable and could be exploited without restrictions. This allowed individual households to obtain a certain degree of independence from the socio-economic system of the state and to impose themselves as microcosms within the provincial territory, parallel to the macrocosm represented by royal household. Moreover, this wealth basis offered them more opportunities, in particular, when they had to establish their funerary cults, and preserve the importance of their lineage.

As already mentioned, in Old Kingdom texts the main focus was to obtain the sovereign's favour, as it was the only source through which officers could be enriched (Moreno García 2016: 491). Nevertheless, since the First Intermediate Period, thanks to the collapse of the central system, the concept of individuality and personal initiative emerged, just as the expression *pr it* became more evident in inscriptions. In fact, local lords began to assert in their autobiographies how they managed to preserve their own *pr it*, and even enrich it, thanks to their own means and not through the intervention of the sovereign (Moreno García 2016: 497-498). It is likely that this category also existed during the Old Kingdom, as well as during the Middle Kingdom, although the restoration of the central power led to the rehabilitation of the state taxation system, with which the central government controlled the influx of wealth throughout the country (Moreno García 2016: 504).

Concerning the origin of the *pr it*, it should be noted that middle-high ranking officials did not receive goods from the *pr nzwt* only through office, but also through donations (Khaled 2016; Moreno García 2013c). The kings could donate part of their own funerary domains to officials as compensation for their services, although this was probably a way to maintain provincial elites' loyalty.

Again, in Sabni's autobiography (Edel *et al.* 2008: 50-52; Seyfried 2005: 314-318), it is stated that he was given x+30 arouras of lands coming from the *hnty-š* lands of the pyramid of Neferkara (Pepy II).

*rdit n.i 3[h]t X+30 m t3-mḥw t3-šm'w m hnti-š n mn nḥ nfr-k3-r'*

What was given to me: X+30 [arouras] of lands in the Lower and Upper Egypt from the *hnty-š* domain of Menankh-Neferkara.

This is a clear example of donation done by the sovereign, a common Old Kingdom practice by which the king preserved officers' loyalty. Nevertheless, as Khaled observed (2016: 174), the king took these goods from his own funerary domains, and not from those of his predecessors, and it is known that Sabni operated during the reign of Pepy II. Therefore, it is likely that royal household assets (*pr nzwt*) also included a public part, linked to the sovereign's office, and a 'private' part to be used outside the limits of the state apparatus, which was mainly used to supply their funerary cults. Specifically, state assets included royal foundations scattered throughout the country, consisting mostly of *ḥwwt* and *nīwwt*, which were given to provincial officials (*pr* of the office) and through which the central economic system was fed. Instead, sovereigns' 'private' assets included domains associated with their funerary cult, which required personnel on various levels in order to maintain them.

Since royal funerary domains were located in different parts of the country, provincial elites were involved in the maintenance system of royal mortuary cults. Therefore, officers and rural potentates acquired a certain position in such a maintenance system. They could also be rewarded for this or other services with domains or goods from kings' private asset received as a donation, which they could use freely to found their own funerary domains, or to buy other properties, or to bequeath them to their families (Khaled 2016: 174).

In fact, even officers could establish funerary domains, in order to maintain the supply of their cults and to which a certain asset was associated. This asset was managed by members of their own family or by external officials hired by the owner through the endowment of part of these assets. In this sense, the inscriptions in the tomb of Metjen, datable to the 4th Dynasty, are indicative, as a mention is made of assets he endowed in order to manage his funerary cult (Sethe 1933: 2, 4; Strudwick 2005: 192-194).<sup>11</sup> These properties belonged to his family assets, hence they could be used freely.

Decree I:

*in.n.f(r) isw ʒht 200 stʒt hr nzwtiw ʒš*  
*rdi.n.f ʒht 50 stʒt n mwt nb-snt*  
*ir.s imit-pr im n msw*  
*dw hr(y).sn n ʒ st nzwt nb(t)*

Decree III:

*bʒsh sht 4 stʒt rmt ht nb(t)*  
*imy wdt shʒ st dʒi st*  
*rdi n sʒ wʒ*

Decree IV:

*in.n.f(r) isw ʒht 200 stʒt hr nzwtiw ʒš*  
*pr prt-hrw 100 r nb m hwt-kʒ n mwt nzwt ni-mʒt-hp*

Decree I:

He has bought 200 arouras of land from many royal people. He has given 50 arouras of arable land to (his) mother Nebesneit. She set up a *imit-pr* there to (her) sons; their share (lit. what was below them) was set down in a document of every royal office.

Decree III:

(Regarding) Baseh, 4 arouras of marshland, people and every possession which are contained in a decree of the scribe of the office of provisioning, that was given to (his) only son.

Decree IV:

He has bought 200 arouras of land from many royal people. 100 portions of funerary offering which come daily from the chapel of the *ka* of the royal mother Nimaathapi.

These properties included lands Metjen purchased from various *nzwtiw*, lands he inherited from his mother and from his father. Finally, they encompassed the donation of part of the funerary offerings that were due to the mother of King Djoser, Nymaathap. Therefore, Metjen used his family assets to found his own funerary cult and to buy more properties, thus expanding it.

Other examples of royal concessions can be observed in the Decree of Pepy II in favour of the governors of Dakhla Oasis (Goedicke 1989) or in the Decree of Neferkauhor (Copto K) in favour of the vizier Shemai and his wife Nebet (Goedicke 1967: 206-213). It is possible to assume that such donations became part of their family assets (*pr it*), as they were not related to an office. Consequently, officials acquired through donations an informal wealth, that is, outside the office. It is likely that such an informal wealth formed the basis of their family assets (*pr it*).

There are many other examples, mainly dated from the First Intermediate Period, in which an individual claims to have bequeathed to his son a greater inheritance than that which his father had left to him.

<sup>11</sup> As usual, in inscriptions present in Old Kingdom elite tombs, especially those found in the Memphite necropolis, it is difficult to find mention of family property, due to canons dictated by the court. However, as observed, Metjen's inscriptions dated back to a time when these canons were not yet standardised (Moreno García 2016: 495).

This shows how such individuals had at their disposal assets inherited or received as donation from the sovereign, which allowed them to increase their wealth, since office assets were inseparably linked to the positions and had to be transmitted intact over the generations.

In the stela of the *h3ti- htmti-bjtī smr-wti hrj hbt* Sheri (Budge 1912: pl. XXXII), found in Akhmim and dated to the 11th dynasty, the deceased claims he has gained more property than his father had left him:

*iw (i)grt rdi.n(i) h3w hr rdit.n it(i) m niwt sh3*

Moreover, I have given more than what my father gave in the city and in the country.

In the stela of the Overseer of the troop of Herdsmen of Small Cattle Intef-iqer, son of Mentuhotep (Budge 1914: pl. I), dated to the reign of Amenemhat I, the deceased traced the history of his assets related to the office of overseer of the troop of Herdsmen of Small Cattle, which was passed on to members of his household for five generations. In addition, he contrasted these office assets with that inherited from his father and his mother, which is composed of persons, probably servants,<sup>12</sup> and their descendants. Finally, in turn, Intef-iqer increased these family assets by acquiring more people through its means (BM EA 1628: 13-15; Berlev 1972: 259-261; Franke 2007: 166).

*[...] iw wn rmt nt it(i) mntw-htp m msw n pr m ht it.f m ht mwt.f iw wn rmt.i m mitt m ht it(i) m ht mwt.i m ht ds.i irt.n(i) m gb3.i*

There were people of (my) father Mentuhotep as offspring belonged to the asset (derived) from the possession of his father and from the possession of his mother. There were likewise my people (derived) from the possession of my father and the possession of my mother, as well as from my own possession, which I had acquired by my arm.

A further example is offered by the stela of the *imi-r3 pr* Bebi (Daressy 1915: 207; Fischer 2006: 30; Moret 1915: 369), found in Dendera, in which the deceased claims to have acquired various properties, including servants, in addition to those left to him by his father (Moret 1915; Berlev 1972: 160)

*iw ir.n(i) <d>pt nt mh 30 iw [ir].n(i) prw htmt nn wnn sh3w r(i) iw ir.n(i) b3kw 3 b3kwt 7 m h3w rdt.n n(i) it(i)*

I had acquired a boat of 30 cubits; I had acquired assets (by) contract and there was no memory against me. I had acquired three servants and seven maidservants in addition to what my father has given to me.

These documents are important sources for understanding how the individual household assets (*pr ni dt*) could be increased over the course of the generations, but they do not give information on how family assets (*pr it*) originated. Nevertheless, from the previous observations in relation to the office *pr* and the family *pr*, it may be concluded that such enrichment could not take place at the expense of assets associated with the office, as it was a patrimonial category strictly attached to the position of the individual within the state administration, so it had to be kept intact. Obviously, even positions allowed individual households to be enriched, since they allowed the usufruct of associated assets as long as they remained intact and within the household, as noted in the clause of the contract of Hapydjefai in relation to *pr h3ty-* or in the arrangement of Ni-ka(i)-ankh in relation to its location of *imi-r3 hwt-ntr* in the temple of Hathor, Lady of Rainet (Sánchez Casado 2022: 51-52). For this reason, it is difficult to

<sup>12</sup> Properly, this stela has been considered as a document for the study of slavery and servitude in ancient Egypt (Berlev 1972; Franke 2007; Loprieno 2012). Berlev associated *b3kw*-servants with family asset, as they were those acquired through their own means, opposing them to the *hmw-nswt*, *mrt* and *nzwtiw* which instead were obtained through the endowments related to the office, that is, they were part of office assets (Berlev 1972: 262; Moreno García 2000).

distinguish between office *pr* and family assets (*pr it*) in the sources, unless it is expressly indicated as in Hapydjefai's contracts.

Nevertheless, it is likely that such enrichment procedures were carried out mainly through family assets, which could instead be freely exploited, as it was an inalienable patrimonial category, free from the bonds with the state. It was also observed that such a patrimonial component was obtained through royal donations, especially during the Old Kingdom, or through acquisitions of possessions obtained by their own means during the First Intermediate Period and the Middle Kingdom. However, although royal donations no longer appear to be mentioned in Middle Kingdom inscriptions, it does not mean that they have not continued to be granted. In the same way that Old Kingdom inscriptions does not mention other sources of wealth other than royal donations, it is not unlikely that even in the Middle Kingdom the absence of royal donations was voluntary. Consequently, it is possible that even in the previous examples the origin of family assets had occurred in a certain historical phase of the household as a result of a donation made by the sovereign.

After all, in Hapydjefai's contracts, where compensation takes place through the *pr it*, hours of work at the local temple and arable fields are mentioned. It can be assumed that the father of Hapydjefai had received these goods as a donation for some merit or service; as a result, he acquired the right to transmit these goods as family assets and not as office assets.

Therefore, officers could have acquired through royal donations an informal wealth basis, that is, outside the limitations of the office, and that became part of family assets. This allowed the local elites to increase the wealth and social relevance of their household, while maintaining the legitimacy of their power in a given district, which did not depend only on royal authorisation, but also by the sense of belonging to a prestigious lineage, which was expressed through the cult of ancestors. The latter was maintained through funerary domains that were formed mainly from family assets. However, with the necessary precautions, it can be assumed that at a certain point, since office assets remains in the hands of a single household for several generations, its use went unnoticed by state institutions, as we have observed through Hapydjefai's contracts.

## Conclusion

To conclude, it can be noted that in the ancient Egyptian society, both at the level of the macrocosm, that is, in relation to the royal household (*pr nzwt*), and at the level of the microcosm, in reference to the local elites (*pr nī dt*), patrimonial categories emerged over time. These consisted of, on the one hand, official properties derived from the positions held within the bureaucratic apparatus, and informal properties formed with assets of their families on the other. The latter was free from the bonds of the bureaucratic system. Therefore, it could be used with greater freedom.

Since one of the main households' interests, whether royal or private, was to maintain, and to increase, their wealth and their social position, the presence of such informal assets was essential to achieve this objective. From this observation, the two categories that constitute the entire assets of individual households (*pr nī dt*) –the office *pr* and the family *pr* – are both linked to the *pr nzwt*, i.e. the assets of royal household. This link was expressed through 1) an official way (endowment due to the position), and 2) an informal way (donations). As observed, donations can be considered one of the sources from which *pr it* was originated, mainly from Old Kingdom sources, although personal initiative was also mentioned since the First Intermediate Period.

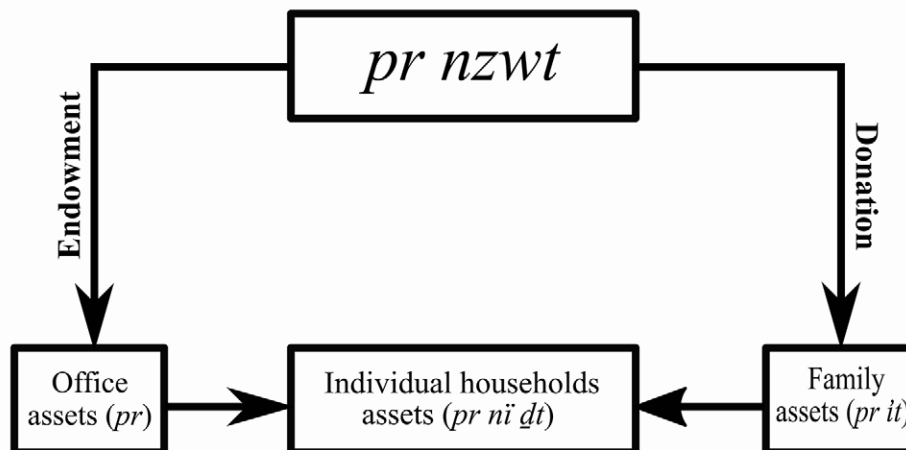


Figure 2. Link between *pr nzwt* and individual households assets (*pr ni dt*).

Therefore, we can grasp the intrinsic meaning in the phrase that we find in the stela of the overseer of the fortress Intef, son of Tjef (MMA 57.95; Landgráfová 2011: 28-31), dated to the 11th dynasty, in which he states

*ḥ(w)d.k(w) m pr ni dt(.i) m rdit.n n(.i) ḥm nb(.i)*

I am rich in the assets belonging to my person from that which the Majesty of (my) lord gave me.

This statement witnesses that the king was the true source of wealth for much of Egyptian society, that is, mainly for officers and local elites.

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# Re-Establishing a Chronology of Egyptian Censers

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## Abstract

The value of scent is well-known, with olfactory senses impacting every aspect of ancient and modern life. Complex smellscape dominated cities and rural areas in the Bronze Age, yet the use and selection of aromatics, as well as the vessels which contained them varied. This research aims to identify and analyse containers of aromatic dissemination in all contexts of the Egyptian Bronze Age. A chronology of censers will be proposed, increasing our knowledge of censuring practices and their evolution. This will utilise archaeological, pictorial, and textual accounts of incense and incense burners, furthering our understanding of the origins, use, and importance of censuring in ancient Egypt.

## Keywords

Incense, Offerings, Religion, New Kingdom, Scent, Iconography.

## Introduction

The use of incense was and remains a continuously evolving practice. In Bronze Age Egypt, this was habitual, consisting of daily repetitions and used to create a multi-sensory environment, with later Graeco-Roman sources characterising the civilisation through this use of incense (Plutarch, *Isis and Osiris*: 372d, and Herodotus, *Histories*: 2.130). Such routine sensory-based practices have commonly been embedded in cultures throughout history (Brusasco 2015: 118). Despite this continuation, the sensory aspects of these conventions are not always easy to decipher. What survives are often scattered and scant remains of the utensils employed in these practices. At times botanical residues remain on artefacts which can be analysed to gain a wider picture of the multi-sensory environment created. Yet only rarely Egyptologists apply olfactory methodologies. To uncover more about the use and purpose of incense in Bronze Age Egypt, a combination of iconographic, textual, and archaeological analysis is necessary. A multifaceted approach is crucial, as the consumption of any material including resin and aromatic woods is difficult to ascertain accurately when examining the past.

The manifold effects of aromatics on both the individual and the group invite analysis in order to understand the impact of ancient smellscape and the lengths to which people went in altering and controlling them. Research on olfactory environments and their effects undertaken by Day (2013: 1-13) and Huber *et al.* (2022a: 611-614) discuss the neurological impacts of smell and its immediate and subconscious effect on human actions and emotions. Despite these recent studies, the power of scent remains mysterious, an integral yet intangible part of human experience. The longstanding link between religion and scent is therefore not unsurprising. Teeter (2011: 71) draws connections between religious ideologies of scents in an ancient Egyptian context, suggesting that different smells were believed to have the capacity to transcend the boundary between life and death. The power thus attributed to aromatics and olfactory senses warrants further research, with incense being central to Bronze Age practices in Egypt.

Censers are often the only tools still surviving from practices focussed on the consumption (i.e. burning) of aromatics. Both Niehr (2014: 68) and Stone (2015: 437) comment on the difficulty surrounding the analysis of the material evidence of censuring, agreeing that the focus should be on the tools employed in such practices and their representations. Iconographic depictions may not have been wholly representative, but nevertheless provide insight into idealised forms of rituals and the tools utilised for these practices.

### Definitions of censers

This research will focus on four main types of censer: cup, bowl, footed, and stick. These terminologies are not unanimously agreed upon, and translations are also debated. For instance, Wigand (1912) discusses stick censers, calling them falcon-style and arm censers in the same work. For this reason, descriptions of censer characteristics have been chosen to provide the reader with greater clarity.



*Figure 1. Scene from the tomb of Khabekhnet (TT 2) at Deir el Medina. Scene shows deceased holding a cup censer with visible coals and flames rising. Image taken by author.*

### Cup type censers

Cup censers can, at times, be difficult to identify as their form is regularly found in domestic contexts, where one could argue for a variety of purposes for cup-type vessels. This includes their use as lamps, as argued by Strong (2018: 1), who notes that it is not always possible to distinguish between censers and lamps and that burn marks are likely caused by both uses. An added difficulty is the boundary between cup and bowl forms, focussed largely on the degree of their sloping sides, with most bowls also having

flat bases. Iconographically, there is a divide between offering bowls typically placed on tables, and offering cups held out to the recipient. Beyond the presence or absence of scorching and remnants of residues which often disappear over time, pictorial evidence does not often provide further information about the practicalities of incense burning.

The inner mechanics of cup censers sometimes appear to be a mystery, since the high sides of the vessel hide the aromatics and the fuel held within. Certain depictions of cup censers, such as the scene in Figure 1, may evidence the use of coals to ignite and smoulder incense. Fats and oils were also used at times, where light and aroma were the intentional product of the practice (Strong 2018: 1, 81). In order to create a scented lamp, a wick would need to be soaked or placed in the fuel source, providing additional aromatics were combined with any of these components. The combination of incense in this construction is evident from New Kingdom Amarna, where evidence of linen wicks coated in aromatic resins has been found (Serpico 1996: 183).

Discussion of the form of censers often ignores other uses or contents. Whilst different fuels such as oils, fats, and coals can be employed, cups can also simply be used to hold liquid to drink or offer as a libation to a deceased individual or a god. Further visual and chemical analysis can narrow down this use, but reuse is commonly seen in the archaeological record of ancient Egypt.

### *Bowl type censers*



Figure 2. Bowls used to prepare incense and food offerings in temple contexts from the Rijksmuseum van Oudheden, Leiden.

Many bowls were used solely for food and drink offerings, with inscriptions to gods outlining such provisions recorded on multiple examples (see Figure 2). Iconographic evidence, however, provides examples of flames rising from bowls (see Figure 5). Harrington (2013: 35) points out that despite bowl inscriptions, the majority of the Egyptian population in the Bronze Age were illiterate and citizens would have, therefore, not solely used labelled offering vessels. Unlabelled bowls were regularly used for offerings, including incense, alongside their decorated counterparts.

In addition to these superficial differences, offering bowls could be made of different materials and in a variety of sizes. Although the preservation of ceramic examples can indicate their contents and use,

they are often fragmentary and vary in size and shape (Strong 2018: 73). Bowls were also crafted from copper-alloy, with existing evidence suggesting these could have had a more consistent form. Due to the value of metal concerned (between four and seven *deben*), looting and recycling have taken place, making this hard to confirm (Strong 2018: 89).

As with cup censers, it can be difficult to differentiate between an offering bowl, a censuring bowl, and others used for domestic purposes. It cannot be said with any certainty that such a distinction even existed. Serpico (1996) analysed 56 ceramic objects coated with fragrant resin and likely used as censers. The majority of this sample do not seem to belong to any of the four censer types defined in this project, but had been used as censers despite this not being their primary function. This is a common theme throughout analysis of archaeological material and needs to be kept in mind throughout further examinations.

Other uses, beyond burning, have been briefly addressed in the previous example. Bowl type censers were no different, taking the multifunctional role of holding offerings. Schott 6003 shows a bowl on an offering table. The bowl can be seen laden with food offerings whilst being alight. This example, among many others, highlights the position of bowls and cups as vessels with many purposes – generally holding offerings for a figure from the divine realm.

### *Footed type censers*




*Figure 3. Ceramic footed vessel from the burial of Amenhotep in the 18th dynasty (36.3.165, Metropolitan Museum of Art).*

Footed type censers can be categorised into two separate forms. The first, and likely earliest examples, are bowls placed on a separate stem that created the form of a footed vessel. It can be assumed that these separating forms of footed vessels could also be used as bowl censers at times. Examples of these include those found in the 6th dynasty mastaba of Isi at Edfu, where the bowls are made of copper-alloy, supported by stands found separately within the shafts of the mastaba (Michalowski et al. 1950: Plate XXI). Fathy Ahmed Shehab's (2022: 178) work assumes that these vessels maintained this construction continuously. This is not necessarily true, with examples such as MMA 36.3.165 (see Figure 3) being entirely ceramic. This is a material commonly found in the Egyptian landscape and resulted in a more affordable and accessible product compared to metal versions, likely reserved for the elite. Unfortunately, this means that footed censers suffer from the same issues of survivability, being prone to reuse and/or fragmentation. Researchers are often forced to base their speculations about form on pot sherds that may have been involved in this practice.

The ashy remnants visible in MMA 36.3.165 provide details of the use of footed censers. In combination with scenes, such as that depicted on the coffin of Djehutynakht (20.1822, Museum of Fine Arts Boston), where a footed censer is held out to the deceased, clearly illustrating aromatics placed upon burning

coals, it can be understood that footed censers, at least at times, had aromatics placed upon coals burning in the vessel.

Footed censers have been previously translated by the terms *h3wt*,  and *ḥ* (Fathy Ahmed Shehab 2022: 178). The latter term does not identify a specific censer-type but simply denotes a place for burnt offerings, with *h3wt*, more often translated as table of offerings. This is fitting with the multifunctional purposes of these objects, providing a space for incense, wicks, as well as food to burn.

### Stick type censers




Figure 4. Stela of Huy, showing Ramesses II placing incense pellets in the bowl of a stick type censer (Cat. 1463, Museo Egizio).

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purpose of incense. The use of pictorial data often supports and provides evidence in cases where archaeological examples are lacking.

The existence of incense in Early Dynastic Egypt should not be overlooked, despite the lack of iconography and texts referencing its use. The neighbouring Nubian Kingdom also clearly valued the practice early in its history, with the highly decorated Qustul incense burner (Chicago OIM 24069) associated with Egyptian kingship. Even with the presence of this ornate example of an incense burner between c. 3200 and 3000 BCE, misconceptions still exist as to the origins of this practice. The disparate textual evidence on incense itself may have contributed to its lack of research, pointed out by Monroe (2009). However, there is a corpus of Graeco-Roman texts discussing Egyptian incense use, with scholars such as van der Veen and Morales (2015) and Miller (1969) choosing to focus on this. These Graeco-Roman sources have been identified and thoroughly analysed, providing a classical lens for the Egyptian use of incense. Plutarch (Isis and Osiris: 372d) is one such classical author, discussing the Egyptian use of frankincense in daily religious rituals, spurring scholars to think that frankincense was necessary for such a practice.

Whilst other types of named censers could often be multifunctional, stick censers were used solely for incense. These relied on incense pellets, with Wise (2009: 67) suggesting that these could be placed on coals in the end bowl. Pictorial examples of this usage (see Figure 4) are substantiated by textual evidence. For example, the word *sntr*, is at times associated with the determinative , which has been argued might illustrate the form in which the incense was made (Price 2022: 118). The pellets were combined with other combustible materials. Spells 357 and 368 from P. Ebers discuss the formation of such pellets, alongside the additional uses for these mixtures of resin, repeating their form as pellets. This construction did not produce as much light as other forms, enabling its sole usage as a censer contrasting the roles of other censer types.

### A chronology of censers

The earliest evidence of incense use in Egypt dates to Naqada I (c. 3900-3650 BCE) Lower Egypt (Creasman and Yamamoto 2019: 348). However, in scholarship there is a focus on censuring dating after expeditions to Punt in the 5th dynasty (see Nielsen 1986). Establishing or re-establishing a chronology of censers can aid understanding of the development and therefore end-

Serpico's (1996) work reveals that identifications of frankincense are not as common as previously believed, more commonly utilising resins from the Eastern Mediterranean such as Pistacia. Therefore, trade and use of aromatics were not dependent on lands such as Punt, allowing for earlier dates to be suggested.

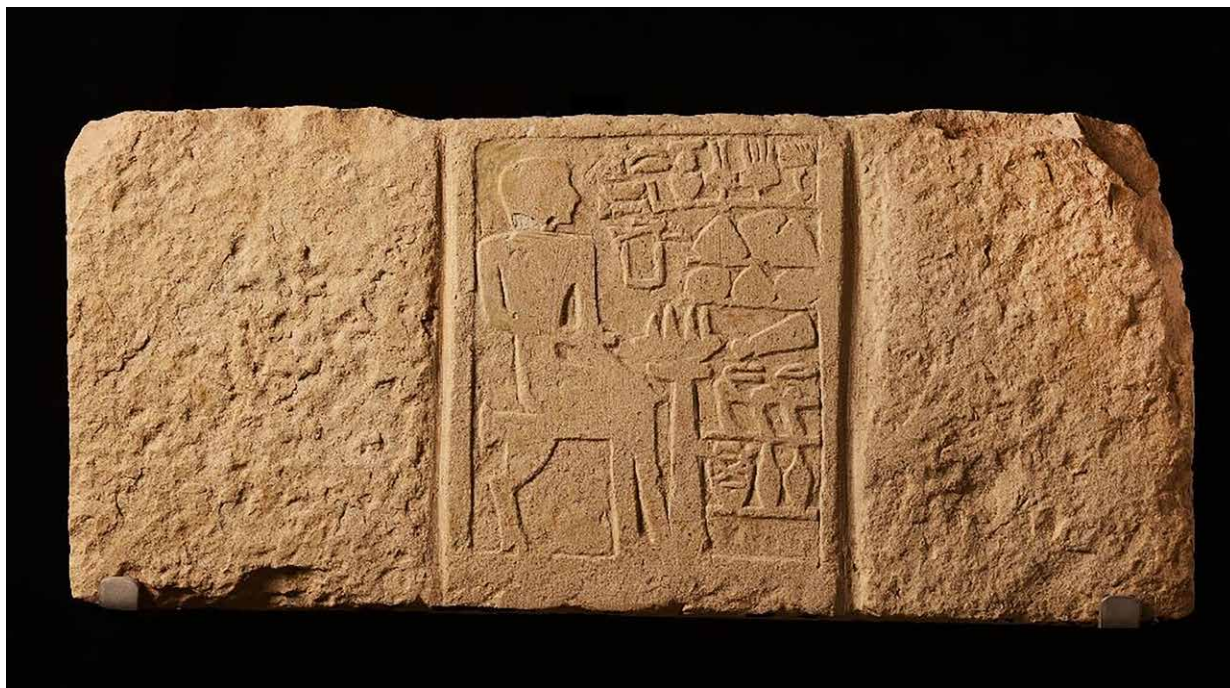


Figure 5. Stela of Nebka (F 1960/7.1) from the Rijksmuseum van Oudheden, Leiden, showing a seated male in front of an offering table and podium with burning incense. Dated to the 2nd dynasty.

Iconographic depictions of incense use began to increase in the Early Dynastic Period when other offerings were commonly seen alongside incense. For example, Figure 5 (F 1960/7.1) shows the deceased Nebka seated before offerings and a bowl with rising flames, dated to the 2nd dynasty.<sup>1</sup> Whilst this bowl could be interpreted as a brazier, no food offerings appear on top of the vessel. Therefore, it is likely to have contained some form of aromatics, and thus served as a censer with no visible food on top. This scene resembles those presented in later New Kingdom contexts, and whilst the later scenes vastly outnumber these earlier ones, they confirm this practice as censuring, with associated texts often indicating the contents of the bowl.

Old Kingdom scenes, such as that at Zawiet el Mayetin (Figure 6), show the extent of the practice of censuring in the 3rd Millennium BCE. Wigand (1912: 9-13) initially identifies the introduction of stick type censers in the Middle Kingdom, stating their presence was 'rare' in the New Kingdom. Figure 6, however, highlights the presence of stick censers in the 5th dynasty, righting previous misconceptions which may have influenced the dating and descriptions of unprovenanced censers. The copper-alloy stick type censer depicted was a tool designed for the sole purpose of censuring, and was not simply a vehicle for burnt offerings. Unfortunately, the site this scene originated from (Zawiet el Mayetin) was destroyed by quarrying in approximately 1847 and thus little more can be learnt beyond Champollion's work in 1828, and Rosellini's work in the same year. However, the epigraphic records allow inferences

<sup>1</sup> It is also possible that Figure 5 shows half conical loaves of bread placed atop the table.

to be drawn regarding the burning of incense in the area, which is likely to have been an established practice by the time of this depiction in the 5th dynasty.

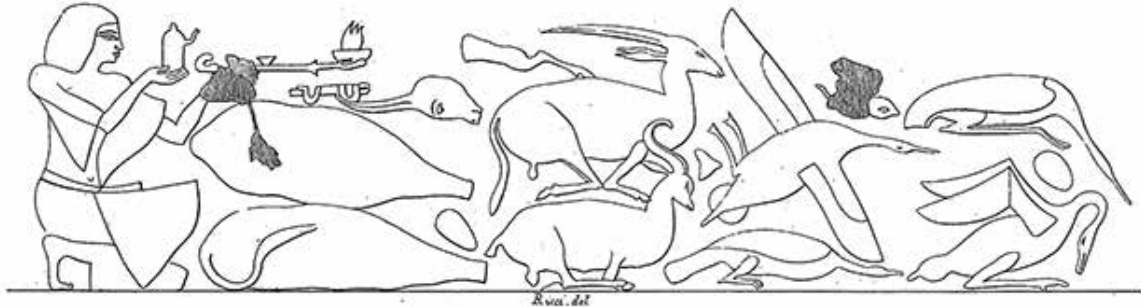


Figure 6. Scene from an unnamed tomb at Zawiet el Mayetin showing a kneeling figure censuring dead animals with a stick type censer (Champollion 1845: pl. CCCCI). Dated to the 5th dynasty.

At the same time as this development and establishment, the use of footed and cup censers is seen in Lower Egypt, at the site of Saqqara. The tomb of Khnumhotep and Niankhkhnum presents clear iconographical examples of such use, highlighting the importance of pictorial evidence in conjunction with archaeological evidence. This is because the artefacts found are not always in-tact or seen in their original contexts. For instance, bowls and stands found in the shaft of the mastaba of Isi were found separated (Michalowski *et al.* 1950: pl. XXI). It is the iconographical depictions at other contemporary sites, like that of the tomb of Khnumhotep and Niankhnum, that help support the identification and pairing of the objects, building a wider database and supporting a clear chronology of incense use in ancient Egypt.

### Other uses of censer vessels

The vessels themselves, as well as the contexts in which they were found play an important role in revealing the value and purpose of incense in the ancient world. There are many uses of vessels in addition to censuring that can cause similar wear patterns on ceramic vessels. It is not common for residue to remain in censers for the last three to four thousand years, yet vessels coated with gypsum often show evidence of burning and thus their use as censers. The friable nature of resinous residues reduces chances of preservation both pre and post excavation. Peacock and Williams (2007: 1) and Serpico (1996: 133 and 445) both remark that remains of incense often flake off during excavation and post-excavation cleaning. Pictorial representations and the provenance of each vessel is important to uncover the primary, or final use of each object. For instance, censers can often indicate the performance of rituals, helping to build a picture of what religious (and non-religious) practices may have looked like (Budka 2010: 41). Many vessels from museum collections resemble pictorial depictions of censers, yet without definitive evidence of their contents, it is not possible to determine with certainty whether a bowl was used for censuring, or other activities.

### Braziers

A possible use of the vessels described could be braziers, or for them to serve a dual purpose as both a censer and brazier. This idea is mirrored in other cultures, with Mesopotamian altars used as braziers as

well as locations for the burning of aromatics (McMahon 2019: 404). Fathy Ahmed Shehab (2022) agrees with this function, stating that Egyptian censers also served to provide heat and cook offerings placed on top. Pictorial data supports this to an extent, with numerous footed censers portrayed laden with ducks, geese, bread, and other offerings. For instance, A.1956.152 (National Museum Scotland), 37.265E (Brooklyn Museum), M.80.203.186 (Los Angeles County Museum), EA1725, EA1347, EA814, and EA1297 (British Museum), MMA 06.1232.20 and MMA 30.4.57 (Metropolitan Museum of Art), and 2018.010.129 (Michael C. Carlos Museum) all provide examples of these scenes. However, this does not indicate that the vessels were not also used censers. After all, in Mesopotamian cultures the burning of incense is bound up with the sacrifice of meat (Quaegebeur 1993: 341). Aromatic resins were also used to coat food offerings to the gods – without being burnt (Serpico 1996: 111). Coating or censuring the food likely made it suitable for the divine. The etymology of the word *sntr* supports this theory, with translations varying from specific species identification (pistacia; Serpico 1996), generic incense (Groom 2002), and the verb ‘to cause to be divine’ (Price 2022: 61). Censuring offerings may have had this effect, nevertheless, it is unlikely that these were cremated and fully consumed by the gods, but merely grilled and eaten by temple staff (Fathy Ahmed Shehab 2022: 179). The tradition of using aromatic resin in cooking has long been attested to and would not have been unpleasant to consume (Middeke-Conlin 2014: 23). Therefore, it is likely that censers served to cense the food offerings that were placed directly upon them while

heating these offerings for human consumption at the same time.

### Lamps

As previously outlined, censers and lamps can often take the same shape, making it difficult to ascertain the purpose of some artefacts in the archaeological record. Organic evidence does not survive well in the archaeological record, leaving only burn marks, soot deposit, or simply a blackened interior as indications of the vessel’s use (Strong 2018: 31). Whilst there are very few clear texts defining the form and shape of lamps or censers available, later sources do sometimes provide insights. For instance, Herodotus writes about floating wicks within cup and bowl form vessels (Histories: 2.62), requiring the addition of wick anchors in their construction. Iconographically, this is difficult to identify, requiring further analysis of archaeological material to corroborate these theories.

The majority of scenes depicting lighting mirror those with censuring often being found in New Kingdom Theban tombs. In order to distinguish between the two uses of the same vessels in the same contexts, analysis of iconographic representations need to be undertaken. With

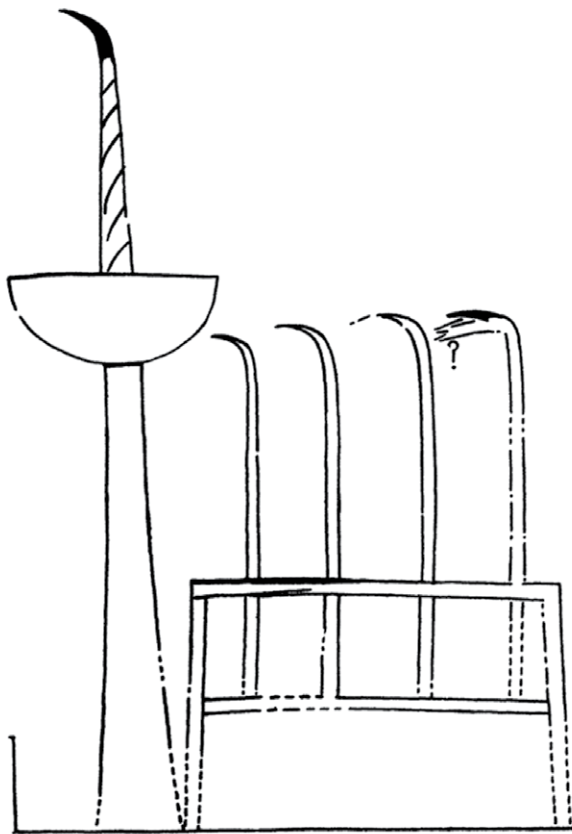


Figure 7. Scene from the tomb of Amenmesu showing wicks prepared with a vessel in the form of a footed censer (Davies 1924: pl. 7, Figure 15).

both cup and bowl vessels utilising wicks as lamps, they would in most circumstances be seen with only one tall flame protruding (see Figure 7). The scene from Figure 7 is a particularly clear example, with four additional wicks placed to the left of the vessel. The use of one central wick can be identified in many scenes with cup censers but it is rare for both footed and bowls to have either any flames at

all depicted, or to have less than two. A common trend emerges in scenes with stick censers: either censers are depicted without any flames coming from the vessel front, or multiple short lines are seen (see Figures 8 and 9). Since these were definitively censers and not lamps, it is logical to generalise this trend with other censers so as to determine when they are being used primarily for censensing purposes. Strong (2018: 4) points out that fumigation and illumination can take place simultaneously, so a vessel's primary function is frequently unclear. Wise (2009: 71) goes so far as to name these vessels 'incense lamps', suggesting the intention was to combine light and fragrance. This would have stimulated successive sensory and cognitive pathways, intensifying the experience of the environment and the event concerned.



Figure 8. The relief of Hatia, showing the use of a stick censer with no flames or fumes rising from its bowl (55.144.5, Metropolitan Museum of Art).



Figure 9. Scene in the Tomb of Panehsy (TT 16) at Dra' Abu el-Naga' showing a priest using a stick censer. Several lines radiate from its bowl. Image taken by author.

### Chemical analysis

More detailed chemical analysis can help clarify and determine the uses of the objects described. Despite the often-invisible nature of these products and their remnants, residue analysis can uncover what remains on a molecular level, with Bower (2022: 24) emphasising the potential to unlock ancient scents through such methodologies. Archaeometric analysis is being used more and more in the field of Egyptology, yet few contemporary areas reflect this increase.<sup>2</sup> Research does not necessarily rely on studies outside of Egyptological silos, yet comparing the diagenetic degradation of resins from different environments would build the reliability of such a framework. This is because external, environmental factors can affect and alter the biomolecular composition of ancient samples over time, leading to

<sup>2</sup> Otto (2015: 74) writes that residue analysis is 'a method that has much too seldom been applied to Near Eastern settlements', highlighting the lack of archaeometric techniques in Mesopotamia and beyond.

incorrect identifications (Huber *et al.* 2022b: 1). The smells of plants and plant materials are determined by such compounds, in particular terpenoid resins, making this a vital factor in sensory research (McGee 2020: 163). Fortunately, Huber *et al.*'s (2022b: 1-16) recent project has helped identify stable diagnostic biomarkers and provided more means of understanding the transformation of plant residues, with the potential to improve the reliability of future research.

In cases where remnants of censuring practices do remain on incense burners and there is opportunity for analysis, Gas Chromatography (GC) is often the chosen method. The research of Serpico (1996), Serpico and White (2000) and Stern *et al.* (2003) follows this methodology, focussing on the material culture of resin and/or its use and incense. Serpico's (1996) original chemical analysis of 56 censers, fragments of censers, and discarded items used as censers meant the decoding of the contents of these vessels could begin. However, conclusive results are not always achievable. Individual species identification is rare due to the varying environmental conditions during plant growth and deposition. The uniqueness of each plant's growing environment determined some of its terpenoid volatiles – with heat, drought, and light all affecting scent and its consequent GC result (McGee 2020: 163).

Advances in archaeometric analyses promise to lead to more fruitful results and should continue to be used in conjunction with knowledge of their original contexts in order to comprehensively discuss the aromatics used.

## Conclusion

Defining and discussing the four main forms of ancient Egyptian censer found in archaeological and iconographical sources reveal that censuring was embedded in ritual routines throughout the Pharaonic Period. Whilst this does not predate current understanding of when censuring took place, it is nevertheless earlier than the widespread and integrated nature of incense is believed to have been. Cup, bowl, footed, and stick censers were seen in religious practices of the Old Kingdom, suggesting that the state had a hold on the trade and transport of different aromatics into Egypt. Copper-alloy tools solely made for the use of incense would not have been owned by average citizens, but were likely loaned by the temple, alongside resins acquired in foreign trade or through military expansion.

The changing traditions in Egyptian iconography also impacts our understanding and interpretation of the past. The vast majority of scenes involving incense offerings are restricted to the Theban area, in the New Kingdom. Middle Kingdom funerary monuments were largely left undecorated, contrasting those of the later Kingdom (Strong, 2018: 141). This does not, however, prove that censers were not part of funerary practices in the Middle Kingdom, but that it was simply a different approach to decoration. Funerary figures and stela depicting the enactment of censuring are able to uncover aspects of this tradition hidden by the bare walls of earlier tomb structures. The difficulties of relying on archaeological evidence have been discussed, with fragmented pottery and often recycled copper-alloy tools, yet they serve as key elements to piece this story together.

The value and importance of scents and smell transcend geographical and chronological barriers. Censers were chosen for the contexts in which they were used and the content held. The multifunctional use of censers can be seen throughout Egypt. The use of cup, bowl, and footed types are all seen as offering holders, lamps, and braziers rather than solely censers. This may have been due to the use of these censer types taking place before the mass importation of incense, yet the manufacture and use of stick censers, a vessel that had the sole purpose of censuring, is evident in the Old Kingdom. These censers are far outnumbered in tomb art than in the archaeological record, with the examples that do exist almost solely dating to the Late Period onwards. The survivability of such objects does play a large role in this, made of a commonly reused and recycled material, emphasising the importance of a holistic

approach when viewing the past. Iconography, however, is idealised, with more potsherds reused as censers having been found than censers themselves.

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# Cooking for the Gods... But How?

## A Pinch of Methodology in Analysing Food Processing Terminology in Graeco-Roman Temples

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### Abstract

When a new project starts, it always implies an initial plan or strategy, based on preliminary assumptions and hypotheses. Then, as work progresses, reality often mercilessly thwarts these plans, and the researcher has to adapt to carry on their research. This paper aims to examine a concrete instance of this process and to give food for thought on ways to circumvent some difficulties.

Our case study is a philological work on food processing in Graeco-Roman temples, within the multidisciplinary 'Excellence of Science' project Agros (*Agriculture, Diet, and Nutrition in Greco-Roman Egypt. Reassessing ancient Sustenance, Food Processing and (Mal)nutrition*). There were two assumptions: countless texts are inscribed on the walls of Graeco-Roman temples, and we have a good general knowledge of food preparation in Ancient Egypt. However, the reality was that, even though there are indeed many mentions of food, the way it is cooked, be it for the gods or for the priests, is seldom detailed (*qualitative problem*), and there are too many texts to consider (*quantitative problem*). As for our knowledge of cookery in Ancient Egypt, most of our primary sources date back to the time from the Old Kingdom till the New Kingdom (*chronological gap*).

Several alternative ways were devised and are explored in this paper: building and using a database to analyse scarce documentation, countering the corpus size issue by refining it with a qualitative approach, extending the corpus by considering auxiliary types of texts (magical and medical texts, pharmacology), using papyrological or Demotic documents, Graeco-Latin sources, and non-written elements, such as iconography.

### Keywords

Graeco-Roman Temples, Graeco-Roman Egypt, Food, Food Processing, Methodology, Philology.

### Introduction

Every research project starts with some goals and objectives, and some ideas on how to meet them. We do not go blindly through sources with a blank mind, but we have assumptions and hypotheses to work with and to begin our investigations. But as with every research project the greatest difficulty soon arises – the reality of our documentation – and it can make the best plan stumble. Nonetheless, how can we adapt and achieve our goals?

This paper focuses on methodology and epistemology: that is, what we do, and why and how we do it. Instead of considering it in an abstract way, it seemed better to use a real case to show our work on a

project and the solutions that have been found when problems had arisen, rather than formulating them in absolute terms. Thus, from a specific study, this paper will explore ways to address some issues one can encounter while working on textual sources, and how to deal with them. The underlying idea is to outline a reflection on how to approach similar cases. By no means does it pretend to offer easy or definitive and general answers – each case has its own characteristics – but it might provide food for thought to others.

The discussion will be structured around three steps. First, we need to look at the case study itself to apprehend its fundamental scope and limits. In short, it is a postdoctoral study on food processing in the Graeco-Roman temple texts, within a larger multidisciplinary project dealing with nutrition and diet in (Graeco-)Roman Egypt. The latter is important as it means that our work is connected with other research projects, and that changing subject or approach is not as easy as with an isolated study. Still, at the same time, it opens up the possibility of multi- or interdisciplinary work on certain points.

The second step will cover the initial plan and assumptions at the start of the project, and a discussion thereof. At the beginning of an enquiry, one has at least a rough idea of what to do, what to expect and how to achieve certain objectives. This part will cover two specific assumptions that oriented the work. But, as is often the case, it appeared that it was more complex and that reality was a bit different from what was expected, and several problems and issues came to light, prompting the need to re-evaluate certain aspects and to find alternative approaches.

Thirdly, we will cover several ways to adapt to what we have instead of what we hoped we had. Five answers to challenges encountered will be discussed: the use of technological tools, i.e. the creation of a database to help manipulate scattered information, the refinement of the corpus within the temple texts to alleviate the flood of sources (or lack thereof), the extension of research to previously unconsidered textual evidence, the use of non-hieroglyphic sources, and, finally, the use of non-textual data to reinforce what can be extracted from the texts.

### **The Agros Project**

Our case study is an ongoing postdoctoral research project conducted within Agros, '*Agriculture, diet, and nutrition in Greco-Roman Egypt. Reassessing ancient sustenance, food processing and [mal]nutrition*', a project funded by the 'Excellence of Science' programme (application ID 40007554; cf. < <https://www.eosprogramme.be/> >). The main goal of Agros is to reconstruct the food production and diet in (Graeco-)Roman Egypt, and to evaluate its nutritional value, since current models are criticised for being anachronistic because they are based on modern data (Heinrich and Erdkamp 2018; Heinrich and Hansen 2019; Heinrich 2019). To do so, a good part of its resources is devoted to the study of faunal and floral remains from the Roman period (2nd-6th century CE) excavated in the 1920s by the University of Michigan Expedition in Karanis, a village in the Fayum, and stored at the Kelsey Museum of Archaeology (Gazda and Wilfong 2004). Two pillars are worked on. Pillar I – archaeobotanical and archaeozoological approach – deals with the study of faunal and floral remains of food, raw or prepared, to assess their nutritional profiles. The current models are established on the basis of modern values, but it has to be verified whether these values changed over time, notably after the Green Revolution in the 20th century (Jain 2010; Hurt 2020). Pillar II, using biochemistry and microbiology, deals with food production and the reconstruction of recipe and cooking methods. It aims at preparing food the way it was at the time to see how the nutritional value of raw ingredients varies. Combining that aspect with the data collected by pillar I, we will have a much more accurate idea of what people from a village in Roman Egypt would have had as a diet.

Amongst its sections, the Agros Project has two teams devoted to textual sources. The one in KU Leuven, led by Katelijjn Vandorpe, studies the papyrological documentation, in Greek and Demotic. As for the Egyptological section, within the University of Namur, it consists of two postdoctoral researchers, Alexa Rickert and myself, under the supervision of René Preys. The team works on texts from the Graeco-Roman temples. Our goal is to find elements about what was given as food offerings for the gods, and thus, in a way, reconstruct the ‘divine diet’. That way, we hope to have a glimpse at what the priests and the temple staff would have eaten. Indeed, although part of the meat was offered in holocaust (and destroyed) (Junker 1910: 72-75; Ghoneim 1977: 211-216) and wine could be poured on the ground before the god (cf. *Dendera II*, 40, 6), we also know from Egyptian and Graeco-Latin sources that the offerings were reversed to the priests, in a similar fashion to texts explaining that the main god reversed the offering to the lesser gods after having taken what they wanted (Sauneron 1962: 82-83; cf. *Dendera III*, 112, 4; *Dendera IV*, 64, 15). As within the other sections, the work is divided around two pillars. Alexa Rickert deals with the food (pillar I), studying the food offerings in the main temples of Dendera and Edfu, through a systematic lexicographical and philological analysis, and I work on pillar II, dealing with food transformation (Delhove and Rickert 2023a, 2023b), that is the process from the raw (or already-prepared) food entering the temple to the food presented and given to the gods (and, in fine, the priests). Amongst the several ways by which this can be studied, my focus is on the vocabulary describing how the food is processed (cutting, cooking, sieving, etc.).

### **Assumptions vs. reality**

To investigate, one must formulate a few hypotheses and assumptions about the material. This orients the type of study, the questions to be answered, and the first draft or plan for its structure. That does not mean that at that point everything is set in stone, but it is necessary to lay some foundations to build upon. At first, a general lexicographical study of food processing terminology was intended, with a presentation of the ‘recipes’ one can find and/or reconstruct in the temple. Two main assumptions guided this idea.

The first is related to its material object, that is, what is examined. The Graeco-Roman temples have an important characteristic: they are covered in inscriptions. In the offering scenes, for instance, while in earlier temples we could have a title for the scene and the identification of the participants, in the Greek and Roman periods, we can find (and often do) much more information, be it in the description of the beings depicted, in what they say, or in the description of the offerings, and not only a mere title (on temple decoration, cf. Kurth 1994a: 23-65). Moreover, Cauville’s catalogue (2020: 803-903) lists hundreds of offering scenes in the temple of Dendera, amongst which numerous ones about food and beverages (Cauville 2020: 815-844, 883). On top of all this, the edited texts from the great Graeco-Roman temples (Edfu, Dendera, Kom Ombo, Athribis, etc.) provide us with several thousand pages of hieroglyphic texts. One could assume that given the quantity of data, we could find all the information needed.

The second assumption is that, at least generally speaking, we have a fairly good idea of how ancient Egyptians prepared food (be it butchering, baking, brewing...), and what they ate. We have some extensive studies on food and cooking, such as Darby, Ghalioungui and Grivetti (1977) or Bresciani (1997); topical studies on butchering (Ikram 1995; Montet 1910), baking (Bats 2020; Spalinger 1987; Währen 1961a/b), brewing and wine making (Faltings 1991; Helck 1971; Tallet 2023), etc. We have studies on specific types of food or beverage (Feierabend 2009; Poo 1995; Redding 2015). We also have relevant lexicographical studies, such as Verhoeven (1984), on the vocabulary of cooking. All that makes a good mental encyclopaedia (cf. Eco 2004: 95-106) to approach texts with an idea and an understanding of what to expect. Indeed, knowing what the Egyptians ate and how they prepared it, one might better understand the data concerning gods.

How close to reality were those two assumptions? The first one was correct. We have at our disposal an impressive quantity of texts for inspection. But it is a double-edged sword, as, ideally, the corpus for this investigation on food processing would be the entirety of the texts (because some pieces of information might be found outside scenes dealing specifically with food offering) from all the temples of the Ptolemaic and Roman periods. Should we only consider the published texts, this corpus would amount to thousands of pages, if not tens of thousands. A thorough study is not only impractical, but also impossible within a reasonable time. The problem we quickly faced was a ‘quantitative’ one, but it soon reveals itself to be a ‘qualitative’ one as well. We have hundreds of mentions of different types of food given to the gods, but the food processing is seldom alluded to, let alone explained in detail. *Edfu V*, 152, 9-13 (paralleled in *Dendara I*, 51, 16-17) gives us a good example of a rather ‘extensive’ text:

ḥnk tꜣ-wr ḏḏ mdw in iḥ.t=k n=k Bḥdty sꜣb-šw.t 'tꜣ'-[wr=k] twt m-bꜣḥ=k wnš nn tꜣ; pr.t ꜣḥ.t ꜣḥ ḥr ir.t-Ḥr-  
bnr.t mi m ḥtp r tꜣ<=k> pn ir=k iḥ.t im

‘Presenting the wr-bread. Words to say: “Your offering is for you, Behedety colourfully feathered, [your wr]- ‘bread’ is prepared before you. It is made from raisins and seeds from the field, mixed (ꜣḥ) with the sweet eye of Horus (= honey). Come to this bread of yours in peace, so that you may eat of it.”’

From this extract, we can infer that the wr-bread was a type of sweet bread or cake with raisins and honey, but the only ‘recipe’ given is the indication that honey was mixed (ꜣḥ) with the bread. We could not, from this text alone, reconstruct the offering with any certainty.

Actually, very few texts deal with cooking or even food preparation – the *mnw*-Song is probably the closest thing to an actual recipe we know, although it is not a recipe *per se*, but a ritual text in which the priest presents the tools and ingredients (at different stages) used in the preparation of the *mnw*-drink, a fermented beverage akin to beer (Leitz 2017; von Lieven 2022; Quack 2001; Sternberg-El Hotabi and Kammerzell 1992). Most of the time, one only encounters vague clues or allusions, mostly under the form of a (short) list of components of something (for instance, a type of bread) or a noun derived from a verb of cooking, e.g. *šꜣr.t*, ‘grilled meat’ from *šꜣr*, ‘to grill’ (Verhoeven 1984: 16-49). In the case of meat offering, we do have some indications on butchering and cooking. But from what one can gather from the texts themselves, most of the prep work was conducted within the *šnꜣ.t wꜣ.t*, the ‘pure kitchen’, outside the main temple (Traunecker 1987). So it does not really come as a surprise that we lack information about cooking in the offering scenes, since it was already taken care of in other parts of the temple. Although some *šnꜣ.wt* were excavated, for instance in Karnak, Medamud or in the Kharga Oasis (Traunecker 1987: 147-155), we have no texts from them to provide us with recipes, like the ones for the preparation of aromatic substances from the temple laboratories (Vadas 2021), rooms where priests would store incense, ointments, wine, etc. needed for the rituals (Vadas 2020: 124-125). Besides all of that, there is also the fact that the scenes are rather ‘standardised’. That does not mean that there is no originality or innovation within the scenes – they are adapted to their location and the local theology – but rather that the repertoire of scenes dates back, for not a small part, to earlier phases of Egyptian history. In short, gods receive bread, poultry and meat, wine, beer, and/or milk. But if you look at the poultry given to the gods in the offering lists, you find a list similar to the ones from the Old Kingdom (cf. Barta 1963), but no mention of more ‘modern’ poultry that could be offered in the Greek or Roman period, such as the chicken (Redding 2015).

As for the second assumption, it is true that we have a rather good idea of core aspects of food and beverage preparation and consumption in Ancient Egypt. From texts, such as accounting documents (Janssen 1997), and depictions (Montet 1910), or from remains in dwelling sites (Pantalacci and Lesur 2013) and in funerary context (Tallet 1996), we know what they ate and drank, and from the ‘daily life scenes’ in tombs, we have quite a good idea of how, for example, they brewed beer (Faltings 1991). As such, a study like Darby, Ghalioungui and Grivetti (1977) is invaluable and offers much important

information for our study. However, as soon as one focuses on the sources given, a major problem appears. The Egyptian sources date mainly from the Old to the New Kingdom. For the Graeco-Roman Period, we must rely mainly on the Graeco-Latin texts. As an example, most Egyptologists will have at least a basic idea of how beer was brewed in Egypt: this process is known from daily life scenes of Old Kingdom mastabas (cf. Faltings 1991). For the Graeco-Roman Period, we also have some information, but they do not come from an Egyptian text or scene, but rather from an alchemist of the 4th century CE, Zosimos of Panopolis (cf. Nelson 2005: 127 n. 32).

One could wonder where the problem lies. Why do we not use the information from earlier periods? On the one hand, we can: there are some constants in the preparation of certain foods (for instance, there are fundamental operations in brewing that must have been kept throughout Egyptian history) but we must also consider that food technology, like any technology, evolved over time (for instance, baking, cf. Curtis 2001: 117-131). That means that we cannot simply take what we have at a certain point in history, and blindly apply it to all periods. It is sufficient to think about how the food we consume today differs from the food from the 19th century. In two centuries, what we eat and how we prepare it would stay fundamentally the same, but details would differ substantially, be it in the ingredients or in the cooking methods. In our case, there are millennia between the Old Kingdom and the Ptolemaic Period. How could things not have changed? And since our study deals with lexicography, how to be sure that a word's meaning did not change, so as to severely distort our analysis?

Here, we can draw a parallel with another field of research within Egyptology, the study of religion. Indeed, in the case of cooking, we must (partly) rely on sources from earlier periods, which form the core of what we know. For religion, it is the opposite. The Graeco-Roman temples, with their myriads of texts, give us lots of information about numerous aspects of Egyptian theologies, liturgies, etc. (e.g. Zivie-Coche 2015) for that period. If we look at earlier sources, we often have very little in comparison (Bouanich 2015). As mentioned previously, while in a Graeco-Roman offering scene, we can have several sentences detailing what is happening, in the New Kingdom, one would rather simply find a title for the scene, with little or no supplementary explanation. So, when we write about the Egyptian religion, it can be tempting to apply what we know from the later period to an earlier (seemingly) parallel scene. But as with cooking, Egyptian religion did change and evolve over time – for example, consider the evolution of the funerary theology from the Old Kingdom to the New Kingdom, through the diverse textual corpora (*Pyramid Texts*, *Coffin Texts*, *Unterweltbücher*, etc.; cf. Hornung 1992 and Assmann 2001) or even the change in the theological discourse about an animal, like the turtle (Gutbub 1979). Simply applying the New Kingdom theology from the *Book of the Dead* to a depiction from a mastaba would be rather reckless.

At this point, one could wonder what can be done to achieve the study's objectives. On the one hand, we have a quantitative and qualitative problem with our ideal corpus: far too many texts to consider, with too few data to exploit. On the other hand, the secondary literature on our subject is extensive, but does not cover the chronological scope we consider, making its direct use difficult.

### **Alternative approaches**

Once these issues were identified, the next step was to find alternatives or ways to circumvent them. This part will deal with some solutions that were devised. These, although grounded in a specific case, can nurture the thoughts of researchers dealing with the same kind of problems – such as the chronological discrepancies. Methodologically speaking, I first had to consider the *qualitative* vs. *quantitative* opposition. To better understand the way food was processed, I needed richer texts than just 'grilled meat' (while, for instance, when studying the food repartition in the offering scenes, a quantitative approach might

be more efficient). Another element to consider is how to adapt as effectively as possible to the material at hand.

### **Database**

Egyptology has a reputation of being rather old-fashioned and sometimes averse to ‘innovation’ and opening to other disciplines and tools but, as in literature studies (cf. Gumbrecht 1996), there is an evolution. Since part of the problem was about the *quality* and the *quantity* of data and their analysis, it seemed reasonable and useful to conceive a database for the two pillars of the project (using this tool is nowadays becoming more and more common in Egyptological projects; cf. e.g. Gracia Zamacona (2013) for the *Coffin Texts* or the *Index of Ptolemaic Texts* of René Preys (< <https://webapps.unamur.be/ipt/> >). With such a ‘technological tool’, the analysis and manipulation of numerous occurrences of food items would be easier (and systematic), and complex queries (such as, where is item X used in conjunction with item Y?) could be achieved. Furthermore, the few elements about *food processing* scattered throughout the texts could easily be gathered for analysis.

If a database was a tool to use, we now had to build it. Since the papyrological section of the project in Leuven used *Claris FileMaker Pro* to connect to the tools from *Trismegistos* (< <https://www.trismegistos.org/> >), we followed them to facilitate exchanges, and leverage their knowledge of the system. The biggest challenge was not the implementation of the database, but its conception. It is something one cannot overlook, for an ill-conceived database could, if not becoming useless, turn into a time-consuming and complex asset to fix in order to meet research needs. It was designed around two poles: a list of lexemes and the occurrences of the relevant terms within the texts. The list of lexemes (which, as of now, counts around 1100 words related to food, food production, and consumption) was first built with the systematic analysis of a dictionary of Ptolemaic (Wilson 1997), completed by the *Année lexicographique* (Meeks 1998), which covers Darby, Ghalioungui and Grivetti (1977), to ensure that we had most of the relevant terms and later completed as we went through the temple texts. The lemmata were checked in the *TLA* (< <https://thesaurus-linguae-aegyptiae.de/home> >). Words were also tagged (food, production, etc. and, if relevant, type of process), to allow for quick topical searches. Each word was also assigned a page where all the useful information could be listed, such as bibliographical references and translations in the three main languages of Egyptology (German, French, English). The other pole was the occurrences. Each occurrence of a word in which we were interested was recorded, with its writing, its reference, its location within a text unit and linked to the lexical list. In that way, from the lexical pole, we can see all the gathered occurrences of a certain term, with their spellings and variants and, from the occurrences, we can see the lexicographical data. Finally, we could link our lexicographical list to the one from the papyrological team to cross-reference our finds.

From a more general point of view, if it does not solve all the problems, it ensures that we can collect data in a normalised and coherent way, but also manipulate sparse (or abundant) information with much more accuracy. More and more projects use databases, and it is no wonder, because they are very powerful tools (cf. Hainaut 2018: 33-48). However, some major issues must be addressed. First, the process of conceiving and implementing a database is time consuming and it must be considered when one has a limited amount of time to work on a project. In addition, once the tool is ready to be fed with data, one can be trapped with encoding more and more items, or adding fields here and there for ‘interesting and/or useful’ information and, finally, never reach the analysis step. In the end, one could only have the possibility of a study, and not the study itself. Another issue is that if one is careless in conceiving its structure, the database can become a useless or ‘blunt’ tool. Of course, in an ideal world, we could and should encode every bit of information we can, but, pragmatically, this is not feasible. It is thus very important to ensure that we know what the purpose of the database is and what are the questions we want it to be able to answer. One might think that the database in itself would end up

a dead tool at the end of the project, and while this is not untrue, it remains that the database must stay ancillary and not become the project. It can help achieve an analysis otherwise difficult, if not impossible, 'by hand', but it is a double-edged sword.

### **Corpus**

Even with a powerful tool to help us, we were left with a fundamental problem. There are simply too many texts to consider if one would study the Ptolemaic and Roman temples as a whole. So another step, parallel to the precedent, and much more 'traditional' in Egyptology was to refine the corpus. This question is twofold: which temples do we consider, and which parts of these temples? This is, in fact, a common problem in many studies, where one would be comprehensive, but it is pragmatically unfeasible. Rather than asking oneself 'What can I let go?' or 'What should I keep?', I would argue that the question ought to be: 'Where are the most relevant elements for me?' The aim of the corpus discussion is to find a balance between the *quantitative* and the *qualitative*, the second one being the more important in the context of my project. In our case, the temples of Dendera and Edfu formed a good foundation. They are both mostly preserved and completely decorated, and furthermore, they are published. It is worth mentioning that since the edition of certain temples is still ongoing (e.g. Kom Ombo, Athribis) and we have to rely on older editions, if any, it would be a daunting task to check them all in situ. Another interesting feature with these two temples is that they are linked, in their theology and decoration (with Hathor and Horus Behedety). It is a good set to consider. That does not mean that the other temples will be completely neglected, but they will not be exhaustively studied, forming rather a support corpus, used for some *qualitative data*, instead of *quantitative*. I will, of course, certainly miss a few interesting pieces of information, but a well-contained main corpus of two big temples should be quite representative and form a coherent and cohesive basis for analysis.

The next step was to again refine the corpus, by asking a (not so) simple question: where do we find pertinent data? First, obviously, we have the rooms where (food) offerings were given. As discussed before, these texts are not the most explicit, but they do contain some useful information. The best-case scenario would have been to have texts on food preparation from the temples' kitchens. Unfortunately, we do not have these. However, just as the texts within a room are relevant for this room function/use, we can, at least as a hypothesis, consider that some information on food (processing) could be found on the way through which priests went while bringing their offerings to the gods. Indeed, on the passageways and doorways used on that occasion, we can find some interesting texts, such as 'priestly regulations', which are rules or recommendations given to priests (Leroux 2018). Amongst those, we find some comments on food relevant for the priestly diet (known, e.g. for its taboo on fish, cf. Delhove 2020a). Another thing to consider is that the daily offerings were undoubtedly well known to the temple staff. That means that it was not useful to be as eloquent about the way daily meals ought to be prepared. Each temple had its own special feasts and on such an occasion, there would be specific liturgy and rituals, but also, in some cases, specific types of (food) offering. So, the feast calendars and the related rituals, engraved on the temple walls (incidentally, in the passageways) are to be included. An example of the information given can be found in the temple of Edfu where, instead of a live hippopotamus, it is a cake in the shape of the animal that is offered, and instructions on how to dismember it (Alliot 1949-1954: 779-803).

With these more suitable places, one can expect to find most of the information we are looking for, in a corpus that remains big, albeit much more manageable, and the database will help to gather the identified items. The rest of the temple will not be ignored, but focusing on these specific places will be more effective.

Finally, within the temple, there are other texts we might consider. The terms used to describe *food* processing (cooking, cutting, etc.) are not only used for food, but also in other instances. One must remember that cooking is a kind of alchemy or chemistry. Indeed, the preparation of a drug would use the same type of vocabulary as a recipe for making a cake. If the *šr.t wꜥb.t* is unreachable, this is not the case of the laboratories of the temples (e.g. the one in Esna, Vadas 2020), which are within the main temple. There, we can find recipes to prepare balms or diverse products for the gods, such as the *kyphi*, a type of incense, for which several recipes are known, in and outside of temple (Betrò 1991-1992; Derchain 1976; Raven and Demarée 2005). Although it does not answer the question ‘What did the gods eat?’, and thus, through reversion, the priests, it does help us to ascertain the technical meaning of words. It is tempting to consider again going through all texts to find the processing terminology in non-culinary (or technical) sense. It would, of course, be interesting; we have for instance the use of *qfn*, *to bake*, in the cosmological text of the *soubasements* of the Ptolemaic door of the second pylon in Karnak (Broze and Preys 2021: 34), but it would not give us much to better understand the meaning(s) of the lexemes in a technical sense.

### *Auxiliary documents*

The temple laboratories give us important information. It is also a good example of another way to circumvent a capricious corpus. That is, to *expand* it, by looking for secondary or ancillary texts to assist the analysis of the main corpus. To diminish the number of irrelevant texts for our study, the first step was to restrict it to increase the quality of our findings. But in the process of refining the corpus, it also appeared that merely considering scenes and texts dealing *exclusively* with food would not solve our problem (most of them being, as seen earlier, not very explicit). The next step was then to think about what other contexts might be propitious for our enquiry. Akin to cooking, as mentioned before, we have pharmacology, and thus medicine and magic. That means that documents pertaining to these areas might illustrate the use of certain terms to describe processes relevant for the cooking field. Ideally, this secondary documentation should have several similar characteristics to the temple food offering inscriptions: be written in hieroglyphic (late) Middle Egyptian and be dated from the same period (in the case of our study, the Ptolemaic or the Roman Period). Sadly, things are not that easy, for instance, with the script. During the Graeco-Roman Period, three scripts were in use: hieroglyphs, hieratic and demotic (cf. Polis 2022: 10-17). Very broadly speaking, hieroglyphs were the monumental script, hieratic was the cursive used in place of hieroglyphs and demotic was a script derived from (abnormal) hieratic and used in administrative texts (but not only, we also have important funerary and religious literature in demotic). In our case, as we are studying aspects of vocabulary, the writing system, although very important (e.g. to differentiate between lemmata with similar consonantal structure), is not diriment, because hieratic functions largely like the hieroglyphic script. What matters is to have documents written in the same Egyptian, that is (late) Middle Egyptian (cf. Delhove 2020b: 56-61; Vernus 1982), which would make a comparison more relevant. Demotic is a designation not only of a script, but also of the penultimate stage of Egyptian before Coptic and thus, a late example of second phase Egyptian (Malaise and Winand 1999: 8-10). We will consider it later.

If we look at the medical and magical literature from the Graeco-Roman Period, sadly, we do not have much (in late Middle Egyptian). In fact, most of the interesting texts for us date back at most to the New Kingdom. Amongst these, one can point out Papyrus Ebers (cf. Ghaliounghi 1987). With hundreds of recipes, it is an invaluable source. As for magic, we have for instance Papyrus Leiden I 348 (Borghouts 1971) or the magical papyri of the Ramesseum (Meyrat 2019), but we face the same issue: we do not have many texts in (late) Middle Egyptian from the Graeco-Roman Period that can help us, but we have quite a few from older times (cf. Koenig 2002), which give recipes for diverse purposes. It remains a problem, as pointed out when discussing scenes from mastaba, but the chronological gap is not that big this time. Still, we can formulate another hypothesis with these documents. The preparation of drugs

(and, likewise, of spells) must be precise and necessitates well-chosen terminology to explain the steps in its making. Texts from the temples show a large use of synonyms and lexical variety, for instance on grounds of alliteration (e.g. *smʒ smʒ*, ‘to stab the wild bull’; cf. Kurth 1994b). In the case of recipes, one cannot do that. The Egyptian medical literature is rather conservative, Papyrus Ebers being seemingly adapted from earlier Middle Kingdom sources (on Egyptian medicine, cf. Bardinet 1995 and Bardinet 2018). It seems therefore reasonable to consider that the terminology used in the temple laboratories’ recipes is technical in nature, but also that the meaning of the verb (for instance ‘to boil’ instead of simply ‘to cook’) would be better maintained and less subject to change. That would mean that we can use data from these types of documents to help strengthen observations in the laboratory’s texts, and, thus, in the ‘cooking texts’. It is not as straightforward as one may wish, but it is nonetheless a good way to obtain qualitative data.

### **Other languages**

On the topic of *expanding* our scope, what about other Graeco-Roman sources? There are two broad types to consider. First, we have the papyrological data written in demotic and Greek. From a linguistic point of view, demotic terminology might help, instructing us on how certain lemmata were understood in later linguistic stages, and this is why we linked our lexicographical database with the one from the papyrological section of the project in Leuven. As for Greek, although the language (and its vocabulary) is better known, we cannot simply transfer elements from one language to another.

Besides any linguistic considerations, there are two major *caveats*. The first is that *demotic studies* (cf. Depauw 1997) and *papyrology* (cf. Bagnall 2011) are specialised fields that require specific training to use most effectively the resources they can provide. In the restricted time frame of a project, it is unrealistic to hope to become highly proficient in those two areas. Nevertheless, it is possible to acquaint oneself with them, making it possible to fruitfully use the results of specialised studies and, in the case of a multi- or interdisciplinary project, as with Agros, one can more easily develop synergies and collaborations with specialists from these two domains. The second *caveat* is that, even if the known administrative texts from the temples were more directly accessible, it does not seem that they teach us a lot about cooking, although they can undoubtedly bring us interesting information, e.g. about wine (Schentuleit 2006). Closer to our material, we also have ‘non administrative’ demotic texts, such as medical or literary texts. They can provide some guidelines on how to understand certain data, like the texts discussed above, but they can only be secondary here.

Another source is constituted by the Graeco-Latin authors (and mostly Greek ones) – one of the best examples being Zosimos of Panopolis who wrote about Egyptian brewing techniques in an alchemical treatise (cf. Nelson 2005: 127 n. 32). These documents cannot be used directly, but they give us a better idea of *what* was done and *how*. Knowing that, it is easier to understand our texts, what was explained, and what was deemed (un)necessary to write. Nonetheless, a problem is that, although some of these texts were written by Egyptians, it can be, more often than not, rather the (in)direct account of someone looking at a culture alien to them, even if the distinction between Greeks and Egyptians in Egypt might not be as significant at that time. This implies that we ought to be cautious about the possible distortions (a famous example could be the description of the hippopotamus by Herodotus (*Histories II.71*)). Another issue, notably in the case of Herodotus (c. 484-c. 425 BCE), is that there is a chronological gap with the studied period, albeit this time a limited one. Again, these data can be included in our work, as long as their limits are clearly established.

### **Non-Written sources**

Similarly, there are non-written sources that can be used as an auxiliary for our enquiries, for instance, archaeozoological and archaeobotanical data (Chaix 2021, Newton 2021). Through them, the presence (or absence) of certain elements within the temple walls can be confirmed or ascertained. The iconography in the offering scenes and throughout the monuments can also help refine some findings. If we were only to consider the texts, fruits and vegetables were seldom offered to the gods, except for specific cases, like the lettuce for Min (Adams 1980) and, in a few cases, fruits like figs (e.g. *Edfu V*, 179,17-180,9). But looking at the offerings depicted in these scenes, one finds a large array of these products. Sadly, if we have insights on what was offered through these depictions, there is not much about cooking itself. It is rather in a funerary context that one can find such everyday life depictions (close to our period, cf. e.g. the tomb of Petosiris (Lefebvre 1923-24, Cherpion, Corteggiani and Gout 2007)). In addition, as far as food processing is concerned, most of them are found in the mastabas of the Old Kingdom till the tombs of the New Kingdom. Again, there is a chronological discrepancy. Nevertheless, even if techniques did evolve through centuries, it still gives precious indications on what the technical terms meant, at least initially, and can participate in determining what they meant in the Graeco-Roman Period. So rather than a direct contribution, it helps our research, and it demonstrates once more the importance of considering the entirety of the monument and not to artificially separate text and image.

### **Conclusion**

Lastly, we can gather some final thoughts. The case study we have been following here, this philological research project on food processing in the temple texts from the Graeco-Roman period, served only as a concrete example or illustration and throughout this paper, one might have found interesting elements on the thematic.

However, the important part resides in the epistemological and methodological problems that arose from trying to use the resources we obtained. Every project has to deal with initial ideas that turn out not to be feasible or impediments to its course. When confronted with the actual material, what was intended is not always possible. It is a shared reality of researchers, and, at that point, one can and must try to refine and adapt what they are doing. Although this paper gave several suggested pathways, these issues were answered in a specific case. Its actual goal was rather to take a look behind the scenes and let one reflect on their own research experiences and ways to alleviate a lack of material (be it in quantity or quality) or to deal with problematic data (in my case, the chronological gap for many documents). If we look at this research on how to feed a god, at the start, all seemed rather well laid out, but soon became complicated, with difficult yet interesting problems to solve. With a corpus far too large and with very few qualitative and quantitative elements, the use of a database can immensely help the processing of data, if one takes the time to do it properly, with clear objectives, and does not get fall into the trap of encoding more and more data. To counter the corpus size, some more thoughts on the project's goal helped to make it more manageable. Simultaneously, enlarging the study to other types of ancillary documentation proved very useful – as long as their limitations and uses were clearly defined.

In short, this is a brief illustration of what researchers can and must do to improvise, adapt, and (hopefully) overcome.

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# Rethinking New Kingdom Coregencies and a Case Study on the Amarna Period

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## Abstract

This article offers an examination of the nature and functions of (Egyptian) coregencies and discusses indicators for New Kingdom coregencies in particular. The focus lies on typical types of evidence, such as double dates and pictorial sources, and their applicability during this period. These considerations are put to the test by a case study in which the established criteria are applied to the three coregencies attributed to Akhenaten (with Amenhotep III, Smenkhkare, and Neferneferuaten).

## Keywords

Coregency, Dyarchy, Amarna, Akhenaten, Neferneferuaten, Smenkhkare, Ankhkheperure.

## Introduction

Akhenaten has been credited with no less than three coregents over the course of his 17-year reign: Amenhotep III, Smenkhkare, and Neferneferuaten (if the latter two are regarded as two separate individuals; see discussion below). Accepting all coregencies at their proposed maximum duration (Amenhotep III: 12 years; Neferneferuaten: three years; Smenkhkare: an unclear short period of time; perhaps less than one year) would leave about one year of sole rule to Akhenaten. Each of these alleged coregencies remains controversial, and several diverging historical models have emerged.

To examine these proposed coregencies, it is necessary to provide a definition of such a governmental arrangement and then to establish appropriate criteria for accepting or rejecting sources as indicators of coregency.

## Terminology: coregency vs dyarchy

Coregency is the temporary state in which a monarchical office intended for a single individual is held by several concurrently and cooperatively.<sup>1</sup> After the demise of a coregent, the remaining ruler retains his position and may either rule alone until his death or appoint a new coregent at any point in time. Thus, coregencies can be used to support or consolidate forms of 'closed' autocratic succession (i.e. appointed or hereditary; cf. Kurrild-Klitgaard 2000, 2004) by pre-emptively granting the eventual successor the office, title, and rank that he will continue to hold independently after his predecessor's death. In addition to this consolidation of dynastic continuity and preparation of a successor for his governmental duties, coregencies may also be used for other political purposes such as building dynastic

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<sup>1</sup> For other definitions of coregency, see Beckerath 1984: 11; Beckerath 1997: 74; Bierbrier 2008: 54-55; Brand 2000: 309; Helck 1982: 155; Sankiewicz 2011: 131-132; Shaw & Nicholson 2002: 72; Simpson 1956: 214; Tanner 1974: 127; Thiele 1983: 321. Simultaneous reigns of kings ruling over different parts of the country, even if in peaceful recognition of each other's kingship, are not to be regarded as coregencies (cf. Helck 1982: 155; Murnane 1977: 87; *contra* Skuse 2017: 99).

identity, expressing political unity or balancing competing factions (cf. Billows 1996; Criscuolo 2017: 13-14; Huß 2001: 274, 311; Minas-Nerpel 2014: 150, 156-157; Sherwin-White & Kuhrt 1993: 24-25; Skuse 2017: 89, 99-101) and have been employed by various monarchies throughout history.<sup>2</sup>

Coregencies must be distinguished from dyarchies, in which the government of a polity is regularly shared between two individuals (or institutions; cf. Goodblatt 2020: 57; Law 2010; on different forms of dyarchies/dual kingships, see Sahlins 2011: 63-66). There may be various precautions to balance the dual leadership (e.g. divided tasks, complementary functions) but since the shared leadership is mandatory, a dyarch must be replaced upon his demise. A typical example of a dyarchy is the dual kingship of Sparta, where two dynasties (Agiads and Euryontids) each appoint one king (Griffith-Williams 2011; Millender 2018; Sahlins 2011).

### **Egyptian coregencies**

Besides the unanimously accepted coregency of Thutmose III and Hatshepsut (Assmann 1987; Chappaz 1993; Dorman 2006; Keller 2005; Maruéjol 2014; Taterka 2016: 21-28),<sup>3</sup> the existence of coregencies in Egypt before the Ptolemaic joint rules (i.a. Chauveau 1997; Minas-Nerpel 2014; Murnane 1977: 94-109) remains debated. Despite suggestions of potential earlier coregencies (e.g. coregencies between Narmer and Hor Aha, cf. Dreyer 2021, or Djet and Den, cf. Cervelló-Autuori 2005: 34-35), special attention has been given to several coregencies from the Middle Kingdom (i.a. Connor 2022; Jansen-Winkel 1997; Murnane 1977: 1-29; Obsomer 1995: 35-155; Saladino Haney 2020: 39-97; Schneider 2006: 170-175; Willems 2022: 693-695) and New Kingdom (i.a. Brand 2000: 309-333; Murnane 1977: 30-87; Redford 1967: 50-56). A monograph on Egyptian coregencies by William Murnane (1977; reviews by Redford 1983; Spalinger 1979) has not settled the debate either, as not only the evidence pertaining to specific coregencies, but also the very existence of coregencies in general remains controversial. At times, they are dismissed as they are regarded to be in fundamental conflict with Egyptian royal ideology by placing 'two Horuses' (Gardiner 1961: 129-130; Taterka 2019: 45) on the throne (Christophe 1951: 371-372; Laboury 2010: 87-88; Obsomer 1995: 35-36; Taterka 2019: 45; Uphill 2001).

While this statement is true, it should be noted that a monarchical system is the very precondition for coregencies. If shared leadership were demanded ideologically, it could not be suspended by leaving a remaining former coregent to carry the affairs on their own, but the deceased coregent would have to be replaced, effectively leading to a dyarchy. Coregencies can only occur in monarchical systems that are designed for a single ruler, making their exceptionalism one of their characteristics. The opposition of the incompatibility of coregencies with royal ideology and their existence in spite of this has been repeatedly commented on (by Beckerath 1997: 74; Gardiner 1961: 129-130; Jansen-Winkel 1997: 115-116; Minas-Nerpel 2014: 148-149; Redford 1983: 181; Spalinger 1979: 189).

Coregencies can bridge the dogmatics and pragmatics of power by temporarily foregoing the ideology that consolidates the rule of a singular king in order to avoid a crisis (e.g. unstable succession) and thus preserve the system by facilitating an otherwise uncertain power transition. The ambiguity required to ideologically justify the rule of either one or two kings would only be detrimental to the stability

<sup>2</sup> Among them is the Vietnamese Trần dynasty (ruling Đại Việt in the 13th-14th centuries), during which an older ruler would receive the title *Thái thượng hoàng* 'Emperor Emeritus' after appointing a junior king (cf. Taylor 2013: 125-126; Vu 2017: 20; Wolters 1986: 370). Similarly, Andean tradition would pass on rule to the most capable son, whose succession would at times be supported by installing him as coregent before his predecessor's death (Covey 2006: 188-190 [n. 74]; D'Altroy 2014: 114-115, 177, 194-195; see also Astete 2012).

<sup>3</sup> This coregency is both precedent and exception given that the 'appointed' coregent (i.e. Hatshepsut) was senior in age and expectedly died before the younger Thutmose III. It is by all means unlikely that this coregency was established for the sake of stabilising the royal succession (cf. also the comments by Beckerath 1997: 75 [n. 315]); a discussion of the specific motivations, however, cannot take place here.

of the monarchical system, since only one of these two options could be fulfilled at any given time, permanently leaving an ideological vacuum for the other.

Therefore, the (non-)existence of coregencies should not be a blanket judgement but requires an individual assessment of each case by examining indicative features in inscriptional and iconographical sources.

### Indicators of coregency

A great variety of textual, iconographical, architectural or archaeological sources or features may point towards a coregency (see Murnane 1977); and not all can be discussed here. Instead, this article will focus on typical – namely double dates and pictorial evidence showing two kings as coregents – rather than particular types of evidence for coregency.

The most widely accepted diagnostic feature of a coregency is a so-called double date (Depauw 2007: xi; Goedicke 1992: 18-19, 52-59; Helck 1982; Minas-Nerpel 2014: 148; Murnane 1977: 1); interestingly, even scholars who reject the Middle Kingdom coregencies such as R. Delia have not argued against the persuasiveness of double dates themselves, but have rather doubted the interpretation of certain inscriptions as such (Delia 1979: 27).<sup>4</sup> In general, double dates indicate the same point in time according to two different calendrical or dating systems, synchronising their respective date computations. Besides the regnal year counts of joint rulers (Dorman 2006: 67 [n. 108]), double dates may equate a variety of systems such as the Egyptian and Macedonian calendars (Pestman 1967: 5, 22, passim; Samuel 1962: 31-32, 34-37), the Egyptian civil and lunar calendars (Depuydt 1997: 83-84, 163-175) or the Egyptian regnal and financial years (Depauw 2007: x; Paulissen and Vandorpe 2019; Pestman 1967: 6, 20, passim). As evidence for a coregency, a double date should include the names and regnal year counts of both rulers, as is the case in Demotic double dates (e.g. *h3:t-zp X i.ir ir h3:t-zp Y n n3 pr-<sup>c3</sup>.w.s.w KN1 KN2* ‘regnal year X which makes regnal year Y of the pharaohs<sup>LPH</sup> KN1 KN2’; Boswinkel and Pestman 1982: 139-140 [86]; Chauveau 1997; Depauw 2002: 114-115; Martin 2009a: 206-207 [xxii-xxiii]; Van’t Dack *et al.* 1989: 110-114).

There is, however, no broadly accepted double date prior to the Third Intermediate Period.<sup>5</sup> Subsequently, there is no consensus on the formulaic make-up of Middle or New Kingdom double dates. The same inscriptions have been repeatedly postulated to bear or not to bear double dates, with the acceptance or rejection of a given inscription as featuring a double date usually being congruent with the acceptance or rejection of the corresponding coregency (e.g. the discussion by Delia 1979, 1982; Murnane 1977, 1981). In some cases from Ramesside times, governmental participation of a successor was assumed, but the term of coregency was rejected on the grounds of a lack of an independent year count, again highlighting the importance given to double dates in scholarly discussion and effectively elevating them from indicator to a *conditio sine qua non* of coregency despite their philological construction and very existence continuously being debated (for an overview, see Brand 2000: 309-310, 313, 314). While the fact remains that a double date universally accepted as such would make it difficult to argue against a coregency, this conflation of the existences of double dating and coregency deserves reconsideration.

In case of the coregency of Hatshepsut and Thutmose III, synchronisations of two separate regnal year counts in the strict sense do not occur. Hatshepsut, instead of reckoning her reign from her accession onwards, adopted the regnal year count and computation of Thutmose III (Chappaz 1993: 93; Dorman

<sup>4</sup> ‘(...) these private inscriptions do not prove the existence of coregencies when there is not a single royal inscription from the period which bears a double date and names two kings.’ (Delia 1979: 27).

<sup>5</sup> In the Third Intermediate Period, a construction *rnp.t-zp X n.tj (m) rnp.t-zp Y* occurs in double dating formulae (cf. Beckerath 1966: 45, 50 [13]; Broekman 2002: 174), accepted as a double date by e.g. Delia 1979: 26; Jansen-Winkel 2006: 252; Murnane 1977: 91; Payraudeau 2014: 83-85; doubts have been voiced by Uphill 2001: 91-92.

2006: 53-54, 67 [n. 108]; Hornung 2006: 201; Keller 2005: 96; similarly, a joint regnal year count was also used in some Ptolemaic coregencies, cf. Minas-Nerpel 2014: 148). Since both rulers could use the regnal year count jointly or alone without mentioning the respective other ruler ('single dating'),<sup>6</sup> dating formulae which include both rulers prove their identical counts. In a formula including both rulers, mentioning the identical regnal years of both separately would be redundant (\* 'year X under the majesty of KN1 which makes year X under the majesty of KN2'). Therefore, if a dating formula consists of a single regnal year and the names of two kings who both refer to this very regnal year as belonging to both their respective reigns. E.g. on a graffito in Tangur: *rnp.t-zp 12 3bd 3 prj.t sw 12 hr hm n(j) ntr-nfr CM3 t-k3-Rw* *dj nh hr hm n(j) ntr-nfr CMn-hpr-Rw* *dj nh* 'regnal year 12, 3rd month of the Peret-season, day 12 under the majesty of the good god (Maatkare), given life (and) under the majesty of the good god (Menkheperre), given life'; Breasted 1909: 105; Chappaz 1993: 94 [n. 50]; Hintze et al. 1989b: 289, 1989a: 172 Nr. 562; PM VII: 157), this, in my opinion, may be classified as a variant of double dating.<sup>7</sup>

But even if their classification as double date is rejected, this presents us with the interesting case of a certain coregency with not every coregent reckoning his reign from his own accession. Instead of synchronising two divergent year counts, the existing count is replicated and employed by both rulers, perhaps simplifying administrative application. This shows that while a double date is an indication of coregency, coregencies do not necessarily use two regnal year counts; thus, the absence of double dates does not exclude a coregency with absolute certainty. Dorman (2006: 67 [n. 108]) and Gabolde (1998: 88) consider double dating in the New Kingdom nearly impossible since the accession dating system employed in this period (contrasting the assumed predating system in the Middle Kingdom) would result in unsynchronised changes of the regnal years (both most likely again different from the calendrical year change), making concordant dating impossible and the entire double dating system excessively complicated. An avoidance of such divergent regnal year counts and the resulting absence of double dates has been repeatedly suspected for certain Egyptian coregencies, especially during the New Kingdom (cf. Hornung 2006: 199, 211; Murnane 1990: 93 [n. 90]; Redford 1967: 50-51; Seele 1940: 33). Therefore, the historical question of the existence of coregencies and the chronological question of the practice of double dating cannot be answered at once despite their inevitable entanglements.

<sup>6</sup> On the dating formulae during the coregency, see also Chappaz (1993: 93-96) and Dorman (2006: 53-54), who point out that no proper dating formula with only Hatshepsut's name is known (i.e. \**rnp.t-zp X hr hm n(j) nswt-bjt CM3 t-k3-Rw*). Nevertheless, Hatshepsut may be mentioned alone in connection to dates, implying the regnal year to be hers, as is the case on an obelisk in Karnak (*š3.n hm=j k3.t r=s m rnp.t-zp 15 3bd 2 prj.t sw 1 nfr;jjt-r rnp.t-zp 16 3bd 4 šmw r3k;jj iri.n 3bd 7 m š3.t m đw* 'My (=Hatshepsut) majesty has ordered the work on it in regnal year 15, 2nd month of the Peret-season, day 1 until regnal year 16, 4th month of the Shemu-season, last day, (that) makes seven months from the beginning (of the work) in the mountain (=quarry).'; Selim 1991: 102). Since Hatshepsut's titulary alone occurs repeatedly all throughout the entire set of inscriptions, whereas Thutmose III is not mentioned at all, it must have been her intent to present these regnal years as pertaining to her reign. If we imagine that it was any other king mentioned alone in such a set of inscriptions with mention of a regnal year, assigning that regnal year to precisely the mentioned king's reign would be considered certain beyond any doubt as well. In the meantime, dating formulae from the time of the coregency (at least regnal years 7-20) only referring to Thutmose III include two on IS180 (Tallet 2018: 321, 367; |1 *rnp.t-zp 13 hr hm n(j) |2 Hr w K3-nht-h3-i-m-W3s.t nb.tj W3h-ns w,jjt ...*] 'regnal year 13 under the majesty of Horus Kanakht-Khaiemwaset the Two Ladies Wahnesu[it...]' and |1 *rnp.t-zp 13 hr hm n(j) |2 ntr-nfr CMn-hpr-k3-Rw* *dj nh* "regnal year 13 under the majesty of the Good God (Menkheperkare) given life" on the main sides of the stela; note, however, that Hatshepsut's name does occur on the side of the stela, but not as part of a dating formula), a graffito in Abka (Hintze et al. 1989a: 38 no. 64; *rnp.t-zp 16 hr hm n(j) ntr-nfr CMn-hpr-Rw* *dj nh* 'regnal year 16 under the majesty of the Good God (Menkheperre) given life') and another one from Shelfak (Hintze et al. 1989a: 90 no. 365; |1 *rnp.t-zp 18 3bd 4 šmw sw 16 hr hm n(j) |2 nswt-bjt CMn-hpr-Rw* *dj nh mj R-w |3 mri;jj nswt-bjt (H3-i-k3.w-R-w)* 'regnal year 18, 4th month of the shemu-season under the majesty of the King of Upper and Lower Egypt (Menkheperre) given life like Re, beloved of the King of Upper and Lower Egypt (Khaikaure) (=Senusret III)'). The practice of both single-dating and double-dating during coregencies with divergent regnal year counts also occurs in Ptolemaic times (Van't Dack et al. 1989: 110-114).

<sup>7</sup> Murnane 1977: 38 [1]; see also Taterka 2019: 45 [n. 16: '“double” dates'].

Accepting that double dates, despite being the most agreeable of indicators of coregencies, may not always be used by them has two main consequences. First, it limits the chronological impact of coregencies which is mainly based on double-dating with divergent reckonings. Without it, the regnal year count would likely work as if no coregency had occurred, eliminating the need to subtract the length of a coregency from the younger coregent's reign length in greater schemes of historical chronology, which often rely on the addition of reign lengths to determine a certain interval. Secondly, this highlights the importance of other sources for detecting coregencies, as evidenced by the prominence of iconographic material in many coregency debates.

Since, of course, not every depiction of two kings is sufficient to indicate a coregency, it is essential to define a number of criteria for such depictions, which must bridge the contradiction between conveying the individual authority of each ruler and, at the same time, the harmonious coexistence of their reigns.

First of all, both coregents must be part of the same scene, i.e. they must not be visually set apart by structural elements such as colour bands or separation lines, and preferably engaged in the same action (Brand 2000: 329-330; Murnane 1977: 200-201 [5]), since adjacent scenes in which each king is involved in a different action may occur for various other reasons such as a tomb owner living and serving under both kings or a royal successor completing (the decoration of) monuments of his predecessor.

Both coregents have to be clearly indicated as royal and equal in that royal status. They both should appear in royal costume and be given captions with royal titles, epithets and cartouches. They may be set apart from other figures by hierarchical proportion, but not from each other (see also Davies 2004: *passim*, esp. 62-63; Gabolde 1998: 88; Keller 2005).

Finally, the most difficult requirement to assess is if both kings are depicted as being alive, as only then the state of their joint rule would be conveyed. This excludes mainly scenes in which one king performs an offering ritual before another since such scenes do not allow for any precise conclusions on the chronological relation between officiant and beneficiary (or a group of beneficiaries to each other; see also the comments by Brand 2000: 329; Redford 1967: 116). Neither private individuals such as Inherkhou (TT 359; El Shazly 2015: 104; LD III: 2d) or Khabekhenet (TT 2, Berlin ÄM 1625; LD III: 2a) offering to members from several generations of the Ahmosid royal family nor Seti I and the future Ramesses II before their predecessors in Abydos (Redford 1986: 18-20) are to be considered contemporary to these beneficiaries. Similar caution must be exercised when looking at several kings receiving offering such as Thutmose III and Amenhotep II in the tomb of Neferrhenpet (TT 43; Hartwig 2020).

Depictions fitting these characteristics are known from the coregency of Hatshepsut and Thutmose III. Despite the observations of Hatshepsut implying a dominant position within the coregency through her precedence (Dorman 2006: 56-57; Sankiewicz 2011, 2015) the fact remains that both were depicted as rulers and as such equal in rank even if a division of tasks or a certain hegemony of one of them had been in place. This equity of rank is expressed by their royal titularies, epithets and cartouches, their equal height (no hierarchical proportion) and their royal iconography, primarily in regards to their costume, jewellery and regalia (cf. Davies 2004; Keller 2005). The kings are depicted as '*twin rulers*' (Keller 2005: 96) in similar royal ornate and of the same height, both engaged in cultic activities such as carrying out a shared offering (cf. Brand 2000: 329-330; e.g. on the Chapelle Rouge: Burgos & Larché 2015: 106; Stephan 2008: 51; at Deir el-Bahari: Naville 1901: pl. CV; on stela Gregorian Egyptian Museum 22780: Botti & Romanelli 1951: 84-85, pl. LIX [128]) or partaking in a procession (e.g. on the Chapelle Rouge: Burgos & Larché 2015: 48, 51, 61, 62, 98, 99, 114; Stephan 2008: 44, 46-48, 93).

Notably, the iconographic or textual inclusion of the coregent in inscriptions or depictions during the coregency was not obligatory (cf. Dorman 2006: 49; Jansen-Winkel 1997: 118; Murnane 1977: 191, 200

[2], see n. 6). The appearance or mention of only one of the coregents does not automatically imply the end of the coregency or a rift between the two.

### Akhenaten's coregents

Since the 19th century (e.g. Petrie 1896: 208), coregencies between Amenhotep IV/Akhenaten and his predecessor Amenhotep III or his successor(s) *ḥḥ-ḥpr.w-Rꜥw* (± epithet) have been debated. The problem is perhaps best epitomised by a small group of representations which may be interpreted as displaying coregents. Two unfinished stelae show two figures with *uraei* feasting, one (Berlin ÄM 20716)<sup>8</sup> displaying a standing silhouette with a blue crown pouring a liquid from a flask into a bowl<sup>9</sup> held by a seated ruler with a headcloth, the other (Berlin ÄM 17813)<sup>10</sup> characterized by two seated figures, one with a double crown turning around to cup the chin (David 2020a) of the other wearing a blue crown. The left figure with the blue crown shows various feminine characteristics such as a female breast, a concave neckline and an overall slenderer figure than the other. Details of her dress cannot be made out, but a straight hem, parallel to the ground and almost reaching her ankles, is visible. The right figure with the double crown is most likely a male as he is depicted with a broader build and a concave neckline. His garment is slightly shorter than the other, with a curved hemline that hangs slightly lower at the front. Especially on stela Berlin ÄM 17813, both rulers are of the same size with no hierarchical proportion setting them apart and their direct interaction suggests both are alive. A fragmentary seal impression shows a similar motif of two seated figures with royal headgear and *uraei*, with the right figure turning back to face the other behind it (Berlin ÄM 21331; here, the two seated figures are accompanied by a third standing silhouette, most likely a king's daughter; Breuer 2012; Krauss 2007: 299-301 [figs. 3-4]). The right figure on this impression is identified by a cartouche next to the Aten above as *Ḥnfr-ḥpr.w-Rꜥw Wꜥ-n(j)-Rꜥw*, but a second cartouche on the other side of the sun disc, perhaps referring to the second seated figure, is badly damaged.<sup>11</sup> Again, the seated figures with royal attributes are not separated by hierarchical proportion and interact directly with each other. Finally, two fragmentary impressions from a seal found in the house of Ranefer (N49.18) at Amarna show two figures underneath the Aten's rays seated opposite each other, one wearing a headcloth and a red crown and the other a blue crown, both holding a *heqa*-sceptre (CoA I: 11, 14, pl. X [6]; one impression is now in the Ashmolean Museum, no. 1921.1149; cf. Harris 1973: 8 [n. 22]; Krauss 2007: 301 [fig. 3]).

All of these depictions can be dated stylistically to the Amarna period. It has been observed that in several depictions, a royal figure wearing a blue crown displays attributes employed by women in Amarna art such as breasts, concave neck or slightly smaller size in comparison to male figures (esp. Berlin ÄM 20716 and 17813, but also the impressions from the house of Ranefer). If one would accept these as depictions of coregents, the only conclusion which could be drawn are that coregency took place during the Amarna period, involving Akhenaten and another ruler of unclear identity, who was apparently female. Such conclusions should, however, be treated with caution as the precise description and therefore interpretation of these objects is hampered by their fragmentary or incomplete state

<sup>8</sup> Allen 2016: 10-11 [fig. 4]; Freed 1999; Harris 1973: 7-8; Krauss 2007: 300 [fig. 2]; Laboury 2010: 339-341 [fig. 6-4a]; PM IV: 205; Weber 2012.

<sup>9</sup> For the motif of the feasting king in Amarna art, see David 2020b: 285-343; some examples of pouring liquid into a bowl or cupped hand have been collected by Bouillon 2019; Eaton-Krauss and Graefe 1985: 19-20, 27 n. 121, 33-34; Freed 1999; Riefing 2016.

<sup>10</sup> Allen 2016: 10-11 [fig. 3]; Dodson 2020a: 71 [fig. 78]; Krauss 1978: 102, 2007: 300 [fig. 2]; Laboury 2010: 339-340 [fig. 6-3]; PM IV: 232

<sup>11</sup> Krauss (2007: 300-301) argues that a sun disc is preserved that allows for a reconstruction of the name of Nefertiti. The seal is in a very bad condition in the area of this second cartouche and such a reconstruction is quite far from certain based on the photographs published by Krauss (2007: 301 [fig. 3]) and provided by the Ägyptisches Museum Berlin (< <https://smb.museum-digital.de/object/548> [last accessed 12/11/2023] >). A collation of the original might help, but this could not be undertaken in preparation for this article.

(forgoing iconographical detail and inscriptional clarification besides the one cartouche of Akhenaten) and the limitation in detail dictated by the medium/object type of impressions of seals into mud.

Since Akhenaten's coregent remains unidentified in these sources, the proposed candidates and their compatibility should be reviewed.

### The early coregent: Amenhotep III

A coregency between Amenhotep III and Amenhotep IV/Akhenaten is one of the most prominent coregency debates with a wide variety of chronological models proposed or refuted. Supporters of the hypothesis may favour either a 'long' (e.g. Giles 2001: 25-137; Johnson 1996; Martín Valentín and Bedman 2023; Vandersleyen 1995: 402-407) or a 'short' joint rule (e.g. Harris 1975: 100; Reeves 2001: 77-78; see also the comments by Lull 2019: 80); the alleged coregency has been rejected by e.g. Beckerath 1984; Campbell Jr. 1964: 6-30; Hornung 1964: 71-78; Krauss 1978: 6-9; Redford 1967: 88-169. There is no double date which would synchronise their regnal year counts; the postulated coregency relies on iconographical and circumstantial evidence instead.

In order to assess whether or not they point towards a coregency, depictions which place both kings in close proximity to each other are of special interest. Indeed, there is a group of offering scenes of Amenhotep IV/Akhenaten officiating before Amenhotep III from Nubian Temples – from Soleb<sup>12</sup> and from the main temple crypt at Sesebi (Morkot 1988: 160-161; PM VII: 173; Spence 2018: 125) – and the tomb of Kheruef (TT 192; Epigraphic Survey 1980: pls. 11-13; for further investigation of the tomb's decoration in connection to the coregency debate, see Dorman 2009). In the latter, Amenhotep III is accompanied by his King's Great Wife Tiye. Despite Tiye living well into her son's reign, no final conclusion can be drawn whether Amenhotep III is alive in this scene; as discussed above, offering scenes in which supposed coregents appear as officiant and beneficiary cannot be cited as conclusive evidence. The temple scenes show Amenhotep III as the deified *Nb-Mꜣꜥ.t-Rꜥw nb-tꜣ-stj* 'Nebmaatre-Lord-of-Nubia' (on this divinity, see Bickel 2013; Bryan 1992: 106-108; Davies 2015; Goedicke 1992; Pamminger 1993) and adjacent scenes show Amenhotep IV/Akhenaten officiating before other divinities such as Amon-Ra (for Soleb, see Schiff Giorgini 1998: pls. 19, 21-23, 2002: 354-356, 2003: 190-194 [figs. 189b-c]; for Sesebi, see PM VII: 173). The divine status of Nebmaatre-Lord-of-Nubia only adds to the already discussed difficulties of arguing for a coregency using offering scenes and is another reason to not consider these scenes sufficient evidence.

Another source often brought up in the discussion is a lintel in the tomb of Huya (AT 1; Davies 1905a: 1-25, pls. I-XXV; Hesse 2013: 14-16 [AT 3 (1)], 51, 59, 110) showing Akhenaten with Nefertiti opposite four daughters in the left and Amenhotep III opposite Tiye and Baketaten in the right panel (Davies 1905a: 15, pl. XVIII). As both scenes are set apart by a separation line, they cannot be used as an indication of coregency – after all, Huya was the steward of Tiye, mother of Akhenaten and King's Great Wife of Amenhotep III, but had also relocated to Amarna, so he had connections to both reigns which would justify the portrayal of both generations of the royal family.

Another interesting case are the depictions of Amenhotep III on the great barque Userhat on the 3rd pylon at Karnak. The king is depicted twice on the barque, one figure offering in front of Amun's shrine and another figure astern steering with an oar. In both instances, a smaller royal figure following Amenhotep III has been erased. It has been suggested that this smaller figure should be identified as

<sup>12</sup> The scenes showed at some point Akhenaten officiating before Nebmaatre (for the scenes, see Schiff Giorgini 1998: pls. 11, 19, 21-23, 2002: 354-356, 369, 2003: 190-194 [figs. 189b-c], 214 [fig. 204]); the cartouches accompanying the officiant have, however, been reworked, and at some point also contained the names of Amenhotep III. The discussion of the number and sequence of adaptations in the captions remains unresolved (see Murnane 2013; Schiff Giorgini 2002: 20, 36, 354-356, 368-369, 371).

Amenhotep IV/Akhenaten, who followed his father and senior coregent and was removed after the Amarna period (Giles 2001: 83-84; Reeves 2001: 75-76). In the last detailed study of this scene, Murnane 1979 concluded that these smaller royal figures were added during the reign of Tutankhamun, who inserted himself into the scene in the course of his restoration programme and who was later removed under Horemheb as part of a secondary restoration. This view is challenged by W.R. Johnson (personal communication), who will undertake a new study of these scenes, the results of which may shed light on the matter. But even if Akhenaten was indeed depicted following his father Amenhotep III and later erased, his significantly smaller size would not meet the established criteria for a scene with coregents.

In conclusion, since none of the above-discussed indicators of coregency occur in the known sources, these sources cannot be considered evidence for a coregency between Amenhotep III and Amenhotep IV/Akhenaten. For this reason, a model of successive, non-overlapping reigns of Amenhotep III and Amenhotep IV/Akhenaten is favoured.

### The later coregent(s): $\text{ḥ}^{\text{h}}\text{-ḥpr.w-R}^{\text{w}}$

#### *Titularies and identities*

The presence of a ruler other than Akhenaten at Amarna was noted early on. When C.R. Lepsius and the Prussian expedition visited Amarna in the 1840s, they recorded the names and titles of a king ( $\text{ḥ}^{\text{h}}\text{-ḥpr.w-R}^{\text{w}}$ ) ( $\text{S}^{\text{m}}\text{ḥ-k}^{\text{z}}\text{-R}^{\text{w}} \text{ḏsr-ḥpr.w}$ ) and his King's Great Wife ( $\text{Mri}^{\text{t}}(\text{jjt})\text{-}^{\text{t}}\text{Itn}$ ) in the tomb of Meryre ii (AT 2; LD III: 99a; for the tomb, see Davies 1905b: 23-42, pls. XXVIII-XL; Hesse 2013: 17-18 [AT 4 (2)], 51, 58, 110). When N. de Garis Davies prepared the publications of the Amarna elite necropolis (1901-1907), the inscription had suffered damage, but the accompanying scene – which had never been finished and was only preserved as a sketch – could be included: a royal couple in the typical Amarna style under the rays of the Aten (Davies 1905b: pl. XLI).

The King's Great Wife was subsequently identified with Meritaten, the daughter of Akhenaten and Nefertiti, thus settling the relative chronology of the two kings. The identification of Smenkhkare as the son-in-law of Akhenaten (with perhaps some other genealogical link to the wider royal family) by P.E. Newberry (1928) was widely accepted.

Just how prevalent this conception of one other Amarnian ruler by the name of Smenkhkare became can be observed by the treatment of some objects emerging after Smenkhkare's place in the family tree had been established this way. A wooden box (GEM 354/Cairo JE 61500a-b/Carter 001k; Beinlich & Saleh 1989: 4 [1k]; Gabolde 1998: 178-183, 2015: 78 [fig. 16]; Harris 1974: 11 [a], 13 [fig. 1a]; Urk. IV: 2024 [770]; Kemp 2016: 13-14 [fig. 3]; Krauss 1978: 88 [g. 1]; Newberry 1928: 4-5; Sandman 1938: 168 [CXCIV]; Tawfik et al. 2018: 179-181 [figs. 1, 3]) found in the sloping passage of Tutankhamun's tomb (KV 62) contains a vertical line of inscription on its lid, reading:

↓ |<sup>1</sup>  $\text{nswt-bjt ḥ}^{\text{h}}\text{-m-m}^{\text{z}}\text{.t nb-t}^{\text{z}}\text{.wj Nfr-ḥpr.w-R}^{\text{w}} \text{W}^{\text{c}}\text{-n}(\text{j})\text{-R}^{\text{w}}$   $\text{z}^{\text{z}}\text{-R}^{\text{w}} \text{ḥ}^{\text{h}}\text{-m-m}^{\text{z}}\text{.t nb-ḥ}^{\text{t}}\text{.w}$   $\text{Ḑḥ-n-}^{\text{t}}\text{Itn}$   $\text{ḏ-m-ḥ}^{\text{c}}(\text{w})\text{=f nswt-bjt ḥ}^{\text{h}}\text{-ḥpr.w-R}^{\text{w}} \text{Mri}^{\text{t}}(\text{jj})\text{-Nfr-ḥpr}(\text{w})\text{-R}^{\text{w}}$   $\text{z}^{\text{z}}\text{-R}^{\text{w}} \text{nb-ḥ}^{\text{t}}\text{.w}$   $\text{Nfr-nfr-w-}^{\text{t}}\text{Itn}$   $\text{Mri}^{\text{t}}(\text{jj})\text{-W}^{\text{c}}\text{-n}(\text{j})\text{-R}^{\text{w}}$   $\text{ḥm.t-nswt wr.t Mri}^{\text{t}}(\text{jj})\text{-}^{\text{t}}\text{Itn}$   $\text{ḥ}^{\text{h}}\text{.tj ḏ.t}$

Lord of Upper and Lower Egypt, who lives in truth, Lord of the Two Lands (Neferkheperure Waenre) Son of Re, who lives in truth, Lord of Appearances (Akhenaten) great in his lifetime, Lord of Upper and Lower Egypt (Ankhkheperure beloved of Neferkheperure) Son of Re, Lord of Appearances (Neferneferuaten beloved of Waenre) King's Great Wife (Meritaten) may she live forever.

Besides the intricacies of the interpretation of this inscription,<sup>13</sup> the two cartouches in the middle share nothing but the *ḥḥ-pr.w-R.w*-element with the titulary from the tomb of Meryre ii (AT 2). Nevertheless, H. Carter dubbed it the “*box of Smenkhkare*” (Carter 1933: 17-18; see also < <http://www.griffith.ox.ac.uk/gri/carter/001k-c001k-1.html> >).

A similar case is the recent first edition of an ivory fragment from the von Bissing collection now kept in the Egyptian Museum in Munich (ÄS 7342; Willeitner 2022a, 2022b). The surviving caption shows a typically Amarnian cartouche cluster:

↓<sup>1</sup> Cḥḥ-R.w-ḥkꜣ-ḥ.tj-ḥḥ-i-m-ḥ.t] |<sup>2</sup> C m-rn=f-m-R.w-it-iwḥ-m-ḥ.tn] (→<sup>3</sup> ... ↓<sup>4-6</sup> ...) ↓<sup>x+7</sup> nb-tꜣ.w C Nfr-ḥpr.w-R.w W<sup>c</sup>-n(j)-R.w] |<sup>x+8</sup> nb-ḥḥ.i.w C ḥ-n-ḥ.tn] (→<sup>x+9</sup> ...) ↓<sup>x+10</sup> nb-tꜣ.w C ḥḥ-pr.w-R.w Mri(jj)-W<sup>c</sup>-n(j)-R.w] ↓<sup>x+11</sup> nb-ḥḥ.i.w C Nfr-nfr.w-ḥ.tn ḥ.t-n-hj=s]

◻May live Re, Ruler of the Two Horizons, who rejoices in the horizon◻◻in his name as Re, the father, who has come as Aten◻ (... ) Lord of the Lands ◻Neferkheperure Waenre◻ Lord of Appearances ◻Akhenaten◻ (... ) Lord of the Lands ◻Ankhkheperure beloved of Waenre◻ Lord of Appearances ◻Neferneferuaten effective for her husband◻.

Smenkhkare’s name, again, is not among those present. Nevertheless, the object was interpreted as an attestation of ‘*Smenkhkare as Coregent*’ (Willeitner 2022b). This is of course based on a model in which Neferneferuaten and Smenkhkare were one and the same ruler who at some point altered his names, similar to Amenhotep IV/Akhenaten and Tutankhaten/Tutankhamen – nevertheless, the use of the precise name inscribed on the respective object (i.e. Neferneferuaten or Ankhkheperure) in the title would have been more descriptive.

It was observed that the unextended name Cḥḥ-pr.w-R.w] always accompanied the Csmḥ-kꜣ-R.w Dsr-ḥpr.w] cartouche, while the extended Cḥḥ-pr.w-R.w + Mri(jj)-[Akhenaten]◻ always coincided with C Nfr-nfr.w-ḥ.tn Mri(jj)-[Akhenaten]/ḥ.t-n-hj=s] (Allen 1988: 126, 1991: 84-85; Gabolde 1998: 153-157; Harris 1992: 60-61). Additionally, the use of feminine endings (ḥ.t-ḥpr.w-R.w; ḥ.t-n-hj=s) or feminine pronouns (=s) is a specific feature of the Neferneferuaten group.<sup>14</sup> It remains up to debate whether these are the titularies of two distinct rulers (Allen 1988, 1991; Dodson 2009, 2020a; Gabolde 1998) or the result of a name change of one king (Harris 1973, 1974; Kemp 2016; Newberry 1928; Reeves 2023; Willeitner 2022a, 2022b) and – in either case – in which sequence these names occurred.<sup>15</sup>

### *ḥḥ-pr.w-R.w as coregent(s)*

A coregency with Akhenaten has been proposed for all three thinkable bearers of the name Cḥḥ-pr.w-R.w] – that is, two distinct rulers Smenkhkare and Neferneferuaten or one name-changing ruler Smenkhkare-Neferneferuaten/Neferneferuaten-Smenkhkare. Whereas a coregency proved for one of the rulers in a model with two distinct rulers Smenkhkare and Neferneferuaten could be transferred to a model with one name-changing ruler Smenkhkare-Neferneferuaten/Neferneferuaten-Smenkhkare,

<sup>13</sup> The traditional interpretation assumed names and titles of three individuals: Akhenaten, Neferneferuaten, and Meritaten. Gabolde (1998: 178-179) suggested that only two individuals are present, namely Akhenaten and three cartouches indicating that the King’s Daughter Meritaten had become Neferneferuaten (for criticism of this view, see e.g. Eaton-Krauss and Krauss 2001: 95-96).

<sup>14</sup> These female markers were first collected by Krauss (1978: 29-35), who assumed that Smenkhkare and Neferneferuaten were two different *nomina* of Ankhkheperure (Krauss 1978: 90), but regarded Ankhkheperure as a different individual. The epithet ḥ.t-n-hj=s was discovered by Gabolde 1998: 153-157.

<sup>15</sup> Helck (2001: 62) and Krauss (1978: 90-91) cite the association of Smenkhkare with a year 1 and Neferneferuaten with year 3 to conclude the sequence of the names, while Reeves (2023: 270) suggested that the epithets of Neferneferuaten referring to Akhenaten are linked to their coregency whereas their omission occurred only after Akhenaten’s death, marking the beginning of Neferneferuaten’s/Smenkhkare’s sole rule.

a coregency proved in this latter model cannot be transferred to both rulers in a model of two distinct rulers. Proof of coregency would have to be demonstrated for each of the two. Therefore, this article adopts a model of two distinct rulers, since the results then could theoretically be adopted for the alternative model of one name-changing ruler as well.

A simple juxtaposition of two royal titularies is of course not sufficient to point towards a coregency (see above). Nevertheless, it is worth noting that while the names of Neferneferuaten appear on a total of three objects in connection to those of Akhenaten (Munich ÄS 7342 [for bibliography, see above]; GEM 354/Cairo JE 61500a-b/Carter 001k [for bibliography, see above]; London UC 410+Cairo JE 64959; Gabolde 1990, 1998: 90 [n. 797], 155 [fig. 4], 162-165, 2005: 281, 2015: 76-77, 80; Harris 1974: 11 [b], 13 [fig. 1b]; Krauss 1989; Martin 2009b; Stewart 1976: 22, pls. 12, 52.2), the name of Smenkhkare does so on only one (Cairo JE 62172/Carter 405; Beinlich & Saleh 1989: 185 [405]; Gabolde 1998: 5, 224-226 [fig. 7]; Harris 1992: 58; Loeben 1994).

Especially interesting are two inscriptions which most likely constitute captions to depictions. The first of these is the ivory fragment Munich ÄS 7342, for which the accompanying motif is very difficult to narrow down. The only certainties are the Aten disc with rays ending in hands and a garland – similar garlands appear on offering tables or on booths connected to funerary depictions (e.g. in the royal tomb at Amarna [AT 26; room γ, wall B; Lehner et al. 1989: 45-48, pls. 68-69] or the tomb of Tutankhamun [KV 62, burial chamber, eastern wall; Robins 2007: 324-325 [fig. 1]]; for funerary booths in general, see Arnst 2021) – being part of the composition. The second is the fragmented stela London UC 410+Cairo JE 64959 ('coregency stela'). It is most likely part of a group of stelae of modest size and in rectangular shape, the carved scenes usually showing selected members of the Amarnian royal family under the rays of the Aten in various configurations of affectionate and relaxed poses. The accompanying inscriptions are usually limited to the cartouches and epithets of the Aten and the depicted family members (Fitzenreiter 2005, 2008; Ikram 1989). Many of the characteristics of London UC 410+Cairo JE 64959 can be found in other examples of this group, suggesting that the preserved captions identified the depicted family members (of whom four pairs of feet survive, indicating a minimum of four included individuals). These two objects with preserved captions but uncertain accompanying scenes present an almost inverted case to the stelae (Berlin ÄM 17813 and 20716) with unfinished scenes and missing captions, both presenting themselves as potential sources but ultimately lacking sufficient information.

But perhaps the remains of a decorated pillar (see fig. 5) constitute a different case. A talatat from Hermopolis with two torus moldings (406/VII; Hanke & Roeder 1969: 386; pls 12; 16 [406/VII], see figs. 1 and 5) has often been called the 'coregency block'. On one of its decorated sides (406/VIIA) it shows the legs and feet of three left-facing figures; two of them tall and of equal proportions in front of two offering stands followed by a third smaller and almost entirely preserved figure shaking a sistrum which by her elongated shaved skull and streamer may be recognised as King's Daughter. This is a clear departure from a common composition of the Amarna period showing a triad of Akhenaten, Nefertiti, and a daughter underneath the Aten with a clear hierarchal proportion distinguishing the king from his wife and her in turn from their daughter (e.g. Cooney 1965: 8-9; Davies 1905b: pl. XLI). The tall figures have distinguished near and far feet (cf. Eaton-Krauss 2016: 12; Russmann 1980: 63-64) and wear sandals. The left figure closest to the offering stands wears a transparent garment reaching the calves. The clothing of the second tall figure, which is second from the left, is also transparent, but slightly longer and with a different hem shape, resembling that of the dress of the short figure of the King's Daughter.<sup>16</sup> Both tall figures wear a royal apron with a row of uraei. Due to their resemblance in both height and royal markers (i.e. royal aprons and distinguished feet), these two tall figures have been

<sup>16</sup> It is, however, not necessarily a distinctly female type of clothing, as a garment with a similar hem shape and also tied under the chest is worn by Akhenaten, again in combination with an apron (e.g. in the tomb of Mahu [AT 9]; Davies 1906: pls. XV,

suggested to be Amarnian coregents. W.R. Johnson identified a joining talatat (777/VIIIIC; Hanke and Roeder 1969: 397; pl. 6 [777/VIII]; Johnson 2020, see fig. 1) with the torso, head and lower part of the crown of the second tall figure, showing a female with a concave neck wearing a tall – most likely blue – crown with a streamer and a dress knotted underneath her breast. Her left arm is hanging next to her body whereas the right one is raised, most likely presenting an offering. The reverse side of the same block (777/VIIIA, see fig. 2) shows again a female royal, this time right-facing, wearing a tall crown with a streamer and uraeus, a double-orb-earring, a dress knotted under her breast, raising her right hand with an offering while having an ankh-sign held to her nose. This last detail confirms that the Aten disc was depicted above the figures, who were offering to him. Most likely, another iteration of the same or a similar composition is found on another side of the original ‘coregency block’, 406/VIID (see fig. 4), showing the short figure of the King’s Daughter with her right hands raised (again, most likely to shake a sistrum) following a much taller figure in a long transparent garment. Thus, decoration from three sides of the pillar 406/VII+777/VIII and two of its torus mouldings are preserved (for reconstruction and measurements, see Johnson 2020).

By all accounts, the reconstructed scene of three figures, two of them of the same size, dressed in similar royal costume and jointly offering to the Aten parallels similar compositions from the coregency of Thutmose III and Hatshepsut and qualifies as a depiction of coregents, leading to the question of the identification of these three figures.

Yet another block from Hermopolis – 826/VIIIA (Gabolde 1990: 45 [fig. 9], 2015: 80; Hanke & Roeder 1969: 398, pls 7, 10 [826/VIII]; Helck 2001: 61-62; Laboury 2010: 343 [fig. 6-6]) – gives partial titularies of Neferneferuaten and Ankhesenpaaten (see below). Already J.P. Allen (1991: 74, followed by Johnson 2020: 767-768; Kawai 2023: 117-118) suggested it belongs to the same monument as the ‘coregency block’ 406/VII, thus identifying the small figure on 406/VIIA+777/VIIIIC as the King’s Daughter Ankhesenpaaten and the second tall figure in front of her as Neferneferuaten.

This fits well with other depictions suspected to show coregents with one of them being a woman as well as the grammatically feminine markers in the titulary of Neferneferuaten. Overall, the presence of a female ruler by the name Ankh(et)kheperure seems secured and 406/VII+777/VIII+826/VIII suggests that she was indeed part of a coregency arrangement. The appearance of her name following that of Akhenaten in two inscriptions (on wooden box GEM 354/Cairo JE 61500a-b/Carter 001k and ivory fragment Munich ÄS 7342, see above), the latter perhaps being a caption that accompanied a scene showing the coregents Akhenaten and Neferneferuaten. The order Akhenaten – Neferneferuaten in these inscriptions therefore suggests the reconstruction (Gabolde 1990: 45; 1998: pl. XXIVb, see fig. 3) of 826/VIIIA to:

↓<sup>x+1</sup> [nswt-bjt (Nfr-hpr.w-R'w W'-n.j-R'w)] ↓<sup>x+2</sup> z3-R'w C[h-n-Itn] →<sup>x+3</sup> dī nh ʿ-m-ḥ'w=f] ↓<sup>x+4</sup> [nswt]-  
 r'bjt<sup>1</sup> r'c<sup>1</sup> [nh-hpr.w-R'w Mri(jj)-[...]] ↓<sup>x+5</sup> z3-R'w (Nfr-nfr.w-Itn Mri(jj)-[...]) →<sup>x+6</sup> dī nh d.t nhh] ↓<sup>x+7</sup>  
 z3.t-nswt n.(t) h.t=f<sup>i</sup> [mri(jj)t=f'nh=s-] ↓<sup>x+8</sup> n-p3-Itn [nh.tj]

[King or Upper and Lower Egypt (Neferkheperure Waenre) Son of Re (Akhenaten) given life, great in his lifetime, King of Upper and] r'Lower Egypt r'c<sup>1</sup> [Ankhkheperure beloved of...] Son of Re (Neferneferuaten beloved of[...]) given life forever and ever] King’s Daughter of his body [beloved of him, Ankhes]enpaaten [may she live].

Yet another talatat join identified by W.R. Johnson (255/VI+482/VII; Johnson 2015: 28-29, 2020: 767-768) bears the lower heads, necks and shoulders of a male with a crown and streamers and a female with

XXIII). It is probably no coincidence that the two female individuals on 406/VIIA+777/VIIIIC wear a similar dress distinct from the first (likely male) figure, which is also the case in the scenes in the tomb of Mahu that were just cited.

a layered wig and streamers under the Aten's rays. They are depicted on the same scale, the female being slightly shorter, but not to the extent of hierarchical proportion. It is likely that these two figures can be identified as Akhenaten and his female coregent Neferneferuaten even though no captions are preserved on this join.

Another interesting detail is the already described transparent, calf-length garment with a curved hemline, which is slightly longer at the front, worn by a presumable coregent, in association with the slightly longer garment reaching almost to the ankles, with a straight hemline parallel to the ground line at the front and hanging down only at the very back worn by the female coregent Neferneferuaten on 406/VII+777/VIII. Garments with the very same hemlines are worn by the male and female coregent respectively on the unfinished stela Berlin ÄM 17813. Perhaps even more interestingly, the tribute scene of regnal year 12 in the tomb of Merire ii (AT 2) at Amarna, which famously shows Akhenaten and Nefertiti with almost identical outlines, also clearly shows that one of them wears a an almost ankle-length gown with a straight hemline and the other one a shorter gown with a slightly curved hemline, which hangs slightly lower at the front (cf. Davies 1905b: pl. XXXVII-XXXVIII).

Finally, having covered the two major figures on 406/VIIA+777/VIIIC, the third figure bears discussion. This is a daughter of Akhenaten and Nefertiti, Ankhesenpaaten, who also appears in conjunction with Neferneferuaten on the stela London UC 410+Cairo JE 64959. Usually, when only one Amarna princess is shown, it is the King's Daughter Meritaten, making her the most commonly depicted of the sisters. They follow a set order of depiction (Meritaten, Meketaten, Ankhesenpaaten, Neferneferuaten-Tasherit, Neferneferure, Setepenre), which is only breached upon the death of Meketaten, when she is left out in the row of mourning family members standing in front of her funerary booth (Royal tomb at Amarna [AT 26], room  $\gamma$ , wall B; Martin 1989: pls. 68-71; on the death of Meketaten and the associated lamentation scene, see Boddens-Hosang 1986; Dijk 2009; Martin 2011; Vandersleyen 1993). Interestingly, this is the only case known to me in which Meritaten directly precedes Ankhesenpaaten. Either Meketaten's death occurred so late that only a few depictions were executed showing the remaining sisters in their order and none of these survived or Meketaten continued to be included in scenes carved after her death, either in perpetuation of the former 'complete' royal family or in depiction of earlier ('historical') events in which she had taken part. But for the case at hand, it may be assumed that Meketaten was not included because she was deceased. Meritaten's absence may be explained by various theories. Some scholars have argued that she became the ruler Neferneferuaten (e.g. Gabolde 1998), resulting in her being depicted under this new name and therefore demanding another King's Daughter to be included. In another scenario, Smenkhkare preceded Neferneferuaten as coregent of Akhenaten and was betrothed to Meritaten<sup>17</sup> who, through her promotion to King's Great Wife, could no longer fill the position of the King's Daughter in such a tripartite composition, leaving the next-oldest daughter, Ankhesenpaaten, to take this place. A discussion of the debated details of the historical events is impossible here; it remains only to point out the remarkable presence of Ankhesenpaaten and the simultaneous absence of the King's Daughter Meritaten.

At last, the question of Smenkhkare remains. Whether one assumes one or two rulers named Ankhkheperure, the sequence of Smenkhkare and Neferneferuaten (either as names of the same ruler or as successive, distinct rulers) is still up to debate. For the two-ruler-model adopted here, arguments for both sequences have been brought forward, but none has provided convincing proof.<sup>18</sup> If Smenkhkare

<sup>17</sup> Smenkhkare and the Great King's Wife Meritaten appear in the tomb of Meryre ii (AT 2) and on a damaged block from Memphis (Gabolde 2015: 72, 76 [fig. 12]; Harris 1974: 16 [c], 17 [fig. 2c]; Krauss 1978: 87 [e. 4]; Newberry 1928: 8-9 [fig. 4]).

<sup>18</sup> The sequence Neferneferuaten – Smenkhkare was supported in the past by Allen (1994, 2009) because more evidence connects Neferneferuaten to Akhenaten, leading Allen to assume a coregency between them preceding a short sole rule of Smenkhkare. He later changed his view and supported the order Smenkhkare – Neferneferuaten (Allen 2016; Dodson 2009, 2020a). Arguments include that Neferneferuaten added an epithet to Ankhkheperure in order to distinguish herself from

preceded Neferneferuaten and the coregency of Neferneferuaten and Akhenaten is indeed valid, then one has to assume a coregency between Akhenaten and Smenkhkare as well, although no direct evidence remains of it. If Smenkhkare succeeded Neferneferuaten, then the questions surrounding her coregency (namely, its duration and whether she survived or predeceased Akhenaten) need to be addressed first before reassessing the subsequent possibilities of a coregency of Akhenaten and Smenkhkare. Either way, the case for a coregency of Akhenaten and Smenkhkare would be at best circumstantial with the currently available source material.

## Conclusions

Initially, double dates and depictions of coregents (that is, scenes including two individuals with royal attributes such as crown, costume or captions with royal titles and cartouches who jointly take part in an action and are not set apart by hierarchical proportion) have been explored as general indicators of coregency. The scarcity of double dates especially in the New Kingdom may be connected to the accession dating system used in this period, which makes conversion of the regnal year counts very complicated. Perhaps the ‘junior’ coregent did not adopt his own year count until his sole reign in order to avoid such complications. If the coregents did not use divergent regnal year counts, these also need not be equated in a double date.

In the next step, the evidence brought forward for the three proposed coregencies of Akhenaten (with Amenhotep III, Smenkhkare or Neferneferuaten) has been scrutinised as to whether double dates occur after all or if pictorial evidence matches the criteria for a depiction of coregents. Double dates are not known from the Amarna period – most likely to reasons explained above – which leaves pictorial sources as the focal point of the coregency debate. Some depictions of unidentified coregents (esp. Berlin ÄM 17813 and Berlin ÄM 20716) are known, and on one seal impression (Berlin ÄM 21331), one of two possible coregents is identified as Akhenaten. There is no depiction of Amenhotep III and Akhenaten or Akhenaten and Smenkhkare matching the criteria established for pictorial evidence of coregents. There is, however, a talatat assemblage from Hermopolis (406/VII+777/VIII+826/VIII) depicting coregents – one male and one female – and by the caption, the female one is Neferneferuaten. She is likely to be also the female coregent in the scenes with unidentified coregents (Berlin ÄM 17813 and Berlin ÄM 20716) and the male coregent is likely to be Akhenaten. This leaves the coregency of Akhenaten and Neferneferuaten currently as the only Amarnian coregency with substantial and convincing evidence.

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the preceding Smenkhkare and that Neferneferuaten is connected to both Amarnian and “orthodox” theology, whereas Smenkhkare is only known in connection to the Amarna religion. Arguments for a sequence Smenkhkare - Neferneferuaten based on the dipinto in the tomb of Paury (TT 139) as presented by e.g. Dodson (2020b) have been convincingly rejected by a corrected reading by Reeves (2023). Interestingly, for the one ruler model, the order of names is also debated (see n. 15).

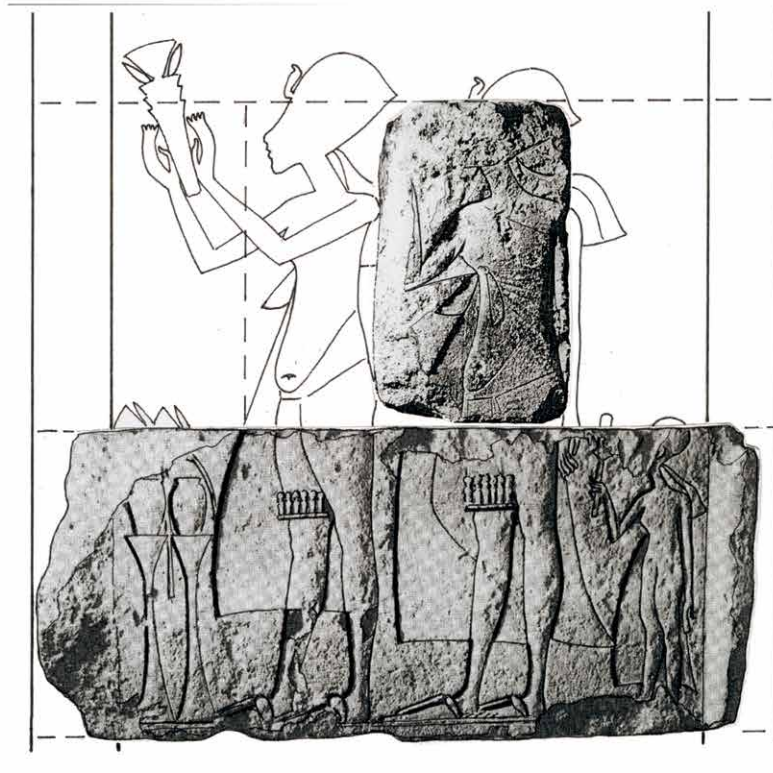


Fig. 1: Hermopolis 406/VIIA + 777/VIIIC; drawing by W.R. Johnson (2020, 764 [Fig. 11])

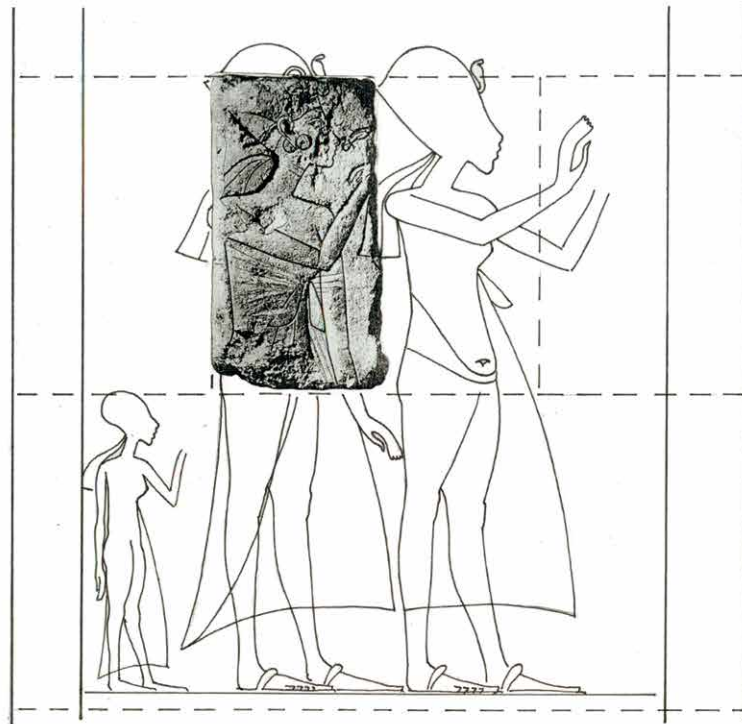


Fig. 2: Hermopolis 777/VIIIA, drawing by W.R. Johnson (2020, 766 [Fig. 13])



Fig. 3: Reconstruction of the inscription on 826/VIIIA

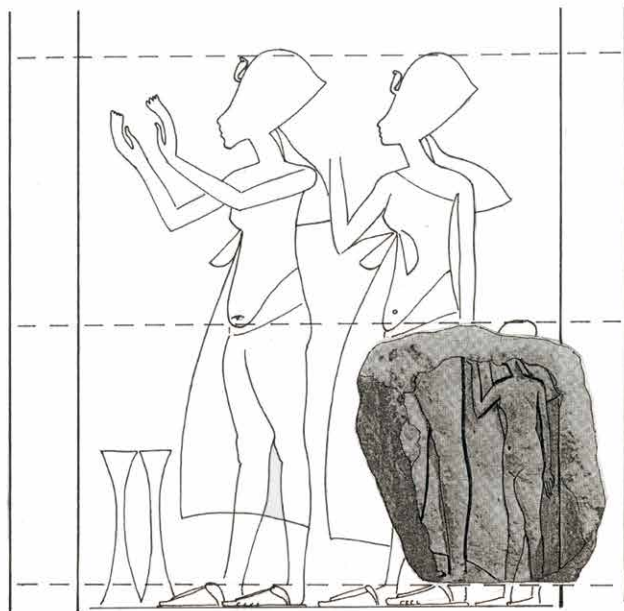


Fig. 4: Hermopolis 406/VIID;  
drawing by W.R. Johnson (2020, 765 [Fig. 12])

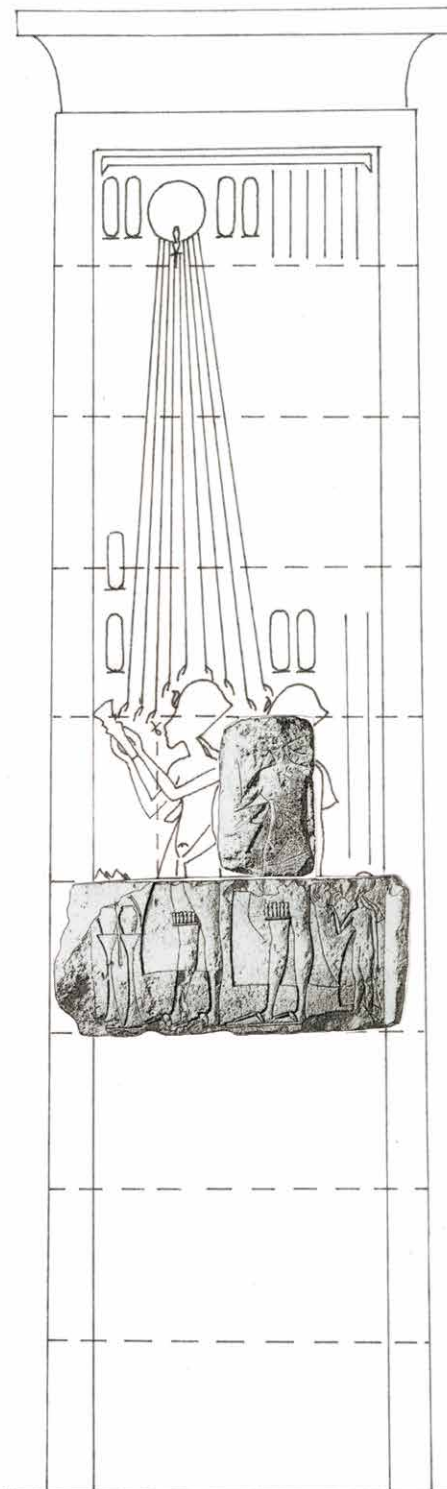


Fig. 5: Hermopolis 406/VIIA + 777/VIIIC;  
drawing by W.R. Johnson (2020, 767 [Fig. 14])

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# Towards building a Database of Ahmed Pasha Kamal's Hieroglyphic Dictionary: Obstacles and Challenges

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## Abstract

From the time when Akerblad, Young and Champollion *le Jeune* set Egyptology as a discipline in the first quarter of the 19th century down to the present day, every diligent scholar of ancient Egyptian texts, whether hieroglyphic, hieratic or demotic, has found it necessary to compile, in one form or another, his own dictionary. Raymond A. Faulkner, Adolf Erman and Hermann Grapow, Rainer Hannig, Leonard H. Lesko, Penelope Wilson, Walter E. Crum, Alexander Badawy and Hermann Kees, and Jaroslav Černý and many others were all eminent scholars in the ancient Egyptian language, writing and publishing their own dictionaries dedicated to one of the phases of the ancient Egyptian language.

Similarly, Ahmed Pasha Kamal, who is considered the first Egyptian Egyptologist, wrote his own ancient Egyptian dictionary as well, yet with a different methodology. Although he studied at the *Al-Lisan Al-Masry Al-Qadim* school (The Ancient Egyptian Language School), his dictionary was never mentioned or even published until 2002, when the Egyptian Supreme Council of Antiquities (SCA) printed a facsimile edition.

One of the peculiarities of Kamal's dictionary is the use of colloquial Arabic as a source for ancient Egyptian linguistic analysis. The traces of the ancient Egyptian language can still be observed in modern Egyptian colloquial Arabic, which is the form of Arabic used by Egyptians as their native spoken language today. In addition, Kamal received lessons in Egyptology and Semitic languages, which helped him to build a solid scientific approach for highlighting the linguistic roots between ancient Egyptian language and the Semitic languages. Therefore, the dictionary helps to better understand the ancient Egyptian language through the analysis of its lexical survivals.

## Keywords

History of Egyptology. Ahmed Kamal Dictionary, Database, Ancient Egyptian Philology, Linguistics, Archives.

## Introduction

Bibliotheca Alexandrina (BA) aims at reviving a treasured part of the cultural and scientific heritage of humanity. It aspires to promote culture and science, learning and knowledge (Serageldin 2006: 7). The Rare Books section in BA comprises a rich collection of rare books, maps, and special collections. This

section contains more than 15,000 rare books, the oldest of which dates back to the year 1496, and 700 periodicals (54,000 issues) and 66,000 books from special collections. The Special Collections section contains whole library collections that have been gifted to the BA by public figures, such as the late President Mohamed Anwar el-Sadat, Sultan Qaboos and Dr Hussein Heikal.<sup>1</sup> Therefore, with open arms, the library welcomes valuable donations from important and public figures, whether they are their personal belongings, their private libraries, or their own publications. Ahmed Pasha Kamal's dictionary was kept in a private family archive for almost 100 years, where the volumes were distributed among the family members. In September 2020, BA received 18 handwritten volumes, of a total of 22 volumes as a donation from the family. Later, BA received three more volumes from Dr Francis Amin, an Egyptologist and famous Egyptian photo collector in Luxor, Egypt. This paper is written in preparation of a digital database for the 13,000 hieroglyphic entries in the dictionary. It will discuss two main sections: the first will focus on Kamal's education and career, excavations and his research field in publishing, while the second will discuss the importance of building a digital database format to categorize the different entries of his dictionary.

### **A pioneer Egyptian of Egyptology: Ahmed Pasha Kamal (1852- 1923)**

Kamal was born of honorable parents in Cairo. His birth certificate was given digitally to BA from the family. According to the Dar al-Mahfuzat Archive, (DMD2-30147\_01), he was born at 1:00 am on Thursday, 29 Shaaban 1268 Hijri, which corresponds to 18 June 1852.

His family origins go back to Crete but he was born and raised in Cairo. He grew up and was educated during the reign of Khedive Ismail (1863-1879), who witnessed a wide educational renaissance (Saied 2002: 29-31). Kamal was not his given name, but he was called as such by his colleagues because of his qualities, as it means perfection in Arabic. Indeed, he had a charismatic and attractive personality, and was distinguished by the breadth of his knowledge and the diversity of the sources of his information (Noshokaty 2021).

Luckily in 1869, Kamal was selected among ten talented students in the French language to join the *Al-Lisan Al-Masry Al-Qadim School* (Ancient Egyptian Language School) (Reid 1985: 235). This school was also known as the Brugsch School. It was established by the German Egyptologist Heinrich Brugsch, who is considered one of the pioneers of the ancient Egyptian language. Brugsch had a great influence on Ahmed Pasha Kamal's career. This school was established in coordination with Ali Pasha Mubarak, who was the principal reformer of Egyptian educational system at that time. (Reid 2002: 235) (Figure 2). Kamal took classes in ancient Egyptian language and history, German, Ḥabashīyah (Abyssinian), Coptic and Arabic. His wide knowledge of all these languages helped him write his dictionary



Figure 1. Ahmed Pasha Kamal © Courtesy of Ahmed Kamal Pasha's Family Photo Archive.

<sup>1</sup> For more details see < <https://www.bibalex.org/en/center/details/rarebooksandspecialcollections> >.

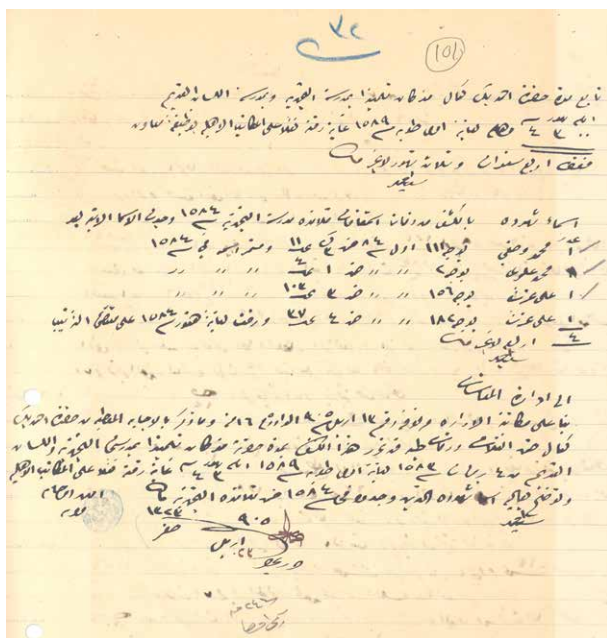


Figure 2. A report of Ahmed Kamal from his student days in the Taghizeia preparatory school and Al-Lisan Al-Masry Al-Qadim with those who were with him in the school. Dar al-Mahfuzat Archive (DMD2-30-101\_01).

with a solid scientific approach highlighting the linguistic roots between ancient Egyptian and the Semitic languages.

### **Ahmed Kamal's excavations: overview**

It is important to recognize that in the 19th and early 20th century the field of archaeological excavation in Egypt was restricted to Europeans. Egyptians were not involved, unless they were workers or employees without any official positions. For example, Petrie separated the diggers – mainly Egyptians from Qift – from the non-Egyptian archaeologists who had the ability to identify sites and date their finds. Meanwhile, Reisner recruited diggers from the same village as Petrie, but he promoted an Egyptian to train the Qift diggers in photography and recording (Quirke 2014: 396). Within this colonial context, it was therefore a struggle for an Egyptian to hold a high-ranked position in the Service des Antiquités, as these were usually only available for Europeans. Large amounts of archival material support this view showing how Egyptians

struggled to overcome the obstacles created for them in this system. The conflict between Kamal and Georges Daressy, for instance, is a famous case as both were competing to hold the position of 'curator' in the Service des Antiquités (Cf. Egyptian National Archive: 0075-035366/2/32/3).

Nevertheless, Kamal was able to overcome such obstacles, since he showed exceptional abilities, besides being an Egyptian native speaker of Arabic. He could easily deal with Egyptian workers and discuss the work details with them. According to the Egyptian laws at the time, it was not allowed to excavate any Egyptian archaeological sites without a permission of the Service des Antiquités, and one had to be affiliated with a scholarly institution, i.e. a university or an institute. Due to these constraints and limitations, Kamal was only able to start his excavations at a later time, after the foreign missions no longer controlled the important and promising archaeological sites. He excavated in Qus, Minya (1898), Deir el-Bersha, Minya (1900-1902), el-Heba, Beni Suef (1900), Atfih, Giza (1906), Meir, and Assiut (1912). His excavations were short: for example, he worked only for seven days in el-Heba, three days in Atfih, and eight days in Deir el-Gebrawy (Abou-ghazi 1981: 1-5). It is possible that the lack of sufficient financial support was the reason behind such short stays at each site. Kamal achieved as much as he could through surveying excavations, as he aimed at registering the sites under the control of the Service des Antiquités, so that he could protect them from destructions and looting.

Moreover, Kamal contributed to the conservation of Egyptian antiquities by establishing a series of provincial museums. In this regard, it is essential to draw attention to his efforts in convincing Khashaba Pasha to found his private museum in Assiut. It is considered the oldest Egyptian private museum as it was inaugurated in 1914. Sayed Khashaba decided to conduct excavations under the supervision of the Service des Antiquités. Thus, Ahmed Kamal was appointed by Maspero to supervise Khashaba's works. Indeed, the good relations between Sayed Khashaba, Ahmed Kamal and Maspero resulted in establishing this museum instead of selling the antiquities outside Egypt (Abdel Rahman 2019: 85-101). When the museum was inaugurated at the end of February in 1914, Kamal was responsible for guiding

the guests and celebrities, among whom were Lord Kitchener, Maspero, and Lefebvre. Kamal's report on his supervision work during Khashaba's excavations in Meir was published upon the order of the Minister of Public Works (cf. Egyptian National Archive: 0075-035165/2/32/2).

However, Kamal's greatest achievement was his role in the discovery of Deir el-Bahari Cachette or the Royal Cachette. The Cachette contained an unusual collection of royal mummies and funeral equipment of kings, queens, and other royal family members of the New Kingdom, as it was used as a reburial space for royal mummies during the 21st dynasty (Reeves 1996: 194-197). Maspero (1889: 511-790) investigated the cachette in 1881, but it was Kamal who conducted the negotiation with Abdel Rasoul's family in order to reveal the necessary information on their discovery and looting of the cachette. This famous and rare discovery was the main theme of the 1969 film *Al-Mumia – The Night of Counting the Years* (Hosny 2016: 134-151; Abdel Salam and Toufic 1999: 89-126), directed by the late famous Shady Abdel-Salam, who said:

*'The Mummy movie does not exceed 24 hours, it represents a moment of awareness or conscience that had not yet become mature in 1881, that is, a year before the British colonial occupation of Egypt in 1882. I am actually trying to express a very general issue, but it takes the Egyptian aspect, the environment, life and history that I know and feel more than others.'* (Hosny 2016: 139).

### **Ahmed Kamal's knowledge production**

Kamal's knowledge production varied in languages and target audience. His publications were two-folded: he published in Arabic for the Egyptian people and in French (mainly) and English for Westerners (Reid 2002: 30). He published 52 articles, of which 29 articles were published in the *Annales du Service des Antiquités*. He authored eight Arabic books (Saied 2002: 80-81) and two French ones which were about the Greco-Roman stele and the offering tables in Cairo Museum (Kamal 1905; Kamal 1906-1909). These articles were mainly dedicated to the scholarly community and archaeologists who were working in excavations. Most of Kamal's scholarly articles focused on dating and publishing newly discovered artifacts from different sites in Egypt. In addition, he focused on reporting new excavations (Kamal 1900-1901: 13-45; Kamal 1911: 3-39). In the meantime, Kamal's view of some problematic issues in Egyptology caused him some troubles and conflicts with famous Egyptologists at the time. When he published his article '*Le procédé graphique chez les anciens Égyptiens, l'origine du mot Égypte*' (Kamal 1917a: 133-176), on the etymology of the word 'Egypt', he stated that it came from word *Coptos* not the from the Greek word αἴγυπτος. Moreover, he argued that the Arabic word مصر '*Misr*' came from an ancient Egyptian root, not from a Semitic root. This article resulted in extensive waves of scientific debates between Kamal and Daressy (Kamal 1918: 325-338).

Kamal wrote many newspaper and magazine articles in Arabic, as he was keen to raise the Egyptians' awareness of their great history. He published a series of 12 archeological articles in *al-Ahram*, starting in 1886 (Rizq 1994: 5), while in 1891, he started to write articles in different monthly magazines, such as: *al-Muqtataf*, *al-Manar*, *azu-hur*, *al-Helal*, *al-Umran*, *Bulletin de l'Institut d'Égypte*.

Moreover, Kamal was eloquent in his discourses. He delivered many public lectures and solemn talks at the Higher Schools Club between 1906-1908. In 1908, he started to teach Egyptology at the Egyptian University, then in 1910, he established the Egyptology department in the Higher Teachers School, but unfortunately, the department was closed in 1913 or 1914. Kamal received a reward from the Egyptian government for his efforts in teaching ancient Egyptian language at the Higher Teacher School (cf. Egyptian National Archive: 0075-043470/2/42/1, dated: 20/10/1910)

His first Arabic book was published in early 1883 under the title *العقد الثمين في محاسن اخبار وبدائع آثار الاقدمين من المصريين* *Al-‘Uqd al-Thamīn fī Maḥāsīn Akhbār wa-Badā’i‘ Āthār al-Aqdamīn min al-Miṣriyyīn – The precious decade in the virtues of news and treasures of ancient Egyptian antiquities* (Bulaq 1300 H/1883 AD).

However, his main work on ancient Egypt was his book *الفرائد البهية في قواعد اللغة الهيروغليفية* *Al-Farā'id al-Bahiyyah fī Qawā'id al-Lughah al-Hirūghlīfiyyah. The brilliant insights into the grammar of the hieroglyphic language* (Bulaq 1303 H/1885-1886 CE).<sup>2</sup> This book is considered the first inclusive study on the ancient Egyptian language published in Arabic. It includes a brief dictionary of 504 entries (Hieroglyphic-Arabic). It is also considered one of the foremost and unique books in the field of linguistics and ancient Egyptian language for the following reasons:

1. The use of the Arabic letters for transliterating the ancient Egyptian words;
2. The use of diacritics and vowels pronouncing the ancient Egyptian words;
3. The use of Arabic grammar categories when structuring and dividing the book chapters, in order to stress the affinities with Arabic (Reid 2002: 30). Based on his methodology, he followed a revolutionary approach to tackle the ancient Egyptian Language. He divided his book into an introduction, followed by thematic chapters: parts of speech (name, verb, preposition), types of names, verbs, nouns and pronouns. Then he dedicated a chapter for adjectives, definite and indefinite articles, adverbs and numbers, etc.
4. Finally, the book included the famous literary text ‘The Tale of the Doomed Prince’, copied from its hieratic original. It also included four funerary tombstones as reading practice.

However, Kamal was a polyglot, and he published the majority of his studies and reports in French in order to prove that Egyptian Egyptologists were worth working with in the archaeological field. His important publications in French include the Egyptian Museum’s *Catalogue générale* and many articles in the *Annales du service des antiquités de l’Égypte* (ASAE). In addition to this he translated guidebooks from French into Arabic. Kamal translated the Greco-Roman guide, authored by Giuseppe Botti, from French into Arabic in 1901. Botti sent a complaint to Maspero mentioning that Kamal removed his name from the Museum guidebook, thus asking Maspero to correct this mistake and reprint the catalogue with his name on the title page (See: Dar al-Mahfouzat archives: DMD2-30-122\_01, DMD2-30-123\_01).

One of the most important works of Ahmed Kamal was his dictionary, as he spent his life studying Egyptology aiming to publish it. He was the first Egyptian to compile a huge dictionary for the ancient Egyptian language (in 22 volumes) written over 21 years. It is worth mentioning that the Supreme Council of Antiquities in Cairo printed the volumes on the occasion of the 100 years on the inauguration of the Egyptian Museum Cairo (1902-2002). They were published consecutively from 2002 till 2010, despite being a draft rather than a final manuscript of the ancient Egyptian dictionary with no index or corrections (Kamal 2002).

### **Building a database of Ahmed Pasha Kamal’s hieroglyphic dictionary**

The mission of BA is based on the pursuit of excellence of human knowledge and the advancement of research for the benefit of Egypt, the region, and mankind everywhere. The revived BA welcomes the new millennium with its technological developments and eradication of the digital divide with open arms (Zahran 2007: 156-157). The Information and Communication Sector in BA, in collaboration with the Writing and Scripts Center,<sup>3</sup> are going to jointly work through this project to document and build a database of Ahmed Pasha Kamal’s hieroglyphic dictionary.

<sup>2</sup> This book is available online at < <http://dar.bibalex.org/webpages/mainpage.jsf?PID=DAF-Job:144174> >.

<sup>3</sup> For more information on the center see < <https://www.bibalex.org/writingandscripcenter/en/Home/Index.aspx> >.

For implementation, the digital laboratory in the BA had digitized the first 18 volumes (the three volumes donated by Francis Amin still await digitization), with a total of 6398 pages and converted them to a digital format. This laboratory is equipped with the necessary tools used for indexing, archiving and managing digital media, thus allowing for centralized digital control of the entire workflow.

The digitization of the whole manuscript passed through four main stages: the process started with the scanning of the volumes, followed by the processing stage, where the digital images are processed and prepared to be read properly matching the original. This is followed by the third stage, which is the Optical Character Recognition (OCR), and finally followed by the quality assurance stage. After the termination of the digitization process, a team of scholars in Egyptology with the aid of specialized restorers and preservationists from the BA restoration lab have worked together on reinstating the whole dictionary, setting standards and guidelines for restoration. In particular, the BA conservator team had faced many challenges in treating ink-corroded papers without creating further damage (Fellows-Jensen and Springborg 2000: 23). The inks were fixed so that the writings will not be erased when exposed to the chemical treatment.

Modern technologies offer extraordinary possibilities for extending the scope of a lexical research. Actually, the modern databases offer much more than a collection of examples as they are gradually expanded with additional information. Texts that are encoded in databases like the *TLA* are described with a rich set of metadata, that can be used for classifying the data, sorting out examples and filtering complex research (Winand 2015). Accordingly, creating a database for Kamal's dictionary will facilitate information presentation in a structured format. It will be a collection of distinct pieces of information, particularly the information that has been formatted and organized specifically for analysis. The reason for creating this database is to operate large quantities of information by inputting, storing, retrieving and managing the entries and to set them up to users with access to all the data (Ullman and Widom 1997: 1).

The Writing and Scripts Center in BA aims to build such an integrated database to identify and collect all the different scripts and languages that Kamal used for writing his dictionary. More than 13,000 entries in 6000 pages need to be digitized, archived and documented in an accurate database. This searchable online database will provide an easy access to all lexemes. This will definitely require the creation of indexes for all the lemma lists, with all languages used to make it searchable and accessible for all researchers. It is a long-term project that will certainly take several years in order to be achieved, especially considering that the research team is also planning to explore the archive of Ahmed Kamal Pasha at the Egyptian National Archive in order to track his career path. Yet, at this point we have to ask a few important questions: for whom shall we make this project? And what is the potential target audience? The potential users can be classified into three main groups: the first is the Egyptologists and scholars whose field of research and expertise is the Egyptian language and texts. The second is the people who are not Egyptologists, but need to have access to Egyptian texts and hieroglyphic words. The third is for the philologists who are studying the roots of the Semitic languages and its relation with the ancient Egyptian language. All these dimensions have to and are being taken into consideration in our project.

At the same time, in order to identify his annotations to the words, it is crucial to understand how Kamal wrote his dictionary with his exceptional methodology, and how he discussed each word. Kamal listed the ancient Egyptian words in Hieroglyphs, Hieratic, Demotic, and Coptic, with their corresponding Arabic translations. Then, he included explanations of each word in French, and occasionally mentioned the equivalent words in Coptic, Persian, Hebrew, Abyssinian, Amharic, Aramaic, and Assyrian. One of his main goals was to identify shared linguistic roots between the ancient Egyptian and Arabic languages. Kamal had recognized that ancient Egyptian is a branch of the Afro-Asiatic language family, which



Challenges

Although the logic underlying Kamal's entries is overall clear, the project's research team faces three main obstacles and challenges while reading the dictionary in order to build the digital database. The main challenge was in reading each word in the dictionary, as every single word needs a careful dissection. Moreover, we noticed that sometimes the information or the data written to describe each word seems to be incomplete. Sometimes the explanations of certain words seem to be missing or the brackets were left empty. This suggests that Kamal did not have that piece of information at that time and that he might have added it later on (Kamal 2002: Figure 5). This idea was confirmed when we identified different kinds of inks that were used later on for filling the empty spaces (Figure 6).

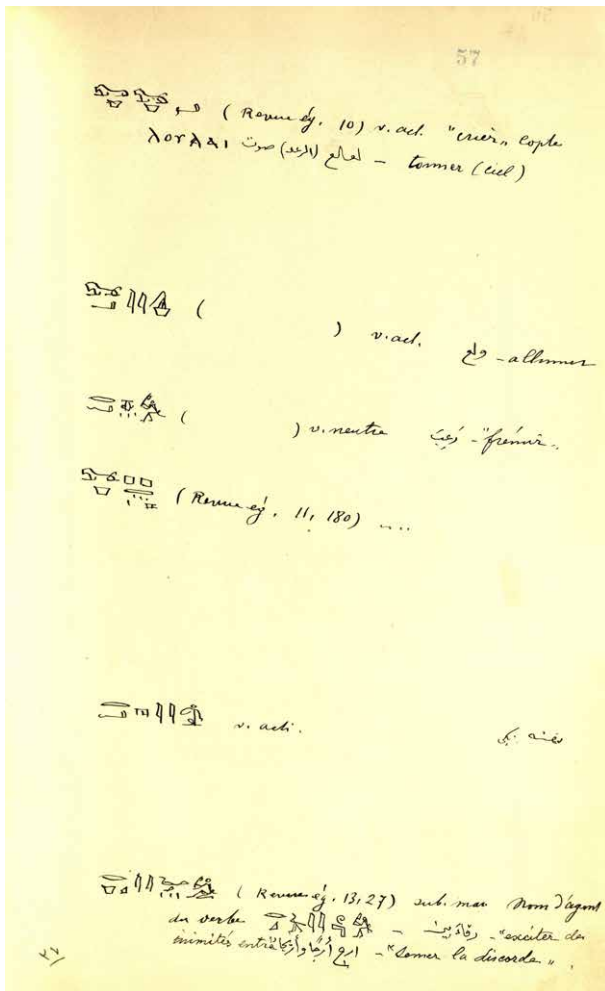


Figure 5. Vol. 9, 57 from Kamal's dictionary that shows the empty spaces and brackets © Bibliotheca Alexandrina.

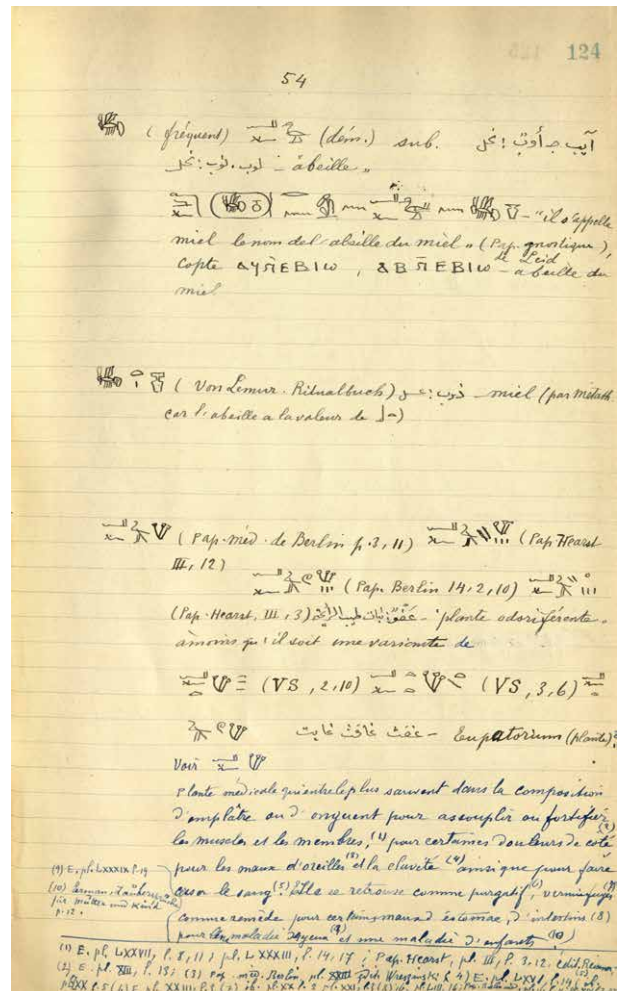


Figure 6. Vol. 3, 124 from Kamal's dictionary that shows the use of the blue ink later on © Bibliotheca Alexandrina.

The second challenge is the absence of any ID number for the lemma list or even an index for each volume, as it is the case, for instance, in the *Wörterbuch der Aegyptischen Sprache* and *Thesaurus Linguae Aegyptiae* (TLA). This is a major problem, especially in classifying the languages and scripts used in the

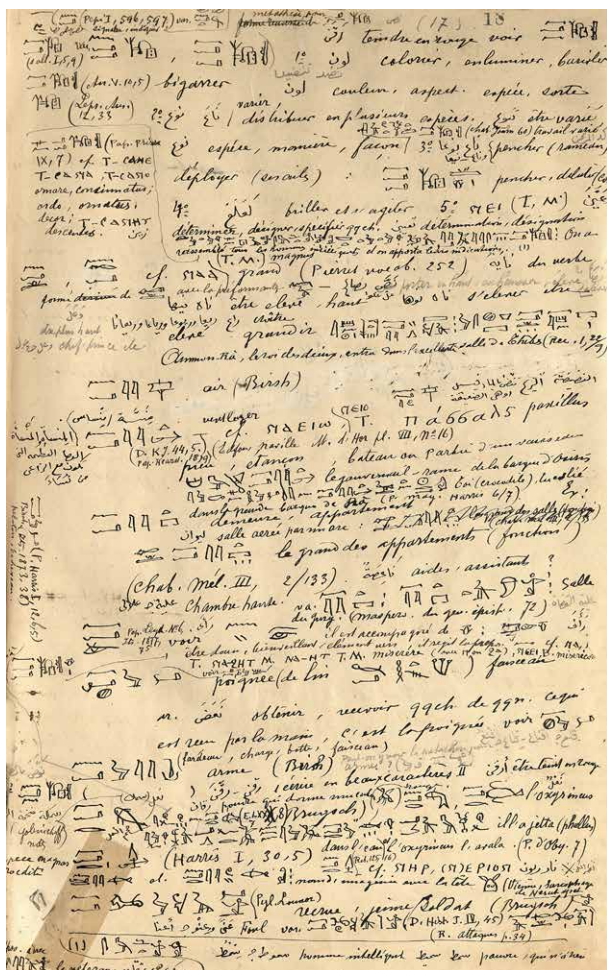


Figure 7. Vol. 10, 18 from Kamal's dictionary that shows the bad handwriting © Bibliotheca Alexandrina.

dictionary, as well as knowing the page numbers, and it will be necessary to collect and classify the words written in different languages and scripts in order to make separate indexes for each volume. These indexes will include the Coptic, Greek, and Latin words mentioned in various lexemes, and the other languages that were used in annotating the translations, such as Arabic, Hebrew, Aramaic, Assyrian, Syriac, Persian, and Amharic.

The third challenge is the bad handwriting that characterizes the majority of pages. This problem exacerbates the issues met in digital humanities and the training of intelligent systems. In particular, the pages often display curved texts in the margins. Sometimes the letters and words were chaotically written as the majority of the pages were unlined. The lack of space between words and the plurality of shapes for a single character makes reading difficult and often require the knowledge of the word beforehand to decipher the character (Figure 7).

This in turn has raised three questions: Who wrote the dictionary? What are these copybooks that Kamal used for writing his dictionary? And is AI currently capable of reading these scripts? If yes, what recent software that can read such Arabic manuscripts?

Undoubtedly, Kamal wrote the entire dictionary by himself within 21 successive years, but his middle daughter Tafidah had a significant role in co-writing the dictionary with her father. In fact, she wrote the Arabic and the French translations for this manuscript, while Kamal wrote the hieroglyphs and the other ancient languages. In 1916, Kamal had finished writing 16 volumes from the 22 volumes, and this means that he continued writing the rest of the volumes until his death in August 1923 (Reid 2002: 212). Kamal's grandson mentioned that his grandfather wrote his dictionary on 'lambet gaz', or gas lamp (French: *lampe de gaz*), standing all the time to accomplish his work. The whole story can be seen in a documentary film that was produced by BA's studio in cooperation with the Writing and Scripts Center, which presents the life story of Ahmed Pasha Kamal, the pioneer of Egyptology, and his struggle and insistence on learning the ancient Egyptian language and disseminating it to the public.<sup>4</sup> It also presents his huge work, the dictionary of the ancient Egyptian language, after his family donated it to the library to be restored, digitized, and displayed.

As for the copybooks used for writing the dictionary, it seems that Kamal had relied on the copybooks or notebooks that were used at that time by teachers in the Ministry of Public Education to prepare lessons, since he was working as a teacher. This was proved by the presence of the crescent and star as a watermark on some pages symbolizing the Egyptian flag at that time, and by the presence of a box

<sup>4</sup> This film is available via BA's youtube channel < <https://www.youtube.com/watch?v=1zw5WowMV1Y> >.

on the first page of the inner cover of the lexicon: 'Notes of Lessons' as shown in (Figure 8). This box includes four fields that refer to the teacher's name, class, subject and school year.

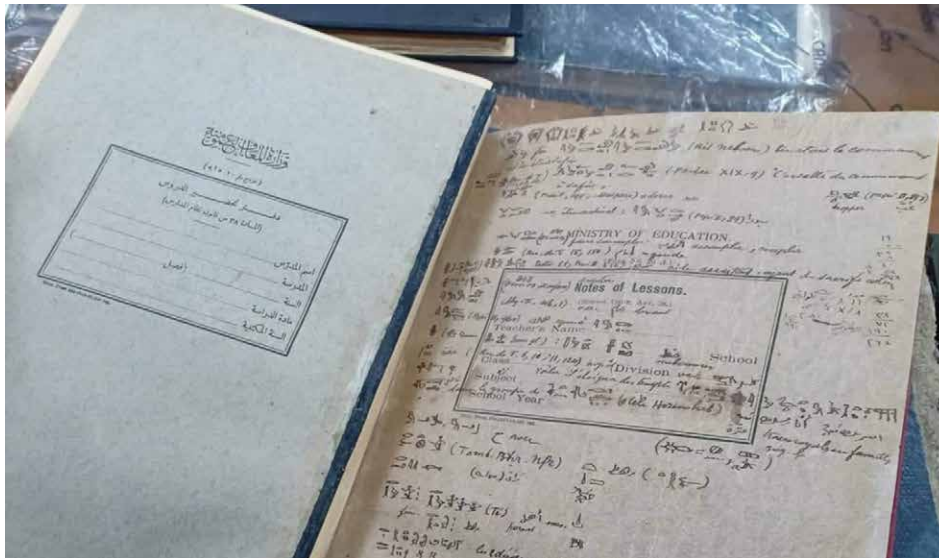


Figure 8. The copybook of the Ministry of Education that Kamal used for writing his dictionary  
© Bibliotheca Alexandrina.

The difficulty of reading the whole manuscript prompted the team to find solutions that involve artificial intelligence. The AI powered tool 'Calfa OCR'<sup>5</sup> with HTR (*handwritten text recognition*) is specially designed for the recognition of handwritings in oriental languages. The detection aims to work on writing styles from all ages from 1000-year-old manuscripts to a document written yesterday. It is available for almost all languages of the project (including Arabic, English, French, and several ancient languages) and document layouts, typewritten, printed, or handwritten. One idea is to train the software by using data on handwriting available online collected for a large-scale production online handwriting recognition system (Vidal-Gorène *et al.* 2021: 265-281). Handwritten texts can be found in many types of formats: handwritten notes, memos, whiteboards, medical records, historical documents, text input by stylus, etc. Therefore, a complete OCR solution has to include support for recognizing handwritten text in images. This emphasizes the need for research into the area of building large-scale handwriting recognition systems for many languages and scripts.

However, this may not be enough to apply the HTR in reading Ahmed Kamal's dictionary. After checking the corpus, it seems that each volume AI reading depends on the source documents homogeneity and complexity. The research team will have to annotate the pages in order to enable training the custom model. After taking a close look at the samples, it seems we would have two different methods to use the HTR on this complex document:

1. HTR can recognize the Latin and Arabic scripts by developing a custom recognition model dedicated to this document (95% of recognition reached, according to our recent projects) for

<sup>5</sup> For more information on Calfa see < <https://calfa.fr/> >.

these two languages. This would however not recognize the hieroglyphs, Coptic etc., which would be left blank.

2. The other option is an annotation project by annotating some pages of the dictionary, including Arabic, Latin, hieroglyphs, Coptic, Hebrew etc. (step one), then a custom model will be developed based on this annotation (step two). The model would then process the rest of the corpus automatically, and would be able to recognize Latin and Arabic scripts as well as hieroglyphs with good to high recognition. Hebrew and Coptic writings could also be efficiently recognized unless they are under-represented in the whole dictionary.<sup>6</sup>

This question might be answered soon once we have decided which method we should use, and secured suitable funding to carry out this project. The decision has not yet been taken, but the Library will be able to perform this independently after implementing the HTR (see last footnote for details).

## Conclusion

Kamal was the first native Egyptologist to record ancient Egyptian lexical survivals into Egyptian Colloquial Arabic early in the 20th century in his ancient Egyptian dictionary (*Lexique de la Langue égyptienne Ancienne*). This dictionary is presented as a case study of reviving a unique manuscript, with the best practices to make it available in a sustainable way for the future generation. The method followed in the paper presents the first phase of a long-term project in order to build an online database for Kamal's dictionary, as well as exploring his archive at the Egyptian National Archive in order to understand the Egyptological practices in the early 20th century and to track his career path, and then to make it accessible for the scholarly world.

The use of this online database will provide easy searchable access to the lexemes of the entire dictionary. This will inevitably require indexing for the entire lemma list, with all languages and scripts used to make it searchable and accessible for all researchers.

In our upcoming work a comparison between Kamal's dictionary and the *Wörterbuch* will be very beneficial. The idea is to investigate what is common between both in methodology, languages used, number of volumes, number of entries, the duration of writing, who wrote them and finally, the conditions that enabled Erman to print his dictionary versus the conditions that prevented Kamal from printing his own work. Later on, the Writing and Scripts Center will suggest a joint project with the TLA (Berlin-Leipzig) to review the system of metadata used by Bibliotheca Alexandrina and produce a common multilingual thesaurus.

## Acknowledgements

In this respect, I personally (Azza Ezzat), as a member of Ahmed Pasha Kamal's family, would like to thank Engineer Abd El Hamid Zakareya, the elder grandson of Ahmed Pasha Kamal and the rest of the family members, for their trust to donate this valuable and precious dictionary to Bibliotheca Alexandrina. I know that the family had a lot of choices when it came to donating, and I am so grateful that they eventually chose the library. I have promised them that I will work on it personally. I know very well the extent of the family's keenness and awareness of the value of their grandfather's dictionary, yet they believed that this dictionary should be a gift to humanity and to be brought to light, especially after passing 100 years of Ahmed Pasha Kamal's death (1923-2023).

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<sup>6</sup> This was the offer presented from Calfa 'Research Plan' Information 2022. (The Calfa team is specialized in Optical Character Recognition (OCR and HTR technologies) for the languages that general-use software does not feature efficiently).

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# Glimpses from Deir el-Medina Houses: Fragments of Domestic Cultic Cupboards Held in the Museo Egizio in Turin

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## Abstract

The Italian Archaeological Mission in Egypt directed by Ernesto Schiaparelli excavated in Deir el-Medina for three seasons (1905, 1906 and 1908-1909). The main focus of the last of these campaigns were the northern sectors of the workmen's settlement, where some of the craftsmen's houses were unearthed. Thanks to the photographic materials from Museo Egizio's archives and the documentation produced by Bruyère (who investigated the village area in the 1930s), the houses excavated by Schiaparelli can be identified with a good degree of precision.

Now preserved in the storerooms of the Museo Egizio, the findings uncovered during these archaeological excavations also include fragments of architectural structures, which were later interpreted by Bruyère as domestic cultic cupboards. Although some of these objects have been discussed in scientific publications, a proper re-contextualisation and analysis was never attempted, and some of these items still remain unpublished. The scarcity of archaeological evidence and data regarding the context of the finds constitutes the main issue in this study. Furthermore, the identification of those fragments pertaining to these elements proves to be even more problematic by their close similarity to funerary structures.

By cross-checking Bruyère's documentation as well as fragments preserved in other museums, it is possible to identify new fragments in the Museo Egizio's collection and to reconstruct some of the cultic cupboards partially and/or entirely. This paper aims to present the corpus of fragments from such structures preserved in Museo Egizio and attempts to shed more light on this topic.

## Keywords

Deir el-Medina, Domestic Cults, Houses, Niches, *Laraires*, Cupboards.

## History of excavations in the village area of Deir el-Medina: from Ernesto Schiaparelli to Bernard Bruyère (1905-1935)

The archaeological area of the village of Deir el-Medina started to be the object of scientific excavations in the 20th century. The first archaeologist who investigated this context was Ernesto Schiaparelli. Director of the Italian Archaeological Mission in Egypt (M.A.I.), he directed the excavations in Deir el-Medina for three seasons (1905, 1906, and 1908-1909). Thanks to the brief reports that Schiaparelli sent to the Italian Minister of Education and other archival documents, it is possible to identify the specific areas investigated during each season (see Del Vesco and Poole 2018: 107-129; Moiso 2008). According to these documents, the exploration of the workmen's settlement was conducted on two occasions.

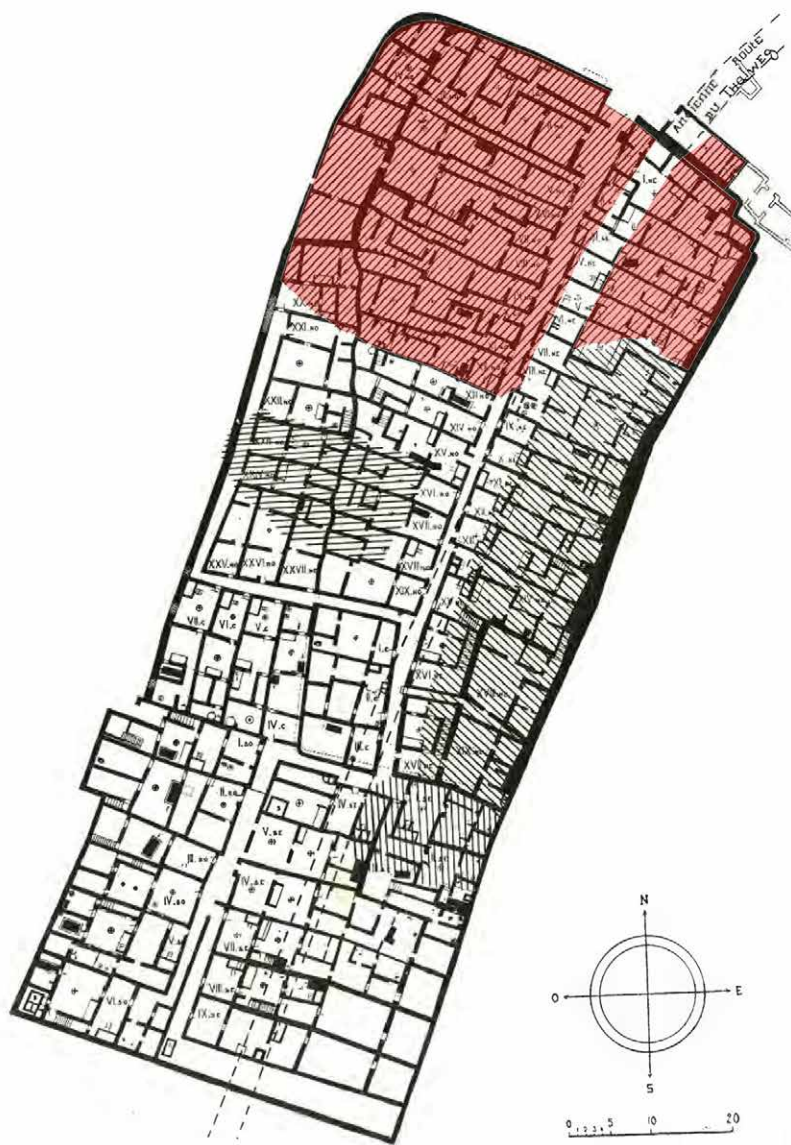


Figure 1. Map of Deir el-Medina indicating the excavation areas of Schiaparelli according to Bruyère (1939: pl. XXVI).

1909. On this occasion, in the first weeks the fieldwork focused on the northern sectors of the workmen's settlement, unearthing as much remains of the village as possible. A letter dated to 12 May 1909 sent by Schiaparelli to the Minister of Educations detailed the operations carried out and the condition of the houses excavated.<sup>2</sup> According to the report, the remains of the village are said to have preserved certain architectural elements and items of domestic furniture.

The investigation of the village area began in 1906, during the second season, when the Italian team focused their efforts on the southernmost part of the area. The report dated to 9 October of the same year (cited in Moiso 2008: 226) includes a summary of the operations, which were overseen by the count Alessandro Casati. The excavation revealed a thick deposit (referred to as 'kom') which was interpreted as the ancient village dump. According to Schiaparelli's report, the Italian team also dug some trial pits which allowed the limits of the settlement perimeter to be established.<sup>1</sup> Except for some of the findings collected from the kom, Schiaparelli does not provide any further detail about the excavation. The discovery of the intact tomb of Kha and Merit, made by a second team working on the lower slope of the western mountain, resulted in the interruption of the exploration of the village area.

Work was then resumed at the beginning of the third and last season, from 1908 to

<sup>1</sup> 'Lo scavo dello sbocco meridionale della valle ci rivelò immediatamente l'esistenza di un alto cumulo di rifiuti di una città, della quale, mediante opportuni saggi praticati in vari punti, si poté assai bene determinare l'estensione del circuito.' After Moiso 2008: 226.

<sup>2</sup> 'Nelle prime settimane di lavoro si misero in luce i resti della piccola città della necropoli colla sua via principale, e i ruderi delle case. Questa avevano ancora al posto i piedistalli delle colonne, ed oggetti di arredamento domestico [...].' After Moiso (2008: 234).

The houses investigated by the Italian team can be identified thanks to the photographic material preserved in the Museo Egizio's archive (see Del Vesco and Poole 2018: 122-123)<sup>3</sup> and later documentation provided by Bruyère (see Figure 1). As already noted (Del Vesco and Poole 2018: 122-123), these two sources do not overlap perfectly.

After Schiaparelli, a German team led by Georg Möller continued the excavations in the north-east sector of the village in 1913. A posthumous report of this excavation season was published in 1943 by Rudolf Anthes (Anthes 1943). The archaeological concession for Deir el-Medina then passed to Institut français d'archéologie orientale (IFAO), which resumed the exploration of the village area with different archaeologists (for the history of the IFAO excavation in Deir el-Medina, see Gobeil 2015). The first one was Henri Gauthier, a librarian from the French Institute, who conducted a survey of a small section in the north-west sector of the village between 1917 and 1919. Unfortunately, the results of his excavations were not documented. Afterwards, in 1921 Charles Kuentz continued the work in the south-east sector. The most important archaeologist to investigate the village area, however, was Bernard Bruyère. He completed the clearance of the village in just one season in 1935.

### Cultic cupboards inside the houses: the so-called *laraires*

The results of the excavation work of Bruyère in the village were published in 1939 (Bruyère 1939). The publication contains a chapter devoted to domestic cults, where the cupboards which were supposed to contain or display cult objects, such as stelae or sculptures, are discussed (Bruyère 1939: 193-196). According to this reconstruction, the houses featured fixed architectural structures, referred to as *laraires*, after the Latin word *lararium*, the area in ancient Roman households reserved for the worship of *lares*, the tutelary deities. This term is used by Bruyère in his publication in relation to altars and wall niches found in domestic contexts (see also Weiss 2015: 34-35).

In his documentation, Bruyère records 21 niches in the village's houses of Deir el-Medina, usually positioned at a height of 1-1.60m above floor level (Weiss 2015: 62, 238-239). Bruyère implicitly classifies them into three different types (1939: 193-194). For small stelae or sculptures, he contends that a recess in the wall alone would suffice, with no additional decorative elements included (henceforth referred here to as Type 1). For stelae higher than 20cm, the niche could be fitted with a limestone sill to support their weight (henceforth referred to as Type 2).<sup>4</sup> The slab, whose thickness was 4-5cm, protruded from the wall by a few centimetres. The last example of *laraire* described by Bruyère (henceforth referred to as Type 3) features a stone structure that entirely frames the niche, comprising a sill (as in Type 2), two jambs and a lintel. The cupboards of Type 3 could also feature wooden swing doors designed to conceal the cult objects (Bruyère 1939: 193-195).

The description of the elements which constitute the cupboards of Type 3 is completed by the drawings of some fragments, included by Bruyère in the plates of his publication (Bruyère 1939: pls XV-XX). In plates XV and XVI are presented the drawings of lintels (*Encadrements de portes de laraires : Linteaux*); plates XVII and XVIII are dedicated respectively to left and right jambs (*Encadrements de portes de laraires : Jambages*.); plates XIX and XX include the drawings of the sills (*Socles de laraires et de stèles*). Although Bruyère does not provide dimensions for each individual element, he summarises the external

<sup>3</sup> See archive photographs: C00884, C00885 and C00944. Photographs available online: Museo Egizio, Turin, 2023, viewed 18 December 2023, < <https://archiviofotografico.museoegizio.it/en/archive/theban-region/deir-el-medina/excavations-at-the-village-temple-and-chapels/?photo=B00084> >, < <https://archiviofotografico.museoegizio.it/en/archive/theban-region/deir-el-medina/excavations-at-the-village-temple-and-chapels/?photo=C00885> > and < <https://archiviofotografico.museoegizio.it/en/archive/theban-region/deir-el-medina/excavations-at-the-village-temple-and-chapels/?photo=C00944> >.

<sup>4</sup> According to Bruyère, these sills were reserved exclusively to stelae, as proved by the texts usually engraved on their edges (1939: 193).

measurements of the cupboards of Type 3, which ranged from 25-65cm in width and 25-80cm in height (1939: 195). The recess could measure between 10-45cm in width and 20-60cm in height (Bruyère 1939: 195). In terms of texts and iconography, the architectural elements show a certain homogeneity. Lintels are often decorated with a winged sun-disk or the representation of deities in the centre and private individuals on the sides (cf. Bruyère 1939: pls XV-XVI). The representation of deities can also occur on the jambs (cfr. Bruyère 1939: pls XV, XVII). Both lintels and jambs are usually inscribed with parts of offering formulae. The inscription can be arranged in different manners. The text can start in the middle of the lintel and then run down the jambs, forming two symmetrical formulae, or it can be included entirely in the jambs, in one column of hieroglyphic text enclosed by vertical dividers. In either case, the original architectural structure would have contained two offering formulae. Right and left jambs can be distinguished by the orientation of the vertical inscription: left to right for the former, and right to left for the latter. In general, the representation of a private individual, the beneficiary of the offering formula, is placed at the end of the inscription, at the bottom of the jambs. As to the sills, they are usually decorated with a single line of hieroglyphic text which registers only the names and titles of the benefactor, in the standard format *ir n NN* (cfr. Bruyère 1939: 195, pls XIX-XX).

### Scattered fragments: reconstructing the domestic cultic cupboards

The identification of fragments of frames belonging to the domestic cultic cupboards from Deir el-Medina discussed by Bruyère is quite problematic. The first difficulty lies in the documentation of the archaeological excavations that took place in the village during the 20th century. The recording techniques of the times are often insufficient, and the lack of data about the archaeological context of many fragments does not allow their original positions in a house to be determined. Furthermore, the archaeological condition of the site of Deir el-Medina was poor: previous collectors and plunderers who excavated the site did not follow the methods of scientific research. Thus, even in cases where the archaeological context is recorded in an excavation report we cannot entirely rely on it (see Weiss 2015: 93-94).<sup>5</sup>

As already illustrated above, the most complete records are those by Bruyère, who published the already mentioned excavation report (Bruyère 1939) and left numerous notebooks.<sup>6</sup> It is also important to remark that, contrary to what one might think, not all the fragments drawn by the author in the plates were necessarily collected by Bruyère in the village area. As demonstrated by some annotations in his notebooks (see Bruyère notebook: MS\_2004\_0\_155\_24), some of them were found in the storerooms of Deir el-Medina (see Weiss 2015: 228). Although he did not have any archaeological records of their provenance, Bruyère grouped them with the ones collected in the village area, assuming that they all pertained to the same type of domestic architecture. He was probably driven to this assumption based on their typological similarity and, especially, on their comparable dimensions.

The scenario is even more problematic for the Turin collection. Schiaparelli catalogued all the findings of his excavations in the so-called *Inventario manoscritto*, a handwritten object list presumably compiled in Turin after each work season (Del Vesco and Poole 2018: 108-109). The artefacts were roughly grouped by type and given a progressive number (prefixed by ‘Suppl.’ or ‘S.’, for *Supplemento*). The *Inventario manoscritto* lists include several architectural structures relevant for this study, but do not provide any indications about their find-spots or the contexts of their discoveries. Further fragments of architectural elements have lost their original inventory numbers and have hence been assigned new ones, prefixed

<sup>5</sup> On the other hand, Gabler and Salmas (2022: 80-81) establish a set of criteria to identify the owners of the houses. Category A, which groups the most reliable evidence, lists the cultic cupboards discovered either in situ or well-documented in excavation reports.

<sup>6</sup> Bruyère’s excavations notebooks are available online: Institut français d’archéologie orientale - Cairo, 2010, viewed 29 December 2023, [www.ifao.egnet.net/bases/archives/bruyere/](http://www.ifao.egnet.net/bases/archives/bruyere/).

by ‘Prov. v.’ (for *Provisorio*, “provisional”). Although they are not mentioned in the *Inventario manoscritto*, and difficult to be traced to the other items in the inventories, many of them were certainly acquired during the Italian excavations in Deir el-Medina (Del Vesco and Poole 2018: 98).

Besides, the recontextualisation of these architectural structures proves to be problematic in itself due to their similarity with the doors of houses and tombs (for a comprehensive analysis of these heterogeneous materials, see Masquelier-Loorius 2022). Identifying fragments of these structures is, therefore, possible only on the basis of certain criteria. The dimensions of jambs and lintels are a crucial one for distinguishing fragments of elements of cultic cupboards from those of actual doors of houses or tombs. Additionally, Bruyère’s documentation is an invaluable source of data. It includes several examples that can serve as parallels. Finally, as pointed out above, the Italian Archaeological Mission conducted its exploration of the village in two of its three campaigns. The acquisition date, consequently, must be regarded as another relevant criterion for the identification of cultic cupboard fragments in the Turin collection.

### Fragments of frames preserved in Turin: some case-studies

Applying these identification criteria, the survey conducted on the Turin collection has identified several possible fragments belonging to domestic cultic cupboards. By cross-checking Bruyère’s documentation and analysing the fragments preserved in other museums, it has also been possible to identify some joints with the fragments of the Turin collection, reconstructing the original cultic cupboards either partially or entirely.

#### *Jambs S. 9506 and S. 6228*

The fragment of left jamb S. 9506 (Figures 2a-d) was part of a cultic cupboard dedicated to the *sdm-šm-s.t-Mꜣ:t* Inherkhaw and his wife, the *nb.t-pr* Henutdjuu (see Tosi and Roccati 1972: 188-189, 344).<sup>7</sup> The surface of the lateral sides of the jamb confirm the supposition of a built-in element: while the internal one is smoothed, the external one was left rather rough. Some remains of *mouna* are still preserved on it (see Figures 2c-d).

The lintel and right jamb of the structure are now held in the British Museum (EA597) and, together with the Turin fragment, constitute one of the most complete examples (Figure 3).<sup>8</sup> Unfortunately, the archival data does not allow for re-contextualisation of either object in the original cupboard in the house. Bruyère lists the Turin fragment among the objects found by Schiaparelli in the so-called Sanctuary of Ptah and Meretseger (Bruyère 1930: 288), but this supposition did not find confirmation anywhere.<sup>9</sup> In fact, its inventory number places the fragment among the findings of the 1909 season and therefore indicates, most probably, that it comes from the village area (Ghabriel 2022: 770).

Another possible example of partial reconstruction is provided by a fragment of a right jamb, S. 6268 (Figure 4b), dedicated to the *sdm-šm-s.t-Mꜣ:t* Paser. This previously unpublished right jamb can be paired with a left jamb discovered by Bruyère in house N.O. XXVII (Bruyère 1939: 299, pl. XVII n.5; see also Bruyère notebook: MS\_2004\_0 156\_01, and MS\_2004\_0 164\_025.), which is dedicated to the same individual and is now preserved in the National Museum of Warsaw (140 716 MN) (see also Dolińska 1987: 53-55; Weiss 2015: 276-277, Cat. 4.40) (Figure 4a). In Deir el-Medina, the name of Paser was not

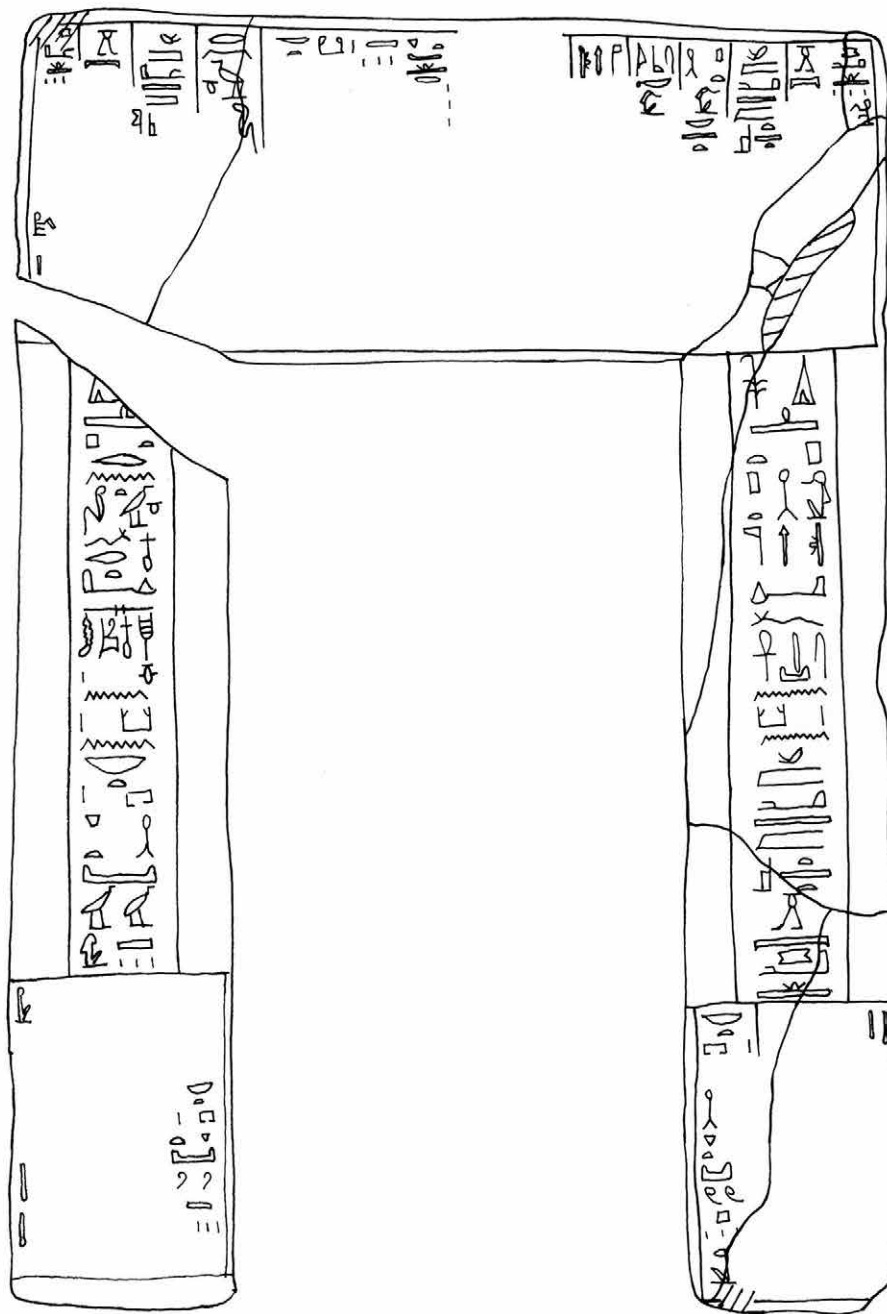
<sup>7</sup> Davies identifies Inherkhaw as the later foreman Inherkhaw (I); he and his wife Henutdjuu (I), daughter of Kel (I) and Takhat (II), lived during the reign of Ramesses II (Davies 1999: 16).

<sup>8</sup> See the British Museum online collection: British Museum, viewed 5 January 2024, < [https://www.britishmuseum.org/collection/object/Y\\_EA597](https://www.britishmuseum.org/collection/object/Y_EA597) >.

<sup>9</sup> As do fragments S. 9507 and S. 9516, which are here discussed further below (see Bruyère 1930: 288-289).



Figures 2a-d. Front, rear, left and right sides of left jamb S. 9506 (h. 27.5, w. 6, d. 7 cm).  
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Figures 3. Reconstruction of the cultic cupboard dedicated to Inherkhaw and Henutdjuu, with the joining fragments S. 9506 (Museo Egizio) and BM EA 597 (British Museum).

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so common and, among the individuals listed by Davies (1999: 278), just one of them bears the title of *sdm-š-m-s.t-Mḫ.t.*<sup>10</sup> Given this prosopographical evidence, the two jambs refer to the same individual and possibly belong to the same cupboard. If confirmed, the excavation report of Bruyère would

<sup>10</sup> The list of monuments related to Paser (V) provided by Davies can be supplemented with the fragment of basin S. 6214 (see Habachi 1977: 41-42).



Figures 4a-b. From left to right: left jamb Warsaw 140 716 MN (photo by author); right jamb Turin S. 6268 (h. 30, w. 9.5, d. 7.5cm) ©Museo Egizio, Torino.

be particularly important because it fills some gaps in Schiaparelli's scarce documentation of the archaeological context of this find.

### Jamba S. 9507 and S. 9516

As presented above, jamba are usually inscribed with offering formulae. Right jamb S. 9507 (Figures 5a-d), for instance, carries a well-preserved inscription on its front side: two offering formulae uncommonly arranged in two columns, dedicated to the goddess Renenutet (see Tosi and Roccati 1972: 187-188, 344).

- 1)  $\dot{h}tp-di-nswt Rnn.wtt \text{ } \text{'}t nb.t-k\dot{z}.w \text{ } \text{'}\dot{s}\dot{z} \dot{h}.t di=s \dot{h}.t m\dot{h}.tj m r\dot{s}w.t r-nb n-k\dot{z}-n nb.t-pr \dot{s}m.y.t-n-Mw.t Yy m\dot{z} \text{ } \text{'-}\dot{h}rw$
- 2)  $\dot{h}tp-di-nswt Rnn.wtt \dot{s}ps.t mr.yt nb.t \text{ } \text{'}\dot{h}r \text{ } di=s r=i m\dot{h} n m\dot{z}\text{'}.t r-nb n-k\dot{z}-n nb.t pr Yy m\dot{z}\text{'-}\dot{h}rw nfr m \dot{h}tp$

1. An offering that the king gives to Renenutet, the great one, mistress of food, rich of things. May she cause that (my) belly is filled with joy every day, for the *ka* of lady of the house and musician of Mut Yy, justified.
2. An offering that the king gives to Renenutet, the noble one, the beloved one, lady of the good lifetime. May she cause that my mouth is filled with *Maat* every day, for the *ka* of the lady of the house Yy, justified, beautiful in grace.

The requests contained in the formulae point out the relationship of Renenutet with food and nourishment, a feature that is also stressed by the divine epithets. *Nb.t-kz.w* and  $\text{'}\dot{s}\dot{z} \dot{h}.t$  are typical New Kingdom epithets related to Renenutet, which are attested in several variants (see Marini 2015). The

GLIMPSES FROM DEIR EL-MEDINA HOUSES



Figures 5a-d. Front, rear, left and right sides of right jamb S. 9507 (h. 38, w. 7, d. 5.5cm).  
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Figures 6a-d. Front, rear, left and right sides of right jamb S. 9516 (h. 14.5, w. 7, d. 4cm).  
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fragment of right jamb S. 9516 carries one of them, presumably associated to the goddess Meretseger (fig. 6a-d) (see Tosi and Roccati 1972: 198-199, 350).

1) [ḥtp-di-nswt Mr.t-sg]r nb(.t)-k3.w š3 dḥ.t n-k3-[n ...]

1. [An offering that the king gives to Meretseger], mistress of food, rich of provisions, for the ka [of ...]

As already noted by Bruyère (1939: 194) for most fragments of frames dedicated to Meretseger and Renenutet, the surface of jambs S. 9507 and S. 9516 is covered with a dark patina. Bruyère interprets it as the remains of a fire-producing installation and, therefore, presents it as the proof that they stood in a kitchen. This assumption is however refused by Weiss (2015: 69), who argues that it bears witness, instead, the performance of offering activities carried out in front of the cult cupboard.

### Base fragment S. 9515

Among the elements constituting the *laraires* described by Bruyère (1939: 193-196), fragment S. 9515 in the Turin collection can be identified as the base of a domestic cultic cupboard (Figures 7a-d) (previously unpublished). The surviving text arranged in a horizontal line runs from right to left on the front and left sides (Figures 7a-b). The first part of the inscription is lost, but it most likely started with the incipit *ir n*. At the end of the inscription, the *t3.y-md3.t* Qenymin is named as the dedicant of the cupboard. The few attestations of this name at Deir el-Medina suggest the identification with the *ḥri-t3.y-md3.t-m-s.t-M3*



Figures 7a-c. Front, left and upper sides of base S. 9515 (h. 38, w. 7, d. 5.5cm).  
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ḥt Qenymin (I), who lived during the reign of Ramesses III and probably also under Ramesses IV (Davies 1999: 186).<sup>11</sup> This identification would suggest a date for the base sometime in the 20th dynasty.

1) [...] ḥḥw nfr mwt itī nḏm sn.w n-k3-n t3.y-mḏ3.t Qn.y-mn.w

1. [...] millions of good [...], the sweet mother and father, the brothers, for the *ka* of the sculptor Qenymin.

Seen from above, the lower part of the base features a polished surface which seems to correspond with the extension of the part protruding from the wall. The upper side also has a hole, right above the polished surface (Figure 7c). According to the description of Bruyère (1939: 195), the holes found on the lower surface of lintels were designed for the pivots of the wooden door-wings, used to conceal and protect the cult image behind them. This reference finds confirmation in a lintel presumably discovered in house S.O. V, which has two holes at its corners (Weiss 2015: 296, Cat. 4.63). The hole in fragment S. 9515 brings further evidence in support of this theory.

## Conclusions

Among the pieces of architectural structures retrieved in the excavations of Schiaparelli in Deir el-Medina, several fragments of domestic cultic cupboards can be identified within the Turin collection. Although the archival documents confirm the investigation of the village area in the campaigns of the years 1906 and 1908-9, their study cannot rely on documented archaeological evidence. The survey which led to the identification of these fragments preserved in Turin was therefore based on different criteria.

The description of the domestic cultic cupboards made by Bruyère, together with the parallels provided in his excavation reports and notebooks, is a key instrument. Even though the identification proves to be problematic due to the similarity of these architectural structures with the doors of houses and tombs, the measurements of the fragments are an important criterion for distinguishing them. As a matter of fact, jambs and lintels characterised by small size cannot belong to actual doors, which required larger recess compared to cupboards.

Inscriptions and the textual apparatus provide useful parallels to contextualise the material. It is noteworthy, for instance, a particular attestation of some deities, such as Meretseger and Renenutet. As also shown through the case studies, their names are often followed by specific divine epithets.

Many fragments identified during the survey were acquired during the 1909 campaign when, as previously pointed out, the Italian team worked in the northern sectors of the settlement and several houses were uncovered from the debris. Further fragments were retrieved during the previous seasons; jamb S. 6228 constitutes, in this regard, an important study case. Thanks to its inventory number, it is possible to establish that it was acquired during the 1905 or 1906 campaign, most possibly during the latter, when the excavation report confirms an investigation in the village area. This data is supplemented by Bruyère's documentation: a left jamb dedicated to the same individual and therefore probably belonging to the same cupboard was found in house N.O. XXVII.

The present paper intends to offer just a preliminary overview of the material held in Turin and the issue of its identification and re-contextualisation. The research on Deir el-Medina households and domestic cults advanced significantly in the last decades (in addition to the bibliographical references

<sup>11</sup> According to Davies (1999: 186, 265), the rarity of this name points to the identification of just one individual name Qenymin. This supposition, however, cannot be proven.

provided above, see also Stevens 2021 and Koltsida 2007). An in-depth analysis of the material discussed in this paper can, therefore, shed new light on the topic and a more comprehensive understanding of these structures, their meaning and usage in the ritual and cultic activities within the households.

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# The Title *mḥnk*: New Translation and Census of Holders

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## Abstract

The analysis of titles is one of the most important aspects of a societal and prosopographical study. It provides a better understanding of what society was like at the time. Understanding a title is one of the methods of visualising an individual's place in their circle of activities. The overall meaning is often perceived through the different indexes and lexicons, without noting all the purposes of the same title which different categories of the population may carry. *Mḥnk* is a case in point. After listing the examples in which *mḥnk* is mentioned, this paper aims to list all individuals holding this title to illustrate the diversity of holders. *Mḥnk* is a short-lived title, but it allows us to visualise that other players are present in the politico-religious and social mutations taking place during the 5th dynasty.

## Keywords

Old Kingdom, Administration, Titles, Prosopography, King's body.

## Introduction



The analysis of titles is essential for capturing a given era and understanding a part of society or a change that is taking place within it. Often, many indexes and lexicons give the general meaning of a title without differentiating the categories of people who hold it. The title *mḥnk* is a perfect example. It was introduced during the Old Kingdom, particularly during the 5th dynasty, and is found among three types of population that we will see later. One of the particularities of this title is the length of time over which it is attested – mainly the 5th dynasty – and after, from the Middle Kingdom until the Late Period. Therefore, the aim of this paper is to understand the reasons of the introduction of the *mḥnk* title: who were its holders and why was it mainly found during one period?

In order to place *mḥnk* in the chronological context in which it appeared, it is necessary to present the period in which this title appeared, namely the Old Kingdom. During this period, the pharaonic administration was gradually transformed, with numerous transformations, mainly provincial and funeral mutations. But it is during the 5th dynasty in particular that several changes took place. The Old Kingdom is punctuated by social and political mutations that have no significant effect, this phenomenon is called the '*punctuated equilibrium*' (Bárta 2015: 1-17). But the king of the 5<sup>th</sup> dynasty multiplied its transformations, both religious, social and political. All these changes are called the '*multiplier effect*' (Bárta 2015: 4; Bárta 2011: 130). This term comes from the economic theory of J.M. Keynes where a change (X) leads to a chain reaction with undoubtedly other changes (Y) adapting to the first change (X), and other changes (Y) also adapting to the first change (X). For example, the construction of the pyramids of Giza by the kings of the 4th dynasty led to the administrative and religious reorganisation of the 5th dynasty.

Thus, the main difference between these two phenomena is the speed between transformations. The ‘*punctuated equilibrium*’, as its name indicates, is a change initiated by the king that has no significant impact on society. On the contrary, the ‘*multiplier effect*’ is the multiplication of changes made by the king and his entourage in a short period of time with a high impact on the society. This is what happens during the 5th dynasty with transformations in the administration with the introduction of new people in the royal entourage, reinforced by the marriage of royal daughters with these new men, the multiplication of titles and decentralisation. Religious transformations also took place during the 5th dynasty: 1) solar temples – a new type of temple dedicated to the god Ra – were introduced; 2) a new deity, Osiris, appeared in the royal sphere, and; 3) royal funerary complex underwent transformation, becoming smaller than pyramids of the 4th dynasty (Guigner 2023b). It is in this context and ambience – a dynasty experiencing political, religious and social transformations – that the short-lived title *mḥnk* appeared.

### Title analysis

*Mḥnk*, and its derived forms, appear several times in the titles of individuals in mastabas or on funerary objects, and they are never present in any other contexts.<sup>1</sup> So what does this title mean and when was it used? No consensus has been reached so far. *Mḥnk* is most often the shortened form of *mḥnk n(y)-sw.t* (Jones 2000: 449 no. 1681; Hannig 2003: 554); but we also find, less frequently, *mḥnk n(y)-sw.t m*, ‘*mḥnk* of the king in’, followed by several phrases: *pr-ꜣ*, ‘the Great Palace’, *kꜣ.t jr.t ꜣ.n.wt*, ‘the manicure work’, *kꜣ.t šn*, ‘the work of a hairdresser’, *ḥb Rꜥ*, ‘the feast of Re’, *pr.wy*, ‘the Double House’ (Jones 2000: 449-500, nos 1682-1687; Hannig 2003: 555), as well as *pr-ꜣ jrr wꜣ nb=f m ḥkr.t n(y)-sw.t*, ‘the Great House, which fulfils the orders of its lord in royal adornment’ (Jones 2000: 450 no. 1683; Moussa-Junge 1975: 16).

The lexical construction of *mḥnk* is a root *ḥnk*, which means ‘to offer’, ‘to make an offering’ or ‘to present’ . Depending on the context, a preformant *m-* can be added. The spelling of this title is very often reduced to a single sign: D39  (Figure 1). None of the attestations has a determinative or any special features that would help us to understand it. Thus, the central element of *mḥnk* is *ḥnk*, which is a fairly generic term that encompasses all kinds of offerings intended for others. It designates the rewards received and the formation *m + ḥnk* could be translated as ‘the one of the offering’, i.e. ‘the rewarded one’.

Most of the time, we find *mḥnk* in a titulary, but a single mention appears in a narrative context, in the third supplication of the *Tale of the Eloquent Peasant* (Lichtheim 1975: 176; Kurt 2003: 84, ll. 19-20), during the Middle Kingdom. This is the first attestation of *mḥnk* with a slightly different spelling



During the New Kingdom, we have an attestation in the papyrus P. BM EA 10373, on line 5 with the same transcription of *mḥnk*.

*Mḥnk* occurs numerous times in indexes and lexicons, and there are multiple translations for this term: ‘qui fait offrande au roi [...]’ (Pirenne 1934: 500, no. 1116), ‘rewarded’ (Hassan 1936: 7; Hassan 1943: 210; Fischer 1996: 251), ‘friend’ (Murray 1937: 12, no. 14.6; Lichtheim 1975: 176), ‘trusted man’ (Wilson 1947: 238), ‘Vertrauter o.ä. eines Höherstehenden’ (Erman-Grapow 1957: 129, 7), ‘conseiller royal intime’ (Weil 1961: 118), ‘partner (?)’ (Faulkner 1962:115), ‘Beschenkten’ (Helck 1975: 76-77), ‘Leibkunsthändler’ [intimate]’ (Moussa-Junge 1975: 16b no. 33), ‘féal’, ‘échanson du roi’ (Roccatti 1982: 147, 175), ‘the one loaned by the King’ (Goelet 1982: 611), ‘personal attendant’ (Perry 1986: 338), ‘celui qui fait les parures du roi’, ‘celui qui embellit le roi’ (Bardinet 1990: 243), ‘Ausstatter des Königs’ (Speidel 1990: 129ff), ‘Beschenkter, Vertrauter’ (Schott 1990: 461), ‘confident (?) du roi’ (Maystre 1992: 236, no. 17), ‘provided

<sup>1</sup> We find any mention of this title on stelae, cylinder-seals or in archives discovered in the funerary complex in Abusir.

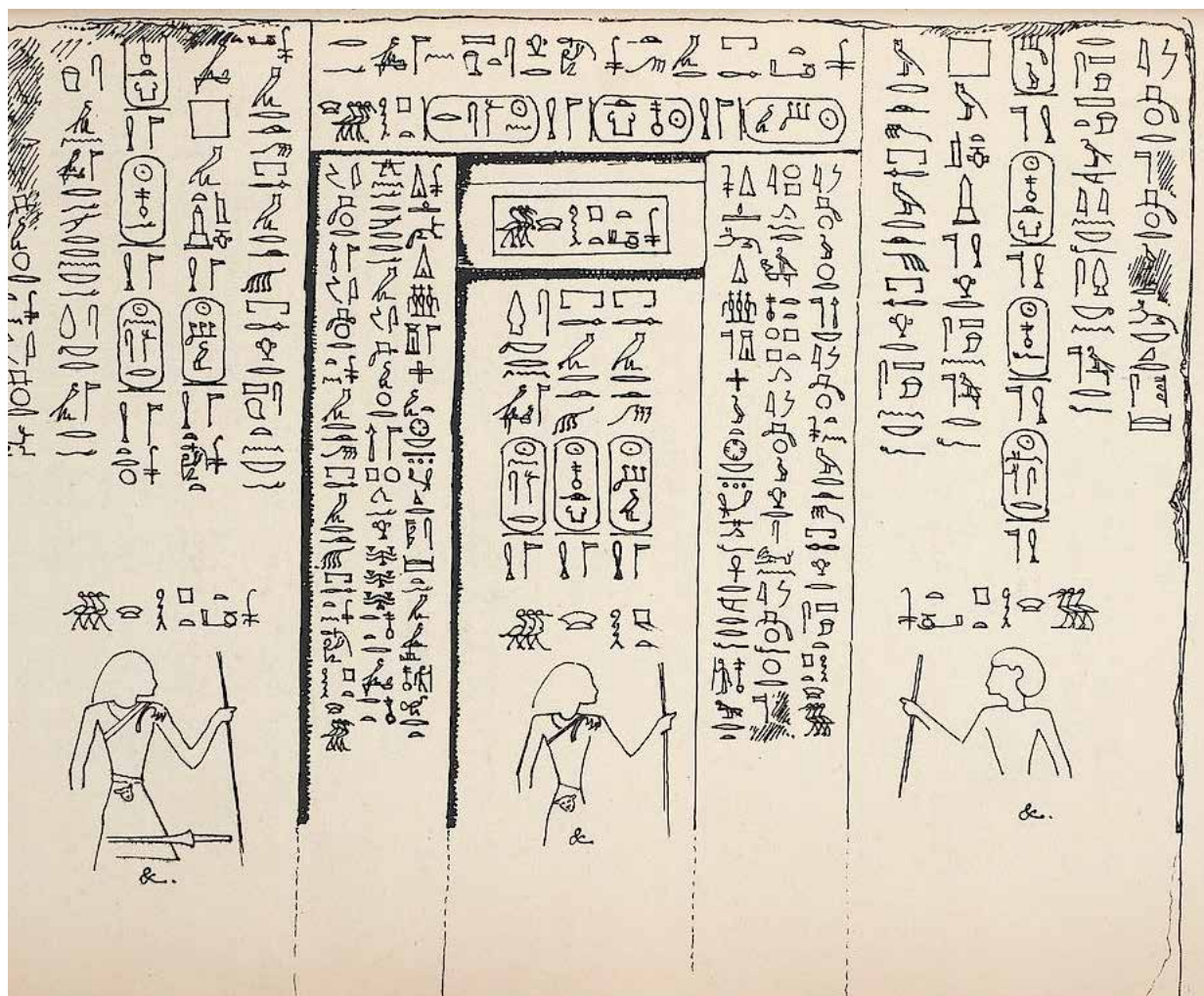


Figure 1. An example of the title *mḥnk* on the false-door of Khabauptah (Mariette 1889: 295).

with gifts' (Drenkhahn 1995 : 338), 'partenaire (?) du roi' (Piacentini 1997: 1370), 'homme de confiance' (Meeks 1998:169, 77.1834; 1998: 129, 79.1323), 'récompensé (?) par le roi' (Baud 1999: 659), 'confidant', 'intimate', 'body-servant (?)' (Jones 2000: 449-450 nos 1680-1687), 'récompensés' (Piacentini 2002: 142), 'associé' (Le Guilloux 2002: 55), 'ceux qui équipent le roi' (Piacentini 2002: 754), 'confidant' (Lesko 2002: 201), 'Freund' (Kurt 2003: 84, ll. 19-20), 'Freier Arbeiter' (Hannig 2003: 554, 13651), 'Vertrauter' (Hannig 2003: 554-555, 13652-13657; Hannig 2006: 1119, 13651), 'Ausstatter' (Hannig 2003: 554, 13651; Hannig 2006: 1119, 13651), 'Treuhanderschaft' (Hannig 2003: 554, 13651; Hannig 2006: 1119, 13651), 'offerer (?) of the King', 'dresser' (James 2006: 26 no. 72), 'Beschenkter; Vertrauter; rewarded person; intimate' (TLA (Lemma nos 74120; 855703; 450422; 450433)).

Other authors mention *mḥnk* without proposing a translation, as in the case of A.M. Roth in 1991 (Roth 1991).

### Egyptological literature

Egyptological literature has examined the significance to be attached to *mḥnk* and most authors stress the close relationship between *mḥnk* and craftsmanship.

The first to observe this was K. Sethe in 1893 (Sethe 1893: 99-100), who saw a link between *mḥnk* and the titulations of craftsmen but also hairdressers. *Mḥnk* would also designate the craftsmen honoured in the tombs of the elite, tombs that they would have helped to build and decorate.

In 1927, A. Erman and H. Grapow (Erman and Grapow 1971: 7-8, 129) mentioned only *mḥnk* as the title of the high priests of Ptah at Memphis. These authors did not give any other information about *mḥnk*, only chronological data – that this title was present from the Old Kingdom to the Saite Period. Moreover, T.G.H. James (James 2006: 26 no. 72), mentions *mḥnk* first as part of the title of artisans and then of the high priests of Ptah at Memphis.

Subsequently, H. Junker (Junker 1929: 240) indicated that several individuals may hold this title contemporaneously and that there are two different categories of *mḥnk*-bearing individuals. He also agreed (Junker 1959: 11-18) with K. Sethe, that artisans and staff attached to the king's care – hairdressers, manicurists, jewellers – were holders of *mḥnk*, which would then be an aulic title. *Mḥnk* would then express the close relationship that exists between an individual and the person he serves. In this case, the term could apply to all individuals who serve others, but H. Junker indicated that only individuals of high social rank can be *mḥnk*. Thus, *mḥnk* shows the close and personal relationship between an individual and the owner of the tomb in which he is depicted.

In 1934, J. Pirenne (Pirenne 1934: 26) referred to *mḥnk* as a new category of royal priest that appeared in 5th dynasty and among the holders of this title, he counted no royal sons but only individuals belonging to the high clergy. According to him, this innovation occurred at the same time as the union of the cult of Ptah and the royal cult. The *mḥnk.w* thus formed a cult order, similar to those already existing for many other divinities.

In his study of Egyptian titles in the Old Kingdom, W. Helck (1954: 104) described *mḥnk n(y)-sw.t* as one of the most frequent titles in the category of craftsmen, while making the connection with other holders of the title: hairdressers and barbers, as well as sculptors and metalworkers. He also mentioned the link between *mḥnk.w* and priestly functions: they were related to the cults of Ptah and Sokar.

In 1957, H. Goedicke associated the term *mḥnk* with *mjn ḥr*. In most cases, this title seems to be more directly associated with the king in the expression ‘*mjn ḥr Jssj*’ (Urk. I, 59, 12-13 ; Urk. I, 193, 1), ‘*mjn ḥr Tj*’ (Urk. I, 82, 3-5; Urk. I, 83, 7-9; Urk. I, 86, 11-12), ‘*mjn ḥr ḥmꜣf*’ (Urk. I, 84, 14-15) but an inscription from the tomb of *Ḥꜣsj* (Urk. I, 152, 4-7) places him in direct connection with another dignitary. H. Goedicke did not give a precise translation of the title *mjn ḥr*, but, in the functions associated with it, he identified activities related to art, as in the title *mḥnk*.

G. Fecht in his 1969 study on *Letter to the Dead* N 3737 from Naga ed-Deir (Fecht 1969: 105-128) made an excursus on the title *mḥnk* where he noted the translation of W.K. Simpson (Simpson 1966: 42): *ḥj jꜣnw nmꜣw nꜣk* which he translated as ‘the attention of the one you have favoured (the one you have been partial to) is beneficial’. In *mḥnk*, Fecht saw rather the action of sacrificing, providing, favoured by the determinative of the outstretched hand with the pot *nw* (D36, and its variants D38 or D39 of Gardiner list), derived from the verb *ḥnk*. The author sees *mḥnk* rather as a giver, a benefactor, ‘Darbringer, Opferer’ (Fecht 1969: 124).

He based his analysis on the *Letter to the Dead* N 3737 from Naga ed-Deir belonging to *Mrw*, sent by *Hnj*, where line two of the recto of the letter would include the mention of *mḥnk*. However, whereas Fecht saw it as *mḥnk (?)n.k*, it is now accepted that the reading is quite different, since the study of J. Hsieh in 2022 (Hsieh 2022: 169).

TABLE 1. COMPARISON OF VERSIONS OF LETTER TO THE DEAD N3737 FROM NAGA ED-DEIR BY FECHT AND HSIEH

Letter to the Dead N 3737 according to G. Fecht	Letter to the Dead N 3737 according to J. Hsieh
<sup>1/</sup> bꜥk ḏḏ ḥr nbꜥf [mrr.w]ꜥf(?)	<sup>1/</sup> bꜥk ḏḏ ḥr nbꜥf [mrr.w]ꜥf
A servant speaks before his lord, his [beloved] Alternative translation (AT) A servant speaks before his lord, his [beloved]	It is a servant who speaks before his lord his [beloved]
2/ Ḥnj ḏḏ	[ḥ]nj ḏḏ
Heni speaks (AT) Heni says:	[He]ni says:
Jꜥnw ḥḥ n s[p]; ꜥḥ jꜥnw n <i>mḥnk</i> w(?) <i>n.k</i>	<sup>2/</sup> jꜥn.w ḥḥ n-z[p] ꜥḥj
Attention, many times! Attention for the one whom you have endowed his beneficial (AT) A cry, many times! May the attention 'the attention of the one you have favoured (the one you have been partial to) is beneficial	Attention, a million times, O Akh-spirit! Attention jꜥn.w n mꜥꜥwꜥj n(y)ꜥk to the one who take care of you,
<sup>3/</sup> ḥr nn jrrw ḏt.k Sn[j]	ḥr nn jrr.w ḏ.tꜥk [sn]j
on account of this which your ḏt-servant Sen[i] (AT) in respect of these things which your ḏt-servant Seni does	concerning these actions of your ḏt-servant, [Sen]i

In his 1975 publication, W. Helck mentioned *mḥnk* as a title that would characterise individuals graced with various rewards for the work they performed in tombs belonging to the elite, such as Semerka in the mastaba of Prince Nebemakhet (Helck 1975: 76-77). In 1979, A. Théodoridès saw in the title *mḥnk* an artisan working for a high dignitary (Théodoridès 1979: 59 n.114).

In his *Années Lexicographiques*, D. Meeks gave the following definition for *mḥnk*: 'désignent ceux qui ont un emploi qui touche de près à de très haut personnage' (Meeks 1998: 169, 77.1834) and two years later he gave the following definition: 'artisan exerçant un emploi qui touche de très près un haut personnage' (Meeks 1998: 129, 79.1323).

In 1986, E. Perry conducted a critical study about the *Tale of the Eloquent Peasant* where *mḥnk* is mentioned. According to the author, this is a 'term used to designate an artisan working directly for a person of high authority' (Perry 1986: 338). The author translated *mḥnk* as 'personal attendant' for the relationship between the 'craftsman/servant' and the 'master/employer' (Perry 1986: 339).

It was not until the 1990s that the study of *mḥnk* resumed, notably with M.A. Speidel, who highlighted the presence of this title in the titulatures of hairdressers who owned a mastaba in the Old Kingdom (Speidel 1990: 192). H. Kees, for his part, considers that *mḥnk* is not a title linked to functions but rather suggested the idea of an award granted to an individual (Kees 1933: 163). The research that follows mentioned *mḥnk* only very rarely, with little additional information (Fischer 1996: 193 n. 153).

In her study of 1990, E. Schott (Schott 1990: 461) also listed the term *mḥnk*, which she translated in her index as 'Beschenkter, Vertrauter', but in the light of the inscriptions it appears to be the pronunciation auxiliary *mk* 'see' (Schott 1990: 23 no. 41; 84 no. 150).

In 1995, R. Drenkhahn studied artists and craftsmen and mentioned *mḥnk* as part of the titles of certain craftsmen – sculptors and painters – who belonged to the personal network of the owner of the tomb in which they are mentioned. This term would then serve as a social distinction in relation to other craftsmen and would underline the consideration accorded to them. In fact, these craftsmen are not always represented in a context linked to their functions, but as offering-bearers or in fishing or hunting scenes for the tomb owners, who, more often than not, belonged to the elite (Drenkhahn 1995: 331-343).

In 2018, J. Cervelló Autuori’s article on the high priests of Memphis mentions the title of *mḥnk*, which is most often linked to *wr ḥrp hm.wt*, mainly during the 5th dynasty, or even the following dynasty, whereas during the 3rd dynasty *wr ḥrp hm.wt* did not hold the title of *mḥnk* (Cervelló Autuori 2018: 7-63).

Finally, the *Thesaurus Linguae Aegyptiae* lists 4 entries, twice *mḥnk* (74120, 855703), then *mḥnk n(y)-sw.t* (450433) and *mḥnk n(y)-sw.t m k̅.t jr.w-ḥ.t* (450422) (based on Erman-Grapow 1971: 7-8, 129 and Jones 2000: 1680-1681, 1686).

### Individual census

The above-mentioned Egyptological literature suggests a creation of the title *mḥnk* during the 5th dynasty. However, the holders of the title are also very important for our understanding of the title’s appearance and re-emergence. The different categories of holders can also give other information, as we can see below.

In order to fully grasp the meaning of *mḥnk*, a census of all the individuals bearing this title is essential. In total, there are 32 (Table 2) such individuals, and 30 of them lived during the Old Kingdom, as well as one attestation during the Middle Kingdom, one individual during the New Kingdom (Janssen 1991: pls 72-73) and another one during the 26th dynasty (for the last individual; Bardinet: 1990, 243 (j)).

TABLE 2. CENSUS OF THE INDIVIDUALS HOLDING *MḤNK* TITLE WITH, IN BLUE, CRAFTSMEN, IN GREEN INDIVIDUALS LINKED TO THE CARE OF THE KING’S BODY AND IN WHITE, THOSE WHO ARE MENTIONED IN BURIALS OWNED TO OTHER PEOPLE. CONCERNING THE SITE, ‘S’ IS FOR SAQQARA AND ‘G’ FOR GIZA.

Individuals	Chronology				Site	Priesthood			Functions		
	4th dyn	5th dyn	6th dyn	Other		Ptah	Sokar	Other	Craft	King’s body	Other
<i>ḥ-mnw</i>				X					X		
<i>Jn-k̅=f</i>	X				G						
<i>Jr-n(y)-ḥ.t</i>			X		S				X		
<i>Jtwš</i>		X			S				X		
<i>ḥw</i>			X		S				X		X
<i>ḥ-m̅-R̅</i>		X			S			X		X	X
<i>ḥ-Ḥf-R̅</i>		X			G			X		X	X
<i>Wš-Pth</i>		X			G	X	X	X			
<i>Psmk-Snb</i>				X						X	X
<i>Pth-špss</i>		X			S	X	X	X	X		
<i>Pth-špss</i>		X			S	X	X	X	X		

THE TITLE *mḥnk*: NEW TRANSLATION AND CENSUS OF HOLDERS

Individuals	Chronology				Site	Priesthood			Functions		
	4th dyn	5th dyn	6th dyn	Other		Ptah	Sokar	Other	Craft	King's body	Other
<i>Pth-šps</i>			X		S	X	X	X	X		
<i>M3-nfr</i>		X			S			X		X	X
<i>Mrrw-k3</i>		X			S				X		
<i>N(y)-nḥ-Pth</i>		X			S				X		
<i>N(y)-nḥ-Ḥnmw</i>		X			S			X		X	X
<i>Nfr-ḥy</i>		X			S				X		
<i>Nfr-ḥr-n(y)-Pth</i>		X			S					X	X
<i>Nḥ.t-s3=s</i>		X			S			X		X	X
<i>Nsd-m-jb</i>			X		S						
<i>R-nfr</i>		X			S	X	X		X		
<i>Ḥb3.w-Pth</i>		X			S			X		X	X
<i>Ḥwn-Pth</i>		X			S	X			X		
<i>Ḥnmw-ḥtp</i>		X			S			X		X	X
<i>S3bw</i>		X			S	X	X		X		
<i>S3bw-jbbj</i>			X		S	X	X	X	X		
<i>Smḥr-k3</i>	X				G						
<i>Shntjw</i>		X			S				X		
<i>K3-pw-jnpw</i>			X		S	X	X	X	X		
<i>K3-m-ḥs.t</i>	X				S				X		
<i>K3-m-tn.t</i>			X		S				X		
<i>Ty</i>		X			S			X		X	X

The first attestation of *mḥnk* is found in the mastaba of Kaemheset, which is dated to the 4th dynasty (Murray 1905: 5).<sup>2</sup> Moreover, a funerary monument discovered by H. Junker (Junker 1929: 240 no. 6, Fig. 57, 2b), the mastaba G 4750 from Ankhi, also dates from the 4th dynasty, probably from the reign of Menkaure. It contains a title, with an uncertain reading, read by Junker as *jmy-r3 mḥnk n(y)-sw.t*,



However, the restitution seems doubtful in view of the remains present on the block

As a result, the reading *jmy-r3 mḥnk n(y)-sw.t* cannot be considered, which means that Ankhi would not hold this title. Moreover, the reconstruction of *n(y)-sw.t* appears difficult, namely that the *t* is left-aligned in the column, meaning that another small sign would have to be reconstructed to its right. Furthermore, as we shall see below, Ankhi does not present in his titles the characteristic functions recurred for other individuals holding the title *mḥnk* (Figure 2).

<sup>2</sup> The author wrote: 'The false doors have that beauty of proportion which is characteristic of the 4th dynasty'.

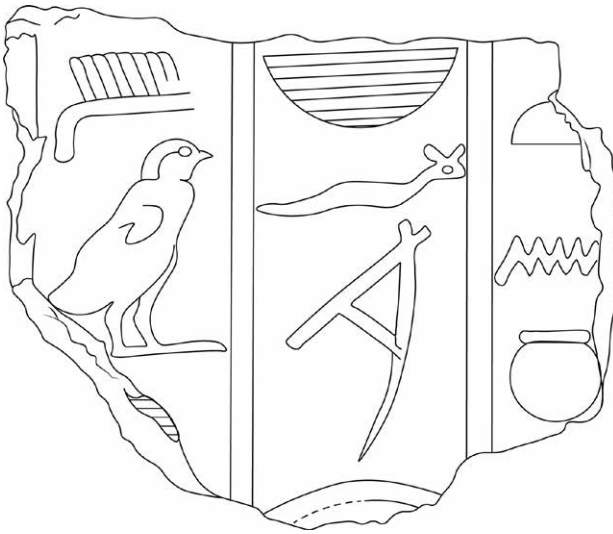


Figure 2. Block find in the mastaba of Ankhi (G 4750) (drawing by the author after Junker 1929: Fig. 57, 2b).

craftsmen, mainly *wr ḥrp ḥm.wt*, but also sculptors and metalworkers (*ḳḥ-mnw*, Janssen 1991: pl. 72-73; *Jr-n(y)-ḳḥ.t*, Mariette 1889: 373-388; *Jtwš*, Mariette 1889: 296-297; *ḥḥw*, Goyon 1959: 10-22, 37, Mariette 1889: 98; *Pth-špss*, Borchardt 1911: 73, bl. 21 (CG 93); *Pth-špss*, James 1961: pl. 17 (BM EA 682); *Pth-špss*, Murray 1905: pl. 28; *Ḥwn-Pth*, Borchardt 1937: 2 (CG 1297); *Mrrw-kḳ*, Mariette 1889: 296-297; *N(y)-nḥ-Pth*, Paget-Pirie 1896: pl. XXXII), *Nfr-ḥjj* (Lepsius 1849-1859: pls 60-61), *R-nfr*, Borchardt 1911: 19-20, bl. 5 (CG 18 and CG 19); *Sḳbw*, Mariette 1889: 389-391; *Sḳbw-Jbbj*, Mariette 1889: 373-388; *Šḥntjw*, Moussa-Junge 1975: 16-17; *Kḳ-pw-Jnpw*, Mariette 1889: 411-416; *Kḳ-m-ḥs.t*, Murray 1905: 5; *Kḳ-m-ḥn.t*, James 2006: 26 no. 72). This group, made up of 16 individuals, focused their activities on crafts but also on the priesthoods of Ptah and Sokar (nine and eight people respectively), while at the same time being relatively close to the Great House (*pr-ḳ*) and the king in terms of their titles. Their cultic activities are also reflected in the titles of *sm*-priests, while being linked to the *wb.t*.

The second group, made up of ten individuals, concentrated around the care given to the person of the king, i.e. hairdressers, manicurists/pedicurists, barbers and doctors (*ḥḥ-mḳ-Rḳ*, Mariette 1889: 280-284; *ḥḥ-Ḥḳ-Rḳ*, Speidel 1990: 10-13; *Psmtk-Snb*, Bardinet 1990: 243 (j); *Mḳ-nfr*, Mariette 1889: 446-447; *N(y)-nḥ-Ḥnmw*, Moussa-Altenmüller 1977: 25-26; *Nfr-ḥr-n(y)-Pth*, Speidel 1990: 47-49; *Nḥ.t-sḳs*, Mariette 1889: 366; *Ḥḳbḳ.w-Pth*, Mariette 1889: 294-295; *Ḥnmw-ḥtp*, Moussa-Altenmüller 1977: 25-26; *Ty*, Épron-Daumas 1939; Wild 1953). These individuals have no titles in common with the previous group, except for *mḥnk* and its developed forms. Several priesthoods are exercised, in funerary and solar temples for most of them, but none – or few (*Mḳ-nfr*, Mariette 1889: 446-447) – for the cults of Ptah and Sokar. On the other hand, on the ten individuals in this group, nine belong to the 5th dynasty, and six of them hold the title of *jry nfr-ḥḳ.t* (for this title see particularly Guigner 2023a: 74-82) and eight of *ḥry sḳtḳ(w)*, (for this title see particularly Rydström 1994: 53-91), titles that the first group does not possess.

Finally, a last group of four individuals, can be isolated, where the syntagm *mḥnkḳf* appears, most often in the mastaba belonging to another person. It is also distinctive from the first two by the absence of titles related to crafts and care of the body (For the individuals mentioned in burials: *Smḥr-kḳ*, Hassan 1936: 127, 137-138; *Jn-kḳḳf*, Hassan 1936: 127, 137-138. For the individuals with no titles linked with other categories enunciated: *Wḳš-Pth*, Hassan 1936: 5-14; *Nsd-m-jb*, Mariette 1889: 416-417). Here, *mḥnkḳf* takes the meaning of ‘his rewarded’ because it is attached to people who erected their funerary monuments, and these individuals are rewarded by the owners of the burials. They hold no other titles that would

After a single mention in the 4<sup>th</sup> dynasty, the majority of attestations come from later times. The 5<sup>th</sup> dynasty saw 19 individuals, while the 6<sup>th</sup> dynasty saw only seven. Beyond the Old Kingdom, attestations are disparate, with one attestation per period. Thus, the period in which *mḥnk* is most frequently found is the Old Kingdom, particularly the 5<sup>th</sup> dynasty; thereafter, the title gradually diminishes in occurrence until it is found only on rare occasions.

## Prosopographical analysis

### Old Kingdom

Among the attested individuals (Table 2), we can see three distinct groups, with only one thing in common: the title *mḥnk* and its developed forms.

The first and oldest group is associated with

enable them to be better identified, which might suggest that they are members of the middle classes of society. In this group we must mention two particular individuals: *N(y)-nh-Pth* and *Nfr-hjj*, because they are related to the craft by their title *gnwty* ‘sculptor’, but they do not bear the title *mḥnk*, they are mentioned as *mḥnk=f gnwty N*, ‘his rewarded, the sculptor N’ (*N(y)-nh-Pth*, Paget-Pirie 1896: pl. XXXII), *Nfr-hjj*, Lepsius 1849-1859: pls 60-61). For this reason, we include these two individuals in this category and not in the first.

It is also important to point out that none of the 30 individuals listed is connected with institutions such as the Granary or the Treasury. Furthermore, apart from *Mrrw-k3*, son of *Jtwš*, no filiation of the title *mḥnk* is visible, which would mean that it is not a title transmissible by filial succession, but that it would be obtained individually, perhaps through the privileged relationship of a position or an office.

Apart from the last group mentioned, 21 holders of the *mḥnk* title owned their own mastabas, which reveals a high social position on the part of both groups, since funerary monuments were awarded by royal order only, and were therefore inaccessible to the general population. The other mentions are found on material supports that are certainly linked to a funerary monument, but without any element to link them to it, they do not fall into the first category. They include, for example, an offering table (James 2006: 26 no. 72.) and a naophore statue (Bardinet 1990: 243 (j)). The locations of these testimonies is rather limited: they are all in the Memphite area, mainly in the Saqqara necropolis with 23 testimonies, and in the site of Giza, with only four mentions.

### ***Middle Kingdom to Late Period***

Thus, the context of appearance of *mḥnk* and its developed forms in the Old Kingdom is mainly funerary, especially with mastabas and objects linked to the funerary cult. Subsequently, attestations from the Middle to the New Kingdom, and then from the Late Period, are present in different contexts: firstly during the Middle Kingdom in a narrative context, with the *Tale of the Eloquent Peasant*; then epistolary in the New Kingdom with P. BM EA 10373 and finally, cultic, with the naophore statue of Psammetik-Seneb during the Late Period.

The use of *mḥnk* in later periods occurs in similar contexts. However, in the third supplication of the *Tale of the Eloquent Peasant*, (B1 168-171), the protagonist uses *mḥnk=f* in a different way:

*mk tw m ḥwrw n(y.w) rḥty(.w) ḥn-jb ḥr ḥd ḥnms btn(w) mḥnk=f n tw3=f sn=f pw jy(w) jn(w) n=f*

‘See, you are the most wretched of money launderers, greedy and causing harm to a friend, who betrays his **associate** for his debtor, for only he is his brother who has come to pay him’ (translation by the author).

In this text, the eloquent peasant continues his speech, questioning the virtue of the launderer who, for economic reasons, has betrayed his debtor for another. The term *mḥnk* is not used at random. *Mḥnk* emphasises the bad side of the launderer, which in turn creates a positive feeling towards the oblige (for a critical study of the *Tale of the Eloquent Peasant* see Perry 1986).

In this passage, it is clear that *mḥnk* does not have the same meaning as in the titles of the dignitaries of the 5th dynasty, since here it is opposed to *tw3* ‘debtor’, literally ‘beggar’, in the proposition *mḥnk=f n tw3=f*. *Mḥnk* is also placed alongside the nominal syntagm *sn*, ‘brother’, which makes it possible to produce the following translation of ‘associate’ (on the opposition between *mḥnk* and *tw3* see Gnirs 2000: 138).

Another text has been the subject of debate: stela JE 42787, i.e. the sale of a house between the buyer *Srf-kʿ* and the seller *Tntj*. The studies by H. Goedicke (Goedicke 1970: 151-152) and B. Menu (Menu 1998: 274) note a title of the buyer *Srf-kʿ*, which only B. Menu translates as ‘homme de confiance ou fondé de pouvoirs’ (Menu 1998: 274). However, the stela is badly damaged and only the *k*-sign (V31 on the Gardiner list) remains. It is therefore impossible to know whether the title *mḥnk* was engraved or whether it was another title or term. In the absence of an accurate reading of the title, this text is not included in the census of *mḥnk*.

During the New Kingdom, under Ramses XI, on the recto of papyrus P. BN. 196, III (Černý 1939: 51-52; Wente 1967: 67-68), Akhmenu is one of several recipients and he is mentioned as *mḥnk* through his functions of craftsman:

Recto:

1. *ḥs.w n pꜣjm.j-rʿ-mšꜥ Pꜣ-n-tꜣ-[ḥw.t-rs] [...]*
2. *[...] Jmn sš.w Bw-th-Jmn [...]*
3. *mḥnk ꜣḥ-mn.w ḥmw.w [...]* [šmꜥ.yt n(y) Jmn-Rꜥ]
4. *nswt-nṯr.w Ḥm.t -šrj .t šmꜥ.yt [n(y) Jmn-Rꜥ Šd.w-m-dwꜣ.t]*

Recto:

1. The singer of the expedition leader Panta[hut-resu] [...]
2. [...] Amun to the scribe Butehamun [...]
3. the intimate Akh-menu, the craftsman [...] (and to) [the chantress of Amun-Re],
4. King of the gods Hem(et)-sheri(t) (and to) the chantress [of Amun Shedemduat].

Thus, during the New Kingdom, we can observe two attestations in the same context: letters, but their nature is different. The first is employed as a noun and the second as a title, to determine the function and the rank of someone, here Akhmenu.

Later, it is therefore not surprising to find this title on the naophore statue of the physician and dentist Psammetik-Seneb during the 26th dynasty, a period known for its reuses of Old Kingdom titles, and here again, Psammetik-Seneb was a person close to royal power, as his title shows as in the 5th dynasty (On this individual see particularly Botti, Romanelli 1951: 28-29, pls 26, 35). This title is present on statue no. MV.22687.0.0 (no. 166) exposed in the Vatican Museum and all the titles are related to the Old Kingdom with, for example *wr jbh(.w) pr-ꜣ* ‘high of the dentists of the Royal Palace’ or *ḥrp ns.ty* ‘controller of the double throne’. The statue of Psammetik-Seneb contains 11 titles, all from the Old Kingdom. It is possible to conclude that Psammetik-Seneb wants to hold ancient titles, thus it is an epigraphic loan from the Old Kingdom where *mḥnk n(y)-sw.t* is written on the naos on this statue, with no additional information.

### Analysis

Some of the titles of the 5th dynasty are innovative while being linked to other earlier titles, while others are entirely new to the period. This is the case of *jry nfr-ḥꜣ.t* (see particularly Guigner 2023a: 74-82) and *mḥnk*. The introduction of new titles during this period led to the emergence of a new category of individuals for whom these titles contributed to their social elevation.

The study of the titles has brought to light three groups of individuals holding *mḥnk*, but apart from it, they have nothing in common. According to the attestations, this title appeared during the 4th dynasty, but it is possible that the attribution of *mḥnk* to *Kꜣ-m-ḥs.t* was made at the very beginning of the following dynasty; thus, *mḥnk* would be a new title, introduced in the 5th dynasty. The meaning of *mḥnk* then takes

on its full meaning. In view of the above elements, *mḥnk* would then be a title expressing an individual membership of the elite. The *mḥnk.w* associated with craftsmanship held this title because of their high priestly functions with Ptah and Sokar, but also certainly because of their creations intended for an audience that was part of the royal sphere, the king and his entourage, which enabled them to acquire a high social status. As for the holders of offices related to the care of the king's body, their privileged position with the royal person gave them a status that they did not enjoy during previous dynasties.<sup>3</sup>

Almost all of these individuals also held the title of *jry nfr-ḥꜣ.t*, a symbol of social prestige and proximity to the king. The association of these two titles seems to show the position of trust and the proximity of these individuals to the king and therefore, to power. They would then indicate who the king's close advisors were during the reorganisation of the pharaonic administration. *Mḥnk* could then be translated as 'the rewarded one', instead of 'intimate' (classical translation) because of the trust placed in an individual by someone of a higher social rank; thus *mḥnk n(y)-sw.t* would mean 'rewarded by the king', instead of 'intimate of the king'.

Indeed, the titles of *jry nfr-ḥꜣ.t* and of *mḥnk* were not included in the titles of royal sons during 4th dynasty. A census of these individuals (see Table 2) shows that this title was created during the 5th dynasty. In particular, it was through this title that elites who did not belong to the royal family achieved a high social status. Through the various titles they bore, they were linked to the living king, the deceased king, as well as the king in his solar aspect. It cannot be a coincidence that the solar temples and the creation of new titles coincide, as well as the decline of each of them (see Guigner 2023b: 106).

All the socio-political and religious changes of the 5th dynasty led to a shift in the organisation of the country from the rule of a single king to decision-making by the king accompanied by his group of intimates, which is highlighted by the following titles: *jry nfr-ḥꜣ.t* and *mḥnk*. This administrative reform supported the change of regime from an absolute monarchy in the 4th dynasty to a meritocratic oligarchy in the 5th dynasty (Guigner 2023b).

It is no coincidence that the personnel attached to both the solar and funerary temples also hold the titles of *mḥnk* and *jry nfr-ḥꜣ.t*. These two titles are important social markers that highlight the new social status of these individuals attached to the country's economic institutions.

Thus, the introduction of this title during the 5th dynasty, certainly by the central power, was intended to highlight individuals close to the king, trusted men whom he would reward in different ways. Whether they were craftsmen or individuals holding an office related to the care of the king's body, *mḥnk* holders saw their social positions promoted as a result of the trust placed in them.

## Conclusion

Attested mainly in the Old Kingdom, the term *mḥnk*, translated as 'the rewarded one', is found in the titles of two groups of people: craftsmen who were rewarded for making tombs or cult furniture, and holders of offices related to the care of the king's body. No royal son bore the title of *mḥnk*, and at the same time, this title is often related to another title *jry nfr-ḥꜣ.t*. Thus, this title was used to indicate the social status of the new elites, introduced at the beginning of the 5th dynasty by successive kings.

<sup>3</sup> During the previous dynasties, any individual could hold these titles: hairdresser, manicurist/pedicurist or barber until the 5th dynasty.

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# Let's Lay the Foundations: Geomentality in Ancient Egypt

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## Abstract

How might geomentality be applied to ancient Egyptian cultural landscapes, and what is its potential usefulness for understanding how the Egyptians understood and engaged with the landscape? Geomentality is the established, often taken-for-granted, mentality that an individual or a group of people has about the geographical environment that conditions the human-nature relationship. First proposed by Yoon Hong-Key (1986) in 1983 as a novel conceptual framework to explore the mental frame in cultural geography, geomentality developed from Yoon's (1976; 1982; 1986) analyses of *fēngshuǐ* (風水/風水), also known as East Asian geomancy, and Māori eco-environmental relationships. Geomentality is a method through which a culture's encoded cultural and environmental messages can be explored and examined. Geomentality centres on the importance of using Indigenous knowledge and ideas, especially through relationships to the physical environment and creation mythologies, to explore peoples' mental frames. The physical environment in Egypt has long been discussed in relation to the development of ancient Egyptian culture and society. In contrast, the importance of Egyptian creation myths in human-nature relationships has been talked about less. This paper demonstrates that the interplay between the physical environment and Egyptian creation myths is critical to understanding an ancient Egyptian geomentality. This paper serves as a proof-of-concept for the potential uses of the theory of geomentality in the study of ancient Egyptian material culture, using three forms of ancient Egyptian gardens as case studies.

## Keywords:

Landscape, Geomentality, Creation Myths, Environmental Relationships, Gardens.

## Introduction

Hamilton Gardens in Hamilton, Aotearoa New Zealand reopened its renovated Egyptian garden in May 2022. Opened by Her Excellency Dina Farouk El Sehy, Egyptian Ambassador to New Zealand, the garden resulted from a collaboration between New Zealand, British, and Egyptian Egyptologists. The garden marked the world's first modern, fully recreated ancient Egyptian garden, where Middle Kingdom temple gardens (c. 2030-1650 BCE) informed the garden's design (McRae 2022). The garden and its reopening sparked a question for me: how did the ancient Egyptians think of, engage with, and alter their environment through the design and construction of their gardens? Gardens are 'the embodiment of ideas in landscape' (Glacken 1967: ix). This paper serves as a proof-of-concept to the application of geomentality in studying ancient Egypt gardens.

Geomentality presents a novel approach that helps to understand ancient Egyptian material culture and patterns of landscape (Yoon 1986; 1991; 1994). The ancient Egyptians maintained intimate relationships with their physical environment, with much of their culture, economy, and political structure

highly influenced by these relationships (Hughes 1992). Geomentality, as a theory, explores peoples' engagement with landscape through their knowledge of their physical environment and the creation mythologies they produced.

Charles Joret's 1894 book, *Les jardins dans l'ancienne Égypte*, initiated the scholarly conversation about ancient Egyptian gardens. Since then, several scholars continued and expanded Joret's original work providing insights into the design of gardens, including plantings, colours, styles, and purpose (Carroll 2003; Cornelius 1989; Daines 2008; Farrar 2016; Gallery 1978; Hugonot 1987; 1989a; 1989b; Karelin and Kulikova 2010; Kristensen 2015; Loeben 2014; 2016a; 2016b; 2018; Reichart 2021; 2022; Semple 1929; Topey 2008; Wildung 1977; Wilkinson 1990; 1994; 1998). For a while now, more focus has centred on the artistic and archaeological contexts of individual gardens (Albersmeier 2017; Alexanian and Arnold 2014; Arnold 2015; 2018; 2020; Davies 2020; Eigner 2009; O'Connor 1985; Galán and Garcia 2019; Galán 2020; Hudáková 2016; Laboury 2007; Parnham 2021). Geomentality helps to drive new interpretations of ancient Egyptian gardens and their development, through examining the interrelated relationships of people, physical environment, and creation mythologies. I look at gardens with central pools, *hsp*-plot gardens, and planted avenues and groves to examine the applicability of this framework to analyse ancient Egyptian gardens. These garden designs provide distinct examples to compare with one another which demonstrates how geomentality might be used to analyse ancient Egyptian deployment and the manifestation of their relationships to the physical environment and creation mythologies in various ways. Though this paper establishes a general overview of the theory and its adaptation to the ancient Egyptian context, I recognise that temporal, geographic, and spatial aspects must be considered when investigating individual gardens or specific periods when gardens were created and designed.

### What is geomentality?

Geomentality is the established, often taken-for-granted, mentality that an individual or a group of people has about the geographical environment that conditions the human-nature relationship (Yoon 1986: 39). Yoon Hong-Key (1986) proposed geomentality in 1983 as a new conceptual framework in the study of cultural geography. Yoon's (1976; 1986; 1987; 1991; 1994) approach draws from *fēngshuǐ* (風水/風水),<sup>1</sup> Māori environmental ideas (Indigenous New Zealand peoples), and Western theology. Yoon (1991: 388-389) establishes three basic tenets that underpin geomentality:

1. Human beings have established states of mind or patterns of thinking called mentality.
2. Geomentality forms part of the mentality as a whole.
3. A pattern of human behaviour is the outcome of a certain mentality.

He identifies explicitly how each group engaged with the physical environment to create their cultural landscape (Figure 1) (Yoon 1994: 471; 2003: 123). Landscape sits at the centre of geomentality. Geomentality is also the centre of the human-nature relationship. In Figure 1, the geomentalities presented show the significance of different aspects of nature in how East Asian, Western, and Māori cultures understood the world to be created. East Asian and Māori understandings of the world's creation do not centre humans as separate and different from nature, while the Western one situates humans in a hierarchically superior, almost curatorial, position to nature.

As shown in Figure 1, humans do not appear explicitly in East Asian geomentalities – being part of the 'myriad things'. In Māori geomentality, humans (Tūmatauenga) form one of six closely connected elements that make up the world as children of Ranginui and Papatūānuku (Figure 1). For Western concepts of the world's creation, humans are separated from nature. The grey box in Figure 1 differentiates

<sup>1</sup> Also known as *fūsai* (風水) (Japan) and *p'ungsu* (풍수) (Korea).

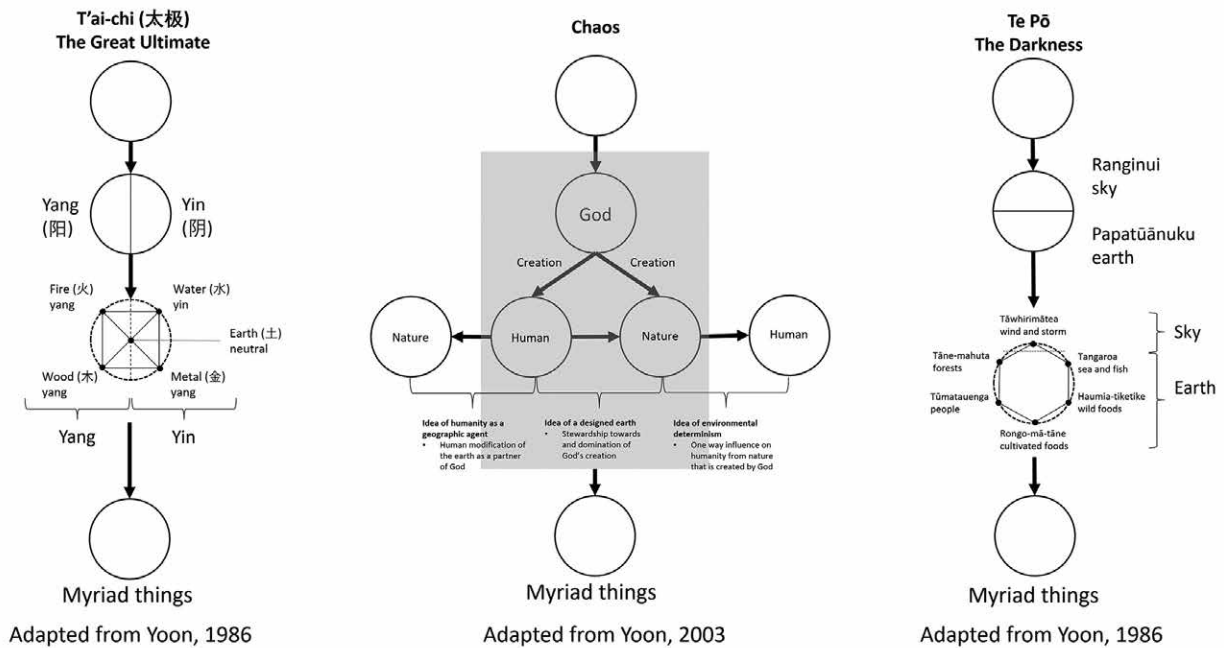


Figure 1. Understandings of the world's creation through East Asian, Western, and Māori theologies (adapted from Yoon 1986; 2003).

the Western idea of a designed earth from the separate but linked ideas of humanity as a geographic agent and of environmental influences (or determinism). Landscape rests at the nexus of humans and nature; it is (a) the geographic 'real' object, (b) the production of the observer, and (c) the complex interrelationship and dialogue between (a) and (b), which can be interpreted to understand a society's position of the environment (Ragazzoli 2016: 41). Landscape is a manuscript of a culture's history that is associated with a specific area, where some elements may endure longer than others (Park 1994: 197). Geomentalities assist scholars in comprehending the cultural-environmental messages embedded in a culture's distinctive relationship to landscape (Yoon 1986). For ancient Egypt, geomentalities contribute a new way to think through these embedded cultural-environmental relationships and the unique ways they manifested in the landscape.

Geomentalities usually assume a static environment, an end-product to be analysed. However, this theory can also be applied to dynamic and changing landscapes when working in tandem with New Materialist approaches. New Materialist archaeologies shift focus away from human-centred methodologies toward the cross-directional relations that exist between humans, objects, and landscape (Mol 2023: 716). The inherent dualisms in human-centred approaches are altered, bridging mind and body, humans and environment, people and things (Tsoraki *et al.* 2020: 507). In doing so, humans are destabilised 'as transcendent and ahistorical' to push understandings of the complex relationships between humans, objects, space, and surrounding environment (Fernández-Götz *et al.* 2020: 455).<sup>2</sup> New Materialist approaches strongly align with non-Western views of the landscape, through centring Indigenous perspectives (Mol 2023: 715).

Geomentalities use Indigenous perspectives to inform and guide analysis of a culture's environmental behaviours and how these are translated into tangible forms, like architecture, to understand a culture's

<sup>2</sup> New Materialist approaches continue to develop. For discussion, see Eloise Govier and Louise Steel (2021), Christopher Witmore (2021), and Oliver J.T. Harris and Craig Cipolla (2017).

use of space (Park 1994: 197; Yoon 1994: 471). Yoon (1994: 477) believes that Indigenous knowledge provides inherent stability to geomentality, as, even if a specific geomentality may change through time, the cultural landscape can trace patterns of behaviour.

In addition, Kenneth Henshall (2014: 181) advances the theory through the importance that the length of human occupation of and interaction with landscape has on a culture's geomentality. A culture's specific geomentality must account for length of time. As people moved around, they brought ideas with them that they altered and evolved. The longer people remained in place, the more they became increasingly connected to the landscape. These ideas manifest differently within the landscape (Park 1994: 1).

Yoon (1991; 1994) uses French and Japanese gardeners as representative examples of Western and East Asian geomentalities to explain his theory. He shows how each gardener's relationships to the physical environment and their creation mythologies influenced each culture's approach to creating gardens. The French gardener favours straight lines and geometric shapes, pointing to a clear relationship of human control over nature, an idea that evolved, he argued, from a Christian mindset. An example can be found at the Château de Villandry in Villandry, France (Figure 2). Yoon (1994: 473) quotes Genesis 1:27-28 to demonstrate the relationship between the Bible and the ensuing French geomentality where the Biblical idea of human dominion over nature is epitomised (Figure 1):

‘So God created man in his own image, in the image of God he created him; male and female he created them. And God blessed them. And God said to them, “Be fruitful and multiply and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth”.’

The French gardener is therefore highly influenced by environmental determinism where humans are demarcated from and placed in a higher curatorial position to nature (Yoon 1994: 472). An almost antithesis to Western gardens, the Japanese gardener prefers to imitate the natural environment. The Japanese gardener employs slow-moving water, curved lines, and natural-looking plants in the designs of their gardens (Yoon 1994: 471-472). These traits can be seen at the Shōsei-en Garden in Kyōto, Japan (Figure 3). These gardens are more influenced by the geomantic principles of *fēngshuǐ* where the relationship between nature and humans, unlike French gardens, is blurred (see Figure 1) (Yoon 2003: 132-139). The Japanese gardener condenses and miniaturises the beauty of nature within an artificially enclosed environment (Yoon 1994: 473-474). No ‘logical dichotomy’ exists in Japanese gardens, as found in French gardens, as humans are objects within the landscape (Yoon 1982: 78; see also Yoon 2003). Geomentality demonstrates that these two cultures’ approaches to garden design stemmed from underlying ideas and beliefs towards the environment, whether conscious or subconscious.

Māori did not create gardens for pleasure in the precolonial period (before 1840), unlike in Western and East Asian contexts. Instead, they established sustainable relationships with their surrounding environments that recognised the blended position of humans in nature (see Figure 1). Louise Furey (2006), in her authoritative study of precolonial Māori gardens, examined in-depth archaeological evidence for gardens in New Zealand, such as at Ōkoropunga, Wairarapa. Furey's (2006: 17-19) work demonstrates the practical approach that Māori took following their arrival in New Zealand to adapt the landscape and cultivate their introduced cultivars, including kūmara (sweet potato). Furey (2006: 23-52) specifically highlights stone structures, ditches, channels, and borrow pits as integral to promoting growth of Māori plants. She also notes that Māori gardening practices underwent changes through Māori interacting with European settlers in the second half of the nineteenth century. These practices increasingly aligned with British gardening ideals (Furey 2006: 111).



Figure 2. Garden at Château de Villandry, Villandry, France ('Jardin du château de Villandry' by ZohaStel is licensed under CC BY 3.0, viewed December 12 2023).



Figure 3. Shōsei-en Garden, Kyōto, Kyōto Prefecture, Kansai Region, Japan (author's own 2019).

Compared to the other cultures discussed so far, ancient Egyptian gardens appear to exhibit aspects present in Western, East Asian, and Māori gardens. These aspects may hint at these gardens possibly appearing along the spectrum between Western and East Asian geomentalities – if both are considered as the two most opposite ends of the spectrum. At face value, the ancient Egyptian garden appears to resemble Western ones in the use of straight lines and geometric shapes. This similarity influenced how previous scholars, like Jules Janick (2014), interpreted ancient Egyptian gardens' material, artistic, and archaeological remains as evidence of pure formalism. For this reason, I intentionally incorporate several details into this paper about ancient Egyptian relationships to their physical environment

and creation mythologies to demonstrate the uniqueness and difference of ancient Egypt from other societies. The reality is that the ancient Egyptians intimately knew their environment. The ancient Egyptian connection to the Nile River, marshes, deserts, mountains, sun, sky, earth, and water shows their intimate relationships with the physical environment. The ancient Egyptians employed measures that suited their needs and belief systems, creating something wholly different and, potentially, more akin to the East Asian geomentality where humans sit as part of the natural world where the relationship between nature and humans remained blurred, and not hierarchically differentiated as it is in the West.

The stability of the environment and the flexibility of the culture led to the ancient Egyptians forming creation mythologies that represented their conception of how the world came into being, in part influenced by the incredible length of time the ancient civilisation spanned (Morris 2019: 61). The creation mythologies created by the ancient Egyptians, namely the Ogdoad, Ennead, and Memphite traditions, were intrinsically linked to and cannot be disconnected from their world's political, social, religious, and natural parts (Ragazzoli 2013: 15). Both Susanne Bickel (1994: 186) and Stephen Quirke (1992: 30) rightly argued that these creation mythologies did not compete with one another but operated in complementary ways. Despite geomentality not being explored in the ancient Egyptian context, the idea of a 'frame of mind' is not new to Egyptology, especially in the study of ancient Egyptian gardens, and remains controversial (Carroll 2003: 8; Daines 2008: 16; Wilkinson 1998: 4). Geomentality provides a new paradigm to penetrate deeper into the design and creation of spaces like gardens and helps to assess how these spaces reflected peoples' relationships to their local environment and cultural-religious beliefs.

### **Egyptian gardens**

Ancient Egyptian gardens can be found in a range of contexts, including homes, temples, palaces, and tombs, and took several forms (Wilkinson 1990: 200-205; 1998). Bringing together artistic depictions, archaeological remains, and literary evidence of gardens helps clarify garden design to explore an ancient Egyptian geomentality. Much evidence for gardens come from ancient Egyptian tombs and date from throughout the pharaonic period, reaching its peak in the New Kingdom, mainly taking the form of tomb scenes, models, and inscriptions. Gardens also appear within archaeological contexts from across Egypt, being found in domestic, palatial, agricultural, and sepulchral settings (Wilkinson 1998) and within texts, such as in the Satire of the Trades (Lichtheim 1973: 184-192).

In ancient Egypt, gardens sat as an important part of the landscape with these spaces physically materialising aspects of ancient Egyptian religion within the landscape. For Alix Wilkinson (1994; 1998), gardens also provided an opportunity for the ancient Egyptians to materialise elements of the natural world into the built environment – ranging from plantings to architecture. Wilkinson (1994: 1) recognised three main design elements that went into ancient Egyptian gardens – form, function, and meaning (Figure 4). She concluded that the ancient Egyptians constantly considered form and function in creating their gardens, while meaning was imbued through the early stages of garden design that shifted continually through time and space (Wilkinson 1994: 1). Consequently, gardens sit at the nexus of all three elements of design (Figure 4). Yoon's (1991: 389) recognition of these same elements supports a cross-cultural application of geomentality to understand ancient Egypt's distinctive landscape.

Juan A. Belmonte and José Lull (2023: 44-46) usefully connect ancient Egyptian creation mythologies and understandings of the universe's structure to the tangible architecture people created. Though they did not specifically comment on them, I argue that gardens represent an example of Belmonte and Lull's ideas. As Yoon (1994: 471) argued, gardens are full of choices, many religiously or pragmatically motivated. Ancient Egyptian gardens physically distil ideas present in the interplay between the ancient

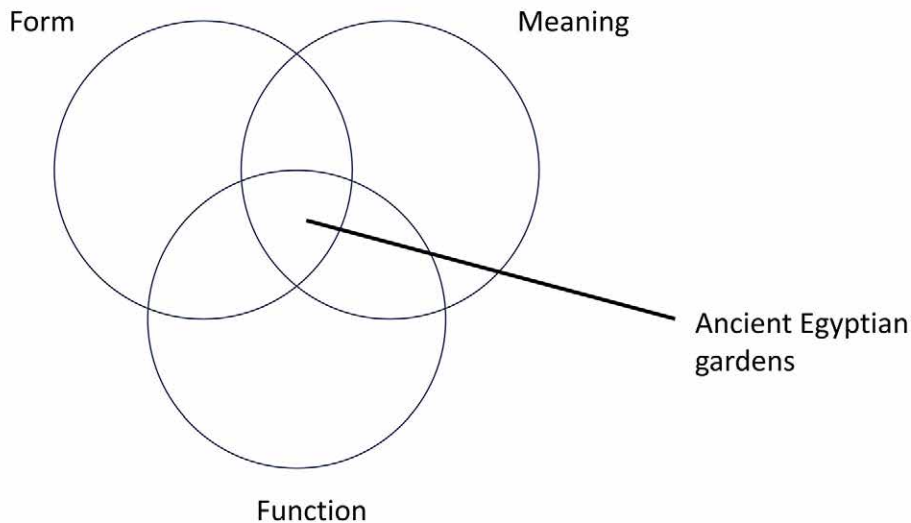


Figure 4. Venn diagram based on Wilkinson's (1994: 1) schema for ancient Egyptian gardens.

Egyptians, their physical environment, and their creation mythologies. In turn, the connection between all three reflect in the cultural and physical landscape and make up an ancient Egyptian geomentalities that can be understood (Yoon 1991: 387).

Katja Goeb's (2002: 38-42) concept of mythemes also helps elucidate an ancient Egyptian geomentalities through using an Egyptian-centred paradigm for analysis. Mythemes, by definition, are snippets of myths that represent flexible and adaptable aspects of ancient Egyptian myths that people made 'both useable and useful in a variety of contexts', such as architecture and landscape (Goeb's 2002: 45; Goeb's and Baines 2018: 645). For Katja Goeb's and John Baines (2018: 645), 'myths conceptualize, describe, explain, and control the world, and they were adapted to an ever-changing reality.' Through making their myths tangible in the landscape, the ancient Egyptians provided a script that geomentalities interrogates (Yoon 1991: 387). In this way, mythemes provide an opportunity to analyse geomentalities in the context of ancient Egypt.

Three distinct garden styles – gardens with central pools, *hsp*-plot gardens, and planted avenues and groves – will be used to assess the applicability of geomentalities to ancient Egyptian material. Each garden style demonstrates different aspects of the ancient Egyptians' relationships to their physical environment and the ways that they manifested their creation mythologies in their landscape. In doing so, I argue that the ancient Egyptians articulated these different relationships and understandings in each garden style. These relationships may be investigated with the framework of geomentalities (Yoon 1991; 1994). I recognise, however, as Wilkinson (1994: 1) did, that gardens and their meanings often changed through time and space. Despite this fact, geomentalities as a framework brings out new ways to consider gardens in ancient Egypt and starts a necessary conversation to allow cross-disciplinary approaches to penetrate the field of Egyptology, lifting gardens out of analytical isolation. I show that geomentalities confirms some conclusions already drawn in the study of ancient Egyptian gardens but also introduces new ideas about how gardens reflect different decision-making processes with evidence from archaeology, iconography, and art (Yoon 1994: 475-476).

### *Gardens with central pools*

Gardens with central pools, or š, are characterised by the pool placed in the centre of the garden, surrounded by planted vegetation like shrubs, flowers, and trees. These gardens usually appear within bounded spaces, enclosed by walls made of rock or bricks. Gardens with central pools appear primarily in temple and ritual contexts, linking them to the religious environment of the ancient Egyptians (Wilkinson 1998: 10-11). These gardens typically appear in the form of art, such as well-known examples from New Kingdom private tomb scenes, like Nebamun (British Museum EA 37983) and Rekhmire (Theban Tomb (TT) 100), along with the two garden models from the tomb of Meketre (TT 280), dated to the Middle Kingdom (Metropolitan Museum of Art, MMA 20.313 and Egyptian Museum in Cairo JE 46721) (Figure 5).<sup>3</sup> An archaeological example of a garden with a central pool is found at the 18th Dynasty funerary temple of Amenhotep son of Hapu at Thebes (Robichon and Varille 1936, pls. X and XX). Entries in the Palermo Stone may indicate gardens with central pools, or lakes, dating to as early as the Old Kingdom (Wilkinson 1998: 68).



Figure 5. Tomb model of Meketre, MMA 20.313 ('Model of a porch and garden,' courtesy of Metropolitan Museum of Art, viewed December 10 2023).

Placing gardens with central pools within the framework of geomentality confirms many of Wilkinson's (1998) conclusions, while also piercing a little deeper into their meanings. Wilkinson (1998) recognised that the emphasis of Nun, hiddenness, and emergence strongly correlates with the Ogdoad, *hnmyw*. The Ogdoad, one of several creation mythologies, detailed the continuous and ongoing interactions between the male and female aspects of forces whose energy brought forth the primordial mound out of Nun, the primaevial waters, and the wider world (Figure 6) (Johnston 2008: 186; Wilkinson 2003: 77-78). For example, according to Coffin Texts 75-80, the 'tensions between the four sets of males and females creat[ing] energy that stirred up the lifeless water [Nun]' brought forth Atum's appearance upon the primaevial mound, kickstarting the initial world – further expanded in the Ennead and Memphite

<sup>3</sup> There are differences between two-dimensional and three-dimensional art. For discussion, see Georgia Barker's (2022) work.

traditions (Johnston 2008: 186). Nun and Amen, along with their counterparts – Naunet and Amaunet, respectively – feature prominently in the gardens with central pools, taking two starkly different forms, with Nun as the pool and Amen as hiddenness expressed in the blending in of the outside walls into the surrounding environment. Geomentality provides a way to analyse these two forms in more depth, demonstrating the interplay between myth and the physical environment (Yoon 1991; 1994).

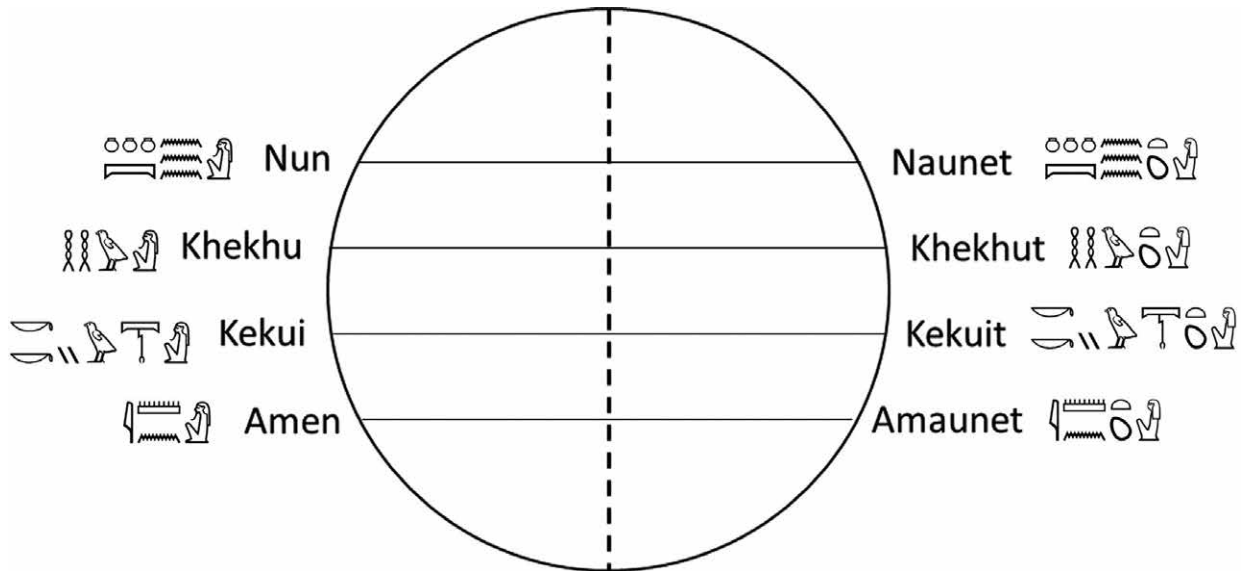


Figure 6. Schematic of the core elements of the Ogdoad (author's own 2023).<sup>4</sup>

Wilkinson (1998: 97) suggested that the central pool manifested a representation of Nun, the primaevial waters, from which vegetation visually sprang forth from the waters. This design created an image of life coming directly out of the pool, as the primaevial mound emerged from Nun (Wilkinson 1998: 97). As an entity, Nun holds a prominent place in the Ogdoad, Ennead, and Memphite creation traditions, especially with the ancient Egyptian view that life originated from Nun's still waters and, therefore, by way of the Nile, the life force for the ancient Egyptians. Nun acted in different capacities in each creation mythology, but its shared presence demonstrates Nun's essential and complementary position in the ways that the ancient Egyptians conceptualised the world and its beginning. For the ancient Egyptians, Nun likely figured into their relationship with the physical environment, such as in their recognition of the Nile's flow and its ability to annually inundate and enable new growth (Hughes 1992: 13-14). Nun remains difficult to describe in Egyptology (Moers 2010: 172; Obenga 2004: 43; Ragazzoli 2016: 42), though Belmonte and Lull (2023: 22) recognise it represents 'both pre-creation and [the] present at the same time' and, consequently, is not 'extinguished with creation.' Nun's role as the Nile's originator concretises into the central pool in the garden from which life springs forth. The pool may also represent the Nile. The vegetation that lines the pool might constitute a recreation of marshes that run along the Nile's edge. Therefore, the pool's edge replicates and reminisces the fertile marshes, a challenging environment that constitutes a ritualised landscape representing the fullness of life and taming of natural forces (Ragazzoli 2016: 41-52). The framework of geomentality thus confirms

<sup>4</sup> In some versions of the Ogdoad, Amen/Amaunet are replaced by other deities who function in similar roles (Zivie-Coche 2016: 69).

Wilkinson's (1998: 97) determination that the ancient Egyptians manifested Nun in the form of the central pool.

The second element manifested from the Ogdoad in gardens with central pools is *imn* or hiddenness. The concept of hiddenness is most notable in the enclosing walls of these gardens. Lise Manniche (1989: 21) spotlights how the enclosing walls of these gardens, as evidenced in the tomb models of Meketre, tended to blend into the surrounding sand-coloured desert environment. The ancient Egyptians often used sandy-coloured materials for the enclosing walls of artistic models and gardens in landscape, giving the illusion or idea of a hidden oasis (Burmil 2007: 83). Through hiding the brilliance of this kind of garden behind walls demonstrates an intent by their creator to manifest *imn* or hiddenness.

As a concept, *imn* links to primordialism as a creative principle and commanded creation to come forth (Allen 1988: 48). The ancient Egyptians accepted *imn* in both its immanent and transcendent divine forms (Allen 1988: 52-54). In fact, *imn* appears to act as a structuring element for the world, encompassing all things hidden. The ancient Egyptians recognised the hidden powers in the world and did not feel the need to articulate them, as the modern world does (Quirke 2015: 137). From the outside, the gardens with central pools appeared non-descript from other buildings, except maybe if plants peaked over the garden's walls; the garden's vibrance was only revealed upon someone entering the garden and being presented with an image of vegetation emerging from the pool's waters. Thus, the ancient Egyptians took elements of hiddenness and reproduced them in the physical architecture of enclosed garden spaces. As a framework, geomentality, therefore, offers tools through which to analyse this idea of hiddenness and its appearance in the landscape (Yoon 1994).

The tussling primordial couples, most represented by Nun and Amen, brought forth life and may indicate an active choice by the creators to blend these elements into lively spaces in the built and natural environment (Goebes and Baines 2018: 645). To actively manipulate landscape to craft a space where plants can grow is a startling force of human ingenuity that brings together thought, creation myths, and relationships to the physical environment, which geomentality helps articulate (Yoon 1994: 476-477). These spaces required constant attendance to thrive. Therefore, by positioning the water at the centre of the garden creates a sense of stability where life effortlessly explodes into the world, delineating the relationship between creation mythologies, physical environment, and people (Yoon 1991: 388).

A connected concept is *hpr*, meaning 'to transform', 'to come into being', and 'to take shape' (Assmann 2007: 19). Rune Nyord (2020) demonstrates that *hpr*, as an emergence principle, is a useful ontology through which to examine ancient Egyptian images. In his book, *Seeing perfection*, Nyord (2020: 51-52) presents the emergence principle as a process of becoming, linking this principle to a range of ancient Egyptian concepts and practices. Goebes' (2002: 38-42) concept of mythemes closely links with Nyord's emergence principle. The appearance of vegetation emerging out of the central pool's waters demonstrates both the emergence principle and a tangible manifestation of a mytheme. In addition, this scene may be viewed as a one-to-one replication of the Nile environment within the confines of a walled garden or even as an oasis like Kharga or Dakhleh Oasis (Burmil 2007: 77-85). Therefore, through using the lens of geomentality, the central pool's tangibility supports Belmonte and Lull's (2023: 401) position that mythologies could connect to the physical appearance of architecture. This vegetation shows a clear example of the emergence principle being applied in a tangible form within the landscape.

### ***Hsp-plot gardens***

*Hsp-plot* gardens provide a second case study to examine an ancient Egyptian geomentality. A simple garden design used since the Old Kingdom, *hsp-plot* gardens are characterised by their low-lying

design, gridded or waffle-like blueprint (▣), and their tendency to be used in growing produce. The overall design of these gardens presents a different geomental image from gardens with central pools. Their design made them practical and easy-to-make, which appears to centre the sun, sky, and earth's importance and involvement in the growing process. I recognise that this garden design also appears elsewhere in the Near East (Bowe 2017: 235-237) but I think that the design emerged simultaneously in these contexts, including Egypt.

*ḥsp*-plot gardens appear in a range of artistic and archaeological contexts. For example, artistic representations of *ḥsp*-plot gardens include the Saqqara tombs of Niankhkhnum and Khnumhotep, Mereruka, and Neferherenptah (Wilkinson 1998: 21), the Banī Hassan tombs of Amenemhat and Khnumhotep III (Figure 7) (Galán and Garcia 2019: 6), and Djehutyhotep II's tomb at Dayr al-Barshā (Hudáková 2016: 314). Archaeologically, *ḥsp*-plot gardens can be seen in two tomb gardens from Thebes (Galán and Garcia 2019: 4-6), and gardens at Mirgissa (Vercoutter 1968: 275-276), Amara West (Bonnet 1990: 37), Soleb (Schiff-Giorgini 1964: 87-95) and Tell al-'Amārna (Parnham 2021: 27-29). The artistic and archaeological evidence corroborates the appearance and use of *ḥsp*-plot gardens throughout the pharaonic period.

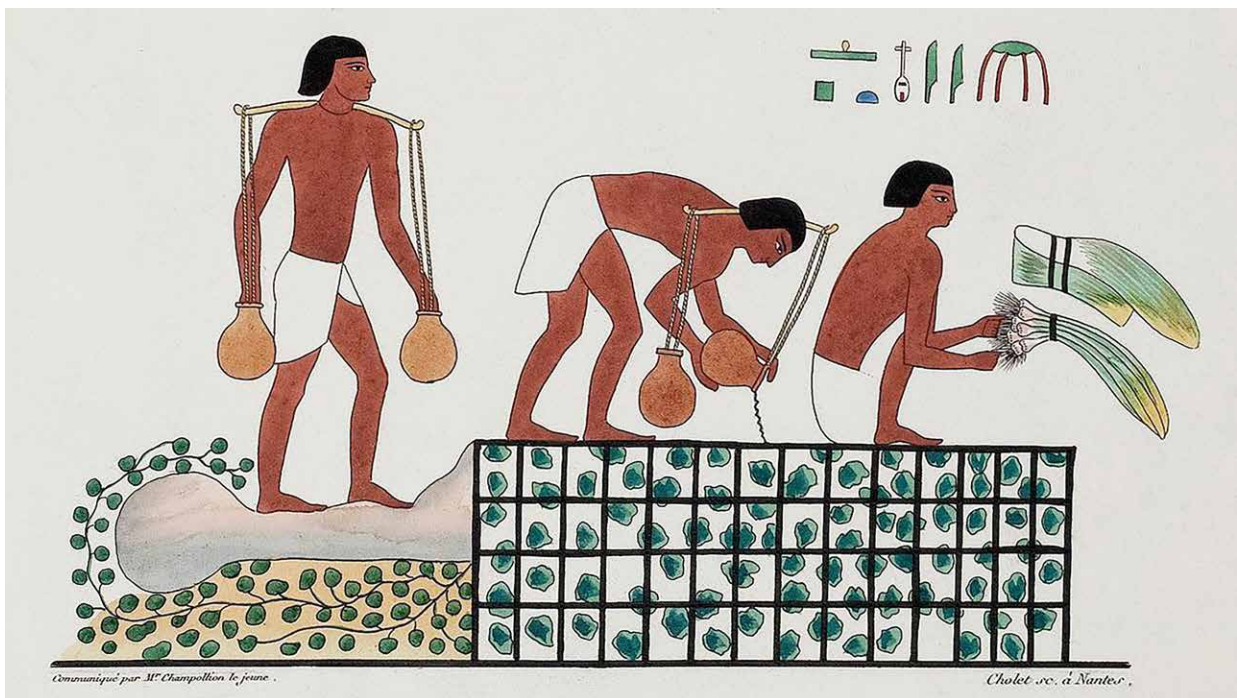


Figure 7. *ḥsp*-plot garden from Khnumhotep III's tomb at Banī Hasan (Cailliaud 1831: Pl. 33A).

Thinking through *ḥsp*-plot gardens with the lens of geomentalty provides new insights into how this garden design reflects a different manifestation of environment and creation mythologies from gardens with central pools. The simplicity of the *ḥsp*-plot garden's design may highlight a tandem between sky and earth, where water use was different, and their open-air, low-lying, and gridded layout held a prominent role in this design's function. Links between sky and earth could be viewed as a generative relationship, which geomentalty might unpick to demonstrate a gardener's decision to develop the *ḥsp*-plot design (Yoon 1986: 39).

Looking first at this design's low-lying, open-air nature helps to see how different aspects of ancient Egyptian mythology and relationship to the environment appeared within the landscape. *Hsp*-plot gardens often appeared as standalone gardens, meaning they do not rely on being part of the built environment, unlike gardens with central pools. For this reason, *hsp*-plot gardens may reflect a different relationship between people and landscape where the sun, sky, and earth are promoted more than the life-giving waters of the Nile.

The prominence of the sun, sky, and earth tangibly manifested in the form of *hsp*-plot gardens through their low-lying design. The low-lying design meant that nothing separated the earth from the sky. This design intrinsically enabled plants to grow unhampered with direct access to sunlight and regular circulation of air, recognised by the ancient Egyptians as life-giving as much as water. At Tell al-'Amarna, Ken Parnham (2021: 27-29) recognises the sun's importance in the decision to use this garden design over other available ones used in preceding periods. The use of *hsp*-plot gardens aligned with the Atenist focus of religion during the Amarna period, with walled gardens hindering access to sunlight (Wilkinson 1998: 155). I think, however, that the ancient Egyptians recognised the sun's importance in *hsp*-plot gardens well before the Amarna period, likely at the point of the inception of using this garden design. *Hsp*-plot gardens were used to grow produce for individuals, families, communities, and rituals throughout the pharaonic period (Wilkinson 1998: 23). Geomentality confirms the links to the physicality of the sun, sky, earth, and the Ennead tradition as important structuring elements behind *hsp*-plot gardens (Yoon 1991).

The ancient Egyptians recognised the role of sun, sky, and earth in the process of growth, as visible components of their environment (Hughes 1992: 17-18). The sun, sky, and earth feature prominently in the Ennead creation myth, *psd.t*. Atum, as the progenitor and solar deity, represents the sun. Through parthenogenesis Atum gave rise to a divine dynastic lineage that ended with Horus, with each of their descendants reflecting an aspect of the sky, earth, or both (Figure 8). Atum's children, Shu and Tefnut, represent air and moisture, respectively, and may be viewed as the atmosphere between sky and earth – evidenced by depictions of Shu holding up the sky (Belmonte and Lull 2023: 10). Shu and Tefnut's sibling-marriage brought forth Geb and Nut, the earth and sky, respectively. Geb and Nut, in turn, also entered a sibling-marriage and had four children: Osiris, Isis, Set, and Nephthys. Osiris and Isis personified fertility and kingship, with Osiris also being linked with agriculture (Belmonte and Lull 2023: 1-11). Set and Nephthys balanced Osiris and Isis, with Set traditionally seen as the embodiment of chaos and the desert (Hart 2005: 143-145; Turner 2012: 14). Both Isis and Nephthys have earth and sky aspects. *Hsp*-plot gardens, therefore, possibly inculcate the importance of the sun, sky, and earth in the meanings attached to this garden design. Atum, Shu, Tefnut, and Nut, in their roles as sky deities, and Geb as the earth god, materialise in the direct contact between sky and earth brought forth by the low-lying appearance of these gardens.

The low-lying design does not stipulate that these gardens were not visible in the landscape. Plants that grew within *hsp*-plot gardens were likely visible when in full bloom or in a state of emerging, which meant that they could be seen at a distance – a possible pop of colour against the sand-coloured environment of the desert. It is possible to go one step further than simply recognising the importance of the sun, sky, and earth in *hsp*-plot gardens. *Hsp*-plot gardens may reflect a manifestation of the *primaeva* mound in the Ennead, though in a markedly different form from the gardens with central pools. The fertile soil in each plot of the *hsp*-plot garden would be both the earth and the *primaeva* mound from which living matter appeared in a cyclical process of emergence. This process would embody *hpr* and *nhh*, one of the ancient Egyptian concepts of time, a form of cyclical time (Assmann 2013: 259-360; Nyord 2020: 51-52; Servajean 2007; 2008). Thus, the low-lying design represents a tangible representation of *hpr* and time and implicates its connection with the generative properties of the sun, sky, and earth in the ancient Egyptian mindset, a conclusion reached through applying the frame of geomentality (Yoon 1986: 39).

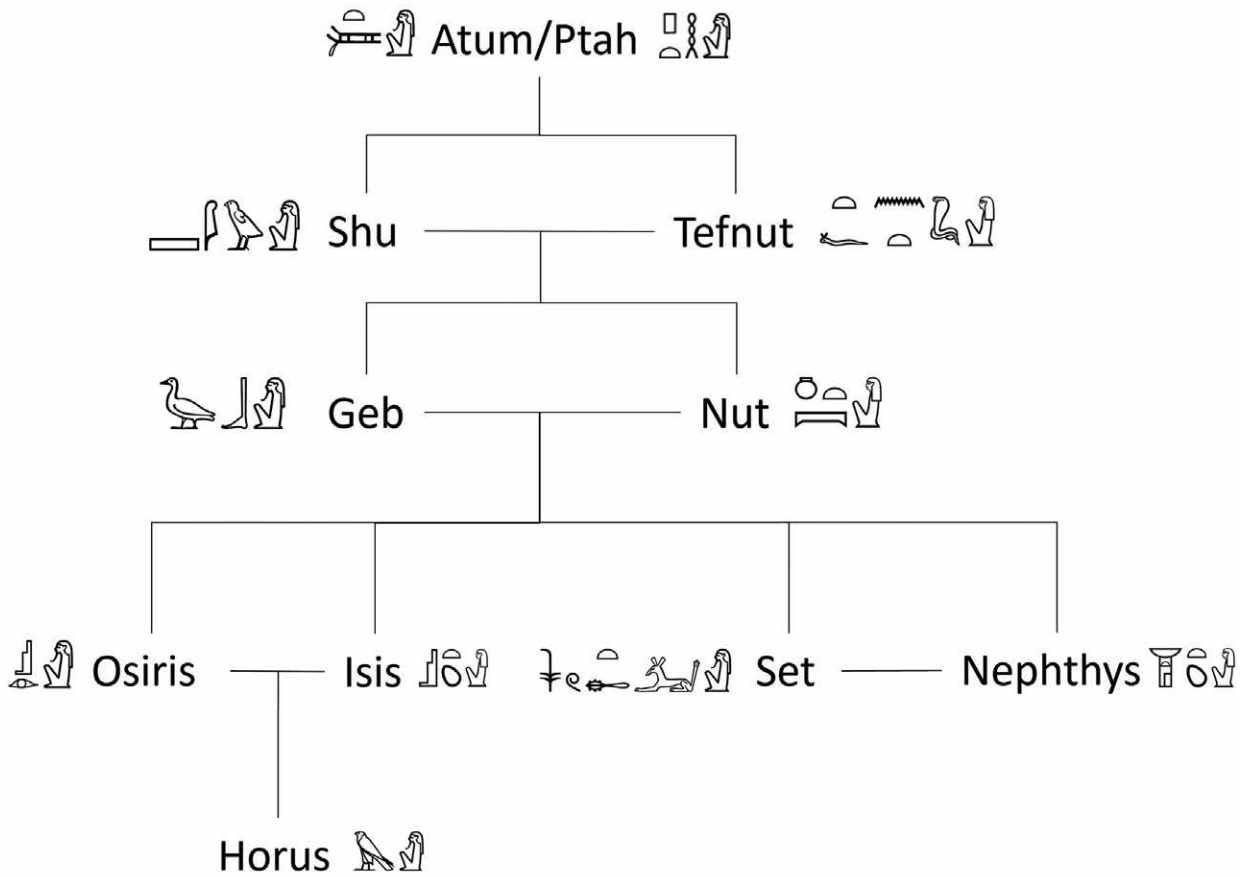


Figure 8. Schematic of relationships between different deities in the Ennead, including Ptah from the Memphite tradition (author's own 2023).

In doing so, an ancient Egyptian geomentality is articulated through establishing the significance of these generative properties in the design of *hsp*-plot gardens. Emergence played an important part in manifesting the *primaeval* mound and Geb, as earth, in the physical and cultural landscape.

The gridded layout of *hsp*-plot gardens demonstrates a balance reminiscent of *mꜣ.t* and *isf.t*. For the ancient Egyptians, *mꜣ.t* and *isf.t* structured the world. Traditionally, *mꜣ.t* and *isf.t* are viewed as a binary, where *mꜣ.t* means ‘order,’ ‘truth,’ and ‘justice’ and *isf.t* ‘disorder’ and ‘chaos’ (Babcock 2022: 1; Szpakowska 2013: 507). These two concepts are seen as a binary struggle; however, *mꜣ.t* and *isf.t* might be a balance that regulates changes that happened (*hpr*) and remained (*mn*) (Assmann 2006; Karenga 2004; Obenga 2004: 47). Each *hsp*-plot garden contained individual squares or rectangles that allowed plants to grow in an ordered way, with direct access to sunlight and fertile soil. This choice meant that plants did not have to compete for resources. In these ways, *hsp*-plot gardens supported easy, ongoing maintenance (Wilkinson 1998: 20). The individualised plots meant that only small amounts of fertile soil required maintenance rather than an entire bed of soil. Arguably, applying this approach meant that the ancient Egyptians consciously or unconsciously employed methods to find the crucial balance between sunlight, fertile earth, and space to promote plant growth. Exploring these relationships through the lens of geomentality clarifies the intricate balance between environmental realities and structuring elements of creation myth (Yoon 1991: 387).

Together, the low-lying design and gridded pattern of *hsp*-plot gardens promoted generative relationships to play out in accordance with fundamental beliefs and relationships that the ancient Egyptians had with their environment. The open-air, low-lying, and gridded style leaned toward supporting these generative relationships as no physical barriers, like walls, prevented plants from accessing the sun to photosynthesise nutrients. Developing this form of garden, both from a practical and symbolic perspective, demonstrated the ingenuity of the ancient Egyptians to transform challenging landscapes, especially deserts, into useable spaces, including production sites for sustenance and ritual purposes. Though not prominent in the design of the garden, unlike in gardens with central pools, water did remain an important element in maintaining these spaces (Carroll 2003: 10). Water instead was held in nearby water basins or transported directly from the Nile before being sprinkled among the multiple plots of fertile soil. Occasionally, the ancient Egyptians created channels between each plot to allow these plots to be watered all at once (Moreno García 2022: 324-334). The offset importance of water in the physical design of the spaces indicates that Nun did not occupy a prominent position in *hsp*-plot gardens. However, it is important to recognise the sun's significance cannot be underestimated in gardens with central pools, because many of these gardens show little to no evidence of roofs. Geomentality confirms that the ancient Egyptians could enact their cultural experiences in multiple ways to suit their needs and purposes.

The engagement and alteration of landscapes at the interface between the desert and the fertile valley or into the desert itself demonstrates the ancient Egyptians' deep relationship with their surrounding environments. The ancient Egyptians contended with the desert, adjusting several areas to incorporate elements of their culture as built environments in these spaces (Figure 9). For many, deserts present challenging spaces to make liveable, especially for sedentary people, because of the dry climate, poor soil quality, and dangerous animals that characterise these environments (Daines 2008, 22). However, as Jennifer M. Babcock (2022) demonstrates, the ancient Egyptians did not see these environments as inherently chaotic, a belief typically held within Egyptology.<sup>5</sup> Babcock's (2022: 14) re-examination of the dichotomous idea of chaos versus order, desert versus Nile, shows that it no longer holds its ground. She concluded that little reference to chaos exists as described in earlier literature because the deserts still follow the canon of proportion (Babcock 2022: 14; Robin and Fowler 1994; Leary 2021: 2-18). The desert was viewed as dangerous, but these spaces were not necessarily viewed as chaotic (Babcock 2022: 14). I think that *hsp*-plot gardens stand testament to Babcock's (2022: 14) exemplary recognition that the desert did not represent chaos *per se*, with the ancient Egyptians choosing to actively engage and alter these landscapes for their benefit, confirmed through applying the lens of geomentality.

When compared with gardens with central pools, *hsp*-plot gardens, therefore, represent something wholly different. Using Yoon's (1991: 388; 1994: 477) idea of geomentality, the interconnection in *hsp*-plot gardens as practical and curated spaces showed the ancient Egyptians gardeners' relationship with their landscape and environment. In addition, this garden design manifests ancient Egyptian ideals in different ways, instead pedestalling the sun, sky, and earth, rather than Nun, as central organising principles. *Hsp*-plot gardens represent a tangible interplay between the practical relationships to the environment and peoples' religious beliefs, demonstrating that neither was mutually exclusive in developing these spaces (Yoon 1994: 387).

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<sup>5</sup> Deborah Sweeney presented similar ideas, associated with Dayr al-Madinah, at the thirteenth *International Congress of Egyptologists* in Leiden, 6-11 August 2023. Niv Allon (2021) and Axelle Brémont (2018) also explore similar themes in their studies.



Figure 9. Agriculture with desert cliffs in the background, near Banī Hasan; Surrounding desert at Tuna al-Gebel (author's own 2019).

### ***Planted avenues and groves***

Planted avenues and groves provide a useful comparative to *ḥsp*-plot gardens to consider the applicability of geomentalities to ancient Egyptian gardens. Many features of avenues and groves and *ḥsp*-plot gardens share common environmental and religious roots. However, these features operate in starkly different ways in accordance with how avenues and groves manifested in the landscape when compared with *ḥsp*-plot gardens, which geomentalities help to understand (Yoon 1994: 476).

Planted avenues and groves tended to appear as part of larger building projects. Plants also usually appeared in individualised and set apart planting areas organised in straight lines along a path that led to a specific place – most often an entrance. Examples of avenues and groves are found in funerary, palatial, and domestic contexts, such as the mortuary temple of Mentuhotep II at Dayr al-Baḥrī (Arnold 1979; Winlock 1922: 24–28), Senusret II's pyramid at al-Lišt (Arnold 1988), and the mayor's house at *Wḥ-swt* in south Abydos (Wegner 2010: 135–139; 2014: 30). Avenues are also depicted artistically. For instance, the tomb of Neferhotep at Thebes shows the planted approach to the temple at Karnak (de Garis Davies 1933: Pl. XLII). These planted avenues and groves received water mostly the same way as *ḥsp*-plot gardens, with water being transported from nearby water basins or directly from the Nile by people (Moreno García 2022: 324–334).

Much like *ḥsp*-plot gardens, avenues and groves promote the significance of the sun, sky, and earth through the employment of similar design principles. The openness and low-lying planting areas promoted unimpeded growth and emergence of plants, as *ḥsp*-plot gardens do. For example, each individual planting area sits in a straight line, sometimes with multiple rows of planting areas. Where this design differs is scale, overall purpose, and look of the avenues and groves. These designs specifically direct people. For example, these individualised planting areas can be seen along the pathway as part of the entrance leading to the mortuary temple of Mentuhotep II (Arnold 1979; Winlock 1922: 24–28). During Herbert E. Winlock's 1921–22 excavations at Thebes, his team uncovered a broken sandstone plan of the temple from Edouard Naville's find dump that details the temple's avenue of trees that aligns with the temple's archaeological remains (MMA 22.3.30a, b) (Figure 10) (Winlock 1922: 27). The nexus of each line in Figure 10 appears to represent a singular planting plot, though the schematic plan is a rougher rendering of what eventuated at the temple (Winlock 1922: 27). This avenue, along with others found in funerary contexts, may reflect the primordial mound from which life sprang forth

and, therefore, connects with the Ennead creation tradition already mentioned (Wilkinson 1998: 69). I propose a similar idea for *hsp*-plot gardens. The idea would support the ancient Egyptian recognition of the sun, sky, and earth in these paths that work together to bring forth life. In addition, Wilkinson (1998: 69) suggests that Mentuhotep II's mortuary temple represents a form of Osiris' tomb. The lens of geomentality, therefore, corroborates the conclusions put forth for both *hsp*-plot gardens and avenues and groves (Yoon 1991).

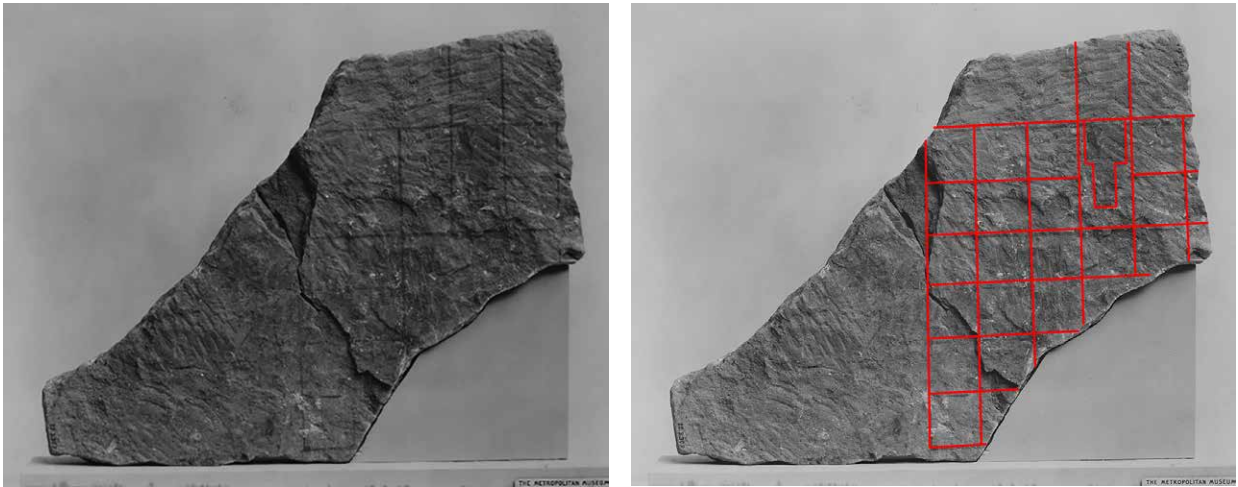


Figure 10. Schematic plan for Mentuhotep II mortuary temple, Dayr al-Bahri, MMA 22.3.30a, b (“Plan for a temple garden,” courtesy of Metropolitan Museum of Art, viewed December 10 2023).

The intent behind creating planted avenues and groves differed from those of *hsp*-plot gardens and gardens with central pools. Avenues and groves, for the most part, did not necessarily recreate a microcosm of the world, like gardens with central pools, nor were simply used in the production of food and ritual offerings, like in *hsp*-plot gardens. The ancient Egyptians used this garden design with the aim to not blend the plants and planting areas into the surrounding environment but instead to promote the importance of integrating nature as part of the spectacle of the built landscape. I see this practice as not human control over nature but rather stems from the ancient Egyptians' intimate relationships with nature (Hughes 1992: 12).

The intent to incorporate planted elements, like avenues and groves, into building projects again reveals the human ingenuity to transport and alter the environment for their needs and purposes. Many of these projects appeared within the desert-agriculture interface or into the desert. A prime example of this idea can be seen in Sneferu's Bent Pyramid complex at Dašur (Alexanian and Arnold 2014: 9). Babcock's (2022) work again demonstrates that these spaces were not chaotic and served a purpose for the ancient Egyptians. Life perpetuated in these spaces through the human creation of specific planted areas and subsequent interventions and watering ensured that in harsh conditions plants thrived. People struck a balance between the desert and human desire, *mꜣ.t* and *isf.t* that manifested in the landscape. The presence of plants in a generally desolate landscape provided a spectacle amongst the rest of the building project which often use more muted materials, like sandstone. Where materials lent towards mutability, the building projects size and overall ornateness create spectacle in a different way. The pop of colour that plants, such as the green from trees, provided to a built environment added to the overall experience of the space created. Geomentality confirms that the ancient Egyptians intimately knew their landscape and could adjust it in accordance with their perception of the world (Yoon 1991).

Wilkinson (1998: 63-96) shows that, in the case of royal avenues and groves, these spaces formed part of the landscaped building project with the intent to establish a spectacle of royal power, though not in the form of domination and control. Examples of these practices are seen in the mortuary temple of Mentuhotep II and the grove as part of the building complex of the Bent Pyramid (Alexanian and Arnold 2014: 9; Winlock 1922: 24-28). Avenues and groves may also signify elite power and status when they appear in non-royal contexts, such as the mayor's house at south Abydos (Wegner 2010: 135-139) and the Abydene cenotaphs (O'Connor 1985: 161-177). For the most part, avenues and groves are not walled in their immediate vicinity, though may be enclosed by a larger enclosure, such as at the mayor's house in *Wḥ-swt*, south Abydos (Wegner 2010: 135-139). Where *ḥsp*-plot gardens appear in all social contexts, incorporating nature into the built environment displayed elite status by visually connecting landscape and architecture in avenues and groves. Therefore, use of planted avenues and groves in building projects indicates a decision being made to incorporate these elements into the design of the space and undoubtedly drew on their designer's relationship to the environment and their belief system.

Planted avenues and groves provide a garden design that demonstrated similar relationships employed in other garden designs, like *ḥsp*-plot gardens. For the most part, the base ideas found in avenues and groves share roots similar to *ḥsp*-plot gardens, but that these ideas emerged differently. Like *ḥsp*-plot gardens, avenues and groves differed significantly from gardens with central pools, as the lens of geomentalities demonstrates (Yoon 1991; 1994). The key difference from *ḥsp*-plot gardens is that avenues and groves intentionally form part of the spectacular, drawing and transforming these shared roots into a more prominent position in the landscape.

### **Conclusion: geomentalities in ancient Egypt**

This paper serves as a brief introduction to geomentalities and its potential applicability to the study of ancient Egyptian gardens and landscapes more generally. Drawing cross-culturally, geomentalities shows how a culture's relationship to its physical environment and how they understood the world to be created directly influenced how the culture manifested physical spaces like gardens (Yoon 1991; 1994). Due to an almost synergistic relationship with their surrounding environment and the development of complex, relatively complete, creation mythologies, the ancient Egyptians created and used multiple garden designs that reflected different aspects of their culture. The ancient Egyptians drew from a wide range of cultural material, including agricultural practices, artistic scenes, buildings, and literary sources, which influenced their decisions to make gardens in many styles.

In this paper, I chose to focus only on three distinct garden designs – gardens with central pools, *ḥsp*-plot gardens, and planted avenues and groves – to establish that an ancient Egyptian geomentalities existed and may be found in their gardenscapes. This approach corroborated several of Wilkinson's (1998) conclusions, but also provided the opportunity to go further into the connection people had to their physical environment and beliefs. The ancient Egyptian relationships to their physical environment and beliefs in the world's creation resulted in a complex interplay manifesting in the physical and cultural landscape. This interplay tied together aspects of the sun, sky, earth, water, and other structuring elements, like *mḥ.t*, *isf.t*, *imn*, and *ḥpr*, to create different styles of gardens that consciously or unconsciously represented ancient Egyptian beliefs and environmental relationships. When compared to one another, each garden design discussed demonstrates how the ancient Egyptians transformed their landscapes in different ways and vice-versa. The different approaches taken implicate the remarkable tenacity that the ancient Egyptians had to maintain and reassert their culture even during periods of political turmoil (Hughes 1992: 12). Environmental historian J. Donald Hughes (1992: 12) indicated that the ancient Egyptian culture embedded intimate environmental relationships with their surroundings, as evidenced by the ancient Egyptians' religious outlook. Ancient Egyptian gardens

manifested these unique environmental relationships, condensed into artificially created and curated spaces – incorporating stone and living organisms (Yoon 1994: 474-476).

As this paper only provides an introduction, much more work is needed to explore further opportunities to apply geomentality to ancient Egypt. These opportunities include interrogating ancient Egypt's spatial and temporal complexities related to garden usage and appearance, which spanned millennia, as gardens morphed in meaning and importance throughout time. Though this paper mostly focussed on Egyptian concepts of gardens, possible fruitful areas of research could include the study of periods of immense cultural entanglement, such as the Second Intermediate, Ptolemaic, and Roman periods, where new cultural paradigms enmeshed with local Egyptian ideas and beliefs.

New Materialist archaeologies might provide a useful way to adjust the framework of geomentality to consider ancient Egyptian gardens. Part of this adjustment would extend beyond an anthropocentric view of the relationship between gardenscapes and people. Integrating geomentality with New Materialist archaeologies, I think more nuanced understandings may be gleaned from ancient Egyptian gardens (Harris and Cipolla 2017). Doing so might highlight a greater level of granularity in the understanding of ancient Egyptian gardens and the contexts in which they are found. Possible ways forward could centre on case studies of individual gardens that analyse their specific contexts or examine, more generally, a specific period of garden design and usage. As gardens with central pools, *hsp*-plot gardens, and planted avenues and groves are not the only garden designs used in ancient Egypt, other garden designs could also be studied, such as palatial gardens or orchards (Eigner 2009; Eyre 1994), which might yield similar or different results than briefly introduced in this paper. As demonstrated already by Jayme Reichart (2022), another possible avenue to consider is the animals and plants chosen to go into the garden spaces, which might influence how these spaces were designed and interacted with by the ancient Egyptians. Geomentality delivers a novel and cross-cultural approach to examine ancient Egyptian gardens and their relationship between people, physical environment, and creation beliefs.

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# Stellar Skies: Reconsidering the Ancient Egyptian Celestial Diagrams

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## Abstract

The *Celestial Diagram* refers to a graphic representation of the night sky that adorns a range of monuments and objects, including tomb and temple ceilings, coffin and sarcophagi lids, and water clocks. This intricate image captures a diverse array of celestial elements, including stars, constellations, and planets, offering a unique glimpse into the ancient Egyptian perception of the night sky. The ancient Egyptians depicted different versions of these stellar representations, classified as Traditions, reflecting diverse approaches to illustrating the sky. This paper focuses on a distinct feature exclusive to three Ramesside tombs (Ramesses V/VI, Ramesses VII, and Ramesses IX), identified by the current author as the 'Double Diagram'. The Double Diagram uniquely encapsulates two different traditions of depicting the sky on a single ceiling. The primary aim of this study is to elucidate the previously overlooked feature of the Double Diagram, offering insight into its symbolic implications and its function of capturing a comprehensive image of the night sky.

## Keywords

Astronomy, Celestial Diagram, Astronomical Ceilings, Night Sky, New Kingdom, Valley of the Kings.

## Introduction: the standard Celestial Diagram

The *Celestial Diagram* is a graphic representation depicting the night sky from the ancient Egyptians' own perspective. It is typically organised over two horizontal panels, designating two distinct regions of the sky.<sup>1</sup> The upper panel, referred to as the southern panel, encompasses three primary elements: decans, constellations, and planets. Decans are groups of stars situated in a zone in the southern sky, rising helically 10 days apart (Neugebauer 1955: 47; Neugebauer and Parker 1960: 95; Quack 2010: 993). The southern panel also features graphic representations of decanal constellations or star clusters, marking areas populated by stars and depicted in forms such as a sheep, a boat, and two turtles (Neugebauer and Parker 1969: 2; Symons 2011: 103; Quack 2018: 66). Additionally, this area includes figures representing the constellation Orion (*sḥ*), associated with Osiris, and the star Sothis (*spdt*), associated with Isis (Neugebauer and Parker 1969: 3; Quack 2018: 63). Following these, four or five planets are arranged as follows: Jupiter, Saturn, Mars, Mercury, and Venus.<sup>2</sup> The arrangement distinguishes outer and inner

<sup>1</sup> The two halves should ideally be oriented towards the north and the south see Quack 2010: 993; 2018: 66; 2019: 5 and von Lieven 2021: 200.

<sup>2</sup> The usual order of the planets prior to the Graeco-Roman period (332 BCE-395 CE) mandates a separation between the outer planets (i.e. Jupiter, Saturn, and Mars) and the inner planets (i.e. Mercury and Venus), see Neugebauer and Parker 1969: 175. The outer planets usually take the iconography of falcon-headed figures and the epithet of Horus, see Quack 2019: 7 and Symons 2013: 879.

planets by placing the triangular decans between them (see Figure 1).<sup>3</sup> These triangle decans are the stars used to mark the epagomenal days (Neugebauer and Parker 1969: 3; Quack 2019: 5).

Meanwhile, the lower panel, designated as the northern panel, features a distinctive assembly of figures collectively known as the ‘northern group’. The most important figure of this group is the bull, representing the constellation Big Dipper, a circumpolar constellation characterised by its stationary position in the sky, as it neither rises nor sets, but rather moves in a circular trajectory.<sup>4</sup> Typically, this constellation is portrayed as being constrained or anchored in place by the presence of a female hippopotamus and a falcon-headed figure (see Figures 2 and 4; von Lieven 2021: 204; Quack 2010: 994; 2018: 66).

The northern group occupies a prominent position at the centre of the northern panel depicting a collection of nine figures. While the composition of these figures may vary across different sources, the group commonly comprises nine figures (see Figures 2 and 4):

1. A striding female hippopotamus frequently depicted with a crocodile on its back. The hippopotamus is usually depicted resting on a mooring post, a jar, or a small vertical crocodile.
2. A falcon-headed figure with raised arms. The figure is usually found in close proximity to the bull.
3. A bull depicted in the form of an ovoid shape, a full bull, or a foreleg.<sup>5</sup>
4. A figure of a man depicted with arms raised at an angle fighting a crocodile.
5. A crocodile.
6. A seated lion or a lion-headed crocodile.
7. A falcon or possibly a vulture that usually appears in association with the previously mentioned lion, or between its paws.
8. Small-curved tail crocodile.
9. The goddess Serket.

The northern group is commonly flanked on both sides by figures identified as the attending deities. These deities are conjectured to represent personifications of days of the lunar months. Their depiction may vary in number across different sources, but they are typically portrayed with discs atop their heads and occasionally adorned with red dots, symbolising stars across their bodies (Neugebauer and Parker 1969: 3, 194; Quack 2018: 66).

#### The Southern Panel

Inner planets	Epagomenal decans	Outer Planets	Sirius	Orion	List of Decans
Attending Deities		Northern Group		Attending Deities	

#### The Northern Panel

Figure 1. The layout of the Celestial Diagram.

<sup>3</sup> The planets are not arranged according to their distance from the sun, see Quack 2018: 66; 2019: 5.

<sup>4</sup> The constellation consists of seven stars that are usually traced on the figure of the bull, see Wainwright 1932: 373 and Neugebauer and Parker 1969: 189.

<sup>5</sup> The bull is usually identified as *msḥtyw*. It is one of the constellations that can be identified with certainty as the Big Dipper, a circumpolar constellation that does not set, but moves in a circular manner; see Wainwright 1932: 373. For the variation on the inscription of the bull see Neugebauer and Parker 1969: 189.

The classical image is often expanded by inclusion of a third register below the northern panel, serving to establish a connection with time (von Lieven 2021: 199). This additional register may feature either a lunar calendar or a star clock, highlighting the practical function of the sky in timekeeping.<sup>6</sup>

The Celestial Diagram was not simply blindly copied from one source to another, it is an image concept that evolves over time (Quack 2010: 991). Such elaborate representations of the night sky are attested from the New Kingdom up to the Graeco-Roman Period (c. 1473-125 AD). Consequently, the ancient Egyptian developed different ways of depicting the night sky often classified as Traditions.

### On families and traditions

Iconographic distinctions evident in the Celestial Diagrams coupled with the sequence of decans displayed on the southern panel, constitute pivotal elements in the classification system developed by Neugebauer and Parker in their *Egyptian Astronomical Texts (EAT)*. Their classification categorises Celestial Diagrams into five main families and several subfamilies (see Table 1). This systematic approach enables scholars to discern and analyse patterns, variations, and cultural influences within the diverse representations of the night sky in ancient Egyptian art (Neugebauer and Parker 1969: 105-153).

TABLE 1. THE FIVE MAIN EAT FAMILIES AND THEIR SUBFAMILIES.

Senenmut	Seti I A	Seti I C	Seti I B	Tanis	Miscellaneous
Senenmut subgroup A	Seti I A subgroup A				
Senenmut subgroup B	Seti I subgroup B				

To provide a more comprehensive examination of iconographic traditions, this study will analyse two Celestial Diagrams originating from the main families of Senenmut and Seti (identified as Seti I A in Table 1). Specifically, the astronomical ceilings found within the tombs of Senenmut and Seti I will be scrutinised to elucidate these iconographic traditions in greater detail.

#### *The astronomical ceiling of Senenmut (TT 353)*

An exemplary instance of the Celestial Diagram is found in the unfinished tomb of Senenmut (TT 353) on the ceiling of Chamber A (Dorman 1991: 138; Porter and Moss 1964: 418). This diagram is divided into two horizontal panels, each framed by rows of stars. The two panels are separated by a four-line excerpt from the *Pyramid Texts* alongside the titular designation of Hatshepsut (Dorman 1991: 138; Gautschy 2020: 66).

The southern panel includes a decan list comprising 36 entries arranged in vertical columns (Neugebauer and Parker 1969: 95). Each entry provides the name of the decan, the associated deity, and the number of stars constituting the decan. Within the decanal entries, figures of Orion and Sirius on barks are

<sup>6</sup> Lunar calendars can be found on the water clock dating to the reign of Amenhotep III (Neugebauer and Parker 1969: 12-14) and on the astronomical ceilings from the temple of Ramesses II called Ramesseum (Neugebauer and Parker 1969: 17-18) and the temple of Ramesses III at Medinet Habu (Neugebauer and Parker 1969: 26-27). This third register of the lunar calendar usually depicts the king with 12 deities representing the 12 lunar months (Parker 1950: 43; Spalinger 1995; Gautschy 2020). On the other hand, the Ramesside star clocks can only be found on three ceilings from the 20th dynasty, in the tombs of Ramesses V/VI, Ramesses VII, and Ramesses IX. These star clocks record the observation of certain stars to determine time (Neugebauer and Parker 1964; Symons 1999: 69-106).

depicted, accompanied by four planets – Jupiter, Saturn, Mercury, and Venus (Neugebauer and Parker 1969: 10-11).

The figures comprising the northern group (depicted on the northern panel) consists of a striding female hippopotamus resting on a mooring post and a small vertical crocodile (no. 1 in the northern group list), a falcon-headed figure (no. 2), an oval-shaped bull (no. 3), the goddess Serket (no. 9), a lion-headed crocodile (no. 6), and a man fighting a crocodile (no. 4).

In this diagram, the figures of the northern group frequently appear in hybrid formats. For example, the hippopotamus takes on a frightening appearance with its massive open mouth, pushed-out tongue, and iconographic features such as a lion's mane, leonine paws, and a human-like sagging belly and breasts. It is depicted in a standing posture resembling humans, with a screaming open mouth. This blended iconography suggests a deeper meaning, portraying a protective force rather than merely a standing female hippopotamus (Ceruti 2017: 109). Similarly, the lion exhibits hybridity, being depicted as a lion-headed crocodile. Lastly, the bull adopts the form of a bull-headed ovoid with four short limbs (see Figure 2).

The Celestial Diagram found in the tomb of Senenmut can be used as a representative model for understanding how the ancient Egyptians conceptualised the night sky. This visual representation can be found in other contexts outside the tomb of Senenmut as well. However, it is crucial to recognise that this specific depiction does not stand as the sole representation of how the ancient Egyptians illustrated the night sky. Different representations emerged from different sources and time periods, reflecting the rich complexity and evolution of their celestial imagery. The variations in depictions across contexts offer valuable insights into the nuanced ways in which the ancient Egyptians perceived and represented the night sky.

### ***Seti I astronomical ceiling***

An alternate representation of the Celestial Diagram is found on the astronomical ceiling of Seti I. The diagram decorates the ceiling of the burial chamber (Neugebauer and Parker 1969: 14-16; Porter and Moss 1964: 542;) and is classified under the Seti I C tradition (Neugebauer and Parker 1969: 14). This decoration presents a distinct version of the Celestial Diagram, deviating from Senenmut's model (discussed above). This representation establishes its own unique character and introduces innovative elements. A noteworthy departure from the previously mentioned model is observed in the structure of the southern panel, which assumes the form of a methodically organised table of decans, featuring three rows and multiple columns.

In this rendition, the upper row of this table is inscribed with the names of decans, while the middle row is adorned with depictions of stars representing these decans. The bottom row is dedicated to inscriptions of the names of associated deities, each accompanied by an iconographic reference to the respective deity (see Figure 3). Notably, this decanal table also encompasses entries for five planets, including Mars, which was missing from earlier sources.

The northern panel establishes its own distinct identity and design, diverging significantly from Senenmut's configuration. The composition of the northern group is particularly striking. Beginning from the right and progressing to the left, the group commences with a striding female hippopotamus resting its paws on a mooring post, featuring a crocodile on its back (no. 1 in the northern group list). Atop this mooring post, the falcon-headed figure (no. 2) stands horizontally, with both arms lifted at an angle, gripping the extension of a platform upon which a striding bull is depicted with two ropes attached to its tail (no. 3). These ropes are connected to the mooring post and held by an unidentified

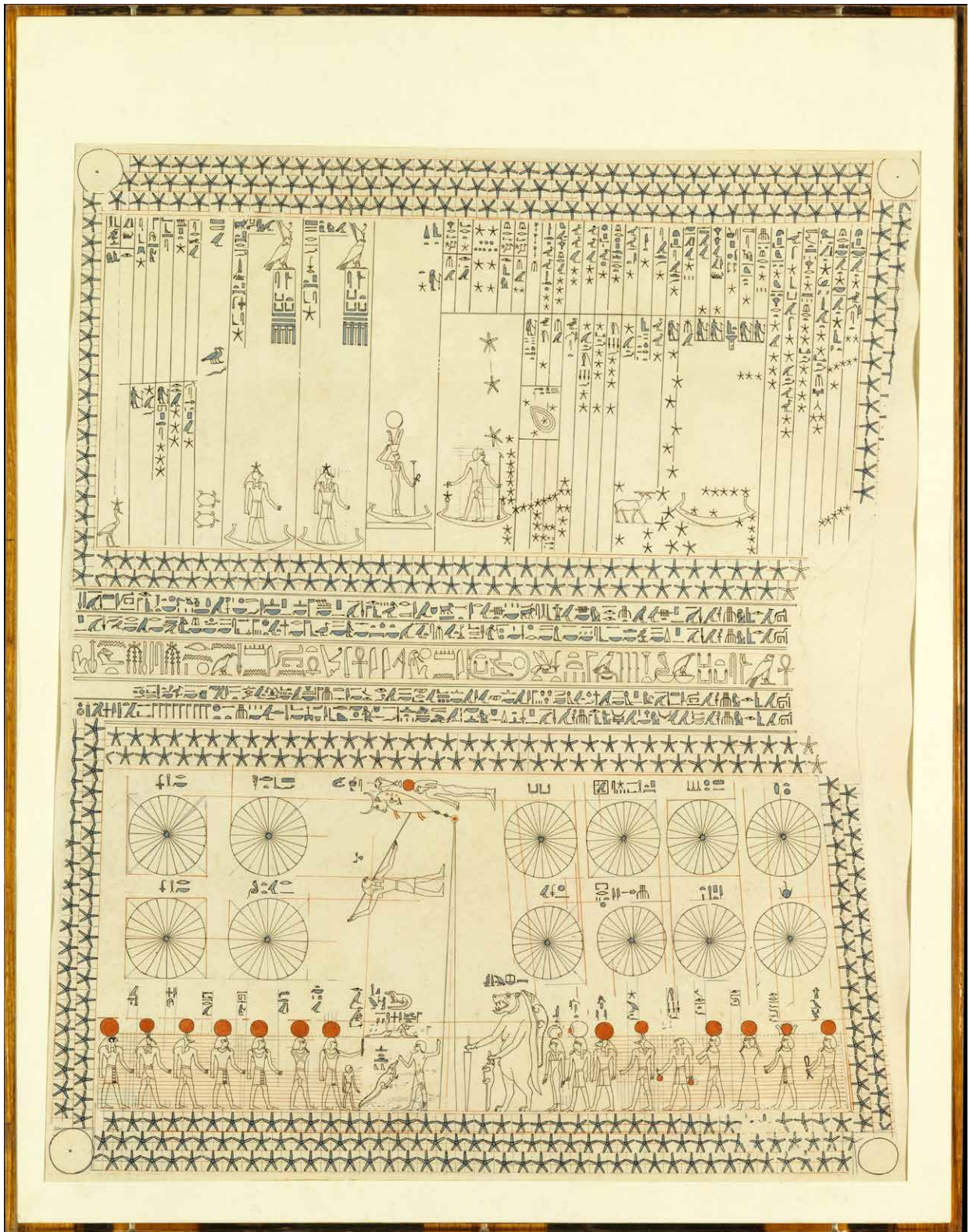


Figure 2. Details of astronomical ceiling from the unfinished Tomb of Senenmut (© The Metropolitan Museum of Art, illustration by Charles Wilkinson)



Figure 3. Part of the southern panel depicting the table of decans, clusters, and associated deities. Astronomical ceiling from the Tomb of Seti I (Photo by Yossra Ibrahim; 2017).

male figure. To the left of the bull, the goddess Serket stands horizontally (no. 9), and below her is a seated lion almost entirely outlined by stars (no. 6), with a falcon positioned above its head (no. 7). Finally, a horizontal crocodile (no. 5) approaches diagonally towards a male figure standing in a fighting gesture (no. 4) (see Figure 4; Clagett 1989: 125).



Figure 4. Part of the northern panel displaying the northern group and the attending deities. Astronomical ceiling from the Tomb of Seti I (Photo by Yossra Ibrahim 2017).

Several crucial themes merit attention in this tradition. Firstly, it distinctively depicts the figures of the northern group, opting for true representations of the hippopotamus, the bull, and the lion without resorting to hybrid forms. Notably, the constellation of the bull deviates from the formally attested

oval-shaped bull, taking on the form of a conventional bull. Noteworthy is the unique positioning of the falcon-headed figure and the unidentified man, both attending to the bull. The falcon-headed figure plays a role in supporting the platform of the bull, while the unidentified man ensures the bull remains in place by fixing the ropes to the mooring post. These distinctive elements contribute to the uniqueness of Seti's celestial representation. Furthermore, the Seti I C tradition introduces an additional figure, a man holding two ropes extending from the back of the bull and fixed to the ground line (see Figure 4).

Celestial Diagrams typically adhere to the depiction of a single tradition or a specific family of decans. However, a novel decorative technique emerges on a few astronomical ceilings from the 20th dynasty, challenging the conventional perception of the Celestial Diagram.

### **The Ramesside astronomical ceilings**

Celestial Diagrams dating to the 20th dynasty present a unique visual representation of the night sky. In most cases, astronomical ceilings adhere to one tradition, as identified by Neugebauer and Parker's classification system (see Table 1). However, there are instances where the same source exhibits two different traditions. This phenomenon is identified by the current author as the *Double Diagram*. This term describes the specific structure of the ceiling that encapsulates the amalgamation of two different traditions, evident in both the decanal list and the conception of the northern group. On one side, there is a decan list aligning with the family of Senenmut subgroup B, while the other side features a decan list falling under the family of Seti I A subgroup A (Symons 1999: 58). These two conceptions are placed back-to-back on the same ceiling (see Figure 5). The unique feature of the Double Diagram is exclusively observed in three Ramesside tombs, particularly within the tombs of Ramesses V/VI (KV 9), VII (KV 1), and IX (KV 6). Notably, this celestial representation of the Double Diagram does not occur beyond these specific tombs.

These ceilings, collectively known as the Ramesside Diagrams, exhibit a structured organisational rule and adhere to consistent decorative schemes. Unlike earlier examples where a clear division existed between the contents of the southern and northern panels, the Ramesside Diagrams distribute their celestial content across three registers (see Figure 5).

The upper register features the decan list, presented in a tabular format. In the middle row, the northern group is depicted alongside attending deities, and the bottom row introduces a unique Ramesside addition in the form of a star clock, an innovative time-keeping tool exclusive to the Ramesside tombs. This star clock, comprising 24 tables (Symons 1999: 69), is integrated seamlessly into the overall celestial decoration of the ceilings.

The star clock exhibits a systematic arrangement of written information and pictorial representations. Structured as a graph or a grid, the star clock comprises seven vertical columns and 13 rows. The initial row enumerates the date of the observation, name of the star, and its position. Subsequently, the following 12 rows track stars over a 12-hour period, recording and plotting their positions on the graph. The lower segment of the clock features several depictions of a seated, bearded man wearing a kilt, presented in frontal view. The positions of the stars are then plotted or determined based on the different body parts of this seated figure.<sup>7</sup>

### ***The Double Diagram***

The feature of the Double Diagram can be observed in the tomb of Ramesses V/VI on the ceiling of Room F (Neugebauer and Parker 1969: 31, 33; Porter and Moss 1964: 514), tomb of Ramesses VII of the

<sup>7</sup> Usually the shoulder, arm, eye, and ear are used for reference see Symons 1999: 71; 2019: 38.

Senenmut subgroup B Decan list
Northern group
Star clock
Seti I A subgroup A Decan list
Northern group
Star clock

Figure 5. The composition of the Double Diagram.

ceiling of the burial chamber (Neugebauer and Parker 1969: 34-36; Porter and Moss 1964: 496), and in the tomb of Ramesses IX on the ceiling of corridor C (Neugebauer and Parker 1969: 36-38; Porter and Moss 1964: 502-503). In this paper the Double Diagram in the tomb of Ramesses VII will be discussed since it is the best-preserved Double Diagram.<sup>8</sup>

On this ceiling, the decoration features a double figure of the goddess Nut in a bending position. The two images of Nut are depicted back-to-back, arching over the contents of the Celestial Diagram. Each figure of Nut embraces a different decorative tradition of the Celestial Diagram.

The northern portion of the diagram features a huge figure of the goddess Nut in a bending position with six discs spread over her body and one disc before her mouth. Below Nut is a large table composed of 45 columns and three rows listing down the names of decans, deities associated with decans, and planets. This decan list belongs to the family of Senenmut subgroup B (Neugebauer and Parker 1969: 36). On the following register the procession of deities accompanying the northern group is depicted. The northern group is composed of (from right to left) a striding female hippopotamus wearing an elongated tailed-like headdress resting its paws on a crocodile and a mooring post (no. 1 in the list), a falcon-headed figure depicted horizontally standing on the mooring post (no. 2) while holding a stick against the oval shaped body of the bull (no. 3), a standing man on the bottom line holding a spear (no. 4) to fight a horizontally lying crocodile (no. 5), and a lion (no. 6) (see Figure 6).

On the opposite side, the southern panel features a huge figure of the goddess Nut in a bending position with six discs spread over her body and one disc before her mouth. Below Nut is a huge table inscribed with names of decans, planets, and associated deities to parallel the contents of the northern panel. This decan list belongs to the Seti I A subgroup A family. On the register below, the northern group is depicted featuring a striding female hippopotamus with a crocodile on its back resting its paws on a jar (no. 1), a falcon-headed figure depicted horizontally standing on the jar while holding a stick that reaches upwards to the decan table (no. 2). A standing man (no. 4) faces the crocodile with one arm raised at an angle supporting the platform of the bull, the bull is depicted in full shape (no. 3). Opposite the standing man is a seated lion (no. 6) and the goddess Serket (no. 9) (see Figure 6).

The Double Diagram represents a unique design that significantly alters the typical form of the Celestial Diagram by integrating two distinct traditions onto the same ceiling. Formerly, the Celestial Diagrams followed either one of the Senenmut traditions or one of the Seti I traditions. Accordingly, the designers of the diagram needed to adhere to one image conception or perhaps came up with the ingenious idea of the Double Diagram to contain the two different conceptions of the night sky.

<sup>8</sup> The diagram in KV 9 Room F is located behind columns making it difficult to discuss in detail all the elements and the diagram in KV 6 is poorly preserved and chunks of the stucco has fallen off.

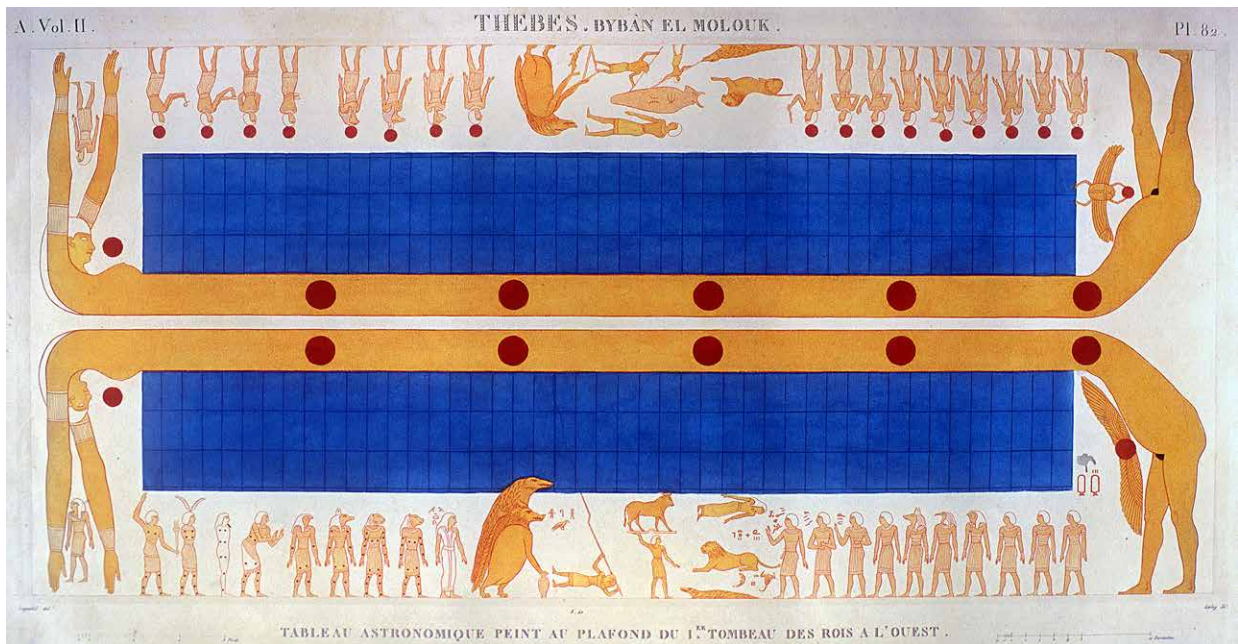


Figure 6. Line drawing showing the Double Diagram from the tomb of Ramesses VII (KV 1). #16566, Copy slide (Francis Dzikowski), June 2001 © Theban Mapping Project.

At the heart of the northern group lie the constellations of the bull, a circumpolar constellation that orbits around a fixed point without rising or setting. The depiction of this constellation may have varied due to different observations, resulting in representations ranging from a full bull to an ovoid bull. The progression of stars and constellations over time led to the emergence of multiple decanal families. This diversity may have served as the impetus for the creation of the Double Diagram, an innovative feature capable of accommodating two variations simultaneously, thus offering a more comprehensive portrayal of the night sky's imaginative landscape.

While the exact rationale behind depicting two traditions remains elusive, it may stem from a quest for a comprehensive portrayal of the night sky. The evolution of different decanal families underscores the observable effects of procession of decans over time. As adjustments in the assignment of stars and constellations were necessitated to maintain the functionality of the decans' timekeeping system, it likely contributed to the development of various decan families (Neugebauer and Parker 1969: 105-150).

## Conclusion

The Double Diagram is a decorative feature exclusive to three Ramesside royal tombs, representing a careful and a deliberate decoration that combines different perspectives of imagining the night sky on a single ceiling. It is a unique feature since Celestial Diagrams usually adhere to one specific tradition. Thus, the purpose of the Double Diagram can be argued as to provide a complete visualisation of the night sky.

The examination of the Double Diagram and its integration of two distinct celestial traditions onto a single ceiling sheds light on the complexity and ingenuity of ancient Egyptian Celestial Diagrams. While the precise reasons behind the inclusion of two traditions remain speculative, it is evident that the evolution of decanal families and the progression of stars and constellations played pivotal roles in shaping ancient Egyptian astronomical representations. The Double Diagram stands as a testament to

the ancient Egyptians' careful observation of the night sky and their desire to create comprehensive and multifaceted depictions of sky.

Furthermore, the exploration of the northern group, particularly the constellation of the bull, highlights the nuanced interpretations and varied depictions of celestial entities within ancient Egyptian iconography. The diversity observed in these representations underscores the rich cultural tapestry of ancient Egypt and the multiplicity of perspectives that informed their understanding of the cosmos.

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# Reading and Writing in Retrograde on Late Coffins from Akhmim

Kea Johnston

## Abstract

In most Egyptian hieroglyphic writing, individual characters face the beginning of the text, and the text proceeds into the faces of the animal and human glyphs. Retrograde texts are texts where the characters face the end of the text rather than its beginning, giving the impression of having been written backwards. Retrograde was sporadically used for the inscription of religious texts since the time of the Pyramid Texts, but the reason for its preference over the more common non-retrograde script remains unknown. On Late Period and Ptolemaic coffins from the site of Akhmim, retrograde texts and non-retrograde texts appear on similar coffins from the same workshops and scribes. Retrograde texts on coffins are not common during the Late Period, but their frequency increases dramatically during the Ptolemaic Period. Since few studies have addressed the use of retrograde on late coffins, this paper examines the proposed reasons for the use of retrograde in other contexts considering specific examples of Akhmim coffins with retrograde texts. Initially, the use of retrograde texts at Akhmim seems to have been the result of the way the texts were copied from intermediary documents onto coffins rather than for purposes of religious symbolism. During the Ptolemaic period however, the use of retrograde may have been tied to ideas of archaism and linked to the use of retrograde in contemporary Book of the Dead papyri from the site.

## Keyword

Retrograde, Akhmim, Egyptian Coffins, Scribal Practice, Late Period, Ptolemaic Period

## Introduction

Coffins in ancient Egypt were decorated with texts intended to complement and perpetuate funerary rituals in order to bring about the rebirth of the deceased. How exactly the texts filled this function was dependent on the layout of the coffin and the selection and placement of texts and images within this layout. These Design Patterns could vary over time, location of manufacture, and between various social circles within the Egyptian elite. The selection and nuances of the execution of the texts and vignettes owed much to the tastes and abilities of both the artists and the coffin consumers.

From the New Kingdom to the end of the Ptolemaic Period, the way texts were written on coffins seems to have been standardized. In general, texts read from right to left and were either written in columns or rows. On coffin layouts with a vertical line of symmetry down the centre of the top of the lid, texts could either read from right to left or outward from the centre, with the facing of the individual characters mirrored around this axis. Glyphs in captions usually faced the same direction as the figural drawings they described, and the texts read into these figural drawings of those objects. Texts which were meant to be read when the coffin was laying on its back usually read from the head to the foot, with individual characters facing the head (Figure 1).

In Egyptian writing, the individual characters in a text usually face the beginning of that text. However, as early as the late Third Intermediate Period, workshops in the city of Akhmim decorated some coffins with retrograde texts – texts where the individual characters face the end of the text and appear to be

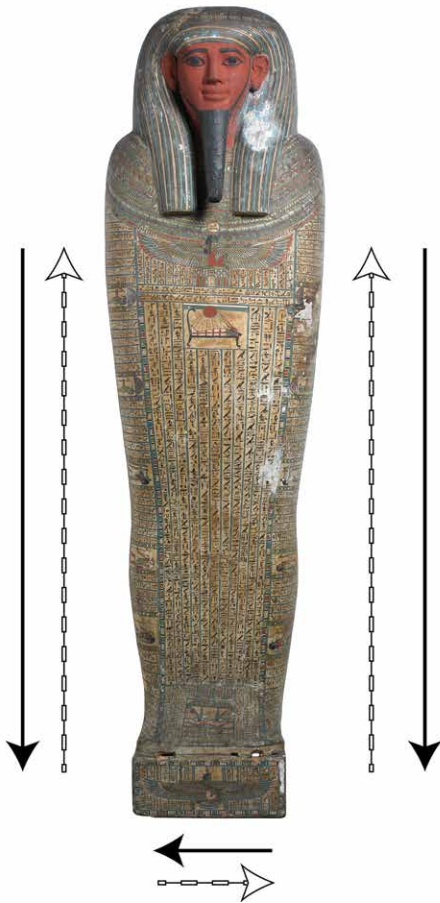


Figure 1. Text reading and facing directions on the coffin of Besenmut (EA 22940) from 26th dynasty Thebes. Dotted lines indicate facing direction of glyphs and solid lines indicate read direction of columns and rows. © The Trustees of the British Museum.

written backwards. Initially, the proportion of Akhmim coffins of any layout with retrograde texts was relatively small: about a fourth of the twenty-three Late Period coffins surveyed had retrograde texts. During the Ptolemaic Period, retrograde became much more common at Akhmim, with about half of the 29 pieces surveyed bearing retrograde inscriptions. Because little has been written about retrograde in the context of late coffins, this paper analyzes these pieces in light of theories about retrograde use in tombs, papyri, and temples. The possibility of religious symbolism in the use of retrograde on these coffins is carefully examined, as is the theory that retrograde may have been a product of the mechanical way in which the texts were inscribed on the coffin.

### Retrograde at Akhmim

Retrograde texts appeared on coffins at Akhmim starting in the 25th dynasty and concurrent with the increase of text in coffin decoration occurring throughout Egypt at this time. The retrograde texts occurred alongside texts written normally. An illustrative example is the coffin of Irethoreru, now in the Museum of Fine Arts, San Francisco, FAMSF 42895 (Figure 2). This piece can probably be dated to the Late Period rather than the Ptolemaic period, though its position within that timeframe is uncertain. The lid contains some text that was meant to be viewed from the side while the coffin was laying on its back, and other text that was meant to be viewed from the front while the coffin was standing. As is the case with many contemporary coffins, the text on the coffin of Irethoreru reads from right to left across the chest, and from shoulder to foot on both sides. The text which is meant to be read while the coffin is standing is non-retrograde, but of the two texts meant to be read while the coffin is lying down, the one on the left side is retrograde, while the one on the right side is not.

The retrograde and non-retrograde texts on the sides of the coffin are nearly identical, with the exception of a few orthographical variants. The texts consist of the same offering formula to Osiris and Osiris-Sokar, the latter being a god in whose Akhmim cult Irethoreru served. At the end of the formula, an excerpt of a Nut Formula derived from Pyramid Text 368 is appended (Figure 3). The two texts were written by the same scribe, but the left (retrograde) side is slightly longer due to the way the characters were spaced within the columns and perhaps because of the uneven way in which the column lines were drafted.

The first obstacle standing in the way of an attempt to explain retrograde use on Akhmim coffins is that it was used inconsistently. On the coffin of Irethoreru, the same text appears in retrograde on one side of the coffin and in normal script on another. On the coffin of Iwefaa (Phoebe A Hearst Museum of Anthropology 6-19928) the speech for a standing serpent deity in a vignette for the judgment scene reads retrograde from left to right: *dd md.w in (i)tm*, 'Recitation by Atum'. The caption for the god in the same scene on several other coffins made in the same workshop reads normally, from right to left. This

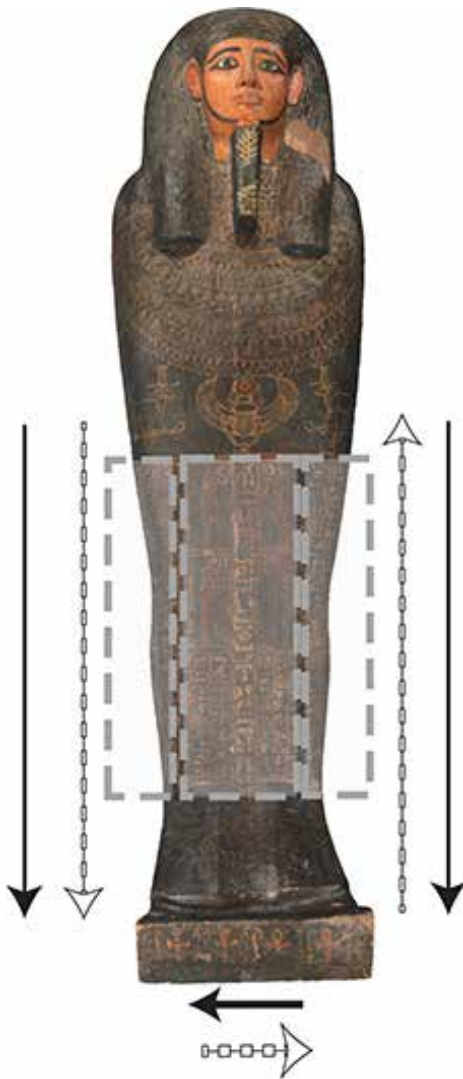


Figure 2. Text reading and facing directions on the coffin of Irethorrou/Irethoreru, (FAMSF 42895). Dotted lines indicate facing directions of glyphs and solid lines indicate read direction. Dotted boxes delineate the text areas. Note that the viewer's left side inscription is retrograde. © The Book of the Dead in 3D Project and Fine Arts Museums of San Francisco.

inconsistent use of retrograde is characteristic of its use in general and has meant that most studies on retrograde focus on case-studies of individual tombs or objects. It also means that there is likely no one explanation for the use of retrograde on coffins from Akhmim, but several factors that could have simultaneously influenced the decision to employ it.

In these case studies, explanations for the use of retrograde fall into two categories: religious and practical (Einaudi 2018: 67-68; Niwinski 1989: 14-16). Religious explanations attribute religious meaning to the reading direction and facing direction of the text, and practical explanations see the use of retrograde text as the result of a mistake, or a conscientious scribal choice to clarify the meaning of the text or convey extra information about how to interpret the scene to the viewer. Religious and practical reasons need not be mutually exclusive. Practical reasons often involved the use of retrograde to clarify religious meaning, or in order to point to or include external aspects of a religious landscape. Retrograde might also be used to bring a scene into compliance with Egyptian rules of balance and symmetry – rules with a religious basis.

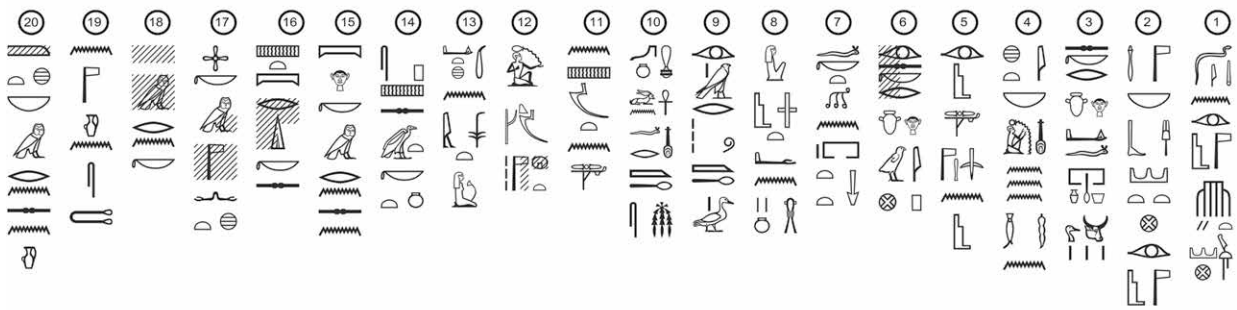
### Retrograde as an allusion to the solar cycle

Perhaps the most commonly cited reason for retrograde is that it is an allusion to the reversibility of time in the Duat (Hornung 1972: 31). This is especially apparent in the way retrograde is used in the Book of the Amduat in the royal tombs of the early 18th dynasty and in later copies of this text. In the royal tombs of the New Kingdom, the Amduat and other afterlife books are positioned relative to each other and to the body of the king so as to create a microcosm of the universe with the body of the deceased at the centre. This universe has its own interior directions which correspond to architectural features of the tomb, but not necessarily to the directions of the outside world. In the tomb of Thutmose III, for example, the twelfth hour of the night is depicted on the wall at the foot of the coffin. As far as the local coordinates of the tomb are concerned, this is the Eastern Horizon, where the sun rises after its journey through the Duat. The head of the king's sarcophagus points to the Western wall, where the first four

hours after sunset are inscribed. The text envelops the sarcophagus in a sort of spiral from sunset to sunrise, from the Western horizon to the Eastern horizon, and from death to birth (Richter 2008: 78-92). In this context, both the retrograde reading of the text and the positioning of the hours of the night around the body interact to evoke the journey of the sun and both the cyclical and linear nature of time.

This relationship between time reversal, the cycle of Solar-Osirian rebirth, and retrograde text can also be seen in the left-to-right-reading retrograde Books of the Dead that were popular throughout the New Kingdom (Niwinski 1989: 13). In these retrograde papyri, the direction of the retrograde text corresponds with the direction of the vignette showing the funerary procession. The procession moves towards the

## Viewer's right side



## Viewer's left side

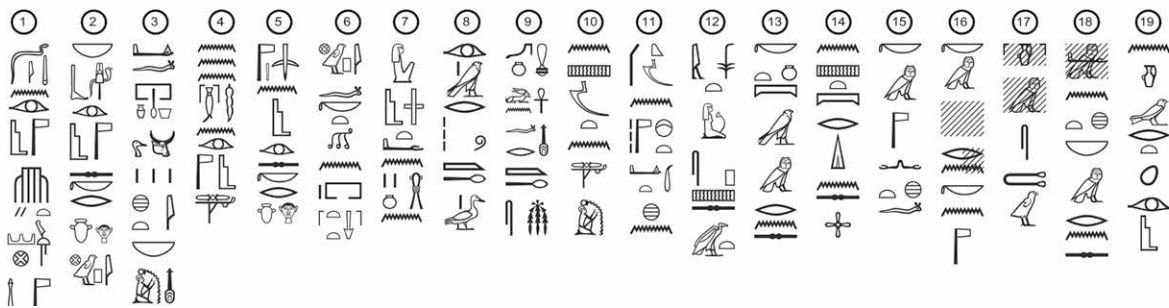


Figure 3. Inscription on the viewer's right and left sides of the lid of the coffin of Irethorrou/Irethoreru, Fine Arts Museum, San Francisco (FAMSF 42895).

tomb, from East to West, following the track of the setting sun. With its rightward facing characters, the text points to the West. There is a tension inherent in the facing direction since it would be most intuitive to an Egyptian reader to read the text in prograde from right to left. Such a reader would be led from the west, back to the east, moving backwards through the spells and thus time (Chegodaev 1996; Niwinski 1989: 13-15). That this was the intent of the retrograde text becomes apparent in the late 21st dynasty when columns of cursive hieroglyphic papyri were replaced by rows of right-to-left-reading hieratic. In these papyri, the direction of the processional vignette changed from right-to-left as well (Verhoeven 2023: 173).

This use of retrograde as a way to lead the funerary procession west and the deceased back east out into sunlight was revived in the 25th dynasty, at least at Thebes. In the tomb of Padiamunemopet and some of the other Theban Temple Tombs of the Assasif dating to the 25th and 26th dynasties, both non-retrograde and retrograde texts are used and act as an arrow following the path of the real-life funeral procession in the same way the New Kingdom Books of the Dead followed the procession vignette. When retrograde is used in these tombs, it faces the same direction as the depiction of the speaker and leads the funeral-goer deeper into the tomb along one wall, and directs the deceased back out of the tomb along the other. In following the paths of the funerary procession and the deceased, the texts also generally followed the direction of the sun, with the entrance of the tomb being the Eastern horizon and the burial chamber being the Western one (Einaudi 2018: 69-71, 76-78).

At both Thebes and Memphis in the Late Period, there was an active interchange between the decoration of tombs and sarcophagi. A sarcophagus could be seen as the tomb in miniature, while a tomb courtyard or a burial chamber could be decorated as if it was a monumental sarcophagus (Bresciani *et al.* 1977: 20; Russmann 1995: 123-126). In fact, on the stone sarcophagi of the Nectanebid period, the royal funerary

books are carved on the walls as if the sarcophagi were analogous to a burial chamber. The retrograde texts of the originals are often preserved by the scribes (Manassa 2007: 77-78). Given this close relationship between tomb and body-container, it would be natural to propose a connection between retrograde text on wooden coffins and the Solar-Osirian cycle.

If retrograde on Akhmim coffins was intended to invoke the solar cycle and the reverse progression of time in the Duat, there should be some relationship between the use of retrograde text and the internal directionality of the coffin as indicated by its iconography. However, interpreting this iconography can be problematic because it is often unclear whether a particular vignette is meant to indicate a cardinal direction or the different domains of the sky and the Duat. On some Ptolemaic coffins, jackals at the foot of the coffin and a winged sun-disk at the head could be symbols of the burial (West) and the sunrise (East). They could just as well be symbols of the sky and the underworld. Since the coffin was meant to be displayed both laying down and standing up, this ambiguity was probably intentional, but it is difficult for the modern viewer to interpret with certainty. The following table lists the Akhmim coffins surveyed along with any directional markers present on these coffins

There does not seem to be a relationship between the internal directionality of the coffin and the presence or absence of retrograde text. In general, on both coffins with retrograde text and coffins without, the foot of the coffin corresponded with the Western horizon when the coffin was laying on its back and the Duat when it was standing. Likewise, the head either corresponded to the Eastern horizon or the sky depending on the position of the coffin. On two coffins the directionality is reversed – a rising sun scene occurs on the bottom of the pedestal. This does not correspond with any change in the facing or directionality of the text.

When the coffin was standing, the left and right sides of the coffin could align with the cardinal directions of West and East, as evidenced by anthropomorphic *ib.t* and *imnt.t* symbols to the right and left of the foot, and a motif of the Apis Bull running from either East to West or *vice-versa* which sometimes occurred on the bottom of the pedestal (Liptay 2017: 265-267; Taylor 2003: 107). If there was a correspondence between the internal directionality of the coffin and the texts, one might expect the retrograde text to consistently be moving in one direction relative to the directional indica on the coffin, for example, east to west. That there was probably not a relationship between directional indica and retrograde text can be seen on the coffins of Nespaqashuty (Penn, 883a-c) and Pakharu (Porto 41.01.091). Both have retrograde texts, but the directional symbols are on opposite ankles.

Despite this lack of correlation within the group as a whole, there is still a possibility of a relationship between retrograde and the solar cycle on some individual coffins, especially if the retrograde text is localized in one large contiguous area, which may indicate that the area represented the underworld journey of the deceased. The aforementioned coffin of Irethoreru in San Francisco has a winged scarab on the breast and jackals at the foot, which could be considered Eastern and Western horizons respectively. The term vectorality refers to the way that the viewer's eye is guided through an artistic composition by cues within that composition. In this case, the facing of the individual characters in the retrograde text, which act as an arrow (Angenot 2010: 11-12). If the reader faces the coffin of Irethoreru and follows the 'arrow' of the character facing over the surface of the coffin, the reader's eye progresses in a circle, from the sunrise on the chest to the sunset on the foot, and up to the sunrise on the right side of the coffin, and across the chest. Unfortunately, it is impossible to say whether this vectorality was intended or whether it was just a by-product of how the scribe worked on the coffin. There are only two other coffins that are visually like that of Irethoreru, and neither has retrograde texts or texts meant to be viewed from the side.

In favor of the relationship being unintentional is perhaps the fact that the retrograde text 'points' from the Eastern to Western horizons rather than in the opposite direction, which would correspond with the inverted time in the underworld. While a more thorough analysis of the directionality of the

Name	Location	Retrograde Texts	Text Type	Directionality Markers	Directionality Notes	Read Direction of Retrograde (Viewer)	Facing Direction of Retrograde (Viewer)	Location	Type (After Brech, 2008)	Dating
Iwefaa	Phoebe A Hears Museum of Anthropology, Berkeley 19928	Yes	Spell 89, Captions.	E W	Horus and scarabs on head.	LTR	Right	Right side of foot.	A	Late
Iwefaa	Phoebe A Hears Museum of Anthropology, Berkeley 6-19912	Yes	Spells 51, 52		Unclear	LTR	Right	2x central columns	A	Late
Nespaqashuty	Penn Museum, Philadelphia, E883c	Yes	Protection Statements, BD 22, BD 24	E W	Anthropomorphic east and west symbols on sides of feet.	LTR	Right	Right side of lid.	B	Late
Nesqashuty	Michael C. Carlos Museum, Atlanta 1999.001.009A	Yes	Offering Formulae	W E	Bull on Foot and Osiris in the judgement scene are facing right and are oriented on the left.	LTR	Right	Around ankles.	B	Late
Pakharu	Museu de História Natural, Porto, 41.01.091	Yes	Captions on lid.	E W E W	LTR running bull on pedestal bottom, Anthropomorphic iAb.t and imnt.t on right and left of foot.	LTR	Right	Second register, name of deceased.	S	Late
Peniw	Römer-Pelizaevus Museum, Hildesheim 1902-b	Yes	BD Spells on Sides		Basin sides			Basin sides	A	Late
Anonymous	Ethnographische Sammlung am Historischen Museum, Bern, AE 9	Yes	Offering formulae	E W	Jacksals on foot.	LTR	Right	Inscriptional panel on shins.	Ea	Ptolemaic
Djedhor	British Museum, London EA29776	Yes	Nut Formula	E W	Jacksals on foot, gilded face.	LTR	Right	Lid, Belly to Foot.	Ed	Ptolemaic
Djedhor	Egyptian Museum, Cairo TR 6/9/16/1	Yes	Offering Formulae, Spell 72	E W	Jacksals on foot.	LTR	Right	Lid, belly to foot.	Ec	Ptolemaic

## READING AND WRITING IN RETROGRADE ON LATE COFFINS FROM AKHMIM

Name	Location	Retrograde Texts	Text Type	Directionality Markers	Directionality Notes	Read Direction of Retrograde (Viewer)	Facing Direction of Retrograde (Viewer)	Location	Type (After Brech, 2008)	Dating
				Head L R						
Horemheb	Field Museum, Chicago (A-3582)	Yes	Offering Formula, Protection Statement	E W	Jacksals on foot.	LTR	Right	Lid, belly to foot.	Ea	Ptolemaic
Nefer(imi)	Metropolitan Museum, New York, MMA 20.4	Yes	Offering Formulae	E W	Solar Scarab on Head. Foot has shen ring on bottom, jacksals on top.	LTR	Right	Lid, belly to foot.	Ea	Ptolemaic
Neferitini	Reading Public Museum, Reading, PA	Yes	Offering Formulae		Solar-osirian scene and jacksals on foot. Hathor cow on head. Unclear	LTR	Right	Lid, belly to foot.	Es	Ptolemaic
Nesmin	World Museum, Liverpool 56.22.79	Yes	Offering Formulae	E W	Rising sun on head, Osirian symbolism on foot.	LTR	Right	Lid, Knees to foot.	Es	Ptolemaic
Nesshu	Musée d'Yverdon et région MY3775	Yes		E W	Jacksals on foot.	LTR	Right.	Lid, legs	Eb	Ptolemaic
Padiaset	Antikenmuseum Basel und Sammlung Ludwig K-4443	Yes	Nut Formula	E W	Jacksals and mourning goddesses with Djed pillar on foot.	LTR	Right	Main Panel	Ed	Ptolemaic
Padihorpakhared	Milwaukee Public Museum, Milwaukee 10265	Yes	Offering Formulae	E W	Solar scarab on head. Jacksals on foot.	LTR	Right	Lid, belly to foot.	Ea	Ptolemaic
Petmenekh	Kemper Museum, St. Louis 782.1	Yes	Nut Formula	E W	In judgement scene, Osiris is on the right.	LTR	Right	Retrograde text above Nut's right shoulder. Text in main panel is LTR. Non Retrograde RTL text on foot.	Ec	Ptolemaic
Tashertiankh	Manchester Museum, Manchester 13783	Yes	Offering Formulae	E W	Jacksals on foot.	LTR	Right	Lid, belly to foot.	Ec	Ptolemaic

Name	Location	Retrograde Texts	Text Type	Directionality Markers	Directionality Notes	Read Direction of Retrograde (Viewer)	Facing Direction of Retrograde (Viewer)	Location	Type (After Brech, 2008)	Dating
				Head Foot L R						
Ankhpakhered	Museo Civico Archeologico, Asti 94a	No		E W	Horizon symbol on head.				A	Late
Ankhwennemefer	Washington State Historical Society, Tacoma WA (Inner Coffin)	No		W E	Sunrise vignette on foot.				C	Late
Anonymous	Städtische Museen zu Berlin, Berlin 17490	No			Unclear				A	Late
Asetweret	Metropolitan Museum of Art, New York, MMA 86.1.48 a,b	No		W E	Sunrise vignette on foot.				C	Late
Besenmut	New Walk Museum, Leicester 1980.1885	No			Unclear				A	Late
Dihoriat	Museum of Fine Arts, Budapest Aeg 51.1.1995	No			Unclear				A	Late
Djedhor	Milwaukee Public Museum, Milwaukee MPM:A10264	No			Unclear				B	Late
Djedhoriwefankh	Buffalo Museum of Science, Buffalo NY, 654.139	No		E W N S	Wepwawet of the North and south to the left and right of the coffin lid at foot.				A	Late
Nespaqaishty	Lippisches Landesmuseum Detmold, Detmold	No			Unclear				A	Late
Padiaset	Vienna, KHM ÄS 8902	No			Unclear				A	Late
Paenbes	Barnum Museum 1894.1.2 AB	No			Unclear				A	Late
Paenbes	Museu Nacional de Arqueologia, Lisbon 136	No		E W	Scarab on head, bull on foot. Bull running LTR, Osiris on left side in judgement scene.				A	Late
Psamtikaawneith	Cairo Museum TR 28/9/16/2.2	No		E W	Solar disk on head.				B	Late

READING AND WRITING IN RETROGRADE ON LATE COFFINS FROM AKHMIM

Name	Location	Retrograde Texts	Text Type	Directionality Markers	Directionality Notes	Read Direction of Retrograde (Viewer)	Facing Direction of Retrograde (Viewer)	Location	Type (After Brech, 2008)	Dating
Qenhor	Stätliche Museen zu Berlin, Berlin 8497	No		E W	Lid of Qrsw coffin has figures of sokar labeled "Western" and "Eastern" corners.				A	Late
Tabes	New Walk Museum, Leicester 1981.1885	No		W E	Bull on foot running LTR, Osiris on left in Osiris scene.				A	Late
Tjesasetperet	Musées Départementaux de Seine-Maritime, Rouen Aeg 1857.10	No			Unclear				A	Late
Anonymous	Phoebe A Hears Museum of Anthropology 19927	No			Unclear. Hathor lady of the west on head, Osirian symbolism and jackals on the foot.				Es	Ptolemaic
Anonymous	University of Nebraska, Lincoln UNL:15-10-97	No		E W	Winged scarab on head, Jackals on foot. Djed pillar on bottom.				Ea	Ptolemaic
Hat	Stätliche Museen zu Berlin, Berlin AS 8501	No		E W E	Running bull on pedestal bottom. Jackals on foot.				D	Ptolemaic
Hor	Kunsthistorisches Museum, Vienna AS 8517	No			Unclear.				Ea	Ptolemaic
Horresnet	Staatliches Museum Ägyptischer Kunst, Munich, AS1624	No			Unclear				Ed	Ptolemaic
Irethoreru	University of Memphis, Memphis TN, 1985.3.1	No		E W	Jackals on foot, akhet sign on head.				Ed	Ptolemaic
Isetweret	Montreal Museum of Fine Arts, Montreal 1999.36	No		E W	Jackals on foot.				Eb	Ptolemaic
Mehitemweskheth	Auckland, Te-papa museum, FE003200	No							Ec	Ptolemaic

Name	Location	Retrograde Texts	Text Type	Directionality Markers	Directionality Notes	Read Direction of Retrograde (Viewer)	Facing Direction of Retrograde (Viewer)	Location	Type (After Brech, 2008)	Dating
Muthotep	Sohag Museum, 1330/ Cairo TR 21/11/16/1	No		Head E W	Winged scarab on head, Jackals on foot.				Ea	Ptolemaic
Nesmin	RISD Museum, Providence 38-206	No			Unclear				Ed	Ptolemaic
Nesmin	British Museum, London EA 29581-2	No			Unclear. Solar horus on foot, hathor cow on head. Osiris merged with solar disk on foot.				Es	Ptolemaic
Nespamai	Staatliche Museen zu Berlin, Berlin AM 31212	No			Unclear				Ec	Ptolemaic
Shedmin	Frances Lehman Loeb Art Center, Vassar College, Poughkeepsie CC79.001	No			Unclear				Es	Ptolemaic
Tasheritmehit	Southern Baptist Theological Seminary, Louisville KY.	No			Unclear				Ec	Ptolemaic
Tasheritmin	Museum Aargau, Schloss Lenzburg	No			Unclear				Unknown	Ptolemaic
Tausir	Michael C Carlos Museum, Emory University, Atlanta 2018.010.824 A	No		W E	Running bull from left to right on foot. . Jackals on top of foot.				Ec	Ptolemaic
Usirwer	Princeton University Art Museum, Princeton NJ, y1959-212	No		E W	Winged scarab on head, Jackals on foot.				Ea	Ptolemaic

text and directional markers may be fruitful, it seems that most coffins using retrograde were using it for reasons other than an allusion to the solar cycle.

### Retrograde as a guide to features of the surrounding religious landscape

There are still a few possible religious interpretations for the use of retrograde text on coffins from Akhmim. The retrograde text could have been used to draw the viewer's attention to something external to the coffin in its original context. This seems to have been the purpose of retrograde text used on stelae on the processional route at Abydos during the Middle Kingdom. On these, vectorality of the text probably drew the reader's eye to the newly-built Osiris temple (Joseph 2020: 92-95). To verify whether this was the case for Akhmim coffins, it would be necessary to know the locations of the temples in the Akhmim cemetery of *Naga el-Diabat*, where the majority of coffins were probably found. It would also be necessary to have some knowledge of how the coffins were placed inside the tombs permanently and during the funerary rituals. Unfortunately, due to the extensive looting of this cemetery in the late 19th century and the lack of proper excavation since, all of this information is likely permanently lost (Johnston 2022: 40-54; Omran 2023: 15-22). Thus, while the retrograde may have been used to include external objects in the coffin's sacred space, it cannot be proven.

### Retrograde as a tool to clarify meaning

The vectorality of a retrograde text could also be used as a tool to clarify the meaning of a text. Retrograde texts in monumental art face the same way as the accompanying figure of the person speaking and read towards the intended audience, whether that audience be another character in the scene or the viewer themselves. Fischer felt that in Old Kingdom addresses to the living, retrograde text was intended to include the viewer in a dialog with the depiction of the tomb owner by starting at the face of the deceased and reading outwards in retrograde, forcing the viewer to follow the text back to the speaker to decipher it (Fischer 1986: 107-114). Retrograde texts also occur sporadically in temples and tombs in scenes where the composition of the scene is non-standard in a way which makes its meaning ambiguous. In this case, the retrograde text can convey information to even illiterate viewers about who is speaking, who is being spoken to, and in which order the elements of the composition ought to be read (Angenot 2010; Einaudi 2018; Simpson 2017).

On the coffin of Iwefaa, one of several retrograde texts is written next to a standing snake and labels the snake as the god Atum. On several other examples of coffins from the same workshop, the same deity in the same scene is labelled with a single column of right-facing right-to-left text in front of its face. This would have been the ideal situation on the coffin of Iwefaa, but the artist who drew the vignette did not leave space for a full column of inscription in front of the god. Instead, he

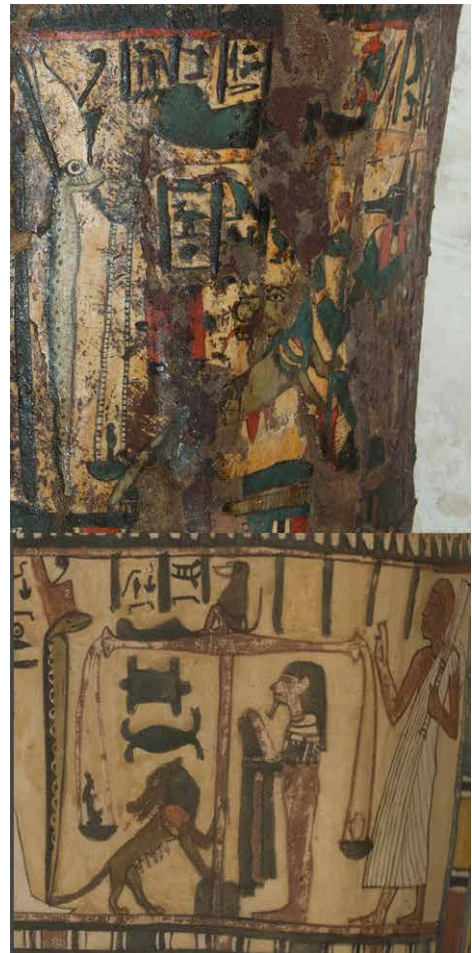


Figure 4. The weighing of the heart scene on the coffins of Paenbes (Barnum Museum 1894.1.2 A,B) at the top and the coffin of Iwefaa (PAHMA 6-19928) at the bottom. The image of the coffin of Paenbes © Barnum Museum, Bridgeport Connecticut, Photography by Jerry Domian. The image of the coffin of Iwefaa © The Book of the Dead in 3D Project, used courtesy of the Phoebe A Hearst Museum of Anthropology.

left two short columns above the scales in the same scene. The scribe, who may have been identical to the artist, wrote the caption in retrograde. The characters face right, away from the snake, and the two columns are meant to be read away from the snake as well.

A possible reason for the choice of retrograde here becomes apparent when the scene on the coffin of Iwefaa is compared to a nearly identical scene on the coffin of Paenbes (Barnum Museum 1894.1.2a, b). Both coffins were by the same workshop but by different artists and scribes (Figure 4). The coffin of Paenbes mentions the god Atum in the same place. Here, the text in question here is not a speech by the god, but rather an abbreviated version of Book of the Dead Spell 3, in which the deceased addresses Atum (Johnston 2022: 578). On the coffin of Iwefaa, the artist drew the scene very densely, and if the caption did not begin next to the snake and face the target of the speech, it might not be clear that the speaker was the snake (rather than Thoth atop the scales), and that the recipient was the deceased, who is depicted on the other side of the scales. On the coffin of Paenbes, the speaker is not actually named. However, the spell may have been intended to be spoken by the deceased who isn't depicted in this scene. According to this theory, the text on the coffin of Iwefaa needed to clarify the identity of the speaker and addressee, but the text on the coffin of Paenbes did not because the speaker was external to the scene.

While this interpretation is possible, given the abbreviated nature of the inscription on the coffin of Iwefaa and the empty columns which were not filled out, it is perhaps more likely that the use of retrograde in this caption was simply a mistake. Maybe this scribe had a very poor sense of how much space he had versus how much he needed. He started the first column thinking he could squeeze the full caption into it and had to move to the next column in retrograde when he could not. Perhaps the lack of a named speaker on the coffin of Paenbes was present in the model text as well. Perhaps the model confused the scribe on the coffin of Iwefaa, who did not recognize the vocative *i itm* (Oh, Atum...) as the beginning of Book of the Dead Spell 3, but instead corrected the text to be a speech by Atum in his serpent form.

### **Retrograde as a product of scribal workflow**

In fact, such mistakes both in layout and copying are common on the Late Period Akhmim coffins that feature retrograde text. If the Late Period retrograde coffins share anything in common, it is that all of them are one-off transitional pieces for which we have few parallels by the same artist or workshop. They seem almost experimental in their text selections, vignette details, and layouts. For example, the coffin of Pakharu at the *Museu de História Natural* in Porto (41.01.091) has no close parallels with the same design pattern, though the artistic hand has some points of similarity with that on the coffin of Nespaqaishuty in Philadelphia (Penn E 883a-c). The coffins of Nespaqaishuty (Penn E 883 a-c) and Nesqashuty (Michael C Carlos Museum 1999.001.009A) both have a unique design pattern which could be described as a hybrid between two variants of Taylor's 26th dynasty Theban Lid Design III (Taylor 2003: 114). In the unique layout used on these two coffins, rather than being all one way or another, some of the standing deities in kiosks are parallel to the central text, and others are rotated 90 degrees to it. While the coffins of Iwefaa (PAHMA 6-19928, PAHMA 6-19912) follow a design pattern that was used at Akhmim between the Third Intermediate Period and the 26th dynasty, their unique iconographic details and text selection sets them apart from the other products of their workshop (Johnston 2022: 299-304). In general, the quality of figural drawing and inscription on the Late 'experimental' pieces is not as high as it is on other, roughly contemporary pieces from Akhmim.

Because the uniqueness of these pieces seems related to the abilities (or lack thereof) of the scribes and artists who made them, it makes sense to look to the workflow of the decorators for an explanation for why retrograde was used. One of the so-called 'practical' explanations historically advanced for

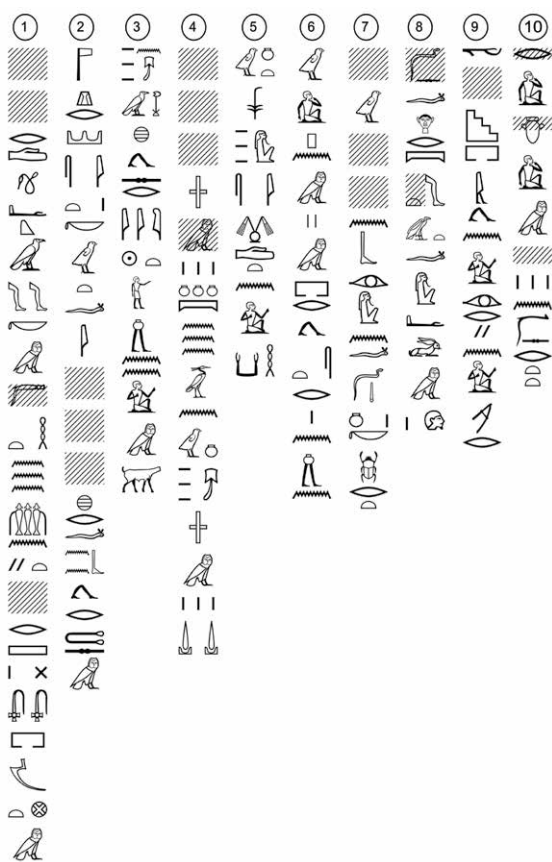


Figure 5. Book of the Dead Spell 24 as it appears on the left side of the coffin of Nespaqaishuty (Penn E 883a-c). The correct read order for the columns is: 7, 8, 4, 5, 6, 2, 3 and 1. The text ends on the center of the lid, which is not shown here. Columns 9 and 10 are part of Spell 22.

retrograde is that it was the result of a copy error from one medium or script to another. Niwinski follows de Rougé in proposing that the original antecedents for Book of the Dead papyri were in hieratic. According to them, converting from right-facing hieratic signs to the left-facing hieroglyphs required by the New Kingdom Book of the Dead proved difficult for the early 18th dynasty scribes (Naville 1886: 3-4; Niwinski 1989: 15-16).

There are two Akhmim coffins where the retrograde text was the result of a copy error from one medium to another. Texts on coffins were probably copied from intermediary manuscripts on papyri or ostraca which were in turn adapted from those in a temple archive. The texts on these intermediaries would have been written in columns of nearly the same height. This uniformity in the source material sometimes made it difficult to adapt a text to the irregular surface area of a coffin. On the coffin of Nespaqaishuty (Penn E 883 a-c), the errors resulting from the scribe's attempts to adapt the text on the intermediary document to the available space gives insight into how he worked, and why the final text was written in retrograde. Among the offering formulae and pledges of protection on this coffin are copies of Book of the Dead Spells 22 and 24, for giving the mouth of the deceased to him and for getting the magic of a

deceased for him respectively (Johnston 2022: 698, 702). At first glance, the spells, which occur in the central column of the coffin lid and on both sides of the lid seem to have been inscribed in retrograde – Spell 24 reads contiguously if parsed in left-to-right retrograde, at least in groups of two or three columns (Figure 5) and with the exception of a difficult to interpret insertion at the end of line six and the beginning of line two. However, these groups of contiguous retrograde columns should actually be read from right to left. The spell starts at the ankle, reads to the chest, and ends in the leftmost of the columns on the central inscription of the lid. Spell 22 begins on the foot on the left side of the lid, and proceeds in a similar broken fashion from ankle to head on the right side of the lid.

Placing the groups of contiguous retrograde columns of Spell 24 in order reveals the likely intermediary text from which the spell was copied onto the coffin (Figure 6). It consisted of four columns of non-retrograde text, reading from right to left. The original text probably featured Spell 22, followed immediately by Spell 24. Because the columns were too tall for the space provided, the scribe broke them into groups of two or three smaller, contiguous retrograde columns. This reveals both the direction in which he was copying from the manuscript and the direction in which he was inscribing the coffin surface: from left to right. The scribe must have started with the last line of Spell 24 on the central column of the coffin lid and continued from the shoulder to the ankle down the left side of the coffin,

switching to the end of Spell 22 on the left ankle, and copying from left to right, ankle to shoulder, on the coffin's right side.

This is not the only coffin where retrograde text resulted from a combination of partial literacy and a general left-to-right working direction on the sides of the coffin. A similar error occurred when the scribe of the coffin of Peniw (Roemer-Pelizaeus Museum, Hildesheim 1902B) copied Book of the Dead Spells 144 and 145 from an intermediary document onto the sides of the coffin basin. This scribe mistakenly copied what Hannig proposes was a right-to-left reading retrograde document from left-to-right (Hannig 2007).

Some of the retrograde text on the coffin of Nesqashuty (Michael C Carlos Museum 1999.1.9A, B) also seems to have been the result of the left-to-right working direction of the scribe. On this coffin, the scribe and artist seem to have been the same person, or at least working very closely together. The text on the coffin consists of repeating offering formulae, and the scribe ran out of room to finish his formula at the ankle on the left side, adding a few more columns in order to complete it. These columns do not occur on the right ankle. That he had the space to add these columns to the right of the existing text means that he must have been inscribing and decorating from left to right.

The text on this coffin consists only of short offering formulae to Re or Osiris of the type that were probably written from memory, so the retrograde text on this coffin, which is located in the area of the ankles on both sides, was probably not the result of a copy error (Johnston 2023: 213-214). Instead, the scribe seems to have had difficulty reversing the signs to face to the left in the places where the coffin's layout required it. A close examination of this coffin reveals every glyph on the front and back is right-facing, and every text reads from right to left. The coffin's style is of the type where the sides of the lid are decorated with standing deities and their accompanying inscription ought to accompany them in being either rotated at a right angle to the central inscription or parallel to it. Instead, the draftsman has chosen to depict these gods both ways, rotating only the deities at the ankles, and creating a unique variant of this common 26th dynasty layout. If the scribe was working from left to right, he would have encountered a problem when he got to the area at the ankles where the gods and their accompanying text had to be written in vertical columns. Normally, his offering formulae fit in one column, so the text presents no difficulty even if the characters all face right. In the areas where the columns are shorter, however, and the text overflows its single column, the scribe must either write in retrograde or flip the signs to face

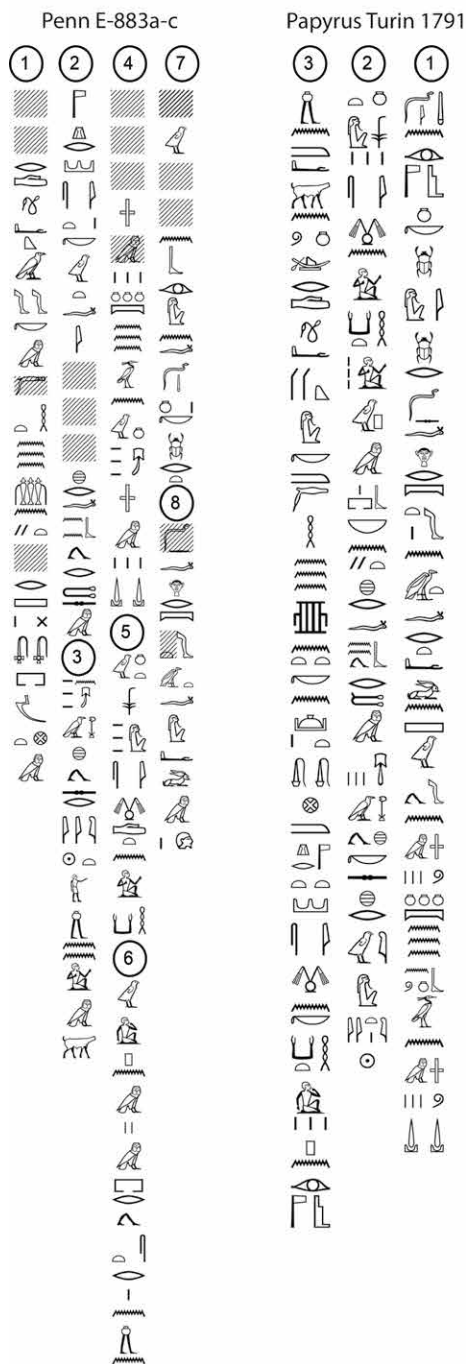


Figure 6. On the left is the proposed non-retrograde model text for Spell 24 on the coffin of Nespaqaishuty (Penn 883a-c). Numbers in bubbles correspond to the line number of the text from left to right in Figure 5. On the right is the version of the spell from Papyrus Turin 1791, where the numbers in bubbles refer to the column number.



Figure 7: Detail of the lower coffin lid of the coffin of Nesqashuty (1999.1.9B), showing the retrograde text (left side), the restriction of the offering formula to single columns (right side), and the scribe's tendency to rotate his hand rather than reversing the facing of the characters (top left). © Michael C. Carlos Museum, Emory University. Photo by Kay Hinton.

right. This scribe always chooses to either write in retrograde or rotate his hand such that the text in the column is horizontal and does not correspond in orientation with its accompanying vignette (Figure 7). This apparent inability to reverse the glyphs in his inscription gives the coffin an asymmetrical and unbalanced appearance that has led to it being derided as an example of crude provincial art (Lacovara *et al.* 2001: 52). However, both this asymmetry and the retrograde texts are the result of a very particular limitation on the part of the coffin's decorator.

### Retrograde as a means of marking rarefied knowledge

While the Late Period coffins with retrograde texts may have been experimental pieces by artists who were less literate and catered to a lower-elite clientele, there is not such a clear divide between the retrograde and non-retrograde coffins in the Ptolemaic period. In fact, both fine pieces like that of Djedhor (BM 29776) and simple, coarsely

decorated pieces like that of Horemheb (Field Museum 30013) feature retrograde text. Likewise, prograde text occurs over the whole spectrum of quality during the Ptolemaic period.

It has long been proposed that retrograde was used to mark or hide knowledge that was particularly sacred or rarefied (Goelet 2010: 128-129). Secrecy was likely not the reason for using retrograde on Akhmim coffins because the texts on them that were written in retrograde were not particularly special or rare: they consisted of offering formulae, captions, Nut formulae and Book of the Dead spells, all of which appear in non-retrograde text on other coffins and pieces of funerary art.

While the texts written in retrograde on Akhmim coffins did not contain secret knowledge, the fact that they were written in retrograde may have imparted an air of secrecy and prestige to them. At Akhmim, Book of the Dead papyri were sometimes written in retrograde columns during the early Ptolemaic Period (De Meulenaere 2002). Though it is difficult to date objects from Akhmim with any but the roughest precision, some of the coffins featuring retrograde text must overlap the retrograde papyri in date based on prosopographical information. The coffin of Djedhor (BM 29776) and that of Nesmin (RISD 38-206), for example, both fall into Brech's typology *Gruppe Ed* (Brech 2008: 233-234, 237-240). Because of their similar appearance, they were both probably made in the same workshop, though the coffin of Djedhor has retrograde text, and the coffin of Nesmin does not. Nesmin was the son of Pasenedjemibnakht, the second priest of Min, and the owner of a retrograde papyrus now in the Louvre (E 11078) (Einaudi 2015: 7-8). Thus, the coffin of Djedhor with its retrograde inscription and the retrograde papyrus of Pasenedjemibnakht were probably made within a generation of each other.

The papyri were probably written in retrograde for reasons of archaism (Mosher 2001: 25), and Ptolemaic coffins were probably inscribed in retrograde for this reason as well. Unlike papyri, coffins were the center of visual focus during the funerary ritual and were an easy medium to exhibit wealth and access to knowledge. Offering formulae would have been easily recognizable even by illiterate audiences because of their ubiquity. Perhaps the use of retrograde and the recognizability of these texts set the

coffins apart, making them prestigious and special because this mode of writing was part of an ancient and venerable tradition. Regardless of their intended purpose, the retrograde texts in Ptolemaic Book of the Dead manuscripts and on Ptolemaic coffins at Akhmim must have been connected, since retrograde text is rare on contemporary papyri and coffins from other sites.

## Conclusion

Retrograde texts appeared on coffins at Akhmim in the 25th dynasty, concurrent with the increase of text as a decorative element on coffins throughout Egypt. This was linked to the redaction and revival of older funerary texts that characterized the Nubian and Saite periods. At first, retrograde text was uncommon on coffins from Akhmim, though it was even rarer at Thebes. While religious reasons have been proposed for the use of retrograde in New Kingdom funerary books such as the Book of the Dead for non-royals and the Amduat for the king, an examination shows no clear relationship between vignettes with definite directional connotations and retrograde text on Late Period or Ptolemaic Akhmim coffins, making it unlikely that retrograde was chosen because it was intended to emulate cyclical time. It also seems unlikely that the vectorality of retrograde text was being used as a sort of guide, either to include external objects in the sacred space of the coffin or to clarify the meaning of the scene in which it occurred.

At least in the beginning, retrograde text on coffins occurred on lower quality pieces with few direct parallels and which can be considered at best experimental. They were inscribed by scribes who were partially literate. The confluence of this partial literacy combined with a tendency to decorate the sides of the coffin lid from left to right led to copy errors when the source document for the text was either in retrograde itself or intended to be read in columns from right to left. It also led to problems with the reversal of signs which the scribe had perhaps memorized in a right-facing orientation. In the Ptolemaic Period, the proportion of coffins with retrograde texts to those without increased. With these coffins, the retrograde text is usually the main or sole text on the coffin. In the Ptolemaic period, there was a concurrent tradition at Akhmim of retrograde Book of the Dead papyri. These papyri were status symbols. The retrograde text, which was reminiscent in its orientation if not language of New Kingdom antecedents, was prestigious. Since the coffin was the focus of the funeral, retrograde text would have been way to display prestige, even if only applied to a common text like an offering formula.

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# Hidden Gems: Some Results of Archival Works Concerning the Temple of Hatshepsut at Deir el-Bahari

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## Abstract

The article presents the outcomes of archival work conducted on preserved, unpublished documentation from the temple of Hatshepsut at Deir el-Bahari, housed in the Documentation Centre of the Supreme Council of Antiquities (SCA) in Cairo. Additionally, it discusses the retrieved data, including information from other archives. The article illustrates how this data was utilised in the current research on the temple of Hatshepsut at Deir el-Bahari.

## Keywords

Archival Work, Temple of Hatshepsut, Deir el-Bahari, Jean Pascal Sébah, Antonio Beato.

The temple of Hatshepsut at Deir el-Bahari (Figure 1) has been the subject of research for over 170 years, beginning with the pioneering works of Karl Richard Lepsius and progressing through subsequent studies by Édouard Naville, Herbert Winlock, and the ongoing efforts of the Polish-Egyptian mission since 1961. However, much of the documentation produced during these earlier endeavours remains unpublished or only partially published. Regrettably, the significance of these records, stored in archives, is sometimes underestimated due to perceptions of being outdated and incomplete. Nevertheless, with meticulous research, a wealth of invaluable information can be retrieved, much of which is no longer accessible in the field.

In the autumn of 2021, the author undertook a project to explore the archives of the Documentation Centre of the Supreme Council of Antiquities (SCA) in Cairo. This endeavour was particularly significant as the documentation housed there had not been published nor made available online yet. The data collected during this project were complemented by information sourced from online archives, such as the Egypt Exploration Society and the Griffith Institute, as well as current documentation from the Polish-Egyptian mission. Through this comprehensive approach, it was possible to identify documented structures, the authors of archival photographs, and reconstruct the evolution of works at the temple.

## Brief history of research in the temple of Hatshepsut at Deir el-Bahari

The temple of Hatshepsut at Deir el-Bahari has a rich history of exploration and documentation dating back to the 18th century. Richard Pococke provided the first known description of the temple in 1743 (Pococke 1743: 97-101), followed by mentions in significant works such as the *Description de l'Égypte* (1821: pl. 38) and Giovanni Battista Belzoni's narratives (1820: 176-180). Robert Hay documented his visit to the temple during his travels in Egypt from 1824 to 1827 (MS Hay 31054=MSS Hay 29827, 59), and Jean-François Champollion sketched images of the temple during his visit in 1829 (1844: 574-575). Karl

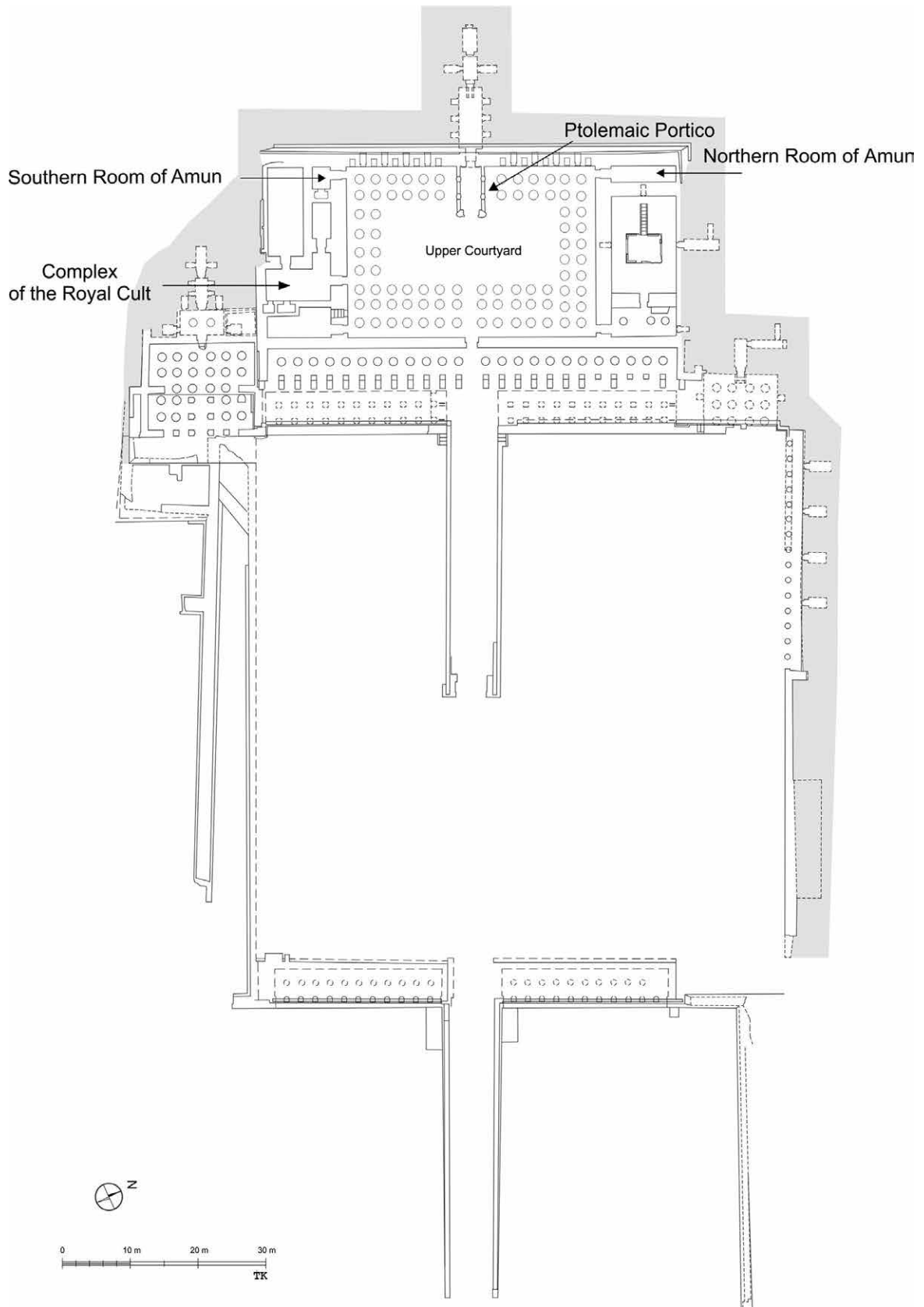


Figure 1. Map of the temple of Hatshepsut at Deir el-Bahari (drawing by T. Dziedzic, with modifications by K. Kapiec).

Richard Lepsius published several scenes and texts from the temple in 1859 (1859a: pls 4b, 8b, 17a, 19-21, 25g-n, 27.3-11, 292.26-28; 1859b: pl. 67c-d) and provided descriptions of various parts of the temple in 1900 (1900: 100-117). Interestingly, some sections appeared better preserved in Lepsius's publications than in later works by Édouard Naville.<sup>1</sup> Additionally, early Egyptologists such as Heinrich Karl Brugsch (1855: 322-324) and Johannes Dümichen (1868) examined the temple, with August Mariette conducting excavations and publishing findings in 1877.

The first extensive and long-term archaeological efforts at the temple were undertaken by Édouard Naville, commissioned by the Egypt Exploration Fund (EEF), which is now known as the Egypt Exploration Society (EES).<sup>2</sup> Naville's work commenced in 1893 and continued until 1899. The results of these excavations were published across six volumes, which remain highly regarded in Egyptological scholarship to this day (Naville 1895a; Naville 1897; Naville 1898; Naville 1901; Naville 1906; Naville 1908).<sup>3</sup> These publications primarily consist of detailed drawings accompanied by limited commentary on each section of the temple.

The reconstruction efforts initiated by Naville's team were later carried on by Émile Baraize, who served as the director of the Technical Department of the Antiquities Service. Baraize's involvement in the restoration work, which commenced in 1906, occasionally overlapped with the mission of the Metropolitan Museum of Art. Despite his contributions, Baraize's documentation was relatively modest, and his lack of expertise as an Egyptologist led to some inaccuracies in his reconstructions (Baraize 1906: 150-154).

From 1911 to 1931, the American mission from the Metropolitan Museum of Art, under the leadership of Herbert Winlock, conducted extensive work at the temple, resulting in numerous reports and publications (Winlock 1922; Winlock 1923; Winlock 1924; Winlock 1926; Winlock 1928a; Winlock 1928b; Winlock 1929; Winlock 1930; Winlock 1932a; Winlock 1932b; Winlock 1942).

Concurrently, Baraize continued his efforts from 1925 until the mid-1940s (Karkowski 1979: 14). Subsequently, in 1961, the Polish-Egyptian team commenced their work at the temple, a project that remains ongoing to this day (see, for instance, Karkowski 1979: 14-15; Szafranski 2001: 57-79).

Despite the extensive history of research on the temple of Hatshepsut, comprehensive publications beyond those by Naville, Winlock, and Polish scholars are limited. While older publications may contain some information, archives hold the potential to reveal further insights into previous research in the area. Consequently, the author conducted several visits to archives during her doctoral study of the Southern Room of Amun in the temple.

### **The archival queries**

The documentation of the works carried out at the temple of Hatshepsut is dispersed across various archives worldwide (see Table 1). While some of these archives offer online access, such as the photographic documentation available through the EES and the Griffith Institute, others remain not fully digitised, such as those held at the Documentation Centre of the SCA in Cairo.

<sup>1</sup> Compare for instance the decoration of the north wall in the Southern Room of Amun on plate 21 in the publication of Lepsius (1859a) with plate CXXX from the publication of Naville (1906).

<sup>2</sup> <https://www.ees.ac.uk/>.

<sup>3</sup> See also reports from these excavations in Naville 1894; Naville 1895b; Naville 1896. See the history of these works in Karkowski 1979: 12-13; James 2001: 39-55.

TABLE 1. RESEARCHERS AND EXPEDITIONS WORKING IN THE TEMPLE OF HATSHEPSUT AT DEIR EL-BAHARI AND ARCHIVES STORING THEIR DOCUMENTATION.

Researcher/Expedition	Archive
Édouard Naville (the EEF) (1893-1899)	The EES (London, UK) The Griffith Institute (Oxford, UK) Bibliothèque de Genève Le Musée d'art et d'histoire de Genève Family of Édouard Naville (Geneva, Switzerland)
Herbert Winlock (the MMA) (1911-1931)	The MMA (New York, USA)
Émile Baraize (Department of the Antiquities Service) (1906; 1940s)	Cannot be determined
Polish-Egyptian Archaeological and Conservation Mission (since 1961)	SCA (Cairo, Egypt) IMOC PAS (Warsaw, Poland) PCMA UW (Warsaw, Poland)

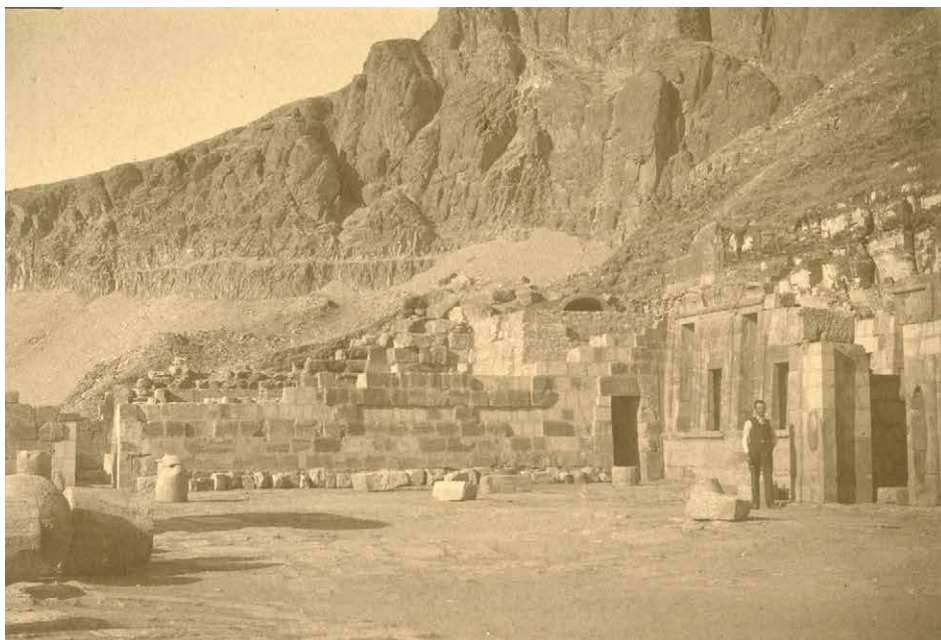
The author's research at the Documentation Centre of the SCA in Cairo focused specifically on photographic documentation from the late 19th and early 20th centuries. At the time of the author's visits, no written documentation, aside from Polish reports, was readily available to visitors. The primary target of this research was photographs depicting the Southern Room of Amun, as this room constituted the central focus of the author's doctoral project.<sup>4</sup> Nevertheless, the author catalogued all photographs of the temple.

In terms of researching the history of works in the Southern Room of Amun, photo no. 1604 (3064) has proven to be highly relevant (Figure 2). This photo captures the south-western section of the Upper Courtyard following some cleaning efforts, likely undertaken at the outset of the 20th century. Notably, the image reveals several key features: an entrance to the Complex of Royal Cult on the left, a gate leading to the Southern Room of Amun in the centre, and the Ptolemaic Portico on the right, which leads to the Main Sanctuary of Amun. Additionally, a semi-circular construction over the ceiling of the Southern Room of Amun is discernible. It is worth highlighting that there are no written records documenting the existence of such a protective structure, making this photo particularly significant for understanding the temple's architectural history.

Another photograph (SADC.NF2351) from the archive of the Documentation Centre of the SCA provides a similar view of the Upper Courtyard. However, it appears to have been captured before the cleaning of this area and before the construction of the protective structure over the room in question was built (Figure 3).

A comparable photograph is also accessible in the archives of the Griffith Institute, within the online database titled 'Egyptian Mirage: A Database of 19th-Century "Studio Photographs" of Egypt'. This particular photo is attributed to the archive of Somers Clarke (MSS. 11.49), an architect from Naville's team. According to the Griffith Institute, the photo is dated to 1895. However, it is worth noting that all photos from Deir el-Bahari within this database are labelled with the same year. As a result, the accuracy of the dating for this specific photograph remains uncertain.

<sup>4</sup> Kapiiec 2021; Kapiiec forthcoming.



*Figure 2. The south-western part of the Upper Courtyard after some cleaning works. The view shows the entrance to the Complex of the Royal Cult (left), part of the south wall, the entrance to the Southern Room of Amun (centre), niches in the west wall and the Ptolemaic Portico (right). The vaulted ceiling installed in the Southern Room of Amun is visible (courtesy of the Documentation Centre of the SCA, Ministry of Tourism and Antiquities, Egypt, photo no. 1604 (3064)).*



*Figure 3. South-western part of the Upper Courtyard before cleaning works (courtesy of the Documentation Centre of the SCA, Ministry of Tourism and Antiquities, Egypt, photo no. SADC. NF2351).*

It is possible, however, that the photo no. 1604 (3064), showing the semi-circular construction over the ceiling of the Southern Room of Amun, was captured towards the conclusion of Naville's works, likely at the end of the 19th century or the beginning of the 20th century. Similar constructions over the discussed room can be found in photos stored at the EES, albeit with some confusion regarding the exact shape and orientation of the structure.

For instance, a construction over the room, presumably the Southern Room of Amun based on its orientation, is visible in photo DB-HAT.NEG.04.51 (Figure 4). However, this differs notably from the arrangement observed in the SCA photograph. Upon closer examination of the negatives in the EES archive, it was discovered that some of them were actually reversed, contributing to the confusion regarding the orientation and layout of the depicted structures.



*Figure 4. View from the Upper Courtyard with the entrance to the Northern Room of Amun during the works of Naville. However, the reversed position of the negative indicates that it is the Southern Room of Amun (DB-HAT.NEG.04.51, courtesy of the EES).*

Based on the orientation of the scan of negative DB-HAT.NEG.04.36 (Figure 5), it appears to capture the north-western section of the Upper Courtyard during Naville's works. The gate visible on the right side of the photo would lead to the Northern Room of Amun, which stands opposite the Southern Room of Amun (see Figure 1). A similar situation is observed in photos DB-HAT.NEG.04.41 and DB-HAT.NEG.04.44.

Nevertheless, there is an additional negative (DB-HAT.NEG.04.42, Figure 6) depicting this larger semi-circular structure over a room's ceiling, situated to the right of the Ptolemaic Portico (DB-HAT.NEG.04.42,



*Figure 5. View from the Upper Courtyard with the entrance to the Southern Room of Amun during the works of Naville. The negative is reversed (DB-HAT.NEG.04.36, courtesy of the EES).*



*Figure 6. View of the north-western side of the Upper Courtyard, showing parts of the Ptolemaic Portico (left) and the entrance to the Northern Room of Amun (right) (DB-HAT.NEG.04.42, courtesy of the EES).*

Figure 6).<sup>5</sup> Importantly, unlike previous photos allegedly depicting the same wall, this particular photo does not show any niches.

The conclusive evidence of some negatives being reversed lies in photographs of the Ptolemaic Portico and the general view of the temple. In photo DB-HAT.NEG.04.43, black residues on the entrance to the Ptolemaic Portico, likely remnants from torch lighting, are depicted, with a smaller stain shown on the right and a larger one on the left (Figure 7a). However, current photographs confirm that this orientation is incorrect (Figure 7b). Additionally, negative DB.NEG.09.450, which presents a general view of the temple and its surroundings, demonstrates an impossible perspective based on the landscape layout (Figure 8). Thus, it is evident that this negative must have also been reversed.

The accurate position of the temple can be verified, for instance, in photo no. 3171 (3071) from the archives of the SCA. Both photos, DB.NEG.09.450 from the EES and no. 3171 (3071) from the SCA, depict the semi-circular construction over the Southern Room of Amun.

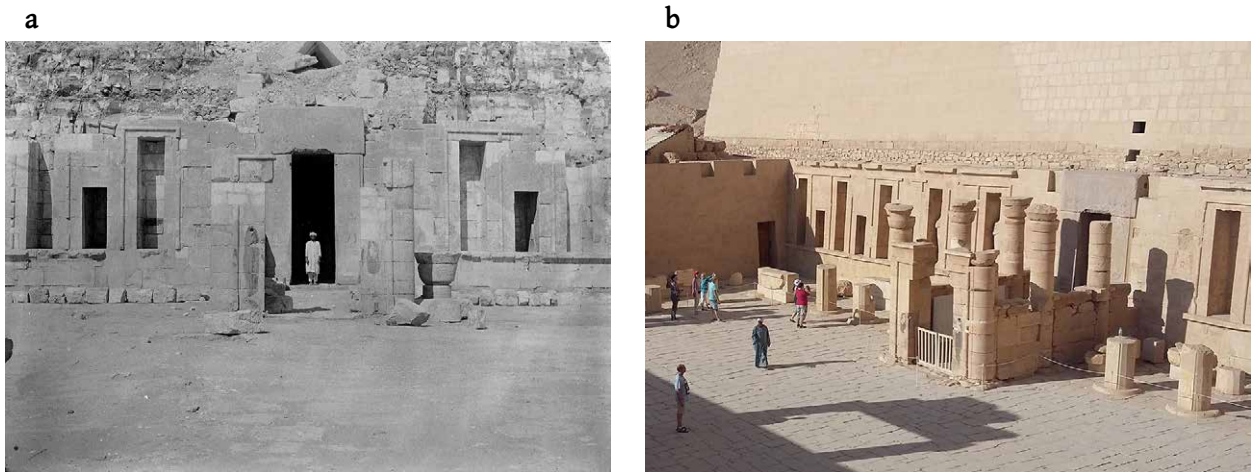


Figure 7. The entrance to the Ptolemaic Portico in flipped negative (photo a, DB-HAT.NEG.04.43, courtesy of the EES and in proper position (photo b, by K. Kapiec).

It is conceivable that if photographs depicting the room before the installation of the protective roof are present in the EES collection, there is a possibility that this structure was indeed erected during Naville's team's works, but any documentation regarding its construction may have been lost. A similar scenario occurred with the larger protective construction built over the Northern Room of Amun. Unfortunately, there is no record of when these structures were dismantled. It is certain, however, that this occurred before the commencement of the Polish-Egyptian mission's work in 1961, as indicated by photos from that year. Nonetheless, there are no mentions in Winlock's or Baraize's documents and reports, who worked in the temple between the British and Polish teams, regarding the dismantling of these constructions. Therefore, at this juncture, no further information can be provided about these two structures. It can only be speculated that they were constructed during Naville's works and subsequently dismantled sometime before 1961, possibly due to other considerations or requirements concerning the protection of these two rooms.

<sup>5</sup> This structure is also visible on negatives DB.NEG.04.64 and DB.NEG.04.65.

In terms of other parts of the temple, archival photos serve as a reminder of how this monument appeared in the late 19th and early 20th centuries. Additionally, they facilitate comparison with current reconstructions. For example, photos no. 504 (3100) and 10818 (3084) from the SCA archive depict the hypostyle hall in the Hathor Shrine and the east wall of the Upper Courtyard, respectively. These areas have undergone significant reconstruction and repair compared to their current state.



*Figure 8. Negative DB.NEG.09.450, showing the general view of the temple of Hatshepsut at Deir el-Bahari in proper position (courtesy of the EES).*

### **Identifying the photographers**

Still, another intriguing result of the author's archival inquiries was the identification of two photographers responsible for capturing some of the photos stored in the archive of the SCA.

#### ***Jean Pascal Sébah***

Most of the photos in the SCA archive lack labels. However, a few of them bear the signature of J.P. Sébah. The full name of this Armenian-Turkish photographer was Jean (Johannes) Pascal Sébah (1872-1947), not to be confused with his father, Pascal J. Sébah (Nassar, Almarcegui, Worswick 2010: 160; Bernal 2020). The latter had opened a photographic studio in Cairo in the mid-1850s (Nassar, Almarcegui, Worswick

2010: 160). In the second half of the 19th century, tourist travel to Egypt resulted in a great deal of demand for souvenir photographs (Bull, Lorimer 1979: xii-xviii; Perez 1988: 42-64, 66, 98; Howe 1994: 36, 38-40; Zannier 1995: 6). A group of early photographers took advantage of this opportunity, including Pascal Sébah. A business started by him was inherited by Jean Pascal Sébah, who partnered with Policarpe Joaillier to establish the studio 'Sébah & Joaillier' in 1888 (Perez 1988: 222; Howe 1994: 156; Nassar, Almarcegui, Worswick 2010: 160). Jean Pascal Sébah and his co-workers extensively photographed in Egypt, including views of many of the temples as well as rare portraits of local people in the Nubian desert (Perez 1988: 222). The early Egyptologists and Orientalists frequently ordered his photographs for use as illustrations in scientific publications of that time (Perez 1988: 98, 222; Howe 1994: 156). Sébah even won a silver medal for his Egyptian photographs at the 1878 Exposition Universelle (Perez 1988: 222; Howe 1994: 156). The studio of Sébah and Joaillier enjoyed immense success, and both photographers were appointed as the official photographers of the Ottoman Empire by the Turkish sultan (Kurkoski 2014).

Some of Sébah's photos of the temple of Hatshepsut at Deir el-Bahari are present in other aforementioned archives. For instance, a photo depicting the procession of offering bearers on the south wall of the Chapel of Hatshepsut, which is numbered 3177 (3077) in the SCA archive, can also be found in the database of the Griffith Institute (Gr. Inst. 6074, see Figure 9). Once more, the estimated date for this photograph is 1895.

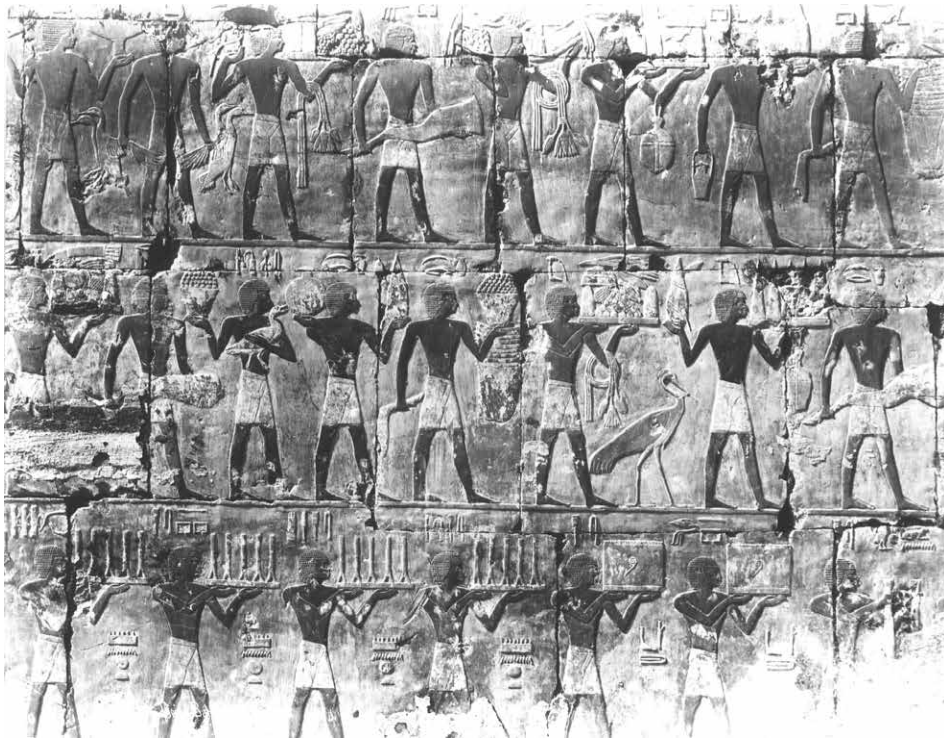


Figure 9. Procession of offering bearers on the south wall of the Chapel of Hatshepsut (Gr. Inst. 6074, © Griffith Institute, University of Oxford).

**Antonio Beato**

Thanks to the online resources of the Griffith Institute, the author was able to identify another author of the photos stored in the SCA archive – Antonio Beato (1835-1903/5), an Italian photographer. He was part of a group of early Egyptian photographers who produced many souvenir photos (Perez 1988: 131; Zannier 1995: 6). His works were also published by early Egyptologists and Orientalists (Perez 1988: 98; Bernal 2020). For some time Beato worked together with his brother – Felice, and some of the photos are signed with both their first names and surname – Felice Antonio Beato (Bull, Lorimer 1979: xvi; Perez 1988: 131; Howe 1994: 156; Zannier 1995: 6; Réveillac 2003: 517). Thus, there was some confusion as to whether there were one or two photographers signing. Antonio's works are currently held in permanent collections in several museums such as Metropolitan Museum of Art in New York, Art Institute in Chicago, J. Paul Getty Museum in Los Angeles, the Royal Collection and Victoria and Albert Museum in London. He opened his first studio in Cairo perhaps in 1860 (Réveillac 2003: 517) or 1862 (Perez 1988: 131). Upon moving to Luxor in 1862 (Bull, Lorimer 1979: xvi; Réveillac 2003: 517) or 1870 (Howe 1994: 156), he opened another studio and lived there for the rest of his life (Perez 1988: 131). Beato was appointed by Georges Legrain to produce photographs from archaeological works in Karnak in 1895 (Réveillac 2003: 518; Réveillac 2017: 34-35). In addition, Beato took a number of photos of Kom Ombo during the excavations by Jacques de Morgan (Réveillac 2017: 36).

After his death in 1903 (or 1905; Réveillac 2003: 517), part of his works was bought by Gaston Maspero, who was a director of Boulaq museum back then (Perez 1988: 131; Howe 1994: 156; Réveillac 2003: 516-517; Réveillac 2017: 30-31). This may explain how the SCA obtained Beato's photos.

In the SCA's archive, there is a photo numbered 504 (3100) showing the procession during the Hathor festival on the north wall of the first hypostyle hall in the Hathor Shrine. This photo features a signature

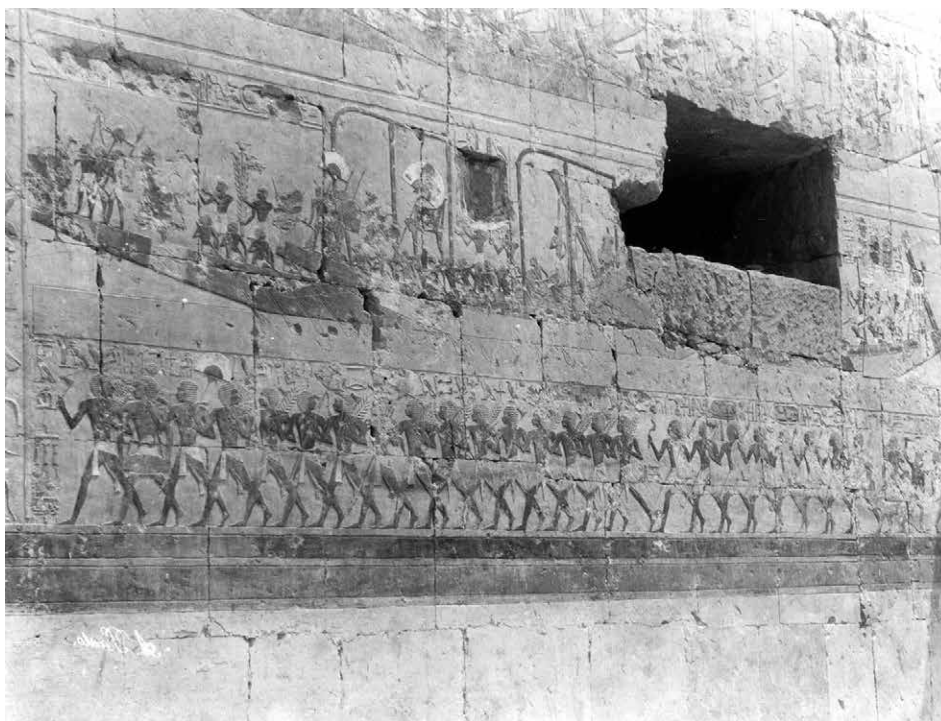


Figure 10. Procession during the festival of Hathor on the north wall in the first hypostyle hall of the Hathor Shrine. (Gr. Inst. 208, © Griffith Institute, University of Oxford).

in the bottom left corner, but it is reversed and difficult to decipher. However, it is likely attributed to A. Beato. Interestingly, the identical photo can be found in the Griffith Institute's online database (Gr. Inst. 208, Figure 10), where it is also labelled as the work of Antonio Beato.

Furthermore, photo no. 757 (3102) from the SCA, which depicts *ntjw*-trees, can be found in two additional copies in the Griffith Institute's database – one in the regular collection (Gr. Inst. 207) and another in the archive of Somers Clarke (MSS. 11.51). The estimated date of these photos in the Griffith Institute is also 1895, but the photographer is unknown. Interestingly, there exists a very similar picture by Antonio Beato in the online collection of the J. Paul Getty Museum, albeit with a wider angle. This raises the question of whether the photos from the SCA and the Griffith Institute could have also been taken by him. Could Beato have been commissioned by the EEF expedition to capture some photos in Deir el-Bahari, similar to his engagements with other Egyptologists at Karnak and Kom Ombo? Unfortunately, there is no information available about such an occurrence in the preserved documentation.

## Conclusions

The archival research conducted on the documentation of the temple of Hatshepsut at Deir el-Bahari has yielded several significant findings. Specifically, regarding the Southern Room of Amun, it was discovered that a specific protective structure was installed over the room during Naville's works at the end of the 19th or beginning of the 20th century. By comparing preserved archival documentation with the current state of the temple, it was determined that some negatives in the EES archive were reversed, highlighting the importance of meticulous analysis in historical research.

Moreover, the archival photos proved to be invaluable for reconstructing the evolution of the monument over the years, providing insights into the methods and extent of restoration and preservation efforts. Additionally, the research led to the identification of two photographers, Jean Pascal Sébah and Antonio Beato, who documented the temple of Hatshepsut during the second half of the 19th century. The presence of these photographers raises intriguing questions about their involvement at the site beyond mere documentation, suggesting avenues for further exploration into their careers and contributions to Egyptology.

Overall, this study underscores the scientific potential of previously unpublished archival data from Deir el-Bahari, demonstrating its capacity to enrich our understanding of the temple's history, conservation efforts, and the individuals involved in documenting its legacy.

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# New Insights into Prevalent Old Kingdom Women's Titles

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## Abstract:

Traditionally, scholars associate many of the known Old Kingdom women's titles with conferring association, social status, or marital status instead of functional positions. Understanding how titles relate to a person's rank, affiliation, and occupation is often challenging, and obtaining meaningful translations can be difficult. Women's titles even more so because androcentric lenses determined many of the original translations. Building upon earlier challenges to these gender biased determinations and owing to the culmination of new evidence from recent archaeological excavations, new interpretations, and a recent dedicated study has brought new insights into some of the most prevalent women's titles from this period. This paper aims to transform existing narratives on some of the women's roles from Early Dynastic and Pyramid Age Egypt (c. 3080-2181 BCE) by offering new perspectives into women's involvement, influence, and impact on the state's socioeconomic structure in early Egypt. In particular, the meaning and significance of the titles *iri(t) ht nswt/rh(t) nswt*, *mitrt*, *hkrt nswt*, *hkrt nswt wtt*, and *dryt* are reconsidered. The methodology employed in this research applies an interpretative and theoretical approach to women's titles. It offers the ability to reframe the narratives and contribute new interpretations of the lives and times of a cross-section of the female population who held these titles.

## Keywords:

Women, Titles, Early Egypt, Social Power, Agency.

## Introduction

The paper offered at CRE2023 in Basel stemmed from the results of my PhD and continued research into female social power in early Egypt (Kelly forthcoming). My research aims to identify the extent of women's engagement in economic, political, ideological, and social referent power relationships by examining women's titles and their access to and over resources, following Michael Mann's theory of the four social power domains (Mann 2012). Mann's premise correlates an individual's agency and resource access or control with the social power modality that can be categorised as one of the four sources of social power: ideological, economic, military and political (IEMP) relationships (Mann 2012: 2). His theory is also complementary to Anthony Giddens's structuration theory. Giddens also argues that control over resources enables the exercise of power (Giddens 1984: 170). His theory emphasises the importance of considering human agency (here the women) in conjunction with structure (here the state), where social practices are viewed as rules that structure action (Giddens 1979: 91). Therefore, women's activities equal their agency, and through their roles they gained access to or control over resources that provided them a degree of social power within their social circles, communities, and ultimately the state.

To achieve these aims, I collated, categorised, and indexed 1442 royal and non-royal women's names and/or titles from dynasties 1-6 from the Nile Valley and desert regions. Unlike traditional title studies

that generally start with the titles and then identify the individual holders, the objective was to collate an extensive collection of women and determine what titles these women held. This approach provided an opportunity to gauge what percentage of women held no *engagement* titles. I have introduced this new term for titles that indicate action or activities to differentiate them from *affiliation* titles. From the cross-section of women's biographical data, 154 titles were identified: 140 engagement and 14 affiliation titles.

This corpus of female titles was evaluated in terms of their action (what did the holder of the title do), in what environment: area of responsibility (the industry or office the role was conducted), what access/control over resources the role provided (economic, productive, or symbolic). These resources significantly shape an individual's social status and influence within the community (Richards 2005: 15-17). Women's resource access and social power indicators are associated with the title and, thus, the titleholder, enabling the classification of the female engagement titles to the appropriate social power domain. Influence, prestige, rights, and authority are the varying degrees of one or more elements of social power indicators (Bierstedt 1950: 730).

To demonstrate the process of categorisation, take the title *imy(t)-rꜣsšr*, 'overseer of cloth/linen/clothing distribution' (Jones 2000: 234-235 no. 0864). This title indicates that the action is the role of the overseer, the area of responsibility is the textile industry, and the resource access includes economic (e.g. linen) and productive resources (potential access to necessary tools of the trade and other personnel). Thus, this role was categorised as a managerial position in the economic domain. This categorisation process was conducted on the titles identified in the dissertation research.

However, the ambiguity surrounding the meaning of the *iri(t) ḥt nswt/rḥ(t) nswt*, *mitrt*, and the *ḥkrt nswt* titles prevented them from being classified into a social power domain. Without clear definitions of these titles or explanations of why the holders received them, they could not be categorised against the set criteria. So, for the dissertation, they were considered in the referent social power category. Although many title studies exist (not limited to, Helck 1954; Baer 1960, Strudwick 1985; Ward 1986, 1989; Quirke 2004; Küllmer 2007; Stefanovic 2009), the study of titles is not straightforward. Scholars often translate the titles, but their understanding of the activities and functions linked to these titles is frequently unclear (Li 2017: 25), which is pivotal for the methodology employed in this research.

The titular strings preceding the name often designate occupations and sources of income (Frood 2010: 477), and record their primary identity for eternity (Quirke 1999: 93). Unfortunately, ancient Egyptian titles do not come with job descriptions to entail the duties upheld. Although some titles like grinding woman, weaver, singer, and hairdresser are more accessible, others such as assistant, sister of the funerary estate, director of the dining hall offer only a broad conception of the duties attached to the role. Elizabeth Frood describes titles as being 'among the most problematic vocabulary to interpret; obtaining meaningful translations is often difficult as is understanding how they relate to a person's rank, affiliation, and occupation' (Frood, 2010: 477; based on Quirke 2004: 1-13). Moreover, many title interpretations are cloaked in Victorian terminology. Classic examples are 'king,' 'queen,' and 'royal court,' and defining nobility as count/countess (Jones 2000: 496-7 no. 1858), which may not reflect ancient Egyptian concepts. The theoretical approach to the interpretations of titles here relies on extrapolating the information for classification from the literal translations, supplemented by iconographical material when available, and incorporates previous studies of the titles.

Male titles and central and local administration positions have received extensive academic attention. These titles document the operations of the state's economy of end-to-end management of raw produce through warehouses and production centres, expeditions for raw materials, construction programs, maintenance of mortuary and cult practices, upkeep and management of estates, and all skilled and

unskilled labour. Undoubtedly, ancient Egyptian society was dominated by male participation in the social, economic, and political realms. The predominance of males employed in centralised state administration, private sectors, and religious positions has overshadowed the concomitant female workforce, leading to an academic perception that women were excluded from these sectors (Robins 1993: 11; Fischer 2000: 46). Or more extremely, that they were barred from political and administrative offices (Bierbrier 2008: 258).

The study of women's titles and the acceptance of women's public and active engagement in the state have yet to advance congruently. Instead, mainstream scholarship has often relegated women's influence and activity to the private sector, with women assigned to the employ of other women, or maintained that women's titles were applied honorifically (Ward 1989: 35; Callender 1992b: 14; Robins 1993: 35; Gillam 1995: 213; Bryan 1996: 35). These categorisations and interpretations have structurally marginalised women's service by suggesting that being in the employ of the queen or other elite females constituted an inferior position to that of men in the employ of the king or other elite males. Undoubtedly, the corpora of male and female titles are not comparable. However, some women occupied similar roles, performed similar activities to men, and held leadership positions in the economic, ideological, and political domains.


Previous scholarship often differentiated titles between the government and private sectors, defining titles as functional, ranking, or honorific. However, none of those categories and capacities are essential aspects of this research. As there is no differentiation in the writing of titles to indicate their purpose as functional, ranking, or honorific, granting the title to the bearer still indicates that the owner was conferred the right or privilege associated with the title. Jean Li successfully argues, it does not matter if they are functional or ranking; 'titles reflect that the holders held power and influence' (Li 2017: 26). Thus, all titles considered in this paper are accepted as an indicator of female social power.

Except for the *dryt* title, considered here to elaborate the current understanding of the role, Egyptologists have interpreted *iri(t) ht nswt/rh(t) nswt*, *mitrt*, and the *hkrt nswt* as conferring association or indicators of women's marital or social status only (cf. Ward 1986; Fischer 1989; Quirke 1999; as quoted by Froot 2010: 477). These titles are the most prevalent titles in my research (apart from the queens' titulary strings). Still, I found them the least understood and the most problematic to categorise when investigating female engagement in the domains of social power in early Egypt.

The opportunity to concentrate on researching just these five titles instead of a corpus of 154 provided the necessary time to view the history and study of these titles comprehensively, which is made possible due to the previous work conducted by earlier scholars, the culmination of new evidence from recent archaeological excavations, and proffered new interpretations from other scholars. We consider each title examined here within its own set of circumstances.

## The titles

*iri ht nswt/iri(t) ht nswt ~ rh/rh(t) nswt*

The meaning of the complex title (or, potentially, titles) *iri(t) ht nswt / rh(t) nswt* has been a subject of much attention for over a century, yet there is still little agreement on what it actually means. Scholars have found the earliest attestations in the Early Dynastic Period (see Kaplony 1963: 370, 421, n. 1089; Kahl 2002: 273), and the title continued to be attested across the seven centuries to the end of the Old Kingdom that the dissertation covered. The title is written in various arrangements of four to six signs, consisting primarily of , with the feminine 't' ending appearing intermittently. It has been considered a service, ranking, or honorific title both genders held. Henry G. Fischer proposed that the

different sign arrangements indicated two distinct titles. In particular, when written in the arrangement consistent with the title *iri ht* – ‘custodian of property’ (Jones 2000: 325 no. 1200), and juxtaposed with *nswt* (M23), it represented a distinct masculine title of stewardship ‘custodian of the king’s property’ (Fischer 2000: 71-72). However, scholars like Hans Goedicke disagreed because the two forms cannot be distinguished based on how they were written (Goedicke 1966: 61-2). The ambiguity surrounding the meaning of the title is demonstrated in Dilwyn Jones’s *Index*, which lists one entry for the various transliterations and translations: ‘acquaintance of the king, royal acquaintance, one known to the king, property custodian of the king’ (Jones 2000: 327-328 no. 1206).

According to the earliest interpretation by Frances Ll. Griffith (in Petrie 1892: 38), the title meant ‘royal acquaintance,’ held by high officials at the royal court. However, Goedicke viewed it as a functional male administration title, *Verwaltungstitel* (Goedicke 1966: 61). On the other hand, Kurt Sethe and others believed it meant ‘acquaintance of the king’ for both genders in the late Old Kingdom (Garstang and Sethe 1903: 62; Firth and Gunn 1926: 157-158). Ronald Leprohon suggested that the title may have indicated those recipients of distributed largesse from the king (1994: 47), but this theory rarely features in scholarship. For the First Intermediate Period, scholars apply the literal translation of the hieroglyphic signs as ‘one whom the king knows’ (Leprohon 1994: 46).

The meaning of this title is further complicated by the distinct interpretations applied to male and female holders. According to Fischer (2000: 71) ‘women are not known to share the masculine title-custodian of property.’ However, there is nothing to denote a morphological difference in the writing of the title apart from the inconsistent use of the feminine ‘*t*’ ending, which makes it difficult to conclude this assumption. For females, the title is typically translated only as an honorific or ranking title that associates non-royal women with the king (Capel and Markoe 1996: 163). However, there are exceptions, such as royal women, particularly the king’s daughters, who also hold this title (Kelly 2021: 153). This situation raises questions about the purpose of this honorific or rank title for princesses whose social power and status are already established through their familial affiliation with the king. Thus, the variance in the translation of the female title is mainly perceived by the interpreters rather than based on evidence. This title was the most frequently attested in my corpus, with 434 female titleholders, prompting further investigation.

According to a study conducted by Miroslav Bárta in 1999, the title ‘property custodian of the king’ should be translated with its functional aspect in all forms (1999: 81), as he found it unlikely to apply the ‘acquaintance’ interpretation to the similar title of *iri ht pr ʿ* – property custodian of the Great House (Jones 2000: 325-326 no. 1203). Bárta explained that the writing of the title with the *iri* being a nisbe form of the preposition ‘*r*’ with *ht nswt* as a direct genitive, demonstrates the close association between the ‘things,’ which he defined as clothing, ornaments, crowns, etc., and the king (Bárta 1999: 81). Additionally, he categorised three distinct adaptations to the function of the title as it evolved, which provides insight into the perceptible changes that appear to parallel the socio-political changes in the state.

During its earliest phase, scholars believed that the role associated with the title involved attending to the clothing and regalia of the king rather than attending to the king personally. Scholars generally agree that this role focused on handling the king’s ornaments, jewellery, and crowns rather than attending to the king himself (Bárta 1999: 80; Fischer 1959: 273; Junker 1941: 40). Through this description of the title, we can ascertain what resource access is associated with the role and infer the social power attached to the people who were engaged with these vital elements of kingship and the king. Bárta affirmed that the position was a stewardship role, or a ‘custodian of the king’s property,’ as interpreted by Fischer. This definition applies to instances of the title from the 1st dynasty until the early 4th dynasty. During this time, the title denoted high-ranking royal and non-royal officials, such as *Hesy-Re* (see Quibell 1913),

who performed duties related to the king's clothing and regalia (Bárta 1999: 81-82). However, changes in the socio-political structure starting in the 4th dynasty seem to have led to changes in the rank and capacity of the title.

Bárta (1999: 84) suggests that during the 4th dynasty until the era of Nyussera or a bit later, the title represented individuals employed in the royal court and associated with the king's private affairs (Bárta 1999: 84). This interpretation applies a similar translation as Selim Hassan's 'He/She who is concerned with the king's affairs' (Hassan 1932: 73). This change corresponds to increased non-royal participation in administering responsibilities. Furthermore, Bárta suggests that an influx of new titles at the beginning of the 5th dynasty may have had originated in the *iri ḥt nswt* duties, which included the king's hairdressers, manicurists, directors of the kilt, and personnel privy to places such as the House of the Morning and those in charge of the offerings in the House of Life. Bárta (1999: 85) identified a link between the change in the *iri ḥt nswt* title's capacity and the increase in the range of *ḥri-sšt* titles. The private affairs of the king and the royal court increasingly became the responsibility of non-royal officials, and not just direct and indirect royal family members. This led to the redefinition, retitling, and offering of many roles and responsibilities to a broader workforce as the state structure transitioned from palatial control.

Further support that a functional capacity could be applied to these first two iterations of the title can be substantiated when it is considered within the class of '*iri ḥt nswt*' titles from the same period. Table 1 shows the range of these titles, along with their details and translations. Most of these titles compound the term *iri ḥt nswt* with locations, including nomes, designations of specific areas – the residence, in all foreign lands, or departments that predominantly apply the 'custodian' or 'king's administrator' interpretation. These translations suggest functional responsibilities and duties. Considering the uncompounded *iri ḥt nswt* title within the class of similar titles can elucidate that it would imply similar obligations.

TABLE 1. VARIATIONS OF *IRY ḤT NZWT* TITLES REPRODUCED HERE AFTER JONES' INDEX (2000: 328-31).

Title Number	Transliteration	Translation
1208	<i>iry ḥt nswt ḥpw</i>	the custodian of the king's property/king's administrator of the U.E. [Upper Egypt] 17
1209	<i>iry ḥt nswt wṯ nswt</i>	Le représentant du roi à la voie du roi, le Byblite <i>Wntt</i>
1210	<i>iry ḥt nswt Wnt</i>	the custodian of the king's property/king's administrator of the U.E. Nome 15 (Hare)
1211	<i>iry (n) ḥt nswt pr-ꜥ</i>	custodian of the king's property (in) the Great House, royal acquaintance of the Great House
1212	<i>iry ḥt nswt rt (=irr) mrr(t) nb.f m ḥswt nbt</i>	custodian of the king's property/king's administrator who does what his lord desires in all foreign lands
1213	<i>iry ḥt nswt ḥbt-pḥt</i>	custodian of the king's property/king's administrator of L.E. [Lower Egypt] 14
1214	<i>iry ḥt nswt mꜥ</i>	true custodian of the king's property
1215	<i>iry ḥt nswt Mꜥ-ḥd</i>	custodian of the king's property/king's administrator of U.E. 16 (Oryx Nome)

Title Number	Transliteration	Translation
1216	<i>iry ḥt nzwt Km-wr</i>	custodian of the king's property/king's administrator of L.E. 10
1217	<i>iry ḥt nzwt pr-šrrw(?)</i>	custodian of the king's property/king's administrator of/ in the house of recruits(?)
1218	<i>iry ḥt nzwt Nt</i>	custodian of the king's property/king's administrator of L.E. 4/5
1219	<i>iry ḥt nzwt Ḥsbw</i>	custodian of the king's property/king's administrator of L.E. 11
1220	<i>iry ḥt nzwt n ḥnw</i>	custodian of the king's property of the Residence

However, Bárta's third stage remains problematic. He suggested that the officials (sometime in the 5th and 6th dynasties, see 88ff.) with this title were now working in the funerary temples. He described the service role's functions as being similar, only now servicing the soul or living image of the king instead of the king himself. Additionally, he noted that the *iri ḥt nswt* workforce were contemporaries of the *ḥnti-š*, noting many of their wives also held the *iri(t) ḥt nswt* title (Bárta 1999: 87). While the *ḥnti-š* are considered responsible for the temples' economic aspects, Bárta perceived the *iri ḥt nswt* workforce also officiated at the cult ceremonies (Bárta 1999: 87). He noted that these officials increasingly also held more priestly titles, but from his small sample (nine of the 12), 25% had no priestly titles.

Evaluating Bárta's theory with the current data source, i.e., 199 women from the corpus who held the title from the late 5th and 6th dynasties, revealed an even more significant disparity. Only 50% of female *iri(t) ḥt nswt*'s were recorded with priestly titles. Other recent studies, such as Thérèse Clarke's dissertation (2021) and Massimiliano Nuzzolo's findings on the study of the personnel of the 5th dynasty sun temples (Nuzzolo 2010: 299), also challenge Bárta's theory. However, in a recent exchange with Bárta, he now advocates that from some time after Nyussera, the title's meaning transitioned to an indicator of association or acquaintance with the king that remained in place for the late Old Kingdom and into the First Intermediate Period (Bárta August 2022, personal communication). Therefore, from sometime after Nyussera, most current and historical research considers that the title's meaning evolved to indicate a royal association/acquaintance for both genders.

While the framework of Bárta's study is adapted here to provide context and the evolution of the title, it does not offer a complete definitive translation. Blanket translations based on dating criteria may be misleading, and some of the findings of his study can be challenged. Significant socio-political-cultural changes that occurred across the seven hundred years under consideration led to a change in the meaning of the title, which is not surprising. A comprehensive dissertation on the title and its holders, both male and female, may offer greater clarity on the meaning and evolution of this enigmatic title. After analysing the first two versions of the title, it can be inferred that women were assigned practical duties in the king's service during that time. However, in the later variation, the title evolved into an honorary or rank-based title. It is worth noting that these women were recognised officially in their society owing to their association with the king. However, the exact reason for their recognition is yet to be determined. The lack of the title being granted to over 1000 women from this corpus suggests the presence of an informal/formal criteria for receiving it.

*mitrt*

New research has emerged regarding the *mitrt* title previously only glossed as ‘*Frauentitel*’ Wb II [45, 4-6], or translated as ‘lady, concubine’ (Jones 2000: 424-5 no. 1572). Vivienne Gae Callender recently published a paper investigating the title from the Early Dynastic to the Old Kingdom (2023: 27-44). She examined the primary evidence of all known sources, with many of the earliest attestations coming from seal impressions from Elephantine (see Pätznick 2005) and determined that in the earliest instances, both men and women played an essential role in the local economy by engaging in the packaging, storing, and distributing of goods (Callender 2023: 32). However, Callender found that only men were associated with cattle and meat production. She related the *mitrt* title to these activities and suggested that the prominent position of the milk bottle sign (Gardiner W19) in the writing of the title denotes that dairy produce was essential. She translated the title as a *provedore*, meaning someone who supplies foodstuffs to the island community (Callender 2023: 37).

During a paper presentation at The 7<sup>th</sup> International Conference on Predynastic and Early Dynastic Egypt (Origins7) in September 2022 (Forstner-Müller, Matic, and Seyr 2022), Philipp Seyr revealed new evidence of additional 3rd dynasty *mitrwt*. Seyr reported finding many *mitrt* sealings from the oldest town of Kom Ombo. He had previously proposed a translation of this title similar to Callender. However, for the first time, some of these clay sealings were found applied to the remnants of doors. While this latest information is under investigation, it might suggest that the *mitrw/mitrwt* also held management responsibilities over the stored products (Seyr September 2022, personal communication). The women with the title can be categorised in Mann’s economic domain owing to the access and control of economic resources, i.e., produce and food staples. As a result, all women identified with the *mitrt* title (84 attestations were noted in my research, Callender has collected over 130 attestations) can be considered functioning *provedore* agents instead of the ambiguous *Frauentitel* or concubine connotation.

Callender states that later attestations of this title feature on the central panels and jambs of Old Kingdom false doors that always belonged to other people. Although not identified as part of the deceased’s family, the *mitrt* is always shown near the tomb owner, suggesting the importance of the role. Applying the new translation, she suggests that these later *mitrwt* are documented in a prominent position on the false door because they had supplied essential products to the family or that they will be future offering donors to the tomb owner’s funerary cult (Callender 2023: 37). Her new translation attests to these women’s agencies regarding the supply, handling, and management of vital products in the ancient Egyptian economy, qualifying their social power in the economic domain.

*The hkrt nswt titles*

The translations of the *hkrt nswt* titles have been affected by Victorian terminology and gender bias. Fischer interpreted that these titles identified women (often married) as ‘Royal Ornaments’ or ‘king’s concubines’ who were ‘sequestered for their beauty and grace and employed as the king’s entertainers’ (2000: 31). Another example of how ancient Egyptian women have been perceived in an ‘overly sexualised manner’ (Ayad 2022: 16). Traditionally, scholars previously labelled any woman not classified in the hierarchy of workers in a household, palace, or temple as a concubine (Ward 1989: 40). The tendency to categorise women into the harem classification was based upon Western impressions of the Ottoman or *orientalised* harem of the 18th century. Thankfully, a significant development in Egyptology has been the reassessment of interpretations regarding the role of women as concubines and harem members.

Jones’s *Index* (see 2000: 794-796) provides translations for *hkrt nswt* – ‘ornament of the king, “she (one) who is ornamented by the king, “Lady-in-waiting”’ [2899]; and *hkrt nswt wtt* – ‘lady in waiting “of the first rank”, sole lady in waiting of the king, sole ornamented one of the king’ [2900]. While the Victorian

term ‘lady in waiting’ is more agreeable than concubine, it appears out of context for ancient Egyptian women. However, modern scholarship continues to use this term (see Azzam 2016: 42-43). Del Nord’s (1970) conclusion shows that the title denotes an honorary or rank title awarded by the king to give these women special distinction. According to Nord (1970: 13), in the Old Kingdom, it meant ‘She (One) Who is Ornamented by the King’ (Passive Participle), i.e., in the sense of being ornamented with gold necklaces and other ornaments. However, why these women were awarded these titles and valuable commodities remains unknown.

After thoroughly reviewing all literature on the title and building upon the foundational work of Nord, I offered a slightly amended translation based on supplementary evidence. This translation relies on literal correlations between:

1. *hkr*: the ornament of weapons, amulets, crowns, and clothes (*Wb* III [401, 15]). Scholars have associated the term with gold (Fakhry 1938: 44; Edel 1962: 103), metal or precious stone from the south (Fakhry 1938: 43), oils and ointments (Helck 1954: 30, 65), weaving and garments (Junker 1941: 12-13).
2. *hkr nswt*: the department: *is hkr nswt* or *is.wi* (Helck 1954: 65). Diego Espinel prefers the translation ‘royal exotica/luxuria’ for *hkr nswt*, denoting imported products that were destined for a department in the treasury, the *pr-hd* (Diego Espinel 2016: 104-106). Products from this department were used as rewards for officials and palace workers (Junker 1941: 55; Nord 1970: 11; Diego 2016: 107).
3. *hkrt nswt*: women’s title.

Iconographic evidence supports that the *hkr* housed in the *hkr nswt* was used in rewarding service. The Oxford Expedition to Egypt’s Scene-Details Database (<https://doi.org/10.5284/1000009>) has a category specifically for workers who received rewards. Scene section 11.5 lists ten separate categories, one of which, 11.5.5, catalogues seven tombs with scenes of women receiving gold, ointments, and food as rewards for weaving. The other version, 11.5.6, contains a single record from *Khafkhufu* II (G7150) in which dancers seem to be rewarded with gold ornaments in a similar scene (see also Simpson 1978: 25 fig. 48). In these two types of services, women were depicted as receiving or about to receive valuable goods from the department of the *hkr nswt*.

This exchange of valuable goods for service recognition could relate to these gender-specific titles, which aligns with Nord’s proposal that the *hkrt nswt* titles conveyed a distinct, gendered insigne of honour (Nord 1970: 13). This association has been established through evaluating textual and iconographic evidence and past and present scholarship. Aside from sharing the same root word, there appears to be a literal correlation between *hkr nswt* and *hkrt nswt*. The evidence suggests an interrelationship between the state-controlled *hkr nswt* (royal exotica/luxury), probably stored in the *is hkr nswt* and the inexplicit feminine *hkrt nswt* titles. Officials and workers, including some women, received rewards – state-controlled luxury items – from this department.

Thus, the *hkrt nswt* titles may be better understood as ‘she (one) who is ornamented [for her service] by the king’. This translation retains Nord’s passive participle interpretation but infers the reason for her recognition was based on an undefined service. The concept described here is like a modern soldier receiving remuneration for their day-to-day service, as well as recognition awards with medals for exceptional and lengthy service. These titles may have been awarded to women for merit and distinction, i.e., ornamented, based on the work or service they provided, receiving a valuable item in addition to payment for their [unspecified] service. The term *wtt* used in the titles indicates a hierarchical difference, establishing a ‘first rank’ between the titles, as proposed by Nord (1970: 12).

This interpretation is supported by evidence that at least three women were awarded both titles (Kelly 2021: 53).

It is unclear what criteria were used to award the *ḥkrt nswt* titles, as there is no shared attribute that distinguishes a defining category for awarding the titles. Women holding various other titles from different social classes, including royal daughters, elite women, nomarchs' female relatives (mother, wife, or daughter), and middle-class women, were awarded these titles. Additionally, it is worth noting that more than 59% of the *ḥkrt nswt / ḥkrt nswt wtt* title holders in my corpus came from provincial areas. Fischer believed that these were self-appointed titles because many of the holders may have never attended the court (Fischer 2000: 32). The idea of empowered and literate women self-appointing themselves with a title associated with the king is appealing from a modern-day perspective but seems unreasonable and out of context for these women from antiquity. Fischer's other premise that these titles identified women employed to entertain the king (Fischer 2000: 31) is also refuted by the fact that only two women associated with singing and dancing held these titles (Kelly 2021: 53). It is worth noting that while these titles are well known from the Old Kingdom, they were quite rare and infrequently awarded. Out of the 1442 women included in my research only 78 women received such titles, spanning over four and a half centuries. This observation indicates that these titles were only bestowed sparingly and, as such, must have held significant importance in ancient Egyptian society. Therefore, the holders of this title social power can be determined by the official recognition by the king, the ornament they received, and the irregularity of its bestowment.

### *dryt*

During the funeral ceremonies of the 5th and 6th dynasties, non-royal women played the critical ritual role of official mourners known as *dryt*. They often appeared in tomb relief scenes, models, and figurines, impersonating the roles of Osiris's chief mourners – Isis and Nephthys. While the Pyramid texts record clear associations between the two sister goddesses and mourning/wailing (see Spells for proceeding to the Akhet [Pepi], 319: 'Isis, the Ululater will ululate for you as Nephthys'; Allen 2005: 122), the current translation of the title as a mourner/wailing woman (see Jones 2000: 1011 no. 3746) does little to reflect the extent of their role in the funeral rites. The *dryt* participated in rituals with the embalmers and lector priests, in addition to the performance of lamentation and keening. This title review demonstrates that it is more appropriate to view this role as a specialised female priest (Roehrig 1996: 14) associated with the funerary rites and the Acacia House (Fischer 2000: 26).

In 1976, William Kelly Simpson made note of the involvement of the *dryt* in the funerary rituals that took place alongside the embalmer and lector priest in the tomb of Qar at Giza (G7101). The *dryt* accompanied the lector priest and embalmer escorting the sarcophagus to the purification tent, and again on the funerary bark as depicted in the wall scene on the north wall of Court C (Simpson 1976: 6). Tomb scenes from the 5th and 6th dynasties show the *dryt* repeatedly positioned on the bow and stern of the boat that transports the coffin (see the list in Fischer 1976: 39-40). In Qar's tomb, the inscription *ḏd mdw in dryt*, which translates to 'words spoken by the *dryt*,' is written above the head of the *dryt* in the top register where she faces both the embalmer and lector priest on the far right-hand side of the top scene (as seen in Simpson 1976: fig. 24). The embalmer, positioned opposite her, recites the exact words, demonstrating an equivalence in their roles. This ritual activity by the *dryt* supersedes the role of other wailing women.

The tradition of wailing women has been observed in ancient cultures, sometimes extending beyond their role in funerary practices. For instance, weeping women were hired for public mourning is recorded in the Bible (Abd Elmalk 2023: 168). Additionally, Coptic representations of wailing women, known as the 'Three Marys', have also been documented in several instances regarding the crucifixion

of Jesus. For example, tempera and gilding on linen and wood from the fourteenth-century church of St. Claudius in Meir, Upper Egypt, depict the Three Marys whining and physically supporting Mother Mary (Abd Elmalk 2023: 174 Fig. 5). Similarly, the Judeans utilised wailing women to lament over ‘the complete breakdown in social and political leadership’ (Classens 2010: 66). In modern times, the wailing women in Luxor are known to lament over the loss of their homes and neighbourhoods (Wickett 2012: 115), as well as in traditional funeral circumstances (Abd Elmalk 183-4). However, these examples reveal that wailing women, often called mourners, are limited to their role in lamentation in response to the funeral and other tragic circumstances after the fact. Therefore, they do not actively participate in pre-burial funerary rites.

The current general translation of the title, ‘Mourner, wailing woman,’ fails to reflect the involvement of the *dryt* as the chief female participants in funeral ceremonies. Therefore, it is necessary to update this title to better reflect their involvement throughout the funerary rituals. In order to designate the crucial role of the two women imitating Isis and Nephthys more accurately, a translation, such as *dryt*-priestess, whose duties involved wailing, keening, and lamentation, would be more appropriate.

However, the *dryt* are not the only non-royal women who participated in funerary rites with the lector priest and embalmer. In the bottom register of the funerary procession in Mereruka’s Saqqara tomb, Chamber A 13 (Duell 1938: pl. 130), an unnamed *šndt* is engaged in a ceremony before the tomb entrance. She is shown offering a jar to the lector priest. Behind her, male and female dancers perform. In the register above, remnants of the scene illustrate a kneeling woman holding a similar pose in front of the embalmer. Her arms are not seen in the remaining portion of the scene due to its fragmentary nature, but her posture suggests that she has them raised towards the embalmer (see Kinney 2012: 257 fig. 4). Behind the *šndt*, the scene depicts the ritual slaughter of a bull overseen by a female at the far left of the register.

It has been observed on two distinct occasions that non-royal women were engaged in performing their duties as *dryt* and *šndt* by actively participating in the ritual preparation of the funeral and the funerary procession. These women played a pivotal role as partners to the lector priests and embalmers. Therefore, it is imperative that women’s involvement in such crucial mortuary activities should be regarded with the same high regard as that of the lector priests and embalmers.

## Conclusion

This paper makes a contribution to the ever-evolving discourse on ancient Egyptian women, shedding new light on the social complexities of this ancient society. By building on the deconstruction of androcentric interpretations of ancient Egyptian women by earlier scholars, this paper offers a fresh perspective on prevalent female titles from the Early Dynastic and Old Kingdom periods. Rather than focusing solely on women’s social and marital status, this paper highlights their agency and involvement in the royal court, local economy, and religious practices of the state. These new interpretations were made possible by the hard work of earlier scholars who paved the way for further research, as well as new excavated material and ongoing studies of ancient Egyptian women. Analysing women’s titles in an interpretative and theoretical approach, as described above, demonstrates women’s social power within the state. By reframing our understanding of these women and their roles in society, this paper adds to the richness and depth of our understanding of ancient Egypt.

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# Interaction between Egypt and Mesopotamia during the 4th Millennium BCE: Evidence from Cylinder Seals

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## Abstract:

The question of the interactions between Egypt and Mesopotamia during the 4th millennium BCE has been a recurrent issue in the archaeological research of the Egyptian Predynastic Period since the beginning of Egyptology. The earliest excavations demonstrated the importance of the Mesopotamian influence upon the Predynastic Egyptians, as evidenced by the emergence of various southwest Asian elements in their material and iconographic cultures (ceramics, cylinder seals, and various iconographic motifs). Throughout the history of research, various theories were given to determine the modalities of contact between these two distant civilisations. However, none of them could be irrefutably demonstrated.

Recent discoveries in the Nile Delta and in the Levant bring new elements to fill the still-existing gaps in the research on this topic. A study of the geographical dispersion of cylinder seals, typical Mesopotamian objects that were discovered in Egyptian Predynastic layers, would make it possible to bring new insight on the means by which the Uruk and Egyptian civilisations came into contact during the 4th millennium, despite the great geographical distance between them.

This study is based on an unprecedented corpus of cylinder seals discovered *in situ* within several geographical and cultural regions (Egypt, the Levant, and Northern Mesopotamia) which formed the inter-regional network between Southwestern Asia and Egypt. The in-depth analysis of the objects in this corpus will determine the origin of the artefacts (local or foreign) and provide new information on the points of encounter between the different civilisations. The modalities of interactions between Egypt and Southwestern Asia will be better understood as a result of this study, and it will help in filling a gap in the archaeological knowledge of the 4th millennium in the region. This article is intended to provide an update on the progress of the author's PhD research.

## Keywords:

Egypt, Mesopotamia, Levant, Interactions, Cylinder Seals, Glyptic, Network.

## Introduction

The interactions between Egypt and Mesopotamia during the 4th millennium BCE have been one of the most hotly debated topics in Egyptology since the early days of the discipline. The first occurrence of various Mesopotamian elements in the Egyptian Predynastic culture, in iconography (figures of the 'Master of Animals', the 'priest-king' and a number of fantastical animals), in material culture (cylinder seals and a few ceramic objects) and in architecture (niched-architecture), is evidence that contact between these two regions occurred. All these elements are already attested in Mesopotamia and research shows that they all date from the Middle Uruk Period (c. 3600-3300 BCE) or earlier (Ubeid

Period). However, this body of evidence does not explain how the two civilisations came into contact at a time when the only ways to travel were on foot or by boat.

Throughout the history of research, archaeologists proposed various explanations and theories, in attempts to model possible contacts between these two distant civilisations. The first theory posits a direct contact between the Uruk core (south of Iraq) and Upper Egypt using a maritime route around the Arabian Peninsula and then through the Wadi Hammamat (de Morgan 1897: 222-228). Defended until the 1960s by various scholars (Baumgartel 1955: 46-52, 71; Frankfort 1924: 138-142; Frankfort 1951: 111; Kantor 1952: 250; Kantor 1993: 17; Massouard 1949: 238; Petrie 1917b: 26-36), this theory was gradually abandoned before being re-examined by Roger Moorey in 1998, who demonstrated that the southern contact is still plausible but could not be archaeologically confirmed due to the lack of material (1998: 190-196). A second theory was developed during the same period by Georges Bénédict (1916: 34) followed by Henry Hall (1922: 252), Charles Boreux (1925: 45-46) and even Jacques de Morgan (1926: 321, 331-334). They proposed that the Mesopotamian invaders came from a northern route along the Levantine coast and through the isthmus of Suez: a more natural route between Mesopotamia and Egypt than the one by the Red Sea. This theory was revived in the second half of the twentieth century, suggesting the existence of more or less direct contacts between Lower Egypt and Uruk colonies in North Syria during the latter part of the 4th millennium BCE (von Bissing 1943: 515; Helck 1971: 7; Hoffman 1980: 245; Joffe 2000: 114; Kelly 1974: 2-22; Mark 1997: 76-83; Mellaart 1982: 8-9; Vandier 1952: 607; Ward 1964: 34). However, neither of these two theories could be irrefutably demonstrated because they are both based on rare archaeological evidence; however, the northern route is still considered the more likely option.

This paper aims to share the preliminary results of a PhD thesis which builds on all these studies on the interactions between Egypt and Mesopotamia during the 4th millennium BCE by incorporating recent discoveries in the Nile Delta in Egypt and in the Levant. The cylinder seals moved throughout the whole region thanks to economic exchanges, leading to the appearance of seal impressions in foreign regions as well as the objects themselves, probably carried by the individuals who travelled with the goods. They are the precious witnesses of exchanges between the different cultures. A study of the geographical dispersion of cylinder seals, combined with other known archaeological evidence, will contribute to determine precisely the functioning of the inter-regional exchange network by which the Uruk and Egyptian civilisations were able to come into contact during the 4th millennium, despite their great geographical distance. The cylinder seals appeared for the first time in Mesopotamia during the Middle Uruk Period around the middle of the 4th millennium BCE and had reached Egypt by the time of Naqada IIB as evidenced by tomb 1863 at Naqada (Boehmer 1974: 497, 500, Fig. 1; Baumgartel 1955: 48; Petrie 1920: 40, Table 9.56). A large number of glyptic studies were therefore conducted on the evidence from Mesopotamia (Amiet 1960; Boehmer 1999; Collon 1987; Parrot 1954; Pittman 2018; Porada 1980; Wiseman 1962) as well as Egypt (Boehmer 1974; Hartung 1998; Hill 2004; Kaiser 1987; Petrie 1917a; Podzorski 1988) and the Levant (Ben-Tor 1978; Ben-Tor 1995; Braun 2004; Engberg and Shipton 1934; Hill 2004; Joffe 2001), where a number of cylinder seals were discovered during the second half of the twentieth century.

In its current state of progress, this project focuses on regional interactions via the northern route. The state of the art in the archaeological research does not allow us to study the interactions between the Arabian Peninsula and neighbouring regions (southern Mesopotamia, Egypt or Indian Subcontinent) during the 4th millennium in detail. However, the development of archaeology and the growing number of excavations carried out in the region could provide new data that will be processed in the near future.

## Methodology

This paper is based on an unprecedented corpus of cylinder seals discovered, *in situ*, within several geographically and culturally diverse regions between south-western Anatolia and southern Egypt. By studying the glyptic materials, discovered between Mesopotamia and Egypt, it is possible to determine the roads these objects have followed and therefore the groups of people (travellers, merchants, etc.) who transported them. This can also allow the author to define some of the meeting points between the different cultures that have played a role in the inter-regional exchanges in the area. However, this methodology is dependent on the discoveries made during archaeological excavations following relatively precise scientific procedures. The corpus is therefore currently biased because it does not consider the Arabian Peninsula, though this may change in the future since this area is only just beginning to be explored scientifically.

At this point of the research, 48 archaeological sites with at least one cylinder seal or seal impression have been identified (Figure 1) and referenced in a database on the platform Heurist: the northernmost being Arslantepe in southern Turkey and the southernmost being Gedekol South in the far south of Egypt. Such a broad research range requires familiarity with the different cultures of the area and their relative chronologies. A chronological table was created for that purpose; it brings together all the chrono-cultural areas studied in the frame of this research (Table 1).



Figure 1: Map of Egypt and South-West Asia representing all the sites, with at least one cylinder seal or impression *in situ*, included in my corpus (Conception: Camille Koerin with Qgis 3.34 and free of use background map from [www.naturalearthdata.com](http://www.naturalearthdata.com)).

This research is based on a developing corpus, which consists so far of 98 objects (April 2024) discovered in an archaeological context with a clear dating. The in-depth analysis of the cylinder seals and sealings (iconography and petrography) will help to define the points of encounter between the different civilisations, as well as the origin of the artefacts: local or foreign. But what makes an object ‘of local production’? An object is considered local when it is made from a raw material that is present and easily accessible in the area around where it was found (e.g. limestone in Egypt). It also presents an iconography similar to the other contemporary monuments in the area in which it was found (e.g. the iconography of Predynastic Egyptian palettes). In contrast, an object comes from trade when its raw material is completely unknown in the region of discovery and if it has an iconography that differs from local art. Identifying the origin of the material is possible thanks to petrographic analyses (on clay and stone) but also thanks to geological maps accessible free of charge on the ESDAC database, which can be used to define the origin of a rock with certainty. The presence of a seal with foreign characteristics in a region is proof that interactions have taken place between the two regions, yet it is difficult but necessary to determine how these interactions took place: in the context of exchanges of goods between two distinct actors? Or in a more complex exchange network with multi-directional influences between the different participants in the network?

Of course, questions of this kind cannot be resolved by considering the glyptic alone. Other existing archaeological evidence is also considered, and is studied alongside the raw data from the corpus to provide an overview of the situation as complete as possible.

TABLE 1: CHRONOLOGICAL TABLE ASSEMBLING THE RELATIVE CHRONOLOGIES OF THE DIFFERENT REGIONS STUDIED IN SOUTH-WEST ASIA AND EGYPT (CONCEPTION: CAMILLE KOERIN).

Absolute Chronology	Upper Egypt	Lower Egypt	Southern Levant	Northern Levant	Mesopotamia
c. 3800 BCE	Late Chalcolithic				Late Obeid (Late Chalcolithic 1)
	Nagada IA		Chalcolithic	Byblos I Amuq E	Early Uruk (LC 2)
c. 3650 BCE	Nagada IB				
	Nagada IC	Maadi Bouto I - IIa	Early Bronze IA1	Amuq F Hama K8-9	Middle Uruk (LC 3)
c. 3450 BCE	Nagada IIA				
	Nagada IIB	Maadi Bouto IIB Tell el-Farkha 1 - 2	Early Bronze IA2	Byblos II Ras Shamra IIIa Hiatus Ras Shamra	Middle Uruk (LC 4)
c. 3350 BCE	Nagada IIC				
	Nagada IID	Bouto IIIa Tell el-Farkha 3 - 4 Tell Ibrahim Awad 7	(Erani C / Arad IV) Early Bronze IB1 (Erani B)	Amuq G	Late Uruk (LC 5)
c. 3200 BCE	Nagada IIIA				
c. 3100	Nagada IIIB	Bouto IIIb - IV Tell el-Farkha 4-5 Tell Ibrahim Awad 6	Early Bronze IB2		
	Nagada IIIC		Early Bronze II	Byblos III Hama K5-7 Byblos IV	Djemdet Nasr Ninive 5
c. 2900	Nagada IIID	Bouto V Tell Ibrahim Awad 5	Early Bronze III		

Previous archaeological work demonstrated that an iconographic study can determine a link between a characteristic pattern and a group of people, a culture, or a city (Pittman 2018: 16), and also a transfer of iconographic patterns from one region to another (Teissier 1987). Iconography does not have a simple aesthetic function but always conveys more or less complex information intended to be read and understood by a target audience (Pittman 2018: 19, 21). Different iconographic motifs are therefore developed in all cultures (Egypt, Southern Levant, Mesopotamia) in order to express a certain idea. But cultures in antiquity were not closed, inward-looking entities: they met and exchanged products and ideas. This circulation of ideas encouraged the adoption of foreign iconographic elements to express new concepts. The adoption of more or less complex exogenous iconographic motifs (such as the ‘master of animals’ in Egypt) is therefore proof that contact took place between the culture where the motif was developed and the culture where it was adopted (Clark 2005; Moorey 1987: 44; Moorey 1990; Smith 1992; Wengrow 2014: 94-95). Iconographic analysis of the objects in the research corpus could therefore provide a better understanding of the organisation of this international exchange network, as well as the likely points of contact between the various actors in the network. Furthermore, the discovery of two different types of iconographies at one site would make it possible to determine that the two cultures associated with them met and interacted there (e.g. Konar Sandal South in Iran, Pittman 2018).

A macroscopic petrographic study of the objects brings additional information regarding the origin of the raw material used in the fabrication of the cylinder seal (stone of local or foreign origin) or the origin of the seal impression: use of Nile mud, marl clay, Levantine clay, etc. (Gwinnett and Gorelick 1979; Quinn 2009; Sax, Collon and Leese 1993; Stoltman 2001). This data will support the initial results deduced from the iconographic analysis of the objects.

These analyses will allow the author to make comparisons and groupings between the objects as well as to highlight common features and perhaps re-evaluate the origin of the seals considered ‘foreign’ in the corpus. All these studies can help to define objects’ trajectories, yield insights into populations throughout South-West Asia and Egypt by highlighting the areas of encounter between these groups of peoples and fill a gap in the archaeological knowledge of the 4th millennium BCE in the region.

### **Preliminary results**

After two years of research on the subject, some preliminary results can be drawn from the assembled corpus of cylinder seals and sealings.

#### ***The northern route confirmed?***

The first thing noticeable when we study the geographical distribution of cylinder seals and sealings between South-West Asia and Egypt is their dispersal in northern Mesopotamia towards the Levant and finally Egypt (Figure 1) and therefore confirms the theory of interaction by a northern route. This theory is based on the discovery of the Uruk colonies on the Euphrates in northern Syria and south-western Anatolia during the seventies (Algaze 1993; Joffe 2000) and several archaeological evidence, already presented by different researchers, seem to point to a maritime route rather than a land route:

- The presence of Egyptian material at various sites on the Levantine Coast like Taur Ikhbeineh, Azor, Byblos and Qal’at ar-Rus (Oren et al. 1992; Gophna 2002: 419; Mączyńska 2013: 43; Marcus 2002: 407).
- The appearance of Amuq F ceramics in the Nile Delta in Buto III level (Kantor 1993: 17; von der Way 1987: 246-249), at some coastal sites in the Levant (Guyot 2008: 724; Philip 2002: 216; Stager 1992: 32) and in the Uruk colony of Habuba Kabira on the Euphrates (Schwartz and Weiss 1992: 232).

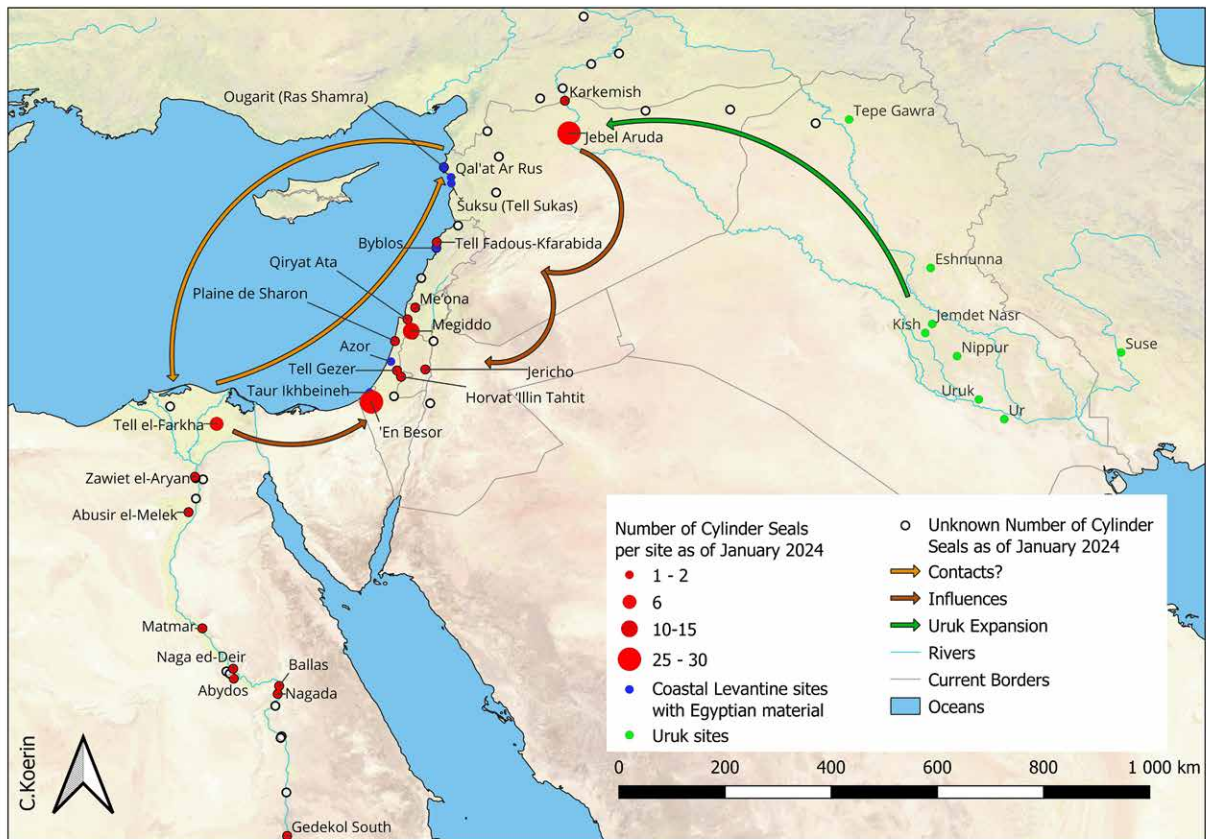


Figure 2: Map of Egypt and South-West Asia showing all the sites already included in the corpus (January 2024) as well as the first hypotheses (Conception: Camille Koerin with Qgis 3.34 and free of use background map from [www.naturalearthdata.com](http://www.naturalearthdata.com))

- The identification of a Levantine coastal material culture, different from that of the inland sites, was identified (Philip 2002: 216-217).

For a long time, the absence of major Predynastic remains (with the exception of Buto) and of glyptic material in the Nile Delta were the main counter-arguments to this theory. However, the discovery and excavation of several Predynastic sites in the eastern Delta, such as Tell el-Farkha, Kom el-Khilgan, Tell Ibrahim Awad, Tell el-Iswid and Minshat Abu Omar, have demonstrated that the region was very dynamic during the 4th millennium BCE. This is particularly evident at Tell el-Farkha, which has been excavated annually by Polish archaeologists (Poznań Archaeological Museum and Jagiellonian University, Kraków) since 1998. The excavations have shown that the site was a very important economic and administrative centre in the region (Czarnowicz 2011: 130), with very close relations with the Levant (Mańczyńska 2013). It is thanks to this context that the Tell el-Farkha site has the greatest concentration of cylinder seals and sealing from Predynastic Egypt (Figure 2). Contacts therefore seem to be closer between Southwestern Asia and the Nile Delta than with Upper Egypt, providing further support for the theory of interactions from the north. Egypt and the Uruk colonies in Syria probably interacted due to an international exchange network that already existed during the Neolithic Period between Anatolia and Egypt (Guyot 2004: 85; Hartung *et al.* 2015: 304; Mark 1997: 12; Stager 1992: 23).

The elements drawn from the corpus correlated with the other archaeological evidence tend to present the Amuq plain as the intermediary between the Uruk colonies in Syria and the Nile Delta. However, it

remains to be determined whether the coastal sites like Byblos or Ugarit also acted as intermediaries. Could the Levantine coastal culture represent further evidence of maritime contacts between Egypt and Mesopotamia during the 4th millennium (as coastal port)?

One of the problems still present in the analysis of interactions between Egypt and South-West Asia is the dispersal of glyptic material. The oldest glyptic material found in Egypt is not in Lower Egypt but in Upper Egypt (NGD-2, Fig. 4.D), and Mesopotamian influences are only felt in this region. There is therefore an inconsistency in the archaeological data, which can be explained by the state of research in Egyptology: Upper Egypt, being more arid, preserves the oldest stratigraphic layers much better and is therefore better documented than Lower Egypt.

***The role of Levant Sud in the inter-regional exchange network:***

For the last 40 years, the northern maritime route theory developed during the second half of the 20th century considered the Southern Levant to be completely excluded from the international exchange network between Syria (and therefore Mesopotamia) and Egypt (Philip 2002: 224). This 'exclusion' is due to the lack of both Egyptian and Mesopotamian material at the Levantine inland sites.

However, the geographic distribution of the glyptic material suggests that the Southern Levant played a more important role in the exchanges than previously assumed. Indeed, the distribution map (Figure 1) clearly shows that the region contains numerous sites with cylinder seals or sealings and logic would suggest that the material first spread from Syria to the Levant before reaching Egypt. It is clear that glyptic production developed in the Levant as early as in the second half of EB I with Palestinian concept seals or Class I and III of Ben-Tor (Ben-Tor 1978: 105; Braun 2004: 27).

The study of the Levantine glyptic iconography clearly demonstrates a Mesopotamian influence on the designs of the cylinder seals at production sites like Megiddo and Jericho in the northern part of the region. Indeed, numerous seals or impressions discovered at the latter show patterns similar to those of Mesopotamian glyptic like the 'tête-bêche' arrangement" (Figure 3, A-C) and the 'rhombus or eye motif' (Figure 3, D-E). It seems, though, that this Mesopotamian influence was indirect and passed through Syria (Ben-Tor 1978: 108) and sites such as Byblos and Ugarit (Figures 2 and 3), where the iconography bears more similarities to Palestinian concept seals than the Uruk colony glyptic.

Similarly, in the southern part of the region, the few examples of glyptic art that have been found ('En Besor, Tell Halif and Gezer) seem to show an Egyptian origin or influence. Interactions between the Southern Levant and Egypt are therefore attested by glyptic material from the Levant, but also by other archaeological evidence such as Levantine ceramics at various Egyptian sites including Tell el-Farkha (Czarnowicz 2012) and Abydos (Dreyer 1993: 49-56; Hartung *et al.* 2015).

Yet no Palestinian concept seals or sealings were found in Egypt and Ben-Tor noted that there was a clear separation between the south and the north of the Southern Levant in glyptic art production: the frontier being Gezer. There is no Egyptian material or influence on the glyptic art north of that site and conversely no glyptic material of Levantine origin to the south (Ben-Tor 1978: 100). Perhaps exchanges between sites north of Gezer such as Megiddo or Jericho were systematically channelled through the Egyptian settlements in the southern Levant, which collected the products before sending them to Egypt. This would explain the absence/very low number of Ben-Tor Palestinian seals in the south.

According to all this evidence, it is clear that the Southern Levant played a more important role in the inter-regional exchange network between Egypt and Southwestern Asia than previously thought. Mesopotamian iconography clearly influenced the glyptic art of the southern Levant. It even seems that

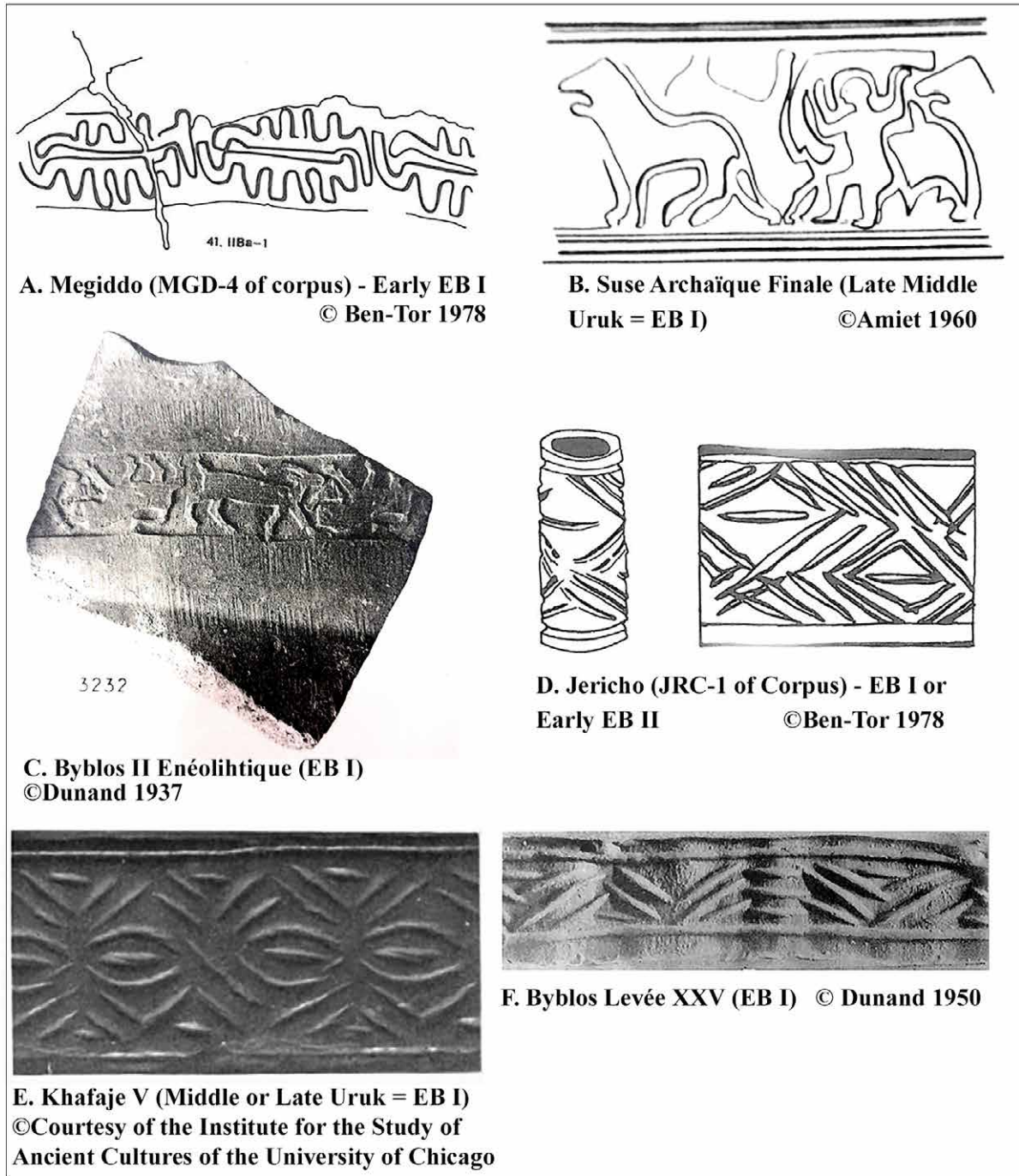


Figure 3: Comparative study of Levantine cylinder seal of EB I period (Megiddo and Jericho) of the corpus with cylinder seals of Byblos and Mesopotamia (after Ben-Tor 1978: Fig. 6.41; Amiet 1960: pl. 39 N°595; Dunand 1934: pl. CXXXIII N°3232; Ben-Tor 1978: Fig. 1.2; Kantor 1952: pl. XXVII.B; Dunand 1950: pl. CXCIV.19306).

this influence is older than the one on Egypt. Indeed, the first Mesopotamian-influenced motifs appeared in the region during the EB IA (Megiddo, Figure 3). However, when we consider the C14 chronological data (Table 1; Regev *et al.* 2012; Dee *et al.* 2014), the start of this period slightly predates the Nagada IIC period, when the first Mesopotamian elements appear in Egyptian material and iconographic cultures (the ‘master of animals’ motif in tomb 100 at Hierakonpolis and the Nagada cylinder-seal, tomb 29). However, these data must be treated with caution, as the same amount of data was not studied in the two regions: around 200 samples for the Southern Levant (Regev *et al.* 2012: 547) and 91 samples for Egypt (Dee *et al.* 2014: 321). This role in the exchange network is probably more restricted than that of Egypt or Syria, which would explain the lack of foreign material in the region.

### **Regional iconographic and petrographic elements**

Following previous works on the cylinder seals’ iconography, that demonstrate its link with a certain region, cultural group, or city (Pittman 2018) and the fact that it can be transferred from one group to another (Teissier 1987), the corpus compiled for this research has made it possible to associate a specific iconographic style with a region or a site.

While the earliest cylinder seals found in Egypt feature geometric motifs (Figure 4, B-C; Boehmer 1974), local glyptic art soon developed a very different and highly figurative iconography. This iconography mainly features various animals like birds, fish, horned quadruped etc. similar to the scenes found on Predynastic cosmetic palettes. These motifs can be organised in a linear fashion as in the Abusir el-Melek seal (Figure 4, A), where three horizontal registers showing different zoomorphic forms can be clearly seen (Boehmer 1974: Fig. 9), or in a more disorganised fashion, with figures that, because of their size, clearly have a central place like on the Abydos sealing (Dreyer 1993: Fig. 10). These figures are then surrounded by several other, smaller zoomorphic forms whose sole function seems to be filling the space around the central animals. Older seals featuring more geometric motifs such as ‘eyes’ or an architectural motif appear to be either imported or of local origin but representing typical Mesopotamian patterns.

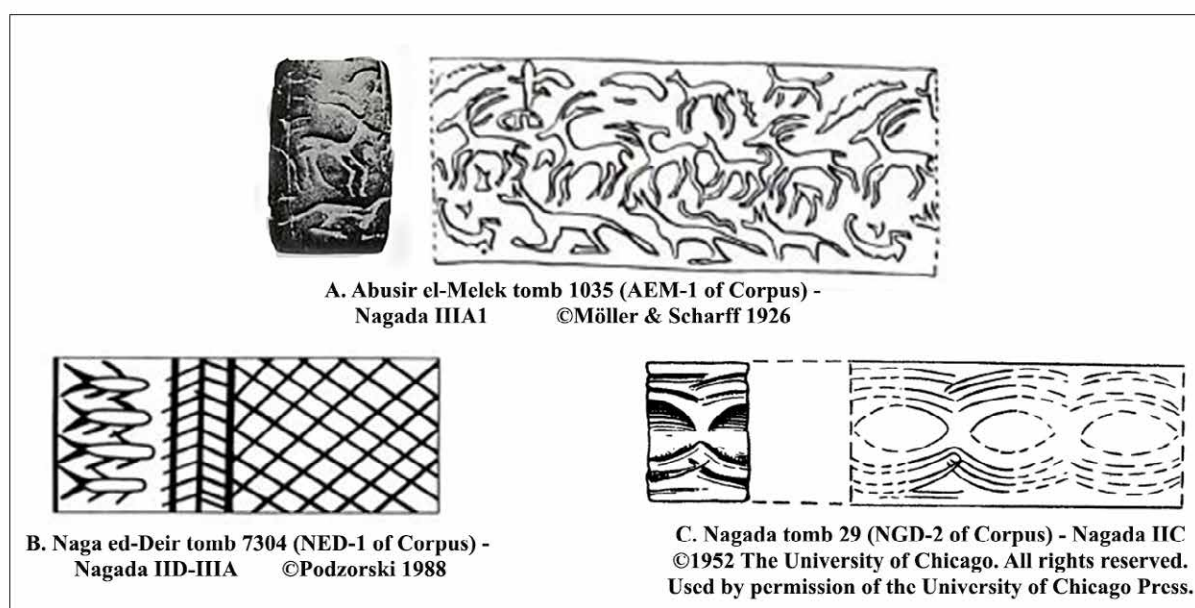


Figure 4: Egyptian cylinder seals and sealings dated between Nagada IIC and Nagada IIIA1, presenting the two kinds of iconography: figurative and geometric (after Möller and Scharff 1926: Fig. 22; Podzorski 1988: Fig. 2; Kantor 1952: Fig. 1A).

The preliminary results of macroscopic petrographic analyses on the objects of the corpus show that Egyptian cylinder seals were mainly made of limestone (Ballas, Matmar, Naga ed-Deir and Nagada), clay (Tell el-Farkha) and faience (Tell el-Farkha and Zawiet el-Aryan). It seems that the oldest seals were carved in limestone while the other materials are used in the manufacture of slightly more recent seals.

It is even possible to go further and associate an Egyptian site, Tell el-Farkha in the Delta, with a specific iconographic motif: the 'gazelle/ostrich' association. Indeed, several artefacts found on the site show a characteristic pattern of gazelles and ostriches. Unfortunately, there is no cylinder seal with both animals (Figure 5), but each seal has been associated with another artefact reminiscent of this motif like

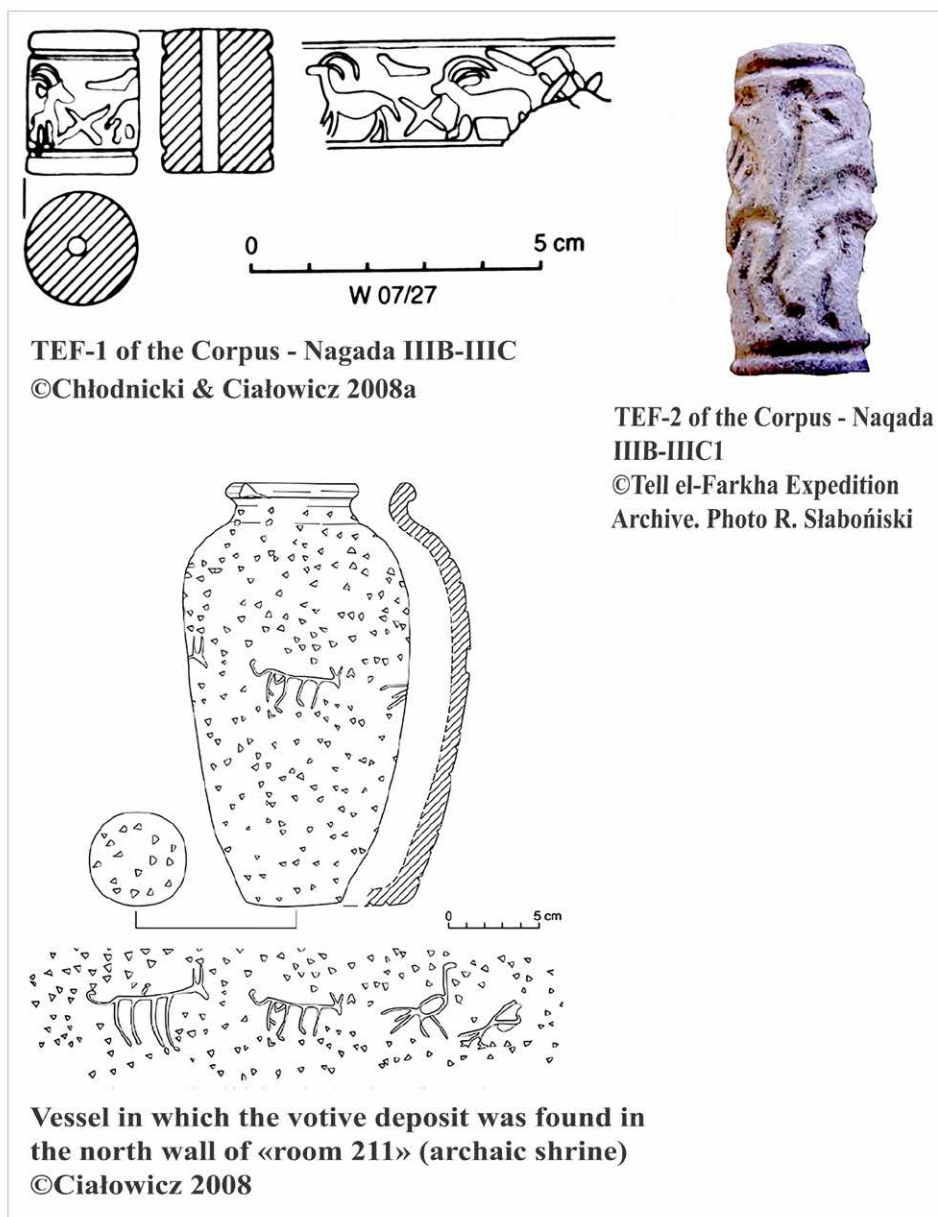


Figure 5: Two cylinder seals of Tell el-Farkha (Nile Delta) showing a gazelle and/or an ostrich with the vessel decorated with the complete motif (votive deposit of 'room 211') (after Chłodnicki and Ciałowicz et al. 2008: Fig. 2; Kołodziejczyk 2012: Fig. 2; Ciałowicz 2008: Fig. 8).

an ostrich egg (Chłodnicki and Ciałowicz *et al.* 2008: 84; Ciałowicz 2008: 26) and a ceramic jar decorated with the complete motif (Chłodnicki and Ciałowicz *et al.* 2008: 83; Chłodnicki and Ciałowicz 2008: 128). The close association of this motif with the archaic shrine (room 211) of the site's administrative and cultural centre, which is largely represented in the structure's foundation deposit, and its total absence in neighbouring areas, has led researchers to consider that 'they were somehow connected to the name of the place – city of Tell el-Farkha or a shrine built there' (Chłodnicki and Ciałowicz *et al.* 2008: 84-85; Chłodnicki and Ciałowicz 2010: 165; Ciałowicz 2008: 33; Kołodziejczyk 2012: 276). Our current theory is that if this pattern is found elsewhere than in the Delta, it can be assumed that the object bearing it comes from Tell el-Farkha.

A similar hypothesis can be made about the seal impressions found in tomb U-j at Abydos (Dreyer 1993: 51; Dreyer 1998). These impressions were found in association with ceramics of Levantine origin (Dreyer 1993: 50; Hartung *et al.* 2015: 299) and has allowed the complete reconstruction of the iconography represented on the original seal. This cylinder seal differs from the other objects in our corpus in that it represents a figurative scene framed by a border decorated with geometric figures: interlocking rhombuses. The petrographic analyses carried out on the seals showed that they were made of Nile mud (Hartung 2001: 216-238): the cylinder seal used to make these seals is therefore clearly of Egyptian origin. Moreover, its figurative iconography clearly shows affinities with the Egyptian style, notably the contemporary Abusir el-Melek seal (Figure 4, A), which is clearly identified as being of local origin (Boehmer 1974: 499). Yet, the association between the figurative iconography and the geometric border is unique to date and could very well be characteristic of the Abydos site (other seals discovered in contemporary tombs show this same association, cf. Dreyer 1998).

Levantine glyptic is recognisable by its very specific use. Unlike Mesopotamian or Egyptian glyptic, Levantine seal impressions are found on ceramic shards rather than on clay stoppers or *bullae*. The seals were printed on the ceramic before it was fired (Ben-Tor 1978; Braun 2004; Braun 2010) and preliminary results of the petrographic analyses show that these seals were mainly made of bone (six seals at Megiddo, Me'ona, Jericho, and Horvat 'Illin Tahtit). Three exemplars of seals are of made of stone, but only one is of local origin (Megiddo), the two others are Egyptian ('En Besor and Sharon plain).

We have already noted that Levantine glyptic developed around production centres like Megiddo or Jericho and present some Mesopotamian influences. However, this research has demonstrated that the 'stand-alone herringbone' motif is characteristic of Southern Levant (Figure 6) as it was found on several seals and sealings at Megiddo (Loud 1948: pl. 160.1), Me'ona (Braun 2004: fig. 8.1b), Tell Abu al-Kharaz (Fischer 2008: fig. 245.10 & 320), Hazor, Tel Dan and Tell Ta'annek (Ben-Tor 1978: p. 4, 6-8).

In the current state of this study, this is the only recurring motif in the Levantine glyptic that is not found in the other regions studied.

### ***Linguistics as an indicator of interaction?***

It has been brought to the attention of the author that it would be interesting to study the linguistics of the various terms related to the vocabulary of glyptics in the different West Semitic languages (Egyptian, Ugaritic, Hebrew, Aramaic, Syriac, Arabic etc.). All the West-Semitic languages of the 2nd and 1st millennia use a word derived from the Egyptian *ḥtm* to designate a seal: Hebraic, Phoenician, Aramaic, Jewish Aramaic, Syriac, Mandaic and Arabic. This term is attested since the Old Kingdom (perhaps earlier?) and is preserved until the Coptic period (Noonan 2019: 108). According to Benjamin Noonan, the vocalisation in /a/ of Arabic and Aramaic terms shows that linguistic borrowing from Egyptian took place very early, as by 1300 BCE, the Egyptian /a/ in those contexts had changed to /o/ (Noonan 2012: 179-180; Noonan 2019: 108-109). A second word, common to several West Semitic Languages (Hebraic, Phoenician, Aramaic and Arabic) is derived from Egyptian *ḏb.t*. This term is also attested from the Old

Kingdom to the common era. The word was borrowed in Hebrew and Phoenician before the Amarna period, whereas in Aramaic it is not attested until a later date (Noonan 2012: 180-181; Noonan 2019: 109-110).

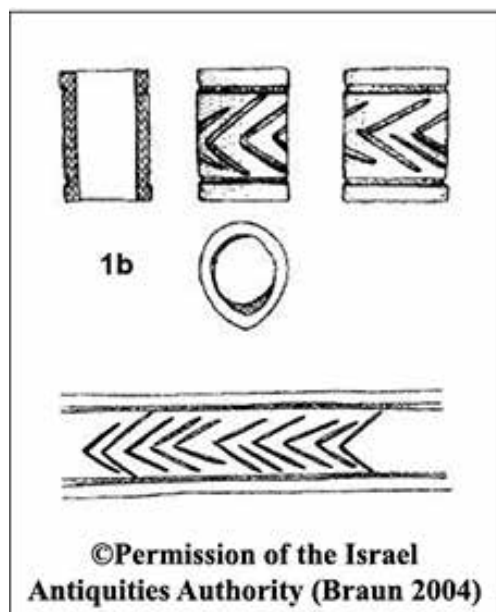


Figure 6: Cylinder seal of Me'ona decorated with the 'stand-alone herringbone' motif, characteristic of the southern Levantine glyptic according to the research corpus (after Braun 2004: 28 Fig. 8.1a and b).

According to linguistics, the glyptic vocabulary seems to be derived from Egyptian (*htm* and *ḏb.t*) rather than Akkadian (*kunnukku*) which seems to demonstrate a secondary spread of glyptic technology from Egypt.<sup>1</sup> This idea therefore seems to demonstrate that the spread of glyptic technology is more complex than it appears, and studying this phenomenon would be extremely interesting to develop further in this research.

### Conclusion

This research is based on an original but rather small corpus: it is expected to contain approximately 200 objects, and is still in the making. The preliminary results presented in this paper are therefore subject to change in the near future, until the completion of the research. The issue of the interactions between Egypt and Mesopotamia during the 4th millennium BCE has been at the heart of many scientific discussions since the 19th century and despite new archaeological discoveries in recent years, the question is far from resolved. It is certain, however, that the study of glyptic and more specifically of cylinder seals in Southwestern Asia and Egypt will provide some very interesting new insights into this issue.

In its current state, this research confirms B. Teissier's article (1987) and the theory of contact between Egypt and Uruk colonies in Syria by a northern maritime route. The study of glyptic material from the region combined with the various archaeological evidence previously exposed (the presence of Egyptian material on coastal Levantine sites and the dispersion of Amuq F-type ceramics), seems to point towards indirect maritime contacts with the Amuq plain as an intermediary (and probably other sites such as Byblos or Ugarit). However, the southern Levant was not completely excluded from the exchanges that took place in the region: the iconography on glyptics demonstrates a Mesopotamian influence via Syria, and the presence of Egyptian seals in the far south is proof of contacts with the Nile Valley. It is particularly interesting to note that the Mesopotamian influence on Levantine iconography (EB IA1, Byblos II Enéolithique) seems to be older than that on Egyptian iconography (Nagada IIC, cf. Table 1).

The research corpus also allows us to determine some regional characteristics in the glyptic production of the different cultural areas of Egypt and Southwestern Asia: figurative iconography in Egypt, the 'stand-alone herringbone' motif in Southern Levant and some regional patterns in the use of raw material during the fabrication of the seals. There are also plans to carry out a use-wear analysis study of the accessible material of the corpus. This will enable us to identify the different methods used in the manufacture and ornamentation of the artefacts (Nissen 1977; Sax, Meeks and Collon 1994; Sax, Meeks and Collon 2000; Warkte 1997). As with iconography and raw materials, the choice of a particular

<sup>1</sup> For more information on this subject, see: Muchicki 1999; Ellenbogen 1962 and Lambdin 1953.

technique may be characteristic of a specific region or culture. No conclusive results have yet been obtained from the initial use-wear analyses, so it has not been discussed in this article.

There are still several points that need to be explored in greater depth, such as the role of certain cities or regions as intermediaries between Uruk and Predynastic Egypt (Amuq plain, Byblos or Ugarit), the West-Semitic linguistic and more significantly, the possibility of contacts between Upper Egypt and Lower Mesopotamia via a southern route and the Red Sea.

In its current state, the corpus completely rules out this possibility: it is limited by the state of the art of the archaeological research in Egypt, Southwestern Asia but also in the Arabian Peninsula. To the best of our knowledge, no cylinder seals or sealings dating from the Uruk Period (c. 3900-3100 BCE) have been found in the Arabian Peninsula or the Red Sea coast, suggesting that no contacts have taken place via this route. This completely incongruous absence can be explained by the fact that few archaeological excavations have been carried out in the Arabian Peninsula, which is only just beginning to be explored by archaeologists. Given the paucity of material discovered in reliable context in areas that have been extensively excavated (Egypt and the Levant), it is likely that, if interactions did take place along the coast of the peninsula, they left very few archaeological traces and even less glyptic material. However, recent research in Predynastic Egyptology (Rosenberg *et al.* 2022; Stevenson and van Wetering 2020) has shown that the Nagada culture maintained economic relations with the Gulf of Aden and perhaps further afield.<sup>2</sup> Maritime contacts between Egypt and the Uruk core are therefore entirely possible and will be studied in the future.

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<sup>2</sup> Further research on this topic was also presented by J. van Wetering (Origins 7, Paris 2022 and The Red Sea Conference XI, 5-7th June 2024), L. Sieli (Current Research in Egyptology, Basel 2023) and T. Kuronuma (Current Research in Egyptology, Basel 2023).

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# Funerary Stelae as a Testimony of Late Egyptian Culture

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## Abstract:

Funerary stelae are a core item of funeral equipment in the First Millennium BCE. Bearing their owner's name and image, they usually depict them adoring a deity, with an offering formula that does not differ much from similar compositions dating back to the Old Kingdom. A considerable number of these pieces has survived from Antiquity, despite of their fragility. Unfortunately, most of them have been deprived of their archaeological context in ancient time due to avid collectors. Peter Munro's *Die spätägyptischen Totenstelen* (1973) and further works on this corpus have since provided us with extensive typologies and stylistic criteria to locate in time and space, if only broadly, these interesting artefacts that are often used for many purposes in studies on the first millennium BCE.

At first glance, late funerary stelae may be considered mundane artefacts, with common adoration scenes and offering formulae. However, they show images of the deceased presenting themselves in front of chosen divinities, in a conventional format affected by collective trends and individual variations. As such, they offer not only a wealth of precious data on prosopography and local context, but also insights on social and personal self-presentation, as well as expression of devotion at the time.

This paper aims to present some perspectives to analyse the cultural significance of these stelae. My purpose is to study the late funerary stelae as a fragmentary corpus of texts and pictures in order to understand how they came to be and what phenomena they may reflect. For example, one can observe the growing progress of the devotion to Osiris in text and picture, to the detriment of Ra, more prevalent in the Third Intermediate Period. I will also try to consider what these documents may tell us of their elusive context of production.

## Keywords:

Art history, Mythology and Religion, Funerary Customs, Personal Devotion, Identity.

## Introduction

Late funerary stelae are often a colourful and appealing part of many collections of Egyptian antiquities. Our paper focuses on such pieces representing private individuals in front of deities, dating from the Third Intermediate Period to the end of the Late Period (c. 1069-332 BCE), excluding the Ptolemaic Period that saw too many developments for my present scope. After a master dissertation on the Louvre specimens (Lebée 2014), I am preparing the publication of this collection and will expand here on some questions that apply to the production as a whole. I will consider here as many stelae as possible, through museum collections, publications, and online databases. Only a minority of these stelae are linked to individuals and families that are located in time; but almost none has an archaeological context. They are also part of a scarce and irregular corpus of a few hundred items, spanning over centuries, with a

marked over-representation of a handful of prominent Upper Egypt cities such as Thebes, Abydos and Akhmim.

Nonetheless, these artefacts exemplify the timeless devotion of their deceased owners towards the gods and their hopes for a generous reward and patronage in the Afterlife. While it would be easy to consider them solely as a convenient prosopographic dataset, their religious significance should not be neglected: for their own personal fate, their owner probably had personal involvement in the stela design. Thus, the purpose here is to draw a synthetic analysis of various features displayed by these stelae and to tentatively relate them to deliberate choices. The variety displayed in the corpus is indicative of the images, texts and archetypes to which the actors had access. This background is part of the culture of their time, understood as a set of references and norms in a given domain, a *répertoire* of sort, models that can be gathered, used and reinterpreted inside a similar framework.

After considering the late funerary stelae and their historiography, the variable elements of the stela iconography and inscriptions made by subjective choices will be reviewed. Then I will seek what evidence they can offer to understand the general context in which they were produced, and what they can reveal about the culture of the First Millennium BCE.

### Late funerary stelae as a material category and a typology

#### *Material description*

Formally, these stelae display a round upper part (the ‘lunette’); they are usually between 20 cm and 1 m high. They were made in stone, or wood in the Theban area, sometimes consisting of several pieces joined together. As for the technique, they were often painted with various colours; the stone specimens were sometimes only carved. A few examples are decorated on both sides (Figures 1a-b),<sup>1</sup> and some wooden examples have come to us with either small elements on top<sup>2</sup> or a pair of stair-shaped supports.<sup>3</sup>

The decorated area could be organised following many patterns. Sometimes mixing several zones displaying pictures and text, the stelae are not easy to analyse due to their complexity and variations, despite striking affinities between specimens from similar periods and provenances,<sup>4</sup> while contemporary pieces may also differ considerably. At the core, however, the decoration scheme remained rather simple, and can be reduced to two main elements: a scene depicting the deceased standing in front of a deity in the upper part, and an offering formula often written below. These features were of course used in a variety of combinations, from simple stelae decorated with an offering scene covering almost the entire painted area (Figures 1a-b, 3-5, 9), to more elaborate ones, with multiple offering scenes arranged in an organised framework and various types of formulae in the text zones (Figures 2, 6-8).

The diversity of quality, in terms of materials, design and workmanship, is noteworthy: some stelae are barely readable and seem hastily drawn,<sup>5</sup> while others are small monuments in their own rights, crafted from stone and even adorned with gold, or carefully painted with confident hands and elegant lines of

<sup>1</sup> E.g. Louvre (Paris) E 52; Metropolitan Museum of Art (New York) 22.3.31; 22.3.33. A list of online museum databases used for this paper is given below the bibliography; otherwise, a bibliographic reference will be provided.

<sup>2</sup> E.g. Museo Arqueológico Nacional (Madrid) 3519, with a crowning wooden pair of feathers and a solar disc; later pieces may have wooden birds added on both sides.

<sup>3</sup> E.g. Louvre (Paris) E 8412.

<sup>4</sup> E.g. several groups defined by Munro 1973 (see below).

<sup>5</sup> E.g. British Museum (London) EA 8483; Louvre (Paris) N 3663; Musée Art & Histoire/Museum Kunst & Geschiedenis (Brussels) E 4338. See below for inconsistency in text and picture.

text (Figure 2).<sup>6</sup> Despite the relatively high number of preserved stelae, amounting to a few hundred,<sup>7</sup> they belonged obviously to a small portion of the population, associated with prominent administrative functions and temple dignities, even if the social background of their owners seems to remain only partially displayed (see below).

### *Origins and function*

While this sort of stelae became a recurrent part of the elite burial equipment in the Third Intermediate Period, it uses, in fact, elements known from much earlier times. Small stelae could be part of the tomb since the Old Kingdom (Der Manuelian 2003), and wooden ones came into use from the 18th dynasty (Budge 1925: 446). The common offering formulae, beginning with *d nsw.t ḥtp*, features among the core elements of funerary decoration since the Old Kingdom (Lapp 1986).

Regarding the offering scenes, from the Protodynastic Period, the earliest ones depicted the deceased receiving generous supplies from their relatives and servants. These performative pictures ensured that they could benefit from such bounty for all eternity, while exalting his social status, the wealth they could boast as much as the number of their progeny and dependants, and the extent of their devotion. This core dynamic shifted in the New Kingdom: henceforth, the deceased were not always the main recipients figuring in the scenes. They may also appear as active characters, presenting offerings in front of a deity – previously only kings could be depicted directly in front of a god performing an offering ritual. Despite this seemingly inversion of rules, the ultimate consequence of this change of role does not differ very much from the first configuration, since this act of piety ensures that the deceased would benefit from the benevolence of the god, and receive a large share of supplies. Such ritual devotion was intended to be handsomely rewarded to sustain the livelihood of the blessed owner, and to place them among the followers of the deity, as they could have been in the court of some prominent official in their previous life. This new configuration, centred on an individual's offering to deities, is practically the only one recorded on funerary stelae after the New Kingdom.

This iconography is far from being exclusive to stelae: such depictions of non-royal individuals adoring gods may be found in the New Kingdom on tomb chapel walls. From the Ramesside period onwards, they appear also on stelae, coffins, canopic chests or shabti boxes, all types of artefacts that are quite akin to our stelae in terms of material and dimensions (see Aston 2000 for canopic chests). Sharing so much of their features and their symbolic function, these different pieces were probably produced in the same structures, workshops of tomb equipment that unfortunately elude us.<sup>8</sup>

From the end of the Ramesside period onwards, funerary material tends to be very restricted, probably caused by the spreading practice of reusing older tombs and burial equipment. The latter was also reduced to a few elements: the most well-known are the decorated coffins and the funerary papyri. Scarcity of resource in a complex time is proposed as the main factor contributing to this new practice (Cooney 2021: 111-112). In this context of drastic decrease in the burial goods, funerary stelae seem to have become one of the usual pieces of equipment, even if they were not essential to the disposition of the body. Practicality (i.e. small size) and effectiveness (i.e. the capacity to include efficacious scenes and formulae) might have contributed to their popularity among the ancient Egyptians who sought assurance of a comfortable afterlife. While the main components of older tomb decorations began to be transferred onto coffins, our small stelae display a synthesis of the main themes: the adoration scene

<sup>6</sup> E.g. Louvre (Paris) N 3936; Metropolitan Museum of Art (New York) 25.3.210; 13.180.27.

<sup>7</sup> C. De Visscher gathered a corpus of 1390 published stelae for her doctoral thesis, unfortunately unpublished (see De Visscher 2020 for an account of the adopted methodology).

<sup>8</sup> See Swart 2004 for a comparative study of papyri and funerary stelae in the Third Intermediate Period.

and a proper offering formula both helped, sometimes with a little more decorum, the owners to enter the Hereafter.

### **Peter Munro's Work**

The funerary stelae were not studied as a whole corpus before *Die spätägyptischen Totenstelen* of Peter Munro (1973). By using prosopographic data on stelae that could be linked to temporally known genealogies, he managed to assign a few stelae to major cities. He also shaped local typologies and classified hundreds of stelae with formal analysis. This considerable corpus features complex evolutions: the stelae display a wide range of formal qualities, but also no fixed patterns or strict textual/graphical habits. It can therefore not be reduced to a linear evolution that would help to temporally and spatially locate them. Despite this complexity, and thanks to a keen eye on local groups and a multiplicity of features, Munro managed to create a framework to organise his corpus. To summarise his seminal work very crudely, he achieved a coherent picture, with evidence of a general transition from a unified field (the *Ganzbild-Stela* type; see Figures 1a-b, 3-5, 9) to a more compartmented type strictly separating texts and picture (the *Bild-Schrift-Stela* type; see Figure 2, 6-8). Munro's work has thus set a stimulating basis to engage with such material and remains a very convenient reference for dating. It was completed by an indexed volume (De Meulenaere *et al.* 1985) and can even be refined with other typologies produced later with other criteria or different parts of the burial equipment (Aston 2009; Saleh 2007; Taylor 2003: 101-102). These tools offer at the very least an indicative period for artefacts often devoid of context. More focused studies (Leahy 1979, 2009; Loth 2009, 2012) are gradually recognising variants in formulae and titles, onomastical trends and local habits; they enable us to methodically narrow down the context of a given artefact. This proves invaluable in any attempt to engage with these pieces.

### **Uncertainties**

When analysing such material, one should remain cautious. On the one hand, they are complex products at the crossroads of many spheres: born from a cultural practice tied to social, economic and material conditions. On the other hand, the available documentation barely enables us to follow the evolution of these factors; on the contrary, the stelae may rather help us to better understand these various fields. Any archaeological documentation needs to be carefully considered. This is particularly applicable to late funerary stelae, since we know so little about their context of creation and use.

Analysing the motivations and habits of Egyptian craftsmen may give a few warnings for further approaches. In fact, visual and epigraphical designations of the deceased are not faithful depictions of their likeness but highly constructed images. Innovation, while certainly not absent, was usually not an end or a feature sought in itself in ancient Egyptian culture, which gave actual value to the reiteration of past paradigms. Accordingly, pictures and texts do not show us how people actually dressed and introduced themselves, but the contemporary conventions for such media – and could incidentally still be valid in their lives. To avoid a simplistic or vain approach, it must also be stated that cultural mimicry and reinterpretation are difficult to trace, because they are naturally non-linear and reflexive: contrary trends follow one another, and past archetypes may be explored anew after a long time of abandonment. An additional factor of uncertainty in interpreting the components of our stelae is that their older archetypes may not have been fully understood: they could display some inconsistency or obvious nonsense when examined thoroughly. Ancient pictures, texts and monuments from previous eras, while they remained formal and functional references, were probably not easy to understand for ancient Egyptians from the late periods, while they remained formal and functional references.

More practically, funerary stelae are also the result of interactions between the eventual owner of the stela and the artisans who were employed to produce it, with potential intermediaries. A few painted

but uninscribed stelae are interpreted as ‘prefabricated’ stelae waiting for a buyer (Figure 3);<sup>9</sup> but most of the commission and creation conditions remain rather unknown to us. As such, all attempts to study the production structures, or even to qualify them as ‘workshops’, remain largely conjectural, since no remains of such a place have been found so far, and written evidence is severely lacking to understand both the material creation of the pieces and any eventual transaction. Seeking to gather an idea of the culture of the time, the role of several types of actors (craftsmen of various qualifications, buyers, maybe dealers?) would obviously be of the greatest interest, but shall unfortunately remain elusive to us in the present state of documentation. This difficulty may be circumvented at the cost of simplifying the analysis framework: since the initiative capacity and influence of the various actors cannot be circumscribed, we may only focus on what was finally accepted. All choices in the creation process, pertaining to the whole piece design, its visual features and the details of its text, were eventually validated by the purchase of the piece and so agreed, at least *a posteriori*, by the buyer.

### The stela owner’s identity

Despite these difficulties, some interesting observations can be made from the way the deceased are identified on their stelae, both in pictures and textual formulae. As any other media depicting individuals in Egyptian culture, they bear an actual part of their being, invested with performative value. The selection of features included in the picture or the text is not a mundane thing but a defining choice in one’s identity and social expression.

For the vast majority outside of Abydos, late funerary stelae only depict single individuals, and only a few of them bear depictions of close parents.<sup>10</sup> Nonetheless, a first point of interest is that almost half of these stelae were owned by female deceased.<sup>11</sup> They do not differ from their male counterparts in the way they are characterised. This is remarkable in itself, since representations of single women were very rarely documented until the Late Period (Jansen-Winkel 2004; Li 2017; Saleh 2007), whereas it remains difficult to relate this peculiarity to any evolution in the living women’s status at the time, if any.

I will not comment on the presence of the owners’ name, since it remains a core element of their persona, upon which they had no control. Additional characterisations, on the other hand, being individual titles or genealogical precisions, are not indifferent. Although writing areas are small, titles were exhibited on most stelae. This choice is in line with usual practice in Egyptian funerary inscriptions, where the deceased could display some of their social achievements that became constitutive of their identities, as well as exalting their status among the livings and foretelling high standing in the Afterlife. Since the Old Kingdom, such monuments are precious tools for studying careers and biographies of the elite, even though it remains usually unclear if multiple titles could have been held successively or simultaneously, and if their sequence is seldom clearly expressed. On late stelae, however, the customary titles string is often reduced to few, or even a single one. The small size of the inscription surface may have been an incentive to brevity, but since other characterisations occur frequently, such as genealogical indications

<sup>9</sup> E.g. Egyptian Museum (Cairo) JE 34595 (see Munro 1973: Figure 121); Grand Egyptian Museum (Giza) 12919 (see Ewais and Rabia 2022: 27-30); Museo archeologico nazionale di Firenze (Florence) 2501 (see Munro 1973: Figure 122); Musée Art & Histoire/ Museum Kunst & Geschiedenis (Brussels) E.05290; Metropolitan Museum of Art (New York) O.C.81.

<sup>10</sup> E.g. Louvre (Paris) C 110 and E 13067 feature couples, although both wives remain nameless; Louvre (Paris) C 229 represents the deceased followed by her son and daughter and Louvre (Paris) E 20091 a woman and her daughter. Moreover, the main character of some stelae is a woman joined by relatives: Metropolitan Museum of Art (New York) 22.3.33 (husband); Rijksmuseum van Oudheden (Leiden) AP 44 (mother), EG-ZM2986 (father and mother).

<sup>11</sup> Saleh 2007:1 counts 58 female-owned stelae on 117 dating from the Lybian Period; of the 61 funerary stelae from the Louvre collection considered for our master dissertation (Lebée 2014), 26 belonged to female deceased.

(see below), it seems to also have been a choice to settle for short title sequences in order to define social status.

Another marked contrast with earlier private stelae arises in the fact that these dignities are mostly sacerdotal titles, or positions within a temple administration.<sup>12</sup> Female owners also bear mostly the generic title of *nb.t pr* ‘mistress of the house’, and often of chantress (*šmꜣ.t*) or sistrum-bearer (*iḥꜣ.t*) of a god. A similar neglect of the secular world appears too in the offering scene: while the deceased is adoring the god behind an offering table, they do not bear any professional marker, except when the stela’s owner is a musician (Figure 4), and can then play before the divinity as part of their offering.

This phenomenon may have at least two explanations. It is fitting indeed with the increasingly prominent role of temples as the most important institutions after the end of the New Kingdom, as central authorities were now lacking. At a more personal level, it might also be a deliberate choice to express one’s social status by highlighting almost exclusively his link with the temple administration, when introducing oneself before a deity in order to gain their benevolence.

In addition, this disregard for mere civil distinction would not be very surprising, in the plausible hypothesis that stelae were buried with the deceased and remained inaccessible after the funeral. With the eventual concealment of the stelae, the need for status exhibition, if not absent – the funerary material was probably exhibited during the funeral – might have been less present compared to older public monuments that displayed the families’ and individuals’ status for generations to come. Nevertheless, this indicates a peculiar attitude towards self-presentation, in stark contrast to previous periods.

A short genealogy is also a common part of the owner’s identity. It often consists of the name of a single parent (without marked preference for either father or mother at that time), or sometimes both. These pedigrees may be completed by titles born by the parents of the deceased, and follow the same pattern of relative brevity and temple hegemony as the titles of the deceased.<sup>13</sup>

Additionally, there is no simple equivalence between the workmanship of a stela and the status of its owner expressed by the text (see Figures 1a-b, 2: both are high-quality pieces whose owners do not bear any particular titles). Since in all probability, the best craftsmanship was not available to anyone, even in the elite, it seems that individuals could refrain from boasting eminent titles.<sup>14</sup> Such modesty, unfortunately, implies that their actual status is difficult to assess from their stelae and that parts of it is likely to remain inaccessible, while it most certainly weighted heavily in the conditions of creations of our artefacts.

In the end, the identity displayed on the stelae is restricted to a generic picture of a dignitary or distinguished lady adoring a god, completed by a name, a few titles and a short genealogy. This condensed presentation remains almost entirely focussed on the individual, somewhat isolated from their social background, especially any lineage of note, and the details of their *cursus honorum*, which feature prominently on similar materials in earlier times. These components of their social being were superseded by their association with a temple, seemingly the main collective structure of the time. Either in this situation or without any explicit link to current organisations, the deceased were

<sup>12</sup> In c. 60 stelae from the Louvre, only four titles are not priestly, or at least tied to a temple: *ḥrp nsw.t Tꜣ-šmꜣ* ‘royal overseer of Upper Egypt’, *sꜣ nsw.t Rꜣ-ms-sw* ‘royal son of Ramses’ and two occurrences of *sš nsw.t ḥsb* ‘royal scribe of the accounting’, among dozens of priests and temple scribes (Lebée 2014: 71-72).

<sup>13</sup> There is a few exceptions to this tendency, e.g. multiple generations recorded on stelae Kunsthistorisches Museum (Vienna) 157 (see Munro 1973, Figure 96) and Nationalmuseet (Copenhagen) Aad6 (see Wüthrich and Dietrich 2021: 519-520).

<sup>14</sup> See also Leahy 2010.

visually characterised by their devotion to the god to whom they were presenting offerings. This higher counterpart is also a feature of note, susceptible to meaningful variations.

### Choosing one's god

On the other hand, the main figure of these stelae is the deity receiving offerings from the deceased in the upper scene and invoked in the offering formula, in the hope of a generous reward in their afterlife, following the common pattern of unequal but reciprocated gifts of the Egyptian religious and ritual system. It is a marked divergence from the older focus of funerary motives, which revolved around the receiving by the deceased of offerings given by their relatives. From the 18th dynasty onwards, such scenes could be completed by an adoration of one or more deities by the deceased, in order to get some benevolence and tangible benefits from the higher powers in the Afterlife.

Gods appear simultaneously in the offering formula and in the adoration scene. Not many of them are used in this position, and despite a few unusual figures,<sup>15</sup> they are mostly prominent gods with either regional supremacy, dominion over the Afterlife or close association with the solar cycle. Looking more closely at this aspect, noticeable trends appear. After a seemingly Osirian prominence in the 21st dynasty (Lebée [forthcoming]), Third Intermediate Period stelae feature in their vast majority the sun god Ra. He appears often under his main form of Ra-Horakhty, sometimes enthroned, with the *regalia*; he may be wearing his customary clothes (Figure 1a), but also be mummified, which is appropriate for a funerary offering addressed to the sovereign god who rules also the Underworld during his nightly cruise. Other forms of Ra may be used in this context, such as Atum, the human and kingly form of the god, associated to sunset, night and the Afterworld (Figure 1b).

Atum and Ra-Horakhty may be used simultaneously, as a unique figure of the solar falcon-god named Ra-Horakhty-Atum (Figure 5), or as a complementary pair, which embodies the cycle of rebirth after death. In this case, they may appear as two figures, each displaying their usual iconography: a falcon-headed deity for Horakhty and a blue-skinned man with the *pschent* for Atum. The two depictions can be used on both sides of the stela (Figures 1a-b), or as both figures standing in opposite direction within a double offering scene.<sup>16</sup>

Another regular deity on these funerary stelae is, of course, Osiris, king of the Afterlife and future liege of the deceased – already common in the adoration scenes from tombs of the Ramesside era. He is depicted with his usual features, as a mummified man holding the *regalia* and the *atef*-crown, sometimes attended by Isis, and maybe other deity associated with the Osirian family, such as Horus, sometimes Nephthys and the sons of Horus (Figure 6). It is interesting to note that the appearance of Osiris is more and more common as the Third Intermediate Period progresses, and becomes predominant in the Late Period.<sup>17</sup> This is not surprising at all, since the development of the Osirian devotion is a known feature of the religious life of the First Millennium BCE.<sup>18</sup>

<sup>15</sup> See e.g. a large fish on Louvre E 32645; see also El-Leithy 2018 for a proposition to identify a divine bearded and legged snake to Atum.

<sup>16</sup> E.g. Louvre (Paris) E 9947; Metropolitan Museum of Art (New York) 25.3.210, 30.3.57; National Museums of Scotland (Edinburgh) A.1956.146; Rijksmuseum van Oudheden (Leiden) H.III.CCCC 3.

<sup>17</sup> It appears clearly in the corpus formed by the c. 60 stelae from the Louvre (admittedly neither very large nor fully representative though), see Lebée 2014: 56-57.

<sup>18</sup> Coulon 2010.

Ra and Osiris could also both appear on the same stela, following a variety of combinations: one could appear in the offering scene and the other in the offering formula;<sup>19</sup> another possibility was to juxtapose the pictures of both (Figure 7).<sup>20</sup>

Instead of displaying either Ra or Osiris, or both together, a third and peculiar possibility was a hybrid form mixing the figure of Ra with the features of Osiris, without explicitly attaining a complete amalgamation. This Osirian tincture of sorts applied to Ra can take many forms; the lighter was to give the falcon-headed god (who was often wrapped in a shroud already) an *atef*-crown<sup>21</sup> while the divine figure remained named Ra-Horakhty; the sun god could also be attended by Isis, Horus or the sons of Horus (Figure 8).<sup>22</sup> An interesting case depicts a mummified falcon-headed god crowned with the solar disc called Ra-Horakhty beside an Osiris-like figure (mummified, green-skinned and wearing the white crown) called Atum, while the offering formula calls for Ra-Horakhty, Atum and Osiris.<sup>23</sup> Many examples of this ambiguous iconography show a real mix of attitudes and attributes affecting the picture of the solar deity, which remains a distinct entity in text, never amalgamated to a Ra-Osiris hybridisation, but whose depiction would very easily be recognised for Osiris or Sokar without the accompanying text captions.<sup>24</sup> The close relationship between Ra and Osiris is indeed a theme known to have been explored by the Theban elite during the Third Intermediate Period.<sup>25</sup> This ambiguous iconography blurs the line between the characters of Ra and Osiris, but never reaches the point of a complete hybridisation. However, at the end, any elaborate meaning of the affinities between the two gods may have been lost by most by-standers, and we lack explicit details of how these pictures were understood.

### Texts and inspiration

The matter of the perception of funerary stelae is a complex question, given the variety of people with diverse cultural backgrounds who intervened in their design, manufacturing, acquisition and use in the funerals. This uncertainty with how our stelae could be perceived is no trivial matter, since it also affects our understanding of the meaning they were intended to carry.

The stelae described above contain a variety of features whose motivation is not explicit, but which are obviously the product of a multi-layered tradition, and they may, in turn, help us to tentatively question the cultures of their makers on various levels. We may conduct our investigation in two fields that require different, albeit neighbouring, skills: text and picture.

At first glance, texts displayed on late funerary stelae may not seem very engaging, because they mostly consist of repetitive offering formulae,<sup>26</sup> or names and titles that are difficult to recognise. The matter of literacy in 1st millennium Egypt is a fascinating topic that produced a rich literature.<sup>27</sup> Funerary stelae offer nonetheless an interesting space for this question, since they bear, like other parts of the funeral material, stereotypical formulae (*d nsw.t ḥtp* or solar hymns) with individual variations of *égyptien de*

<sup>19</sup> Louvre (Paris) E 13067, E 18938, E 19503 bis, E 19509 bis, E 20091.

<sup>20</sup> E.g. Louvre (Paris) C 112, E 8412, E 13071; Y Ganolfan Eiffitaidd/Egypt Centre (Swansea) W1043.

<sup>21</sup> E.g. Louvre (Paris) C 114, E 13069; Metropolitan Museum 22.3.32.

<sup>22</sup> E.g. Louvre (Paris) E 13067, E 13068, E 20091, E 13092, E 13095, E 13097, E 19503 bis, N 2721, N 2722, N 3945; Metropolitan Museum of Art (New York) 27.2.5; Museo Egizio (Turin) cat. 1530, cat. 1574.

<sup>23</sup> Metropolitan Museum of Art (New York) 13.180.27.

<sup>24</sup> Despite the similarity of such iconography with the usual appearance of Sokar, commonly depicted as a falcon-headed mummified figure and associated with Osiris (see Ewais and Rabia 2022: Grand Egyptian Museum (Giza) 12857 = former Egyptian Museum (Cairo) 28/10/24/1, 25th-26th dynasty, from Abydos), this Memphite god does not seem to appear often in the Theban stelae and so remains quite rare among preserved late stelae. There is at least one exception in Louvre (Paris) N 3945.

<sup>25</sup> Niwiński 1987-1988; Onstine 1995.

<sup>26</sup> There may be some religious hymns however, see e.g. Abdel-Maguid 2016 and Loth 2017.

<sup>27</sup> See Jay 2020.

*tradition*. They are mostly rather simple texts that, by their divergences inside a regular pattern, show to what extent it could be changed, and where lies the focus of the inscription.

In them, we may find archaic wordings, which can occur at different levels. Some stelae display excessively articulated ways to write a word with redundant signs, or forms that were out of use for a long time (e.g. using the *ntr* sign as determinative for the names of gods, a practice reappearing at the end of the 25th and in the 26th dynasties);<sup>28</sup> other may use expressions that fell out of use well earlier.<sup>29</sup> What were the models for this writing practice? Did the craftsmen seek to copy ancient monuments of the area?

Meanwhile, our stelae are written in a language that was probably unintelligible to most of the contemporaries and required highly specialised training, even in the narrow literate circles. We may well expect that, especially with stelae that are sometimes a little crude and probably not the most refined product on the market, people who copied them did not fully understand the text analytically (and maybe neither the people who bought them). The gap between *égyptien de tradition* and contemporary speech was so pronounced that it could explain the various unusual forms we may find on late funerary stelae, and even justify an investigation into the ability to read even stereotypical offering formulae. An indication of this difficulty in grasping the meaning of the text can be found in the lack of various essential articulations of the offering formula that are detrimental to the main purpose of the monuments, especially in designating the main beneficiary of the text. For example, the middle column of the stela Louvre (Paris) E 5789 (Figure 9), which presumably should read ...*d=f htp.w n Wsir*... ‘... in order that he gave offerings to the Osiris...’ is strangely written *d=šf htp.w Wsir*; the pronoun *šs* is not only inconvenient because of the gender inversion it implies for Ra-Horakhty (whose name has incidentally been granted a feminine *.t* inflection and an extra final *-m*), but is also redundant with the *šf* that follows immediately. More worrying still is the absence of preposition *n* indicating that the offering is directed toward the owner of the stela, this articulation being the essential purpose of the whole artefact.

The stelae do not carry gibberish text, however,<sup>30</sup> and some aberrant wordings could for example be reading mistakes from cursive models. The fact remains that those texts were seemingly not really understood precisely (without reaching nonsense), yet they were copied down with devotion and care most of the time. They may have been recognised as potent formulae used for centuries in an obscure language, and as such deemed an appropriate element for funerary equipment pieces, efficient for their patrons and maybe socially rewarding.

One obstacle to working with these stelae is the difficulty of asserting an actual context of use, since most are lacking the archaeological context, and that the few associated with an identified tomb may have been displaced.<sup>31</sup> It seems, however, that these stelae were included in the funerary chamber with the deceased and therefore not displayed publicly, apart from the short time of the funerals. In these conditions, if the stelae remained hidden, an archetypal composition could gradually change quite

<sup>28</sup> E.g. Louvre (Paris) C 114, C 226, E 20042, E 20092, N 3786, N 3936, N 3945. See Jurman 2015: 56-71, and Leahy 1979 for the case of the name of Osiris.

<sup>29</sup> E.g. on Saite stelae, one can read among the blessings and benefits invoked for the deceased the old-fashioned sequence, quite unusual at that point, *qrs.t nfr:t m hry:t-ntr* ‘a good burying in the necropolis’ (Louvre (Paris) C 229, E 13067, E 20091, E 20152; National Museums of Scotland (Edinburgh) A.1956.146).

<sup>30</sup> Some examples of unintelligible formulae are known for latter times: e.g. National Museums of Scotland (Edinburgh) V.2012.9.

<sup>31</sup> For stela moved not very far away from their original place, see Randall-MacIver and Mace 1902: 79; Villar Gómez and García González 2022; El-Leithy (2018: 61) mentions an intact 25th dynasty burial excavated in 2012 (KV 64). Some similar stelae were found buried with their owners in the Bab el-Gasus cache (Lebée [in press]); it is also the case of some funerary stelae found down their original funerary pits by Mariette while excavating the Serapeum: Louvre (Paris) IM 4244, N 308, N 314, N 320.

swiftly, over the span of a few generations, and their concealment may explain why they evolved so much in a few centuries compared to other artefact typologies.

More difficult to grasp, indeed, is the process of pictorial design that is rarely pondered upon, because we are left with the final product only, and the iconographical composition is a complex structure with many visual features. The question remains of the models for the scenes and inscriptions of funerary stelae and their choice among the vast range of available archetypes. Did the artisans copy specific monuments in the area? Was there a memory that some of them were older than others? What other similar stelae were known to them? This leads to the larger question of the visual culture of the people involved in the creation of these pieces. Apart from the older artefacts that were still accessible in the necropolis, they may have seen such pieces in their prominent relatives' funerals, and the workshops probably had a stock, with maybe some drafts. The interest in and knowledge of past monuments, if identified with enough accuracy (e.g. Selim 2000), would be a revealing aspect of the relation of high-ranking dignitaries of the First Millennium towards the past.

### Conclusion

To sum up my point, late funerary stelae are noteworthy artefacts that may be studied with relative ease thanks to their consequent number, their simple structure and the variety of works that have broadened our understanding of these pieces in the last decades. However, crucial data to pinpoint them with confidence in time, to draw their internal evolution and to grasp their context of use, are still missing. More precisely, we lack evidence to understand fully how they were made and acquired, how they were used in the funerals and afterwards, and more importantly, what they could actually mean to their owners and their grieving relatives.

I aimed nonetheless to show that by apprehending them as a whole corpus, and by analysing their features, their interpretation can be deepened. I chose to focus on the different elements that funerary stelae could bear and may indicate a subjective choice at some point in the production process. Similar to other funerary depictions of the time, members of the elite often chose to be represented alone before the deity of their choice, expressing their social identity by highlighting their clerical dignities. The preference of god manifested in the funerary stelae of the time slowly shifted from Ra to Osiris, keeping in line with the general religious practice of the time and in accordance with the concurrently developing theological themes. The choices made by the people involved in the creation of the stela to reproduce specific patterns and adapt formulae without seemingly fully understanding them remains a puzzling aspect of these pieces. It marks nonetheless a deep interest in monuments from a revered past to which ritualistic and efficient value were assigned.

Many perspectives remain to study further this material in relation with their cultural context. Looking at some obvious similarities, one can identify close groups and may try to explain such homogeneity. Taking the reverse path, it is also not uninteresting to focus on divergences, and looking tightly on particular features of the stelae over time may offer more light on their general evolution. In the end, in order to seek a better understanding of the funerary customs and the material culture that developed side-by-side, it is probably necessary to broaden our scope. Other types of objects such as coffins, shabti boxes and canopic chests share not only a common function, but also various material features that would advocate for a common, or at least related, production structure. In the light of what can be gathered by typological studies on each category, we may come to a better vision of the funerary culture and industry in the Third Intermediate and Late periods.



Figure 1a. Louvre (Paris) E 52, Ra-Horakhty side; 22nd dynasty, Thebes;  
© Musée du Louvre, distr. RMN – Grand Palais, Georges Poncet.



Figure 1b. Louvre (Paris) E 52, Atum side; 22nd dynasty, Thebes;  
© Musée du Louvre, distr. RMN - Grand Palais, Georges Poncet.



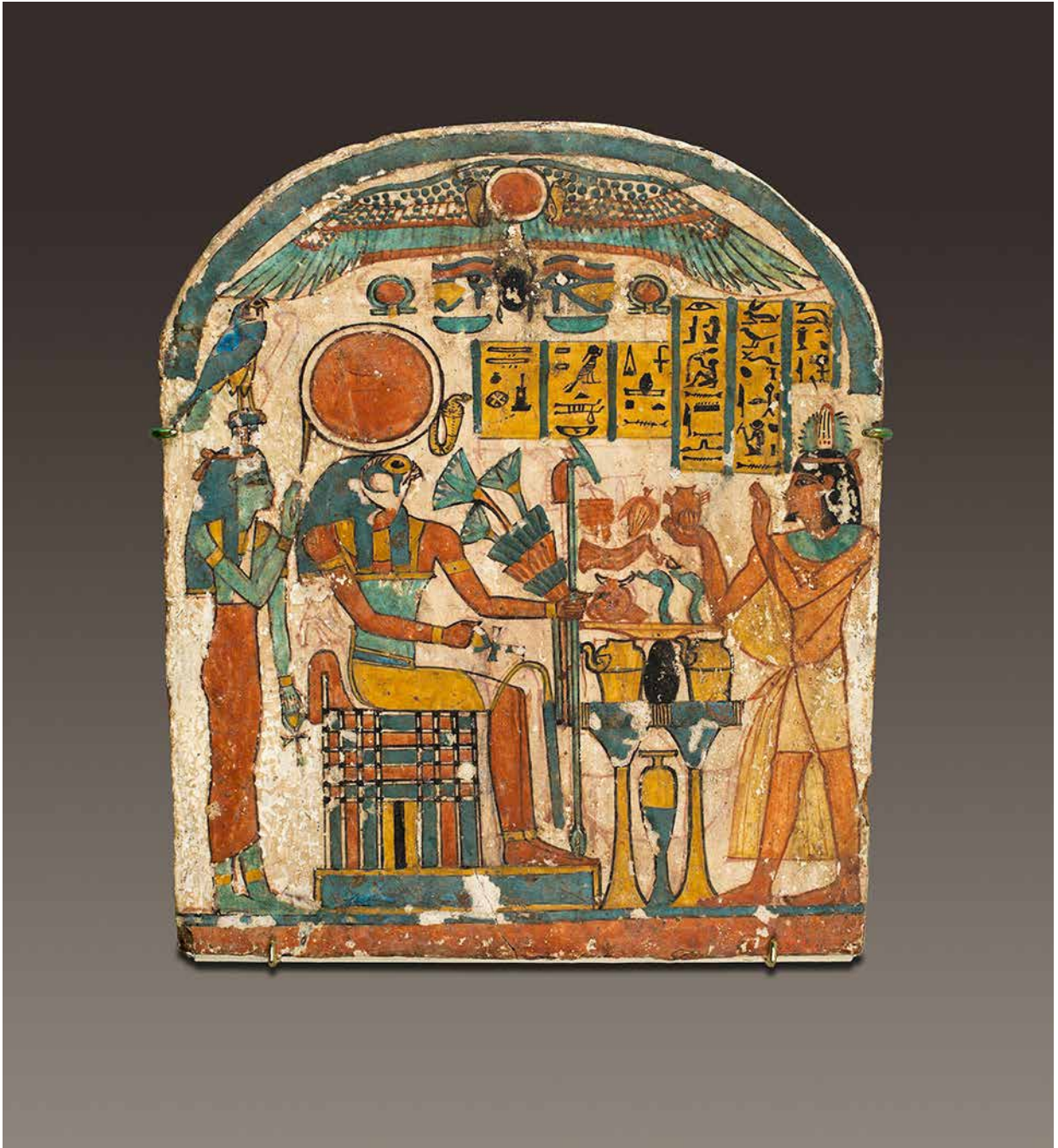
Figure 2. Metropolitan Museum of Art (New York) 13.180.27; Late Period-Ptolemaic era, Thebes; photograph: public domain.



Figure 3. Metropolitan Museum of Art (New York) OC.C81; 25th dynasty, unknown provenance; photograph: public domain.



Figure 4. Louvre (Paris) N 3657; 22nd dynasty, Thebes;  
© Musée du Louvre, distr. RMN - Grand Palais, Christian Décamps.



*Figure 5. Metropolitan Museum of Art (New York) 22.3.31, Ra-Horakhty side; 22nd dynasty, Thebes; photograph: public domain.*



Figure 6. Louvre (Paris) N 3387; late 25th dynasty, Thebes;  
© Musée du Louvre, distr. RMN – Grand Palais, Hervé Lewandowski.



Figure 7. Y Ganolfan Eifftaidd/Egypt Centre (Swansea) W1043; Late Period, Edfu; photograph: CC-BY-NC-SA Y Ganolfan Eifftaidd/Egypt Centre.



Figure 8. Louvre (Paris) C 115; 26th dynasties, Thebes (?);  
© Musée du Louvre, distr. RMN - Grand Palais, Christian Décamps.



Figure 9. Louvre (Paris) E 5789; 22nd dynasty, Thebes (?);  
© Musée du Louvre, distr. RMN - Grand Palais, Benjamin Soligny.

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# Middle Kingdom Qau el-Kebir and the Museo Egizio, Turin: A Fresh Study of the Finds and Documentation from Excavations

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## Abstract:

The monumental tombs of the Middle Kingdom governors of the 10th Upper Egyptian nome at Qau el-Kebir belong to a most intriguing but hitherto little-explored archaeological context. The site has been visited by some travellers in the last centuries and recorded as Qau el-Kebir (with variations in the spelling) since at least the 16th century CE. The Middle Kingdom rock-cut tombs were excavated between 1905 and 1924 by three archaeological missions (Museo Egizio, E. Schiaparelli; Ernst von Sieglin-Expedition, G. Steindorff; British School of Archaeology, W. M. F. Petrie). As a result of the Italian mission, the Museo Egizio in Turin preserves about 2400 fragments of objects and architectural elements belonging to the tombs of the governors Wahka I, Ibu, and Wahka II. They are almost entirely unpublished, and bear witness to the rich iconographic apparatuses of the tombs.

My PhD project, which started in 2021, aims at a comprehensive study of the fragments and their features, trying to understand the roles and significance of the three governors and their tombs. This paper will present an overview of the history of the site and of the finds, subdivided into different categories, and evidence for ancestral worship taking place in these tombs. Additionally, the available archaeological documentation of the Italian mission, which is almost completely unpublished, will be introduced.

## Keywords:

Qau el-Kebir, Middle Kingdom, Tombs, Museo Egizio – Turin, Governors, Wahka I, Ibu, Wahka II.

## Introduction

This paper presents my ongoing PhD project which aims to analyse the rock-cut tombs in the necropolis of Qau el-Kebir, focusing on the major Middle Kingdom tombs and their owners, Wahka I, Ibu, and Wahka II, governors of the 10th nome of Upper Egypt. My research is based on the study and contextualisation of both the archaeological documentation and the objects found and brought to Europe at the beginning of the 20th century, especially those currently kept at Museo Egizio, Turin. With the exception of certain well-known objects (e.g. the ‘burial chamber’ of Henib (Turin, ME, Suppl. 4399; Borla and Moiso 2018: 30-33; Ciampini 2003; Roccati 1989: 178-179), or the statue of Wahka (III), son of Neferhotep (Turin, ME, Suppl. 4265; PM V: 11; Connor 2020: 384; Connor 2015: 67; Curto 1984: 96; Evers 1929: pl. 77; Fiore Marochetti 2016: 40; Franke 1984: No 199; Grajetzki 1997: 56-57; Grajetzki and Stefanovič 2012: no. 68; Melandri 2011: 252-270; Quirke 1991: 54, no. 4; Robins 1990: 32; Steckeweh 1936: 15, 46; Vandier 1958: pl. 209)), the excavation archive materials held at Museo Egizio as well as the objects from Qau el-Kebir kept in various museum collections have never been comprehensively studied, contextualised or published.

## Past and current archaeological work at Qau el-Kebir

The rock-cut tombs of Qau el-Kebir, a site in the 10th Upper Egyptian nome called *Wꜥt*, Wadjet, located in Middle Egypt, in the area of the modern village of Al-Atmaniyah, about 400km south of Cairo, are part of a large necropolis with different chronological phases. Indeed, the history of the site can be analysed through studying its necropoleis throughout different periods, revealing the changing funerary customs over time. The 10th nome, which was about 32km long (north-south) during the Middle Kingdom,<sup>1</sup> extended from present-day Gebel as-Sheikh al-Haridi in the south to the area of Badari in the north. Based on the excavated necropoleis and the inscriptions found on a number of objects, it is supposed that at least six larger settlement centres existed inside the territory of the 10th nome of Upper Egypt: Tjebw, Per-Wadjet, el-Zaraby, Gebel as-Sheikh al-Haridi, Minet and Megeb (Grajetzki 2020: 40-43). None of them, however, has been accurately traced or, therefore, excavated so far.

The most important settlement in pharaonic times was *Tjebw*, Tjebw, ‘City of sandals’, which was called Antaeopolis, ‘City of Antaeus’, in the Ptolemaic and Roman periods (Grajetzki 2012: 2; Steckeweh 1936: 5). The Coptic tradition gives both the names *τκωου / τκοου*, *tkōou / tkoou*, which has been suggested to derive from the ancient Egyptian *ḏw-qꜣ* (Grajetzki 2012: 2; Wilkinson 1843: 92), ‘High Mountain’ (a reference to the mountains along the east of the Nile).<sup>2</sup> From the beginning of the 16th century CE, when Europeans started travelling along the Nile, the name of the site was recorded in various ways as Gao (Anonimo veneziano 1589, mss; Caraci 1929: 47), Coe (Arcangelo Carradori, namely Frat’Arcangelo da Pistoia, 1630-1638, in Lumbroso 1892: 212-239) Kau il Kubbara (Wansleben 1676: 368), Gaua-Kiebre (Pococke 1743: 76), Gau Scherkie (Norden 1757: 38-39), Gawa-Garbieh (Bruce 1790: 269-272), Gaw Kebir (Hamilton and Hayes 1809: 265), Gaw el-Kebir (Legh 1817: 39), Qaou el-Kebir (Rosellini, in Gabrieli 1925: 89), and Gow or Kow el Kebéer (Wilkinson 1843: 92). A few travellers correctly identified the site as the ancient Antaeopolis.<sup>3</sup> The name Qau el-Kebir (or, alternatively, Qaw el-Kebir), which is still in use for the archaeological area, joins the Coptic word ‘Qau’ (from *tkōou / tkoou*) and the Arabic ‘el-Kebir’, meaning ‘the great one’.

The province had a certain importance during the second half of the Old Kingdom. A family of local governors arose and managed both to control the nome and accumulate the resources to build their tombs at Hammamiyeh (El-Khouli and Kanawati 1990), a necropolis a few kilometres north of Qau el-Kebir. The province remained significant during the Middle Kingdom, although the élite chose a new site for their monumental tombs, namely the area called Qau el-Kebir today. In the New Kingdom, the province seemed to maintain its importance, since a tomb of a *ḥꜣty-* (a title that is best understood in this period as something akin to ‘mayor, city governor’, Auenmüller 2015: 700-711), called May, dating to the 19th dynasty, has been uncovered (Brunton 1930: 14, pls XXXI, XXXVII; Auenmüller 2015, 758, 892). Two officials from Tjebw, together with those of the other Upper Egyptian provinces, are depicted in TT 100, the tomb of the vizier Rekhmire (Newberry 1900: pl. VI; Auenmüller 2015: 655-660) while bringing goods as taxes.

In the Ptolemaic Period, the town acquired some new importance. A temple of Nemty, in Greek identified as Antaeus, was built close to the Nile and the town was now called Antaeopolis. The temple, although abandoned and ruined in the Coptic Period, remained the only visible building of ancient times in the area until the 19th century CE. Indeed, from the end of the Middle Ages, the site was exclusively known for the ruins of the Ptolemaic temple, becoming a stop for travellers sailing along the Nile, until

<sup>1</sup> See the White Chapel of Senusret I at Karnak. Lacau and Chevrier 1969, pl. 3; Grajetzki 2020: 29.

<sup>2</sup> Wansleben (1676: 368) reports a different transcription: *τκωβι*, *tkhōbi*.

<sup>3</sup> E.g. Wansleben, who visited the site in 1676, or Hamilton, W. R. and C. Hayes, 1809. A map (sort of pilot book included in *Claudii Ptolomaei Alexandrini geographicae enarrationis libri octo*, printed in 1541, Royal Library of Turin, P47.31), locates the site ‘Antaei’ in a point corresponding roughly to the area of Qau.

its complete destruction in the 1820s due to a Nile flood (Wilkinson 1843: 94). Some of the travellers recognised and copied a Greek inscription from the temple, which included the name of the builder, Ptolemy VI Philometor, and the restorers (of the roof), Antoninus Pius and Marcus Aurelius (Hamilton and Hayes 1809: 268; Jomard 1818: 111; Wilkinson 1843: 92). The hieroglyphic inscriptions on the then still standing columns and temple walls were roughly sketched in the *Description de l'Égypte* (Jomard 1817: pls XXXVIII-XLII), and by Pococke (Pococke 1743: pl. XXV).

Although the area was already known before (Jomard 1818: chapter XII, 7; PM V: 9, citing Bonomi 1825: Jan. 29; Chassinat 1901: 103-107), it was only at the beginning of the 20th century that the attention of archaeologists moved from the banks of the Nile to the mountain range to the east of the wider settlement area of Qau, where an extensive rock-cut necropolis was found. Ernesto Schiaparelli, the Italian archaeologist who was the first to start an archaeological excavation of the site in 1905, already visited Qau el-Kebir in 1892, while working for the Florence Archaeological Museum, writing these words to the Italian Ministry of Education in the report of his travel in Egypt:

*'Mi diressi alle tombe di Badari e Hammamiah (...) e quindi alle tombe di Gau, esse pure poco conosciute, ma disgraziatamente in tale stato da non potersene trarre altra notizia del loro antico splendore, non inferiore allo splendore delle maggiori necropoli dell'Egitto'.<sup>4</sup>*

'I went on to the tombs of Badari and Hammamiah (...) and then to the tombs of Gau, which are little known as well, but unfortunately in such a state that no other information of their ancient splendour can be drawn from them, not inferior to the splendour of the major necropolises of Egypt'.

He, however, evidently maintained some interest in the area, and 13 years later received the permission to excavate at the site. Thus far, three archaeological missions have been conducted in this particular area of Qau:

- The Italian Archaeological Mission (M.A.I.) of the Museo Egizio, Turin, led by Schiaparelli, in 1905 and 1906.
- The Ernst von Sieglin-Expedition in Ägypten, led by Georg Steindorff and Hans Steckeweh, in 1913-1914.
- The British School of Archaeology in Egypt, led by William Matthew Flinders Petrie, in 1923-1924 (fig. 1).

In 2023, the University of Alcalá, Spain, started a new project focused on the site of Qau el-Kebir, with the purpose of initiating new archaeological excavations in the Middle Kingdom necropolis.

The 20th century missions focused on the area of the mountain where the Middle Kingdom governors, the highest members of the local élite, decided to build their tombs. Three of the explored tombs are among the largest non-royal tombs ever built, namely those of Wahka I, Ibu, and Wahka II. Their design and architecture take inspiration from royal funerary complexes and temples, with an outer part built aboveground on the mountain slope and an inner rock-cut part. The long-term use of the necropolis is evidenced by remains dating to different periods, before and after the building of the monumental Middle Kingdom tombs, from the Predynastic Period (Parona 1920; Welvaert 2002; unpublished inventory list manuscript of Museo Egizio, today held at the State Archive in Turin) down to the Graeco-Roman Period (Petrie 1930: 14-16; Steckeweh 1936: 55-64; unpublished archaeological documentation of the Italian mission, today held at the State Archive in Turin). The tombs themselves have been reused as dwellings and, at least in the case of the tomb of Wahka I, as Coptic monastery (Petrie 1930: 3).

<sup>4</sup> Archivio Centrale dello Stato, Roma, fonds: Ministero Pubblica Istruzione, I. vers. 1860-1890, b. 2.

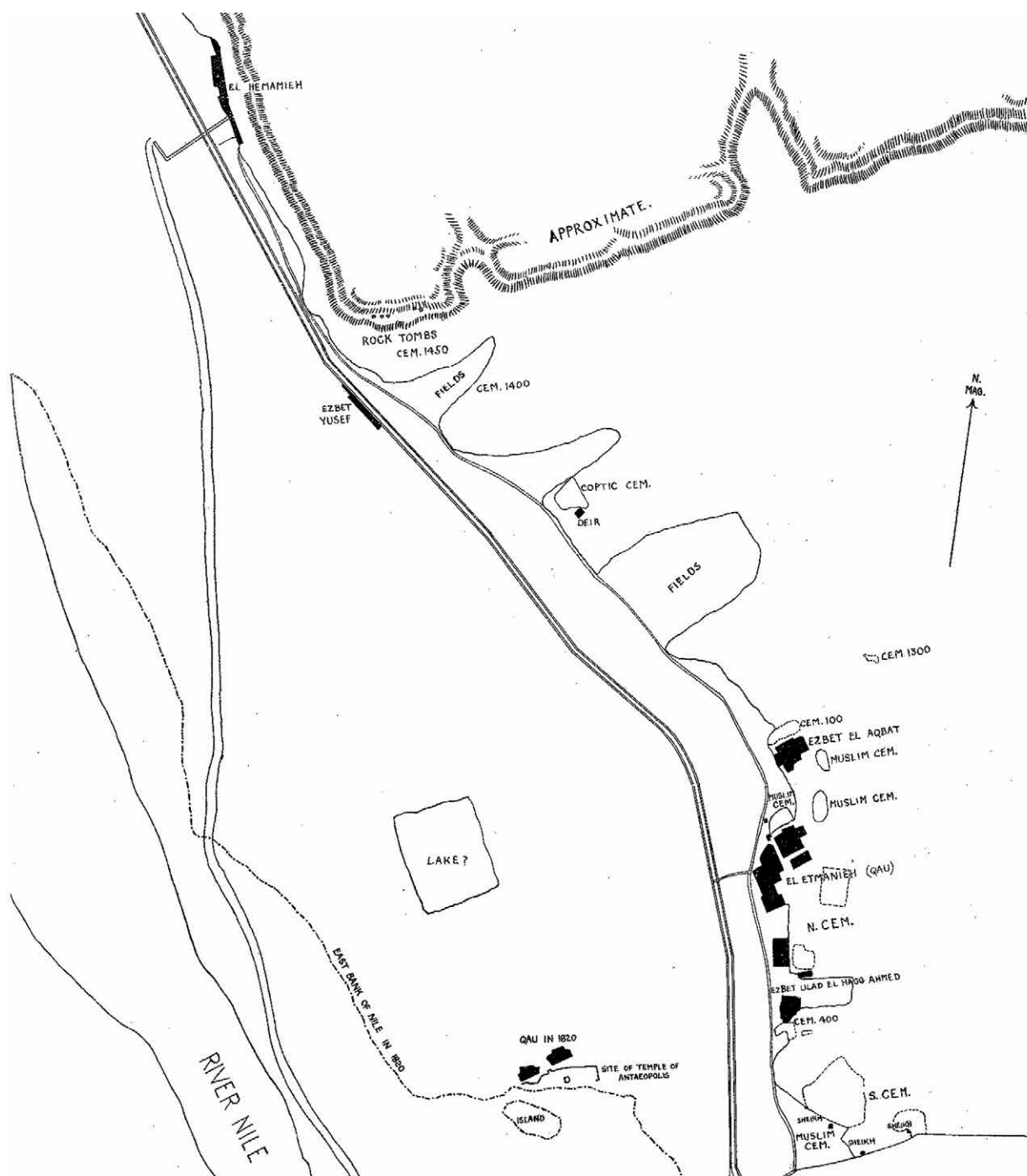


Figure 1. The area of Qau el-Kebir. Adapted from Brunton 1927: pl. I.

**Prosopographical and Provenance Problems Related to Qau el-Kebir Finds**

The elite tombs functioned as ritual spaces for a commemorative cult dedicated to the local governors (Ciampini 2003: 169-176), comparable to what happened in the sanctuary of Heqaib in Elephantine

(Franke 1994; Habachi 1985; Raue 2014). The three major elite tombs are that of Wahka I (tomb 7 according to Petrie's numbering system), that of Ibu (Petrie's tomb 8) and that of Wahka II (Petrie's tomb 18). All three missions found objects related to the descendants of these three individuals: some statues (dating to the late Middle Kingdom) bear inscriptions that identify their owners as invokers of their ancestors, Ibu and Wahka II, who are mentioned in the offering formulas. The ancestor cult of Wahka I is not documented by direct evidence. The fragments of offering tables found in his tomb, however, prove beyond doubt that the tomb functioned as a ritual space in his honour. For Wahka II and Ibu, this commemorative veneration is expressed in the statues Turin, ME, Suppl. 4280 and Suppl. 4281, two statues in which their owners, Wahka-khery-ib (Suppl. 4280) and Wahka (Suppl. 4281), invoke the above-mentioned ancestor governors (Ciampini 2003: 169-176). The two statues were likely originally installed in the tomb of Wahka II.

Other objects, such as offering tables (mainly in fragments) were also found inside the tomb precincts, however, more precise information about their context is lacking. The late Middle Kingdom descendants of the governors often bear the same names, mainly Wahka and Ibu, as well as the same titles as their forefathers, which has created some prosopographical confusion in the past. The already mentioned statue Turin, ME, Suppl. 4265 belonging to the *ḥꜣty-ꜣ imi-r' ḥmw-nṯr, ḥꜣty-ꜣ* Wahka (III), son of Neferhotep, was found in a shaft in tomb 18 (of Wahka II) in 1906 (Fiore Marochetti 2016: 40; Melandri 2011: 252-270). Since Steckeweh's publication in 1936 (Franke 1984: 150, no. 199; Steckeweh 1936: 46), it has been considered as one of the statues of Wahka I. Recently, the statue has been assumed to be of Wahka II based on its discovery in his tomb (Melandri 2011; Grajetzki-Stefanović 2012: 34, no. 68, based on Melandri's assumption), although W. Grajetzki already in 1997 had identified this person with Wahka (III) (Grajetzki 1997: 56-57). The attribution to the correct Wahka, together with a proposed chronology, was possible through a stylistic analysis of the statue, especially thanks to the studies of Simon Connor (Connor 2015: 66-67; Connor 2020: 53), and a better understanding of the archival papers related to its discovery (Fiore Marochetti 2016; Melandri 2011: 252-270), as well as the distinction of the patro-/matronymic. In fact, Wahka I would be the son of a certain Henu (♀/♂) from a fragment now in the Petrie Museum of Egyptian Archaeology, London (UCL 14499; Connor 2015: 66; Petrie 1930: pl. XVII), Wahka II is the son of Hetepuy (♀) (Fiore Marochetti 2016; Steckeweh 1936: 8), while Wahka (III) (only known from his statue Turin Suppl. 4265 and possibly his stela, Turin Cat. 1547) is the son of Neferhotep (♀).

An additional problem of disentangling the genealogies lies in the fact that Schiaparelli only listed objects that come from Wahka I's tomb, without indicating any further context of discovery for the rest. The envisaged comprehensive study of the Qau el-Kebir data and archive materials promises a new basis for addressing all these prosopographical and chronological issues (Ilin-Tomich 2017-2018: 61-78). The aim would be to subdivide all objects related to the governors' descendants or court officials from those belonging to the 12th dynasty governors and offer a clear overview of the finds and their context of discovery, and at the same time trying to resolve earlier misunderstandings and rectify incorrect assumptions.

### Past publications concerning Qau el-Kebir

Only Petrie (1930) and Steckeweh (1936, after a very brief report by Steindorff in 1914) published the results of their excavations. No other excavations took place on the site after the British mission in 1924, except for a brief survey undertaken by Steckeweh and Uvo Hölscher in 1928-1929 (Steckeweh 1936: 4), and the new project of the University of Alcalá. After describing the excavated tombs and proposing a chronological succession of the governors, both Petrie (1930) and Steckeweh (1936) present a general view, some plans of the site and of the tombs, and some photographs of the objects found and vistas of the area and the landscape. The description of the tombs given by Petrie is very brief, and it lacks the information collected by the two previous missions. In fact, Petrie did not identify his 'tomb 8', the

second largest tomb of the area, with that of Ibu: he simply called it ‘the hammered tomb’ for its badly damaged state of preservation. He briefly mentioned Steindorff’s paper of 1914 (Petrie 1930: 12), in which the German scholar identified the owner of the tomb (Steindorff 1914: 217), but Petrie decided to maintain the name ‘hammered tomb’. He proposed to date the tombs to the 10th dynasty, stating that ‘it is probable that they ruled all Upper Egypt’ (Petrie 1930: 8, 13) and claiming that the family of nomarchs was somehow connected to the later royal family of the 12th dynasty (Petrie 1930: 12). All these assumptions are today rejected, with the tombs and their owners securely dated to the 12th dynasty. Finally, it is worth mentioning that Petrie found traces of (sometimes unsuccessful) attempts to detach parts of the decorated walls from inside the tombs, an activity that we can attribute to the Italian mission, which actually tried and managed to remove some of this material, as can be seen by the remains of the decorated burial chamber of Henib (Turin, ME, Suppl. 4399).

On the other hand, Steckeweh’s publication – 22 years after the excavation – tries to analyse the fragments that the Germans found, and to propose a genealogical tree of the supposed Qau governors’ family (1936: 8), including some of the finds of the Italian mission attributed to Wahka I, Ibu, and Wahka II. At the end, a specific focus is reserved to the Graeco-Roman finds from the tombs excavated in the plain next to the mountain. However, regarding the Middle Kingdom governors and the related objects, a few errors can be noted, which in at least three cases widely influenced our knowledge of the site and the governors: 1) the already mentioned case of the statue of Wahka (III), son of Neferhotep (Suppl. 4265), 2) the mention of the existence of coffin inscriptions of Henu (Steckeweh 1936: 48; Willems 2014: 258-259), a person not attested within the Turin fragments, 3) the identification of a wooden anthropoid coffin fragment as the inner coffin of Ibu (Turin, ME, Suppl. 4309; Leospo 1988: 45; Steckeweh 1936: 48), which was later listed in the 1960s by Museo Egizio staff among the objects of Wahka II without explanation and contextualisation.

In addition, the site maps created by the three missions (Petrie 1930: pl. XI; Steckeweh 1936: plan VII; the Italian map will be published as part of my PhD dissertation) differ from each other, leading to doubts about the accuracy of the dimensions as well as the positions of the tombs in the overall plans of the area.

### **Schiaparelli and Qau el-Kebir**

The first and most comprehensive mission at Qau el-Kebir, the Italian one, did not publish a full report of its excavations. The Italian mission worked at the site twice, in 1905 (10 March-14 May, fig. 2) and a year later, in 1906 (20 March-12 April. Fiore Marochetti 2012: 61; Fiore Marochetti 2016: 37; Moiso 2008: 217-227). Their main and official objective was to search for Greek papyri, financially supported by the Accademia Nazionale dei Lincei. The Italian academy was indeed financing excavations with the purpose of discovering Greek papyri, at that time (Moiso 2008: 220). Schiaparelli likely asked for (and justified the choice of) this site due to its connection to the (lost) Graeco-Roman temple in the plain, hoping to find evidence of that period, papyri included. However, he mainly focused on, and excavated in, the rock-cut tombs on the mountain slope, in parallel with the excavations at the site of Hammamiyeh.<sup>5</sup> Eventually, the Italian mission found more than 2000 fragments of objects and architectural elements dating to the Middle Kingdom at Qau el-Kebir, with some findings from the Predynastic, the Late and the Graeco-Roman periods gathered in the area, but no papyri. Despite the great number of finds, Schiaparelli only devoted a brief section to them in his article ‘La Cronologia egiziana e l’ipotesi sotiaca’ in 1922 (1922: 147-150), 16 years after the excavation at the site. It is likely that he intended to publish the results of his excavations more comprehensively later on, but his death in 1928 halted these plans (Schiaparelli was also working on the publication of the Heliopolis excavations at that time).

<sup>5</sup> The excavation at Hammamiyeh was under the responsibility of Schiaparelli, but it was Roberto Paribeni who carried out the excavation. See Paribeni 1940: 277-293.



Figure 2. Excavation of the tomb of Ibu in 1905. Archivio Museo Egizio, C01823.

Most of the objects found were painted wall fragments and parts of broken statues from the tombs of Ibu and Wahka II, which was the result – according to Schiaparelli – of the intentional destruction of the tombs. In addition, the almost intact limestone sarcophagus of Ibu, parts of the sarcophagus of Wahka II and of some wooden coffins (three coffins with the name of Henib and one of Nakhti. Ciampini 2003; Ciampini 2007: 115-120; Fiore Marochetti 2016: 38; Leospo 1989: 42-43) and a few almost intact statues of the governors' descendants were recovered. Schiaparelli only listed the objects found in the tomb of Wahka I (59 objects, all fragments of the tomb or of the furniture) in the handwritten inventory book, stating that he would later create a supplement register for the rest of the (more than 2000) fragments, which he, however, never compiled. Most of the fragments remained in their crates in the museum storerooms for decades before Museo Egizio staff began to look into them.

A first official list of Qau el-Kebir fragments was made after the end of World War II, in the 1950s and 1960s, likely based on some handwritten notes left on or inside the crates indicating the archaeological site. Since Schiaparelli did not provide a precise provenance when they entered the museum, it was difficult to link all fragments to their respective tombs. At the same time, some fragments were initially not recognised as coming from Qau el-Kebir and were given temporary inventory numbers (prefixed with Provv.), which are still in use. They were recognised as originating from the excavations at Qau el-Kebir only later. This is why today, until the start of my PhD project, there was no detailed information available about the quantity and the precise provenance of most of the fragments from the tombs of Wahka II and Ibu (and possibly the other tombs excavated by the Italian mission in 1905-1906).

## Qau el-Kebir Objects at Museo Egizio, Turin

The Qau el-Kebir fragments found during the Italian excavations can be subdivided in two main groups: fragments of architectural elements that were once part of the tombs, and fragments of objects that were part of the tomb's equipment. About 70% of the material belongs to the first group, the remainder to the second. Apart from about 59 fragments, enumerated and indicated as coming from the tomb of Wahka I, the remainder (which is almost the entirety) has not been officially attributed to any tomb by Schiaparelli. The objects at Museo Egizio comprise more than 500 fragments of ceiling decorations, ca 950 fragments of painted wall reliefs, about 575 statue fragments, about 100 fragments of architectural elements, 12 fragments of a limestone sarcophagus, nine or more fragments of wooden coffins, with the addition of fragments of offering tables, canopic jars and a canopic chest, and other objects found scattered in the excavation area. Since the specific provenance attribution is lost, the methodology to order the fragments based on their category and, following that, in terms of specific typological criteria, has been developed for my study. This approach will also help identify possible stylistic differences, which are useful to distinguish the provenance of the objects from the different tombs, which all date to the 12th dynasty. The ceiling decoration fragments and their patterns, for instance, have been sorted based on their presence or absence within the ceiling of the tomb of Wahka II, the only tomb in which ceiling decorations, in the largest room, the so-called Great Hall, are still present.

Statue fragments are a rather interesting category. Considering that some belong to the governor's descendants, who placed their own statues inside the tombs of their ancestors, most of the fragments can be traced back to the time when the tombs were built, therefore attributable to the governors and dated to the 12th dynasty. It must also be kept in mind that a statue of Wahka I is still in situ today, in the lower court of his tomb, behind the ascending ramp to access the upper court. A recent study has quantified the statues that must originally have been present in the tomb, based on the preserved fragments (especially those of the face): the tomb of Wahka I must have had no less than five statues of the governor himself, that of Ibu at least 11, and finally that of Wahka II had no less than seven statues (Fiore Marochetti 2016: 40-41). The current study aims to establish the number of statues more precisely, based on the preserved fragments, once present on site and now kept at Museo Egizio. Thanks to comprehensive 3D scanning and modelling, virtual reconstructions will be provided in the future even in the cases in which the numerous fragments do not physically match. The detection of relations between pieces that cannot be established through physical joins is made possible through the definition of certain artistic styles that allow one to establish related groups of fragments.

TABLE 1. LIST OF OBJECTS FROM QAU EL-KEBIR AT MUSEO EGIZIO, TURIN.

Category	Quantity
Wall decoration fragments	ca 950
Ceiling fragments	ca 560
Statue fragments	ca 575
Architecture fragments	ca 105
Sarcophagus fragments (Wahka II) + the entire sarcophagus of Ibu	12 + 1
Coffin fragments	> 9

Category	Quantity
Offering table and altar fragments	13
Pottery	128 <sup>6</sup>
Miscellanea (canopic chest and jars, dummy vases, small finds)	ca 100

Most of the ca 2400 fragments are small pieces of the ceiling and walls from the tombs of Wahka II and Ibu, as can be seen in the above table (Table 1). The fragments comprise of the following inventory numbers or number ranges: S. 4264-4493 (with hundreds of sub-numbers), Suppl. 18113 (/01, /02, /03); Provv. 1565-1566, Provv. 1600- 2083, Provv. 2321-2792, Provv. 2907-2996, Provv. 3475-3477, Provv. 4804, Provv. 4808, Provv. 48230, Provv. 4857-4858, Provv. 5552-5572, Provv. 5600-5620, Provv. 5770-5776. The fragments from the tomb of Wahka I are Suppl. 4238-4263.

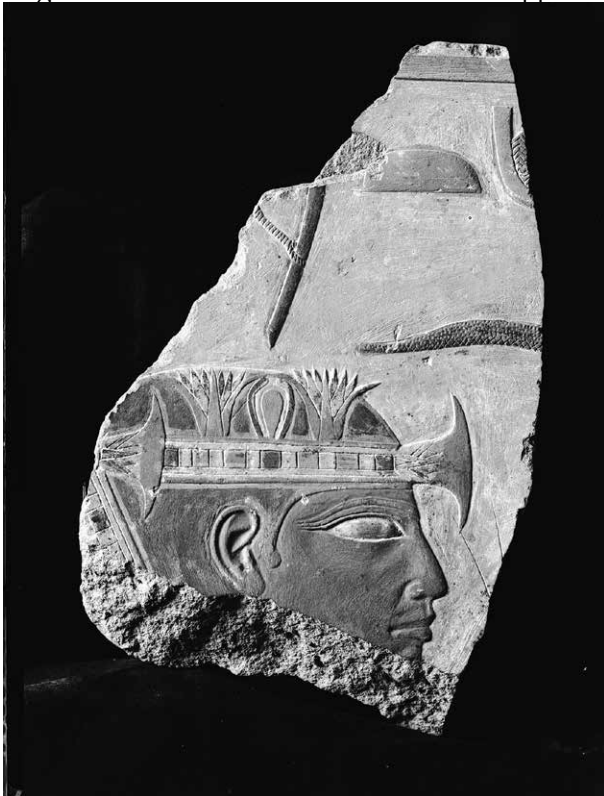


Figure 3. Wall decoration fragment that today is missing.  
Archivio Museo Egizio, C01018.

My ongoing study will also take into account about one hundred fragments of the same categories stored in other museums such as the Ägyptisches Museum – Georg Steindorff – of the University of Leipzig and the Petrie Museum of Egyptian Archaeology at University College London. For the objects in Leipzig, where Steindorff brought the finds of the German mission, most of them have been lost due to bombing during World War II. Regarding these objects, only a few images make it possible to keep track of their existence today. Also in Turin, there is at least one object, a wall fragment, that is today recorded only by one photograph (Figure 3).

#### Archive materials concerning Qau el-Kebir

The archive of Museo Egizio, currently kept at the State Archive in Turin, contains some unpublished notes and pictures from the excavations at Qau (Table 2). The material consists of two fieldwork notebooks, some plan sketches on graph paper, a general view of the area (in some parts only sketched and composed of 23 graph paper sheets), some pictures of the excavations (Figure 4), and finally eight drawings and 29 sketches of wall and

ceiling decoration patterns from the tomb of Wahka II, some of which were later also recorded and published by Petrie (Fiore Marochetti 2012: 4-5; Petrie 1930: 13-14, pls XXIII-XXVIII).

<sup>6</sup> Most of the pottery is not dated to the Middle Kingdom but to different periods, from Predynastic to Graeco-Roman periods.



Figure 4. The excavation of the tomb of Wahka I in 1905. Archivio di Stato di Torino, fonds: MAE, III vers., m. 4, n. 8.

In addition to the archaeological documentation, there are several notes related to the accounting of the mission as well as some letters written by Francesco Ballerini, collaborator of Schiaparelli, to his relatives. The letters, mostly kept at the 'Centro di Egittologia Francesco Ballerini' (CEFB), Como, Italy, contain interesting details about weather conditions, the local Egyptians, the difficulty in using the photo camera, and Ballerini's relationships with his other Italian colleagues in the field.

In 1905, Schiaparelli and Ballerini surveyed the dimensions of the tombs, but the general map, compared with the other missions' plans, differs in various aspects: the map contains tombs, walls and structures which are not present in the maps of Steckeweh/Steindorff and Petrie. For instance, Ballerini sketched a small funerary structure between the tombs of Wahka I and Ibu. Furthermore, the orientation of the main tombs does not match what is presented on the other plans. It can thus be assumed that the three missions used different survey and triangulation methods as well as benchmarks resulting in the different maps of the area. In addition, Ballerini had sketched the tomb of Wahka II in 1905, proving that the tomb was discovered and partially cleaned already during the first mission. However, the tomb was then completely cleaned and excavated in 1906, the year in which the above-mentioned statue of Wahka (III), son of Neferhotep (Suppl. 4265), was found.

The Italian mission also identified other tombs, as seen on their general plan, but they did not label them individually. In addition to the already mentioned major tombs, they excavated and measured the structures which Petrie, almost 20 years later, labelled 'tomb no. 2' (already visible in the historical photos), 'tomb no. 9', 'tomb no. 10' and 'tomb no. 16'. This last structure is significant since it is the fourth-largest tomb of the site. Only Petrie could identify the name of its owner, Sobekhotep (the

Italians had named it ‘tomb of X’).

TABLE 2. LIST OF DOCUMENTS RELEVANT TO THE WORKS OF THE ITALIAN MISSION.

Document	Material	Location
General map of the site	24 sheets of graph paper	State Archive in Turin
22 sheets with some single plans of tombs	Graph paper	State Archive in Turin
Journal I	Squared notebook	State Archive in Turin
8 sheets with some plans	Squared paper	State Archive in Turin
9 watercolour drawings of the ceiling patterns from the central hall of the tomb of Wahka II and from the “Greek Tomb”	Paper	State Archive in Turin
Journal II	Squared notebook	State Archive in Turin
25 photos	Paper	State Archive in Turin
16 drawings of the ceiling from the central hall of the tomb of Wahka II	Squared notebook	State Archive in Turin
Financial accounting of the mission	Paper	State Archive in Turin
Correspondence with the Italian Ministry	Paper	State Archive in Turin
Correspondence with the Italian Ministry	Paper	State Central Archive in Rome
Handwritten Inventory list	Paper	State Archive in Turin
66 Glass Plates (negatives)	Glass Plates	Museo Egizio Archive
Photographic Album	39 photos, 14 of them without corresponding glass plates, which are missing	Museo Egizio Archive
Letters		CEFB Como (Italy)

## Conclusions and outlook

The comprehensive study of the excavation documentation and the archaeological objects seeks to broaden the knowledge about the necropolis of Qau el-Kebir, particularly regarding the Middle Kingdom. A key focus is on the archaeological missions that excavated at the site and their documentation, which is pivotal for understanding the dynamics and details of their works of which little is known today.

A first important step is the complete study and publication of the archive materials of the Italian mission, allowing for a better understanding of their work undertaken at the site. This will be compared with, and correlated to, the data of the German and British missions, in order to have a full understanding of the three excavations, their goals and findings. Based on the revised site plans and integrating the archive material, a first unified map of the excavated necropolis could be drawn up.

A further aspect of my study concerns the objects from Qau el-Kebir, dating to the Middle Kingdom that are stored in museum collections around the world, focusing especially on those currently kept at Museo Egizio, Turin. An important part is dedicated to the investigation of, and search for, their original context, in addition to trying to define local traditions and features in terms of artisanship and/or textual transmissions. This will lead to a better understanding of the tomb owners, also in terms of their roles and tasks in the province, and it will shed new light on these local elite people.

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# Egyptians Helping the Needy: Agricultural Surpluses and Loans of Grain

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## Abstract:

The noun *tꜣb.t* translated as a loan (of grain) is mentioned in texts from the end of the Old Kingdom to the beginning of the Middle Kingdom. Some studies highlight interesting points about this word, especially the link between this loan and the probable nature: an agricultural surplus which seems to be an important element of the social and economic life of the Ancient Egyptian culture. Indeed, the *tꜣb.t*-loan appears as an aid generally granted by an official dignitary to the community during times of famine, and even to the needy in rough periods. Since most of the texts date to the First Intermediate Period, or the periods immediately before and after, they highlight some of the social changes which occurred such as the enrichment of certain people at the expense of the poorer members of society. This is why the study of this term is necessary. Furthermore, a different approach is emphasized: the study of solidarity in the Egyptian society, in other words, the practices that the Egyptians had to overcome inequalities and to reach a common goal. This paper will focus on the social concept of *tꜣb.t* through comparisons in the texts in which it appears. The titles of the mentioned individuals will be compared, and the texts will be studied using an intertextual approach. Finally, this will lead to a societal examination in which we will analyze the social implications of the noun. We will observe that official dignitaries had to assist the needy either as an administrative duty or as a form of *pater familias*. This also enables us to connect this practice to patronage bonds.

## Keywords:

*tꜣb.t*, Solidarity, Society, Economy, Patronage.

## Introduction

The autobiographies of dignitaries from the Old Kingdom often contain statements such as 'I was one who gave bread to the hungry, clothes to the naked' or 'I was one who spoke on behalf of the widows'. This is the case, for example, for the autobiography of Qar (Cairo CG 43371; Daressy 1917: 136; *Urk.* I: 254), dating to the end of the Old Kingdom, where he states: 'I gave bread to the hungry and clothes to the naked that I found in this province'. It is also in this autobiography that the term *tꜣb.t* appears for the first time. This word is commonly translated in dictionaries as 'Darlehen (an Getreide)' (Erman and Grapow 1931: 354; Hannig 2003: 1442, 37762; Hannig 2006: 2723, 37758) or as 'loan' (Faulkner 1991: 303). However, Dimitri Meeks analyzed the word *tꜣb.t* in his paper 'À propos du prêt de céréales en période de disette' in 2003 (Meeks 2003: 275-280). He studied the occurrences of the term during the Old Kingdom as well as mentions from more recent periods with examples from the Ptolemaic temples such as Edfu

or Medamud. This examination led to his proposal that *tꜣb.t* not only refers to a loan of grain but rather an ‘agricultural surplus’ saved as a precaution.

Following the harvest season, the ancient Egyptians would keep their grain in storage for use throughout the year, and in the case of abundant harvests, they would stockpile their surplus in anticipation of poorer periods. If a shortage then occurred in the following year, they could add this surplus to their regular harvest. While the term had been briefly mentioned in earlier articles, Meeks’ paper is the only article devoted solely to the term *tꜣb.t*. Following this article, the understanding of the word has therefore changed to include the idea of an agricultural surplus, and the Thesaurus Linguae Aegyptiae now translates the term as ‘Darlehen (an Getreide); Agrarüberschuss’ (TLA lemma-no. 174570) and the Vocabulaire de l’Égyptien Ancien as ‘surplus, excédent agricole’ (VÉGA ID 15109).

This paper aims to further develop the Meeks’ approach and interpretations by adding to the primary data and integrating it into his interpretations. Since Meeks has already provided a lexicological analysis of this term, this paper will focus more on the social status of *tꜣb.t*. Therefore, the noun will be analyzed based on its context in the sentences that mention it, as well as through an intertextual comparison. The titles of the individuals documented in these texts enables a connection between the concept of *tꜣb.t* and its suppliers and beneficiaries, leading to a societal perspective in which the relationships between people will be investigated. This perspective will be complemented by the sociological concept of ‘social solidarity’.

### Documents attesting *tꜣb.t* from the Old to the Middle Kingdom

There are seven mentions of the term *tꜣb.t* from the Old to the Middle Kingdom: five from autobiographical texts, one from a documentary text and a last one from a literary piece. The noun appeared at the end of the Old Kingdom, a period associated with a climatic change and a famine episode that some Egyptologists believed to be one of the causes that led to the end of the 6th dynasty (Bárta 2019; Bell 1971; Butzer 1976: 1-26; 32-33; Welc and Leszek 2014: 124-133;). The changing climate and subsequent famine are both frequently brought up in relation to political and economic crisis (Moreno García 1998: 6-11; Willems 2014: 35-38) and connected to certain tomb autobiographies that refer to this period of recession to highlight the good reputation of a provincial governor (Moeller 2005: 165-167).

This very first attestation appears on the stela Cairo CG 43371, dating from the 6th dynasty (Daressy 1917: 136; *Urk.* I: 254; Roccati 1982: 180; PM V: 200). It details the autobiographical account of Qar, a provincial governor of Edfu where the stele was found (El-Khadragy 2002: 203). In line six, it is proclaimed:



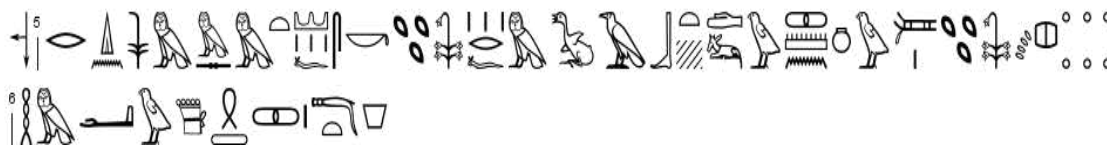
*Jr s nb gm(w)~n(ꜣj) m spꜣ.t tn tꜣb.t n(y).t ky rꜣf, jnk ø dbꜣ(w) s(y) n nbꜣs m pr-d.t(ꜣj)*

‘As for any man I found in this province in debt to another, I was the one who repaid it to his master (=creditor) by means of (=through) my *pr-d.t* estate.’

El-Khadragy (2002: 211) translates it as: ‘As for any man against whom I found a debt of grain to (lit. of) another one, it was I who repaid it to its owner from my funerary estate’.

Juan Carlos Moreno García (2000: 134) gives the following translation: ‘Quant à quiconque que j’ai trouvé en ce nome ayant un prêt de blé d’un autre sur lui, c’est moi qui l’ai payé à son possesseur de mon *pr-d.t*’.

The second text is a letter to the dead on an object named the Kaw Bowl by Sir Alan Gardiner and Kurt Sethe (Gardiner and Sethe 1928: 4; Roccati 1982: 297-298). It was found in tomb no. 7695 at Kaw (Antaeopolis) by Noel Wheeler and dates from a period between the 6th and the 11th dynasties, but Gardiner prefers to date it to the earlier limit of the First Intermediate Period (Gardiner and Sethe 1928, 3). This letter presents a complaint to the dead father of the pleader. On column five, we read:



(5) *rd~n(=j) sw mm smyty.w=f sk jt-Šm' r=f m t'ḫ.t djw mnw jt- Šm'w 6 ḥq'.t (6) mḥ'w sn(s) mḥt*

'I placed him among his companions in the necropolis, even though 30 measures of barley from the Upper Egypt were against him as a loan from me -an apron, a pitcher, 6 measures of barley from Upper Egypt, a piece of linen, a cup-*mḥ.t*.' (Gardiner and Sethe 1928: 4, pl. 2-2a).

Alessandro Roccati (1982: 297-298) follows an almost identical translation: 'Je l'ai placé parmi ses compagnons de la nécropole, quoique 30 mesures d'orge de Haute Égypte fussent contre lui en tant que prêt de ma part - un tablier, une cruche, 6 mesures d'orge de Haute Égypte, une pièce de lin, une coupe de *méhet*'.

The third occurrence of *t'ḫ.t* comes from the funerary stela of Hekaib (Polotsky 1930: 194-199) conserved in the British Museum (BM EA 1671) and which dates from the First Intermediate Period, specifically from the 11th dynasty. On this stela, following the translation of Hans Jakob Polotsky, we can read: (Polotsky 1930: 194-195, pl. XXIX):



(6) *Jw d~n(=j) t'ḫ.t n Šm' jt-Šm' n(y) šsp n mḥt(y)*

'I gave a loan of corn(?) to Upper Egypt and Upper Egyptian barley to this northern district'.


However, Jacques Vandier (1936: 107-108) prefers to translate: 'j'ai fait un prêt de grains (*litt. j'ai donné un prêt de grains*) à la Haute-Égypte et (j'ai donné) au Nord du blé de Haute-Égypte qu'on recevait en ration (??)'.


At Moalla, Vandier found that the autobiography of the great director of the provinces of Edfu and Hierakonpolis, Ankhtifi, also dated from the First Intermediate Period, contain the same statement as Hekaib's stela (Vandier 1936: 120-121):



*Jw d~n(=j) t'ḫ.t n [Šm'] jt-Šm' n(y) šsp n mḥt(y)*

'Je fis un prêt de grain à la Haute Égypte (*litt. je donnai un prêt de grains*) et (je donnai) au Nord [du blé de Haute Égypte] qu'on recevait en ration.' (Vandier 1936: 105).

We will follow the transliteration *mḥt(y)* for  here, as proposed by Vandier (1936: 108) which the *Wörterbuch* (Erman and Grapow 1940: 125) also translates as ‘the North’. Vandier (1936: 108) also states that this part ‘s’agit évidemment, non du Delta, mais d’un Nord relatif, par exemple de la région thébaine qui est située au Nord d’Hiérakonpolis, ville dont parlent, entre autres, nos deux inscriptions’. In conclusion, *mḥt(y)* is here just a northern city. Furthermore, we read the construction with D37

 in these sentences as *šsp* instead of reading those hieroglyphs as ‘*pn*. Vandier (1936: 107-108) follows this transliteration from Gardiner and Sethe. He justifies this reading by comparing this text with the expression of the stela CG 20500 *jt-šm·n(y)-snḥ* that shows the passive construction ‘*n(y)* + passive infinitive form’. Indeed, *jt-šm·n(y) šsp* would be the same type of sentence.

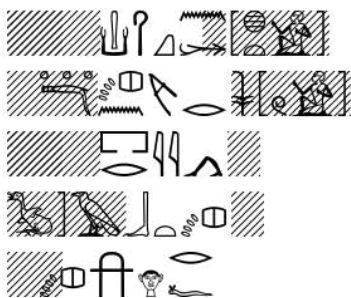
A short fragmentary part of the stela of the great steward Henenu (M.M.A., Acc. No. 26.3.217) from the 11th dynasty shows a fifth example of this noun. On line four, William C. Hayes reconstructs and translates (Hayes 1949, pl. I-IV):



[...] *hr t̥ḃ.t n[... ḥ]w(?) m ḥtm(w) n(y).t wh̥ḃ.t nḥb n(y) sp̥.wt šm· m jḥ.w [nḥ.wt]*

‘[He made me ...] concerning loan[s] (of grain) [...] food (?), and treasurer of the [products (?)] of] the Oasis; and (I) furnished the nomes of Upper Egypt with oxen, [goats, asses, barley, spelt, etc.]’ (Hayes 1949: 47).

The sixth example of this noun appears on ‘fragment A’ of the Hekanakhte papers dating from the Middle Kingdom which is difficult to read due to the damaged state of the passage (James 1962: 69). This text is the only documentary attestation of *t̥ḃ.t* and may concern a delivery of grain (Moreno García 2000: 134). Thomas G. H. James interprets the lines on the recto as part of an account or a list because of the horizontal points and states that these fragments contained the name of Hekanakhte and of Merisu (James 1962: 69). In line four he restores the noun *t̥ḃ.t* (James 1962: pl. 15A). The paleography of ‘fragment A’ is like the ones of the letters I and II (James 1962: 69), both written by Hekanakhte (James 1962: 12-44).



[...] *Hq̥ḃ-nḥ.t* [...]

[...] *jt mḥt(y) n Mr(y)-[sw...]*

[...] *pry* [...]

[...] *t̥ḃ.t* [...]

[...] *md.t ḥr̥f*



	Date	Supplier	Beneficiary
Henenu M.M.A., Acc. No. 26.3.217	11th dynasty	Unknown – probably Henenu	Unknown
Fragment A, Hekanakhte papers	Middle Kingdom	Unknown – probably Hekanakhte or Merisu?	Unknown – maybe an individual (?)
Admonitions of Ipuwer (9.4-5)	Middle Kingdom	The ones who were poorer (mentioned as a collectivity)	The ones who were richer (mentioned as a collectivity)

Three documents detail the first kind of scenario: the autobiographies of Qar, Ankhtifi and Hekaib. Ankhtifi – provincial governor of Edfu and Hierakonpolis and treasurer of the king of Lower-Egypt – and Hekaib have the same phraseology: they both gave a loan to Upper-Egypt. Qar of Edfu on the other hand, states that he refunded *tꜥb.t* for indebted people in his province. They therefore talk about collectives of two different scales. The beneficiaries of Ankhtifi and Hekaib are other provinces north of theirs (Vandier 1936: 108) and those in the autobiography of Qar are individuals (described as a collective). Ankhtifi and Hekaib’s autobiographies name them as the creditors, while Qar pays back the debts of individuals to other creditors.

TABLE 2. TITLES MENTIONED ON THE AUTOBIOGRAPHIES.

	Transliteration	Translation
Qar Cairo CG 43371	<i>smḥr wꜥt(y)</i> <i>ḥr(y)-tp ꜥꜣ n spꜣ.t</i> <i>ḥr(y)-ḥb.t</i> <i>(j)m(y)-r(ꜥ) ḥnty(w)-šꜣ pr ꜥꜣ</i> <i>ḥr(y)-tp n(y) spꜣ.t</i> <i>(j)m(y)-r(ꜥ) Šmꜣw</i> <i>(j)m(y)-r(ꜥ) ḥm(w)-nꜥr</i>	Sole companion (Jones 2000: 892, 3268) Great overlord of the province (Jones 2000: 648, 2376) Lector priest (Jones 2000: 781, 2848) Overseer of land-tenants of the Great House (Jones 2000: 188, 709) Overlord of the province Overseer of Upper Egypt (Jones, 2000: 246, 895-896) Overseer of the <i>ḥm(w)-nꜥr</i> -priest (Jones 2000: 171, 651)
Ankhtifi Vandier, Moalla, 220	<i>(j)r(y)-pꜣ.(t)</i> <i>ḥꜣt(y)-ꜣ</i> <i>ḥtm(w) bjt(y)</i> <i>ḥr(y)-ḥb.(t)</i> <i>smḥr wꜥt(y)</i> <i>(j)m(y)-r(ꜥ) mšꜣ</i> <i>(j)m(y)-r(ꜥ) ḥꜣs.wt</i> <i>(j)m(y)-r(ꜥ) ꜣ(w)</i> <i>ḥry-tp ꜥꜣ n(y) Wꜥs.t-Ḥr Nḥn</i>	Prince, nobleman (Jones 2000: 315, 1157) Governor (Jones 2000: 496, 1858) Treasurer of Lower Egypt (Jones, 2000: 793, 2775) Lector-priest (Jones 2000: 781, 2848) Sole companion Overseer of the troops (Jones 2000: 142, 551) Overseer of foreign lands (Jones 2000: 184, 694) Overseer of the interpreters (Hannig 2003: 88) Great overlord of the provinces of Edfu and Hierakonpolis (Jones 2000: 653-654, 2388-2389)
Hekaib BM EA 1671	<i>nꜥs jqr</i> <i>smḥr wꜥt(y)</i>	The excellent commoner (Jones 2000: 490, 1830) Sole companion
Henenu M.M.A., Acc. No. 26.3.217	<i>(j)m(y)-r(ꜥ)-pr tꜣ r ḏꜣꜣ-f</i> <i>Rḥ-n(y)-sw.t</i> <i>(j)m(y)-r(ꜥ)-pr</i>	Great steward of the entire land Acquaintance of the king The steward (Jones 2000: 114, 461)

As we can see on the table above – Table 2 –, three of the biographies mention the title *smḥr wꜥt(y)* ‘sole companion’ (for an interpretation of the sign *smḥr* see Quack 2003: 113-116). Hekaib possesses only two titles: *smḥr wꜥt(y)* and *nꜥs jqr* that we can translate ‘the excellent commoner’ rather than Polotsky’s (1930: 194) proposition ‘good citizen’. The idea of this title is to highlight that Hekaib would come from a commoner background as *nꜥs* can designate a person of humble social status (Castañeda Reyes 2018: 27).

The whole biography of Hekaib is made to enhance his value as someone who started as a commoner and became greater than his peers (Polotsky 1930: 194-195). He mentions a *ḥqꜣ* ‘ruler’ that Polotsky (1930: 198 n. 21) believes to be a provincial governor. The biography of Ankhtifi, on the other hand, depicts the *ḥry-tp ꜣ n(y) Wts.t-Ḥr Nḥn* and *ḥtm(w) bjt(y)* as a province governor that exceed what other governors did. Consequently, the aim of this biography is also to highlight the value of the owner of the monument.

Another point worth noting is the absence of any mention of a king in this fragment of Ankhtifi’s biography. The two of them belong to the First Intermediate Period and the absence of a king may be due to the political situation at that time but could also be a result of a certain degree of malfunction in the state which the local authorities were bound to replace (Meeks 2003: 280). In the case Qar and Henenu, the circumstances of the *tꜣb.t* reference might be slightly different. Henenu’s stela does mention a king, namely Nebhepetre Mentuhotep (II), member of the 11th dynasty and initiator of the Middle Kingdom, whose name stands in a privileged place in the frame of the object (Hayes 1949: 46, pl. I-IV). Henenu places himself under the orders and actions of his king throughout his autobiography (Hayes 1949: 45-46). As for Qar, he acts in the same way regarding Merenre I. The titles sampled on the Table 2 for Qar are not exhaustive: only those in the first line were collected (*smḥr wꜣt(y)*, *ḥr(y)-tp ꜣ n(y) spꜣ.t*, *ḥr(y)-ḥb.t*, *(j)m(y)-r(ꜣ) ḥnty(w)-š pr ꜣ*) as well as the ones in the same part as the sentence about the loan payment. Those are the following ones: *smḥr wꜣt(y)*, *ḥr(y)-tp n(y) spꜣ.t*, *(j)m(y)-r(ꜣ) Šmꜣw*, *(j)m(y)-r(ꜣ) ḥm(w)-ntr*. Consequently, the part of the autobiography which deals with him paying debts or taking care of the needy ones is directly linked to his role as a provincial governor. The other titles in his autobiography do not seem to be related to this part of the text.

The letter to the dead of the Kaw Bowl and the fragment of the Hekanakht papyrus constitute the second type of case in which the beneficiary is (or may be) an individual. As already mentioned, the handwriting of Fragment A appears identical to the one of letters I and II in Hekanakhte’s correspondences (James 1962: 69), and it seems plausible that the one giving a loan may be Hakanakhte, possibly to Merisu. Unfortunately, due to the conservation status, it is not possible to clearly ascertain whether Merisu was the beneficiary. Based on the second example, we may ask if Merisu could have been an acquaintance of the creditor: on the Kaw Bowl, Shepsi writes to his late father Inkhenmet to complain about his deceased brother Sobekhotep to whom he made a loan left unrefunded (Gardiner and Sethe 1928: 4).

As for the ‘Admonitions of Ipuwer’, it is a literary text commits to generalizing statements, so we cannot say if the loan concerns collectivities or individuals. Although, the statement ‘he who took for himself’ (Enmarch 2008: 149) seems to indicate that we are dealing with the general situation where one contracts a loan individually.

## Social implications

### *Existence of the tꜣb.t practice as a way of helping the needy*

Six of the seven documents presented above show a link with the climatic change that occurred at the end of the Old Kingdom (Bárta 2019; Welc and Leszek 2014: 124-133), indicating the start of the First Intermediate Period during a time of famine. They can also indicate a social change that occurred in that period, sometimes referred to as a ‘social revolution’ (Castañeda Reyes 2018: 25-39). Indeed, archaeological remains demonstrate a the social ascendance of non-elite individuals, as well as improved living conditions for the needy, but also an impoverishment among state officials (Moreno García 1998: 12).

Under these circumstances, Detlef Franke (2006: 105) identifies formulae in autobiographies such as ‘I gave bread to the poor’ as ‘Fürsorgephrasen’ or ‘care-formulae’. These formulae seem to emerge among non-royal individuals towards the end of the Old Kingdom and during the First Intermediate Period (Moreno García 1998: 151-155). Although Franke (2006: 105-111) acknowledges the stereotypical nature of these statements, he proposes another interesting interpretation based on how the ancient Egyptian state operated, according to the description of Mark Lehner (2000: 275-353), as a ‘household of households’. Indeed, Franke (2006: 110-111) suggests that Egypt functioned as the ‘household’ of the king, divided into several smaller households dependent on provincial governors, directors, or other state officials. At the lowest scale, households would consist of individuals living in their homes with their acquaintances. Using this model, Franke (2006: 111-120) offers three interpretations for the presence of ‘Fürsorgephrasen’: firstly, these sentences depict a purely fictional professional image; secondly, they portray the domestic and administrative duties of a provincial governor; finally, the autobiography of Qar presents a different behavior. According to Franke’s theory, when a governor refers to affirmations such as ‘I gave bread to the hungry, clothes to whom was naked,’ he is not merely describing the administrative tasks of a state official but the responsibilities of a good *pater familias* or ‘head of a household’. Furthermore, Franke suggests that the limited recurrence of these statements indicates actual practices. Indeed, even if autobiographies do not explicitly state that their owners really did what they described, the mention of such practices is sufficient to infer their existence in society at any level.

The examples of *tꜥb.t* in autobiographies might slightly support the theory of Franke about the owners being great *patres familias*. In all of them, the actors are the provincial governor or an official of the state. Ankhtifi and Hekaib are the suppliers of the *tꜥb.t*, which means they give a loan of grain to a group: other provinces in Upper-Egypt. They do not state how much they gave, maybe because they did not do it at all or because these texts, being autobiographical rather than legal, did not need such specificity. On the other hand, Qar did not provide a loan of grain, but he paid for it. If we compare the Kaw Bowl and ‘fragment A’ of the Hekanakhte papers, we could say that he actually behaves as a patriarch.

Nevertheless, Hayes argues that using the term *tꜥb.t* in Henenu’s stela relates to the administrative tasks he had to perform and not among his household duties. The steward Henenu dealt with all those duties for his king as an official dignitary:

‘Here, in keeping with the broad descriptions of his administrative duties in the sentences preceding and following, Henenu is undoubtedly speaking on his general responsibilities in connection with the granting or paying off of loans of grain – not citing a specific case.’ (Hayes 1949: 48).

After analyzing the contexts where *tꜥb.t* statements occur, one could connect it to the administrative duties. Indeed, as we already saw, Qar’s autobiography mention *tꜥb.t* in a section where Qar recounts everything that he did as provincial governor. Additionally, in Qar’s autobiography the term *pr-d.t* appears. This noun may be difficult to translate but it is said to be a sort of remuneration given by the king (Moreno García 1999: 210-222). Indeed, this term appears in Cairo JE 45059 where we can read: ‘(I was one) who gave goods out of my estate (*d.t*) which the Majesty of my lord gave me’ (Moreno García 1999: 213; Gardiner 1917: 34, pl. 8). This was the remuneration that a provincial governor received for his official duties and was different to his personal and family goods (Moreno García 1999: 212-215). This sort of salary could be linked to a notion of ‘utilité publique’ that can be perceived in Qar’s autobiography (Moreno García, 1999: 216; 1998: 157). He mentions this estate not only in the *tꜥb.t* part but also in the sentence that follows: ‘I was the one who buried all men in this province that had not any son with fabrics from the goods of my estate (*m jš.t(ꜥj) d.t(ꜥj)*)’. The source of these goods that served to repay these loans thus came from an official remuneration directly tied to the title of provincial governor. Qar’s use in this purpose may highlight the association of *tꜥb.t*-loan with his duties as governor.

Hence, a household was the foundation of the social organization in ancient Egypt that could have its origins in the Predynastic period (Moreno García 2012). The household (Olabarria 2020: 58-59) is not defined simply by one house or habitational unit, as it can 'be spread over more than one house in the same way that a house can also accommodate more than one household' (Müller 2014: 7). A state dignitary is also a *pater familias* of his own province which can be perceived as a sort of household.

This leads to bonds such as patronage. Marcelo Campagno (2016: 9-11) argues that the Egyptian society was ruled by three 'logics of social organization' namely: the 'logic of kinship', the 'logic of the state' and the 'logic of patronage' based on an 'asymmetrical reciprocity' (Campagno 2016: 10; Westbrook 2005: 211). The last one, the 'logic of patronage', stands in-between the first two logics, being a bond between kinship and coercive authority. This bond concerns two persons of different status that can be linked by their work or their domestic unit – for example, the members of a household – and use kinship as a tool to assemble these individuals. Indeed, the utilization of kinship can be seen through the use of vocabulary linked to the family. To give an example: *hrd* 'child' can be employed to refer to a subordinate in such relationship (Rizzo 2024: 386-387). Patronage results in a 'dyadic relationship' based on gift-giving of different natures (Campagno 2016: 13). These relations were different between the patron and his clients when he had more than one, and as a reciprocal link, the patron must give protection, or resources needed by a subordinate. In return, the latter offered his loyalty (Campagno 2016: 9-11). In addition, kings used royal gifts from the Middle Kingdom to maintain their relationship with individuals (Bardoňová 2023: 129-132). Annals record some types of royal gifts (Bardoňová 2023: 137-138) and individuals said to be 'praised' or 'distinguished' (Bardoňová 2023: 145-148). This behavior may be related to a patronage relationship. King's gifts were a way to ensure beneficiaries' loyalty as they were 'not able to reciprocate to the giver with goods of the same value' (Bardoňová 2023: 129; Blau 1964). As a result, the *tꜥb.t*-practice may be placed among these bonds and duties. Qar's autobiography presents this governor as the patron of his province, almost replacing the king in his duty of protection for the needy (Moreno García 1998: 156-157). The Kaw Bowl can also illustrate this point, as Shepsi may have acted as a patron for Sobekhotep, his deceased brother, when he gave him a loan. Besides, neighborhoods may surround the house of a family unit that might seem more important than the others. Additionally, the use of silos for food redistribution appears, for example, connected to large domestic units at Tell el-Amarna (Moreno García, 2012; Wilson *et al.* 2003: 1-25). Presumably, prominent houses could have been centers of redistribution for individuals who depended on the household in question (Moreno García 2012).

That these documents are autobiographical texts, which always highlight one's own value, presents the greatest difficulty. The only proper documentary text is the fragment of the Hekanakhte papers, though one could argue that the letter of the Kaw Bowl may count as one as well. The fact that *tꜥb.t*-loans as well as, for example, sales, were carried out verbally during the Old and the Middle Kingdom may explain the lack of written documents concerning this type of transactions (Menu 1982: 222-226; 1973: 68).

### ***Tꜥb.t, an economic solidarity practice***

It is possible to consider solidarity as a part of the ancient Egyptian notion of *maat* that may be translated as 'social justice' in this view. Jan Assmann (1990: 58-91; 92-119; 1989: 33-53) was the first to link *maat* to our concept of solidarity and he found three instantiations of this principle thanks to the 'Eloquent Peasant': 'solidarité active' (Assmann 1989: 35-39), 'solidarité communicative' (Assmann 1989: 39-48) and 'solidarité intentionnelle' (Assmann 1989: 49-53). The passages mentioning *tꜥb.t* examined here can be placed among the 'active solidarity' as it depends on actions – in that case, giving a loan. Within sociology, the study of social solidarity has a long history from the initial formulations by Émile Durkheim (1893), developing into more conceptual studies from recent times (Evans 1977: 29-46; Jeffries 2014).

One question that arises is whether *tꜥb.t* should be considered as a loan rather than a simple donation (Meeks 2003: 275-276). Due to the verbs accompanying it, we cannot say that the recipients always had to repay this loan. In the autobiographies of Ankhtifi and Hekaib, they say 'I gave' using the verb *rdj* which can be ambiguous (Meeks 2003: 280). The autobiography of Qar, on the other hand, declares that he paid the loans of grain to the creditors, and thanks to the Kaw Bowl we can also argue that we are dealing with an actual loan that debtors will eventually pay back. Therefore, even with a refund, these examples may be used in order to demonstrate practices of solidarity in the ancient Egyptian society. The first reason is because solidarity is different from altruism, for the first one implies a concept of reciprocity contrary to the second (Assmann 1989: 35-39). Then, what is given in return does not have to be paid in wealth or objects as tokens of loyalty may be enough of a motive for the loan. Indeed, Bernadette Menu (1982: 226) argues that this loan is 'free', maybe because the mention of a payment with interests never occurs.

The mentions of *tꜥb.t* in these texts describe an existent practice that we cannot deny. However, those in the autobiographies of Ankhtifi and Hekaib may be part of the literary cliché of the care of poor needy people. Assuming that the two of them really did what they proclaim, there is no certainty that they did it for altruistic reasons. It might nevertheless have been a sort of solidarity if they gave away their food and other objects and only receive the loyalty of the Upper-Egyptian provinces in return.

The situation is the same for Qar, for he acts as a *pater familias* and not as a mere provincial governor. He repaid the debts of his constituents through his personal belongings from his funeral estate. The governor tries to show himself as generous and just, but this behavior shows greater links with a patronage relationship. His autobiography also shows a change in society at the end of the Old Kingdom when the care for poor people seems to have been an essential element in contemporaneous biographies. Menu (1982: 226; 1973: 71) argued that *tꜥb.t* in Qar's autobiography was the first testimonial of the existence of a credit system that was probably a free loan. On the other hand, as Moreno García argues, this part of the text shows that, at that time, there was an impoverishment of people, perhaps due to political and economic problems, and that wealthier persons took advantage of this to enrich themselves further (Castañeda Reyes 2018: 27-29; Moreno García 2000: 133-134).

It has been suggested that this type of loan was carried out collectively by members of the administration (Menu 1982: 226; 1973: 70), but there are few examples where individuals lend that grain. These include the Kaw Bowl and maybe 'fragment A' of the Hekanakhte papers. Qar's autobiography may also be an example of a loan by and for specific people and not for a group or a collective. However, because the identity of the creditors is unknown, we cannot be sure that an administrator made the loan nor that it was intended for a group of for specific people.

Menu described this practice as a kind of credit system existing from the end of the Old Kingdom and that stayed at least until the Middle Kingdom (1982: 226; 1973: 71). The nature of this loan seems to be grain and the inherent link between a loan and an agricultural surplus developed by Meeks (2003: 275-280) may confirm it. Wolfgang Helck stated that loans were always mentioned as loans of grain and were made to proudly show the wealthiness of the creditor (Helck 1975: 993). Taking Qar's autobiography as an example, he also argues that those debts were paid with the personal possessions of those administrators (Helck 1975: 993). Those personal possessions came from Qar's *pr-d.t*, a king's retribution for official dignitaries, which differs from his patrimonial belongings and has a notion of 'utilité publique' (Moreno García 1999: 212-216; 1998: 157). However, the letter from the Kaw Bowl itemizes a list of products – an apron, a pitcher, 6 measures of barley of Upper Egypt, a piece of linen and a *mḥ.t*-cup – with the expression '30 measures of barley of the Upper Egypt' (Gardiner and Sethe 1928: 4) as the total value of the loan might not always consist in grain, but also of different manufactured products.

## Conclusion

As Menu (1982: 226; 1973: 71) described it, the practice of this kind of credit system existed from the end of the Old Kingdom until at least the Middle Kingdom. We know little about the procedure itself, except that there was some concept of compensation or repayment in some of the documents (Meeks 2003: 275-278). If we follow the interpretation through the ‘care formulae’ from Franke (2006: 104-130), we can argue that this practice existed and was among the duties of a household chief or a patron. These texts show a social change at the end of the Old Kingdom, where wealthier people could abuse their power over people in need (Castañeda Reyes 2018: 28-39; Moreno García 1998: 133-134). This situation could have led to a ‘social revolution’ that may have occurred during the First Intermediate Period (Cardoso 1984: 12-14; Castañeda Reyes 2018: 31-32; Hassan 2007: 357-377; Menu 1973: 71-72). Still, provincial governors could also make some loans to provinces others than their own, showing they were good at administrating grain rations. To be able to loan grain to people in need whilst not suffering from a lack of it, implies an ability to dispense more grain than required for themselves and their work. Therefore, the meaning ‘agricultural surplus’, as displayed by more recent texts from the Ptolemaic Period, is directly related with the translation ‘loan’. However, the context of the mentions of *tꜥb.t* for the Old and Middle Kingdom suggests the idea of ‘loan of grain’ which we cannot and must not neglect.

This practice was aimed at both groups and individuals as seen in the analyzed documents. When the mention of *tꜥb.t* appears in an autobiography from an official dignitary, it may be a way to replace the king and highlight the value of its owner. It is also possible that taking care of the needy in a province was thus attached to the duties of the provincial governor. However, as these autobiographical texts were made to showcase the moral value and the efficiency of the governor, it is also possible that it was simply part of a literary cliché. On the other hand, this does not necessarily disprove the existence of the practice.


Nevertheless, the latest mentions of *tꜥb.t* present in temples of the Ptolemaic Period seem to refer more to an ‘agricultural surplus’ than to a loan (Meeks 2003: 275-278). This makes sense, since the relation between an ‘agricultural surplus’ and the loan of grain can be perceived in almost all the texts mentioned in this paper.

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# Multimodal Information Processing. Towards a New Methodology to Investigate the Amduat Papyri

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## Abstract

This paper introduces a SNSF PhD project that provides an innovative conceptual framework to investigate the Third Intermediate Period Amduat papyri. The article is organised in three thematic sections. In the first part, the contextualisation of the topic is provided, alongside the current state of research on the Amduat between the New Kingdom (1539-1069 BCE) and the Late Period (664-332 BCE). In the second part, the need to create a database, to digitally assemble the Amduat papyri scattered in the museums around the world, is addressed. The third part argues how this project will examine the Amduat papyri. In this section, the main principles of the philologic and semiotic analysis of the Amduat papyri are presented. By taking these ideas into account, the paper develops a new methodology to investigate the Amduat papyri, and provides critical tools to shed light on the intellectual context regarding the representation of the Netherworld between the 21st and 22nd dynasties.

## Keywords:

Amduat, Funerary Papyri, Third Intermediate Period, 21st-22nd dynasties, Thebes, Semiotics, Database Management System (DBMS).

## Introduction

The following paper presents the *raison d'être* of the SNSF-funded PhD research project (no 227437) 'Tradition et innovation dans le *Livre de l'Amdouat* en Égypte ancienne durant les 21<sup>e</sup> et 22<sup>e</sup> dynasties (c. 1069-700 av. n. è.)'.<sup>1</sup> The aim of the project, starting in 2024, is the in-depth analysis of the visual and textual motifs of the Amduat during the Third Intermediate Period (1069-664 BCE). The corpora of the research are the Amduat papyri kept in the Museo Egizio and in the Metropolitan Museum of Art.<sup>2</sup> The main outputs of the project are 1) the scientific publication of the Amduat manuscripts in Turin and New York, and 2) the investigation of the different funerary traditions attested in the 21st and 22nd dynasties Amduat papyri.

## The current state of research on the Amduat between the New Kingdom and the Late Period

In ancient Egyptian funerary literature, the Sun's journey through the twelve hours of the night is described in 'The Book of the Hidden Chamber' (Hornung 1963-1967; Hornung and Abt 2007), henceforth referred to as Amduat, a cosmographic treatise of the Netherworld. At the beginning of the New Kingdom, the Amduat is attested for the first time on some decorated fragments in the burial

<sup>1</sup> The project is supervised by Dr Giuseppina Lenzo (Université de Lausanne).

<sup>2</sup> For the Amduat papyri in the Museo Egizio, see Pozzi 2024a (forthcoming) (see also the Turin Papyrus Online Platform [TPOP] and the Museo Egizio Papyrus Collection online website). For the Amduat papyri in the Metropolitan Museum of Art, see: P. New York MET 25.3.27, P. New York MET 25.3.28, P. New York MET 25.3.30, P. New York MET 25.3.31, and P. New York MET 25.3.33.

chamber of Thutmose I (KV 38), in the Valley of the Kings (Abdel Ghany 2016, 2018, 2019). However, the first complete edition of the Amduat is attested in the tomb of Thutmose III (KV 34) (Bucher 1932). In this tomb, the Amduat consists of a Long Version, an Abridged Version, and a Catalogue of Divine Entities (Hornung 1963-1967). During the New Kingdom, the royal tombs in the Valley of the Kings were decorated with texts and scenes from several Netherworld Books (Hornung 1999: 26-152), including the Amduat (Hornung 1987-1994; Richter 2008). Later, in the Third Intermediate Period, *excerpta* from the Amduat 9th-12th Hours and the Abridged Version have been transcribed to the coffins and the papyri of the Theban clergy, in a sort of ‘demotisation’ (Niwiński 1989a: 217; Sadek 1985: 326) of these treatises among the local citizens (for the coffins, see: Duarte 2014, 2017; Jamen 2016: 131-175; Rigault-Déon 2023<sup>3</sup>; for the papyri, see: Aston 2009; Niwiński 1989a; Sadek 1985). During the 21st and 22nd dynasties, Theban ateliers represented the Netherworld with traditional elements derived from the Amduat, or other New Kingdom funerary compositions, i.e., the Book of the Dead (Quirke 2013), the Books of the Earth (Piankoff 1943; Roberson 2012), the Book of Gates (Hornung 1979-1980), the Book of the Day (Müller-Roth 2008; Piankoff 1942), the Book of the Night (Piankoff 1942; Roulin 1996), and the Litany of Re (Hornung 1975-1976; Piankoff 1964), and innovative motifs created ad hoc by the Theban patronage (Niwiński 1989a: 111-212).

Through the years, the New Kingdom and the Late Period Amduats have been studied by several scholars (Abitz 1995: 3-50; Altenmüller 1967-1968; Hoffmann 1996; Hornung 1963-1967, 1987-1994; Jansen-Winkel 2012; Lapčić 2014; von Lieven 2016, 2022; Manassa 2007, 2012: 47-58; Régen 2004, 2014, 2015, 2017, 2020; Richter 2008; Schweizer 1994; Vernus 1975; Zago 2022: 176-206). On the contrary, the current state of research on the Third Intermediate Period Amduat is rather based on studies from the 19th century (Jéquier 1894), the 1950s (Piankoff and Rambova 1957), and the 1980s (Niwiński 1988, 1989a; Sadek 1985). These publications mostly focused on a typological analysis of the funerary papyri, whereas the texts, the iconography, and the function of the Amduat papyri have not been thoroughly examined. In addition, these works did not address a crucial aspect of the Third Intermediate Period funerary papyri, namely, the relationship between content and representation. According to Niwiński’s classification, the so called ‘mythological papyri’, the Litany of the Sun papyri, and the papyri titled *md̩.t imy dw̩.t* with Book of the Dead vignettes, are all to be regarded as ‘Amduat papyri’, even if they do not actually represent the Amduat (Niwiński 1989a: 159-212 [the A.I.1-2 and A.III.1a-b papyri]). Hence, the Amduat manuscripts do not appear to be classified according to philological criteria. Despite this, scholars continue to refer to the Third Intermediate Period funerary papyri by Niwiński’s classification, even if his typologies are confusing, and do not always consider the sequence of texts, spells, and vignettes (Lenzo 2020: 214-219). To refine our understanding of these manuscripts, a detailed and comprehensive study is much needed to investigate the two aspects of the Amduat papyri that have not yet been correctly identified: the text and the iconography. Recently, it has been rightly pointed out that despite the works of Sadek and Niwiński, there is no comprehensive analysis of the Amduat papyri yet (Régen 2020: 365). The latest publications regarding this topic are rare, and focus on isolated specimens (Bottigliengo 2009, 2012; De Pietri 2023); to this extent, they contribute little to the general understanding of the subject. Because of this approach, most of the Amduat *excerpta* on coffins and papyri are currently unpublished. The only attempts to contextualise the Amduat manuscripts in a broader perspective have recently been made by Lenzo (2018-2019, 2023).

In the light of the latest investigations on Third Intermediate Period burial assemblages (Amenta and Guichard 2014; Sousa 2014, 2017, 2018, 2019, 2020; Sousa, Amenta and Cooney 2020; Taylor and Vandenbeusch 2018), the absence of analytical studies regarding ‘What is in the Netherworld’ represents a serious lack for the Egyptological research. To fill this gap, a new methodology to investigate the

<sup>3</sup> Rigault-Déon, P. The Book of the Amduat on Tanetshedmut Coffin in the Louvre Museum, presentation made during the conference ‘From Thebes to Tanis: Egypt During the 21st Dynasty’, Cairo, 10th-12th December 2023.

Amduat papyri is here introduced. In the following sections, the primary features of the 21st and 22nd dynasties Amduat papyri are addressed, providing 1) new theoretical concepts, 2) textual and visual insights, and 3) new research inquiries to proceed towards a finer approach to study this long-neglected topic.

## **The research project**

### *The database*

The first step of the project is the creation of a database. The aim of the database is to digitally collect in a virtual archive all the Amduat papyri scattered in museums and collections around the world. The only existing survey of the Amduat papyri was made by Niwiński (1989a: 243-379), but data sets, photos, and sometimes even papyri are missing from his account (see e.g., the Vatican papyri in Niwiński 1989a: 373-374). For that reason, the general information of the Amduat papyri (inventory number, collection, provenance, prosopography, production workshop, bibliography) should be updated, and a new photographic campaign should be undertaken for study purposes. A database can provide an ideal tool for managing and implementing these features.

The database will be created in two phases. In the first place, FileMaker Pro Advanced will be used to collect, store, and catalogue the data.<sup>4</sup> Afterwards, the documentation will be migrated to Catima, a database provided by the University of Lausanne.<sup>5</sup> In the medium term, Catima could be opened to the scientific community by creating a user account and password. The dissemination of this digital archive among scholars is the first step towards the creation of a shared research environment to study the Third Intermediate Period funerary papyri. However, access to the photos will be limited: photos with a copyright will be accessible to members of the project only, but a link to the online sources, when available, will be inserted, as is the case with most major museums that host a collection of Egyptian antiquities.<sup>6</sup>

The database also aims to contextualise the Amduat papyri with the burial assemblages of their owners (the Book of the Dead papyri, the coffins, and the funerary stelae) to deepen our knowledge of the Theban society. In the process, historical and epigraphic documents will be considered. The importance of the contextualisation of Third Intermediate Period burial assemblages has recently been emphasised by several scholars (Jamen 2012, 2020; Lenzo 2020; Swart 2007, 2008). In such a way, new connections among the 21st and 22nd dynasties funerary repertoires will be highlighted, providing new insights and associations into the Third Intermediate Period funerary traditions.

### *A new conceptual framework to investigate the Amduat papyri*

The main objective of the PhD project is the development of a novel conceptual framework to investigate the texts and the images of the Third Intermediate Period Amduat papyri. From a theoretical point of view, scholars have defined the Amduat as an 'iconotexte' (Nerlich 1990: 255-302; Régen 2020: 359), or a 'Bild-Text-Komposition' (Hermsen 1991; Morenz 2014), because the text and the images of the Book of the Hidden Chamber form 'an indissoluble unit' between them (Nerlich 1990: 268). During the New Kingdom, the texts and images of the Netherworld Books are so closely intertwined that only the comparison between the philological and iconographical analysis has allowed scholars to grasp the full meaning of these compositions (Lapčić 2014). Hence, the same theoretical approach must be

<sup>4</sup> FileMaker is a highly customisable data management system, ideal for organising substantial amounts of data.

<sup>5</sup> <https://catima.unil.ch/>.

<sup>6</sup> See, e.g., the Berlin Ägyptisches Museum und Papyrussammlung, the British Museum, the Louvre, the Metropolitan Museum of Art, the Museo Egizio, and the Rijksmuseum Van Oudheden.

applied to the Third Intermediate Period funerary papyri. The philological analysis of the texts and the iconographical analysis of the images must be considered together. The scenes of an Amduat papyrus cannot be described without considering the related text(s), and the text(s) cannot be properly translated without examining the related vignette(s). It is of pivotal importance to develop an analytical methodology that considers the texts and the images of these manuscripts at the same extent.

In the following sections, the main textual and figurative features of the 21st and 22nd dynasties Amduat papyri will be presented.

### *Philological analysis*

According to the text, the Amduat papyri can be divided in two main groups: 1) the traditional Amduat papyri, and 2) the non-traditional Amduat papyri (e.g. the 'Amdouats-miscellanées' in Régen 2020: 364, 366).

- 1) The traditional Amduat papyri attest the transmission of the Amduat from the New Kingdom royal tombs to the Third Intermediate Period burial assemblages. The traditional Amduat papyri are attested from the middle of the 21st dynasty (the pontificate of High Priest Menkheperre, see the papyrus of Gautseshen A [P. Cairo S.R. VII 10265 = 14.7.35.3] in Sadek 1985: 95-98) to the beginning of the 22nd dynasty (Niwiński 1989a: Table XVI). They are inscribed with *excerpta* from the Amduat 9th-12th Hours and the Abridge Version (Figure 1).



Figure 1. P. Turin Cat. 1783. *The 12th Hour* © Scan Museo Egizio.

- 2) On the contrary, the non-traditional Amduat papyri attest the re-elaboration of the New Kingdom royal funerary literature. The non-traditional Amduat papyri are attested from the late 21st dynasty (the pontificate of High Priest Pinedjem II and High Priest Psusennes [III], see, e.g., the papyrus of Pasebakhaeniut [P. Cairo S.R. VII 10273], the papyrus of Amenhotep [P. Cairo S.R. IV 546 = JE 95648], or the papyrus of Khonsuemheb [P. Cairo S.R. IV 541 = JE 95644]) to the 22nd dynasty (the reign of Takelot II, see, e.g., the papyrus of Pynepequer [P. Turin Cat. 1785] in Lenzo 2018-2019: 87-90). The (cosmographic) text of the Amduat is not always written on these manuscripts; instead, they are inscribed with a miscellanea of funerary texts, such as hymns, pleadings, offering formulas, and

Book of the Dead spells, next to the Amduat iconographical repertoire (Lenzo 2018-2019, 2023; Pozzi 2024b [forthcoming], Valloggia 1989) (Figure 2).



Figure 2. P. Turin Cat. 1789. Books of the Earth: Aker Group 6, 7 (left); Amduat, 12th Hour, scenes C, D, E, F, G (center). The hieroglyphics lines (top) and the hieratic pages (right) do not refer to the Amduat textual repertoire © Scan Museo Egizio.

### *Semiotic analysis*

According to the iconography, the Amduat papyri can be divided in the same groups. To establish this division, the terminology from visual semiotics (in italics) is used (Kress and van Leeuwen 2006: 45-113). The traditional Amduat papyri describe the Sun's journey through the Netherworld by means of a *narrative structure*, whereas the non-traditional Amduat papyri represent the Netherworld through a *conceptual structure*. It is important to observe that the notions of *narrative* and *conceptual structure* refer only to the semiotic domain. In fact, from the point of view of verbal morphology, cosmographic compositions do not employ narrative constructions.

- 1) In the traditional Amduat papyri, which feature a *narrative structure* of the composition, the description of the Sun's journey through the night is visually achieved by presenting a conventional cosmographic construction (Hornung 1999: 26-135). The deities of the Netherworld are represented as *interactive participants* involved in processes of mutual interactions that can be visually realised by *vectors* (Figure 3; Pozzi, in preparation). The Amduat describes the *transaction processes* from the Sun god to the dwellers of the Netherworld, and vice versa, through the texts and the dialogues of every scene (Hornung 1987-1994: e.g. the interaction between the Sun god [no. 850] and the goddesses with snakes [nos. 822-833] at the beginning of the first register of the 12th Hour in Hornung 1994: 800-809). Thus, the *transaction processes* highlight the dynamism of narrative compositions (Kress and van Leeuwen 2006: 45-66), as the progression of the solar barque through the Netherworld clearly shows.



Figure 3. P. Turin Cat. 1776. The narrative structure: the arrows (the vectors) connect the Sun god and the dwellers of the Netherworld (the interactive participants) through the texts and the dialogues of every scene (the transaction processes) © Scan Museo Egizio.

- 2) On the other hand, the non-traditional Amduat papyri, which feature a *conceptual structure* of the composition, do not describe the Sun's journey through the night, but represent specific aspects of the Netherworld related to the deceased (Figure 4; Pozzi, in preparation). The subjects of these compositions, the *represented participants*, cannot be connected through *vectors*, because the scenes of these papyri originate from different compositions (i.e., the Amduat, the Book of the Dead, the Litany of Re, the Books of the Earth, the Book of Gates, and the Book of the Day/Night). Besides, these manuscripts have no narrative meaning. The *participants* are not represented through *transaction processes*, but through *analytical, symbolic, and classification processes* (Kress and van Leeuwen 2006: 79-113; Pozzi, in preparation). These processes represent carefully selected *participants* through apotropaic, adoration, healing, and rebirth/sunrise scenes, that convey to the manuscripts specific motifs useful to the deceased in the afterlife (Niwiński 1989b; see, e.g., the papyrus of Pasebakhaniut [P. Cairo S.R. VII 10273], the papyrus of Amenhotep [P. Cairo S.R. IV 546 = JE 95648], or the papyrus of Khonsuemheb [P. Cairo S.R. IV 541 = JE 95644]).

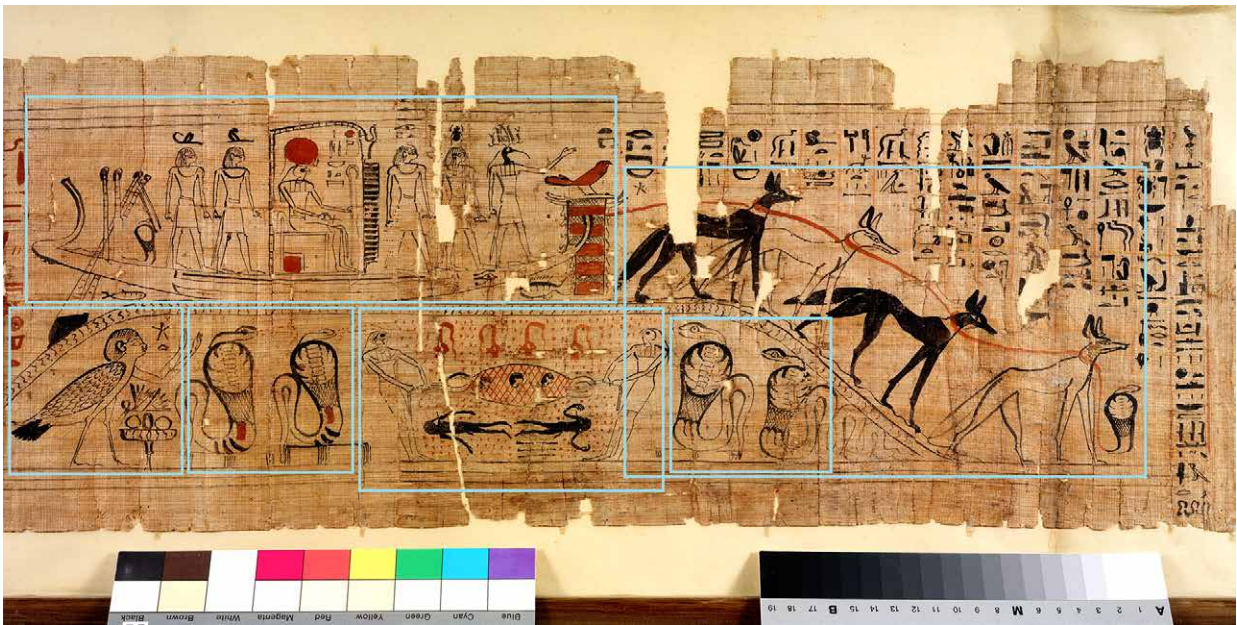


Figure 4. P. Turin Cat. 1781. The conceptual structure: the represented participants are shown in an adoration (bottom left) and in two apotropaic (bottom) scenes beneath the solar barque hauled by four jackals (top) © Scan Museo Egizio.

### *Towards a new methodology*

The identification of these two macro groups, traditional and non-traditional manuscripts, is crucial to investigate the Amduat papyri.

From the philological perspective, it allows us to identify two textual traditions: 1) the ‘New Kingdom tradition’, and 2) the ‘Third Intermediate Period tradition’. Distinctive features and scribal practices are specific to each tradition, e.g., backwards-copied retrograde text, deconstructed text, or interrupted text (Fischer 1986: 105-130; Mauric-Barberio 2003: 181-186; Sadek 1985: 305-313). The ‘New Kingdom tradition’ Amduat papyri (High Priest Menkheperre – beginning of the 22nd dynasty) provide the deceased with a cosmographical description of the Netherworld, as the Book of the Hidden Chamber does in the New Kingdom. On the other hand, the ‘Third Intermediate Period tradition’ Amduat papyri (High Priest Pinedjem II/High Priest Psusennes [III] – Takelot II) re-elaborate the previous version of the Amduat, providing the deceased with specific aspects of the Netherworld (mainly apotropaic, adoration, and regenerative) besides a selection of pleadings, hymns, offering formulas, and Book of the Dead spells/vignettes (Valloggia 1989, Pozzi 2024b: forthcoming). Hence, one of the main objectives of the author’s project is the in-depth investigation of these textual traditions to 1) trace how the text of the Amduat changed over time, and 2) identify the main aspects of the ‘Third Intermediate Period tradition’ that, from the late 21st dynasty, replaced the ‘New Kingdom tradition’.

From an iconographic perspective, semiotics provides usable descriptions for codifying visual compositions of great complexity and extension, such as the Netherworld Books (Kress and van Leeuwen 2006: 1). In practice, semiotics allows us to identify the *structures* and the *processes* embedded in the Amduat papyri, highlighting their visual contents and the *modus operandi* of Theban workshops

(Pozzi 2023).<sup>7</sup> From an anthropological point of view, semiotic studies offer an emic approach, rather than an etic one. Thus, semiotics investigates how images are used to produce meaning, without providing subjective interpretations, which may suffer from western-centric academic biases. Hence, this project will observe the conceptual framework of the visual semiotic, rather than the traditional classification system of Third Intermediate Period funerary papyri (Niwinski 1989a). In this way, the Amduat manuscripts will be investigated from a perspective coherent with their historical, social, and religious context.

### Conclusion and future developments

The main steps of the research project ‘Tradition et innovation dans le *Livre de l’Amdouat*’ have been presented and explained. By taking this analysis into account, it is argued that the methodology introduced here can shed new light on the intellectual context regarding the transmission and the re-elaboration of the Amduat during the 21st and the 22nd dynasties. Thus, the aim of this project is to bring the Amduat papyri back to the centre of the Egyptological debate to address and discuss a currently little-studied funerary tradition.

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<sup>7</sup> Pozzi, E. Let’s Talk Semiotic. Understanding How Images Work: Semiotic Analysis of the Amduat Papyri, presentation made during the conference ‘From Thebes to Tanis: Egypt During the 21st Dynasty’, Cairo, 10th-12th December 2023.

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# Death is Only the Beginning: Non-Existence – An Existential State or Total Annihilation?

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## Abstract:

The ontological ideas of potential posthumous destruction appear throughout the history of ancient Egypt. These ideas are initially expressed through negation of various manners of destruction and it is in the New Kingdom Netherworld Books that the terminology of *tm wnn* and *nn wnn* is used to express the consequence of such posthumous destructions. These attestations of destruction alone can be interpreted as statements of total annihilation, however, some can be interpreted as a potential state of existence rather than total annihilation.

## Keywords:

Non-existence, Ontology, Total Annihilation, Netherworld Books, Second Death, Posthumous Punishment.

What is death? The first, bodily death is essentially disintegration: physically, socially and spiritually (Assmann 2005: 23-38, 87-112; Eyre 2009: 38) and therefore, the resurrection could only take place through successful reintegration of these aspects. It is evident from textual and iconographic sources that the ontological ideas of existence and non-existence were present throughout ancient Egyptian history. The Old Kingdom Pyramid Texts offer rather limited and allusive references to posthumous punishment. These become more elaborate in the Middle Kingdom Coffin Text Spells, culminating in the New Kingdom Netherworld Books.

The general aim of the Pyramid Texts and the Coffin Texts corpora, as well as the later Book of the Dead, is to assist the deceased in achieving their goal of blessed existence in the hereafter. Therefore, references to posthumous punishment or negative fate are mentioned as potential dangers that the deceased wishes to avoid. The New Kingdom Netherworld Books, on the other hand, present a more refined representation of the dangers of the netherworld. Even though, these texts appear in the tomb context, Werning (2007: 1942) has demonstrated through systematic analysis of stemmata of each Netherworld Book, that the addition of the name of the dead to these texts is secondary, and when incorporating these guides within the tomb context there was a need to establish a connection between the text and the dead king (Abitz 1995: 120-134, 164-166, 171-173; Roberson 2013: 132). This opens a debate about whether these texts were initially intended for storing the knowledge about the netherworld, essential for liturgies, rather than use in the tomb context for the afterlife. This view has been further argued by Smith (2017: 301) outlining the statements from Amduat which demonstrate that having the knowledge of the contents of the said book is useful while still alive (Wente 1982: 162-167). This further justifies the inclusion of rather explicit scenes of punishment within tomb context without the use of negation. The texts are simply not written from the viewpoint of the deceased king in which he would be an active participant and directly threatened by these dangers.

This paper is part of an ongoing research focusing on establishing the concept of *ḥtmyt* as part of complex theological themes within the Egyptian Netherworld. The concept of *ḥtmyt* incorporates manners of posthumous punishment, agents and targets of punishment, and their fate: the non-existence. The notion of non-existence is a much wider topic than presented here, and the research itself is only in its preliminary stages of data collection and analysis. Therefore, the aim of this paper is to provide a humble overview of the attestations of ‘non-existence’ that are expressed through *tm wnn* and *nn wnn*, as well as the negative relative particle *iwty/iwtt* appearing in the New Kingdom Netherworld Books. The second part of the paper aims to identify categories of unfavourable conditions that appear in association with ‘non-existence’.

This paper is limited to New Kingdom material and a conscious choice has been made to make a clear distinction between the concept of non-existence as we would understand it and the ancient Egyptian terminology. Therefore, if the ancient Egyptian phrase is under discussion, an ancient Egyptian term is used or ‘non-existence’ whereas the concept itself is simply referred to as non-existence.

### Briefly on non-existence prior to Netherworld Books

Attestations of ‘non-existence’ are almost exclusively reserved for the New Kingdom Netherworld Books. The contemporary Book of Dead Spells, as well as the earlier Coffin Texts and Pyramid Texts, utilise phrases such as *n sk* and *n ḥtm* to negate destruction instead of *tm wnn*. One of the first attestations of ‘non-existence’ occurs in PT 246, being one of the two attestations in the Pyramid Texts.

*n sk=k | n tm=k | nḥi rn=k ḥr rmt | ḥpr rn=k ḥr ntrw*

*You have not perished. You have not come to an end. Your name endures among men. Your name comes into being among gods. (PT 246: Pyr. §256c-d)*

The reference is present in the pyramid of Unas and the pyramid of Teti, and on both occasions the writing is undoubtedly *tm*. Instead of acting as negative verb, as in constructions of *tm wnn*, it is *tm* itself that is negated, rather than *wnn*, and it is becoming *tm* that needs to be avoided. The chosen translation here for *tm* is ‘an end’ and it is preceded by the statement ‘you have not perished’ (*n sk=k*). This permits the interpretation of *tm* as ‘non-existence’. PT 537 (Pyr. §1299c) presents a parallel example of *n tm=k n sk=k*. PT 422, as well as PT 624 (Pyr. §1760c) and PT 690 (Pyr. §2102b) provide an analogous statement, although, both attestations utilize *ḥtm* instead of *tm*.

*ḥnḥ rn=k tp t3 | nḥḥ rn=k tp t3 | n sk=k | n ḥtm=k*

*Your name lives on earth. Your name endures on earth. You have not perished. You have not been destroyed. (PT 422: Pyr. §764a-b)*

This is common occurrence in the Coffin Texts where *sk* and *ḥtm* continue to appear coupled in parallel statements (e.g. CT 9: CT I, 31c). This has allowed Zandee (1960: 14, 48-51) to treat *ski* ‘to perish’, *n wn / tm* ‘not to be’ and *ḥtm* ‘to perish’ as parallels, all indicating the total destruction of one’s existence, similarly to *mwt m wḥm*.

The Book of the Dead, contemporary to the Netherworld Books, does not offer many examples of *tm wnn* and *nn wnn* or non-existence. A single attestation identified at this stage of research appears in BD 172 of papyrus of Nebseny (EA9900) where the enemies are overthrown and as such they do not exist (*nn wnn=sn*).

*iw ḥftyw=k ḥrw nn wnn=sn*

Your enemies are overthrown, they shall not exist (here following Quirke 2013: 428).

## Non-existence in the Netherworld Books

The following<sup>1</sup> will provide an overview of references to ‘non-existence’ from the five treatises of Netherworld Books (Amduat, Book of Gates, Book of Caverns, Litany of Re, Books of the Earth) with the focus on the existential state as a consequence of posthumous punishment. The majority of attestations for ‘non-existence’ appear in the Book of Caverns, while the other compositions are limited to one to two attestations. The Book of Adoring Re in the West, Book of the Earth and Amduat seem to only offer one single attestation of ‘non-existence’ each, even though, all provide significant references to posthumous punishment and *ḥtmyt*.

### *Adoring Re in the West*

Address 51: ‘May you, Re, command for those who are and those who are not (*iwtj*), namely the gods, the *akh*-spirits, and the dead (after Darnell 2018: 94).

This is one of the few attestations that lists the ‘non-existent’ or in fact ‘those who are not’ as entities in the Netherworld. It is noteworthy, however, that it offers an elaboration identifying ‘those who are not’ as the dead.

### *Amduat*

The deities depicted in the 3rd hour of Amduat all have a common text in which they are clearly identified as the ones carrying out slaughter and punishment, acting as agents of punishment. It is within this text that the ‘non-existence’ occurs along the various forms of punishment.

Amduat 3rd hour, 3rd register:

*irrt=sn pw m imnt | irt m:k š'i b'w | ḥnr šwwt | rdit tmw iwtjw wnn r st=sn nt ḥtmyt*

*It is what they do in the West. Roasting and cutting up of the b's (and) imprisoning shadows. Placing those who are not, who do not exist, who are at their place of Place of Destruction (Amduat I: 305-305).*

This is followed by burning through fire the entities identified as enemies (Amduat I: 305-306): *They kindle the flames and burn the enemies.*

It is the *b'* that suffers physical mutilation, while the shadow is restricted from freedom of movement. This is also the first and the earliest instance that associates ‘non-existence’ with *ḥtmyt*.

Amduat 11th hour, 3rd register:

*n ḥpr=tn šhd=tn*

*You have not come into being, you are upside down. (Amduat III: 782)*

The scene shows a depiction of punishment of the enemies, where five goddesses are depicted standing with knives in front of six individual pits which contain (1) bound enemies – *ḥftyw*, (2) corpses – *ḥwt* (3) *b's*, (4) shadows – *šwwt*, (5) heads – *tpw*, and (6) 4 inverted figures identified as *šhdw* (Amduat III: 787-788). Preceding text includes mutilation of the body, beheading, destruction of the *b'* and shadow, concluding with ‘You have not come into being (*n ḥpr*)’, demonstrating the connection between *tm wnn* and *n ḥpr*. This attestation is one of the few that utilizes the nominal/emphatic form of *wnn=sn m šhr pn* in the earlier

<sup>1</sup> All below translations are the author’s own unless stated otherwise.

Netherworld Books, which appears prominently in the later Book of the Earth (Roberson 2012: 101-104), as well as in the Book of Caverns.

The phrase *n ḥpr* ‘not coming into being’ is often translated in secondary literature, including published translations as ‘cease to exist’, for instance in the most recent published translation of Books of the Netherworld by Darnell, Manassa Darnell (2018: 232). Zandee (1960: 49) also argues that *n ḥpr* carries the same meaning as *n tm*. Indeed, there are reasons to interpret it as synonymous with ‘non-existence’, but only if we accept the premise that non-existence is an existential state and not total annihilation. Above example from the 11th hour Amduat identifies the existential state of those entities as *šḥd* ‘upside down’.

### **Book of Gates**

Book of Gates 2nd hour, 3rd register, scene 8:

*nttn nn iryw ḏwt | iryw ḏt m wsḥt ʿt | ḥʿwt=tn n ḥsk | bʿw=tn n tm wnn | n mʿ=tn r m irw=f skḏi=f m štʿyt*

*You are those who did evil, who made slaughter in the Great Hall. Your bodies are for beheading. Your bʿs are for non-existence. You do not see Ra in his forms (while) he travels in the mysterious region (LdP I: 56-59).*

Book of Gates 9th hour, 3rd register, scene 59: *ntt=tn m ḥʿw=tn ḏwyw | ḥsk=tn n wn=tn | ḥtmw bʿ=tn n ḥḥ=f ḥr nw ir:n=tn r it=i ʿsir – You are bound from behind, evil-doers. You are beheaded, and you do not exist. Your bʿ is destroyed and does not live because of what you have done against my father Osiris (LdP III: 210-215).*

The section concludes with:

*ihh tm=tn tmyw (LdP III: 216)*

*Hail! You are not, the non-existent ones.*

Both Book of the Gates examples identify the entities designated to ‘non-existence’ as those who committed a form of evil. As a result, they are beheaded and their *bʿ* either is destroyed or destined to non-existence.

### **Book of Caverns**

Book of Caverns 1st cavern, 5th register, scene 14:

*i ḥtmyw i ḥskyw | ḥftyw nw ʿsir iwtwy tp=sn | iwtwy wrst=sn | iwtwy bʿw=sn s{w}k ḥʿwt | mtn-wi p=i m ḥrw=tn | iw=i wd=i-tn n dw-tn | sip=i-tn <n> tm wnn*

*O destroyed ones. O beheaded ones. Enemies of Osiris, who do not have their heads, who do not have their necks, who do not have their bʿs, or corpses. Behold, I pass over you. I set you to your evil. I allot you to non-existence (LdQ IX).*

The targets of punishment are identified as enemies. Further in the text these enemies of Osiris are guarded by the Sons of the Earth who are described as the designated keepers of the Place of Destruction. ‘O Great Serpents, Sons of Earth, doorkeepers of the Place of Destruction, guard and seize these enemies of Osiris’ (LdQ IX). Even though non-existent, these entities identified as enemies still need guarding.

Book of Caverns 2nd cavern, 5th register, scene 24:

*i ḥskyw iwtwy tp=sn ḥnty ḥtmyt | i ḥryw iwtwy bʿ=sn ḥnty ḥtmyt | i ḥḏyw nttyw ḥnty ḥtmyt | i ḥḏyw*

snfyw mhd.w h3tyw hnty htmty | i hftyw nw hk3 dw3t 3sir hnty imnt | m3n-wi wd3i-tn n htmty | sip3i-tn n tm wnn | h3tyw imw nmt nt 3sir | [iri]3sn 3dt3tn r3tn mi nw wd.n3i n 33t shpr3s-s r3tn | nttn nw wdw k3nw irw dwt [m] imnt | nttn hftyw | nn-tn swt | nn wnn-tn | i m3n-wi 3k3i hr-tn | wd3i n3tn sdbw3tn r3tn | iw3i wd3i-tn n htmty | [n]n pr-swt b3w3tn

*O beheaded ones, who do not have their heads, who are in the Place of Destruction. O fallen ones, who do not have their soul, who are in the Place of Destruction. O reversed ones, the bound ones in the Place of Destruction. O reversed ones, the bloody ones, with hearts torn out in the Place of Destruction. O enemies of the ruler of Duat, Osiris Foremost of the Westerners. Behold, I order you to the Place of Destruction. I allot you to non-existence. Slaughterers who are in the slaughtering house of Osiris. May they make your slaughter against you like those who I have commanded for slaughter so that it creates it against you. You are the ones who commit mischief and do evil in the West. You are the enemies. But you are not. You exist not. Behold, I enter over you. I set for you your punishment against you. I set you to the Place of Destruction and your souls will not go forth (LdQ XXVI-XXV).*

The scene has a depiction of four heads followed by headless bodies with their hands bound in the back; four figures lying horizontally facing downwards again with their hands bound; four figures upside down with their hands bound; four figures upside down with their hands bound and hearts at their feet with blood running from their chest connecting the heart.

Book of Caverns 3rd cavern, 3rd register, scene 36:

i hftyw nn hftyw shdw iwty 3wt3sn | i iwty shdw b3w | 3nhw ir3sn m 3wt3sn | nttn hftyw 3sir hftyw3f iwty b33sn | iw3tn r3tn kkw ny | nhm b3w3tn r h3wt3tn | nttn r3tn m itmw hprw | nttn r3tn m htmty | w3 im3tn m s33tn

*O enemies, these enemies, who are upside down, who do not have their shadows. O those who are not, the reversed of b3's their forms live as their shadows. You are the enemies of Osiris, his enemies who do not have their b3s You are at the darkness. Your b3 is taken from your body. You are the ones who cannot change. You are in the Place of Destruction. One among you is your guard (LdQ XXXIV).*

Book of Caverns, Litany 20: Each couplet in this litany starts with *You are the enemies of Osiris (nttn hftyw n 3sir)* followed by a statement of their conditions. In the below translation I have only translated the statements of their conditions.

33 h3wt3tn dr tp3tn | dr b3w3tn st snf3tn | dr 3wt3tn tm hprw3tn | htm3tn nk irw3tn | tmyw iwnty wnn3sn

*Your bodies are chopped, and your heads are removed. Your b3s are removed, and your blood flows. Your shadows are removed and your forms are not. You are destroyed and your forms are punished. Those who are not, who do not exist (LdQ CXVIII-CXIX).*

### **Book of the Earth**

There is only one attestation that I have been able to locate at this stage from this composition. It designates entities identified as hmyw as non-existent, and further describes them as existing in darkness.

Book of the Earth R6.A2.3.33.79 -

tmnw nn n hmyw | ir3sn 3d iwtyw3sn | 3p n3r pn r krrt tn iwty mdw3f n3sn | wnn3sn m kkwj  
*These destruction demons shall be nullified, when they hack up their corruption, and when this god, who does not speak to them, passes from this cavern. It is in darkness that they shall exist (after Roberson 2012: 351).*

### Non-existence as an existential state or total annihilation

The existential state in the afterlife has largely been oversimplified to reflect the two possible posthumous states of either eternal blessed existence or the complete and total annihilation of one's existence. It has been, however, accepted that it is not as straightforward. The question is to what extent do the above-listed attestations refer to non-existence as an existential state or to a total and absolute annihilation?

The multiplicity of coexisting ideas within one notion, as well as the notion itself, can be expressed differently based on the media used, and the ultimate purpose of the text. Non-existence, even though often defined as that which does not yet exist but has potential to exist, is along with *mwt m whm* and *n hpr* defined as total destruction (Zandee 1960: 48-49). Non-existence can be viewed as an existential state, as living the anti-life, where one is deprived of all life-giving forces: ability to breathe, move, spiritual and physical wholeness, ability to eat or drink, etc. On the other hand, it can be interpreted as the complete and utter destruction of one's being.

The 'existential states' of those who are described as non-existent can be divided in the subsequent categories: state of physical mutilation, existing in darkness (including not able to see or hear Re), restricted movement (bound) and existing upside down. These categories appear intertwined with each other and are often grouped together in majority of above presented attestations. This also means that on most cases they can represent either total annihilation as well as existential state of being.

#### *Physical mutilation*

Physical mutilations include any actions which would harm the perfect condition of the body, most significantly *hsk* 'beheading' (Hornung 1968: 18-19; Ritner 1993: 168-172; Zandee 1960: 16-17, 226). It is one of the earliest forms of posthumous punishments, examples of which can be found extensively in Coffin Texts (CT 229, CT 390, CT 453, CT 454, CT 644, CT 660, CT 742, CT 820, CT 823) and not to mention the depictions of bound and decapitated enemies with heads at their feet on the verso of Narmer Palette. The punishment via beheading is also known from various threat formulae appearing from the 5th dynasty onwards (Morschauser 1991: 145), which are for the protection of private tombs and mortuary equipment. Beheading is one of the most common themes that can be found in terms of punishment and in association with 'non-existence', appearing in the majority of collected examples.

Initial observations of references to physical mutilations show that there are a considerable number of destructive actions that are directed either towards the *b3* or the corpse/body, and are directly associated with being non-existent. The inflicted bodily mutilations along with the destruction of *b3* or shadow can in parallel imply total annihilation, as all these aspects are seen as dependable on one another in order to survive in the afterlife. The textual references predominantly describe the destruction of all aspects in one paragraph, indicating the need to destroy all. The best example of this is the 5th Cavern of the Book of Caverns. The three cauldrons are filled with inverted headless figures, heads and hearts, shadows, *b3*s and flesh signs respectively. The destruction and punishment by fire, which is the most obvious form of physical mutilation, however, does not appear in direct association with 'non-existence'. While other instances of unfavourable fates, such as beheading, are depicted both visually and within text, the punishment by fire does not, nor is it associated with 'non-existence'. Indeed, the visual representation is as telling as the textual, but it is interesting to note that while other manners of punishment have both textual and visual representations present alongside the association with 'non-existence', death by fire or cooking do not, nor are they included amongst the punishments associated with 'non-existence'. Is it simply because the meaning of total annihilation is implied and therefore does not require any further elaborations within text?

Being eaten is another form of punishment that is not attested in association with ‘*non-existence*’. It does not occur in any of the above-collected attestations and when it does occur it is predominantly as part of the name of the agents of punishment, and not as punishment inflicted on the enemies.

### ***Being inverted***

It could be argued that being inverted should be included under the physical mutilation as it affects the condition of the body, however, no actual mutilation is inflicted on the body itself, other than its state of being reversed (further on being inverted Frandsen 2011: 25-62; Matić 2017; Zandee 1960: 73-78). The themes of inversion and ‘not eating faeces and drinking urine’ (Landborg 2021) are already well-known from the Coffin Texts. The Netherworld Books present being upside down as one of the conditions of the punished, alongside representations of beheading, often appearing in parallel in a list of unfavourable conditions.

### ***Being in darkness***

Being concealed in the darkness is a prominent state in which the targets of the punishment appear consistently throughout the Book of Caverns. However, while many of those attestations negate the ability of going forth (*pr*) there are not a significant amount of instances that associate being in darkness directly with non-existence. On these occasions, however, considering all other aspects of these textual references it can be concluded that existing in darkness and not being able to see Re is linked with existential state of non-existence. The Book of Caverns offers most of these examples. These themes of darkness are the direct opposite of the concurrent theme in the Netherworld: as the sun god is passing through the caverns/gates/ hours of the netherworld he is illuminating those who exist there by showering them with the life-giving light. The inhabitants of the netherworld are therefore able to breathe due to being able to see and hear the sun god and participating in his nocturnal journey. However, upon the closure of the gate/door as the sun god exits the specific section, these entities are described as wailing since they are again concealed by darkness.

Textual references from Book of Caverns also make it explicit that those in state of either physical mutilation, or being upside down do not hear nor see Re during his nocturnal journey.

Existing in darkness is therefore two-fold: on one hand, it is an inevitable state of existence in the afterlife, however, with the potential of being in the presence of Re and receiving his life-giving light. On the other hand, it is a state from which there is no coming forth.

Above presented excerpts are all part of larger inscriptions which on most occasions are elaborated by mention of another unfavourable state or associations with certain agents of punishment. Bodily mutilations dominate the posthumous punishments in association with ‘*non-existence*’ among all others, while it is the existence in the darkness that draws an association between Place of Destruction and non-existence, specifically in the Book of Caverns.

### **Conclusions**

Discussion on ‘*non-existence*’ requires at least a brief mention of *mwt m wḥm* – ‘second death’ or more precisely ‘death in repetition’. It is generally interpreted that *mwt m wḥm* means total posthumous annihilation. Throughout the Coffin Texts, as well as the Book of the Dead, *mwt m wḥm* is presented as negated fate, which the deceased wishes to avoid. Similar to ‘*non-existence*’, the total number of attestations of *mwt m wḥm* is limited. However, unlike references to non-existence, the attestations of *mwt m wḥm* do not provide significant all-telling explanations and are allusive. *mwt m wḥm* does not

appear in the Netherworld Books while it does in the contemporary Book of the Dead, while *tm wnn* is not used in the Book of the Dead (except the previously mentioned exception), but is reserved for the use in the Netherworld Books. This and the appearance of *ḥtmyt* only in the Netherworld Books while *nmt* (slaughtering-block) appears in the Book of the Dead, demonstrates a clear distinction between the terminology that is used in the Netherworld Books and contemporary Book of the Dead attestations (including earlier Coffin Texts and Pyramid Texts). How does this assist in determining whether ‘non-existence’ can be viewed as total annihilation or existential state? Both terms essentially complement each other, and in order to understand the development of one concept, it is also necessary to understand the other.

Non-existence as a term to a modern mind implies a complete and total lack of existence. Can the same be derived from the non-existence in ancient Egypt? If these attestations are analysed as standalone statements without context, they can be interpreted as examples of total and complete destruction, especially manners of physical mutilation. However, when these statements are further examined within a broader context, forms of existential states emerge: existing as an inverted being, existing in the darkness and having been assigned to a locality (*ḥtmyt*). This is further strengthened by the need of guardians who prevent these ‘non-existent’ from escaping, either by means of coming into being (*ḥpr*) or going forth (*pr*). The understanding of non-existence is often clouded by our own understandings and beliefs. This shows in the published translations where the authors have made a subconscious or perhaps purposeful alteration to the translation of the original term, and so presenting their own understanding. ‘Who carries the weights on the scale, with the result that the evil doers and damned have ceased to exist’ (Manassa 2006: 128) (Judgement Hall of Osiris in Book of Gates). It is here that *tm(w) ḥpr* is translated as ‘cease to exist’ rather than ‘not coming into being’ as done by Hornung (2014: 190). The Book of Overthrowing of Apep (papyrus Bremner-Rhind, P. BM EA 10188) states the fate of Apep as *tm wnn/nn wnn*, however, within the concluding statements (identical to those which used *tm wnn* earlier) *tm wnn* becomes replaced by *tm ḥpr*. At this final stage of the ritual, Apep has been defeated, he has been made non-existent and as such his coming into being has been prevented. Papyrus Bremner-Rhind, however, is from the Ptolemaic Period, and therefore, falls out of the scope of this paper (New Kingdom Books of the Netherworld). When Apep appears in the Netherworld Books he is either destroyed (*ḥtm*), punished (*nik*) or slaughtered (*šꜥt*) but not as ‘non-existent’.

Handling ‘non-existence’ as ‘that which does not yet exist, which could potentially exist’ (Hornung 1996: 173) stands true. The state of non-existence is ‘present in our midst within the ordered world of creation’ (Hornung 1999: 177) and ‘outside the limited world of being’ (Hornung 1999: 177). It is in this context that these targets of punishment have been thrown back into the state in which they could become existent but without the ability to do so. They are to remain in this existential state of ‘non-existence’.

## Abbreviations

<i>Amduat</i>	Hornung, E. 1987-1994. <i>Texte zum Amduat</i> , 3 volumes
BD	Book of the Dead
CT	Coffin Texts
CT d	e Buck, A. 1935-1961. <i>The Egyptian Coffin Texts</i> 8 volumes
LdP	Piankoff, A. 1939-1962. <i>Le Livre des Portes</i> , 3 volumes
LdQ	Piankoff, A. 1942-1945. <i>Le livre des Quererts</i> , 3 volumes
PT	Pyramid Texts
Pyr.	Sethe, K. 1908-1910. <i>Die Altaegyptischen Pyramidentexte nach den Papierabdrucken und Photographien des Berliner Museums</i> , 2 volumes

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# Objects and Materiality: Studying Faïence Amulets in Museo Egizio, Turin. New Investigation Strategies

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## Abstract:

The Museo Egizio, Turin, holds a corpus of around 2000 amulets, most of which were donated, or purchased on the antiquities market, during the 19th century. A few specimens come from archaeological excavations of the early 20th century, but their contexts were in most cases only insufficiently recorded. Due to the general scarcity of documentation, reconstructing their typological evolution and fully understanding their production techniques is a complex task.

The Museo Egizio has started an extensive research project – *Progetto amuleti* – whose aim is to conduct an in-depth study of the amulets in the museum’s collection. The aim is to comprehensively study these artefacts from different angles and make the results of this analysis available to the scholarly community. The project also involves a series of scientific investigations on about 1400 faïence amulets, currently undertaken in collaboration with the ISPC-CNR, Catania. Faïence colour and its glaze change over time, so both are useful chronological indicators. X-ray fluorescence (XRF) was therefore used to analyse the surfaces of the amulets and the inner cores of fractured ones, in order to identify the overall elemental composition of each object and provide clearer insights into different production techniques. The aim is to offer new data that may be useful to the study of faïence amulets, and to shed light on production processes. The joint interpretation of Egyptological and archaeometrical data is an innovative aspect of this study, as it is based on a large corpus of amulets.

This contribution will provide an overview of the ongoing project, outlining the work completed to date, research questions, and new methods of investigation applied to museum collections.

## Keywords:

Amulets, Faïence, Analysis, XRF, Archaeometry, Museo Egizio, Turin.

## Introduction

Museo Egizio has placed special emphasis on multidisciplinary dialogue – especially over the past decade – stimulating the emergence of national and international research projects, exploring archaeometric investigations as a tool for studying archaeological collections. Among the most recent such projects, is the so-called *Progetto amuleti*, started at the end of 2018 and part of a broader project called ‘Open Data’. The latter, inaugurated in 2016 and coordinated by Enrico Ferraris,<sup>1</sup> aims to make all the information about the Turin collection available to both scholars and the public. This work is providing the opportunity for a general revision of the Museo Egizio’s database in view of offering

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<sup>1</sup> Curator at the Museo Egizio, Turin.

online access to it. To proceed in this project, all the material in the collection needs to be studied and the available data about them revised. We decided to start with a specific group of artefacts in order to identify terminological, chronological and data structuring issues. The amulet artefact class was particularly suitable for this purpose, being large and, despite its variability, composed of groups of serially produced objects. One problem to address, however, is the general scarcity of knowledge of this particular object class. Dedicated studies about material and technological aspects of amulet production are lacking and reconstructing their typological evolution is a task that is fraught with difficulties. The *Progetto amuleti*, which is an ongoing project, aims to produce a comprehensive study of the amulets, particularly those of faïence, currently held in Museo Egizio, Turin, by means of a multidimensional approach which will provide new information about this interesting object group. This contribution provides an initial overview of the project's work to date, and its methodology and final objectives will be shared with the scholarly community. The paper will also describe the museum's collection of amulets, highlighting the limited information available due to the fact that they were mainly acquired from the antiquities market. Additionally, it will explain the study processes that we have chosen and the reasoning behind these decisions.

### The amulets in Museo Egizio, Turin

For the ancient Egyptians, amulets were objects endowed with magical properties, intended to protect their owner. They could be worn on bracelets and necklaces in everyday life, or were made for the funerary world and placed between the bandages of the deceased's mummy to protect the body and ensure a peaceful journey into the afterlife. Appearing from the earliest times, amulets were used throughout the Pharaonic period, and on into the Graeco-Roman Period. Today they can be found in Egyptological collections all over the world and capture the attention of many visitors because of their shapes and brilliant colours.

The Museo Egizio in Turin is no exception. Its collection of amulets is quite extensive, encompassing almost 2000 specimens<sup>2</sup> made of a wide variety of materials, including bronze, bone, semi-precious stones, wood and gilded wood, Egyptian blue, clay, and glass paste. The largest group is that of the faïence amulets – about 1400 specimens. Being so numerous and extremely heterogeneous, all the amulets were classified and organised into seven macro-groups – based on the booklet *Amuleti dell'antico Egitto* (Connor and Facchetti 2016) – which highlight the different subject types within the collection (Figure 1):

1. Animals;
2. Divinities;
3. Symbols;
4. Crowns and emblems;
5. Cosmic and natural elements;
6. Human body parts;
7. Funerary equipment.

As this variety accurately represents the thematic world of amulets as we know it, this classification is a useful tool for in-depth investigations of amulets' diachronic development, the evolution of magical-religious beliefs, and the relationship between the ancient Egyptians and the surrounding natural world. Furthermore, amulets, as magical protection objects, reveal many details about the fears and desires of the ancient Egyptians, helping us to better understand their conception of life and the afterlife. When

<sup>2</sup> This group does not include scarab and scaraboid amulets, which form another homogeneous set of about 2000 finds. These will be the object of a future study.

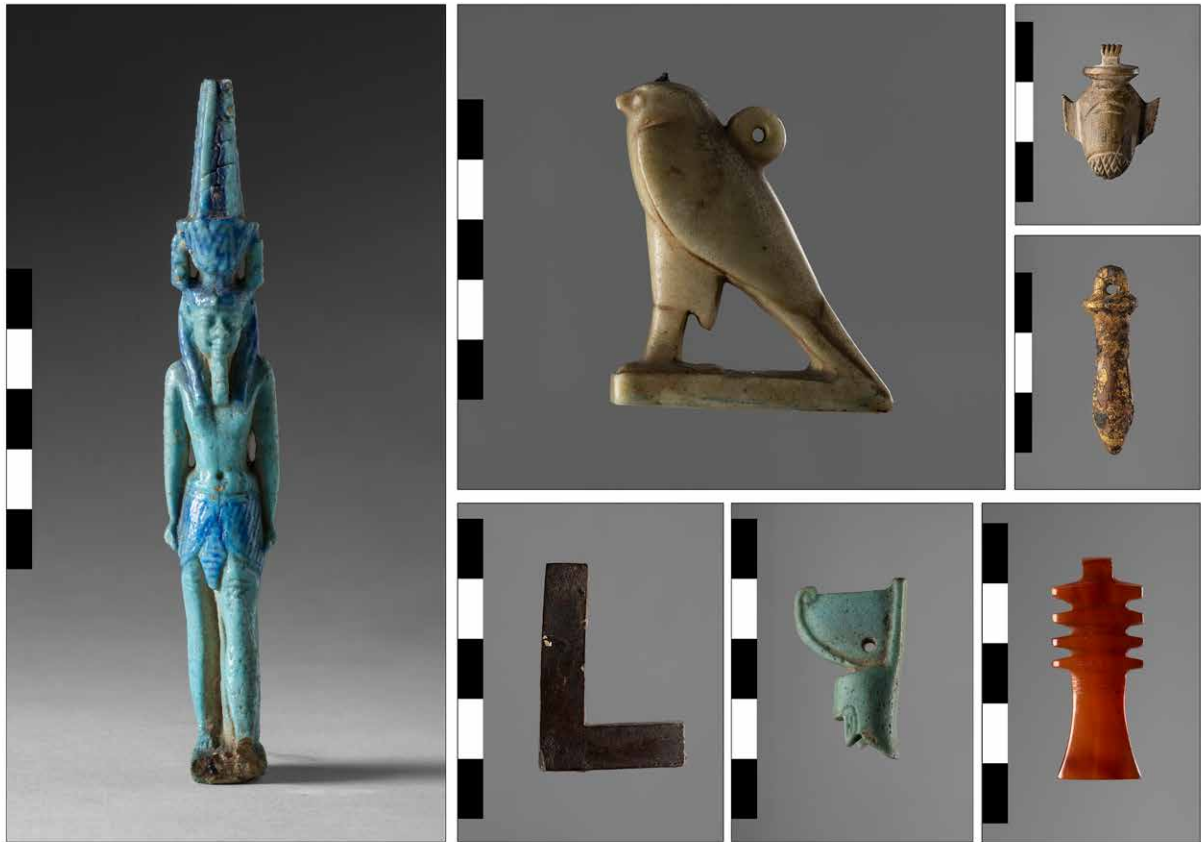


Figure 1. A selection of amulets in Museo Egizio, Turin (© Museo Egizio)

the subject of the amulet could not be identified, because it was broken, partially preserved or badly damaged, the object was classified as ‘unidentifiable’.

In addition to iconographic variants, the amulets in the Turin collection can be distinguished by functional criteria, and specifically by the different solutions adopted for their suspension: one or more rings (arranged mainly at the top but sometimes also at the bottom or along the sides), a back-pillar with a hole, or a widthways or lengthways hole pierced through the amulet itself. Only rarely is there no suspension ring or hole. Most amulets have a base, whose shape changes according to the subject it is connected with. In general, the size of the amulets ranges from 0.2-0.4cm to about 10-12cm, respecting the typological and functional features of the individual amulet category. However, some larger artefacts have been included in the amulet group, too, because they conceptually belong to this class of objects.

As is often the case when it comes to amulets, many of those in the Turin collection come from the antiquities market. More specifically, 43% of the Turin amulets were purchased, mainly in the 19th century (e.g., some of them are part of the Drovetti collection), or donated, and some donations were made as late as the 1970s. 35% of the amulets, on the other hand, are classified as being of unknown origin, which means that no provenance and geographical origin information is available for them. A limited number of amulets – only 22% – come from archaeological excavations. Their sites of origin include Giza (one specimen), Ashmunein (18 specimens), the Valley of the Queens (nine specimens) and Heliopolis (389 specimens). The objects were found during archaeological campaigns conducted between 1903 and 1906 by the *Missione Archeologica Italiana* (M.A.I.), led by Ernesto Schiaparelli (Moiso and Lovera 2017: 149-175). Unfortunately, even in these cases, while the geographical origin is known,

information about the archaeological context remains scarce, and the amulets are mentioned only in passing in the excavation records, without providing specific details. Even for Heliopolis, which has a larger number of finds, the available information does not allow for a more in-depth examination of the context of the objects.<sup>3</sup> The only exception observed so far is a *djed* pillar amulet (S. 5163) of gilded wood and blue glass paste, found in Nefertari's tomb (QV 66) in 1904 (Figure 2). As reported by Schiaparelli: *In una piccola nicchia, otturata con una piccola lastra di pietra, scavata nella parete di fondo della camera del sarcofago, e bene dissimulata con il resto della parete, rinvenimmo ancora al posto l'amuleto, uno dei quattro protettori della tomba* (1923: 55).<sup>4</sup> The object was probably connected with one of the four magical bricks, unfortunately no longer preserved.



Figure 2. Amulet depicting the *djed* pillar. Gilded wood, blue glass paste. Valley of the Queens, tomb of Nefertari (QV 66). New Kingdom, 19th dynasty, reign of Ramesses II (1279-1213 BCE). Museo Egizio, Turin, S. 5163 (© Museo Egizio)

As can be seen from this overview, we have little information on the Museo Egizio's amulets, as in most cases their archaeological context has been completely lost. Therefore, given the lack of available data, whether qualitative or quantitative, the study of this object class is a complex undertaking.

This is also evident in the available literature. Amulets have been studied by many scholars in the past, but most of them only focused on questions of typology. Most works offer general overviews of the subject and attempt to provide a homogeneous categorisation of such finds, often reporting incomplete information. These include earlier studies by Petrie (1914) – 'Amulets' – Bonnet (1952: 26-31) and Müller-Winkler (1987). Andrews (1994) elaborates on the scheme proposed by Petrie to offer a broader, updated and still useful overview of the types and their chronological

macro-diffusion, while Ferrari (1996) illustrates the topic through an encyclopaedic approach, but hardly addresses issues of chronology. Herrmann's studies (1994; 2002; 2003; 2006; 2007; 2012; 2016) on amulets found in the Levant offer useful parallels from excavations. There are also many catalogues of museum collections (e.g. Berlev and Hodjash 1998; Camino and Papier-Lecostey 2007; Germond 2005; Reisner 1907, 1958) which, unfortunately, often lack detailed images and/or other useful contexts or material information. Beside these catalogues, there is a plethora of excavation reports or object group studies but, again, most of them mention amulets just in passing and give approximate dates, if any (e.g., Brunton 1927–1930, 1937, 1948; Brunton and Engelbach 1927; Downes 1974; Dubiel 2008; Dunham 1950; Engelbach 1915, 1923; Leclère and Spencer 2014; Masson 2019; Pellicer Catalán 1963; Petrie 1891, 1894, 1906, 1907, 1909, 1928, 1930; Petrie, Ayrton, Currelly and Weigall 1902-1904; Petrie, Brunton and Murray 1923; Petrie and Mackay 1915; Petrie, Mackay and Wainwright 1910; Petrie, Wainwright and Mackay 1912; Then-Obluska 2015: 29-45, 2022; Vercoutter 1975).

Although the available literature provides a valuable basis for study, I had to develop my own method to study the Turin amulet collection, attempting to make up for the general lack of an archaeological

<sup>3</sup> However, the site stands out for the abundance of geographically referenced amulets, in comparison to others investigated by the M.A.I. The data, although generic in nature, will be subjected to further analysis within the project.

<sup>4</sup> 'In a small niche, plugged with a small stone slab, dug into the back wall of the sarcophagus chamber, and well disguised with the rest of the wall, we found the amulet, one of the four protectors of the tomb, still in place'.

context. For this reason, two different research methods were developed within the project, which aim to simultaneously address both the iconographic and material characteristics of amulets, in order to provide as complete a picture as possible of these artefacts.

### First stage of the project: iconographic and material analysis

First of all, given the complexity of the subject, it was essential to establish precise boundaries. Since the artefacts in the Museo Egizio's database were designated in many different ways – jewels, pendants, necklace elements, amulets, etc. – the first goal was to define the concept of amulets, circumscribing our investigation area. In order to achieve this, we have classified the objects as 'amulets' based on their adherence to the iconographies and functions commonly associated with this term, as listed by Andrews (1994). Furthermore, we have taken into account size, the presence or absence of a suspension element, and the magical/symbolic meaning of each subject. All these characteristics allowed us to identify the objects of interest. Having done this, I created a preliminary list of finds through a terminological search in the database, integrating it with an inventory check. After having defined the list of objects, the study of the material began.

The first method of research was a properly Egyptological one. It is an extensive analysis, relying on parallels, whose objective is to improve and correct – where necessary – the typological and chronological classification already present in the Museo Egizio's dataset. Fresh data is being gathered by means of comparisons with amulets, most often kept in other museum collections or, in the best of cases, coming from archaeological excavations, and thus usually accompanied by more detailed information. Through this first analysis, we can redefine the chronology of the individual finds, and identify specific features of each period, helping to delineate a new and up-to-date typological development. At the same time, the museum started a new photographic campaign of all the amulets, so that images would be available for the study of the objects, showing all sides and diagnostic elements (Figure 3).



Figure 3. New photographic campaign, showing all sides and diagnostic elements. Amulet depicting the god Ptah-Patek. Faïence, Third Intermediate Period (1076-722 BCE). Museo Egizio, Turin, C. 589 (© Museo Egizio)

After assessing the variety of materials through a macroscopic study, the second method of research was a petrological and mineralogical analysis, carried out using Dino-Lite, Raman and SEM analysis by the Department of Earth Sciences, University of Turin. Together with Alessandro Borghi<sup>5</sup> and Denise

<sup>5</sup> Associate Professor at the Department of Earth Sciences, University of Turin.

Valentino,<sup>6</sup> we analysed 64 samples (with a scientific certainty of 95-100%), obtaining compositional and morphological information on the materials (Figure 4). We identified various kinds of stones, such as granodiorite, steatite, carnelian, lapis lazuli, obsidian, hematite, jasper, aventurine, etc. and we made summary tables with all the results, so that all the data is clearly available (Figure 5). By determining the nature of these 64 artefacts, it was also possible to define – by association – that of the remaining stone amulets. These first analyses, using scientific instrumentation, also made it possible to accurately identify which amulets were really made in faïence and which were not.

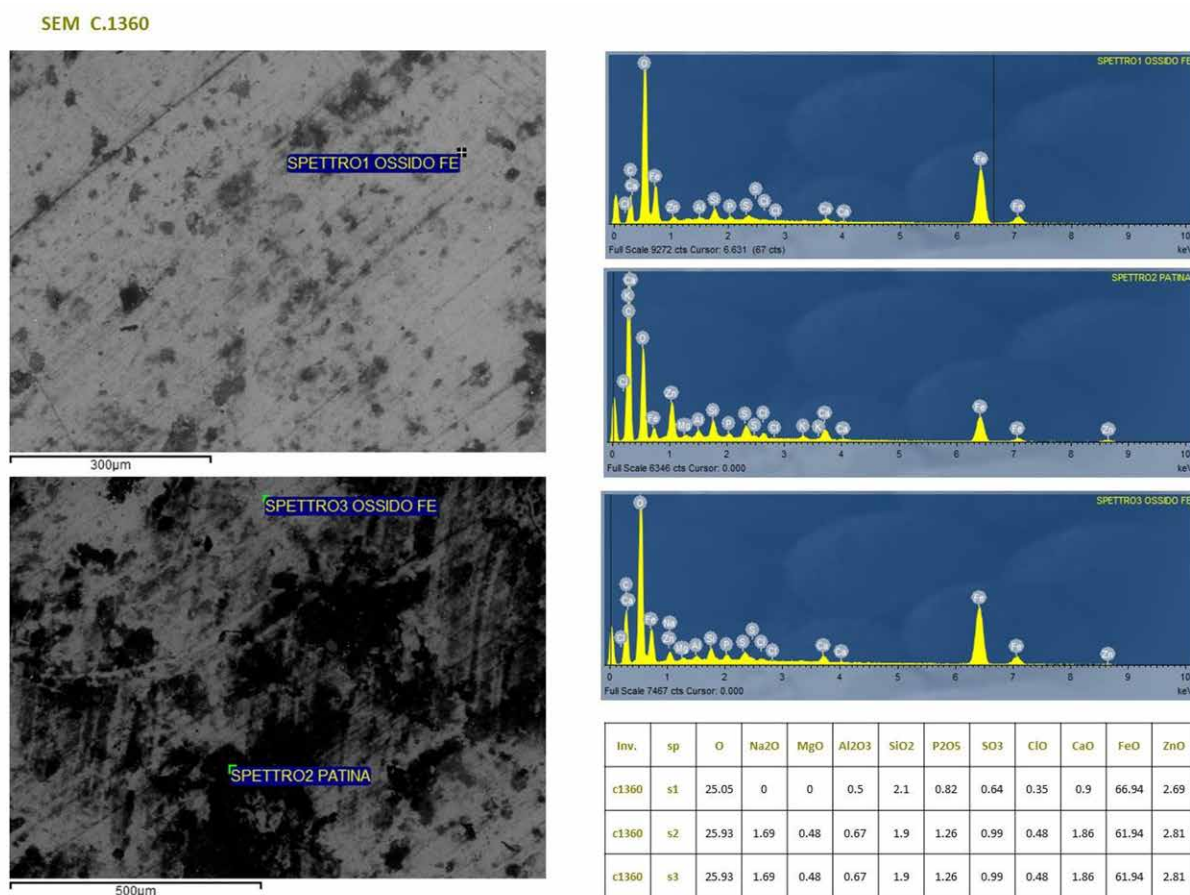


Figure 4. SEM analysis details for haematite amulet C. 1360 (© Denise Valentino/Museo Egizio)

<sup>6</sup> Independent Scientific Researcher.

3ª sessione di analisi 20-21 giugno (23 reperti)						
	3ª step_01_C.1330	3ª step_02_C.127	3ª step_03_P.1335	3ª step_04_C.1360	3ª step_05_C.1359	3ª step_06_P.6831vn44
	Faience nera	Faience nera e gialla	Ossidiana	Ematite	Anortosite	faience
	SEM - C1330	SEM - C127	SEM - P1335	SEM - C1360	SEM - C1359	SEM - P.6831vn44
3ª step_07_P.6873	3ª step_08_P.1299	3ª step_09_C.1115	3ª step_10_P.2001	3ª step_11_C.1151	3ª step_12_P.2000	3ª step_13_C.1105
Blu egizio	Serpentinite	Faience	Arenaria	Calcere	Blu egizio	Faience fuori fayalite dentro
SEM - P6873	SEM - P1299	SEM - C1115	SEM - P2001	SEM - P1151	SEM - P2000	SEM - C1105
3ª step_14_P.1990	3ª step_15_S.3166	3ª step_16_C.1278	3ª step_17_C.1159	3ª step_18_C.795	3ª step_19_C.974	3ª step_20_C.834
Faience gialla (tracce antimonio)	Faience	Osso	Gabbro	Faience	Faience verde	Vetro al piombo
SEM - P1990	SEM - S3166	SEM - C1278	SEM - C1159	SEM - C795	SEM - C974	SEM - C834

Figure 5. Summary table showing amulets, techniques and results (© Denise Valentino/Museo Egizio)

Therefore, in addition to the petrological analysis, the faience itself was also carefully observed and the colour was recorded for each find. At the current stage of the study, all the colours have been organised into six macro-groups, divided according to this table (Table 1):

COLOURS	
Red	
Yellow	
Green	
Blue	
Light blue-green	
Black	

Table 1. Classification of faience colours into macro-groups

Within the context of the project, all the data also had to be collected, structured and reorganised. For this reason, a homogeneous, updated, and normalised dataset was created. It is currently structured as follows:

1. an inventory section, with all the basic information (inventory number, macro-category, category, object, subject, type, measurements, provenance, photo, inventory description, current location, notes, and compiler);

2. a material section (generic material, specific material, analysis, raw data, notes);
3. a chronological section (date, grounds for dating, parallels from excavations and/or collections, notes).

Particular attention was given to the last of these. The identified parallels allowed me to create a preliminary web of connections between Museo Egizio and other collections – Metropolitan Museum of Art; Museum of Fine Arts, Boston; British Museum; Louvre Museum; Penn Museum, University of Pennsylvania; and many others. Particular attention was given to the grounds for dating, as parallels allowed me to modify the dates assigned to certain amulets, providing a starting point for future investigations. The ‘grounds for dating’ field, although of crucial importance to explain the choice of dates for objects in my opinion, is usually missing in catalogues or other works on amulets.

At the end of this phase, I was able to single out some main typological features that could be assigned to specific periods. These will be analysed more in depth as the project progresses. It should be borne in mind that the amulets of the Museo Egizio’s collection represent the periods from the New Kingdom to the Roman Period very well. For this reason, the analysis and study of the amulets in the Turin collection mainly consider this specific time range. However, earlier periods are also taken into account in order to have as complete an overview as possible of the material under examination.

Focusing on faïence amulets, which – as mentioned above – are the largest group, a general overview of these typological features can be gained by considering Bes and *wedjat* eye amulets, which are two quite substantial groups in the Turin collection. As can be seen from the examples in Figure 6, as far as the New Kingdom is concerned, these amulets are usually small-to-medium sized and worked mainly on one side only, while the back is flat. The suspension elements are generally small rings, placed at the top of the amulet or even at the bottom, while the *wedjat* eyes may also be perforated lengthwise. Faïence from this period is characterised by intense – and often contrasting – colours and extremely glossy glazes. In the Third Intermediate Period, amulets continue to be worked on one side but, at the same time, all-around production spreads and their size increases. Suspension rings are placed at the top or, in the case of three-dimensional figures, behind the head or back. In this period, the details on the surfaces could be coloured in black and the ‘openwork’ technique became particularly popular. The Late Period saw a great diffusion of amulets, mainly produced in the round and often so well made as to be considered miniature sculptures, rich in detail. The suspension elements consist of rings or, for the most part, back pillars with holes. Among the most popular colours is apple-green (also called sweet green). Again, the Late and then the Ptolemaic periods saw the production and dissemination of amulets with an extremely geometric rendering, in which details are made by engraving. The suspension rings are roughly made and irregularly shaped, while the back pillars are worked with little care and are hardly distinguishable from the body of the figure itself. Finally, in the Roman Period, a less accurate production, with yellow and dotted details, became widespread.

Obviously, all these preliminary features are specific to certain periods, but it should be born in mind that there can always be exceptions (e.g. in size or type of representation) and that changes are gradual transitions and not sharp caesuras.

### **Filling the gaps: new strategies in the study of amulets**

Having completed this part of the study, it was evident that from a purely Egyptological point of view there were limits that could not be overcome, because the archaeological decontextualisation of the amulets profoundly affects their study. As already mentioned, even when they come from controlled excavations, especially those from the early 20th century, information is scarce, as amulets were regarded as finds of minor importance. Furthermore, the parallels indicated in our new dataset cannot



Figure 6. Typological classification of amulets depicting the god Bes and wedjat eyes (© Martina Terzoli/Museo Egizio)

be considered to be exhaustive, because they often lack key information, being partially described and only dated approximately. In many cases, only few pictures are available, with just a frontal view of the object, or in black and white only. In other cases, there is not even a single image.

In order to gain more information about these objects and to fill the gaps resulting from the absence of data, we decided to delve deeper into the study of materiality and, again, into faïence. Faïence, called *t̥hn.t* (*tjehenet* – literally “the dazzling one”), is the material amulets were most often made from, and its use and production covered a very long time range: it first appeared in the Predynastic Period, with a first phase of experimentation, and remained in use until the Roman Period. Despite its great diffusion, no textual or iconographical data is available concerning its production, except for one potential scene in TT 36 (Nicholson and Peltenburg 2000: 178). Over time, however, several transformations in terms of production method, colouring and glazing took place, which provide valuable indications for more accurate dating. A preliminary backbone of these changes was given by Kaczmarczyk and Hedges (1983) in their interesting analysis of faïence from a purely material point of view. This is an excellent starting point. The two authors present the results of an archaeometrical analysis carried out on faïence objects held in the Ashmolean Museum, Oxford, and the Petrie Museum, London, dating from the Predynastic to the Roman Period and manufactured from Alexandria to the Third Cataract. Based on this analysis, Kaczmarczyk and Hedges delineate the different compositional types of faïence and connect them with chronological aspects and different geographical areas. In addition to the above-mentioned publication, there are many specialist articles which investigate the material from an archaeomaterial point of view and add useful information for its study (Tite *et al.* 1983; Tite *et al.* 2007; Tite and Shortland 2008; Whitford *et al.* 2021). It is known, for instance, that until the Middle Kingdom the main colours attested seemed to be green and blue, obtained from copper oxide (Kaczmarczyk and Hedges 1983: 149-151, 230-235). During the New Kingdom, some innovations were introduced, which included the use of cobalt to produce dark-blue glazing and the use of antimony and lead for yellow objects (Caubet and Pierrat-Bonnefois 2005: 73; Kaczmarczyk and Hedges 1983: 146-149, 151-154, 244). In the same period, along with innovations in glass making and metalworking, polychrome faïence became common (Kaczmarczyk and Hedges 1983: 244), with combinations of contrasting colours, such as red and green, especially during the reigns of Amenhotep III and Amenhotep IV (Caubet and Pierrat-Bonnefois 2005: 73). During the Third Intermediate Period, there were again some changes. According to the literature, cobalt and antimony disappeared almost completely (Kaczmarczyk and Hedges 1983: 146, 259, 262; Caubet and Pierrat-Bonnefois 2005: 99) and green and blue colours were preferred. During the 21st or 22nd dynasty, the so-called ‘vitreous faïence’ appeared (Lucas 1936: 164-167; Kaczmarczyk and Hedges 1983: 212-

214; Nicholson and Peltenburg 2000: 184, fig. 7.4), with the inner core and the surface glaze not clearly distinguished. The body was thus hard and compact. Faïence from the Late Period, especially from the 26th dynasty, is said to have reached a high quality (Kaczmarczyk and Hedges 1983: 266). Antimony and cobalt were used again, and bright blue or apple-green surfaces were widespread (Kaczmarczyk and Hedges 1983: 266-268; Nicholson and Peltenburg 2000: 184). The Ptolemaic Period shows a conscious use of these materials by Egyptian craftspeople, with a preference for intense colours and combinations of contrasts.

I have summarised the distribution of faïence colours over time in Table 2. The table includes information on the elements from which the colours are derived, as well as other useful characteristics, as indicated by Kaczmarczyk and Hedges.

TABLE 2. DISTRIBUTION OF FAÏENCE COLOURS OVER TIME

Chronology	Colours						
	White	Yellow	Green	Blue	Indigo/purple	Black/grey	Brown/red
Predynastic Period			x from copper	x from copper			x
Early Dynastic Period	x		x from copper	x from copper	x purplish	x	x
Old Kingdom	x		x from copper	x from copper	x purplish	x mainly from manganese	x
First Intermediate Period	x		x from copper	x from copper	x purplish	x mainly from manganese	x
Middle Kingdom	x		x from copper	x from copper	x purplish	x mainly from manganese	x
Second Intermediate Period	x		x from copper	x from copper	x purplish	x mainly from manganese	x
New Kingdom	x	x from lead antimonate	x from copper, also mixed with lead antimonate	x from copper or/and cobalt	x Type III (Kaczmarczyk and Hedges)	x mainly from manganese	x voluntary distinction of the two colours

Chronology		Colours					
Third Intermediate Period	x	x almost disappears	x mainly from copper	x mainly from copper	x Type II (Kaczmarczyk and Hedges)	x mainly from manganese	x
Late Period	x	x from lead antimonate	x from copper, also mixed with lead antimonate, plus iron	x from copper or/and cobalt	x Type III and IV (Kaczmarczyk and Hedges)	x mainly from manganese	x
Ptolemaic Period	x	x from lead antimonate	x from copper, also mixed with lead antimonate, plus iron	x from copper or/and cobalt	x Type II and IV (Kaczmarczyk and Hedges)	x mainly from manganese	x

This overview clearly shows how studies of material can provide useful insights and new information about artefacts that have never been investigated from this perspective before. Again, the amulet object group in Museo Egizio, Turin, was particularly well-suited for this purpose, thanks to the size of the corpus of faïence amulets (1400 specimens). However, it should be borne in mind that a purely visual study and description of all these changes, particularly of the glaze and its colours, is heavily influenced by the person undertaking it and can therefore neither be considered objective nor comprehensive.

For this reason, and to fully understand the production of faïence and amulets, Museo Egizio started a campaign of systematic investigations in collaboration with the XRAYLab, *Istituto di Scienze del Patrimonio Culturale – Consiglio Nazionale delle Ricerche* (ISPC-CNR), Catania in 2021.<sup>7</sup> All the faïence amulets were analysed by means of X-ray fluorescence (XRF), a non-invasive method of investigation. More specifically, the amulets in the Turin collection were analysed using macro-XRF (MA-XRF). This technique is particularly suitable for the analysis of faïence and elements that are part of its glassy matrix and the elements used to obtain the different colours (e.g. copper, antimony, cobalt, etc.). The technique can also detect the presence of opacifying materials, such as potassium or tin. The data obtained from the measurements will be processed with statistical analysis and clustering algorithms based on the use of artificial intelligence in order to classify the samples according to groups. Based on the results, subgroups of finds – with diagnostic elements of interest – will be selected for further investigation. The application of this method to a homogeneous class of objects in a museum collection – amulets – produced in a specific material – faïence – is a completely innovative aspect in Egyptological studies.

More specifically, four analysis sessions were conducted at Museo Egizio, in July and October 2021, in February 2022, and in February 2023, supervised by myself and the CNR team, which macro-XRF scanned amulets' surfaces and the inner cores of fractured specimens. The investigations were first conducted on amulets in storage and then on those on display, placed in dedicated wooden boxes (Figure 7).

<sup>7</sup> Francesco Paolo Romano, Senior Researcher, is the head of the XRAYLab, (ISPC-CNR), Catania.

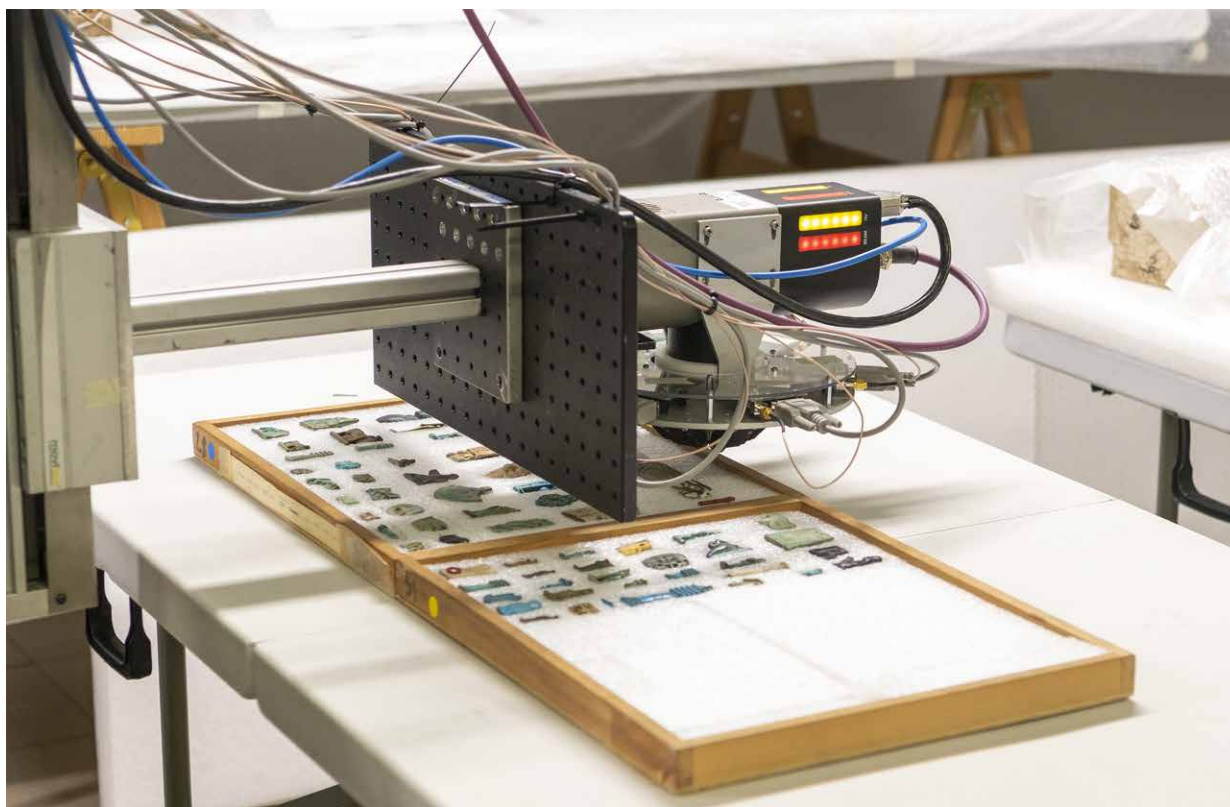


Figure 7. Some of the amulets under investigation (© Museo Egizio)

Although amulets are small-to-medium sized objects, they are heterogeneous and complex artefacts, often rich in detail. Therefore, all scientific data gathered from these analyses are now being processed by the CNR team. We will be subsequently interfacing the Egyptological and archaeometrical information to shed light on different aspects of amulet production. Starting from the most certain information we have (e.g., provenance of amulet groups, such as Heliopolis, or the most clearly definable dates based on style), an attempt will be made to supplement missing data, providing a starting point for future studies. The results obtained for the Museo Egizio's amulets can then be extended, by similarity, to the amulets identified as parallels in other Egyptological collections all over the world.

## Conclusion

As of the time of writing, *Progetto amuleti* is an ongoing project that still needs a lot of work to be done, but its research questions and goals are well-defined. The expected results will allow for a better understanding of the technique of production of amulets and faïence. The project will try to identify several elements, such as:

- material supply areas and workshops; it should be borne in mind that no textual or iconographical data is available concerning faïence production. Archaeological evidence, although not always clearly interpretable, will be taken into account for the analysis of these aspects;
- the motivations of production choices (e.g. colour and type of workmanship) as related to the shapes of, and the subjects represented by, the amulets;
- faïence recipes and their changes over time (to produce a typological series that can be linked chronologically to amulet types identified through the morphological study);

- direct connections between morphological, material, functional and geographic features, allowing for new hypotheses about the areas of origin of some amulets. In this way, we will also try to reconstruct how the amulets came to be in the collection.

The joint interpretation of Egyptological and archaeometrical data is an innovative aspect of this study, which is based on a large corpus of amulets. The project also highlights the role that archaeometry may play in modern Egyptology, by applying new methods to the study of a museum collection. Their collaboration is now essential and is opening up new research horizons.

Another strength of this project is data sharing. As mentioned earlier, the project aims to make all data available to both scholars and the public. A first part of this work was completed in September 2022, when all the basic amulet information, revised and updated, was published on the Museo Egizio's website (< <https://museoegizio.it/explore/news/online-gli-amuleti-del-museo> >). The data obtained from the project will therefore be freely made available to the scholarly community and will provide a solid basis for future research.

Among the many goals is also the publication of a research monograph on all the work done, supplemented by a comprehensive online catalogue of amulets in the Turin collection. In addition, all the information derived from the joint investigation of the faïence amulets will be useful for a better understanding of the amulets made of other materials, to complete the general framework of analysis.

Finally, the study of this object class is also valuable because it allows one to explore an interesting anthropological dimension, which is not always easy to understand. As already mentioned, amulets – as magical protection objects – show us the fears and desires of the ancient Egyptians through the ways in which they sought to protect themselves from anything they deemed dangerous. Some of them were used in particularly difficult situations in life: the amulet of the goddess Taweret, for instance, protected pregnant women, because childbirth was perceived as a moment of great fragility. Other amulets were mainly of a funerary nature, such as the headrest, and were placed between the bandages of the deceased, highlighting aspects of the mentality of the time. The body had to be protected even in the afterlife, so that the deceased could continue his or her journey and obtain eternal life. Faïence as a material was itself endowed with symbolic properties, exploited in both the magical-medical and ritual spheres and linked to the wide range of colours offered by the material, which contributed to the curative, magical and religious purposes of an amulet. For this reason, faïence – despite being a much cheaper material than others – was also widely used by the élite. Therefore, one of the ultimate aims of this project is to shed further light on the connection between material culture and the people who produced it.

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# Parallel Occupations: Third Spaces in Nubia and Dacia

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## Abstract:

This paper presents an interdisciplinary investigation into the cultural exchanges between the Egyptians and Nubians (c. 2055-1069 BCE) and the Romans and Dacians (101-275 CE), comparing the interactions of these two distinct empires with their peripheral regions in order to better understand the functioning of each empire. The methodology employed abandons the core and periphery model, replacing it with the third space theoretical framework. Starting from a top-down perspective, the Egyptian and Roman states depict foreigners in a remarkably similar manner, ethnographically marking their respective subject peoples through stereotypes, often negative in nature. Such examples of these stereotypes are monumentalized in Egyptian scenes of formal foreign tribute presentations and Roman imagery of their victory over the Dacians on Trajan's Column. Transitioning to a bottom-up frame of reference, the evaluation of individual textual descriptions, like the Nubian/Egyptian soldier Tjehemao's inscription and the Roman funerary epitaph of Decineus, and pictorial representations, such as a commemorative stela of a Nubian patrolman and a stela of a *draconarius* in the Roman *auxilia*, reveals how entangled identities are negotiated through the monumental discourse of the Egyptians and Romans in military contexts by the Nubians and Dacians, respectively. Finally, an assessment of ceramics from both Egyptian and Roman liminal environments demonstrates how foodways represent the main discernable means by which the indigenous people retain their culture and influence the culture of the controlling empire, as attested by the presence of both native and hybrid style vessels alongside those originating from the dominant power. Overall, the Egyptian and Roman relationships with the peoples of Nubia and Dacia, respectively, display striking similarities, likely resulting from practical considerations to maintain control over these territories and create a functional social order, and demonstrate the potential of cross-cultural studies in the evaluation of these liminal environments and the entangled cultures that emerge.

## Keywords:

Nubia, Dacia, Third Space, Colonialism, Cross-Cultural Comparison.

## Introduction

Comparing the Egyptian and Roman Empires' interactions with the peoples of Nubia and Dacia, respectively, this study attempts to provide a framework to better understand the relationships

between a powerful empire and a peripheral region under its control from a cross-cultural perspective. While these encounters have often been viewed either from a purely Egyptian or from a purely Roman perspective, frequently influenced by imperial identity, the local ethos continued to exist concomitantly, creating a third space environment that produced a distinct, entangled culture.

In Nubia, the period of interest is the early Middle Kingdom (MK) through late New Kingdom (NK) (c. 2055-1069 BCE). Forts were initially constructed in Lower Nubia as garrisons for Egyptian military forces and local Nubian auxiliaries in order to foster trade, exploit the area's resources, control the local populations, and promote Egyptian ideology. Essentially, this region served as a liminal/linking area, a buffer zone, between Egypt and Kerma/Upper Nubia, with the Second Cataract forts possibly erected by Senwosret III in response to the rise of Kerma (Bestock 2021: 273, 285; Flammini 2008: 59-60; Hafsaas-Tsakos 2009: 60-62; Knoblauch 2019: 367, 370-379; Morris 2018: 67-83; Näser 2013: 138; Raue 2019a: 306; Smith 1995: 39-50; 2020: 29-30; Vogel 2013: 79-80). Over time, this emphasis changed to incorporating Lower Nubia into the Egyptian state. When this occurred, a large number of Egyptian civilians joined the military population to participate in various economic enterprises, within the guise of the traditional Egyptian economy centered around stone temples. Often opportunistically reusing the architecture of MK forts in Lower Nubia or built at strategic locations in Upper Nubia, these 'temple towns', like the MK forts, served similar functions, sometimes engaging existing Nubian principdoms and similar hierarchies for their administration. When used, the princes, along with other Nubian and some Egyptian officials, oversaw the indigenous people together with the Egyptian settlers, similar to their Egyptian counterparts (Budka 2020: 395, 405-407, 415; Lemos and Budka 2021: 404; Morkot 2013: 945-949; Morris 2005: 342; van Pelt 2013: 524, 540; Säve-Söderbergh 1991: 188; Smith 2020: 31-32, 37; Spencer, Stevens and Binder 2017: 20-21; Ullmann 2016: 167-168; Vieth 2018a: 211-229; 2018b: 228-232, figs 1-2; Vogel 2013: 80-81). This shift in focus led to significant cultural exchange and overlap, apparent in visual imagery, burial traditions, and material culture.<sup>1</sup>

In Dacia, the focus is the Dacian wars and the subsequent Roman Period (101-275 CE), when the Roman emperor Trajan conquered the Dacians and then provincialized the area in order to expand the Roman Empire's borders beyond the Danube River. The Dacians, also sometimes referred to as the 'Geto-Dacians', were the northern subgroup of the Thracian cultural group who, from the 3rd century BCE to 2nd century CE, were a collection of powerful kingdoms – twice unifying into a single kingdom – encompassing what is roughly modern-day Transylvania, Romania, and were known for their martial prowess and wealth in gold (Gonciar 2018: 10; Treptow 1987: 501), which is a commonality they shared with the Kerman people. By the 2nd century CE, they posed a formidable threat to the Romans' security along their borders of the Danube River due to the devastating raids they conducted against the nearby Roman province of Moesia and their occasional alliance with the neighboring Sarmatian tribes, a nomadic people who occupied the eastern and western flanks of the Carpathian Mountains (Cass. Dio. 67.6.1-6, 7.1-4, 10.1-3; Oltean 2007: 50-53; Tac. *Hist.* 4.54.1). Reasons cited for the Roman conquest of Dacia include Trajan's ambitions for personal glory, exacting vengeance for Domitian's prior defeat, and efforts to eliminate a unified power that was a threat to Roman influence in the Balkan Peninsula<sup>2</sup> (Bennett 1997: 87; Cass. Dio. 68.6.1; Diaconescu 1997: 18-25; Haynes and Hanson 2004: 15; Lepper and Frere 1988: 38-39; Oltean 2007: 53-55; Pundt 2012: 44; Weiss 2012: 33, 82). The invasion of Dacia additionally offered an immediate economic benefit, providing access to the abundant natural resources of the region, evident from the immense amount of spoils, especially gold and silver, the Romans received after the Second Dacian War (Gheorghie 1988: 262).

<sup>1</sup> In regard to this shift, see Smith (1995: 1-22).

<sup>2</sup> On primary sources speculating the reasons for Trajan's conquest, see Cass. Dio 68.6.1.

In order to secure the region, monitor the area, and exploit the natural resources, the Romans dramatically transformed the Dacian landscape, replacing the native Dacian socio-political structure with a foreign, Roman one (Haynes and Hanson 2004: 18; Oltean 2007: 207-227). The Romans razed many of the Dacian fortified hilltop settlements and, in their place, constructed their own fortresses, towns, and infrastructure, including roads and aqueducts (Haynes and Hanson 2004: 18; Oltean 2007: 210; Ruscu 2004: 80-81; Weiss 2012: 84). As a result, Roman provincialization of Dacia rapidly transformed the identity of the area through the mass population loss of Dacia after the Dacian Wars, the disenfranchisement of the Dacian elite, the mass migration of Roman colonists into the area, and the incorporation of the remaining local Dacian population into the Roman provincial governance (Haynes and Hanson 2004: 18; Weiss 2012: 84). Visual imagery, funeral traditions, and material culture further demonstrate substantial cultural exchange not only between Romans and Dacians, but also with the Dacians and other cultures from outside of this region, with the Roman epigraphic habit as a medium for cultural dialogue.

Both peripheral regions – 2nd millennium BCE Nubia and 2nd-3rd century CE Dacia – exist at the crossroads of empires, allowing for the indigenous traditions and practices to persist while also experiencing outside influences from powerful state-level societies. Although some studies have briefly compared Egyptian and Roman fortified settlements and administration in marginal regions (Darnell and Manassa 2007: 99-102, fig. 16, 116-117, 171), the goal of this research is to evaluate them from an in-depth, cross-cultural perspective through the analysis of four case studies. Nubia and Dacia offer a beneficial insight because these two areas have not yet been explored side-by-side and because both regions provide useful analogies in transformations of cultural exchange within the context of warfare and subordination.

## Methodology

When performing this study, it is important to first define the idea of ethnic identity and describe the various theoretical frameworks utilized to investigate the interactions of diverse ethnicities and cultures. For this paper, ethnic identity is understood as something not only constructed by people in order to create social solidarity, but, conjointly, to divide one particular group from another, furthered by negative attributes given to those who are different. Developed from an assortment of cultural features which can be emphasized in order to communicate a message (Matić 2020: 9-10; Smith 2018: 114, 116-117), ethnic identity is a dynamic construct that can change and adapt to fit specific contexts. Essentially, as Smith (2021: 371; see also Gatto 2014: 93; Hubschmann 2010: 179; Smith 2018: 123) remarks, ‘ethnicity is multi-scalar, mutable, and situationally contingent, both self-identified and ascribed by others’.

In the study of ethnicity and identity in the context of empires such as Egypt and Rome, a number of theoretical frameworks have been employed. The core-periphery model developed by Wallerstein (2011) assumes that the core is dominant over the peripheries and asymmetrical exchange exists between the two groups. A purely top-down perspective, the unidirectional transfer of culture and innovations from the core to the periphery forms the basis of this model, often called ‘Egyptianization’ (first coined by Reisner (1910: 340-342; 1918: 236) and based mainly on biased textual and artistic sources with little archaeological evidence (Flammini 2008: 51; Näser 2013: 135; van Pelt 2013: 523-525, 533, 541; Smith 2020: 23, 26; 2021: 369; Smith and Buzon 2014: 431; de Souza 2021: 231-232; Williams 2018: 106-107)) or ‘Romanization’<sup>3</sup> (Haverfield 1912; Millet 1990). However, this framework is considered too simplistic, being diffusionist in nature and excluding the complex, multidirectional mechanisms of cultural exchanges, transformations, and adaptations between all groups from a bottom-up perspective (Budka

<sup>3</sup> For the application of this framework to Nubia, see Hafsaas-Tsakos (2009: 50-53, 65-67) who argues that Kush was one of the centers/cores of the world system during the Bronze Age.

2020: 412; Flammini 2008: 50-52; Kohl 1987: 13-24; Lemos 2020: 39-41; Morris 2018: 110; van Pelt 2013: 523-524, 529-533; Smith 2015: 773; 2020: 26-28; 2021: 372; Spencer, Stevens and Binder 2017: 42-43; Wolfe 1998).

Of the various less biased post-colonial frameworks considered,<sup>4</sup> third space emerges as the most applicable one to use in conducting a comparative analysis between Nubia and Dacia. This theoretical framework refers to an ‘in-between’ or ‘middle ground’ environment where multiple cultures encounter each other, producing an entirely unique culture through individual and group interaction, resulting from the combination and modification of aspects from the original cultures (Bader 2021: 38-39; Bhabha 2004: 54-57; Fahlander 2007: 15-37; Maticić 2017: 103-104; 2020: 51-52; Smith and Buzon 2017: 627; Steel 2018: 15-24; 2023: 130-149; Troche 2022: 6, 10-12). It most sufficiently explains modes of cultural exchange in both Nubia and Dacia, because once these two regions become incorporated into a larger, more expansive and cosmopolitan state, the local identities are introduced into a larger network of ethnic identities.

However, regardless of the theoretical model chosen, it is the underlying mechanisms explaining cultural contact associated with that framework that must be investigated, rather than simply identifying when it manifests (Dietler 2010: 53; van Pelt 2013: 541; Smith 2015: 775) as no single model exists to fully interpret the often very ambiguous evidence found in Egypt/Nubia and Rome/Dacia (Bader 2012: 213; Smith 2007: 232). As such, the frequently biased ideological and elite expressions of ethnic identity in art and epigraphic material will be studied together with everyday practices relating to ethnic identity detected in archaeology. When looking at this material, the pejorative views regarding the other expressed by the state are often in contrast to more nuanced interactions and influences between various groups seen in non-state sources (Smith 2018: 113-116), necessitating a more comprehensive evaluation of all available evidence and consideration of conflicting points of view.

### Foreigner/Barbarian-topos

The ancient Egyptians often established different ethnic groups by stereotypically depicting other cultures as distinctive from themselves in respect to dress, cultural features, and physiognomy, in other words the foreigner-*topos* (Bader 2012: 215-216; Maticić 2020: 11-14, 40-41; Panaite and Thuault 2016: 13, 17-29; van Pelt 2013: 526; Smith 2018: 115). They then utilized this differentiation to legitimize the authority and power of the king over the ethnic ‘other’ (the state ideology), whom they frequently referred to as unenlightened and ignorant in regard to Egypt (Bader 2012: 216; Flammini 2008: 61, 66; Loprieno 1988: 14-34; van Pelt 2013: 526-527, 533; Schneider 2006: 202-203, 213; Smith 2018: 117-118, 120). This *topos* further allowed outlanders to be ‘magically subjugated’ by the Egyptians (Figure 1). The foreigner-*topos* is described textually in the great Semna Stela of Senwosret III which discusses the cowardice (*hm* - line 10), wretchedness (*hwr* - line 13), and vileness (*sd-ib* - line 13) of the Nubians (*nhs. iw*) (Bestock 2021: 285; Eyre 1990: 135; Flammini 2008: 54-56; Lichtheim 2006: 119; Obsomer 2017: 13-16; Panaite and Thuault 2016: 19-23, 28; Parkinson 1995: 66-67; van Pelt 2013: 526; Sethe 1983: 83-84; Smith 2018: 120-123, figs 2-3).

In ancient Rome, non-Romans were considered ‘barbarians’, and the Romans likewise distinguished these individuals from the Roman citizens via stereotypes, especially in regard to their dress, actions, or speech in Greek and Latin literature (Gruen 2010; Isaac 2006; Woolf 2011). For example, courage,

<sup>4</sup> Other theoretical frameworks evaluated include cultural entanglement (Gatto 2014: 98; Lemos 2020: 7, 41-44; Maticić 2020: 45-46; van Pelt 2013: 524, 533, 541; Smith and Buzon 2014: 431; de Souza 2020a: 5, 8-10, 15; Stockhammer 2012: 50-51, 56; 2013: 12-14), practice theory (Smith 2020: 28-29; 2021: 372), globalization (Versluys 2017b), objectscaapes (Lemos 2020: 9, 11-12, 16-20, 37-39, 45-48, fig. 9, 312-315; Lemos and Budka 2021: 404-406, 415; Pitts and Versluys 2021: 367-371, 379; Versluys 2017a: 191, 194, 197), glocalization (Gardner 2013: 8), and creolization (Knörr 2018: 15-30; Webster 2001: 221).

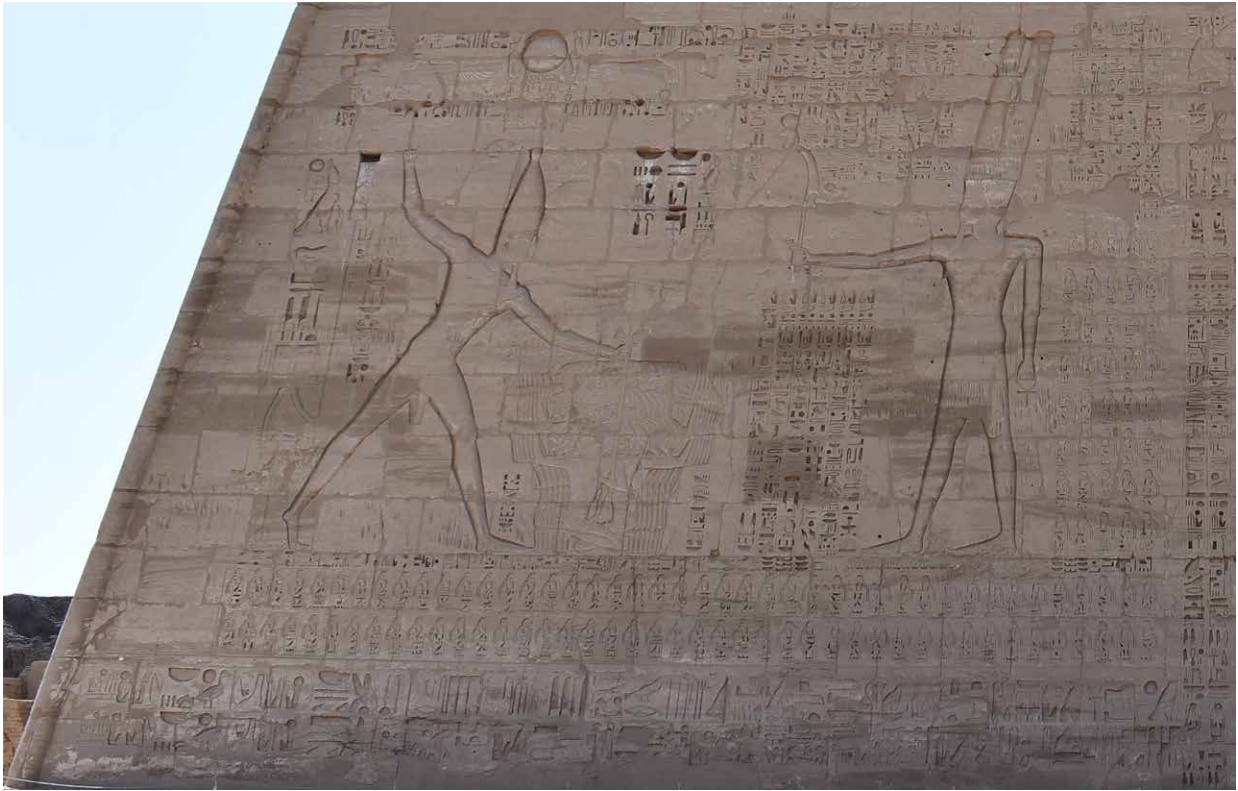


Figure 1. First pylon at Medinet Habu showing Ramses III demonstrating his dominance by smiting foreign princes (wr.w) before Amun-Re (photo by Michael Tritsch).

virtue, and restraint are distinctly Roman values, with the ‘barbarian’ other commonly portrayed as reckless, cowardly, treacherous, and/or overly daring, especially in military contexts (Isaac 2006: 8, 427-439). Both the Greeks and Romans applied such stereotypes onto the Dacians, whom they deemed to be treacherous, warlike, and dishonorable, with the Romans, especially, extending this stereotype to other ethnic groups within the Balkan Peninsula, including the Sarmatians, Getae, and Rhoxolani (Yavetz 1998: 90). For example, the Roman historian Tacitus noted that the Dacians could not be trusted, especially in the aftermath of their raid against a Roman auxiliary camp in Moesia (Tac. *Hist.* 3.46.2). Similarly, the second-century CE Roman grammarian and rhetorician Fronto applied a terrifying, bellicose quality onto the Dacians when he spoke of their wielding of the *falx*,<sup>5</sup> a curved blade that was a standard weapon in the Dacian military panoply (Berzovan and Borangic 2016: 24-25; Grigore 2013; Henț and Cioată 2021; Rustoiu 2007). He wrote,<sup>6</sup> [...] *in bellum profectus est cum cognitis militibus hostem Parthum contemnentibus, sagittarum ictus post ingentia Dacorum falcibus inlata volnera despiciatui habentibus*, ‘[Trajan] engaged in battle with hardened soldiers who hated the Parthians – the enemy – and the blows of their arrows, after the terrible wounds inflicted by Dacian *falces*’ (Front. *Princ. Hist.* 9). These accounts characterize the Dacians as harbingers of danger and war, and the *falx* furthermore acts as a literary device to stereotype Dacian warriors. Therefore, both the Egyptians and the Romans explicitly employed negative stereotypes in ideologically charged contexts involving their interactions with the Nubians and Dacians, respectively, casting them as the savage ‘other’.

<sup>5</sup> Statius similarly describes the Dacian *falx* as a formidable weapon (Stat. *Achill.* 2.417-422).

<sup>6</sup> All Latin translations rendered by Davis.

### State ceremonies: top-down representations

State ceremonies oftentimes further cement the foreigner/barbarian-*topos* (Smith 2021: 374, 380-381). In Egypt, the *inw*-ceremony was an ideologically loaded event enacted to legitimate royal authority and power, which the west wall of the tomb of Amenhotep Huy (TT 40), the viceroy of Kush during the reign of Tutankhamun, seeks to portray (Figure 2). A heavily-choreographed ceremony, it involved both Egyptians and



Figure 2. Depiction of the *inw*-ceremony on the southern half of the west wall in the tomb of Amenhotep Huy (TT 40) (photo by Michael Tritsch).

archetyped foreigners (*topos*) who likely possessed little agency in their appearance and actions, including Nubian, Southwest Asian, Libyan, and Aegean peoples. The southern half of the wall, shown in Figure 2, highlights the Nubian participants, while the other foreigners appear on the heavily damaged northern section of the wall.<sup>7</sup> A key element of this ritual involved the offering of stereotypical gifts/taxes by these various groups to the king by means of the viceroy in exchange for life. The inscription beneath the first register explicitly defines this purpose, reading (Davies and Gardiner 1926: 24, pl. 27),<sup>8</sup>

<sup>7</sup> For a better-preserved representation of this ceremony, see the reception of foreign tribute scene in the tomb of Meryre II at Amarna (Davies 1905: pl. 37).

<sup>8</sup> All Egyptian translations rendered by Tritsch.

*wr.w n.w kš dd=sn i(nd)-hr=k nswt n km.t r n pd.t psd.t im(i) n=n t3w n dd=k nh=w(in)<sup>9</sup> m mrr=k*, ‘The princes of Kush continually say, “greetings to you, o King of Egypt, sun of the Nine Bows. Give to us the breath of your giving with the result that we live as you desire.”’ This performative action demonstrates the king’s maintenance of *ma’at* and displays the king as the master of the known world wherein the microcosm of the depicted individuals represents the macrocosm of the empire under his control, whose conduct parallels that of Re in the greater cosmos (Davies and Gardiner 1926: pls 22-34; Smith 2015: 769-770; 2017: 102-103, 105-106, fig. 10.5, 108-109; 2020: 34-36).



Figure 3. Image of Hekanefer in the tomb of Amenhotep Huy (TT 40) (photo by Michael Tritsch).

Of particular note in Huy’s tomb is the portrayal of the Nubian prince (*wr*) of Miam, Hekanefer (Figure 3), and his entourage, which encompassed other princes and their children, as Egyptianized Nubians, with their acculturation often taking place since childhood, considered essential to creating a loyal, unified ruling class. This appears in contrast to some of the other figures, including prisoners and enslaved peoples, and elements, such as the cattle chariot, which are presented in their indigenous form, especially those on the left half of the top register, indicating that acculturation was not all-encompassing (Darnell 2023: 220; Doyen and Gabolde 2017: 152; van Pelt 2013: 530, 534-537, fig. 3; Schneider 2006: 206; Smith 2015: 768, fig. 1; 2021: 377-379, fig. 20.3; Spencer, Stevens and Binder 2017: 42). However, Hekanefer’s identity becomes more complicated when studying his self-representation in his own tomb at Toshka in Nubia, modelled after Huy’s tomb and equipped with Egyptian burial accoutrements. Here, the tomb paintings portray Hekanefer as an Egyptian official (Davies and Gardiner 1926: pl. 2; Simpson 1963: 7, fig. 4, 9, fig. 7, 27, pls 4, 14-17), a mimetical representation of his identity in which he likely had more agency in producing. Hekanefer’s appearance, therefore, oscillates between being Egyptian in his tomb and Nubian, possibly a pacified Nubian, during the *inw*-ceremony in the tomb of Huy, presumably relating to the ideological demands of the king dominating over chaos, the foreigner-*topos* (Lemos and Budka

2021: 406; Matić 2017: 101-102; Morris 2018: 105-108, figs 4.3-4a; Säve-Söderbergh 1991: 187-188, 192, fig. 2; Smith 2003: 167-187; 2015: 767-772, fig. 1, pl. 7; 2017: 106-109, fig. 10.9; 2018: 124-125, fig. 4; 2020: 35-36; 2021: 376-381, figs 20.2-3).

This pattern is further seen with prince Djehutihotep (and likely his brother Amenemhat) of Debeira, from the reigns of Hatshepsut and Thutmose III, who similarly characterizes himself as an Egyptian official in his monumental pyramid tomb. Yet, he does retain his Nubian name Pa-itsy, potentially

<sup>9</sup> This is likely a defective stative ending (contra Davies and Gardiner 1926: 24). It could also be read subjunctively as *nh=(t)w*, ‘so that one might live.’

relating to the burial environment being the prime setting for (re)negotiating identity (Morris 2018: 107-109, figs 4.4b-d; Näser 2013: 148; van Pelt 2013: 536-537; Säve-Söderbergh 1991: 187-188, 193-194, figs 3-4; Säve-Söderbergh and Troy 1991: 199-200, fig. 51, 206). In addition, numerous other plundered Egyptian-style rock cut tombs identified near Djehutihotep's sepulcher indicate his status was not epiphenomenal (Säve-Söderbergh 1991: 186, 191, fig. 1), a paradigm also apparent at Aniba (Smith 2021: 375; Steindorff 1937).

Overall, it seems that the Lower Nubian princes exercised much more control in the decoration of their tombs, where they appear as Egyptian bureaucrats, embracing the colonial system wherein their cooperation allowed them to reap numerous rewards. Only in Egypt, away from their homeland, were they depicted as Egyptianized Nubian, as seen with Hekanefer in Huy's tomb, or even fully Nubian, the foreigner-*topos*, as seen in Rekhmire's tomb (Davies 1943: pl. 18), emphasizing Egyptian domination and superiority (Doyen and Gabolde 2017: 152; van Pelt 2013: 536; Smith 2015: 768-771; 2020: 31). While these differing depictions have been argued to relate to either the princes possessing two situational identities or appropriating a new entangled identity through their mastery of the Egyptian and Nubian cultures (Darnell 2023: 234-235; Darnell and Manassa 2007: 125-131, 134-135; Matic 2017: 102; van Pelt 2013: 535-538; Török 2009: 263-283), these interpretations are dubious as these princes and other participants likely maintained little control in how they were portrayed in choreographed ceremonies, related to the oppressive ideological/political nature of these theatrical displays which denigrate foreigners as the barbaric other, the foreigner-*topos*, who need to be subjugated, not empowered.<sup>10</sup> As such, they may have only retained full agency in their dress in their home towns, as monumentalized in their tombs (Matic 2017: 101-102; 2020: 47; Smith 2003: 173; 2015: 767-770; 2017: 105-110; 2018: 126; 2020: 35-36; 2021: 379-381), although it could also be argued that their appearance as an Egyptian bureaucrat in their tombs may have been yet another *topos*, possibly aiding in their legitimation (Darnell and Manassa 2007: 134-135). The latter is somewhat supported by the high quality of the decoration in the tombs of Djehutihotep and Hekanefer, suggesting that it may have been accomplished by an artist from the residence (Säve-Söderbergh 1991: 187, 192, fig. 2), making the amount of agency these officials exercised in their tomb design uncertain.

A comparable state-sponsored foreigner/barbarian-*topos* is evident on Roman monuments, especially regarding the Romans' perceptions of the Dacians. For the sake of brevity, this case study analyzes Trajan's Column, a triumphal monument located in Trajan's Forum to commemorate Trajan's victory in the Dacian Wars that offers parallel insight into complicated portrayals of Roman and Dacian identity within the context of domination and superiority (Rossi 1971; Coarelli 2000). Each scene on Trajan's Column illustrates the story of a more technologically advanced and militaristically superior Roman army completely destroying the armed forces and infrastructure of the Dacian Kingdom, identified as an enemy of Rome. Hence, this column provides unprecedented insight into not only Roman-Dacian relationships during that time, but also the Romans' perceptions of themselves as superior to the Dacians.

Commensurate with portrayals of the *inw*-ceremony, scene LXXV (Figure 4) on Trajan's Column delineates the formal surrender of the Dacians to Trajan at the end of the First Dacian War, with the triumphant Trajan seated in the center. Standing on the left, the Roman army displays their military standards, symbols of Roman *imperium*. On the right, the subjugated Dacians kneel before Trajan, with dropped shields and raised standards, pleading for the termination of hostilities between the Roman Empire and the Dacian Kingdom. In contrast to Trajan, the Dacian king Decebalus stands behind his soldiers,

<sup>10</sup> Against this point, Lemos (2020: 42) argues that the scene in Huy's tomb may highlight Nubian empowerment, being an expression of their wealth and capacity to provision Egypt with their resources, as well as their ability to survive Egyptian colonization, although this is highly unlikely given its appearance in an Egyptian official's tomb.



Figure 4. Scene LXXV on Trajan's Column illustrating the Dacians' formal surrender to Trajan at the end of the First Dacian War (photo by Roger Ulrich; by permission, < [http://www.trajans-column.org/?imagemap\\_area=untitled-image-map-area-28](http://www.trajans-column.org/?imagemap_area=untitled-image-map-area-28)>).



Figure 5. Scene CXLV on Trajan's Column depicting Decebalus at the moment before his suicide (photo by Roger Ulrich; by permission, < [https://www.trajans-column.org/?page\\_id=578#PhotoSwipe1713323726845](https://www.trajans-column.org/?page_id=578#PhotoSwipe1713323726845)>).



Figure 6. Scene LXXVII on Trajan's Column portraying the Roman soldiers standing in front of the Dacian spoils of war, acclaiming Trajan and granting him the title *Dacicus* (photo by Roger Ulrich; by permission, < [http://www.trajans-column.org/?page\\_id=107#PhotoSwipe1705603062253](http://www.trajans-column.org/?page_id=107#PhotoSwipe1705603062253) >).

conveying his inferior status when compared to Trajan. Scene CXLV (Figure 5) further reinforces the contrasting nature of the two rulers, detailing one of the final moments of the conflict when Decebalus kneels and commits suicide to escape persecution, slashing his artery with the aforementioned Dacian curved blade.

The narrative of Roman domination continues in scenes LXXVII-LXXVIII (Figures 6 and 7), where Trajan addresses the Roman soldiers. The soldiers then grant him the honorary title *Dacicus* – symbolic of Rome's dominance over Dacia – and present Dacian spoils to the Roman people (Coarelli 2000: 134). The spoils of war consist of military equipment that are either recognizably Dacian, namely the military standard of the Dacian *Draco* and the curved sword (*falx*), or stereotypically barbarian, such as the axe. Finally, in the middle of the scene, Victory is personified as a goddess, engraving an inscription onto her shield and stepping on top of a Dacian helmet with her left foot. Such imagery not only expresses the Romans' success in suppressing the threat from the Dacian kingdom, but further conveys the superiority of *Romanitas* – in the form of a goddess – over the barbaric, foreign *Dacitas*.



Figure 7. Scene LXXVIII on Trajan's Column depicting the Roman goddess Victoria in front of the Dacian spoils of war, engraving an inscription onto her shield (photo by Roger Ulrich; by permission, < [http://www.trajans-column.org/?page\\_id=107#PhotoSwipe1705603122025](http://www.trajans-column.org/?page_id=107#PhotoSwipe1705603122025) >).

Overall, the examples offered above exhibit striking similarities and impart an analogous imperial ideology.<sup>11</sup> In other words, the Egyptian and Roman states both portrayed themselves dominating their foreign subjects through orchestrated ceremonies and stereotypical appearances. Despite some clear cultural and temporal differences, both powers essentially express the same idea of the core dominating the periphery.

### **Individual representations: bottom-up depictions in text**

When viewed from a bottom-up perspective, it becomes apparent that Egyptian and Nubian culture is much more diverse than often presented, with the multicultural society being extremely fluid (van Pelt 2013: 528). Moving beyond the monumental, ideological contexts, a major debate regarding Nubian identity centers around how these people self-identify when they are working with the Egyptian state

<sup>11</sup> In past scholarship, the *inw*-ceremony has been traditionally compared to the British *darbar/durbar* ceremony in 1877 in Delhi, India, proclaiming Queen Victoria as the Empress of India, with analogous events noted for King Edward VII in 1903 and George V in 1911 (Darnell and Manassa 2007: 125-131, 134-135; Smith 2015: 769-770; 2017: 102-105, figs 10.1, 10.3, 107-111, fig. 10.7). The *inw*-ceremony has also been recently juxtaposed with colonial festivals in Spanish controlled Peru between the Spaniards and Incas (Darnell 2023: 234-235). However, this comparison to Trajan's column is closer in time and proximity.

and how they view themselves in regard to native Egyptians. Insight into their self-identification can be gained when looking at the 11th dynasty inscription of Tjehemao of Abisko (south of Aswan in Lower Nubia). In lines 9-21 of inscription no. 1 (Darnell 2003: pl. 7), he pronounces in retrograde:

*iw ḥn.nḥtʿ r-dṛḥf*  
*k3.nḥf smʿ ʿm.w n.w dʿty*  
*ḥsf-s(n)*  
*wʿs.t m bhʿ*  
*in nḥs ir ʿnw*  
*ḥʿ.n shṛ.nḥi dʿty*  
*ḥ.tḥf tʿw m ḥnt*

He (i.e. Mentuhotep II) traversed the entire land,  
 he having planned to slaughter the Asiatics of Djaty.  
 When th(ey) drew near,  
 Thebes was fleeing.  
 It was the Nubian who made the turn around (i.e. rallied the Thebans).  
 Then I overthrew Djaty,  
 with the result that he raised sail in sailing southwards.

In this text, Tjehemao describes himself as a Nubian and contrasts his bravery against his Egyptian counterparts when he claims he rallied the Thebans to fight the Asiatics of Djaty (Darnell 2023: 221-222).

Inscription no. 3 from the same environment (Darnell 2003: pl. 9), this time not in retrograde or first person, asserts:

*ḥd.n Ṭhmʿw nḥt(w) mi mʿw...zʿ-Rʿ bi.ti ḥnʿ mšʿḥ pn in.nḥf*  
*dp.nḥf m ʿḥʿ*  
*ḥf nḥt(w) n ir.t.nḥf n mḥ.ti*

Tjehemao sailed north, victorious<sup>12</sup> like a lion,...son of Re, the king of Lower Egypt, together with this army of his which he brought.  
 When he tasted fighting,  
 his arm was victorious through what he did for the north (i.e. the Egyptian state).

Here, Tjehemao melds his identity with Mentuhotep II when he calls himself victorious and portrays himself like a lion. His reference to his strong arm seemingly relates to the conflation of his identity with Horus and his living incarnation Mentuhotep II. While Tjehemao's inscription is a standard literary text with nothing particularly unusual in its content, it does feature an outsider, the self-proclaimed Nubian Tjehemao, as the individual who assists the insiders, the Egyptians, in their military actions (Darnell 2023: 222-223). Essentially, it appears that Tjehemao seeks to present himself as superior to the Egyptians even though he uses Egyptian script to write a standard inscription, which may be indicative of a more widespread attitude held by some Nubians after they worked themselves into the Egyptian state. If it is representative, it suggests that the Nubians aspired to characterize the Egyptians as needing the Nubians and, further, to communicate that the Nubians who collaborated with the

<sup>12</sup> This passage is grammatically ambiguous. Darnell (2023: 222) renders it as 'Tjehemau the victorious sailed north like the lion, son of Re...' where *nḥt* is an epithet of Tjehemao, a parallel for which can be found in inscription no. 6 (Darnell 2003: 46, pl. 11). However, reading *nḥt* as a stative seems more appropriate, with this passage describing Tjehemao as opposed to describing how he sailed, likening him to a king who is called a victorious lion (Galán 1995: 44; Lorton 1974: 10-11; Smith 1976: 124-127, pl. 29). Only at the end of the inscription, after describing all of his feats, does Tjehemao directly call himself victorious.

Egyptians maintained a higher status than other Nubians. In total, this text indicates that the idea of the monolithic other did not likely exist in practice (Darnell 2023: 234-235).

Military inscriptions from Roman *auxiliae* likewise offer insight into negotiations of identity from a bottom-up perspective. By the 2nd century CE, the Roman *auxiliae* supplemented the legions of the Roman army, comprised of non-citizen soldiers recruited to perform specialized tasks (Haynes 2014). Many of these units consisted of highly trained infantry soldiers, slingers, archers, or armored cavalry troops, enlisted in their homeland and stationed in foreign areas. The Roman army instituted this recruiting practice to decrease the chances of rebellions and mutinies beginning in the 1st century CE in response to issues with auxiliary units stationed in their homeland (Keppie 1998: 396). As a result, multifaceted ways of expressing one's self-representation emerged through these entanglements.

After Rome provincialized Dacia at the end of the Second Dacian War, many Dacian auxiliary units were dispatched to the provinces, including Britain and North Africa (Haynes and Hanson 2004: 22). The inscriptions they left behind serve as a marker of cultural exchange between their indigenous Dacian identity and their newly acquired Roman status. Apparent in a 2nd century CE epitaph from Mauretania Caesariensis, a Roman province (modern-day Algeria), Decineus, possibly a veteran, left behind an inscription for his 'brother' Fulvius Felix, who probably served in *cohors II Sardorum* and died at the beginning of Septimius Severus' reign (Gămănuț 2021: 193, 195). It reads, *Diis Manibus. Fulvio Felici veterano vix(it) an(nis) LX, Decineus frat(er) eius pius fecit*, 'To the sacred shades. For Fulvius Felix, a veteran, aged 60. Decineus, his faithful brother, made this' (AE 2 1951, 144). Despite its brevity and subtleness in expression, this epitaph reveals the nuances and complexities evident in displays of identity. Based on onomastic observations, it is clear that Decineus was Dacian,<sup>13</sup> but the native ancestry of Fulvius Felix and whether these men were biologically brothers remains uncertain. The more probable interpretation is that *frater* refers to them being brothers-in-arms who served together in the military (Gămănuț 2021: 192, 194). That neither Decineus nor Fulvius Felix were Roman citizens, however, is indisputable since neither of their names follows the standard Roman *tria nomina*; rather, the name Decineus is certainly Dacian, while Fulvius Felix is suggestive of a non-Roman citizen hoping to associate himself with Roman status. These soldiers clearly lived entangled lives, constantly negotiating between their indigenous identity, their identity as members of the Roman army, and their identity relative to the places they were stationed, paralleling Tjehemao's self-expression of his entangled identity. While Decineus' epitaph appears to be less informative than Tjehemao's inscription, a clear parallel exists in that the main way the ethnicity of these individuals can be ascertained is through their names, although Tjehemao also does self-identify as a foreigner.

### Individual representations: bottom-up depictions in iconography

Further insight into how foreigners viewed their identity emerges when analyzing how they characterized themselves in dialogue with the dominant power. In the Wadi Nag el-Birka (Dominion Behind Thebes (*w3s-h3-w3s.t*)), a commemorative, rectangular, rock cut stela exists of a MK Nubian patrolman (Figure 8). It depicts three columns of pseudo-hieroglyphs and an image of a standing man holding archery equipment and wearing a short kilt and crossed straps. This stela seems to mimic Egyptian culture while also preserving features of the man's Nubian identity (Darnell 2023: 224-226, fig. 4). A very comparable pseudo-hieroglyphic inscription with an associated image likewise appears on the Abu Ballas Trail at rock art location A1 at site Jaqub 99/34 (Förster 2015: 249-254, fig. 225). Another analogous inscription exists in Dacia Porolissensis, possibly relating to a Roman-Egyptian temple of the 2nd century CE (Deac

<sup>13</sup> The name Decineus and similar Dacian names appeared in other parts of the Roman Empire by the end of the 2nd century CE (Gămănuț 2021: 193). A Greek inscription (IGB V 5281) from the province of Moesia Inferior mentions a Δικηναις. For other examples of this variety of Dacian names found in North Africa, see AE 1929, 133; CIL VIII 9198; AE 1951, 145; CIL VIII 9200; CIL VIII 9207.



Figure 8. Rendering of the Nubian patrolman stela with pseudo-hieroglyphs from the Wadi Nag el-Birka (drawing by John Darnell).

Egyptian or Roman monuments while also expressing the individuals' entangled identities. Serving in a military capacity for the dominant power, these men attempt to mimic the culture of the state while concomitantly displaying their native identity. As a result, a new, entangled identity is created, combining aspects of the cultures with which they were associated in a third space environment.

### Foodways: identity in the settlement

Another useful tool for differentiating ethnicities emerges in the study of foodways,<sup>14</sup> especially the material used in its preparation and service, as these relate to habitual routines embedded in culture,

<sup>14</sup> Further insight surfaces from an in-depth study of funerary contexts, helpful in distinguishing between ethnic groups as these environments allow for the redefinition and renegotiation of identity and social roles (Bader 2012: 213, 216; Smith 2018: 132; de Souza 2020a: 16-17; Spence 2019: 561-562; Wiessner 1983: 258), however, they are not included in this paper as they represent a category worthy of study in its own right. For these Egyptian-Nubian burials, see Budka (2018: 185-194, figs 2-8; 2020: 402-403, 411; 2021: 275-356), Lemos and Budka (2021: 403, 405, 408-415, figs 4-8), Maitland, Potter and Troalen (2022: 228), Matic' (2020: 56-57), Morris (2018: 111-113), Smith (2003: 159; 2015: 773, 775-776; 2018: 137-139, fig. 8; 2020: 23-24, 39-43, figs 2.5-

2014: 34-36, figs 1-3). Additionally, in a more formal style incorporating true hieroglyphic inscriptions, the family stela of Res and Ptahwer and the rendering of Nubian mercenaries on the Gebelein stelae illustrate cultural entanglement with the Egyptians with no sharp boundaries as both Nubian and Egyptian features are clearly present (Kubisch 2000: 243-245; Liszka 2011: 166; Liszka and de Souza 2021: 236; Panaite and Thuault 2016: 17; Raue 2019b: 571; Schneider 2003: 93; Smith 2018: 126-127, fig. 5).

A second-century CE Roman funerary stela for a cavalryman in an undetermined Roman auxiliary unit (Figure 9), uncovered at the legionary fortress Deva Victrix in the province of Britannia (in modern-day Chester), shows similarly fascinating dialogues in cultural exchange. The stela, which is damaged and missing its original inscription, details a *draconarius*, a standard bearer who carries the draco standard. The *draconarius* appears on horseback wearing a Sarmatian pointed cap, equipped with a straight-bladed sword, and waving the draco banner overhead (Mihăilescu-Bîrliba 2009: 146-147). Based on the iconography, he is likely Sarmatian in origin as his helmet, sword, and lack of facial hair are Sarmatian ethnographic markers, although the draco banner is markedly Dacian. When taken together, this image, rendered on a Roman stela, interweaves the soldier's triple identities: Roman, Dacian, and Sarmatian.

As this discussion demonstrates, both texts and stelae mimic the form of their respective standard



Figure 9. Relief of a Sarmatian draconarius discovered at Deva Vitrix in Chester (photo courtesy of Grosvenor Museum, Chester, United Kingdom).

while at the same time being a category subject to modification and innovation (Bader 2021: 76; Gatto 2014: 95; Goody 1982: 38, 40-48, 151-152; Hubschmann 2010: 184; Smith 2018: 131-133, 135; Spencer, Stevens and Binder 2017: 45). While pots do not necessarily equal people, as form and decoration can be related to many factors beyond ethnicity, ceramics are promising in detecting the presence of different cultures in settlements (Bader 2012: 214; 2021: 77).

At Askut, Smith has demonstrated that the majority of the pottery recovered is culturally Egyptian, with only a small percentage (about 10%) being culturally Nubian, mainly relating to food preparation, although some Nubian food service and storage vessels are also present. Yet, the steady increase in the percentage of Nubian cooking vessels from the MK (40%) to the NK (93%), where they dominate this sub-assemblage, is significant and may be attributed to the ethnic makeup of the settlement and the

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2.6, 47-51, fig. 2.8; 2021: 381-382, 386-389, fig. 20.8), Smith and Buzon (2014: 342-350; 2017: 617-627; 2018: 207-213), Spence (2019: 541-562), de Souza (2020a: 3-4, fig. 2, 10-11; 2020b: 334; 2021: 234-236), and Williams (2018: 100-101, 106-107).

overall political situation, combined with a popularity of Nubian cuisine<sup>15</sup> (Smith 2015: 774-775; 2018: 134-135, fig. 7; 2020: 44-45, fig. 2.7; 2021: 383-384, fig. 20.6; Smith and Buzon 2017: 623-624; 2018: 215-216, figs 11d, 13).

Similarly, at Uronarti, a main function of the forts involved developing and maintaining contact between the garrison and the Nubians (C-Group), which the find of local wares, especially cooking vessels, in the fortress' trash supports. Dating to the late 12th-13th dynasties, they may indicate the adoption of Nubian foodways at that point, coincident to when more permanent settlement began. During that time, it seems that the layout of the Second Cataract forts changed in order to accommodate administrative activities and long-term residents, consisting of soldiers and likely some rather elite bureaucrats, together with their families, as opposed to rotating garrisons, supported by the burials of children and adults along with the presence of ancestor worship. Additionally, Askut, Mirgissa, and Uronarti had extramural settlements associated with them, conceivably housing indigenous people who interacted with the forts and engaged in food preparation activities (Bestock 2017: 158-160, figs 6-8, 163-164, fig. 12; 2021: 280, 283; Bestock and Knoblauch 2014: 33-35, figs 2-3; 2015: 1-3, figs 3-6; Flammini 2008: 57, 67; Knoblauch 2019: 380-382; Knoblauch and Bestock 2017: 55-57, fig. 4j; Morris 2018: 102; Smith 1995: 64-66; Spencer, Stevens and Binder 2017: 37; Vercoutter 1970: 11-13, pls 9-10a; Vogel 2004: 116).

At the Upper Nubian 'temple towns' of Sai Island and Amara West, the pattern is somewhat different. Egyptian ceramics again dominate, but with an even smaller percentage of Nubian and hybrid ceramics, although they are still relatively common finds. Further, while the recovered Nubian ceramics almost exclusively correspond to cooking vessels, as seen in the Lower Nubian settlement sites (Budka 2017: 443-444; 2020: 410-411, 423, 426; Spataro, Millet and Spencer 2015: 400; Spencer 2014: 53-57; Spencer, Stevens and Binder 2017: 44), their relative numbers do not increase over time.

The diversity present in the recovered ceramics may indicate the existence of multiethnic communities and a continuity of Nubian traditions, possibly relating to the presence of Nubian women who may have dominated the social context of the house and introduced Nubian foodways,<sup>16</sup> passing on these traditions to their multiethnic offspring and advancing their preservation rather than their replacement, 'negotiating intercultural interaction', as suggested by Smith (2003: 133, 192; 2007: 234-236; 2018: 136; 2020: 24, 44; 2021: 374-375, 384; see also van Pelt 2013: 540, 542; contra Budka 2020: 414-415; Matic 2020: 41-42). This gendered interpretation may be corroborated with the burial at Tombos of at least six women in the Nubian burial style, in otherwise Egyptian burial contexts, conceivably indicating the presence of local, Nubian women (Smith 2015: 774; 2020: 40-42, fig. 2.5; 2021: 385-387, fig. 20.8; Smith and Buzon 2014: 432; 2017: 624-625; 2018: 216). A similar pattern was observed in phase G at Tell el-Dab'a as well, with a number of examples of women buried in an 'Asiatic style' (Bader 2012: 220, 223).

In addition to the appropriation of material objects by other cultures, the encounters between cultures can create new styles and manufacturing techniques of items that cannot be defined as belonging to either group, as evidenced by Nubian-style cooking ceramics. While some may appear to be Nubian, evaluating them solely on the basis of their appearance can be misleading; rather, the production techniques used to produce them and their overall form must also be taken into consideration. In general, most Egyptian ceramics are wheel made and kiln fired, likely in workshop settings, while Pan-Grave and other Nubian

<sup>15</sup> This pattern is broken in the house of Meryka, the residence of the official in charge of Askut, where Egyptian ceramics predominated, possibly as an outward expression of Egyptian foodways and identity by the administrators of the settlement during public food consumption, being 'emblemic' in style (Smith 2020: 46; de Souza 2020a: 16; Wiessner 1983: 257).

<sup>16</sup> While it can be argued that Egyptian and Nubian ceramics do not equal their respective cuisine, with organic residue analysis (ORA) of these ceramics required to determine the exact nature of their use in regard to foodways, it is worth noting that there was likely little difference in the basic ingredients that constituted Egyptian and Nubian diets, which may limit the usefulness of this analysis. For recent work on ORA in Nubia, released just as this paper was being submitted, see Budka and Lemos (2024).

ceramics are handmade and pit fired, typically in a domestic environment. Further, while Egyptian vessels can be closed or open form, Pan-Grave and other Nubian vessels are almost always open form (Rzeuska 2010: 398, 408, table 1, 410; de Souza 2020a: 5-14; 2022: 183; Spataro, Millet and Spencer 2015: 418). A more thorough evaluation of some Nubian-style cooking pots, identified by their decoration and shape, indicates they were wheel turned and kiln fired, revealing a merger of Nubian/Pan Grave decorative features and Egyptian manufacturing techniques. As such, this pottery is neither Egyptian nor Nubian but a hybrid, as concomitantly evidenced in ceramics recovered at Tell Edfu, Elephantine, Umm el-Mawagir (Kharga Oasis), and Wadi el-Hudi, all of which originate in domestic contexts dating from the MK through the coregency of Hatshepsut and Thutmose III (Brand 2018: 33-37, 44-46, figs 4-10; Darnell and Darnell 2019: 214-225; Liszka and de Souza 2021: 237; Manassa 2012: 135, 138-139, fig. 8, 141-142; Näser 2013: 142-143; Raue 2018a: 250-253; 2018b: 529-531, fig. 5; de Souza 2020a: 12-14, fig. 8; 2020b: 316-320, figs 3-7, 328-329, table 2; 2021: 237; 2022: 183). Some contemporary Egyptian ceramics from Elephantine, Elkab, North Karnak, and Dendera exhibit a similar hybridity, made in Egyptian forms with Egyptian techniques but replicating, along with modifying, the incised decoration of C group IIA ceramics (Rzeuska 2010: 398-410, figs 2-4, 6, 8).

The intermingling of Egyptian and Nubian pottery, together with the associated production techniques, seems to indicate a mutual and peaceful exchange of culture between Egyptian and Nubian communities and identities (Flammini 2008: 52, 66; de Souza 2020a: 4; 2020b: 331, 334). This is further evidenced by the presence of traditional Nubian ceramics (Kerman, comb scraped, and Pan Grave) side by side with both Egyptian and hybrid vessels at numerous settlement areas in the Nile Valley from the late MK to the reigns of Hatshepsut and Thutmose III (Ayers and Moeller 2012: 105-115, figs 3-9; Bourriau and Giuliani 2016: 239-242; Meurer 1996: 84-85; 2021: 292-293, 299, 303; van Pelt 2013: 527; Raue 2002: 22-23; 2019b: 574, 578-580; de Souza 2020b: 320-330, figs 7-14, table 2; 2021: 237; 2022: 182). Nubian-style material additionally appears at numerous cemeteries throughout Egypt alongside traditional Egyptian ceramics (Bourriau 1981: 27-39, figs 1-4). Therefore, Nubia, as well as Egypt, truly incorporated multiethnic communities by the NK, if not earlier. As such, the retention of foreign cultural traditions and their concomitant assimilation into Egyptian customs created blended, entangled/hybrid forms and new, innovative cultural practices, lacking a sharp distinction between the two cultures, and possibly indicates an underlying resistance to Egyptian cultural influence (Meurer 2021: 302; Näser 2013: 147; Schneider 2006: 213; Smith 2020: 23-24, 53-54; 2021: 373, 383; Williams 2018: 106-107).

The use of pottery to differentiate identities also stands as an invaluable tool for investigating cultural exchange in Dacia, with a direct tie to the political landscape in that region. Prior to Roman occupation, the Dacians were connected to a vast network of trade between the Roman and Hellenistic worlds (Glodariu 1976), reflecting dialogue and cultural exchange among these regions. As such, the archaeological finds usually consist of local wares alongside both imports of Greek and Roman items and imitations of their designs mixed with indigenous Dacian elements.<sup>17</sup>

In regard to purely indigenous Dacian pottery from this time period, only a small number exist in the archaeological record, usually being handmade or wheel turned and of lower quality, like the lamps discovered in Poiana, Popești, Răcățău (Popescu 2011; Cristescu 2014b: 41), and decorated with geometric motifs influenced by Celtic artwork (Cristescu 2014b: 41). However, the Dacians also often incorporated shapes and decorative styles from other cultures as a way to enrich and refine their own indigenous style (Popescu 2011: 5). As a result, a significant amount of the Dacian pottery recovered

<sup>17</sup> This blending can further be seen in the architectural style of their military fortresses, which follow a *murus dacicus* layout influenced by Greek and Roman builders (Lockyear 2004: 36; Pundt 2012: 42; Weiss 2012: 76). Likewise, during the 1st century BCE, during Burebista's rule of the first unified kingdom of Dacia, the Dacians possessed the largest number of imitations of Roman Republican *denarii* ever recorded (Crawford 1977: 117; Davis 2006; Weiss 2012: 76).

is local imitations of Roman and Hellenistic wares, such as the *kantharoi* and *skyphoi* drinking vessels discovered at Brad (Popescu 2011; 2017). Finally, Graeco-Roman imports, especially from Asia Minor, further supplemented their tableware (Glodariu 1976).

Sarmizegetusa Regia, the likely capital of the Dacian Kingdom, provides insight into the exchanges of foodways between Romans and indigenous Dacians. During the pre-Roman Period, Sarmizegetusa Regia stood as an important center for religion, astronomy, military affairs, and the import and export of various luxury items (Oprea and Oprea 2015; Weiss 2012: 32). It represents one of the only surviving examples of highly developed cultural exchange and socio-economic development of Dacian society in its pre-Roman phases. Most of the ceramics found there are luxury items in the 'classical style' of production, being either local imitations of Graeco-Roman pottery or imports from the Graeco-Roman world, evidence of Dacian cultural entanglement with the Roman Empire even before its provincialization. For example, much of the so-called Greek and Roman pottery discovered at Sarmizegetusa Regia has been identified as local imitations produced in Dacia (Cristescu 2014b: 49), as seen with the *pithos*, utilized for storing food and liquids (Cristescu 2014b: 41). Moreover, *kraters*, used in the Hellenistic world to mix water with wine, could have also been used as storage vessels at Sarmizegetusa Regia, given that many *kraters* were unearthed alongside other storage vessels, with some containing grain (Cristescu 2014a: 127-128).

Additionally, dating to the late 1st century CE immediately prior to Roman occupation, most of the tableware discovered at this capital city, used for either serving or storing foods and liquids (Cristescu 2014a: 116), was produced locally, based on the production style and artistic motifs, with few imports being recovered (Cristescu 2014a: 131). Among such finds are sherds of *kantharoi*, identified as Dacian based on the geometric motifs painted on them (Cristescu 2014a: 124, fig. 7/1-4). However, only a small number of these ceramics are truly Dacian in style. As such, it seems to indicate Dacian potters preferred to imitate the Graeco-Roman style of pottery while still employing traditional Dacian production techniques, such as the use of slip or placement of circular buttons onto lids (Cristescu 2014b: 43, 46). The pottery further suggests that the local ceramic taste of the Dacians consisted of a predilection for Graeco-Roman wares that blended Dacian and Graeco-Roman influences even before the Roman colonization of the area and that Dacian food culture was one of conviviality, influenced by Graeco-Roman dining practices (Cristescu 2014a: 131; 2014b: 41).

However, a dramatic shift in cultural identity occurred by the 2nd century CE, during the period of Roman provincialization of the area. This cultural transformation took place in the aftermath of the annihilation of the Dacian Kingdom when the Romans destroyed many of the fortresses located in the Carpathian Mountains, replacing them with their own cities and fortresses in the lowlands of Transylvania (Haynes and Hanson 2004: 18; Oltean 2007: 207-227). Concomitantly, the Romans resettled citizens from other parts of their empire into these newly built settlements in Dacia, creating a new demographic of cosmopolitan areas with multiethnic identities and practices (Haynes and Hanson 2004: 20; Ruscu 2004). In terms of the native Dacian population that remained in the area, some were likely integrated into the new Roman settlements (Haynes and Hanson 2004: 22; Weiss 2012: 89-90), while others lived outside of the Roman province as Free Dacians, engaging in frequent communications with the Romans and moving in and out of the province without reserve (Pundt 2012: 49).

Due to the significant increase in Roman material culture, a substantial decrease or even vanishing of Dacian identity seems to have transpired<sup>18</sup> (Haynes and Hanson 2004: 22; Ruscu 2004: 78-81), with the Dacians now appearing as the ethnic minority in the newly formed Roman province (Pundt 2012: 60-61). The larger context of cultural exchange in Roman Dacia therefore informs the trends in pottery finds

<sup>18</sup> This was a belief perpetuated by ancient authors from the 4th century CE, including Eutropius and Julian who recounted the consequences of Trajan's conquest of Dacia.

and foodways of the period. Within the Roman fortresses during this era, only a small quantity of pottery has been distinctly identified as 'Dacian'. Plus, this Dacian material was discovered among a larger compilation of Greek and Roman material, suggestive of negotiations of identity in an environment where the dominant culture belonged to the external, ruling population, paralleling the MK Nubian fortresses and NK 'temple towns'. Overall, the pottery finds suggest that, similar to the example of Egypt and Nubia, Dacian identity reflective in the pottery finds is one that incorporates into its local decorative styles and shapes a broader global identity.

When comparing vessel assemblages from the peripheral regions of Nubia and Dacia, similar patterns appear. In particular, the ceramics produced were often hybrid forms, combining both native and foreign motifs and manufacturing processes, beginning before the domination of these regions by the Egyptians in the NK and the Romans in the 2nd century CE, respectively. This further indicates the ideology of the foreigner/barbarian-*topos* was not present in day-to-day interactions, presumptively the result of the emergence of multi-ethnic communities. As such, 'the material record reflects a complex and often subtle mix of cultural influences negotiated by Nubian [or Dacian] and Egyptian [or Roman] women and men, transculturation rather than a wholesale assimilation by a hegemonic power, or even strict native maintenance and revival as a means of resisting conquest' (Smith 2020: 52; see also van Pelt 2013: 523; Smith 2021: 369).

## Conclusion

Through the review of the relationships Egypt and Rome had with their foreign territories, the framework of third space emerged as the most useful in offering a more nuanced approach to assessing cultural exchange and incorporating both a top-down and bottom-up perspective. It becomes apparent that from a top-down perspective, the state institutionalized violence and negative stereotypes (the foreigner/barbarian-*topos*) to maintain power and control. However, these views are often not reflected at the local level, where these populations likely lived harmoniously in multiethnic communities, or rather third space environments. The local population kept many aspects of their culture, especially foodways, and simultaneously mimicked imperial culture, ultimately creating a new, entangled cultural identity as attested in inscriptions, imagery, and vessel assemblages. Overall, the archaeology and history of empires in the premodern world and their relationship with their foreign territories are comparable, resulting from practical considerations to maintain control over these territories. As such, information learned from one should be considered in the study of similar empires as part of a more encompassing investigation.

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