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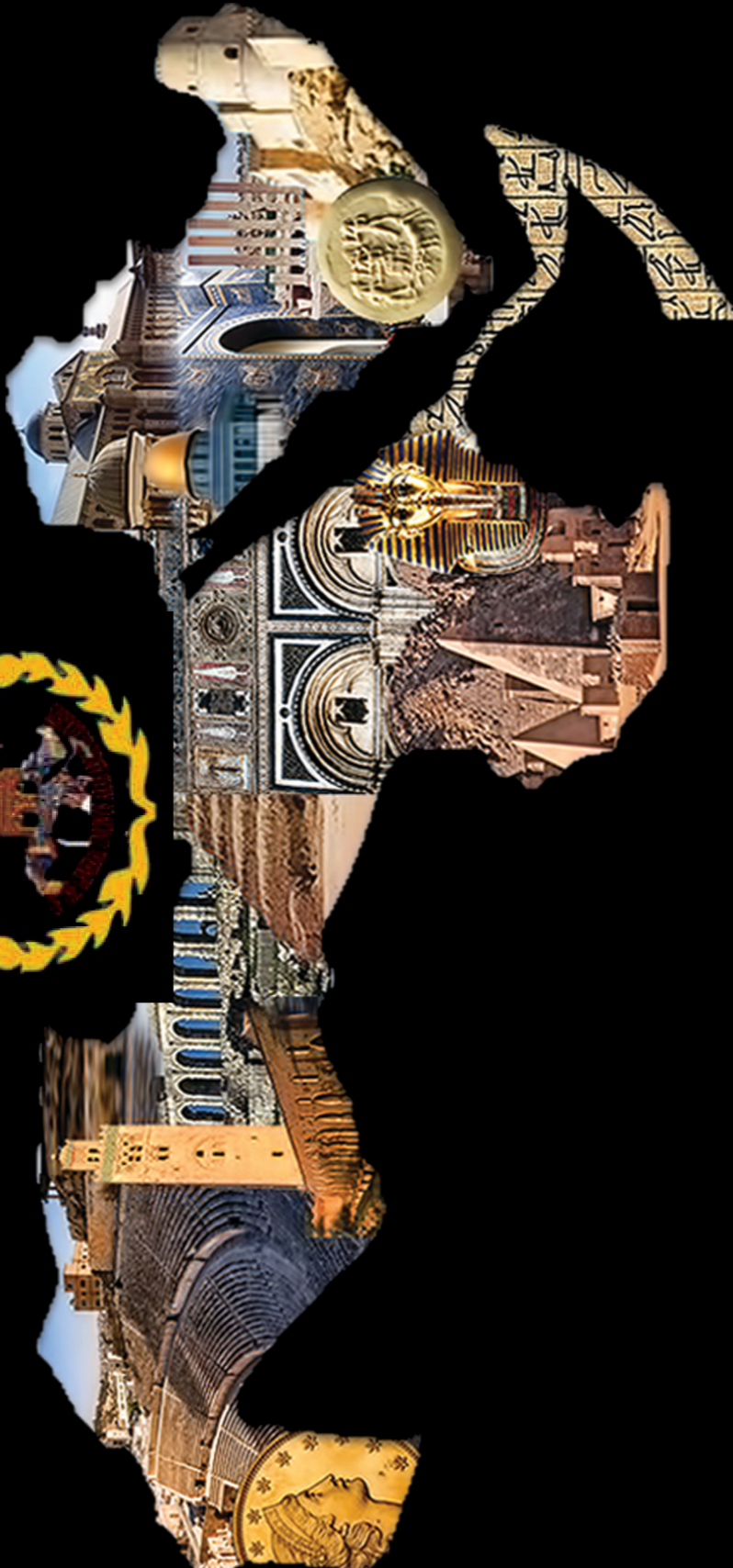
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INTRODUCTION

This volume is arranged in the same way as each of the previous volumes of the Journal of the General Union of Arab Archaeologists (*JGUAA2*): Egyptology; Coptic and Islamic (language, art, and material culture); restoration and preservation.

The contributions within each category are arranged alphabetically by the author's first name. They cover not only topics of archeology in the areas being studied, but also sometimes the history that we can draw in the classical languages: ancient Egyptian, Greek, Coptic and Arabic.

In the first section, Ahmed Hamdy examines the false door of *Nit-Hnmw* from south Saqqara. Ahmed Younes sheds light on the stela of *ḥnw* in Sohag national museum, Inv. N°. 876. Moreover, Hesham Mohamed Hussein & Eman Ahmed Nour el-Dien study Criosphinx Stela from Tell Heboua - North Sinai. Marwa Mahmoud Mohamed sheds light on A Naos of the King Dara I N° (200) .at Malawi Museum. Omar Osman & Mohamed Sabra examine *Dḥwty-nḥt*'s future meaning after the Temporal  *wnn*. Mohammed Refaat studies the deity B3pef (y) in ancient Egyptian religion. and Mohsen Eltoukhy studies *Dḥwty-nḥt*'s chest of canopic jars.

In the second section dedicated to the Coptic & Islamic studies, Walaa Ali introduces an important study about the function and identity of the steward «oikonomoc»: a linguistic analytical study of Coptic documents. Moreover, Javad Neyestani, Farshad Rahimian & Reza Afhami Mohammad Younis shed light on the effect of Iran's Qajar archaism on the development of state architecture under the Reza Shah Pahlavi's rule.

In the third section about Restoration, Abeer ElHagrassy provide an important paper about *Trichoderma* spp. in cultural heritage mural paintings of ancient Egyptian tomb, their antifungal and bioactivity. And Elsayda-Nafesa El-Shamy introduces an important study about Thymol efficiency in conservation procedures applied to infected handwritten paper archive in the Egyptian national archives Dar-Elmahfouzat.

Our heartfelt thanks are due to all the authors for their valuable contributions to this volume and we encourage them and other scholars to continue their studies in the various aspects of the Islamic civilization. Finally, I look forward to the next volume with new studies that may help to preserve the Islamic heritage.



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I. EGYPTOLOGY

2022

THE FALSE DOOR OF Nit-£nmw FROM SOUTH SAQQARA

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THE FALSE DOOR OF *Nit-Hnmw* FROM SOUTH SAQQARA

BY

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ABSTRACT

[AR]

الباب الوهى لـ *Nit-Hnmw* من سقارة القبليّة

تتناول هذه الورقة البحثية نشرًا علميًا كاملًا لأحد الأبواب الوهية التي كانت محفوظة بالمتحف المصري بالتحجير، وهو باب وهى يخص سيدة تدعى "نيت-غنمو"، تم العثور عليه أثناء حفائر أوجست مارييت بسقارة وتحديدًا في سقارة القبليّة أو الجنوبيّة وذلك في أواخر عام 1863م، وقد حُفظ بالمتحف المصري بالتحجير في البداية في سجل دخول المتحف تحت رقم JdE 21760 وكذلك رقم CG 1399 في كتالوج المتحف المصري، ثم تم نقل الباب الوهى إلى متحف طابا حيث حمل الرقم 186 وفي النهاية تم نقله إلى متحف الاسماعيلية حيث يتم عرضه حاليًا تحت رقم IS 3287، وقد تضمن البحث في البداية وصفًا دقيقًا لكافة العناصر الخاصة بهذا الباب الوهى بداية من الأعتاب مرورًا بالأكتاف سواء الأكتاف الداخلية أو الخارجية وكذلك المشكاة الرئيسيّة ثم منظر مائدة القرايين الذي يتوسط الباب الوهى، وكذلك ما تحويه كل من هذه العناصر من سمات فنية. ثم قام الباحث بعمل الدلالة الصوتية والترجمة لنقوش هذا الباب الوهى كافة. ثم تناولت الورقة البحثية تعليقًا مفصّلًا لاسم صاحبة الباب الوهى والنوعت المختلفة التي ظهرت عليه، وفي نهاية البحث اقترح الباحث وضع تأريخًا محددًا لهذا الباب الوهى معتمدًا على العديد من السمات والعناصر التي تنوعت ما بين عناصر نمطية أو شكلية وكذلك عناصر فنية وأخيرًا عناصر أو سمات كتابية وردت في نقوش الباب الوهى، وهو ما أدى بالباحث إلى اقتراح تأريخ ذلك الباب الوهى بنهاية الأسرة الثامنة وبداية الأسرة التاسعة.

[EN]

This article deals with one of the false doors that was housed formerly in the Cairo Egyptian Museum at Tahrir, where it bore the N^{os}. JdE 21760, CG 1399 and SR 2/15441. Then it was moved out to Taba Museum, where it bore the N^o. 186. Now it is located in Ismailiya Museum where it is presented under the N^o. IS 3287. The present article includes the main description of the false door with its primary elements which consist of the cornice, the lintels, the jambs, the central niche, the drum, the panel and the way of representation of the deceased on its different parts. The article also discusses the texts inscribed on its different elements, their transliteration and translation, and presents several comments concerning the name of the owner of the false door and her epithets, which are mentioned on the different parts of the false door. Finally, a suggested date by the researcher is proposed based on the stylistic, iconographic and orthographic features displayed on the false door.

KEYWORDS: *Nit-Hnmw*, south Saqqara, false door, CG 1399, JdE 21760, IS 3287, Calcite

I. INTRODUCTION

A False Door is one of the most characteristic elements of ancient Egyptian private tombs in general and Old Kingdom tombs in particular¹. The false door was named in the ancient Egyptian language as «*r-pr*» and «*rwt*»; the first term «*r-pr*» means false door² and the second term «*rwt*» also means false door or gate³, most likely referring to the belief that it was the gate of the deceased to the Hereafter. Moreover, it was called the «KA door»⁴ as it was believed that the (*Ka*) of the deceased has the ability to pass through it. Consequently, it was the bind or the link between the earthly world and the Hereafter for the *Ka* of the deceased to gain offerings.

False doors are inscribed stelae most frequently made from limestone, while in a few cases, some false doors were made of pink granite. The false doors were in the non-royal tombs as they usually occupy the west walls of the major rooms in these tombs, which were known as the offering rooms or the offering chambers.

The false door had two main functions in ancient Egyptian religious thought. The first one was to link the spirit of the deceased to interact with the living realm and the second one was to receive the different offerings which were deposited before the false door.

The false door discussed in this study was housed formerly in the Cairo Egyptian Museum at Tahrir, where it bore the N^{os}.JdE 21760, CG 1399 and SR 2/15441. Then it was moved out to Taba Museum, where it bore the N^o.186. Currently it is exhibited at the Ismailya Museum under the N^o.IS 3287.

The current false door was excavated by late 1863 by Auguste Mariette in a tomb in the cemetery of South Saqqara⁵. Both the tomb and the false door belong to a woman named *Nit-Hnmw*. Although nothing was mentioned in the context of this tomb except the false door. The false door had never been fully published before, although it was mentioned by Murray in her Index⁶. Borchardt dated it to the sixth dynasty⁷. Hermann Ranke mentioned it in his *PN*⁸ as the only known example for the name of the stela's owner, and finally, it was mentioned by Brovarski as an example for an ewer and basin depicted on the far side of the bread stand which appear frequently on the false door's panels⁹. The author chooses this false door so as to suggest a different date for it and to shed light on the iconographic, textual and orthographical features attested to private

¹ For its role and function in the tomb, see: MÜLLER 1933: 165-206.

² *Wb* 1982: vol.2, 397[8].

³ *Wb* 1982: vol.2, 403[13].

⁴ HAENY 1984: 563.

⁵ In the *mastaba* D68. MARIETTE 1889: 367.

⁶ MURRAY 1908: 8.

⁷ However, while he dated it to the sixth dynasty, he did not mention which sovereign this false door may be dated. BORCHARDT 1937: 60, PL.16.

⁸ RANKE 1935: 181 [10].

⁹ BROVARSKI 2006: 108.

stelae at the very end of the Old Kingdom and the beginning of the Heracleopolitan period particularly at South Saqqara.

II. DESCRIPTION

The false door¹⁰ is made of a single slab of calcite. It measures 47 cm in height and 33 cm in width. It is a small-sized false door¹¹, and no traces of colours are found except some patches of red colour that are still visible on the cornice. The false door is in a fair state of preservation; the texts and figures were all cut in a sunk relief¹². Lines are well chiseled, but most of the facial details of the figures are hardly defined.

The upper edge of the false door shows the cornice, which is incised with a recurring line imitating palm leaves with some visible remains of red colour. The upper edge of the cornice is decorated with a single horizontal inscription oriented from right to left. It includes the *htp-di-nsw* formula¹³, an epithet for the deceased and her name. Below the cornice appears the torus,¹⁴ a rounded edge surrounding each side of the false door representing a bundle of reeds tied together with ropes, a design which may represent the frames for actual contemporary wooden doors.

The false door consists of an architrave supported by two outer jambs, and a window shutter panel which is the central focus of the false doors' stelae. There is a lintel below the panel based on two inner jambs, and between the inner jambs is the central niche in which the drum is located at its upper top.

The architrave includes a single horizontal sunk relief inscription oriented from right to left, the same direction as the seated figure on the door panel. This inscription is the *htp-di-nsw formula*, an epithet for the deceased, as well as the deceased's name followed by a seated figure, which may also serve as a determinative to identify the inscription that precedes it. The seated figure is holding a lotus bud with her left hand while the right hand is extended on her leg. The lower framing line of the architrave separates it from the outer jambs and the other elements of the false door.

The outer jambs are inscribed with one single vertical column of hieroglyphs where the signs are directed inwards towards the central niche, and presents an epithet for the deceased and her name. At the end of the hieroglyphic inscriptions, there is a standing figure of the stela's owner, which acts as a portrait of her. On the left outer jamb, the deceased is depicted standing facing the central niche wearing a long wig that covers her ears. Although there are no traces for a broad collar, she probably originally had one. *Nit-*

¹⁰ It is worth noting that the terms used in this article to describe the main elements of the current false door were those of Nigel Strudwick. STRUDWICK 1985: 10-11, FIG.1.

¹¹ These small-sized false doors were most probably favored at the end of the Old Kingdom due to their simplicity and affordable cost. STRUDWICK 1985: 51.

¹² The sunk relief was known at least by the reign of the sovereign *Neuserre*, the Sixth king of the fifth dynasty. As a style of decoration for false doors from Saqqara cemetery and since then and onwards it became the favourite style. VON BECKERATH 1984: 55; EL-KHADRAGY 2000: 43.

¹³ BARTA 1968.

¹⁴ It is worth commenting that false doors which include a cornice with a torus below were well known in Saqqara since the early of the fifth dynasty. WIEBACH 1981: 134; WIEBACH 2001: 449.

Hnmw, the stela's owner, is depicted wearing a long tight-fitting garment with shoulder straps¹⁵, that can hardly be seen. She has bracelets on her wrists. She is holding and sniffing a lotus blossom with her left hand, while her right hand is extended beside her side. The same representation of the deceased appears on the outer right jamb with the same long tight dress with the v-neck upper part and wearing the same long wig. She holds the lotus bud with her right hand whilst the left-hand hangs empty by her side.

It is worth observing that *Nit-Hnmw* is depicted on the architrave, the two outer jambs and the panel holding a lotus blossom to her nose. This is a distinguishing feature for women rather than men in the Old Kingdom. Perhaps such an association was due to the beauty of the lotus and its subtlety¹⁶. The lotus is grasped near the calyx where the deceased's hand appeared as a fist, or in another meaning the fingers were closed surrounding it¹⁷.

The lintel surmounting the central niche, the drum and the inner jambs, are inscribed with a single horizontal inscription oriented from right to left representing the *prt-hrw* phrase¹⁸, followed by the stela's owner name. The inner jambs, which are located on both sides of the central niche, represent the same single vertical inscription of an epithet for *Nit-Hnmw* and her name. Each of the inner jambs lacks the figures of the deceased, most probably due to a lack of space. The central niche and the drum are undecorated¹⁹.

In the middle of the false door is the window shutter panel or the T-shaped panel; it shows the deceased sitting on a low back chair on the left facing right towards an offering stand. The legs of the chair are cut as lion feet on a tall truncated conical base²⁰. The back stand of the chair can be observed under the pillow. The posterior of the chair depicts a lotus flower at its end. *Nit-Hnmw* is wearing the same long wig that covers the ears, the same as that appeared on the outer jambs, a long tight-fitting garment, and a collar around her neck. She holds a long lotus bud directly before her nose by her left arm where the fingers are clasped around the calyx of the flower, whilst her right arm extends towards the offering stand which is shown before her.

The offering stand²¹ consists of a flat tray supported by a cylindrical stand²² and is loaded with characteristic bread slices which are simplified in a rectangular shape²³ where

¹⁵ STAEHELIN 1966: 166-170.

¹⁶ HARPUR 1987: 134.

¹⁷ HARPUR 1987: 134.

¹⁸ MANELY 2012: 37-38.

¹⁹ HARPUR 1987: 48.

²⁰ FISCHER 1976: 4; CHERPION 1986: 160.

²¹ HASAN 1944: 171-172.

²² For the interpretation of the tall bread loaves on a flat tray supported by a cylindrical stand, see: MARTIN 1984: 1129-1130; HARTWIG 2004: 86.

²³ Most probably, that form of bread slices appeared for the first time as a result of incomplete work and was used onwards by artists as a simple method or technique to produce the bread slices above the offering table.

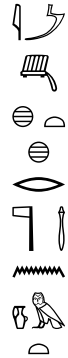
The Left Outer Jamb



im3h(w)t hr ntr 3 Nit-Hnmw

The revered before the great god *net-khnmw*

The Right Outer Jamb



im3h(w)t hr ntr 3 Nit-Hnmw

The revered before the great god *net-khnmw*

The Lower Lintel



prt-hrw nt Nit-Hnmw

Invocation offerings for *net-khnmw*

The Left Inner Jamb



im3h(w)t Nit-Hnmw

The revered *net-khnmw*

The Right Inner Jamb



im3h (w)t Nit-Hnmw

The revered *net-khnmw*

The Panel



h3 hnkt h3 Nit-Hnmw

A thousand jars of beer, a thousand³³ *net-khnmw*

III. COMMENTARY

A. The Name

Names were important as they define the personality of the stela's owner³⁴ as well as reflecting the beliefs, culture and community in which the stela's owner belongs³⁵. The owner of the current false door was called *Nit-Hnm (w)*³⁶ which means «the one belonging to Khnum»³⁷. The name *Nit-Hnm (w)* was listed by Murray in her Index³⁸. It is the only known occurrence of this name in Ranke's *Personennamen* as well³⁹. It is worth commenting that the name of god Khnum⁴⁰ was added to many private names since the Old Kingdom, and onwards as *hnm (w)-nfr*⁴¹, *hnm (w)-hs.f*⁴², *hnm (w)-htp*⁴³ and *hnm.t*⁴⁴. Consequently, it was a well-known characteristic in private names since the Old Kingdom⁴⁵. Scheele-Schweitzer noted that during the Old Kingdom there were forty-six names containing *hnm (w)*. Only three of these names were female private names. Perhaps *Nit-Hnmw* was one of them⁴⁶. The names associated with the god Khnum were frequent

³³ Most probably, there was an offering that should be inscribed after the word *h3* in this ideographic offering list, but this may be due to the lack of space. So, this kind of offering was not scribed.

³⁴ HELLMUM 2015: 235-242.

³⁵ For the importance and function of personal names, see: VITTMANN 2013.

³⁶ RANKE 1935: 181 [10].

³⁷ RANKE 1935: 181 [10].

³⁸ MURRAY 1908: VIII.

³⁹ RANKE 1935: 181 [10].

⁴⁰ For this god and its iconographies and functions, see: LGG 2002: vol.4, 25-28.

⁴¹ JUNKER 1929: 189; RANKE 1935: 275 [19].

⁴² RANKE 1935: 276 [5]; BORCHARDT 1937: 131 (CG 1447).

⁴³ BORCHARDT 1911: 105-106 (CG 144); SETHE 1933: 140 [16], 141 [5]. MERZEBAN 2020: 77.

⁴⁴ RANKE 1935: 276 [18-19]; BORCHARDT 1964: 101 (CG 1634).

⁴⁵ RANKE 1952: 230; SCHEELE-SCHWEITZER 2014: 35, 37, 39, 41- 42.

⁴⁶ SCHEELE-SCHWEITZER 2014: 44.

during the Old Kingdom, the Heracleopolitan period and the Middle Kingdom in many provinces as Abusir⁴⁷, Saqqara⁴⁸, Bersheh⁴⁹, Beni Hassan⁵⁰, Rifeh⁵¹ and Abydos⁵².

The name *Nit-Hnmw* shows a special connection between the deity and the bearer of the name as she was described as «belonging to god Khnum»⁵³. The name of the deceased consists of two parts: the nisba *nit* which was obtained from the preposition (n) and a noun which is the name of the god Khnum.

Scheele-Schweitzer referred that the name formation through the nisba (*ni* or *nit*) followed by a noun is particularly popular in theophoric and basilophoric personal names. The nisba (*ni* or *nit*) was often accompanied by a god or a king's name⁵⁴.

The name *Nit-Hnmw* is attested eight times with the same spelling on the different elements of the current false door. This feature of the recurring the name of the owner of the false door is frequent on the false door's inscriptions. This repetition of the name undoubtedly was to protect his existence in the afterlife through the preservation of his name. The existence of the name also guaranteed the continuous flow of offerings in the afterlife.

Unfortunately, the identity and career of *Nit-Hnmw* were not known due to a lack of texts on her false door, which could reveal to us details about her relation or connection with that deity as well as her profession. Instead, the false door only presents two epithets for her.

B. Epithets: The stela bears two epithets for the deceased *Nit-Hnm(w)*, The first is *im3hwt*, while the second is *im3hwt hr ntr 3*

B.1. *im3hwt*: The deceased was addressed on the architrave and the inner jambs as *im3hwt*⁵⁵, an epithet usually placed before the names of the deceased. In fact, various opinions were raised concerning its meaning. In the *Wb*, it is suggested that it means «the honored one» or «the venerated»⁵⁶. Fischer noted that it means «being esteemed»⁵⁷, while Jones adopted several possible meanings for the current epithet as «the honored one», «the revered», «the venerated» and «The one who has been provided for»⁵⁸. No doubt that this

⁴⁷ BORCHARDT 1937: 131 (CG 1447).

⁴⁸ BORCHARDT 1911: 105-106 (CG 144); BORCHARDT 1964: 101 (CG 1634).

⁴⁹ GRIFFITH & NEWBERRY 1895: 42.

⁵⁰ NEWBERRY 1893: vol.1, PLS.24, 46; vol.2, PL.14.

⁵¹ PETRIE 1907: PL.13 (f).

⁵² LANGE & SCHÄFER 1902: 18-19 (CG 20019), 189 (CG 20161); LANGE & SCHÄFER 1908: 46 (CG 20450), 165-166 (CG 20544).

⁵³ SCHEELE-SCHWEITZER 2014: 112.

⁵⁴ SCHEELE-SCHWEITZER 2014: 59.

⁵⁵ Others believed in the reading *im3ht* with the omission of (w) as it is a weak sound. *Wb* 1926: vol.1, 82 [13-16]; HANNIG 2005: 80-81; MANLEY 2012: 13, 61.

⁵⁶ *Wb* 1926: vol.1, 82.

⁵⁷ FISCHER 1991: 22.

⁵⁸ JONES 2000: vol.1,11 [42].

epithet means that the deceased deserves supplies and offerings in the afterlife⁵⁹. It is worth noting that this epithet was known since the fourth dynasty⁶⁰.

B.2. *im3hwꜥ hr nꜥr ʕ3*: The deceased was addressed on the outer jambs of this false door by this epithet. Jones translated it as «revered with the great god»⁶¹, while Boraik suggested that it means «revered before the great god»⁶². It is worth noting that the epithet *im3hwꜥ* (t) was sometimes followed by the preposition \ominus *hr*⁶³ then a name of a king⁶⁴ or a god⁶⁵, or an epithet for a god⁶⁶ or king⁶⁷.

Goelet explained that the epithet in the latter case means that its holder was revered «in the presence of» or with a god or king⁶⁸. As for *nꜥr ʕ3*, Baines did not agree with the translation of «greatest god» as he suggested that *nꜥr ʕ3* sometimes indicates the meaning of the «great god»⁶⁹ while on other occasions, it is a title which is translated as «major god»⁷⁰. Baines mentioned that *nꜥr ʕ3* was a characteristic unnamed deity known since the Old Kingdom and onwards where a specific deity seems to be meant⁷¹. Nuzzolo noted that the term (*nꜥr ʕ3*) was known firstly in the royal context since the reign of *Snfrw* and then in the offering formulas of private individuals since the last years of Khufu and the early years of Khafre⁷².

It is worth noting that different opinions were raised concerning the deity whose epithet was *nꜥr ʕ3*. Gardiner, Sethe, Griffiths and Manley believed that it refers to the god Osiris⁷³, while Junker suggested that this epithet may refer either to the god Horus or Anubis⁷⁴. On the other hand, Kees noted that *nꜥr ʕ3* refers to the living king⁷⁵. Anthes adopted the opinion suggested by Kees but he added that *nꜥr ʕ3* refers to the king in both of his aspects, the living king and the deceased Osiris⁷⁶. Nuzzolo pointed out that it was associated with the dead king as it was attested in the tomb of *shꜥm-k3-Rꜥ* at Giza, which is dated to the early fifth dynasty, with a sequence of past deceased kings⁷⁷. He also noted that such a term was mentioned without a determinative until the reign of *Neuserre* and later from the reign of that sovereign it was followed by the determinative of a seated

⁵⁹ FISCHER 1979: 45.

⁶⁰ FISCHER 1996: 194.

⁶¹ JONES 2000: vol.1, 41 [210].

⁶² BORAİK, ABDELSATTAR & FAYEZ 2016: 5.

⁶³ GARDINER 1986: 585; JONES 2000: vol.1, 11 [42].

⁶⁴ For example, *Iny* (the birth name of the sixth monarch in the fifth dynasty *Ni-User-Re*. The deceased was addressed as *im3hwꜥ hr Iny* or *im3hwꜥ hr wnꜥs* (the last king in the fifth dynasty). JONES 2000: vol.1, 13 (55), 19 [87]. VON BECKERATH 1984: 55 (6), (9).

⁶⁵ E.g. *im3hwꜥ hr Imntt*, *im3hwꜥ hr Inpw* and *im3hwꜥ hr wsir*. JONES 2000: vol.1, 13, 19 [53, 56, 89].

⁶⁶ E.g. *im3hwꜥ hr nꜥr ʕ3 nb imntt* and *im3hwꜥ hr nꜥr ʕ3 nb pt*. JONES 2000: vol.1, 31 [145-146].

⁶⁷ As *nb.f* or *nswt* e.g. *im3hwꜥ hr nb.f* and *im3hwꜥ hr nswt*. JONES 2000: vol.1, 28 [129], 29 [135].

⁶⁸ GOELET 1986: 92, N^o. 31.

⁶⁹ BAINES 1983: 22; BERLEV 2003: 19.

⁷⁰ BAINES 1983: 22.

⁷¹ BAINES 1983: 15,18.

⁷² NUZZOLO 2021: 128, N^o.170.

⁷³ GARDINER & SETHE 1928: 11-12; GRIFFITHS 1980: 184; MANLEY 2012: 67.

⁷⁴ JUNKER 1934: 52-53.

⁷⁵ KEES 1956: 30-32.

⁷⁶ ANTHES 1959: 192.


⁷⁷ NUZZOLO 2021: 128.



bearded man, the same determinative that was used in the name of Osiris⁷⁸. But, during the reign of Pepy II, it was attested again without a determinative⁷⁹. Both Baines and Berlev noted that such a term may refer to the sun god⁸⁰. Fischer mentioned that the identification of the great god with Osiris does not rule out his identification with Anubis, Horus the living king, and Re as well⁸¹. And it was not before the eleventh dynasty that this epithet was related to Osiris⁸². Fischer here accepted all the previous opinions.

However, I suggest that the epithet *ntr* 𓄿 on the current false door may either refer to the god Anubis, as it was the only deity inscribed on this false door either ideographically as on the cornice or phonetically as on the Architrave, or the god Khnum whom the owner of the stela belonged as reflected from her private name.

It is worth noting that the epithet *im3h* (w) *t hr ntr* 𓄿 was known as an epithet for females since the reigns of *Shepseskaf* – *Userkaf*⁸³ and continued in the reign of Pepy II⁸⁴ as well as late Old Kingdom and the Heracleopolitan period⁸⁵.

C. The Phrase *prt-hrw*: Although the (t) and *hnkt* signs are found on the cornice, the

Architrave and the lower lintel within the phrase  *prt-hrw*, I consider both as part of the *prt-hrw* form in the transliteration and translation, as there is no way to be

sure if  and  in *prt-hrw* were used as determinatives in that form or as separate words for actual offerings⁸⁶. Moreover, if they were written fully as part of offerings then in that case they may indicate separate words⁸⁷.

IV. DATING

The false door of this study⁸⁸ presents several features which appeared frequently on the false doors of the very later part of the Old Kingdom and the Heracleopolitan period.

Some Stylistic Features of Dating

- 1- The topology of the false door, which is distinguished by its small size, is a general frequent stylistic feature for the false doors since the very late years of Pepy II.⁸⁹

⁷⁸ NUZZOLO 2021: 128-129.

⁷⁹ AZZAM 2016: 164.

⁸⁰ BAINES 1983:15; BERLEV 2003: 19.

⁸¹ FISCHER 1992: 75, N^o.13.

⁸² FISCHER 1992: 72.

⁸³ As it was held by *Nubhetepet*, wife of *Nebemakhet*. HASSAN 1943: 126, FIG.81.

⁸⁴ As it was held by *Khmmet*. JUNKER 1943: 110, FIG.32.

⁸⁵ As it was held by *Niankh-hathor* and *snt- n.i.* QUIBELL 1908: 72, PL.VI (1); JUNKER 1950: 94, FIG.39.

⁸⁶ MANLEY 2012: 55; HALLSTRÖM 2017: 11.

⁸⁷ MANLEY 2012: 55.

⁸⁸ For dating of false doors, see: RUSCH 1923: 101-124; WIEBACH 1981: 128-141; STRUDWICK 1985: 9-52; BROVARSKI 2006: 71-118; BROVARSKI 2009: 359-415.

⁸⁹ It was attested on the false doors of *ny-hb-sd-nfr-k3-r^c* who is dated to the last third of Pepy II and *tti* who is dated to the end of the reign of Pepy II. STRUDWICK 1985: 103 [72], 157-158 [156].

This typology continued to be used until the end of the Heracleopolitan period⁹⁰, most probably due to its simplicity and affordable cost.

- 2- The false door is characterized by its narrow jambs with only a single column of inscription. This feature was not known before the second half of the long reign of Pepy II⁹¹, particularly at South Saqqara⁹² and continued since then till the end of the Heracleopolitan period⁹³.
- 3- The combination of the figures on the outer jambs of the false door and the texts on the inner jambs appear in many examples of very late Old Kingdom in general⁹⁴ and also in South Saqqara⁹⁵. It is worth commenting that this feature continued in the Heracleopolitan period and in the Middle Kingdom⁹⁶.
- 4- The current false door follows the late Old Kingdom feature in which the architrave and the outer jambs are treated as a «surround»⁹⁷, a term used firstly by Gunn⁹⁸. He dated its appearance to the late of the sixth dynasty and the first Intermediate period⁹⁹, but further examinations show that it appeared occasionally on false doors of the later part of the sixth dynasty¹⁰⁰. It became frequent since the eighth dynasty and the Heracleopolitan period¹⁰¹.
- 5- The occurrence of a torus surrounding the false door and above the ordinary cornice is a sixth dynasty feature. Before this dynasty it was a significance of the status and the high standing of the owner of the false door¹⁰². It is worth commenting that the cornice decoration did not become a norm of regardless of the importance of the stela's owner before the end of the sixth dynasty¹⁰³. It then continued until the end of the Old Kingdom¹⁰⁴ and continued in the Heracleopolitan period until the Middle Kingdom¹⁰⁵.

⁹⁰ FIRTH & GUNN 1926: vol.1, 179; vol.2, PLS.70 (1-2), 71 (1-2), 72 (1-2), 73 (1-2), 74 (2); BROVARSKI 2009: 372-373.

⁹¹ Although it appeared at the beginning of the sixth dynasty on the false doors of *ḥḥ-m-ḥr/ssi* and *R^c-wr* respectively, for their dating. It was a rare and unusual feature before the last years of Pepy II. STRUDWICK 1985: 36, 75 (30), 115 (93).

⁹² STRUDWICK 1985: 17, 36.

⁹³ FIRTH & GUNN 1926: vol.1, 179; FISCHER 1963: PLS.VI-VII a.

⁹⁴ HASSAN 1975: vol.3, FIG.220; BROVARSKI 1994: 34-38, FIGS.2,6 - 2,7; KANAWATI & HASSAN 1996: PLS.12 a, 45 b; BROVARSKI 2009: 362.

⁹⁵ JÉQUIER 1929: FIG. 97; JÉQUIER 1940: vol.3, FIG. 64.

⁹⁶ FIRTH & GUNN 1926: vol.2, PL.73 (2); FISCHER 1963: PLS.VI-VII a; BROVARSKI 2009: 362, 373, 405.

⁹⁷ FIRTH & GUNN 1926: vol.1, 179.

⁹⁸ Where the Architrave project forwards over the outer jambs, this feature is recognized by the way in which the lower framing line of the inscriptions on the Architrave often runs right across to mark the Architrave from the outer jambs. FIRTH & GUNN 1926: vol.1, 179, N^o.4.

⁹⁹ FIRTH & GUNN 1926: vol.1, 179, N^o.4; BROVARSKI 2009: 360.

¹⁰⁰ BROVARSKI 2009: 370.

¹⁰¹ BROVARSKI 2009: 360, 370.

¹⁰² WIEBACH 1981: 133-135.

¹⁰³ WIEBACH 2001: 500.

¹⁰⁴ STRUDWICK 1985: 15, 35; BROVARSKI 2009: 362, 364.

¹⁰⁵ *ii-m-ḥtp*, 67 (2) *ipi-ḥḥw*, 68 *ipi-m-s3.s*, 70 (2) *ḥnwt*, 71 (1) *ḥry-ḥ.f-nḥt*. FIRTH & GUNN 1926: vol.2, PLS.67 (1); FISCHER 1963: PLS.V, VII a.

- 6- The presence of a blank central niche is a common feature from the end of the Old Kingdom, particularly from the sixth dynasty,¹⁰⁶ until the eighth dynasty¹⁰⁷ and continued in use during the Heracleopolitan period¹⁰⁸.
- 7- The inscriptions of the false door were all cut in sunk relief, which was a frequent feature in the sixth dynasty;¹⁰⁹ this is despite the fact that it was known only for high officials during the fifth dynasty¹¹⁰. It continued in use in the very late of the Old Kingdom and the Heracleopolitan period¹¹¹.
- 8- The architrave and the outer pair of jambs were all in one plane, whilst the inner jambs were stepped back. This feature was sometimes attested on false doors dated to the sixth dynasty¹¹², but it became common by the advent of the very latter part of the Old Kingdom particularly the eighth dynasty¹¹³. It continued on the false doors of the Heracleopolitan period¹¹⁴.
- 9- The drum is located at the upper part of the central niche on the same plane of the inner jambs; it also lacks any inscriptions. These features are typical of false doors dating to the late of the Old Kingdom¹¹⁵ where it was known on many false doors from the sixth dynasty¹¹⁶ and continued thereafter towards the end of the Old Kingdom¹¹⁷ till the end of the Heracleopolitan period¹¹⁸.
- 10- The panel: the false door shows the T-shaped panel; it is observed that there are two types of T-shaped panels¹¹⁹ which appeared in South Saqqara since the late sixth dynasty¹²⁰. The first is the current T-shaped panel in which the joint of the horizontal and vertical sides of the «T» form a right angle¹²¹, while the second is the flaring T-shaped panel whose sides show a gradual curve¹²².

The current T-shaped panel was much debated among scholars concerning its first attestation. Strudwick argued that it made its first appearance on the false

¹⁰⁶ STRUDWICK 1985: 24.

¹⁰⁷ BORAİK, ABDELSATTAR & FAYEZ 2016: 2, FIG.1, 7.

¹⁰⁸ FIRTH & GUNN 1926: vol.2, PLS.67 (1-2), 68-70 (1-2), 71 (1-2), 72 (1-2); FISCHER 1963: PLS.V-VIIa.

¹⁰⁹ STRUDWICK 1985: 24.

¹¹⁰ STRUDWICK 1985: 24.

¹¹¹ FIRTH & GUNN 1926: vol.1,193 (23); vol.2, PLS.67 (1), 73 (2); FISCHER 1963: PLS.V- VIIa.

¹¹² SIMPSON 1980: vol.1, PLS.18, 20; ALTENMÜLLER 1998: PL.95.

¹¹³ BROVARSKI 2009: 360, 362.

¹¹⁴ FISCHER 1963: PL.V.

¹¹⁵ BROVARSKI 2009: 362.

¹¹⁶ BORCHARDT 1937: PLS.15 (CG 1397), 18 (CG 1406), 19 (CG 1413).

¹¹⁷ E.g. *snt-it.s* who is dated later than Pepy II and not later than the end of the first intermediate period, HALLSTRÖM 2017: 32.

¹¹⁸ E.g. *hṭp*, QUIBELL 1908: PL.VI (2); *hnwt* & *dw3w-hṭp*, respectively, also *sni*. FIRTH & GUNN 1926: vol.2, PLS.70 (2), 75; GABUS 1976: 54, PL.I.

¹¹⁹ Battiscombe Gunn identified the T-shaped panel as: It represents a rectangular wooden shutter swinging on two horizontal pivots at the top corners. For further discussion on these types of false doors panels, see: FIRTH & GUNN 1926: vol.1, 176, N^o.6; KANAWATI 1992: 85-86.

¹²⁰ BROVARSKI 2006: 112.

¹²¹ BROVARSKI 2006: 111.

¹²² BROVARSKI 2006: 113.

doors since the middle of the sixth dynasty¹²³ on the false door of *Ppy-Ddi*¹²⁴, the son of the vizier *hnty-k3i/iḥhi*, which is located in the tomb of his father¹²⁵. Brovarski, however, suggested a later date for this style of T-shaped panels as it came into use since the reign of Merenre I particularly on the false door of Weni the elder of Abydos¹²⁶. This style of panels became the preference since the reign of Pepy II and later, particularly at south Saqqara, where the current false door was unearthed, as it was attested on the false door of the vizier Teti (Pepy II's son)¹²⁷ and many other later examples¹²⁸. This T-shaped panel was used during the eighth dynasty¹²⁹ and in the Heracleopolitan period as well¹³⁰.

Some Iconographic Features Prove this Dating

- 1- The back of the chair is covered by a cushion. Cherpion suggested that this feature appeared by the time of *Snfrw* but she stated that it was rare in the fifth dynasty until the reign of *Isefi*. The cushioned back chair became very common feature since the reign of Wenis until the end of the sixth dynasty¹³¹. Bolshakov argued against the suggestion made by Cherpion as he noted that the tombs dated by Cherpion to the fourth and first half of the fifth dynasty¹³² could not be dated before the time of *Neuserre*¹³³. Consequently, this iconographic feature appeared since the reign of *Neuserre* and became frequent from that time until the end of the sixth dynasty¹³⁴. Furthermore, it continued thereafter, as it was attested on the false door panel of *s3t-i-tnw* which Fischer dated to the eighth dynasty¹³⁵. Such a date was also accepted by Brovarski for that false door¹³⁶. In all cases, this iconographic feature continued to the Heracleopolitan period on many false door's panels from Saqqara¹³⁷.
- 2- The lion-legged chair was a very common feature in the sixth dynasty private reliefs¹³⁸, and continued thereafter in the Memphite reliefs at the very end of the

¹²³STRUDWICK 1985: 18.

¹²⁴He dated him by the later reign of Pepy I. STRUDWICK 1985: 18.

¹²⁵JAMES & APTED 1953: PL. 42.

¹²⁶Baer believed that he continued his career in the reign of *Merenre* I. BAER 1960: 66 [110]; BROVARSKI 2006: 111-112.

¹²⁷BROVARSKI 2006: 85, FIG.6, 112.

¹²⁸BROVARSKI 2006: 112, N^o.408.

¹²⁹FISCHER 1963: PL.VI (the false door of *s3t-I-tnw*).

¹³⁰The false door of *sni*. *PM* vol.3/2: 568; GABUS 1967: 54, PL.I; and the false door of Heryshefnakht. FIRTH & GUNN 1926: vol.2, PL.71 (1); BROVARSKI 2009: 369, N^o.74.

¹³¹CHERPION 1986: 30, critère 6.

¹³²CHERPION 1986: 151-152.

¹³³BOLSHAKOV 2001: 72.

¹³⁴BOLSHAKOV 2001: 72-74.

¹³⁵FISCHER 1963: 36, PL.VI.

¹³⁶BROVARSKI 2009: 359.

¹³⁷FIRTH & GUNN 1926: vol.2, PLS.67 (2), 69-70 (1-2), 71 (1-2), 73 (1), 74-75.

¹³⁸E.g. the *mastabas* of Qar and Idu at Giza, SIMPSON 1976: PLS.VII c, XIV a, XXVI b, XXIX d, FIGS.20, 23; and Mereruka and Khentika at Saqqara; DUELL et AL. 1938: PLS.57, 78, 88, 96; JAMES & APTED 1953: PLS.XIII, XIX; FISCHER 1996: 146.

- Old Kingdom¹³⁹ till the Heracleopolitan period¹⁴⁰. Fischer also noted that it was a quite common stylistic feature in the Middle Kingdom as well¹⁴¹.
- 3- The attestation of a fine distance between the deceased who is represented seated on the panel and the back of the chair. This iconographic feature made its first appearance in *Ibi's* tomb of Dair al-Gabrawi,¹⁴² which Brovarski dated to the first third of Pepy II's reign¹⁴³ while Baer dated it to the early to middle reign of Pepy II¹⁴⁴. In all cases, this feature has been used frequently since then in south Saqqara¹⁴⁵ and in the provinces as well¹⁴⁶. It was also attested in the eighth dynasty¹⁴⁷ and during the Heracleopolitan period in the Memphite necropolis¹⁴⁸.
 - 4- The depiction of the bread slices on the offering stand in a rectangular shape might be known since the late reign of king *Wenis* when it appeared on the false door of his vizier *Ihy*.¹⁴⁹ Others suggest that it appeared first on the false door of the queen «*Iput I*», king Teti's spouse¹⁵⁰. This feature was known since then until the end of the Old Kingdom¹⁵¹ and thereafter in the Heracleopolitan period¹⁵².
 - 5- The representation of a standing woman holding a lotus blossom to her nose while her other hand is extended freely by her side on the outer jambs is a frequent pose on the jambs of the false doors since the reign of *Neuserre* until the end of the Old Kingdom¹⁵³. It continued on the false doors of *Ipi-m-s3.s*¹⁵⁴, *hnwt*¹⁵⁵, *htpi*¹⁵⁶ and *dw3w-htp*¹⁵⁷ which are dated to the Heracleopolitan period.¹⁵⁸ Brovarski believed that it was a well-known iconographic feature in the Heracleopolitan period¹⁵⁹.
 - 6- Harpur noted that the long hanging stem of the lotus blossom was a sixth dynasty feature,¹⁶⁰ which continued to the eighth dynasty¹⁶¹.

¹³⁹ FISCHER 1963: PL.VI; BROVARSKI 2009: 359-362, FIG.3.

¹⁴⁰ FIRTH & GUNN 1926: vol.1, 179-188; vol.2, PLS.68-70 (1-2), 71 (1-2), 72 (1-2), 73 (1-2), 74 (2), 75; BROVARSKI 2009: 367-378.

¹⁴¹ FISCHER 1996: 146.

¹⁴² DAVIES 1902: vol.1, PLS.6, 8, 12, 19.

¹⁴³ BROVARSKI 2006: 76.

¹⁴⁴ BAER 1960: 288 [32].

¹⁴⁵ JÉQUIER 1929: FIG.138; JÉQUIER 1940: vol.3, 52, FIG.50.

¹⁴⁶ It appeared in Naqada. FISCHER 1964: PLS. XII, XXI, XXX, in Dendera, FISCHER 1968: PLS.XXV-XXVIII and in Busiris, FISCHER 1976: FIGS.8-9.

¹⁴⁷ FISCHER 1963: PL.VI (*s3t-I-tnw*).

¹⁴⁸ FIRTH & GUNN 1926: vol.2, PLS.67 (1), 70 (1), 72 (1), 73 (1-2), 74 (2); FISCHER 1963: PLS.VI, VIIa.

¹⁴⁹ STRUDWICK 1985: 63 (15).

¹⁵⁰ SEIPEL 1980: 176.

¹⁵¹ JÉQUIER 1928: FIG. 37.

¹⁵² FIRTH & GUNN 1926: vol.2, PLS. 67 (2), 68, 73 (2).

¹⁵³ HARPUR 1987: 134.

¹⁵⁴ FIRTH & GUNN 1926: vol.2, PL.68.

¹⁵⁵ FIRTH & GUNN 1926: vol.2, PL.70 (2).

¹⁵⁶ FIRTH & GUNN 1926: vol.2, PL.72 (1).

¹⁵⁷ FIRTH & GUNN 1926: vol.2, PL.75.

¹⁵⁸ BROVARSKI 2009: 367, 368, N^o. 67.

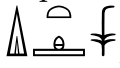
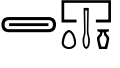

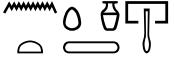
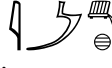

¹⁵⁹ BROVARSKI 1973: 461.

¹⁶⁰ HARPUR 1987: 134.

¹⁶¹ FISCHER 1963: PL.VI.

- 7- The presence of a nested ewer and basin on false doors was known since the advent of the sixth dynasty¹⁶² and continued until the end of the Heracleopolitan period¹⁶³.
- 8- The appearance of a nested ewer and basin only, with the absence of any racks, indicates the transitional period between the Old Kingdom and the Heracleopolitan period¹⁶⁴.

Some Orthographic Features of Dating

- 1- The god Anubis is written on the upper edge of the cornice ideographically on a stand, which is a very common feature of the Heracleopolitan period.
- 2- The arrangement of the *hṭp-di-nsw* formula as , either on the upper edge of the cornice and on the Architrave, was known since the fourth dynasty¹⁶⁵, but it flourished during the sixth dynasty up to the eleventh dynasty¹⁶⁶.
- 3- The traditional writing of the *pṛt-hrw* expression with the stretched bread determinative in that way  is a late Old Kingdom linguistic form¹⁶⁷, while the addition of the genitival adjective  (*n*) directly following that expression is feature of the Heracleopolitan period in the Memphite necropolis¹⁶⁸ and in the provinces as well¹⁶⁹, which is attested on the architrave.
- 4- The lower lintel presented the arrangement of *pṛt-hrw* as  *pṛt-hrw nt*; this arrangement was popularly utilized at the end of the sixth dynasty until¹⁷⁰ the eleventh dynasty¹⁷¹.
- 5- The beer jar determinative is inscribed without hands. The earlier examples for the current writing is derived from the hieratic documents¹⁷², and became frequent on stelae from the sixth to the eighth dynasties¹⁷³.
- 6- The full orthographical writing of the epithet  *im3h* (*w*), whose initial (*i*) is never omitted is a characteristic of Old Kingdom writing¹⁷⁴ and continued till the first intermediate period¹⁷⁵.
- 7- The phonetics of the epithet *im3hw* was changed to *im3hy* during the reign of *Merikare* (last king of the tenth dynasty)¹⁷⁶ at Asyut while at Thebes it was changed in the fourteenth year of *Nubkheperre Intef*¹⁷⁷. Thus, the false door should be dated before the time of *Merikare*.
- 8- The phonetic writing of the name of the god Anubis on the architrave as  without the jackal determinative following it, is an orthographic feature firstly attested in the burial

¹⁶² BROVARSKI 2005: 57; BROVARSKI 2008: 73.

¹⁶³ FIRTH & GUNN 1926: vol.2, PLS.67 (1-2), 68-70 (2), 72 (2), 73 (1-2); BROVARSKI 2009: 369.

¹⁶⁴ BROVARSKI 2009: 362; ABD EL-SATTAR, BORAİK & FAYEZ 2015: 328.

¹⁶⁵ BARTA 1968: 4, 12, 21, 36, 45, 72, 85.

¹⁶⁶ FIRTH & GUNN 1926: vol.1, 122; FISCHER 1963: PL.V.

¹⁶⁷ FISCHER 1968: 84 (14).

¹⁶⁸ E.g. *ṭpi-m-s3.s* and *sni*. FIRTH & GUNN 1926: vol.2, PLS.68, 73 (2) respectively.

¹⁶⁹ As: in Naga-ed-Der, BROVARSKI 1989: 211. Dendera; FISCHER 1968: 118-119 (stela of *Nfr-sšm-Ppy/snni*); Koptus. FISCHER 1964: 87; Thebes. LEPROHON 1985: 79-81 (stela of *mniw*)

¹⁷⁰ DAVIES 1902: vol.2, PL.8; FISCHER 1968: 100, FIG.16, 104; POSTEL 2005: 255.

¹⁷¹ FISCHER 1973: 20.

¹⁷² GOEDICKE 1988: 46 a-b (W 22).

¹⁷³ BORAİK, ABDELSATTAR & FAYEZ 2016: 8.

¹⁷⁴ BORAİK, ABDELSATTAR & FAYEZ 2016: 8.

¹⁷⁵ SOLEIMAN 2018: 821.

¹⁷⁶ VON BECKERATH 1984: 62.

¹⁷⁷ SCHENKEL 1962: 51, 59; BROVARSKI 1989: 231.

THE FALSE DOOR OF *Ntt-Hnmw* FROM SOUTH SAQQARA

chambers and coffin inscriptions¹⁷⁸. However, by the very late Old Kingdom and the Heracleopolitan period, it became more familiar and frequent in the superstructure inscriptions¹⁷⁹.

The aim of the following [TABLE 1] is to illustrate the previous stylistic (S), iconographic (I) and orthographic (O) features of dating, thus concluding a specific date for the false door.

Feature	The end of the fifth dynasty	The beginning of the sixth dynasty (Teti-Pepy I-Merenre)	First half Pepy II	Second half Pepy II	Dynasties 6-8	Hera. Period	Middle Kingdom
S1					✓	✓	
S2				✓	✓	✓	
S3				✓	✓	✓	✓
S4				✓	✓	✓	
S5		✓	✓	✓	✓	✓	✓
S6	✓	✓	✓	✓	✓	✓	
S7		✓	✓	✓	✓	✓	
S8					✓	✓	
S9				✓	✓	✓	
S10		✓	✓	✓	✓	✓	
I1	✓	✓	✓	✓	✓	✓	
I2		✓	✓	✓	✓	✓	✓
I3			✓	✓	✓	✓	
I4		✓	✓	✓	✓	✓	
I5	✓	✓	✓	✓	✓	✓	
I6			✓	✓	✓		
I7		✓	✓	✓	✓	✓	
I8					✓	✓	
O1						✓	
O2		✓	✓	✓	✓	✓	✓
O3						✓	
O4				✓	✓	✓	✓
O5					✓		
O6		✓	✓	✓	✓	✓	
O7		✓	✓	✓	✓	✓	
O8					✓	✓	

[TABLE 1]: © Done by the researcher

¹⁷⁸ FISCHER 1976: 7, N^{os}. 8-9.

¹⁷⁹ QUIBELL 1907: PLS.XIII, XVI, XVIII (1); FIRTH & GUNN 1926: vol.2, PL.21; FISCHER 1963: PL.VI; BROVARSKI 2006: 108.

V. CONCLUSION

Based on stylistic, iconographical and orthographical features, a suggested date for the false door ranges from the beginning of the sixth dynasty up to the Middle Kingdom; this date range is suggested by features (S5, I2, O2). While some of these previously discussed features show a shorter date range that extends from the second half of the Pepy II's reign to the Middle Kingdom- features (S3 and O4).

But, according to the orthographical feature (O7) the false door can never go later than the tenth year of *Merikare*. Most of the other features indicate a dating ranging from the beginning of the sixth dynasty to the end of the Heracleopolitan period as reflected from the features (S5, S6, S7, S10, I1, I2, I4, I5, I7, O2, O6, O7).

Although there is a feature that is common during the first half of Pepy II's reign and extends to the end of the Heracleopolitan period, as reflected from the feature (I3), there are many features which extend from the second half of Pepy II's reign to the end of the Heracleopolitan Period as reflected from the features (S2, S3, S4, S9, O4).

So, the false door can be dated from the second half of Pepy's II reign to the end of the Heracleopolitan Period, but according to the features (S1, S8, I8 & O8) which are not known before the very end of the Old Kingdom, i.e., after the end of the long reign of Pepy II, the false door can be dated by the very end of the Old Kingdom up to the end of the Heracleopolitan period. Finally, according to the features (O1, O3) *Nit-Hnmw* was contemporary with the advent of the Heracleopolitan period as these features were not common before that date, but the features (I6 & O5) became well known only during the period after the end of Pepy II.

Thus, I tend to date this false door to the transition stage between the end of the Old Kingdom and the beginning of the Heracleopolitan period. Consequently, *Nit-Hnmw* was dated to the end of the eighth dynasty and the early years of the ninth dynasty, *contra* Borchardt who dated the false door to the sixth dynasty.

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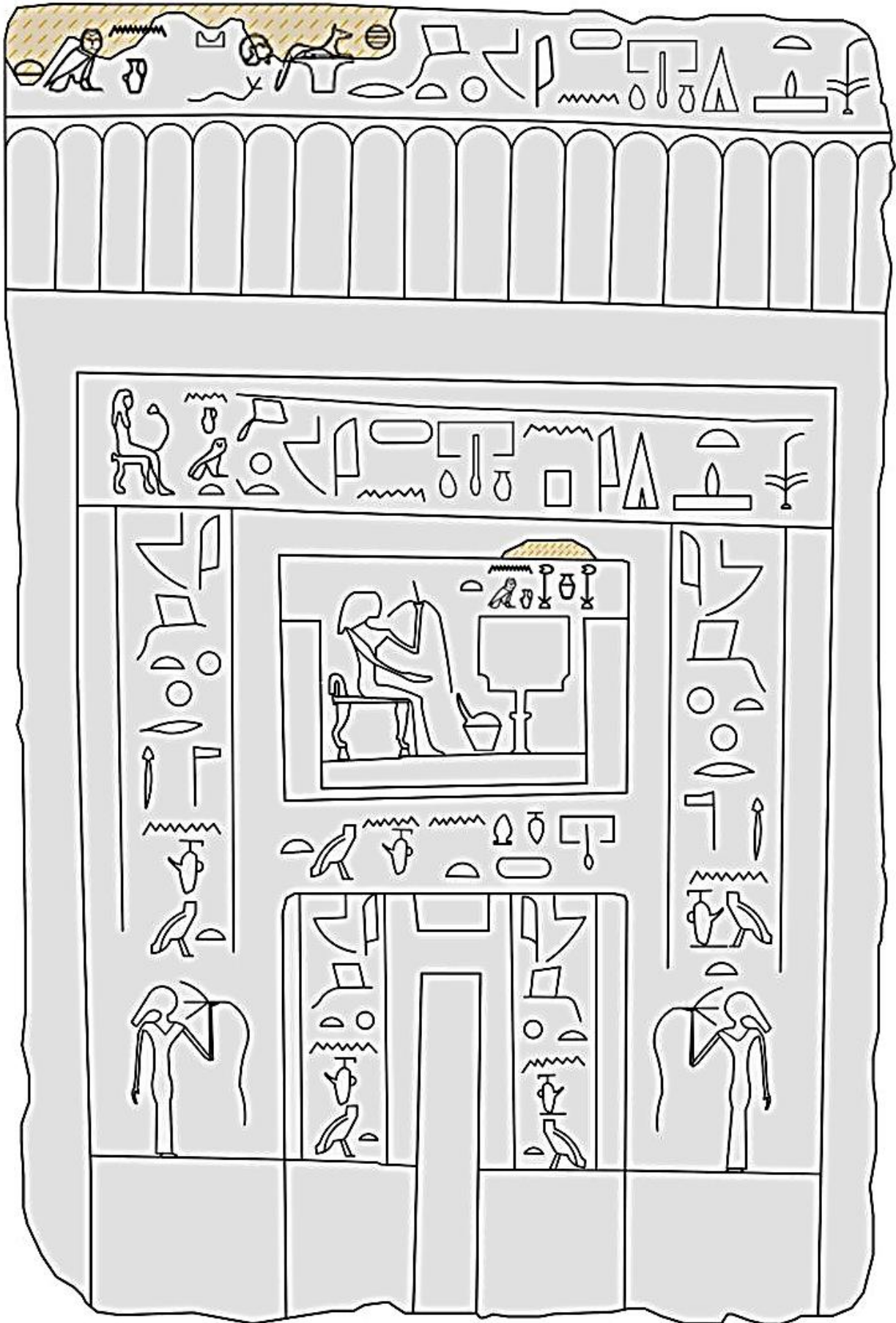
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[FIGURE 1]: Photo taken by the researcher



[FIGURE 2]: Done by the researcher

2022

THE STELA OF ANXW IN SOHAG NATIONAL MUSEUM INV. N^o. 876

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THE STELA OF 3N^hW IN SOHAG NATIONAL MUSEUM
INV. N^o. 876

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ABSTRACT

[AR] لوحة المدعو "عنخو" محفوظة في متحف سوهاج القومي تحت رقم 876
يهدف هذا المقال إلى دراسة لوحة جنازية مقوسة القمة للمدعو «عنخو»، عثر عليها في منطقة أبيدوس وحفظت في المتحف المصري بالقاهرة تحت رقم JE. 91248 ثم نقلت إلى متحف سوهاج القومي وحفظت تحت رقم 876. ويناقش المقال معانى الأسماء واللقب الوارد على اللوحة، بالإضافة إلى نسخ نصوص اللوحة مع إعطاء القيمة الصوتية للنصوص وترجمتها والتعليق عليها، وأسلوب ونمط اللوحة وأشكال العلامات وسمات التهجئة للنقوش المصورة عليها والتي تؤرخ اللوحة بنهاية الأسرة الثانية عشرة وبداية الأسرة الثالثة عشرة .

[EN] This paper aims to study a round-topped funerary stela of 3ⁿh^w from Abydos, preserved now in Sohag National Museum Inv. N^o.876. The present study provides a discussion of the meaning of their names and title. Additionally, it aims to transcribe, transliterate, translate, and comment on the inscription. The artistic style together with the orthographic and paleographic features of the stela, could be dated to the late twelfth dynasty or early thirteenth dynasty.

KEYWORDS: 3ⁿh^w, Abydos, genealogy, JE 91248, Osiris, twelfth dynasty, thirteenth dynasty.

I. INTRODUCTION

This article deals with the study of the stela of ꜥnḥw at Sohag National Museum Inv. N°.876. It was originally displayed at the Cairo Egyptian Museum until it was moved in 2008. According to the *Journal d'entrée* 91248, it was discovered in Kom al-Sultan at Abydos by Yale University during an expedition in 1969. During the excavation, it was given accession N°.69.219 «1013»¹ [FIGURES 1-2].

II. HISTORY OF THE PUBLICATION

W.K. Simpson was the first to mention the stela and draw a facsimile of it in 1995². However, he only gave brief information about the stela, including its number C14, material, measurement, and transliteration of its texts³. D.M. Doxey recorded the number of the stela and the name of its owner before moving it to Sohag National Museum (SNM)⁴.

III. DESCRIPTION

It is a round-topped limestone stela that measures 29.5 cm in height, 21 cm in width and 6 cm in thickness. It is divided into four registers of relief scenes and texts in black ink, which is now unfortunately in a bad state of preservation.

IV. FIRST REGISTER

Main Inscription

The first register consists of four horizontal lines of hieroglyphs reading from right to left between two incised border lines. It contains an offering *formula*:



[1] ḥtp di nsw^(a) (n) Wsir^(b)

[2] ḥn.ty-ḥmn.tyw^(c), nb 3bdw,

[3] diꜥf^(d) pr.(t)-ḥrw t ḥnk.t^(e) iḥ.w⁵ 3pd.w šs^(f) mnḥ.t sntr mrḥ.t^(g)

[4] n k3 n im3ḥ(y)^(h) ꜥnḥw⁽ⁱ⁾ nb im3ḥ(i), S3t-ḥnmw^(k), m3^(l).(t)-ḥrw.

¹ SIMPSON 1995: 42.

² SIMPSON 1995: 42-44.

³ SIMPSON 1995: 42.

⁴ DOXEY 1998: 238.

⁵ About this reading, see: ILLIN-TOMICH 2011: 24.

- [1] An offering that the king gives (to) Osiris
- [2] Foremost of the Westerners, Lord of Abydos
- [3] That he may give an invocation offering (of) bread, beer, oxen and fowl, alabaster and cloth, incense and oil
- [4] for the *ka* of the honored one ϵnhw , possessor of reverence, *S3t-hnmw*, justified⁶.

V. SECOND REGISTER

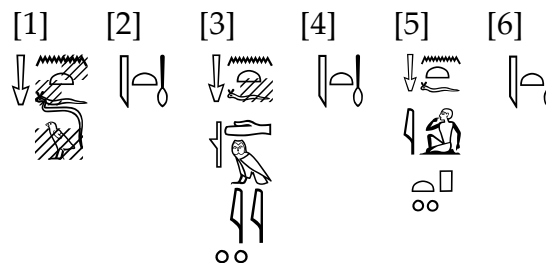
A. Scene

In the second register, ϵnhw is depicted seated facing right in front of an offering table. He wears a short wig that leaves the ear uncovered, a beard, and possibly a short kilt with a belt. His right arm is extended towards the offering table, while his left arm is folded across his chest. ϵnhw is seated on a low-back chair with lion legs that rest on cone-shaped trusses. The offerings table in front of ϵnhw is probably flat with three long legs, and the offerings above it are not clear.

Facing ϵnhw are three women of identical representation seated on the ground. Three women of equal representation are seated on the ground facing ϵnhw . Their right hands are held against their chest, while the left hands are outstretched across the knee. They wear long plain tripartite wigs, but no dress line is detectable.

B. Inscription

There are captions above and in front of each woman, identifying them:



- | | |
|----------------------------------|----------------------------------|
| [1] $sn.tz\dot{f}^{(l)} Dw$ | [1] his sister <i>Dju</i> , |
| [2] $m3^c t-hrw$ | [2] <i>Justified</i> |
| [3] $sn.tz\dot{f} Kdmy(t)^{(m)}$ | [3] his sister <i>Qedmy(t)</i> , |
| [4] $m3^c t-hrw$ | [4] <i>Justified</i> |
| [5] $sn.tz\dot{f} It^{(n)}$ | [5] his sister <i>It</i> , |
| [6] $m3^c .t-hrw$ | [6] <i>Justified</i> . |

⁶ DOXEY 1998: 92.

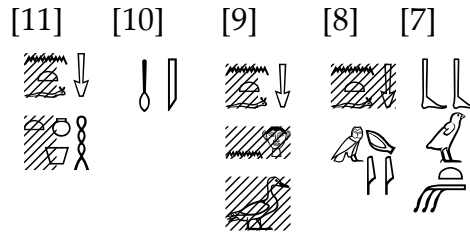
VI. THIRD REGISTER

A. Scene

The scene depicts the stela owner's four sisters, seated facing right, as the female figures of the second register; these four figures are all identical.

B. Inscription

In front of each female figure, there is a caption with her name:



[7] *Bbw.t*^(o)

[7] *Bebut*

[8] *sn.t=f Sdmy(.t)*^(p)

[8] *his sister Sudjemy(t)*

[9] *sn(.t)=f Hrj-n-s3(?)*^(q),

[9] *his sister Hor-en-sa(?)*,

[10] *m3^c(.t)-hrw*

[10] *Justified*

[11] *sn.t=f Hnw.t*^(r)

[11] *his sister Henut.*

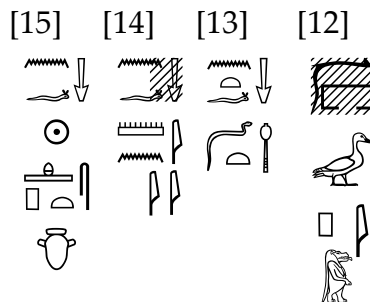
VII. FOURTH REGISTER

A. Scene

The scene depicts the stela owner's three brothers and one sister seated facing right. The three brothers are identically represented and sit on the ground with their left hands held against their chest while the right hands are outstretched across the knee. They wear a shoulder-length wig, but no dress line is detectable, and their sister is depicted seated on the ground, also in the same gesture as the aforementioned female figures.

B. Inscription

In front of each figure, there is a caption with their names:



[12] <i>imy-r pr^(s) S3-ʾIp^(t)</i>	[12] steward <i>Sa-Ipi</i>
[13] <i>sn.tʿf Hd.t^(u)</i>	[13] <i>his sister Hedjet</i>
[14] <i>snʿf Imny^(v)</i>	[14] <i>his brother Imeny</i>
[15] <i>snʿf Shtp-ib-R^(w)</i>	[15] <i>his brother Sehetepibre</i>

VIII. COMMENTARY

(a) The arrangement of the $\overline{\text{𓆎}} \overline{\text{𓆏}} \overline{\text{𓆐}}$ formula on this stela was the usual form that was used starting from the eleventh dynasty to the thirteenth dynasty⁷.

(b) The occurrence of Osiris' name $\overline{\text{𓆎}} \overline{\text{𓆏}}$ without a determinative $\overline{\text{𓆐}}$ [A41]⁸ and the writing of the god's name in this form $\overline{\text{𓆎}} \overline{\text{𓆏}}$ indicates a late Middle Kingdom date; to be more precise the end of the twelfth dynasty and beginning of the thirteenth dynasty⁹.

(c) The writing of the god's epithet *hnty-imntyw* without a determinative $\overline{\text{𓆐}}$ [A41] was usually found from the reign of king Amenemhat III and later¹⁰.

(d) Bennett suggested that the phrase *dif* before *pri-hrw* was used from the twelfth dynasty onwards¹¹. This position cannot be accepted since the above-mentioned phrase occurs on two false doors from the Old Kingdom: The sixth dynasty door of *Nefer-sshem-re*¹², and the eighth dynasty door of *Nebet*, the wife of the vizier *Shemay*¹³.

⁷ SMITHER 1939: 34; BARTA 1968: 53, 55; VERNUS 1991: 144; SATZINGER 1997: 177-188; FRANKE 2003: 39-40; ILLIN-TOMICH 2011: 22; ILLIN-TOMICH 2017: 14-17.

⁸ For further discussion of this determinative, see: BENNETT 1941: 78, criterion N°.2; BENNETT 1958: 78; LEPROHON 1985: 4 [MFA 72.766 a & b], 149 [MFA 28-11-357].

⁹ For similar examples, see: LANGE & SCHÄFER 1902: vol.1, 42 [CGC. 20023], 87 [CGC. 20073], 149 [CGC. 20126], 204 [CGC. 20174], 220 [CGC. 20204], 254 [CGC. 20233], 287 [CGC. 20269], 297 [CGC. 20282], 339 [CGC. 20326], 356 [CGC. 20346], 362 [CGC. 20351], 363 [CGC. 20352], 371 [CGC. 20368], 378 [CGC. 20379]; LANGE & SCHÄFER 1908: vol.2, 42 [CGC. 20464], 168 [CGC. 20544], 217 [CGC. 20577], 283 [CGC. 20647], 313 [CGC. 20686], 322 [CGC. 20659], 332 [CGC. 20705], 340 [CGC. 20714], 358 [CGC. 20728], 361 [CGC. 20730], 379 [CGC. 20746], 399 [CGC. 20768]; LORTON 1985: 113-126; LEAHY 1979: 141-153; MUCHIKI 1990: 191-194; MUCHIKI 1991: 197; LAPP 1993: 196, § 451, 242, § 579.

¹⁰ For similar examples, see: LANGE & SCHÄFER 1902: vol.1, 53 [CGC. 20043], 106 [CGC. 20088], 124 [CGC. 20102], 168 [CGC. 20143], 182 [CGC. 20155], 254 [CGC. 20233], 297 [CGC. 20282], 299 [CGC. 20284], 250 [CGC. 20339], 358 [CGC. 20346], 389 [CGC. 20393]; LANGE & SCHÄFER 1908: vol.2, 104 [CGC. 20514], 168 [CGC. 20544], 236 [CG. 20596], 286 [CGC. 20597], 308 [CGC. 20681], 353 [CGC. 20723], 399 [CGC. 29767]; *HTBM* III, Pls.24 [305], 47 [215], *HTBM* 1913: vol.4, Pls.36 [255], 40 [331], 48 [447]; *HTBM* 1914: vol.5, Pl.14 [335]; BRIGHT 2005: 20; BENNETT 1941: 78, criterion N°. 3.

¹¹ BENNETT 1941: 79, criterion N°. 1.

¹² FRANKE 2003: 46.


¹³ HABACHI 1983: 211, FIG.3.

(e) The writing of the sigh-Ϝ[W23] is attested from the twelfth dynasty¹⁴.

(f) Simpson reads the sign Ϝ [V6] *ss*¹⁵, although I think the correct reading should be *šs*.

(g) The request for incense and oil were added to the offering formula towards the end of the twelfth dynasty¹⁶.

(h) *n k3 n im3ḥ(y)*¹⁷: The phrase *n k3 n* was rarely used in the Old Kingdom¹⁸. The phrase occurs in the burial chamber of *Mereruka* from the Sixth Dynasty¹⁹, while *n k3 n + im3ḥ(y)* occurs on stelae starting from the Herakleopolitan period²⁰ and the beginning of the eleventh dynasty²¹.

The deceased was referred to as  *im3ḥw* «honored one»²² starting from the reign of king Sesostris I²³. While the phrase *n k3 n im3ḥ (y)* was first attested from the reign of Amenemhat II²⁴.

(i) *ḥnw*: «the living». The personal name *ḥnw* appeared ten times in the Old Kingdom as masculine²⁵ and continued to be in use during the Middle Kingdom²⁶. According to Franke, the name of the stela owner was commonly used from the end of the twelfth dynasty and the beginning of the thirteenth dynasty²⁷.

(j) The earliest attested use of the phrase *nb im3ḥw* was from the fourth dynasty in the tomb of Rahotep at Meidum²⁸, and it became commonly used during the end

¹⁴ For other examples dated to the twelfth dynasty, see: HEIN & SATZINGER 1989: vol.1, 17, 22, 29, 80, 96; HEIN & SATZINGER 1993: vol.2, 32, 66, 148; MAHFOUZ 2013: 163-164, 168-169, 184-185, 187-188; ABDEL-RAZIQ 2013: 276- 277, FIGS.1-2; ABDEL-RAZIQ 2014: 4, FIG.1-2, 8.

¹⁵ SIMPSON 1995: 42.

¹⁶ BENNETT 1941: 79, criterion N°.7; BARTA 1968: 57; SPANEL 1996: 768-769; LEPROHON 1996: vol.2, 525, FIG.1 [A].

¹⁷ For similar examples see: CGC. 20049 (= LANGE & SCHÄFER 1902: vol.1, 58; CGC. 20119 (= LANGE & SCHÄFER 1902: vol.1, 141-142).


¹⁸ LAPP 1986: 208, § 355; CGC. 57018 (JE. 38428) (= QUIBELL 1907: PL.XVIII [2]); BORCHARDT 1964: 55 [1575]; DAWOOD 1998: 397, PL.XCVII.

¹⁹ KANAWATI & HASSAN 1996: 144-146; DAWOOD 1998: vol.1, 153.

²⁰ QUIBELL 1907: PL.XIX [3]; LOPEZ 1975: FIGS.7, 10-11, 13; ABDALLA 1992: FIG.2 [b, d].

²¹ DARESSY 1907: 245-246; FISCHER 1976: FIGS.3-4; HODJASH & BERLEV 1982: N°.26; SELIM 2001: 326.

²² For the interpretation of *im3ḥw*, see: JANSEN-WINKELN 1996: 29-36.

²³ For Similar examples, see:  LANGE & SCHÄFER 1902: vol.1, 58 [CGC. 20049], 141 [CGC. 20119]; LANGE & SCHÄFER 1908: vol.2, 208 [CGC. 20178], 259 [CGC. 20238]; BENNETT 1941: 79, criterion N°.6; FRANKE 2003: 54. LANGE & SCHÄFER 1902: vol.1, 58 [CGC. 20049], 141 [CGC. 20119]; LANGE & SCHÄFER 1908: vol.2, 208 [CGC. 20178], 259 [CGC. 20238].

²⁴ STEFANOVIĆ 2010: 211, note 26; ABDEL-RAZIQ 2014: 14 [C], 15 [III].

²⁵ SCHEELE-SCHWEITZER 2014: 310-311 [775].

²⁶ RANKE 1935: 68 [6].

²⁷ FRANKE 1984: 135 (Dossier N°. 171-172), 136-137 (Dossier N°.173-174), 138 (Dossier N°.175-176), 139 (Dossier N°.177-178), 140 (Dossier N°.179).

²⁸ For similar examples, see: PETRIE 1892: PLS.12-13; FISCHER 1996: 194; JONES 2000: vol.2, 478, N°.1778; HASSAN 1932: 83, FIGS.143 [98], 168; SMITH 1933: PL.XXIII; FAKHRY 1935: 21, FIG.12; HASSAN 1936: 121, FIG.132; JUNKER 1941: ABB.48; SMITH 1942: 512, FIG.3; HASSAN 1944: 271, FIG.143; JUNKER 1950: ABB.36, 39, 104; *HTBM* 1911: vol.1, PL.11 [1282].

of the Middle Kingdom²⁹. It seems that the bearer of this title enjoyed a high social status.

(k) *S3t-hnmw*: «the daughter of god Chnum». The personal name *S3t-hnmw* occurs only in the Middle Kingdom³⁰. While Simpson read it as *S3t-hmnw*³¹.

(l) *snt*: the word «*snt*» means «sister» in the Middle Kingdom, while in the New Kingdom it refers to «wife». This may be based on Osiris's relationship with Isis, since she was his sister and wife at the same time³².

(m) *Ḳdmyt*: The personal name *Ḳdmyt* was used only from the Middle Kingdom³³.

(n) *It*: This proper name appeared in H. Ranke but with a different orthography $\begin{matrix} \text{I} & \text{t} \\ \text{---} & \text{---} \\ \text{---} & \text{---} \end{matrix}$ ³⁴. W.K. Simpson suggests that it should be read as «*It3*»³⁵. PNM read it $\begin{matrix} \text{I} & \text{t} \\ \text{---} & \text{---} \\ \text{---} & \text{---} \end{matrix}$ «*It*»³⁶. The scholar agrees with the PNM reading of this name.

(o) *Bbwt*: which means «the wig ?». «*Bbwt*» is a feminine name that was attested only on the Middle Kingdom stelae (CGC. 20023, 20141)³⁷.

(p) *Sdmy (t)* is a feminine name that was attested only since the Middle Kingdom³⁸.

(q) There are very faint traces of a few signs that could probably be read $\begin{matrix} \text{H} & \text{r} & \text{j} & \text{---} & \text{n} & \text{---} & \text{s} & \text{3} & \text{---} & \text{---} \\ \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} & \text{---} \end{matrix}$ «*Hrj-n-s3(?)*».

(r) The personal name *Hnw.t* was used starting from the beginning of the Old Kingdom³⁹ and continued to be used until the New Kingdom⁴⁰.

(s) *imy-r pr*: «steward»⁴¹, «administrator»⁴². This title *imy-r pr* was first attested from the fourth dynasty⁴³. Returning to the title of *imy-r pr*, Grajetzki mentions that its bearers in Old Kingdom tombs were shown at the front of the row for lower officials under the tomb owner. They are usually depicted as scribes or bringing cattle. In

²⁹ HTBM 1912: vol.2 II, PLS.3 [177], 4 [189], 7 [147], 9 [146], 13 [123], 21 [145], 26-27 [151], 35 [205], 41-43 [208], 49 [192], 50 [219]; HTBM 1912: vol.3, PLS.1 [228], 8 [320], 11 [237], 15 [243], 18 [311], 20 [313], 36 [242]; LEPROHON 1985: vol.1, 153 [MFA 29.1130].

³⁰ RANKE 1935: 292 [24].

³¹ SIMPSON 1995: 42.

³² Wb 1971: vol.4, 151 [5-9].

³³ RANKE 1935: 337 [19].

³⁴ RANKE 1935: 49 [3].

³⁵ SIMPSON 1995: 42.

³⁶ PERSONS & NAMES OF THE MIDDLE KINGDOM: <https://pnm.unimainz.de/2/inscription/9880>, Accessed on 07/03/2022 at 5:27 pm

³⁷ RANKE 1935: 96 [8].

³⁸ RANKE 1935: 323 [26].

³⁹ SCHEELE-SCHWEITZER 2014: 545 [2445].

⁴⁰ RANKE 1935: 242 [18].

⁴¹ HELCK 1958: 92-94; QUIRKE 1986: 111, 119 [N°.141]; QUIRKE 2004: 61.

⁴² WARD 1982: 21 [N°.132].

⁴³ GRAJETZKI 2009: 69.

addition, they were only known through the household of higher officials⁴⁴. Dawood added that holders of this title were associated with the farms and administration of the estates. For example, a person from Dendera who bore the title *imy-r pr* was boasting of his administrative competence, and good control over the estate of his father⁴⁵. It was his responsibility to draw up the final reports for the county account and submit them to the landowner⁴⁶.



(t) *S3-īpi*: This proper name was used only during the Middle Kingdom⁴⁷.


(u) The personal name *Hd.t* was used only during the Middle kingdom⁴⁸.

(v) The personal name *Imny* was used starting from the beginning of the Old Kingdom⁴⁹ and continued to be used until the Middle Kingdom⁵⁰.


(w) *Sḥtp-ib-R^c*: means «May it please the heart of Ra». This personal name was used only during the Middle kingdom⁵¹.

IX. PALEOGRAPHICAL REMARKS

a. It is worth noting that the sign  appears in the second line of the main inscription in semi-cursive  writing⁵² with three pots of water only. Gardiner suggested that the sign was written with three water pots during the Middle Kingdom and continued to be used in this shape until the New Kingdom⁵³; this assumption is incorrect since Leprohon discusses examples that date back to the end of the Old Kingdom and the first intermediate period⁵⁴.

b. It should be noted that the sign  from the fourth line of the main inscription is written in semi-cursive hieroglyphs⁵⁵.

c. The scribe of the stela used the sign  (Q3) for the name *It*, though the correct sign probably is  (X3)⁵⁶ in the second register [line 5].

d. For the word *m3^ct*, the scribe used  the sign instead of (Aa11) after the name *It* in the second register [line 6].

⁴⁴ GRAJETZKI 2009: 69-70.

⁴⁵ DAWOOD 1998: 110.

⁴⁶ DAWOOD 1998: 111.

⁴⁷ RANKE 1935: 280 [19].

⁴⁸ RANKE 1935: 261 [14].

⁴⁹ SCHEELE-SCHWEITZER 2014: 238 [301].

⁵⁰ RANKE 1935: 31 [N°. 13].

⁵¹ RANKE 1935: 318 [6].

⁵² FISCHER 1976: 44.

⁵³ GARDINER 1994: Sign-list W. 17.

⁵⁴ For similar examples in the first intermediate period and the end of the Old Kingdom, see: FISCHER 1962: PLS.II, FIGS.3 [III], 4; BROVARSKI 1973: 453-465; LEPROHON 1985: vol.1, 124 [MFA 25.673], 99 [MFA 25.625], 105 [MFA. 25.627], 108 [MFA 25.628], 130 [MFA 25.675].

⁵⁵ FISCHER 1976: 44.

⁵⁶ *PERSONS & NAMES OF THE MIDDLE KINGDOM*: <https://pnm.unimainz.de/2/inscription/9880>, Accessed on 01/03/2022

e. It is noted that there are few traces of the ink in the writing of the name *Hrj-n-s3* (?) in the third register [line 3].





f. It is worth noting that the sign (P8) precedes the sign (Aa11) of the *m3^c-hrw* in the third register (line 4).

g. There are a few traces of the signs (X1) and (I9) of the word «*snt*» in the third register [lines 3, 5].

h. There are traces of writing for the title «*imy-r pr*» in the fourth register (line 1).

X. DATING

This paleographical and iconographical study dates the stela to the late twelfth dynasty, or early thirteenth dynasty based on the following facts:

- a. According to Franke, the name of the stela's owner is *ᶚnhw*, a name commonly used during the thirteenth dynasty⁵⁷.
- b. The orthographic of the epithet  «foremost of the westerners» is the usual form that occurs during the end of the twelfth and the beginning of the thirteenth dynasty⁵⁸.
- c. The orthography  «oxen and fowl» was common from the end of the Twelfth and the beginning of the thirteenth dynasties⁵⁹.
- d. The phrase *n k3 n im3hy* was more common since the end of the twelfth and the beginning of the thirteenth dynasty⁶⁰.
- e. The arrangement of  instead of  was regularly used during the end of the twelfth dynasty and the beginning of the thirteenth dynasty⁶¹.

⁵⁷ FRANKE 1984: 135 [N^o.171-172]), 136-137 [N^o.173], 137 [N^o.174], 138 [N^o.175-176], 139 [N^o.177-178], 140 [N^o.179], 141 [N^o.180].

⁵⁸ HEIN & SATZINGER 1989: vol.1, 16, 21, 46, 95, 116, 135, 141, 166; AZZAM 2011: 100, PL.1; LANGE & SCHÄFER 1902: vol.1, 24 [CGC. 20023], 53 [CGC. 20043], 106 [CGC. 20088], 113 [CGC. 20093], 121 [CGC. 20100], 124 [CGC. 20102], 168 [CGC. 20143], 182 [CGC. 20155], 254 [CGC. 20233], 297 [CGC. 20282], 356 [CGC. 20346], 389 [CGC. 20393]; LANGE & SCHÄFER 1908: vols.2, 4 [CGC. 20402], 77 [CGC. 20482], 113 [CGC. 20518], 236 [CGC. 20596], 308 [CGC. 20681], 399 [CGC. 20768]; *HTBM* 1912: vol.3, PL.24 [305]; *HTBM* 1913: vol.4, PL. 40 [331].

⁵⁹ LANGE & SCHÄFER 1902: vol.1, 43 [CGC. 20034], 106 [CGC. 20088], 117 [CGC. 20098], 131 [CGC. 20108], 139 [CGC. 117], 144 [CGC. 20122], 148 [CGC. 20125], 155 [CGC. 20132], 166 [CGC. 20141], 192 [CGC. 20162], 197 [CGC. 20165], 205 [CGC. 20175], 216 [CGC. 20187], 220 [CGC. 20204], 232 [CGC. 20207], 236 [CGC. 20213], 245 [CGC. 20226], 261 [CGC. 20239], 268 [CGC. 20246], 279 [CGC. 20260], 281 [CGC. 20263], 306 [CGC. 20292], 309 [CGC. 20296], 313 [CGC. 20300], 327 [CGC. 20314], 351 [CGC. 20340], 359 [CGC. 20348], 365 [CGC. 20357], 367 [CGC. 20359], 373 [CGC. 20371], 380 [CGC. 20381], LANGE & SCHÄFER 1908: vol.2, 47 [CGC. 20452], 52 [CGC. 20456], 62 [CGC. 20465], 135 [CGC. 20532], 141 [CGC. 20535], 190 [CGC. 20558], 202 [CGC. 20566], 243 [CGC. 20605], 244 [CGC. 20606], 246 [CGC. 20607], 258 [CGC. 20618], 299 [CGC. 20671], 334 [CGC. 20708], 340 [CGC. 20714], 343 [CGC. 20716], 349 [CGC. 20722], 353 [CGC. 20723]; *HTBM* 1912: vol.2, PLS.4 [177], 5 [150], 6 [156], 13 [123], 14 [209], 15 [129], 21 [145], 28 [224]; *HTBM* 1912: vol.3, PLS.297, 10 [234], 11 [237], 12 [249], 20 [313], 25 [246], 35 [319], 36 [242], 36 [242], 37 [222]; *HTBM* 1913: vol.3, PLS.5 [152], 7 [155], 12 [170], 34 [210]; HEIN & SATZINGER 1989: vol.1, 7, 179.

⁶⁰ PFLÜGER 1947: 133; HEIN & SATZINGER 1989: 99, 101; EL-ENANY 2008: 109; ILIN-TOMICH 2011: 26; ABDEL-RAZIQ 2013: 279 [f].

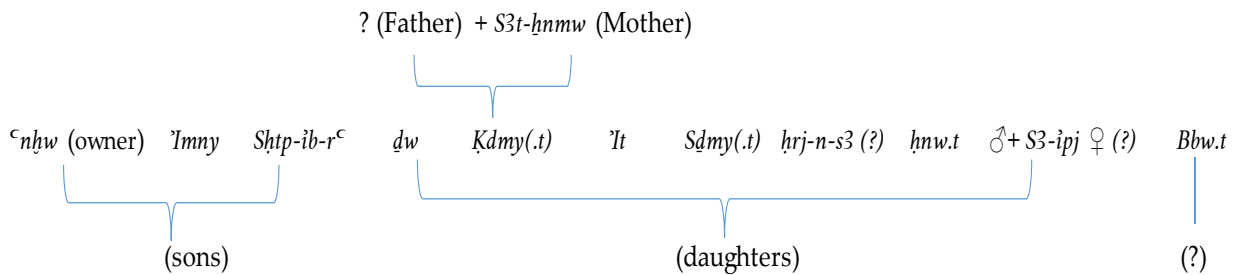
XI. GENEALOGY

The stela provides information for the genealogy of the family of ʿnḥw up to two generations. So, the following matrix shows the relationship between the two generations.

The first generation ? + S3t-ḥnmw the mother of ʿnḥw

The second generation ʿnḥw and his brothers ʾImny, Sḥtp-ib-r^c and his sisters Dḥw, Ḳdmy(.t), ʾIt, Sḏmy(.t), Ḥrj-n-s3 (?), Ḥnw.t, Ḥḏ.t.

We do not know the relation of Bbwt (?) and S3-ḥpi to the owner of the stela, but one may presume that S3-ḥpi is probably the husband of lady Ḥḏt.



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⁶¹ LANGE & SCHÄFER 1902: vol.1, 30 [CGC. 20025], 34 [CGC. 20027], 47 [CGC. 20038], 80 [CGC. 20065], 82 [CGC. 20067], 96 [CGC. 20080], 97 [CGC. 20081], 148 [CGC. 20125], 154 [CGC. 20131], 155 [CGC. 20132], 161 [CGC. 20138], 167 [CGC. 20142], 204 [CGC. 20174], 229 [CGC. 20204], 232 [CGC. 20208], 255 [CGC. 20234], 322 [CGC. 20310], 346 [CGC. 20333], 349 [CGC. 20338], 359 [CGC. 20348], 368 [CGC. 20362], 380 [CGC. 20381]; LANGE & SCHÄFER 1908: vol.2, 50 [CGC. 20455], 65 [CGC. 20470], 135 [CGC. 20532], 202 [CGC. 20566], 243 [CGC. 20605], 259 [CGC. 20619], 276 [CGC. 20639], 318 [CGC. 20691], 353 [CGC. 20723], 358 [CGC. 20728]; HTBM II, Pls.6 [156], 13 [123], 14 [209], 19 [143], 28 [224], 30 [178], 44 [135], 46 [124]; HTBM 1912: vol.3, Pls.5 [297], 10 [234], 11 [237], 31 [254]; HTBM 1913: vol.4, PL.12 [170]; HEIN & SATZINGER 1989: vol.1, 24, 112, 179; HEIN & SATZINGER 1993: vol.2, 87.

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[FIGURE 1]: Stela in Sohag National Museum, Inv. N°.876/ JE. 91248 © Photo taken by the researcher.



[FIGURE 2]: Stela in Sohag National Museum, Inv. N°.876/ JE. 91248 © Facsimile by Walid El-Sayed.

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CRIOSPHINX STELA FROM TELL HEBOUA - NORTH SINAI

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Criosphinx Stela from Tell Heboua - North Sinai

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ABSTRACT

[AR]

لوحه من تل حبوة-شمال سيناء

لوحه مستطيلة الشكل عثر عليها مصادفة في أوائل عام 2020. وذلك على بعد 500 متر إلى الغرب من الجدران المحصنة لمدينة تارو - حبوة 1 ، واللوحه من الحجر الجيري الابيض تم العثور عليها مكسورة الى قطعتين من المنتصف ، وكانت في حالة سيئة وتم ترميمها مبدئيا في الموقع. ظهر اللوحه خشن به العديد من علامات الأرميل المحفورة. تم تزيين اللوحه بنقوش غائرة. تمثل زخرفة اللوحه أحد العناصر الرئيسية التي تشير إلى صورة أسد راقد برأس كبش "criosphinx" مع حامل قرابين في المقدمة. يمكن التعرف على الكبش على أنه *Ovis platyura aegyptiaca* بناءً على القرون المنحنية للأمام. كبش بلاتيور ، المخلوق المقدس البارز لأمون ، أصبح أحد أكثر الحيوانات قداسة في مصر القديمة من خلال ارتباطه بالإله آمون ، الذي كان ، مثل آمون رع ، الإله البدائي والإله الأعلى للآلهة المصرية ، تاجه يرمز إلى السماء ، ويتكون من تاج يعلوه ريشتان مرتفعتان. لا يوجد نص على اللوحه ؛ يمكن تصنيفها على أنها لوحه نذرية ، وهي لا تحتوى على صورة الشخص الذي وهبها ولكن مثل علمها الإله فقط. ومن المرجح طبقا لما عثر عليه في منطقة تل حبوة 1 انها تؤرخ بعصر الدولة الحديثة.

[EN] A rectangular stela was found in the vicinity of Tell Heboua I by accident in early 2020. The stela was uncovered 500 m to the west of the fortification walls of Heboua I, during a land reclamation project which is going on in the western vicinity of Tell Heboua I. Our well-trained guard, Hassan al-Masody, recognized the limestone slab on top of the embankment of a small drainage canal. When turning this recognizable piece of stone, he found it to be a decorated limestone stela. Inscribed materials that were discovered in the Heboua area are still limited compared to the long history of the site and the extensive and continuous archaeological work done. This is obviously due to the scarcity of stone in this sandy remote area. In addition, every piece of stone in the North Sinai archeological sites was taken from its original place and reused throughout history until now.

KEYWORDS: Amun-Re, Criosphinx, Tell Heboua I, New Kingdom, votive Stela.

I. INTRODUCTION

The Criosphinx stela of Tell Heboua is one of the unique discoveries in Sinai [Map N°.1]¹. The decoration of the stela represents an image of Amun-Re as a recumbent ram-headed² lion «criosphinx» sniffing the lotus flower. Amun-Re can be depicted as a man³, ram⁴, goose⁵, criosphinx⁶, and bark⁷. The stela has no inscriptions, and it can be classified as a votive stela, which doesn't contain an image of the donor. Only a deity is represented on the stela.

II. DESCRIPTION

The newly discovered stela is made of white limestone. The preserved shape is rectangular (47cm x 35cm x 4.5cm). It was found broken into two pieces from exactly the middle point, and it seems quite even and doesn't look recent. It had no inscriptions on its surface⁸.

The stela was discovered in a bad state of conservation, with a small crack on the left lower part of the stela; restoration was done at the site, and more work was done at the laboratory⁹. Due to the high percentage of salt in the soil of Heboua area, crystallized salt covered the surface of the stela, which takes lots of time to be treated. The back of the stela is cragged and rough with several chiseled marks. The stela is decorated in sunken relief, and the execution of the relief is very accurate, with lots of attention to detail. The stela was registered and delivered to al-Qantara store magazine – North Sinai (Inv. N°.557).

The decoration of the stela includes an image of a recumbent ram-headed lion «criosphinx»¹⁰, with an offering stand in front [FIGURES 1-2]. The ram can be identified as *Ovis platyura aegyptiaca*, based on the forward-bending horns. *The platyura ram*, the pre-eminent sacred creature of Amun, became one of the most sacred animals in ancient Egypt through its association with the god Amun¹¹, who, as Amun-Re, was the primeval

¹ Tell Heboua (Heboua complex), the well-known and most important archeological site in the north western part of Sinai. The site has been repeatedly survived and objected to excavations by the Egyptian missions from 1980 onwards. Heboua is located at the eastern fringe of the Nile Delta on the mouth of the defunct Pelusiac Nile branch. The site is situated 5 km east of Suez Canal, and now, consists of three different important archeological sites: Tell Heboua I, Tell Heboua II, and Tell Heboua III. The archeological area of Heboua dated from the second intermediate period until the end of twenty-sixth dynasty.

² BIERBRIER 1993: PL.52-53

³ NIGEL 2006: 200-201.

⁴ MYSLIWIEC 1988: 33,40.

⁵ JAMES 1974: 176, N°.432, PL.85

⁶ JANINE 1991: 157-164 (162)

⁷ HAYES 1959: 388–89, FIG.244.

⁸ For more information about Tell Heboua: ABD EL- MAKSOU D & DOMINIQUE 2005: 1–43; ABD EL- MAKSOU D & DOMINIQUE 2011: 1–39

⁹ Many thanks to Mr. Akram Ahmed director of al-Qantara Magazine-North Sinai and Mr. Ashraf Wesam, director of the Restoration Department at Qantara Magazine for their efforts and cooperation.

¹⁰ Criosphinx: is an ancient Greek consists of κριός (kriós, «ram») and σφίγξ (sphínx, «Sphinx»), which refers to the sphinx with the head of a ram on the body of a lion.

¹¹ NEBBI 1986: 53; ARNOLD DOROTHEA 1995: 56; HART 2005:13.

deity and supreme god of the Egyptian pantheon. His crown symbolizes a sky God, consisting of a crown surmounted by two high plumes¹².

The lion's body is depicted in a recumbent pose, lying straight with its paws resting flat and parallel to the axis of the carving. Its tail curls forward around the rump and rests on the back. The carving skillfully combines the stylized divine wig, a long headdress with front lappets, with a naturalistic treatment of the body and short beard. In addition to symbolizing divinity, this wig had the virtue of adaptability; it fills out the back of the head in a manner suggestive of a mane. The muzzle is represented realistically, with the almond-shaped eye, and short curling horns around the bending ears. The headdress of the deity, which identifies him as Amun-Re, is topped by two tall feathers «plumes» and a Solar Sun-disk at the center with a Uraeus rising on his forehead; this is symbolic of his assimilation with the sun god, Re, and as Amun-Re in the form of a ram-headed lion «Criosphinx»¹³.

Amun-Re can be depicted as a man, often enthroned, with deep blue skin and wearing double plumes, like a ram, a goose, a criosphinx, and bark¹⁴. The composite animal is integral to art and religion and was among the first of the Egyptian artists' creations and continued for four thousand years. By combining the ram and lion, the procreative energy of one and the strength of the other was emphasized in the god Amun-Re. On the right part of the scene and before the Criosphinx is a water-pot «*hs*-vase» cooled by lotus blossoms that rest on an altar. The Ram-headed god is sniffing the lotus-flower long stem. The water-pot «*hs*-vase» is frequently depicted on many offering stelae, because it was used to hold ritually purified water. The name «*hs*» means «favored», and these containers were frequently left as tomb offerings so the deceased could drink the water and thus maintain a pure state throughout eternity¹⁵.

III. CLASSIFICATION

The current stela has no text. It can be classified as a votive stela that doesn't include an image of the donor, and which only represents the deity. Missing the image or at least the name of the owner, these kinds of stelae would have been purposeless in a temple or as a «door plate» that would have been installed next to the entrance into the houses¹⁶. There are some examples of votive stelae which contain no reference to their donor in either text or image¹⁷, but, when a donor is depicted in either text or image or both, it is a conscious choice on the part of the donor to transform a stela from a solely religious votive object into a social object of self-presentation¹⁸.

¹² OTTO 1975: 248.

¹³ This assimilation, in which neither God lost his identity.

¹⁴ HART 1986: 4.

¹⁵ HÖLZL 2015:73

¹⁶ BIETAK 1975: 42; JÓZEF HUDEC 2016: 170

¹⁷ As regards social display, such stelae may have been set-up in homes. The donors may also have donated them in a community setting, but it is impossible to know if this is the case.

¹⁸ RYAN 2014: 17

The stelae could not all have had the same purpose; instead, temples, chapels, private houses, as well as tombs, must be considered as potential destinations¹⁹. There is remarkably little evidence regarding the actual creation of a votive stela; while a royal stela often includes a message describing the circumstance under which a stela was created, a votive stela does not²⁰. Monuments and votive offerings representing only royal statues, or deities would have been rather exhibited in private houses, for instance as house altars such as those discovered at Amarna, Karnak, or Dair al-Medina. Such a destination can be supposed for Tell Heboua votive stela.

The Role of Amun Regarding the Eastern Frontier

Amun was a very important god to the New Kingdom kings, as he played a significant military role regarding the campaigns beyond the Egyptian frontier; the gift of Amun to the kings has been nothing less than world dominion²¹. In the Book of the Dead, Amun provides a potent spell for preserving the corpse and for preventing injury from a scorpion bite. The Egyptians at all levels of society, forced to undertake long journeys from home, put a certain amount of trust in the Amun as a protector of travelers²².

King Sety I's triumphal return from campaigning in Levant is depicted at the north exterior wall, great hypostyle hall, at Karnak temples²³, on the opposite (western) side of the canal; the third unit shows the king at the end of the triumphal procession, presenting prisoners and booty to Amun- Re as a gift for his support and protection²⁴. The excavation finds from Tell el Borg-North Sinai proved that the company that was part of the army division of *Amun* (perhaps 200-250 men) was based in the Eastern Delta, at Tell al-Borg²⁵.

IV. CONCLUSION

The recumbent criosphinx appears in statuary under Tutankhamun's reign²⁶. Comparing it to other stelae, which depicted the criosphinx as the main figure²⁷, and also regarding the dating of the architecture elements discovered at Tell Heboua²⁸, the relevant criosphinx stela is believed to be dated to the end of the 18th dynasty.

¹⁹ MARTIN 2003: 255-263.

²⁰ RYAN 2014: 11

²¹ In his military relief at Karnak, king Sety I was depicted presenting prisoners and booty to Amun- Re at the end of the triumphal procession.

²² HART 2005: 22

²³ Epigraphic Survey, Battle Reliefs of king Sety I. FIG.1.

²⁴ HUSSEIN 2020:158.

²⁵ Hoffmeier 2014: 109-110, FIG. 124.

²⁶ TRAUNECKER 2018: 175-192.

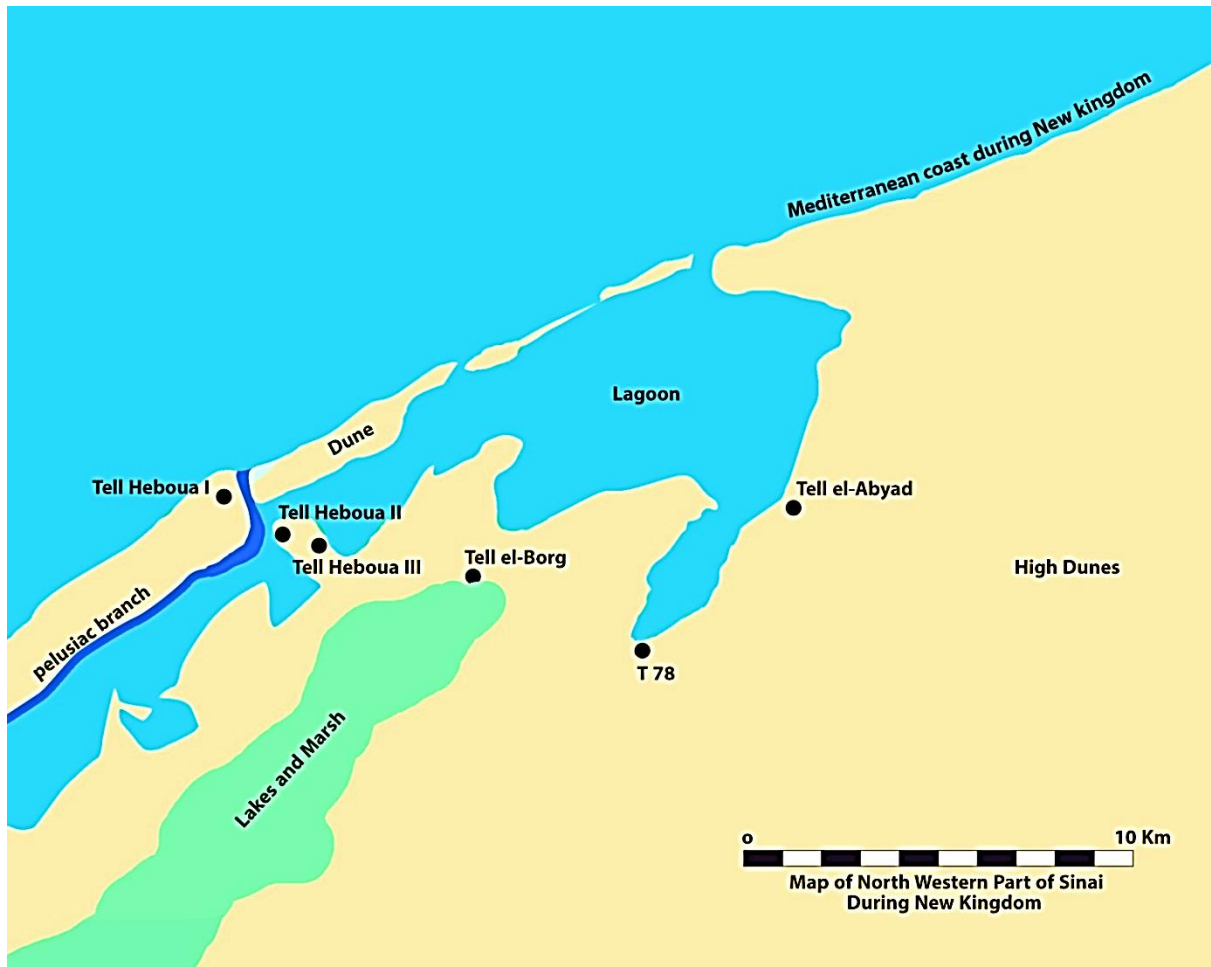
²⁷ EDWARDS 1987: vol.8, 36, PL.XXXI, N^o.1571; VERNUS 1998: 170; HODJASH & BERLEV1943: FIG.81.

²⁸ ABD EL- MAKSOU D 1998.

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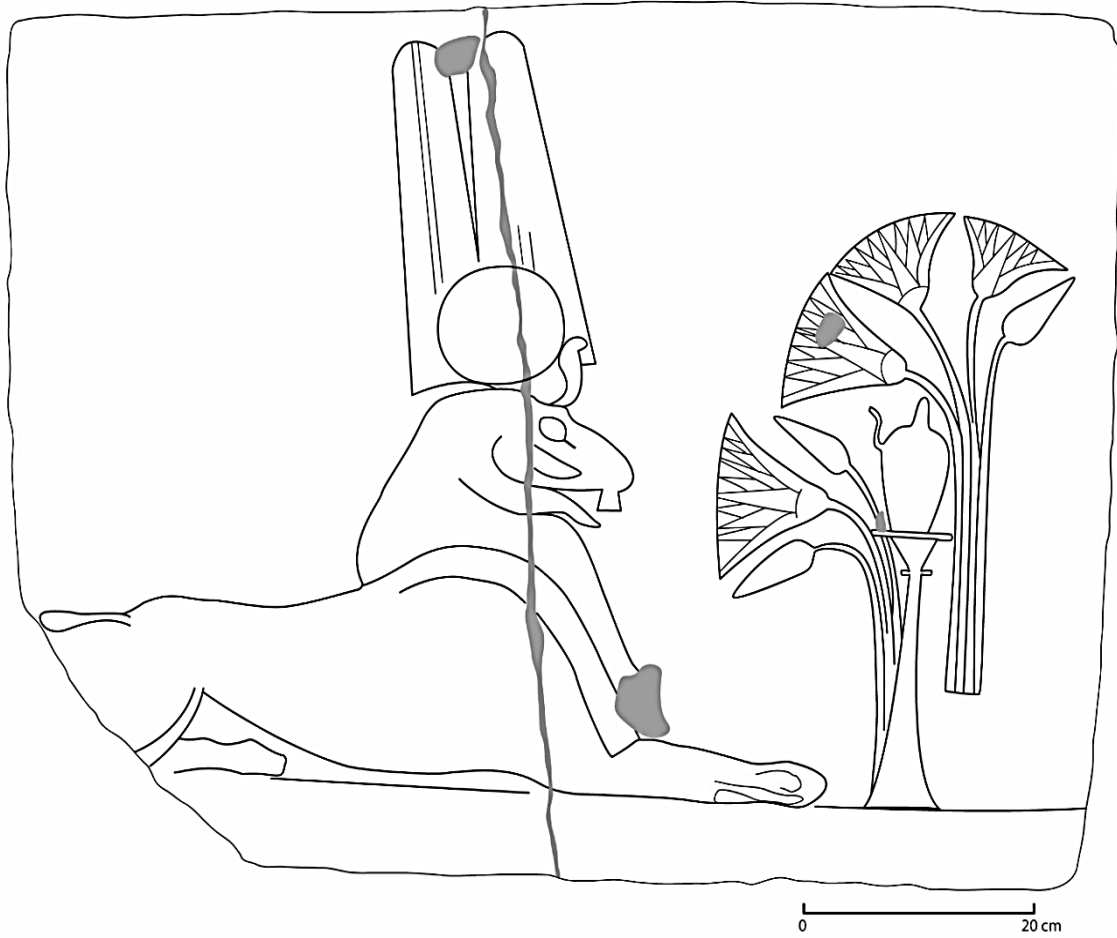
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[MAP 1]: The North-western part of Sinai during the New Kingdom
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[FIGURE 1]: Amun-Ra stela © Photo taken by Hesham M. Hussein



[FIGURE 2]: Lion drawing of Amun-Ra stela
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NAOS OF THE KING DARIUS I N^o.200
AT MALAWI MUSEUM

BY

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ABSTRACT

[AR]


ناووس الملك داريوس الأول بمتحف ملوى رقم (200)

ناووس صغير من الخشب الملون والمغطى بالجص، بشكل صندوق يعلوه كورنيش كافيتو في منتصفه قرص الشمس المجنح رمز المعبود «حورس البهتدي»، يرجع تاريخه لعهد الملك دارا الأول في مصر، ثم أعيد استخدامه في العصر اليوناني الروماني حيث عثر عليه بتونة الجبل. يهدف البحث هنا إلى دراسة ونشر الناووس عن طريق دراسة المناظر المصورة عليه، وترجمة النص الموجود عليه، كما أن هناك تعليقاً عاماً على الرسوم والزخارف والألوان الخاصة بالناووس وكذلك الآلهة وأوضاعها على جوانبه، ومن خلال الدراسة يمكن للباحثة أن تستنج ملمح من ملامح تأثير الفن المصري على الفرس أثناء تواجدهم في مصر.

[EN] The target of this paper is the study of a small colored wooden sarcophagus covered with plaster. It took the shape of a box, topped by a cavetto cornice, in the middle of which is a winged sun disk, the symbol of the god «Horus Behedeti». It dates back to the reign of King «Darius I» in Egypt, and then was reused in the Greco-Roman era, when it was found in «Tuna al-Gabel». This research aims to study and publish the sarcophagus by studying the scenes depicted on it, and translating the text on it. The author will undertake a general comment on the drawings, decorations and colors of the sarcophagus, as well as the gods and their condition. Through this study, the researcher could deduce the influence of Egyptian art on Persians in Egypt.

KEYWORDS: Egyptian art, Greco-Roman era, king Darius I, naos, Persians, sarcophagus, Tuna al-Gabel, winged sun disk.

I. INTRODUCTION

Naos¹  is a box of stone or wood that surrounds the statue of a god to save and protect it with a wall that becomes difficult to penetrate. It has a door closed and sealed by the king who impersonates the role of the high priest. Hence, it is clear that kings, specifically, between the Twenty-Seventh and Thirtieth dynasties, sealed most of their private sarcophagi in temples² [FIGURE 1].

The Object of Study

The study focuses on a small wooden Naos in box shape, dating back to the twenty-seventh dynasty, and later re-used by the Greco–Roman times at Tuna al-Gabel. The interior consisted of a baboon wrapped in linen wrappings. The baboon was the sacred animal symbolizing the god Thoth, the god of knowledge and writing.

The Aim of the Study

The research aims to redate the piece in the Malawi Museum, which is wrongly dated in the museum's records and the artifact's display card. The author tries to prove the history of the Naos by using the equivalent examination, and deciphering the existing remaining texts. Furthermore, the author will comment on the Naos motifs and colors, as well as, the deities that decorate the sides of the Naos. Throughout the study it was concluded that Egyptian artistic features exerted an influence over the Persians during their stay in Egypt. The Naos has been re-documented at the museum³ to date back to the twenty seventh dynasty.

II. DESCRIPTION⁴

Lengths and sizes [FIGURE 2]

Front width: 28 cm.

Side width: 34.5 cm.

Height with the base: 42 cm.

Cornice: 47 cm.

Roof size: 30x27 cm.

Cornice size: 3x27 cm.

Size doorstep: 27x3 cm.

¹Naos is a Greek word for the cabin where there was a statue of the god inside the Holy of Holies / sanctuary. It is of two types: fixed and movable. For more on the Naos, see: GEORGE 1943: 57; SAFAA 2003:15; AL-MURSI 2016: 200.

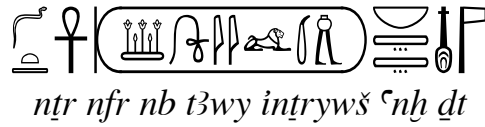
² WILKINSON 1992: 1.

³ GABRA 1947:161-162; MESSIHA & ELHITTA 1979: 15.

⁴The overall description, the measurements and Photographing of the Naos is a personal effort by the researcher.

The Frontal Side

The naos has a high base covered with plaster, with colorful inscriptions decorating all sides. The upper part is surmounted by a cavetto cornice. The venter has a winged sun disk⁵, followed by a ledge [FIGURE 3] with hieroglyphic inscriptions written in two opposite directions starting *nh* sign



The good god, Lord of the two lands Antrocha⁶ may live forever.

The *cavetto* cornice is an important architectural element used to decorate the upper parts of the Naos. Some scholars believe that the cornice most likely symbolizes the tradition of a palm sky of palm fronds from which the sun god descends and rises. The latter architecture was a major purpose at the front of naos⁷.

The naos has a door that opens up, similar to a door and bolt; it is used to close the door after the end of the burial rituals done on the god's statue [FIGURE 2]⁸.

The decorations represent a winged scarab directly down the winged sun disk. On both sides of the door, the king wears the double crown standing with his left leg forward offering, *w3t*-eye placed on the sign «*nb*»

This was followed by a vertical writing as the following:



King of the Upper and Lower Egypt Antrocha.

Compared to the amulet in the *Musée du Louvre* in Paris [FIGURE 5]. It is clearly noticeable that the lovely amulet to the left, which contain the name of the Achaemenid king Darius the Great was placed in a cartouche. It is not an ordinary

⁵ Winged sun disk: The winged sun is a symbol associated with divinity, royalty and power in Egypt, Mesopotamia, Anatolia, and Persia. The symbol is attested from the Old Kingdom, often flanked on either side with a *uraeus*. In early Egyptian religion, the symbol *Behedeti* represented Horus of Edfu. ENGELBACH 1930: 115-116; GARDINER 1944: 49 -51; MARWA 2016: 152.

⁶ Darius I: A Persian king, whose reign lasted from 522 to 486. He seized power after killing king Gaumâta, fought a civil war (described in the *Behistun* inscription), and was finally able to refund the Achaemenid empire, which had been very loosely organized until then. Darius fought several foreign wars, which brought him to India and Thrace. When he died, the Persian empire had reached its largest extent. He was succeeded by his son Xerxes. CURTIS & TALLIS 2005: 266.

⁷ PETRIE 1895: 89-99.

⁸ FISCHER 1978: 91-92, 97-98.


amulet, but the counterpoise of the *menat collar*, which is a ritual necklace associated with goddess Hathor, goddess of love, joy, music and maternity⁹.



nṯr nfr nb t3wy intrywš ʿnh dt

«The good god, lord of the two lands, king of Upper and Lower Egypt, Darius; life forever»

It can be compared with the cartouche of «Darius I», which was found in the Temple of Hibis [FIGURE 6] which is located in Kharga oasis of the 5th century BC, the Persian era. The cartouche of «Darius I» of Persia, as Pharaoh of Egypt.

The lower parts of the naos's side has geometric motifs; both in longitudinal and transversal directions, representing a façade of a royal palace known as a *srbh*¹⁰  [FIGURE 7] which was associated with the ownership¹¹. This form of decoration continued until the end of the Late Period, which was known by comparing the naos of Darius I, which was found by Petrie in AboSerpena in 1887 and now lies at the British Museum Inv. N^o.BM 37496¹².

As for goddess *W3dt*, on the frontal side, she appears wearing the white crown of upper Egypt and other times wearing the red crown of lower Egypt [FIGURE 8].

The Left Side

On the left side, king «Darius I» kneels wearing a short-pointed beard, and a blue crown surmounted by a cobra [FIGURE 9], his eye was clearly drawn in a full-frontal form. The nose was done in a square shape. The artist wished to show part of the triangle patterned apron¹³.


⁹«Amulet of Darius» <http://www.livius.org/pictures/a/egypt/amulet-of-darius>, Accessed on 21 / 02 / 2022

¹⁰ A **serekh** was an ornamental vignette combining a view of a palace facade and a plan (top view) of the royal courtyard. The word «serekh» derives from the Egyptian word for «facade». Different serekh on different types of object display countless variations of the facade decor in its complexity and detail. It seems that no strict artistic rules for the design of the *serekh* itself existed, *serekh* was normally used as a royal crest, accentuating and honoring the name of the pharaoh. Its use can be dated back as early as the *Gerzeh* culture (ca. 3400 BC). The hieroglyphs forming the king's name were placed inside a rectangular extension atop the *serekh*, which represented the royal courtyard. Additionally, the falcon of the god Horus, or in a few cases the Set animal, topped the *serekh*, showing the celestial patron of the named king. WILKINSON 1999: 201-202.



¹¹ ARNOLD 1999: 77, FIG. 37.

¹² «Naos of Darius I, BM: 37496»: [Http://www.britishmuseum.org/research/search_the_collection_database/search_object](http://www.britishmuseum.org/research/search_the_collection_database/search_object), Accessed on 21/02/2022; NAVILLE 1887: 27, PL.VII.

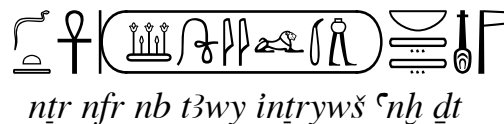
¹³ **Wadjet**: The name Wadjet is derived from «*wadj*» meaning «green», hence «the green one», and was known to the Greeks and Romans as «*uraeus*» from the Egyptian «*iaret*» meaning «risen one» from the image of a cobra rising up in protection. *Wadjet* was one of the earliest of Egyptian deities who later became associated with other goddesses such as *Bast*, *Sekhmet*, *Mut*, and *Hathor*. She was the tutelary deity of Lower Egypt and the major Delta shrine the «*per-nu*» was under her protection. Hathor is also depicted with this eye in Egyptian myth; the eye was not the passive organ of sight but more an agent of action, protection or wrath. Funerary amulets were often made in the shape of the Eye of Horus.

The king sits above the façade of the palace, offering the *udjet* eye ¹⁴ to god Horus who sits above a lotus flower holding the famous *ʿnh* sign, in one of his hands. Horus protects the king along with the winged sky goddess *Nwt*. Below this scene, goddess *Nehbet* is also found winged with beautiful geometric motifs decorating the edges vertically and horizontally [FIGURE 10].

The Backside

God«Khnum» appears holding a *w3s* sign , seated above an offering table surrounded by both the winged goddess *W3dt* wearing a *3tf* crown, and sitting on top of the *nb* sign and a papyrus plant. Each deity has the *šn* ¹⁵ sign and a cartouche of king «Darius I» [FIGURE 11].

A winged scarab crowned with the solar and held the *šn*-sign of eternity. The text above the winged scarab reads [FIGURE 12]:



«The good god, lord of the two lands, king of Upper and Lower Egypt, Darius;
may he live forever»

Other sacred symbols decorate the Naos in order to renew the living soul of the king and the god¹⁶. The lower parts of the backside also have geometric motifs in longitudinal and transversal directions [FIGURE 13].

The Right Side

The right side is similar to the left side in all its details [FIGURE 14].

The Upper Surface (Ceiling) of Naos

The ceiling of the Naos has the usual designs which were found in ancient Egyptian temples and tombs, where the lines cross, as well as stars representing the sky¹⁷ [FIGURE 15].

The *Wadjet* or Eye of Horus is «the central element» of seven «gold, faience, carnelian and lapis lazuli» bracelets found on the mummy of Shoshenq II. The *Wedjat* «was intended to protect the pharaoh [here] in the afterlife» and to ward off evil. Ancient Egyptian and Middle-Eastern sailors would frequently paint the symbol on the bow of their vessel to ensure safe sea travel. JAMES 2000: 426; WILKINSON 2003: 202; PINCH 2004: 131–132.

¹⁴ WESTENDORF 1966: 64.

¹⁵ A *shen ring* is a circle with a line at a tangent to it, which was represented in hieroglyphs as a stylized loop of a rope. The word *shen* itself means, in ancient Egyptian, encircle, while the *shen* ring represented eternal protection. In its elongated form the *shen* ring became the cartouche which enclosed and protected a royal name. KEMP 2007: 106; AL-MURSI 2016: 79.

¹⁷ WESTENDORF 1966: 64 (52), 72 (60), PL.71.

IV. COMMENTARY

Architectural Elements

1. The Ceiling of the Naos

The ceiling of the naos is similar to the sky in which Ra moves daily from the east to the west, this naos is the type of *sh-ntr*, the naos type *sh-ntr* is associated with god Anubis, who supervises the process of embalming. This appeared since the time of the ancient state on the walls of tombs as part of the scenes transferring the statue and even the pilgrimage. The repetitive use of the word *sh-ntr* since the twenty seventh dynasty as a nominative [FIGURE 15]²¹.

2. Columns of the Naos

The columns of the naos extend from the bottom of the upper lintel of the naos to the base, the ancient Egyptian artist made sure to decorate them from the outside, to protect it from various external and climatic factors [FIGURE 8]²².

3. Threshold of the Naos

It is the upper part directly above the door opening, and with the columns of the Naos, it represents a frame surrounding the façade.

4. The Base of the Naos

It represents the lower part of the naos on which the body of the naos is based, inscribed on it is a group of religious scenes, one of the most important scenes is the decoration of *Serekh* [FIGURE 7]²³.

5. The Frieze

The frieze represents the upper part of the naos above its threshold. It was decorated with the Egyptian Corniche with a winged sun disk in the center. The serpents surrounding the winged sun disk symbolize the transition of the sun from east to west [FIGURE 3]²⁴.

Technical Elements

The decoration of the walls of the naos with artistic elements that were associated with religious thought, and was keen on their presence within the different scenes, including:

²¹ DAVIES 1953: 23-26; ALTENMÜLLER 1977: 328-329; ARNOLD 1992: 15.

²² WESTENDORF 1966: 65.

²³ PETRIE 1895: 89; WESTENDORF 1966: 75.

²⁴ WESTENDORF 1966: 70.

1. The Sky and the Earth

The religious significance lies in likening the sky to the birth of the king, where the goddess gives birth to king. Nut in the morning is like the birth of the sun, it means the start of a new day²⁵.


2. Winged Sun

The winged sun disk is one of the main artistic elements in the decoration of the Naos, as a symbol of protection on the one hand and ensuring the birth of the king on the other hand²⁶.

3. Facade of the Palace

The lower part of the Naos was decorated with the facade of the palace, and this indicates ownership and its connection to the Hurrian name of the king²⁷.

4. The Goddess *Nekhbet* and the Goddess *Wadjet*

They appeared holding the Shen sign *šn*  , which symbolizes the protection of the king and gives him eternal power and eternal life [FIGURE 10]²⁸.

V. CONCLUSION

- 1- The artistic elements are Egyptian and have nothing to do with Greco-Roman art especially when compared with the Naos of «Darius I» (BM: 37496) now in the British Museum in London.
- 2- The cartouche of King «Darius I» has no other compared to the amulet in the Louvre Museum which contains the name of the Achaemenid king Darius the Great in a cartouche.
- 3- Ancient Egyptians used many colors including red, green, yellow, black and blue.
- 4- Ancient Egyptians were interested in the following technical elements:
 - The sky and the earth.
 - Winged sun disk.
 - Sacred symbols.
 - The facade of the palace.
 - The king appears making offerings to gods.
- 5- From all the above, the date of the piece can be traced back to the twenty-seventh Dynasty rather than dating it from the Greco-Roman period. Thus, the museum records need to be modified along with the museum's display cards.

²⁵ ALTENMÜLLER 1977: 1103.

²⁶ RADWAN1975: 266.

²⁷ ARNOLD 1999: 77.

²⁸ MÜLLER & WINKLE 1984: 577; WILDUNG 1982: 341; BONNET 1952: 504.

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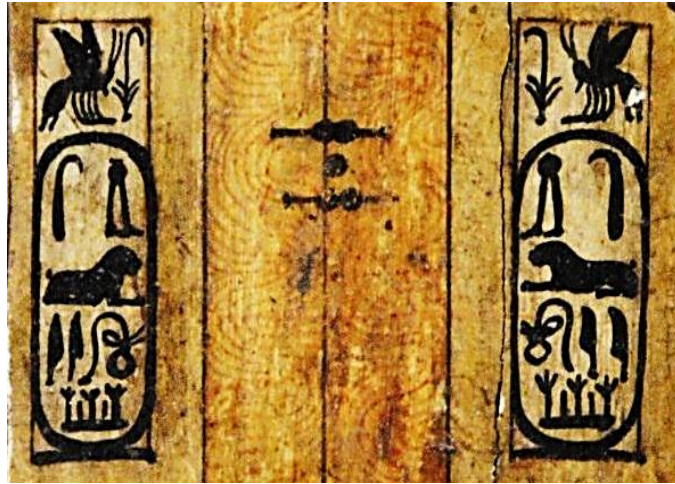
[FIGURE 1]: Small wooden naos in box, dating back to the twenty seventh dynasty.
© Photo taken by M. Mahmoud.



[FIGURE 2]: The frontal side © Photo taken by M. Mahmoud



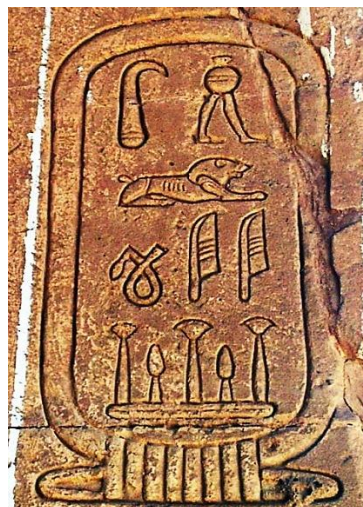
[FIGURE 3]: Egyptian cornice © Photo taken by M. Mahmoud



[FIGURE 4]: The naos' door has the form of a horizon.



[FIGURE 5]: «Amulet in *Musée du Louvre*» <http://www.livius.org/pictures/a/egypt/amulet-of-darius>, Accessed on 21 /02/2022



[FIGURE 6]: Cartouche of Darius I, found in Temple of Hibis.
[Http://www.britishmuseum.org/research/search_the_collection_database/search_object](http://www.britishmuseum.org/research/search_the_collection_database/search_object) in 21/02/2022.



[FIGURE 7]: The lower parts of frontal side.



[FIGURE 8]: Goddess *W3get* .



[FIGURE 9]: The left side © Photo taken by M. Mahmoud



[FIGURE 10]: The left side goddess *Nebet* © Photo taken by M. Mahmoud



[FIGURE 11]: The back side.



[FIGURE 12]: The back side. A winged scarab holding solar disk above its head.



[FIGURE 13]: The lower parts of the back side.



[FIGURE 14]: The right side is parallel in scenes to the left side.



[FIGURE 15]: Upper surface (ceiling) of naos.



[FIGURE 16]: Naos of Darius I. Located at the British Museum in London.
[Http://www.britishmuseum.org/research/search_the_collection_database/search_object](http://www.britishmuseum.org/research/search_the_collection_database/search_object)
Accessed on 21/02/2022.

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FUTURE MEANING AFTER THE TEMPORAL wnn

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
ABSTRACT


[AR]

معنى المستقبل بعد *wnn* الزمنية

تسلط هذه الدراسة الضوء على التركيبة *iw.f hr sdm* عندما تتقدمها جملة *wnn* الزمنية. حيث ان التركيبة *iw.f hr sdm* مماثلة لتركيبة القصص *iw.f hr tm sdm* (النفى) والتي تعطي معنى المستقبل وليس الماضي القصصي كما هو الحال في معظم النصوص القصصية عندما تتقدمها جملة *wnn* الزمنية التي تترجم كجملة الشرط وتتكون من عنصرين: جملة الشرط *wnn*+First Present، وجملة جواب الشرط القصصية *iw.f hr sdm*. تناقش الدراسة آراء العلماء المختلفة حول التركيبة *iw.f hr sdm* بالإضافة الى الأشكال *wnn/ wn/ hr wnn*.

[EN] This paper highlights the narrative *iw.f (hr) sdm* when introduced by the temporal clause of *wnn*. The construction *iw.f (hr) sdm* resembles the narrative *iw.f hr sdm* (negative *iw.f hr tm-sdm*). It refers, in this case, to the future and has nothing to do with narration. The temporal *wnn* is translated by a conditional system (if) and it consists of two elements; protasis (*wnn*+ First Present) and an apodosis (the narrative *iw.f (hr) sdm*).

The study discusses the morphology of the temporal clause introduced by  *wnn* and  *hr wnn*.

It sometimes comes after the temporal  *hr wnn* future and not always past as Baer's opinion. This paper also discusses the authors's opinion of the construction *iw.f (hr) sdm*.

KEYWORDS: Conditional sentence, future tense, Late Egyptian, narrative *iw.f hr sdm*, temporal *wnn*.

I. INTRODUCTION

The temporal clause of *wenn* comprises two elements; one is protasis and is formed by the so-called First Present and is translated by a conditional system (if), or a temporal one (when, as soon as). Furthermore, the subject after *wenn* is either pronominal or nominal or the circumstantial First Present as follows:

Pronominal Subject	Nominal Subject	Circumstantial First Present
<i>wenn.f (hr) sdm</i>	<i>wenn N (hr) sdm</i>	<i>wenn+ iw.f (hr)sdm (rare)</i>

The second element is an apodosis and this part of the temporal clause could be composed of more than a sentence; the first one is the narrative *iw.f hr sdm* that has a future meaning and the conjunctive *mtw.f sdm* (rarely an imperative or a prospective)¹.

The narrative *iw. f (hr) sdm* is a sequential sentence that has a future or a past meaning. In the case of the past, *wenn/wn* is often preceded by the particle *hr* while future case it is sometimes introduced by the particle *hr*. The context also determines the meaning of the sentences beside the particle *hr*² in contrast to Baer,³ who argues that the particle *hr* is always used before *wenn* to express the past. On the other hand, the future comes after *wenn* without the particle *hr*.

II. MORPHOLOGY *wenn* / *wn*

Korostovtsev mentioned⁴ that writing *wn* instead of *wenn* is an error. Although the common form *wenn* is the marked element of the temporal clause, in some examples we see the form *wn* instead of *wenn*. Perhaps this is back to the way of spellings⁵ or, according to Satzinger,⁶ that the temporal sentence of *wn* is the same construction of *wenn* but the form *wn* is specifically used in the epistolary forms rather than *wenn*. Furthermore, Satzinger disagrees with Baer's opinion⁷ who reveals that the construction with *wn* differs from the clause of *wenn*. Baer gave only one example, in the contrast to Satzinger, who mentioned some important examples for *wn* as follows:

III. FUTURE MEANING AFTER *wn*

Ex.1: TAKING OF JOPPA, LES, 84, 1-2.



wn.tn hr k r p3 dmi.t iw.tn hr wn n3y.tn iry.w

As soon as you enter the city, you will release your companions⁸.

¹ SATZINGER 1976: 88; NEVEU 2015: 150.

² SATZINGER 1976: 84-87.

³ BAER 1965: 138.

⁴ KOROSTOVITSEV 1973: 395.

⁵ ČERNÝ & GROLL 1984: 512-513.

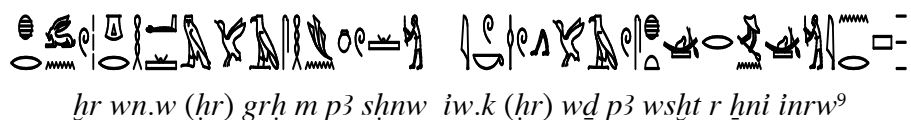
⁶ SATZINGER 1976: 93-94.

⁷ BAER 1965: 137.

⁸ SIMPSON 2003: 73-74.

EX.2: LEM, 127, 5-6 (TURIN B, vs. 3, 3- 3,4).

These two examples are a letter from two royal scribes to their supervisor as follows:



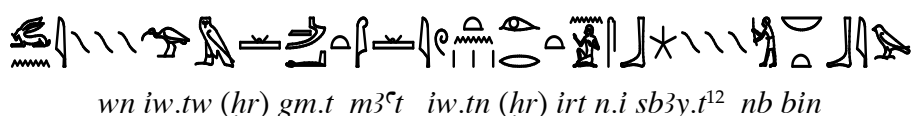
As soon as, they end the command, you will send the ship for the transport of stones.

EX. 3: LEM: 127, 9-10 (TURIN B, vs.3, 7-3,8).



As soon as, it reaches to you, on the day of mooring, let not a single man be idle in the task of emptying it¹¹.

Ex.4: PEET 1977: 156 [BM 10052], PL.XXXIV, 15, 2-3; ČERNÝ & GROLL 1984: 513.



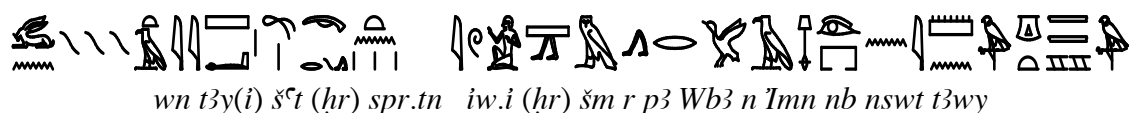
«If it is found to be true, you will inflict on me any dreadful punishment». ¹³

EX.5: PEET 1977: 154 [BM 10052], PL.XXXII, 12, 11.



«If they accuse me, you will give me any punishment you like». ¹⁴

Ex.6: LRL,2, 9-10.



When my letter reaches you, I will go to the forecourt of Amun lord of the thrones of the two lands.

⁹ SATZINGER 1976: 86.

¹⁰ *rmṯ* is written  in the original text, see: GARDINER 1937: 10, 127.

¹¹ CAMINOS 1954: 470; SATZINGER 1976: 86.

¹² *ir sb3y.t* means together «carry out punishment» see: *Wb* 1971: vol.4, 86 [8].

¹³ ČERNÝ 1984: 513.

¹⁴ ČERNÝ 1984: 513.

IV. FUTURE AFTER *hr wenn*

Although the particle *hr* before *wenn* is always used to express the past, it is sometimes used to express future meaning. Satzinger refers that *hr* is «Bei Präterital Zeitlage **MUSS** *hr* stehen Bei Futurischer zeitlage **KANN** *hr* stehen». Moreover, he gave two examples with future meaning after *hr*, according to the context, and not past, following Baer's opinion¹⁵. According to Satzinger, the next examples could translate¹⁶ in future meaning after the temporal *hr wenn*.

Ex.7: ČERNY 1937, O.DM, verso, 118.



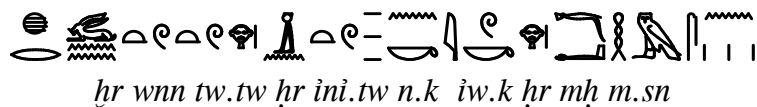
hr wenn:k (hr) in.t iw.f hr dit in.tw n.k p3 nty iw.k r wh3.f

Baer's translation: «when you brought, he caused to be brought to you, what you would want»¹⁷. [past meaning].

Satzinger's translation:

«Then as soon as you bring (him), he let you bring what you will want».¹⁸

Ex. 8: O. Berlin P 11239, 5ff; SATZINGER 1976: 86.



hr wenn tw.tw hr in.tw n.k iw.k hr mh m.sn

Baer's translation¹⁹: «When they brought it to you, you are going to seize it with them».

Satzinger's translation:

«Then, as soon as they are brought to you, you should take possession of them».²⁰

V. FUTURE MEANING AFTER *wenn*

Examples of *wenn* are frequently used in Late Egyptian, especially when referring to the future. Hintze²¹ pointed out that *wenn* is rare as an auxiliary verb. Moreover, it is always used in speech and stories.

The examples are as follows:

¹⁵ SATZINGER 1976: 86-87.

¹⁶ SATZINGER 1976: 86-87.

¹⁷ BAER 1965: 140, ex.[u].

¹⁸ ALLAM 1973: 94; SATZINGER 1976: 86.

¹⁹ BAER 1965: 141, ex. [W]

²⁰ ALLAM 1973: 33; SATZINGER 1976: 86-87.

²¹ HINTZE 1950-1952: 233.

Ex.9 : Lrl, 9 [16], 10 [1].



wnn p3[y] mw mh iw.k šsp n-h3t -n t3y ʿk3y i.di.i in.tw n.k

«As soon as this water floods, you shall receive in charge this transport boat which I have sent to you»²².

Ex.10: LES, 16 [2-4].



wnn p3 ʿTn hr wbn iw.i hr wpt hnʿ.k m-b3h.f

«As soon as the sun disk rises, I shall /contend with you in his presence»²³.

Ex. 11: BAKIR 1970: [TURIN 1977], PL.26, 3-4.



wnn imn hr dit ʿnh.i r iy r rsy iw.i hr int.f mtw.i ʿhʿ irm.k

If Amun lets me live until I come south, I shall bring him, and shall contend with you.

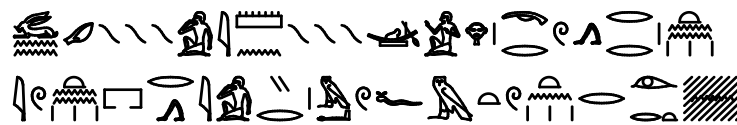
Ex.12: HO, LXXV, 15-19.



*Wnn pr-ʿ3 ʿnh wd3 snb p3y nb ʿnh wd3 snb nfr hr shʿyt (.f)
m p3y.f hb-sd iw.i hr dit ʿm3 .tw m-im.sn*

«When Pharaoh, I.P.h. my good lord, I.P.h. appears at his Jubilee, I shall inform him among them»²⁴.

Ex. 13 : P. Mallet, Letter 1, PL.21, 5-6.



wnn NN hr spr r r.tn iw.tn (hr) pr irm.f mtw.tn r irt...

«When NN reaches to you, you shall go out with him, and shall do...»²⁵.


²² WENTE 1967: 27.

²³ SIMPSON 2003: 84.

²⁴ BAER 1965: 138, [ex. F]; SATZINGER 1976: 90.

²⁵ BAER 1965: 138, [ex. g].

Ex.14: LES, 83[2, 8]; 84[2, 9].


*iw.tw hr dd n.sn wn.tn hr ʕk r p3 dmi iw.tn hr wn n3y.tn irm
 mtw.n mh m rmt nb nty m p3 dmi.t*

One told, to them 'when you enter to the town, you will let out your companions and seize all people who are in the town²⁶.

Ex.15: HO, 18, 1 [6].

In which a man is being given some rather strange instructions:


wnn.k mdw ʕn iw.i h3y hr gmh.k mtw.i h3ʕ.k .


When you are speaking again, I shall go down to look at you ²⁷.

Ex.16: O. Deir el-Medina 114, rt.9- vs., 1-3.


*ptr iw.i r dit iw.tw sš p3 wr m wpt r niwt wnn.f hr iyi.t.tn r p3 htm...
 iw .tn hr iyt n.tn im mtw.tn h3b.f n.n hr ʕ.wy.tn*

«Look, I will cause the great scribe P3-šr to come on a mission to the city. When he comes to you, to the fortress of ..., come (to meet) him there and (then) send him out to us concerning your condition »²⁸.

Ex.17: LRL, 31, 13-15; SATZINGER 1976: 89.


*y3 wnn.f hst (w) m-di.w hr (.i)n.w iw.f (hr)hpr m-šsr m st nb
 mtw n3-ntrw n p3 t3 r-nty tw.k im.f šditw.k r mʕhyt nb n p3y t3*

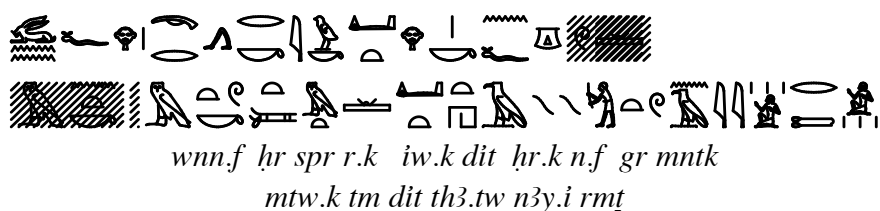
²⁶ BAER 1965: 139, [ex. k].

²⁷ BAER 1965: 139, [ex. m].

²⁸ BAER 1965: 140, [ex. p]; ALLAM 1973: 91 [59].

«Indeed, as long as he is Favored with them, (I) say to them," he shall become well-off in whatever place." And may the gods of the land in which you are save you from any danger of this land»²⁹.

Ex.18: BAKIR 1970: P. Mallet, Letter II, VI, 9, PL.23; SATZINGER 1976: 89.



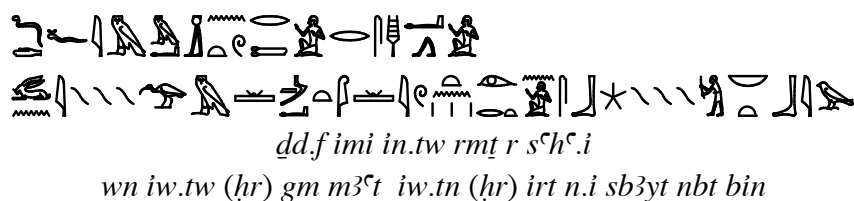
As soon as he reaches to you, you will personally be up against him and will not allow my people to be disturbed³⁰.

Ex.19: WENAMUN 2, 50-51.



«If you look upon the terror of the sea, you will look upon my own»³¹.

Ex.20: PEET, GTR, 1977: 156, PL.XXXIV, BM 10052, 15, 2-5; FRANSEN 1974: 187.



He said; let someone be brought to accuse me. If it is found true, you may inflict on me any dreadful punishment³².

VI. CONTINUATIVE AFTER *wnn*

Satzinger³³ points out that the second part of the temporal *wnn* can consist of more than one sentence. The first sentence always takes the narrative form *iw.f hr sdm* (rarely an imperative). The continuative usually has conjunctive form; less frequently than that of the narrative³⁴. Moreover, the narrative is used as the continuative in the past, while in the future and the present tense the conjunctive is used.

²⁹ WENTE 1967: 50; SATZINGER 1976: 89.

³⁰ SATZINGER 1967: 89.

³¹ FRANSEN 1974: 187.

³² FRANSEN 1974: 187.

³³ SATZINGER 1976: 88, 93; NEVEU 2015: 150.

³⁴ BAER 1965: 142.

The construction *iw.f (hr) sdm* in late Egyptian is no longer used as an independent statement or narrative, but only as a continuation of other verbal forms which preceded it.


Furthermore, the verbal forms on which it depended the construction *iw.f (hr) sdm* could be any form, for instance, *Wnn.f (hr) sdm iw.f (hr) sdm* (Future), while *hr wnn.f (hr) sdm iw.f (hr) sdm* (past) often refers to the past but sometimes expresses the future according to context³⁵.

The conjunctive *mtw.f sdm* is also used as a continuation after the narrative form or after the clause of *wnn*, and it has a future meaning. On the other hand, Frandsen alleged³⁶ that the syntagms that follow the converter *wnn*, assures that *sw (hr) sdm* is the First present, but in the case of *iw.f (hr) sdm* it is not certain. So, he suggests that the construction *iw.f hr (tm) sdm* is preceded by *ir* as a temporal clause or as a protasis of a condition³⁷ and the pattern *iw.f hr sdm when* introduced by *wn, m* are the same pattern. That means the pattern *iw.f () sdm* which follows *wnn iw.f (hr) sdm* (as apodosis) is the third future and not the non-initial main sentence so that the third future is taken as a continuation³⁸.

The Narrative form in the Second Element

[*wnn.f (hr) sdm*] → Second element ([*iw.f (hr)sdm* → *iw.f (hr) sdm*])

Ex. 21: HO, LXXV, verso, 16-19, Baer's example(f)




wnn pr-³ nḥ wd3 snb p3y nb nḥ wd3 snb nfr hr sh^cyt
m p3y.f ḥb-sd iw.i hr dit ^cm3 .tw im.sn p3-wn iry.sn r.i ^cn sf
iw.i hr di.t ^ch^c.tw n.sn

«When Pharaoh, I.P.h. my good lord, I.P.h. appears at his Jubilee, I shall inform him about them, for they acted against me again yesterday, and I shall cause that they are stopped»³⁹.

[*hr wnn.f (hr) sdm*] → [*iw.f (hr)sdm* → *iw.f (hr) sdm*]

Ex. 22: P. Salt 124, recto 2, 3-4, PL.43, Baer's examples[r, v]



hr wnn.f (hr) nk Hnrw iw.f (hr) nk Wbht t3y.s šrit
iw ^c3phty p3y.f šri (hr) nk Wbht gr

³⁵ ČERNÝ 1949: 29; Groll 1969: 89; FRANDSEN 1974: 190-91; SATZINGER 1976: 84- 100.

³⁶ FRANDSEN 1974:192.

³⁷ GROLL 1969: 97 §25.

³⁸ DE BUCK 1937: 157d.

³⁹ BAER 1965: 138, [ex. f].

When he has violated *hnrw*, he violated *Wbht*, her daughter, and *ʕ3phty*, his son, also violated *Wbht*⁴⁰.

EX. 23: P. BM 10375, LRL, 45, 7-10.



hr wnn tw.i (m) nʕy m niwt in n3 rmt r-nty hmsw m-im iw.i (hr)gm rmt ist Imn-nfr hr Imn-Pnʕ.f p3y rmt i.wnw dy r k3iw p3y.w nb m p3 t3 rsy

Now, as I was going from Thebes (to) bring back the men who had been dwelling there, I found the workmen Amenpanufer and Heramenpenaf, these two men who used to be there in the company of their lord in the southern land⁴¹.

The Conjunctive

First element [*wnn.f (hr) sdm*] + second element : [*iw.f (hr)sdm* + *mtw.f sdm*]

Ex. 24: BAKIR 1970: Turin 1977: PL.26, 3-4.



wnn imn hr dit ʕnh.i r iyi rsy iw.i hr int.f mtw.i ʕhʕ irm.k

If Amun lets me live until I come south, I shall bring him and shall contend with you.

Ex.25: LES, 83, (2, 8); 84(2, 9); BAER 1965: 139 (k).



iw.tw hr dd n.sn wn.tn hr ʕk r p3 dmi iw.tn hr wn n3y.tn irm mtw.n mh m rmt nb nty m p3 dmi.t

One told them, 'when you enter to the town, you will let out your companions and seize every man who is in the town.

Ex. 26: BAKIR 1970: P. Mallet, Letter 1, PL.21, 5-6.



wnn NN hr spr r r.tn iw.tn pr irm.f mtw.tn r irt.....

⁴⁰ ČERNÝ 1929: 245 [Recto 2, 3-4]; BAER 1965: 140, [ex. r]; SATZINGER 1976: 98.

⁴¹ WENTE 1967: 60

«When NN reaches you, you will go out with him, and will do..». ⁴²

[*hr wnn.f (hr) sdm*] → [*iw.f (hr)sdm*] → *mtw.f sdm*]

EX.27: P. Salt 124, verso 1, 16-17, PL.46; SATZINGER 1976: 88-89.



*hr wnn n3-rmtw (hr) šm r wdn..... iw.sn (hr) snd n.f
mtw.f hpr hr hww inr r n3 b3kiw n p3-dmi.*

When the people went to sacrifice... they became afraid of him; and he began throwing stones at the servants of the settlement⁴³.

[*hr wnn iw.f hr sdm*] → *mtw.f sdm* → *mtw.f sdm*

Ex. 28: ČERNÝ 1929, PL.42, BAER 1965, 141 [examples (x,y)].



hr wnn iw.tw hr gm t3 4 mtw.f it3 t3 w^c sw m-di.f

When they found the four, he took one of them. It is in his possession.

Ex. 29: P.Salt 124, ČERNÝ 1929, verso 1, 9-10, PL.45; BAER 1965: 141.



*hr wnn iw.tw (hr) dd bn sw mtw.tw (hr) irt 3pd n hrw n wh3.f
mtw.f ini.f mtw (hr) h3^c.f*

When they said, «it is not there» they spent a whole month looking for it and he brought it and left it.

Imperative in the Second Part of the Temporal Clause

The imperative is very rare in the second element instead of the narrative⁴⁴.

Ex. 30: LEM, 67, 5-6; SATZINGER 1976: 93.



wnn t3y.i š^ct (hr) spr r.tn h3b n.i p3- (w) hpr nb m-di (w).

When my letter reaches to you, write to me everything that has happened to them.

⁴² BAER 1965: 138, [ex.g].

⁴³ ČERNÝ 1929: 246.

⁴⁴ SATZINGER 1976: 93.

VII. CONCLUSION

The narrative *iw.f hr sdm* has future meaning after the temporal clause of *wnn*, and consists of two elements; the first one is *hr wnn/ wnn* + First present, while the last part is the narrative *iw.f hr sdm* and could consist of more than one sentence. The temporal clause of *wnn* is translated by the conditional system (if). That means the first part *hr wnn/ wnn* + First present is a protasis of condition and the narrative *iw.f hr sdm* is apodosis.

The morphology of the temporal clause is written *xr wnn/ wnn/wn*. Although the particle *hr* before *wnn* frequently expresses past meaning, it sometimes expresses future meaning as Satzinger mentioned. Satzinger explains that the particle *hr* before *wnn* must stand with the past meaning while with future meaning *hr* can precede the temporal clause. Furthermore, the morphology *wn* is the same construction of *wnn* but the form *wn* is frequently used in the epistolary forms rather than *wnn*.

The second part of the temporal *wnn* can consist of more than one sentence. The first sentence always takes the narrative *iw.f hr sdm*; the continuative commonly has the conjunctive *mtw. F sdm*, which is less frequently seen in the narrative. Moreover, the narrative is used as the continuative in the past while the conjunctive is used in the future and the present tense. It could be concluding the continuation after the temporal *wnn* as Satzinger's table shows:

<i>wnn</i> before «present I» + <i>iw.f hr sdm</i> (Narrative)+ Conjunctive	[Future]
<i>wnn</i> before «present I» + <i>iw</i> before « present I» + ?	[Present]
<i>hr wnn</i> before « present I» + <i>iw.f hr sdm</i> (Narrative)+ <i>iw.f hr sdm</i> (Narrative)	[Past]
<i>wnn iw.f hr sdm</i> + <i>iw.f hr sdm</i> (Narrative)+ ?	[Potential conditional]

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THE DEITY B3PEF (Y) IN ANCIENT EGYPTIAN RELIGION

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THE DEITY B3PEF(Y) IN ANCIENT EGYPTIAN RELIGION

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ABSTRACT

[AR]

المعبود بابف(ى) فى الديانة المصرية القديمة

تهدف هذه الورقة البحثية إلى جمع المعلومات المتاحة الخاصة بالإله بابف(ى) لتحديد الشخصية الحقيقية لهذا الإله الذى كان واحدًا من الآلهة الثانوية وكان نادر الظهور سواء فى النصوص أو المناظر على الرغم من وجود كاهنات له، مما يشير إلى وجود تأثير له فى المجال الدينى. هذه الورقة هى أيضاً محاولة لتحليل الأشكال المختلفة لاسمه ودلالاتها، وايضاً تحليل دوره فى الديانة المصرية القديمة من خلال إشارات فى نصوص الأهرام، نصوص التوابيت، الكتب الدينية ومختلف النصوص التى ذكر فيها الإله، بالإضافة إلى الكاهنات اللاتى ارتبطن بخدمته.

[EN] This paper collects the available information concerning the deity *Bapef (y)* to determine the character of this minor deity who is rarely attested in texts and scenes. However, his clergy has been documented which means that he had an impact on the religious sphere. This paper also attempts to collect and analyze the various forms of his name and its significance, and to analyze the role of *Bapef (y)* in ancient Egyptian religion through the Pyramid texts, Coffin texts, personal monuments, religious books, and various texts where the deity is mentioned.

KEYWORDS: Bapef (y), Evil, Great Lake, Priestess Ram, Pyramid Texts, Soul.

I. INTRODUCTION

In ancient Egypt, there were many major gods who are well-known to us. In addition to these major gods, the ancient Egyptians believed in various other kinds of supernatural beings who are often considered minor deities. The earliest religious writings are populated with dreadful beings (especially underworld monsters and demon-like creatures), and throughout ancient Egyptian sources, there are references to demons and spirits, which seem similar to djinns and afrits (ghosts). Although the ghosts, or spirits, of the dead persons were also feared by the ancient Egyptians and were known as *akhu*¹, also the most terrible or at least most frequently feared creatures were the messengers. Meanwhile the *bau* of deities² were sometimes beneficial to the dead. The Egyptologists commonly used to give these creatures the name «demons». They were associated with caves, gates, tombs, lakes and pits of the underworld; the majority of these demons might be called «denizens of the netherworld». Bapef (y) is considered one of these obscure and minor beings. Although Zandee³ and Hornung⁴ gave brief commentaries, Ward⁵ also gave some worthwhile notes about the references to the deity in the Pyramid Texts, Coffin Texts and Books of the Afterlife with a discussion of the phrase «*imi dšr.f*». But there is no specific or comprehensive study of the essence of Bapef (y), so this paper will attempt to demystify the minor deity.

II- NAME

The full writing of the name of deity B3pf(y) has been traditionally translated by HART⁶, WILKINSON⁷, FAULKNER⁸ and others as «that soul».⁹ Using the translation of *b3* as «soul» is hardly accepted, but with regard to the other forms and translations of the word *b3*, it can be a ram especially if we consider the following epithets and titles:

A) the sacred ram «*b3 nb ddt*»: (ram of Mendes).

B) *b3 nḥ*: (the living ram) as the incarnation of various gods.

C) *b3 n pt* (ram of the sky) / *b3 nb pt* (ram the lord of the sky) two indications of Amun¹⁰.

So, it is better and logical to translate (ba) as ram, particularly with regard to forms that were frequently used in the name of the deity as the ram sign was used in most forms and representations of the deity. Rams were associated with (ba) which was associated with the solarized and reborn Osiris¹¹.

¹ DEMARÉE 1983: 189ff.

² WILKINSON 2003: 26.

³ ZANDEE 1960: 217, 296.

⁴ HORNUNG 1963: N°. 212.

⁵ WARD 1978: 117ff.

⁶ HART 2005: 45.

⁷ WILKINSON 2003: 201.

⁸ FALUKNER 1969: 71 N°9, 179.

⁹ WB 1971: vol.1, 411 (7). For more about Ba and its various significances and concepts, see: ŽABKAR 1968: 5ff.

¹⁰ WB 1971: vol.1, 414 (9-14).

¹¹ GRAVES-BROWN 2018: 122 (note 99-100).

The second part of the name is the demonstrative adjective *Pf/ pfy* (that), which sometimes indicates dread, hostility or evil, and disdain¹²:

1- In Coffin Texts (74)¹³

«*pfy* (that) who has acted against you».

2- In P. TURIN 1993 [nineteenth dynasty]¹⁴

The Royal Decree of Osiris Khentimentu

«If the removal of *hfty* (enemy), *pfy* (fiend/ demon) and so on is delayed - then the enemy of the heaven will split asunder...».

3- In P. LEIDEN I 348 (nineteenth dynasty)¹⁵

A Spell of the *mh*- Dish for the remaining of the Heart on its place

«... oh gods, who run in front of Ra bark who establish heaven for Ra and the earth for Geb, come to see what the *hfty* (enemy), *pfy* (fiend/ demon), *mt* (dead male), dead female has done...».

Another conjuration of the head

«oh, *hfty* (enemy), *pfy* (fiend/ demon), *mt* (dead male), dead female, male antagonist, female antagonist, do not fall upon the head of (N)... »

A Headache Spell

«Backwards, *hfty* (enemy), *pfy* (fiend/ demon), *mt* (dead male), dead female and so on who cause this pain (suffering) to (N)..., Oh (N) son of (N) Ra opens your body and keeps your flesh alive. His members are alive, but your poisons are blocked. You will not open your mouth; you will not take in fluids of an evil-faced one, *hfty* (enemy), *pfy* (fiend/ demon), *mt* (dead male), dead female and so on who cause evil..., Break out that which you have taken in as all kinds of bad things of *hfty* (enemy), *pfy* (fiend/ demon), *mt* (dead male), dead female and so on. For (N) son of (N) has arisen as Ra; his safeguarding is that eye of his, this safeguards him against evil, against all evil harms, against anything bad and hidden of *hfty* (enemy), *pfy* (fiend/ demon), *mt* (dead male), dead female and so on...»

A Spell of drinking Beer

«Hail to you, lady of *Htpt* when he has set his heart (on it), there is no restraining Seth, when he sets his heart...in order to bear away the heart of *hfty* (enemy), *pfy* (fiend/ demon), *mt* (dead male), dead female and so on».

¹² Hornung indicated that it can be compared with the Latin word: «*iste*» which often has an unfavorable connection. HORNUNG 1963: N°. 212.; LEE & et Al 1968: 972.

¹³ DE BUCK 1935: vol.1, 308f.

¹⁴ PLEYTE 1869-1876: 122, I; BORGHOUTS 1978: N°.9.

¹⁵ BORGHOUTS 1971: N°. (35) vs. 11 (9); N°. (9) rt. 4.3; N°. (13) rt. 6.4; N°. (24) rt. 13, 3-5.

In the previous magical texts, *pfy* or sometimes *pfty* as in the pLeiden I 348, *pfy* is used in conjunction with evil and hostile beings (*hfty*¹⁶, *mt*¹⁷ and other). It was also used as a designation of Seth¹⁸:

4- On the Base of the Magical Statue of Leiden (Ptolemaic Period)¹⁹

«I'm Isis, pregnant with her fledgling, bearing Horus divine, and I gave birth to Horus, the son of Osiris... I hid him and concealed him for fear of that (*pfy*) (evil) one, ...».

Here, it was used as an indication of Seth as the enemy of Horus.

5- In P. Louvre 3129 of Pasherinmin (Ptolemaic Period)²⁰

«He brought the head of *pfy* (that), the wastrel».

Concerning the previous references, it is clear that the translation of the name of *B3pf(y)* is «That ram», and it seems that the scribes preferred to use a non-specific name by adding *pf* than using the real name of that deity. This may be an implication of fear, pain, woe, or taboo of using the real name.

The Name of this Deity was written in various Forms

Dating	Form	source	Bibliography
Old Kingdom		Mastaba of Mersyankh	DUNHAM & SIMPSON 1974: FIG.7.
		Mastaba of Mersyankh	DUNHAM & SIMPSON 1974: FIG.14.
		PT of Neith	SETHE 1908: 1930A
		PT of Teti	SETHE 1908: 334a
		PT of Pepi II	SETHE 1908: 334a
Middle Kingdom		CT (T2c)	DE BUCK 1935: vol.1, 284i.
		CT (S1C/ T1L/ B1L/ B15C)	DE BUCK 1947: vol.3, 258a
		CT (S2C)	DE BUCK 1947: vol.3, 258a
		CT (T1L)	DE BUCK 1956: vol.6, 401p
New Kingdom		Amduat	HORNUNG 1987: 288, N°. 212.












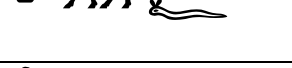
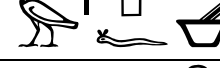

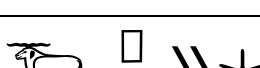


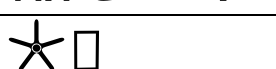
¹⁶Koenig indicates that *pfy* seems to replace the feminine (*hfty*). ZANDEE 1960: 217/296; KOENIG 1981: 33, N°.b.

¹⁷ ZANDEE 1960: 198.

¹⁸ WB 1971: vol.1, 507(7); VITTMANN 1984: 169, N°.v.





¹⁹ KLASSENS 1952: vol.4, M 169.

²⁰ URK 1929: vol.4, 15 (7).

		Amduat	HORNUNG 1987: 288, N ^r . 212.
		Amduat of Ramesses III	HORNUNG 1987: N ^r .355, note (d).
		Amduat of Ramesses VI	HORNUNG 1987: N ^r .355, note (d).
		Book of the Night (9 th hr/ 8 th gate)	ROULIN (II) 1996: 117 (S1)
		Book of the Night (9 th hr/ 8 th gate)	ROULIN (II) 1996: 117 (RV1a).
		Book of the Night (9 th hr/ 8 th gate)	ROULIN (II) 1996: 117 (RV1b).
		Book of the Night (middle zone)	ROULIN (II) 1996: 122 (RV1a)
		Book of the Night (middle zone)	ROULIN (II) 1996: 122 (RV1b).
		Book of the day and Night	PIANKOFF 1952: 26.
		Tomb of Senenmut	DORMAN 1991: PL.80-81.
		Statue of the queen Ti-ε3 from Giza	HELCK 1995: Doc.20, 44.
		Tomb of Ramsess IX	GUILMANT 1907: 41, 9.
26 th dynasty		Sarcophagi of Analmanni and Aspelta	DOLL 1978: 88 / 99-100.
Greek-Roman period		Pronaos of Dendara	BRUGSCH 1883: 28.
		Pronaos of Dendara	BRUGSCH 1883: 28.
		Pronaos of Dendara	BRUGSCH 1883: 28.
		Dendara Temple	CAUVILLE 2000: 224, 9-10
		Tebtunis Papyrus	OSING 1998: TAF. 17.

[TABLE 1]: ©Done by the researcher

By analyzing various forms of the spelling of the god name:

- A. On the Old Kingdom forms, the spouted pot  which gives phonetic (b321) was frequently used and was superseded later by ,  and , while on the PT 1930a of Neith two pot signs have been shown together. Ward²² indicated that the name of the deity is always spelled with the ba-ewer or the standing ram until the mythological texts of the New Kingdom, which use a ba-bird. This may not be entirely correct, because for spelling the Teti's name on PT 334 a, see [Table 1], the ba-bird is used with the ba-ewer. He also mentioned that using the ram indicates the meaning «supramundane power» which is also applied to using the ba-ewer and the seated god.
- B. These pots and vessels completely disappeared in the forms of the Greek-Roman, when the sacred ram was used. Rarely the Jabiru bird,²³ which is attested only once during the Old Kingdom²⁴ and is not attested in the Middle Kingdom, is used ; this indicates that the translation of *B3pf(y)* «that ram» could be more accurate and probable than «that soul». In the Amduat of Ramesses III, the bee «*bity*» is used for the word «*b3*». This may, however, be a scribal error.
- C. The determinative sign of the god was frequently used since the beginning of the Saitic and Greek-Roman periods.
- D. The demonstrative adjective *pf* was used until the late New Kingdom (tomb of Ramesses IX) when the scribe began to use *pfy* . *Pf* was still in use until the Greek-Roman period.
- E. Although the most common name of the deity is *B3pf(y)*, there are two variants of the demonstrative pronouns:
1. « *B3pn* »: the demonstrative *pn* «this» which indicates something nearby, was used rarely instead of *pf* in the deity name, as in the Book of the Night of Ramesses VI ²⁵.
 2. «*B3pw*»: the demonstrative pronoun *pw*, which can also mean «this» and was used later as an adjective²⁶, was rarely attested. It was used in the deity name in the Book of the Night on the sarcophagi of Analmani and Aspelta from Napata²⁷. Although the letter «*w*» was omitted, Doll²⁸ and Soukiassian²⁹ read the pronoun as *p(w)*.

²¹ FAIRMAN 1943: 191-328, N° 9.

²² WARD 1978: N°s. 232/ 235.

²³ GARDINER 1957: 470.

²⁴ SETHE 1908: 334 a (Teti pyramid). Ward mentioned that ram or the ewer only used for ba till the mythological texts of the Empire. WARD 1978: N°. 232, but with regards to (PT 334a of Teti), the scribe used the bird for the first time.

²⁵ GARDINER 1957: 85.

²⁶ GARDINER 1957: 85.

²⁷ DOLL 1978: 88; SOUKIASSIAN 1982: 333-3348 (8th hr).

²⁸ DOLL 1978: 99-100.

²⁹ SOUKIASSIAN 1982: 339.

The two different pronouns for the name variants of *B3pf(y)* were rare cases attested only in the times of the New Kingdom and Saitic period in Napata. But in any case, we cannot deny that they indicate the same deity.

III. ICONOGRAPHY

Although the name of the deity Bapef (y) was mentioned in texts since the 4th dynasty, there are no figural representations of the deity until the beginning of the New Kingdom when the deity was attested in the Books of the Afterlife (Amduat, Book of the Night and Day and The Book of the Night). The lack of imagery may be because of fear of representing this being; on the other hand, the lack of imagery may refer to the nature of Pyramid Texts and Coffin Texts, which rarely employ illustrated vignettes and representations³⁰.

The deity Bapef(y) was depicted in three main forms:

1-As a standing wrapped mummy with a long beard:



[FIGURE 1]: PIANKOFF 1952: 26, PL.I. (register IV).



[FIGURE 2]: ROULIN 1996: PL.XIII.



[FIGURE 3]: Roulin 1996: PL.XIV.

2-As a standing mummy figure, with two bulls' horns on his head and short or long beard.

³⁰ The vignettes accompanied religious texts attested for the first time in CT 466. DE BUCK 1954: vol.5, 359. A small bark is shown, and was the only case dated to the period before the New Kingdom. MUNRO 2017: 49-66.



[FIGURE 4]: GUILMANT 1907: 41.9.



[FIGURE 5]: ROULIN 1996: PL.XIV.



[FIGURE 6]: HORNUNG 1963: 3rd hour (212).

- 3- As an anthropomorphic, *criocephalic* deity. In Dendara temple³¹, he is shown with an atef crown on his head and holding a knife in both hands, while in the 5th hour of the Amduat³², he was shown without any attributes.



[FIGURE 7]:
HORNUNG 1963: N^o. 355.



[FIGURE 8]:
CAUVILLE 1997(2): PL. 182-183.

In the earliest different forms of the deity, Bapef(y) was shown as a wrapped-mummy form during the end of the New Kingdom. During the New Kingdom, he was depicted as a living human wearing a short kilt until he was depicted as a *criocephalic* deity, which was used during the Greek-Roman period. Here the deity is shown as a guard and holds two knives. In the wrapped-mummy figure the deity was depicted with the horns of the bull. We cannot suggest that the bull horns were a mistake by the artist, as these features were repeated several times. In the Amduat the two forms (wrapped-mummy with bull horns and living human with a ram head) were shown together on 3rd and 5th hours³³.

³¹ CAUVILLE 1997(2): PL.182-183.

³² HORNUNG 1963: N^o. 355.

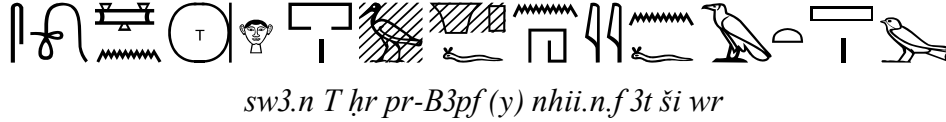
³³ HORNUNG 1963: N^{os}.212/355.

IV- THE EVIDENCE OF TEXTS

1- Pr- B3pf (y): House of Bapef(y)

This place which related with Bapef(y) was mentioned in Many passages:

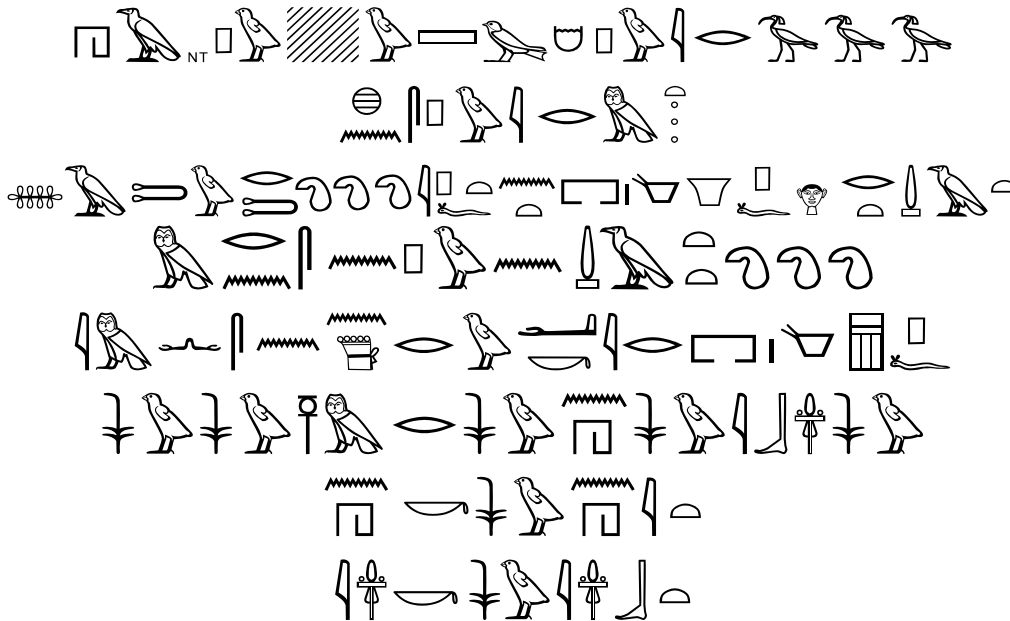
- PT 334a:



Teti has passed by the house of Bapef (y) ³⁴, the striking power of the Great Lake has missed him.

In the context of this passage (PT 334a) which is repeated in CT 67/ CT 273/ CT284, Assmann³⁵ mentioned that the deceased did not come on his own initiative but he has been summoned by the god.

- PT of Neith (1930-1931b)³⁶



h3 Nit pw (z3wt)w ši wr hnm̄t pw ir 3hiw hns pw ir mtw z3 tw rm̄t iptf nt pr-B3pf(y) hrt d3t m rn.s(n) pw n d3tt im. Sn ndr̄w °k ir pr-B3pf(y) sw sw mr sw nh sw i3b sw nh.k sw nhit i3b.k sw i3bt.

Neith (pass over this) Great Lake to the transfigured ones and Hns-water to the dead, be careful of those people of yonder House of that ba. Who are terrible and hostile in this their name of «Female Antagonists». Do not let them lay hold of your hand at

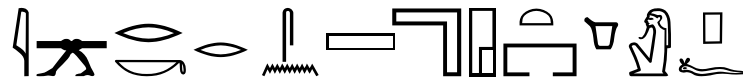
³⁴ In PT of Wenis «P» of Pf was omitted. FAULKNER translated it as «house of danger». FAULKNER 1969: 71.

³⁵ ASSMANN 2005: 440, N^o.8.

³⁶ SETHE 1908: 1930a - 1930b.

yonder House of that ba; it is dangerous, it is painful, it is nasty?. It is foul-smelling, but you shall out-nasty ? it, you shall out-stink it.

- CT 63³⁷



Is r.k r sn hwt-B3pf (y)

Go to open the Mansion of Bapef (y)

- CT 67³⁸



Im n sn itt tn r pr-B3pf (y)

May they not take you along to the House of Bapef (y).

The same passage occurred also on the Tomb of Senenmut 353³⁹:

« They shall not carry you off to the House of Bapef (y)».

In these texts, *pr-B3pf (y)* was mentioned as the habitat of the deity Bapef (y). Although this place was obscure and non-specified, it was precisely that terrible and feared realm which the deceased had to pass through during his journey to eternity. Assmann described the place⁴⁰: “That place which was rejected by the mortuary texts, where the deceased was dead, where he spent his dead existence. It matched with the Hebrew *Sheol* – Mesopotamian Realm of No Return- Greek *Hades*- Roman *Orcus*. It was a land far from the divine where the rays of the nightly sun did not penetrate.” In this context, Ward⁴¹ indicated that there were priestesses who served the cult of Bapef (y), that his «house» and «temple» were mentioned, and that while he was given a character

³⁷ DE BUCK 1935: vol.1, 173c.

³⁸ DE BUCK 1935: vol.1, 284i.

³⁹ DORMAN 1991: PL. 80-81.

⁴⁰ ASSMANN 2005: 144.

⁴¹ WARD 1978: N^o. 231.

of sorts in general, he was not always an evil being. However, all the references just quoted actually applied.

2- *B3pf (y) imi ši wr: Bapef (y) Who is in the Great Lake*

In the two passages of the Pyramid Texts (334a/ 1930a), the House of Bapef (y) was associated with a dangerous lake «*ši wr*». This evil place - which the deceased has to pass in his journey to the heavens - was mentioned several times in the Pyramid and Coffin Texts. In PT 214⁴² the dead king must take care that he doesn't land in the lake «*NN z3 kw ši dd mdw zp 4*»: O NN beware of the lake- narrate four times⁴³. In CT 68⁴⁴, this Great Lake was mentioned as a place where the enemies of the dead king reach «*hr.sn n.k m ši wr*»: they will fall for you into the Great Lake. In CT 287⁴⁵, the deceased hopes to be spared from it «*ši wr n m33 (.i) sw*»: the Great Lake, I don't see it. In CT 839⁴⁶, the deceased was warned of the great lake: beware of the Great Lake.

The passage in PT 1931 lends details to the Great Lake which occurs as one in a series of dangerous places, which the dead king has to avoid⁴⁷. One of them is *hns*⁴⁸ water which belongs to the dead. Assmann mentioned that⁴⁹: «the dead has departed this place and the continuation of his way to the eternity thus entails, first and foremost to be far away from death. This lake that the deceased must cross harbors the peril of sinking along the journey, and it is important to avoid this danger». The embalming ritual called «Crossing the lake⁵⁰» mentioned: “this body of water», above all the dead had to survive the purification step which was represented as a lake in which the body was gutted and therefore cleansed of all deleterious substances.” Bapef (y) was shown as one of the beings of the 9th hour of the Book of the Night, which takes place in a watery area⁵¹. All these references may indicate that Bapef (y) rests on this terrible lake.

3- *B3pf (y) imi dšr.f*⁵²: (Bapef (y) who is in his blood)

In CT 226 mentioned:

- CT 226⁵³



Rdi.n n.k B3pf (y) imi dšr.f imi dšrt.f

For that ram who is in his blood has given to you what is in his redness.

⁴² SETHE 1908: 136a.

⁴³ The same meaning shown in CT 839, DE BUCK 1961: vol.7, 41.

⁴⁴ DE BUCK 1935: vol.1, 291f.

⁴⁵ DE BUCK 1951: vol.4, 39.

⁴⁶ DE BUCK 1961: vol.4, 41g.

⁴⁷ ZANDEE 1960: 171-172.

⁴⁸ WB 1971: vol.3, 300 [8-9].

⁴⁹ ASSMANN 2005: 143-144.

⁵⁰ ASSMANN 2005: 32-33.

⁵¹ ROULIN 1996: PL. XIV.

⁵² For more about the significances of the word *dšr* see: LEFEBVRE 1949: 72-76.

⁵³ DE BUCK 1947: vol.3, 258a (T1L).

This obscure epithet which means «who is in his blood» was applied to the deity Bapef (y). Sethe indicated in his commentary to PT 854 that this epithet refers to the red sky in the sunrise⁵⁴. Ward⁵⁵ also discussed this epithet and mentioned that Sethe's interpretation could also be applied to the epithet which also mentioned in CT 449⁵⁶. Although it was an epithet for an unnamed deity in this passage, and it could here apply to the sun in the two previous cases. Lefebvre⁵⁷ said that the red «*dšr*» was a hated color as it was imagined that the evil god Seth was red, while Horus was white and Osiris was black. In his iconography, the animals in which Seth is embodied are red. Faulkner,⁵⁸ as well, indicated that *dšrw* in the conflict of Horus and Seth gives the significance of anger and wrath.

The same sense was given also by Gunn⁵⁹. Despite the two preceding interpretations of Sethe, Lefebvre, Faulkner, and Gunn, I agree with Ward in his comment: “the spelling of the name Bapef (y) in CT III 258a confirm that the meaning of the name is (that ram), so the epithet *imi dšr.f* cannot refer to the red sky of Sethe or the anger/ wrath of Lefebvre and Faulkner, and it could be that scribal tradition confused matters at this point and that the epithet normally used with ba, was in this one case mistakenly applied to Bapef (y)⁶⁰.” And if we suggest that the scribe intentionally used this epithet, I think it could be an indication for identifying Bapef (y) with Seth, especially regarding the preceding discussion of the demonstrative pronoun (pf) which was used sometimes as a reference to Seth. So, it is better to interpret this phrase according to its context because it doesn't have the same significance in each case.

4- Bapef (y) as the Guide of the Eighth Portal of the Book of the Night

Temple of Dendara⁶¹



sbht hmnnwt mr ns B3pfy

Eighth Portal, the one whose flame is painful Bapef (y)

Temple of Dendara⁶²



ii.t hryt-tp ḥ3.t hr nb.s sp3-dw3t bs3 n rs.wd3 Mrt-nsrt B3p(fy) tp b3.f hryt b3 dmd nb snd ntr iwn mwt.f

⁵⁴ SETHE 1962: 116 (854a).

⁵⁵ WARD 1978: N^o. 235.

⁵⁶ DE BUCK 1951: vol.5, 318a.

⁵⁷ LEFEBVRE 1949: 72-76.

⁵⁸ FAULKNER 1962: 171-172.

⁵⁹ For this sense, see: GUNN 1924: 61.

⁶⁰ WARD 1978: N^o. 236.

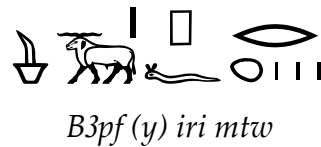
⁶¹ CAUVILLE 1997: 318, 5 N^o.8.

⁶² CAUVILLE 2000: 9-10, 224.

The one who fights instead of her lord the star of the underworld comes, who defends Osiris (who completely waked up) the one whose flame is painful Bape (fy), which is above his united ba, the lord of fear, Iwnmwtef.

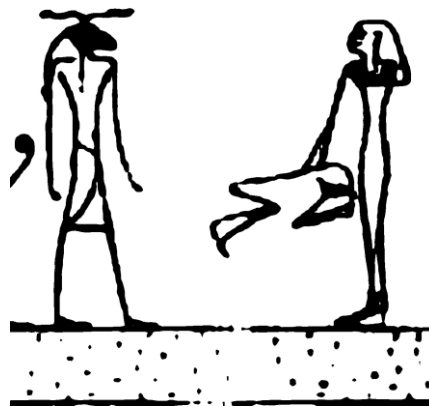
5- Bapef(y) of the deceased

On the 5th hour of Amduat, Bapef (y) was shown standing as a ram-headed anthropomorphic deity with the epithet:



Bapef (y) belongs to the deceased

In this scene [FIGURE 9], there is a lady facing Bapef (y) who grabs an enemy figure with outstretched hands. Her title is: “subversive who is cutting up the dead”⁶³. Although most of the references to this deity indicated that he was an enemy, this scene may be an indication of a beneficial role for Bapef (y) if we suppose that he defended the deceased through his epithet (belongs to the deceased). This role was enhanced by his role as a guide of the middle zone of the 9th hour of the Book of the Night in front of the bark (R V1b). Here he was the head of «*sšmw*» of the bark of the sun god, which is beneficial because he defends the sun god against his enemies⁶⁴. Faulkner translated CT 226⁶⁵: “drink your portion, consisting of the pure water which is issued on this plateau of citizens, for Bapef (y) (that ram) who is in his blood has given to you what is in his redness”, here, Bapef (y) is associated with funerary offerings, which suggests his helpful role.



[FIGURE 9] HORNUNG 1963: (N^{os}. 355-356).

⁶³ HORNUNG 1963: N^{os}. 355-356.

⁶⁴ ROULIN 1996: PL. XIV.

⁶⁵ FAULKNER 1973: 179.

V. Priesthood of Bapef (y)

In the earliest titulary evidence for the queenship, women of the royal families have an unusual status in the priesthood of the Old Kingdom. Although female members of important families during the Old and Middle Kingdoms often bear the title *ḥm (t) ntr* «prophetess», it was generally the goddesses Neith and Hathor whom they served in this position. Although they were usually associated with goddesses rather than gods⁶⁶, they were occasionally associated with the gods or kings, as a companion or friend to the god Horus. They could also be priestesses of the gods Seth, Bapef (y), *Djehwty* and *Tjasepef*, any of which could be forms of the King's appearance⁶⁷.

The name Bapef (y) was associated with priestesses since the Old Kingdom, specifically during the fourth dynasty when the title *ḥm (t) ntr B3pfy* was attested for the first time in the titularies of the queens *Merysankh* III and *Hetepheres* II. From this time onwards, there are references to this epithet on the monuments of Old Kingdom queens.. It was still in use during the New Kingdom [TABLE 2]⁶⁸.

Title's holders	Dating	Relatives	Other titles
Hetepheres II ⁶⁹	(4 th dyn.)	Daughter of the king Khufu	- <i>ḥmt nsw</i> - <i>s3t nsw</i> - <i>ḥm(t) ntr Djwty</i>
Khamerenebty I ⁷⁰	(4 th dyn.)	Daughter of the king Khufu	- <i>ḥmt nsw</i> - <i>s3t nsw</i> - <i>ḥm(t) ntr Djwty</i>
Merysankh III ⁷¹	(4 th dyn.)	Granddaughter of the Khufu	- <i>ḥmt nsw</i> - <i>wrt ḥst Djwty</i>
Khamerenebty II ⁷²	(4 th dyn.)	Daughter of the king Khafre	- <i>ḥmt nsw</i> - <i>s3t nsw</i> - <i>ḥm(t) ntr Djwty</i>
Khantkaus ⁷³	4 th dyn.	Queen	- <i>s3t ntr</i> - <i>mrt nsw</i> - <i>ḥm(t) ntr Djwty</i>
Ti ^c aa ⁷⁴	18 th dyn.	Wife of the king Thutmose IV	- <i>mwt nsw</i> - <i>ḥmt nsw wrt</i> - <i>wrt ḥswt</i>

[TABLE 2]: © done by the researcher

⁶⁶ BLACKMAN 1982: 1101- 1105.

⁶⁷ TROY 1986: 94-94; BAUD 1999: 341.

⁶⁸ Lisa Kuchman classified *ḥm (t) ntr B3pfy* as one of the titles of religious functions which appear in the middle of the fourth dynasty. KUCHMANN 1977: 9ff.

⁶⁹ DUNHAM & SIMPSON 1974: FIG.14.

⁷⁰ URK 1903: vol.1, 155f.; BAUD 1995: 11-22.

⁷¹ DUNHAM & SIMPSON 1974: FIG.7.

⁷² VIVENNE 1997: 1-22, TAF.1.

⁷³ VERNER 2001: 83, PL. 17.

⁷⁴ Gitton mistakenly read the deity name as «Ba-pet». GITTON 1984: 89; ZIVIE-COCHE 1985: 389-401; HELCK 1995: 44.

With regards to the previous table, we can notice:

1. The title *hm(t) ntr B3pfy* was commonly used during the fourth dynasty, especially with the royal family during the period of *Khufu*, *Khafre*, and *Menkaure*. Although Jones⁷⁵ indicated that *Heqenuhedjet* (wife of *Sekhemkare* brother of *Menkaure*) held this title, there is no evidence of this because the title in question is scratched and not clear⁷⁶ so it is not certain whether the name of *Bapef* (y) is present or not. Troy⁷⁷ gave the possibility that there another unconfirmed case for this title bearer was *Sesheshet* (wife of *Teti*). Professor Troy has indicated that she may have been a priestess of *Tjasepef* or *Bapef* (y). This hypothesis may lead us to discuss another issue related with the names *Tjasepef* and *Ba (se) pef*. These two different forms are:

A. *Tjasepef*⁷⁸

It was a bull deity, probably represented as early as the first dynasty and named by queens during the Old kingdom in a religious title. The name was translated as the most masculine of its kind», but an interpretation as “the masculine of its threshing floor” should also be considered (*Threschen, Minfest*). *Tjasepef* is pictorially represented as a bull on a standard, while in front of him is a sign that looks either like a stele or like two sloping posts⁷⁹. From Saqqara, there is a seal impression of the first dynasty linked with this deity who Kees⁸⁰ linked to a group of characters «T+ lying ram+zp» and saw in it “[a] variant that is remarkable in terms of religious history”. However, this is likely to be a title that meant something like “man of Basepef” and is to be brought together with the ram sternum already documented in the 3rd dynasty. Later, a religious title of kings points to grain administration- the interpretation of Zp as «threshing floor» would be supported here- but also in the case of *Tjasepef*⁸¹.

B. *Ba(se)pef*

Ram of his «Tenne», was a very old harvest deity, similar to *Tjasepef* who takes the form of a bull. This deity was mentioned for the first time in vessel inscriptions from the Step Pyramid of Djoser at Saqqara⁸². The name of the deity is drawn with a ram, but not with bull⁸³, on a seal imprint of a supervisor of granary from Abydos. It is striking that except in the earliest documents, it is always written without the character «z», which is why it is often referred to as *Bapef* (y)⁸⁴.

⁷⁵ JONES 2000: 512 (N^o. 1916).

⁷⁶ HASSAN 1943: 117, FIG.62.

⁷⁷ TROY 1986: N^o. 6.4.

⁷⁸ OTTO 1964: 9.

⁷⁹For *Tjaisepef* and his relation with fertility. HELCK 1954: 49-50; HELCK 1986: 607.

⁸⁰ KEES 1959: 566.

⁸¹ HELCK 1986: 607.

⁸² LACAU & LAUER 1965: 36, N^o. 46.

⁸³ KAPLONY 1963: N^o. 366.

⁸⁴ HELCK 1992: 1.

1. In fact, it is not possible to be sure if the two previous forms (*Basepef/ Tjaisepef*) are different forms of Bapef (y) or not. Helck⁸⁵ supposed that the naming of *Khamerernebti* I and II as bearers of the *hm (t) ntr B3 pfi* title by Christiane Zivie⁸⁶ is a confusion with *Tjaisepef*. However, the two are probably different forms of the name of Bapef (y) especially considering the previously mentioned iconographies of Bapef (y) which show him as human-headed with two bull horns. According to the confirmed references of Bapef (y) which dated back to the fourth dynasty, Ba(se)pef is attested only in the first dynasty with ram horns, not bull's⁸⁷, while *Tjaisepef*, also attested since the first dynasty, was still shown in bull form during the Middle Kingdom⁸⁸. All these references and indications may cause more confusion and lead us to suppose that the three different forms may be for one deity, Bapef (y).
2. There are not any references for the title *hm (t) ntr B3 pfi* from the beginning of the sixth Dynasty until the beginning of the New Kingdom. This may be because of the general state when the royal women started to hold administrative titles. Baud mentioned⁸⁹: "under the disappearances, one counts the divine priesthoods of *Djehuty*, Bapef (y) and *Tjaisepef*, in the years doubtless at the end of the five dynasty (*Merysankh* IV) or at the very beginning of the sixth (*Sesheshet*). This is an interesting development, which shows that the queen no longer served as a priestess, at least under the guise of a certain administrative formalism."
3. By examining the cases of *Merysankh* III and her mother *Hetepheres* II, who appears in the formers' tomb where the sarcophagus of *Hetepheres* II has been found, Troy⁹⁰ saw that there is a high degree of identity between the titles of the two queens, especially in their roles as priestesses in the cult of *Djehuty* and Bapef (y). This may suggest that there was a transmission of status between mother and daughter, suggesting that *Merysankh* functioned as a priestess in the ceremonies for her mother. This phenomenon had occurred before, in the case of *Khamerernebti* I and her daughter *Khamerernebti* II who hold exactly the same titles as priestesses. These women have four titles of royal position in common, which are otherwise infrequently known in the 4th dynasty⁹¹. Begelsbacher-fischer⁹² classified the priestess of Bapef (y) in group (B), which includes the deities who played a minor role in the funerary inscriptions.
4. The title *hm (t) ntr* was misinterpreted as indicating the princesses who were heiresses, and who the king had to marry in order to legitimize the rule. Gitton⁹³ indicated that this misconception led to an assumption that the title had been applied to queens who are never recorded with it. These contortions practiced by scholars⁹⁴ to fit their theory

⁸⁵ HELCK 1992: 1.

⁸⁶ ZIVIE-COCHE 1985: 389-401.

⁸⁷ LEITEZ 2002: vol.2, 696.

⁸⁸ LEITEZ 2002: vol.7, 459.

⁸⁹ BAUD 1999: 343.

⁹⁰ TROY 1986: 110.

⁹¹ KUCHMANN 1977: 9.

⁹² BEGELSBACHER-FISCHER 1981: 249.

⁹³ GITTON 1987: 272-276.

⁹⁴ HANSEN 1940.

to facts have not shown great ingenuity. Gitton's study⁹⁵ about the queens of the eighteenth dynasty leads to the important conclusion that the title was a priestly one connected with the cult of Amun and that it had no dynastic significance.

5. Except for *Merysankh* III, fourth dynasty's queens held a title associated with *Djehuty*, "*hm(t) ntr Dhwtj*". They additionally held another title related to *Djehuty*, "*wrt hst Dhwtj*" the great of praising of *Djehuty*. *Djehuty* like *Bapef* (y) has an unfavorable side as he can cause painful wounds and who be labours his victims with his knife and thus he related with Seth (PT 1999c). *Djehuty* is also associated with blood (PT 163)⁹⁶. Baud⁹⁷ indicated that it is probable the priesthood of *Djehuty*, *Bapef* (y) and *Tjaisepef* concern gods who played a particular role for royalty⁹⁸.
6. All examples of the title holders came from Memphis, even in the New Kingdom, such as queen *Tiaa*, wife of king *Thutmosis* IV. The title may refer to a special cult for *Bapef* (y) in Memphis during the Old Kingdom; the title was revived during the reign of *Thutmosis* IV who gave importance to this area.
7. There isn't any evidence that men held this title and that may indicate that the title was limited to the royal women only.

VI. CONCLUSIONS

Bapef (y) was a minor but puzzling deity. This deity is attested only on a few occasions, though references can be found from the Old Kingdom, Middle Kingdom, New Kingdom, and the Greek-Roman period. His name was shown in various forms throughout these periods which associated him with both the Ba (soul) and Ba (Ram). There are several images of the deity in semi-human form with various heads (human, ram, and bull). Despite a number of references to this deity, his nature is not clear. This may be because of the paucity of evidence and references or it may be due to some uncertainty about what was intended by the name *Bapef* (y); the name probably means «that Ram», though *ti* could also refer to a specific soul, or to a type of demons or underworld beings who played double roles (beneficial and harmful). Ancient Egyptian texts and scenes associated *Bapef* (y) with some evidence like the House of *Bapef* (y), *Bapefy* (y) who is in his blood, *Bapef* (y) who is in the Great Lake and *Bapef* (y) as a guide of the Eighth Portal of the Book of the Night. Although most texts indicate that *Bapef* (y) has an unfavorable nature, there are a few cases that imply a beneficial role with respect to the deceased and to the Sun-god in his bark. *Bapef* (y) was associated with a priesthood through the title *hm(t) ntr B3pfy* which was common during the Old Kingdom, though it attested only one more time during the eighteenth dynasty. This title was held only by royal women throughout the various periods.

⁹⁵ GITTON 1984.

⁹⁶ ZANDEE 1960: 216-217.

⁹⁷ BAUD 1999: 342.

⁹⁸ BEGELSBACHER-FISCHER 1981: 254-255.

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ḥwty-nxt's CHEST OF CANOPIC JARS

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Dhwtj-nht's CHEST OF CANOPIC JARS

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ABSTRACT

[AR]

صندوق الأواني الكانوبية لجحوتي نخت

يتناول البحث دراسة صندوق الأواني الكانوبية الخاص بجحوتي نخت، من عصر الدولة الوسطى. عُثِر على هذا الصندوق في دير البرشا في مصر الوسطى، وهي معروضة حالياً في المتحف المصري تحت رقم CCG 4740. يهدف البحث إلى تحديد التعاويذ المقتبسة منها نصوص الصندوق عن طريق مقارنة هذه النصوص بمثيلاتها في الكتب الدينية المختلفة (نصوص الأهرام – نصوص التوابيت – كتاب الموتى). هذا بالإضافة إلى وصف الصندوق والمناظر المصورة على جوانبه الداخلية يتبعها تعليقات على نمط الزخارف والنصوص المسجلة على جوانب الصندوق الخارجية والداخلية، وكذلك تأريخ الصندوق.

[EN] This article discusses a chest of Canopic jars belonging to *Dhwtj-nht*, during the Middle Kingdom. The chest was found at *Deir El-Bersha* in Middle Egypt and is preserved now under the number CCG 4740 in the Egyptian Museum. This article aims to identify the quoted spells by comparing its texts with other religious texts (Pyramid text, coffin text, Book of the Dead). A description of the chest of Canopic jars will be presented here, followed by general comments on the style, decoration and text painted on the interior of the chest. The article will also examine the dating of the chest, identification of its owner and the quoted spells.

KEYWORDS: CCG 4740, Chest, CT, Canopic Jars, *Dhwtj-nht*, *Deir El-Bersha*, Middle Kingdom, PT.

I. INTRODUCTION

A cubical wooden chest of Canopic Jars belonging to *Dhwtj-nḥt*, who lived during the Middle Kingdom, was recovered from Deir El-Bersha in Middle Egypt, and it is preserved now in the Egyptian Museum under the number CCG 4740. The chest of Canopic Jars was previously published by Reisner (1967) who only copied the texts, and Lüscher (1990), who gave a brief description of the chest. This study includes a detailed description, in contrast to the previous works, of the genealogy, allows corrections for the copied version text of Reisner (1967), and includes commentary of the quoted texts from the Pyramid text and Coffin text.

II. THE DESCRIPTION OF THE CHEST OF CANOPIC JARS

Number: CCG 4740¹.

Discovery: American Excavation in *Deir El-Bersha* on 6 May 1915.

Date: 11th Dynasty.

Reisner only illustrated the texts (in which I found a few signs that he miscopied, so it was misleading in some parts) and gave a brief description of the whole chest.

Lüscher mentioned the chest and gave a brief description and a few suggestions of the different deities represented in the interior of the chest. She also attributed the text on the chest to the Pyramid Text and Coffin Text.

Material and form: The chest is wooden and almost cubical in shape, with two cleats on its bottom running from front to back. The lower part is divided from the inside into four compartments; the lid has no inscriptions or colors [FIGURE 1].



[FIGURE 1]: The lid of the chest CCG 4740

Courtesy of the Egyptian Museum © Ahmed Amin

Measurements: 60.5 cm high, 55.5 cm long and 57.5 cm wide.

¹ The only two references that mentioned this chest are REISNER, GEORGE ANDREW: *Catalogue général des antiquités Égyptiennes du musée du Caire, Nos 4001-4740 and 4977-5033, Canopics*, Le Caire, IMPRIMERIE DE L'INSTITUT FRANÇAIS D'ARCHÉOLOGIE ORIENTALE 1967; LÜSCHER, BARBARA: *Untersuchungen zu ägyptischen Kanopenkästen: Vom Alten Reich bis zum Ende der Zweiten Zwischenzeit*, Hildesheim (Gerstenberg Verlag) 1990.

Coloring: The exterior has vertical edges overlaid with gold. Yellow bands with a blue border containing one horizontal line of inscription are around the upper part. The ground color was originally yellow.

On each side of the interior is one horizontal band at the top and one vertical band on both sides. Inside the space, enclosed by these bands, there is a different number of vertical lines of inscription. The ground color inside is brownish yellow.

Owner: A lady named *Dḥwty-nḥt*. This name was very common during the era and providence; this name mostly refers to a male character², although here it refers to a feminine character³.

III. INSCRIPTIONS OF THE EXTERIOR TEXTS (A, B, C, D)

The exterior of the chest is divided into four compartments; each has one horizontal line of hieroglyphic text that includes one of Horus' four sons, as follows:

1. Southern Side (A) [FIGURE 2]

The hieroglyphs are read from right to left. The text includes the name of one of Horus' four sons, as follows:



ḏḏ mdw in (Imsti iw(.i) mn sp-sn ḥk3 ḏt pw mn mi-rḥ ḏt

«Word spoken by Imesti⁴: I am enduring, I am enduring^(A), it is the Lord of eternity^(B), endure as Re forever».



[FIGURE 2]: The Southern side of the Exterior of the chest CCG 4740

Courtesy of the Egyptian Museum © Ahmed Amin

2. Northern Side (B) [FIGURE 3]

The hieroglyphs are read from left to right. The text includes the name of one of Horus' four sons, as follows:

² RANKE 1935: 7, 408.

³ For more details on using male names for women, see GRAJETZKI 2010: 47-58.

⁴ LEITZ 2002a: 367-370.

5. Commentary on the Outside

- (A) *ḥk3 dt* is used as an epithet for many gods, Osiris, Anubis, and Horus⁸.
- (B) *iw.f mn t nhḥ dt*⁹.


IV. THE INTERIOR [E, F, G & H]

The interior is also divided into four compartments, each of which contains cursive hieroglyphic vertical lines [FIGURE 6], as:

1. Southern Side (E) [FIGURE 7]

This side is divided into two parts. There is vertical text in the upper part; below that, there are two figures of deities. The name of the deity is written next to them; on the



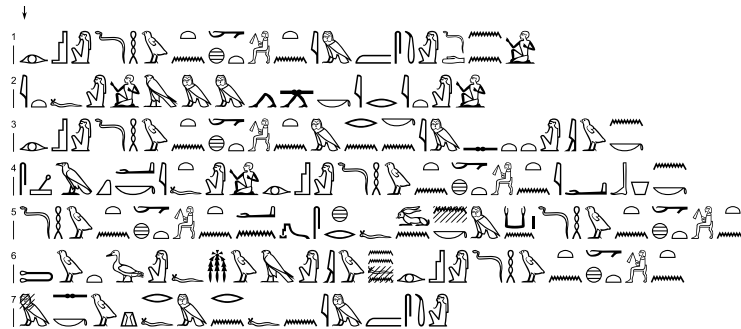
right, Imsti is represented by a falcon head facing his name, shown as: . Ideally, Imsti is represented as protected by the goddess Isis, and Camacho mentioned that the pairing of Isis with Imsti is constant¹⁰. He is protected here by a standing female goddess behind



him facing her name that could be read as «Neith»¹¹:

These two parts are framed above and on both sides by a colored band in the following order (from the bottom of the left band to the end of the right band): red, green, yellow and blue [FIGURE 8].

This side consists of 18 vertical lines [FIGURE 9], each of which starts with the *dd-mdw* formula. The first 7 lines are quoted from CT 520 (B19C)¹², with so few differentiations, the text continues in PT 148a- 150c, although in the rest of this side text, the 11 lines are quoted from PT 215-216¹³ as follows:



- (1) *Wsir Dḥwty-nḥt tn (ink) Imsti dd.n n.i* (2) *it.i Hr my ms k(w) ir it.i* (3) *Wsir Dḥwty-nḥt tn m rn.k n Imsti iw.n.k* (4) *s3.k.k it.i Wsir Dḥwty-nḥt tn iḥb.n.k* (5) *Dḥwty-nḥt tn ḥr.f wnn.k m k3.f Dḥwty-nḥt tn* (6) *twt s3.{f}(T) msw Hr iw.n.f Wsir Dḥwty-nḥt tn* (7) *ms kw ḥr.f m rn.{f}(.k) n imsti*

⁸ LEITZ 2002e: 531; WB 1982: vol.5, 12, 50.

⁹ WB 1982: vol.2, 61, 1-2.

¹⁰ CAMACHO 2014: 4,65.

¹¹ TANJA suggested that on 31/1/2019; LÜSCHER mentioned another example besides this one in which appeared Neith together with Imsty; see LÜSCHER 1990: 18; LEITZ 2002c: 510-513.

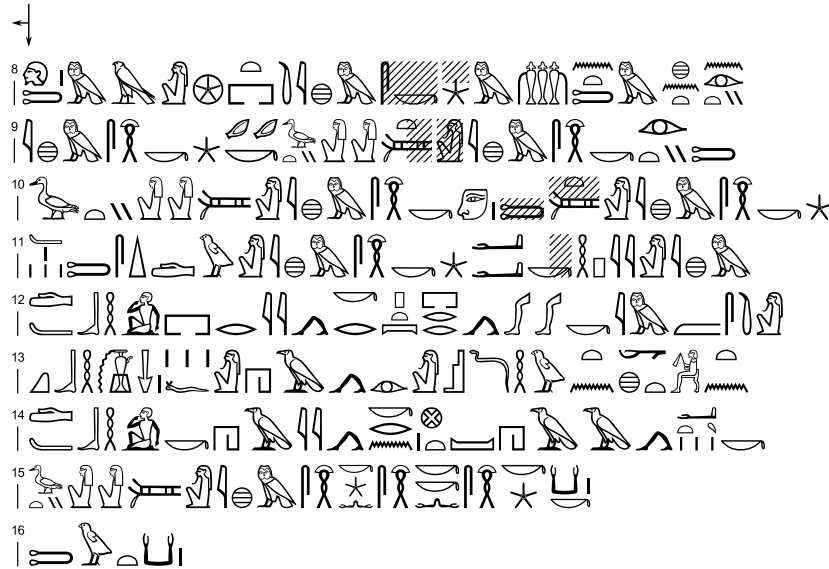
¹² DE BUCK 1956: 109-110.

¹³ SETHE 1908, 148A-150C; ALLEN 2013, 148A-150C.

« (1) O Wsir Djehotynakht, (I am) Imsti^(A), my father Horus said to me: (2) come, betake yourself^(B) to my father (3) this Wsir Djehotynakht, in your name of Imsti. You came (4) you may gather my father this Wsir Djehotynakht together, unite this Wsir Djehotynakht (5) Smoothen(?) him^(C), and you will be the *k3* of this Djehotynakht, (6) you are my son^(D), child of Horus. You came^(E) to Wsir Djehotynakht, (7) betake yourself beneath him, in your name^(F) of Imsti».

A. Commentary:

- (A) The parallel in CT 520 (B2C)¹⁴ is read as *ink Imsti*, so I added ink between two brackets here to make it readable.
- (B) In this sentence, *my* and *ms* are both imperatives, followed by *kw*. This is the old Egyptian enclitic pronoun¹⁵ for second person perspective: sing., masc. referring to *imsti*.
- (C) This passage is confusing. Through its variants, it appeared as *ᶜn.k hr.f*, and only the first pronoun changed, and the change is not only concerning the gender from masc. to fem. but also from second to third person.
- (D) The {*f*} is superfluous; thus, it should be read, as Faulkner¹⁶ suggested, *s3.i* instead of *s3.f*.
- (E) Faulkner¹⁷ suggested it should be read as *iw.n.k* instead of *iw.n.f*.
- (F) Faulkner¹⁸ suggested it should be read as *rn.k* instead of *rn.f*.



(8) *tp.t m Hr-dw3t i.ḥm-sk mhnt.t mhnt n irty* (9) *i.ḥm-sk msdrwy.t s3ty tm i.ḥm-sk irty.t* (10) *s3ty tm i.ḥm-sk fnd.t tm i.ḥm-sk* (11) *ndḥwt.t spdḥw i.ḥm-sk ᶜw.k hᶜpy i.ḥm(-sk)* (12) *dbḥ(.k) pry.k r pt prr(.k) rdwy.k imsti* (13) *Kḥh-snw.f h3y Wsir Dḥwty-nḥt tn* (14) *dbḥ.k h3y.k r niwt h33(.k) ᶜwt.k* (15) *s3ty tm i.ḥm-sk n sk.k n sk k3.k* (16) *ṭwt k3*

¹⁴ DE BUCK 1956: 109.

¹⁵ WB 1982: vol.5 116; EDEL 1964: 75-76; SCHENKEL 1997: 107.

¹⁶ FAULKNER 1977: 5, 149.

¹⁷ FAULKNER 1977: 5, 149.

¹⁸ FAULKNER 1977: 5, 149.



« (8) Your head is that of Horus of the Duat, O Imperishable One;^(A) your brow is the Mekhentienirti (one with the two eyes)¹⁹ (9) O Imperishable One, your ears are (those of) the two daughters of Atum; O Imperishable One, your eyes are (10) (those of) the two daughters of Atum, O Imperishable One, (11) your nose is (that of) Atum^(B), O Imperishable One, your teeth are (those of) Sopdu^(C), O Imperishable One, your arms are (those of) Hapy^(D), O Imperishable One, (12) when you ask to ascend to heaven of your ascending^(E), your legs are (those of) Imsti (13) and Qebhsenuf, and this Djehotynakht descend^(F), (14) when you ask to descend to the lower heaven of your descending. (15) Your parts are (those of) the two daughters of Atum, O Imperishable One. You did not pass away; your ka does not pass away. (16) For you are a ka^(G)».

B. Commentary


(A) *i.ħm-sk* is shown several times in the PT.²⁰

(B) The god here appeared as Atum in contrast to the other variants in PT 215²¹ and CT VIII²², where the jackal is shown, and two other variants in CT VIII *spdw*²³ as

 in B10C^a and B10C^c.

(C) It is notable that the different writing of the god's name *spdw* as  instead of the usual  shown in PT 215²⁴.

(D) In this passage, the deceased's arms are of Hapy only, which are not shown in the other variants in PT 215²⁵ and CT VIII²⁶, where they are always of Hapy and Duamutef.

In three of them Qebhsenuf follows both. In addition to the word , which could be considered as *i.ħm-sk*.

(E) In this passage, I added *.k* after the verb *dbh* between two brackets, as the parallels to PT 215²⁷ and CT VIII variants²⁸.

(F) This part of the passage is not shown in the same pattern in PT 215²⁹ (149b), although it is found in two other variants in CT VIII (Ab1Lea; L-A1)³⁰ followed by the suffix *.k*.

(G) In this passage, *ħwt k3* is shown several times in PT³¹ to link the mentioned *k3* with Horus.

¹⁹ LEITZ 2002c: 394-396; LEITZ 2012: 294.

²⁰ SETHE 1908: 152A, 161A, 782E, 823E; ALLEN 2013: 152A, 161A, 782E, 823E; HAYS 2012: 553.

²¹ SETHE 1908: 148D; ALLEN 2013: 148D.

²² ALLEN 2006: 106-107.

²³ LEITZ 2002f: 279-280.

²⁴ SETHE 1908: 148D; ALLEN 2013: 148D; LEITZ 2002f: 289-291.

²⁵ SETHE 1908: 149A; ALLEN 2013: 149A.

²⁶ ALLEN 2006: 106-107.

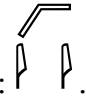
²⁷ SETHE 1908:149A; ALLEN 2013: 149A; HAYS 2012: 494.

²⁸ ALLEN 2006: 108-109.

²⁹ SETHE 1908: 149B; ALLEN 2013: 149B.

³⁰ ALLEN 2006: 110.

³¹ SETHE 1908: 102B, 582D, 587B, 610D, 647D, 1609B, 1832A; HAYS 2012: 555; ALLEN 2013: 102B, 582D, 587B, 610D, 647D, 1609B, 1832A.

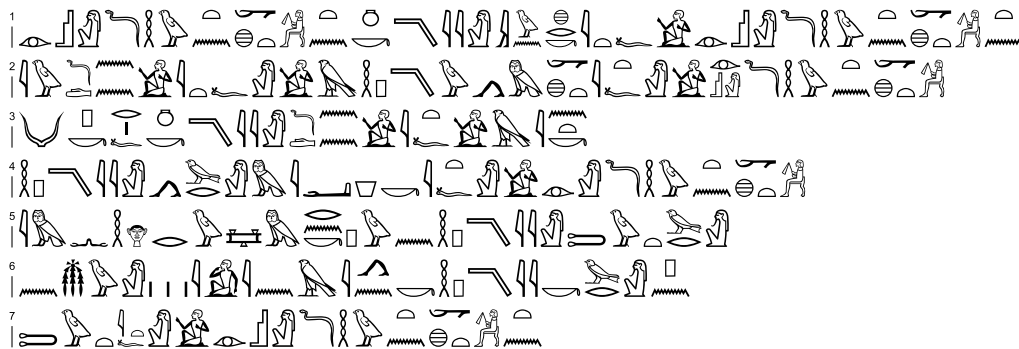


On the right, Hapy is represented with a falcon head; facing his name is: Ideally, Hapy is represented protected by Goddess Nephthys, and Camacho mentioned that the pairing of Nephthys with Hapy is constant.⁴⁴ He is protected here by a female goddess standing behind him; facing her name is what could be read as «Menkeret (?)» as



;⁴⁵ however, Menkeret is normally represented as a lion-headed deity. Leitz cited that the goddess *mnkrt* did not appear before the New Kingdom period when *mnkrt* is meant to place Hathor⁴⁶. Leitz also mentioned another goddess named *mkrt*, first attested during the Greco-Roman period, when *mkrt* is meant to place Neith.⁴⁷ These two parts are framed above and at both sides with a colored band in the order: green, red, blue, and yellow starting from the bottom of the left band and ending at the end of the right band [FIGURE 11].

This side consists of 20 vertical lines [FIGURE 12], each of which starts with the *dd-mdw* in formula. The first 7 lines are quoted from CT 521 (B19C)⁴⁸, with so rarely changes, although in the rest of this side text the 13 lines are quoted from PT 215⁴⁹ as:



- (1) *Wsir Dḥwty-nḥt tn ink ḥꜥpy iw.n(.i) ḥr.k it.i Wsir Dḥwty-nḥt* (2) *iw dd.n n.i it.i Hr ḥpw m-ḥt it.i Wsir Dḥwty-nḥt* (3) *wp.k r3.f ink ḥꜥpy dd.n n.i it(.i) Hr i(n) ntk* (4) *Ḥꜥpy wr m(y) iꜥb.k it.i Wsir Dḥwty-nḥt* (5) *im ḥrw m rn.k pw n ḥꜥpy ḥwt wr* (6) *n msw i.in Hr iw.n.k ḥꜥpy iw.k wr pn* (7) *ḥwt it.i Wsir Dḥwty-nḥt tn*

« (1) O Wsir Djehotynakht, I am Hapy, I came to you, my father Wsir Djehotynakht. (2) My father, Horus said to me: run after my father, Wsir Djehotynakht^(A). (3) You open his mouth. I am Hapy, (my) father Horus said to me: you are (4) a great runner, come!^(B) you may join up my father, Wsir Djehotynakht (5) not^(C) be far in your name of Hapy, you are the greatest (6) of children – so says Horus, you have come, O Hapy, you the great (7). You are my father, Wsir Djehotynakht».

⁴⁴ CAMACHO 2014: 65, N^o. 4.

⁴⁵ Tanja suggested that on 31/1/2019; LÜSCHER mentioned the same name followed by (!) despite a few other goddesses' names she mentioned in the same content that could follow Hapy. LÜSCHER 1990: 18.

⁴⁶ LEITZ 2002c: 318-319.

⁴⁷ LEITZ 2002c: 458.

⁴⁸ DE BUCK 1956: 111-112.

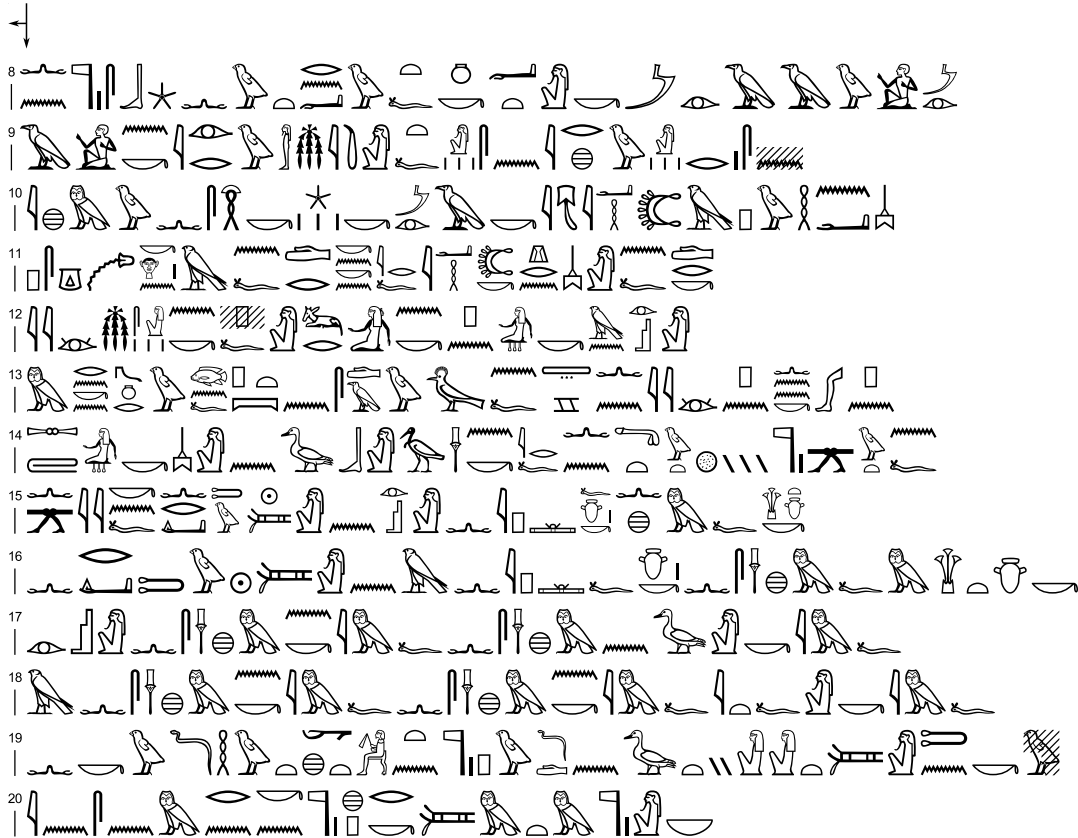
⁴⁹ SETHE 1908: 141A-147B; ALLEN 2013:141A-147B.

A. Commentary

(A) Faulkner⁵⁰ translated this passage as “you are the great runner.”

(B) There are three other variants in which the imperative *my* was not used (B2C; B18C; B11C)⁵¹.

(C) There is a *k* shown in the other variants after the negative verb *im*.



(8) *nn ntr sb3 iwty rmnwti.f ink rmnwti.k m33 wi m3.i* (9) *n.k irw mswt itw.sn i.rḥw r3.sn* (10) *i.ḥmw-sk.k m3.k imiw iḥ Hr pw ḥn^c Sth* (11) *psg.k ḥr n Hr n.f dr.k nkn ir.f i.ḥ.k ḥr n Sth n.f dr.k* (12) *ii msw n.k pf iwr n.k pn ms.k Hr n Wsir* (13) *m rn.k n nwrw n.f pt n sd3w n.f t3 n ii pn nn nkn pn* (14) *ts pḥr iwr.k Sth n Gb ḥb3.n.k ir.f nn mtwt ntr sit n.f* (15) *n si.k n.f n rdi tw R^c-tm n Hr n ip.f ib.k n šm.f ḥ3t.k* (16) *n rdi tw R^c-tm n Hr n ip.f ib.k n šm.f m ḥ3t.k* (17) *Wsir n šm.n.k im.f n šm n s3.k im.f* (18) *Hr n šm.n.k im.f n šm n.k im.f it.k im.f* (19) *n kw Dḥwty-nḥt tn ntr pw dd.n s3ty tm tn kw* (20) *in sn m rn.k n ntr ḥpr.k tm{t} m ntr nb*

« (8) There is no god, who has become a star, without^(A) a companion. I am your companion^(B). Look at me! ^(C) You have seen (9) the forms of the children of their fathers, who know their spell, (10) and your Imperishable Stars.^(D) May you see who is in the two inhabitants^(E) of the Palace:^(F) this is Horus and Seth! (11) May you bespit the face of Horus for him^(G) and remove his injury^(H)! May you catch the testicles of Seth for him^(I) and remove his mutilation! (12) That one is born for you, this one is conceived for you^(J). You are born, O Horus of Wsir, (13) as the one whose name is He-before-whom-the-sky-shakes⁵²; and He-before-whom-the-earth-quakes^(K). Such a one has no mutilation, (14) such a one has no injury^(L). Such one has no mutilation, such one has no injury. You







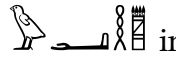
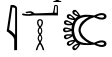
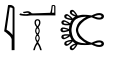


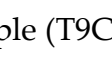


⁵⁰ FAULKNER 1977: 150.

⁵¹ DE BUCK 1956: 111-112.

⁵² WB 1982: vol.2, 8, 222; HAYS 2012: 538.

conceived Seth to Geb^(M), you have become more glorious than he. There is no seed of a god, which belongs to him (15), goes to perish^(N) for him, so you who belong to him will not go to perish. Re-Atum does not give you^(O) to Horus^(P), he will not claim your mind, he will not have control^(Q) of your heart^(R). (16) Re-Atum does not give you to Horus, he will not claim your mind, he will not have control of your heart. (17) Osiris, you cannot have power over him, your son cannot have power over him. (18) Horus, you cannot have power over him, your father cannot have power over him^(S). (19) You belong, O this Djehotynakht^(T), to this god, as the two daughters of Atum^(U) said: (20) Lift yourself up^(V), so said they, in your name of God,^(W) and so you have become Atum for every god.^(X)»

B. Commentary:

- (A) In this passage, *iwty rmnwt.f* was written differently as  in PT 215⁵³.
- (B) It was written as  in PT 215⁵⁴.
- (C) The pronoun appeared here in its full form, contrary to that in its variants in PT 215⁵⁵ in which it appeared just as  and .
- (D) Faulkner translated it as: “who know their spell, who are now Imperishable Stars”, while I prefer the translation “who know their spell, and your Imperishable Stars” where *i.rhw* is a plural active participle, followed by two objects: *rA.sn* and *i.hmw-sk.k*, although the other variants in PT 215⁵⁶ only show it as *i.hmw-sk* and in CT VIII,⁵⁷ only 3 examples as *i.hmw-sk.k*.
- (E) There is a remarkable writing in which the sign  replaced ; that appeared only in 1 variant in CT VIII (B4B0)⁵⁸ in the same passage.
- (F) One should note in this passage, the various writings which in PT 215⁵⁹ is shown as  instead of . The writing  appears here and in the other variants in CT VIII⁶⁰ 11 times (B4B0; B4C; B6C; B10CA;^a B10CA;^c BH3C; M2C; Sq9C; T8C; T1NY; TT319) and in PT 3 times (L-A1; T1L; TT240);  in 1 example (B6B0);  in 1 example (T9C);  in 1 example (M5C);  in 1 example (M1C);  in 1 example (Ab1Le;^a Ab1Le),^b without determinatives in (B10C)^b.
- (G) The *n.f* didn't appear in the variants of PT 215⁶¹ but appeared in other variants in CT VIII⁶².

⁵³ SETHE 1908: 141A; ALLEN 2013: 141A.

⁵⁴ SETHE 1908: 141A; ALLEN 2013: 141A.

⁵⁵ SETHE 1908: 141A; ALLEN 2013: 141A.

⁵⁶ SETHE 1908: 141C; ALLEN 2013: 141C.

⁵⁷ ALLEN 2006: 82-83.











⁵⁸ ALLEN 2006: 84.

⁵⁹ SETHE 1908: 141D; ALLEN 2013: 141D.

⁶⁰ ALLEN 2006: 84-85.

⁶¹ SETHE 1908: 142A; ALLEN 2013: 142A.

⁶² ALLEN 2006: 85.

- (H) *nkn* as a verb means «to damage»,⁶³ although when followed by *dr*, it is translated as “Böses anwenden⁶⁴.”
- (I) The dative *n.f* didn't appear in PT 215⁶⁵ but appeared in other variants in CT VIII⁶⁶. The name of the god *sth* was written in the chest in an unusual way,⁶⁷ as  instead of the normal writing in PT 215⁶⁸ . The other variants in CT VIII includes both ways of writing.
- (J) It is remarkable to notice the usage of the two verbs *ms* and *iwr* followed by *pf* and *pn* in order. It is possible that *pf* refers to *Stḥ* and *pn* refers to *Hr*, depending on the different meanings of both, that they are demonstrative pronouns, *pf* for the far, and *pn* for the near.⁶⁹ In the same passage, there are two different verbs that mean pregnancy and birth: *iwr* from the father,⁷⁰ and *ms* from the mother⁷¹.
- (K) This passage is in a different order; that the first part *ms.k Hr n Wsir* could be from PT 215⁷² instead of PT 215⁷³. The PT variant differs in the order as *ms.k Hr m rn.f nwrw n.f t3 sd3w n.f pt*. Also, *wrw* was written differently in PT 215⁷⁴; as  , and there is a very rare witting  that appeared only in CT VIII (M2C)⁷⁵.
- (L) *nkn* appeared here with the determinative ; however, in PT 215⁷⁶ it only appeared as .
- (M) In this passage, only the sign  represents the verb, so depending on the other variants in PT 215⁷⁷ which can be shown as , also in CT VIII;⁷⁸ it came in the same writing in all the variants, except B4B0 in which the verb  was used, so I used the verb *iwr*, although in the previous passage Chest 12 (PT 215)⁷⁹ *msw n.k pf iwr n.k pn* I assumed that *msw* came with *Stḥ* and *iwr* came with *Hr* depending on the differentiation of usages of *pn* and *pf*; that *pn* refers to *Hr* and *pf* refers to *Stḥ*, so it might be better to use the verb *ms* as in (B4B0).

⁶³ WB 1982: vol.2, 8, 346.

⁶⁴ WB 1982: vol.2, 17, 346.

⁶⁵ SETHE 1908: 142B; ALLEN 2013: 142B.

⁶⁶ ALLEN 2006: 86-87.

⁶⁷ LEITZ 2002e: 691-695.

⁶⁸ SETHE 1908: 142B; ALLEN 2013: 142B.

⁶⁹ JENNI 2009: 119-137.

⁷⁰ WB 1982: vol.1, 56.

⁷¹ WB 1982: vol.2, 137.

⁷² SETHE 1908: 144A; ALLEN 2013: 144A.

⁷³ SETHE 1908: 143A; ALLEN 2013: 143A.

⁷⁴ SETHE 1908: 143A; ALLEN 2013: 143A.







⁷⁵ ALLEN 2006: 88.

⁷⁶ SETHE 1908: 143B; ALLEN 2013: 143B.

⁷⁷ SETHE 1908: 144B; ALLEN 2013, 144B.

⁷⁸ ALLEN 2006: 90-91.

⁷⁹ SETHE 1908: 142C; ALLEN 2013: 142C.

- (N) This passage as shown here should be read as *nn mtwt ntr sit n.f n si.k n.f* although the other variants in CT VIII⁸⁰ show slightly different writing that should be read as *nn mtwt ntr sit n ii.f n si.k n i.f*. Concerning this reading, Shmacov⁸¹ cited that the spelling *i.f* is a defective spelling of *ii.f* as read in PT 215.⁸² He also mentioned that the suffix *.f* refers to *Sth*.
- (O) The pronoun *tw* here and in all the variants in CT VIII⁸³ differ from that shown in PT 215⁸⁴ as *kw*.
- (P) In this passage, it is remarkable that it shows here *Hr* instead of *Wsir* shown in the other variants in CT VIII⁸⁵ and PT 215⁸⁶.
- (Q) The verb *sh̄m* is written here as  instead of  which is seen in all the other variants in PT 215⁸⁷ and CT VIII⁸⁸.
- (R) There is a remarkable writing of the noun *h̄3t* in which the sign  replaced , in 8 variants in CT VIII (B10C;^a B10C;^b M1C; M2C; M5C; T1L; TT319)⁸⁹.
- (S) It is remarkable that in this passage *n sh̄m n.k im.f it.k im.f*, there are two *im.f* that precede and follow the noun *it.k*; however, all other variants in PT 215⁹⁰ and CT VIII⁹¹ only show one.
- (T) In this passage, the name of the owner of the chest appears instead of *mn*⁹² as PT 215.⁹³
- (U) Allen translated it as «Atum's twins», although Shmakov⁹⁴ read it as *s3 s3t tm*, as «son and daughter of Atum»; in this passage, however, it is shown here and in most variants in CT VIII⁹⁵ with the same duplicate determinative  which refers to women, indicating that they are two daughters, not a son and a daughter.
- (V) The exact origin of the imperative of verb is not clear in this passage, and in its other variant in PT 215.⁹⁶ Considering Shmacov's reading for this imperative as *tn*⁹⁷; however, the variants in CT VIII⁹⁸ show the possibility of the verb *tni* .

⁸⁰ ALLEN 2006: 92-93.

⁸¹ SHMACOV 2012: 72.

⁸² SETHE 1908: 143B, 391A-B, 426B; ALLEN 2013: 143B, 391A-B, 426B.

⁸³ ALLEN 2006: 92-93.

⁸⁴ SETHE 1908: 145B; ALLEN 2013: 145B.

⁸⁵ ALLEN 2006: 92-93.

⁸⁶ SETHE 1908: 145B; ALLEN 2013: 145B.

⁸⁷ SETHE 1908: 145B; ALLEN 2013: 145B.

⁸⁸ ALLEN 2006: 94-95.

⁸⁹ ALLEN 2006: 94-95.

⁹⁰ SETHE 1908: 146A-B; ALLEN 2013: 146A-B.

⁹¹ ALLEN 2006: 96-97.

⁹² FAULKNER 1972: 117; WB 1982: vol.2, 13, 64.

⁹³ SETHE 1908: 147A; ALLEN 2013: 147A.

⁹⁴ SHMACOV 2012: 74.

⁹⁵ ALLEN 2006: 95.



⁹⁶ SETHE 1908: 147B; ALLEN 2013: 147B.

⁹⁷ SHMACOV 2012: 602.

⁹⁸ ALLEN 2006: 100.


⁹⁹ WB 1982: vol.5, 374.


(W) This part of the passage, *m rn.k n ntr*, is shown many times in the same pattern¹⁰⁰ in PT¹⁰¹.

(X) In this passage Atum's name is written as , in which the phonetic complement t is normally shown after m in a way that differs from most other variants in the same utterance PT 215¹⁰² and CT VIII.¹⁰³ It should be noted also that in TT319 from the same utterance, the noun was written as ? so it could be another writing of the same noun, unless it is meant to be read as *tm.t/t* as «your Atum»!

3. Eastern Side (G) [FIGURE 13]

This side is divided into two parts. In the upper part there is a vertical text while beneath that there are two divine figures. Facing right in front of each of these deities is the name of the deity; on the right Duamutef is represented by a falcon head facing his

name: ; standing behind him is a female goddess who faces her name «Sendjet»,

written as:  ¹⁰⁴. Ideally Duamutef is shown protected by the Goddess Neith; however, Ikram and Dodson¹⁰⁵ noted that Sendjet and Renenutet occasionally replaced Neith and Selket. Although, Leitz cited that the goddess *sndt*¹⁰⁶ did not appear before the Graeco-Roman period; he also mentioned another goddess named *sndt*, who was first represented during the New Kingdom.¹⁰⁷ These two parts are framed above and at both sides by a colored band in the order: blue, yellow, green, and red starting from the bottom of the left band and ending at the end of the right band [FIGURE 14].

The text here consists of 17 vertical lines [FIGURE 15], each starting with the *dd-mdw* formula. The first 8 lines are quoted from CT 522 (B19C)¹⁰⁸, with a few changes, although in the rest of this side text the 9 lines are quoted from PT; 6 of them from PT 213¹⁰⁹, and the last 3 are from PT 214¹¹⁰ as:

¹⁰⁰ HAYS 2012: 540.

¹⁰¹ SETHE 1908: 25B, 580B, 630C, 638B, 765C, 1607B; ALLEN 2013: 25B, 580B, 630C, 638B, 765C, 1607B.

¹⁰² SETHE 1908: 147B; ALLEN 2013: 147B.

¹⁰³ ALLEN 2006: 100-101.

¹⁰⁴ Tanja suggested that 31/1/2019; LÜSCHER mentioned the name Sendjet in many other examples in which she protects Duamutef, see LÜSCHER 1990: 18.

¹⁰⁵ CAMACHO 2014: 4,65.

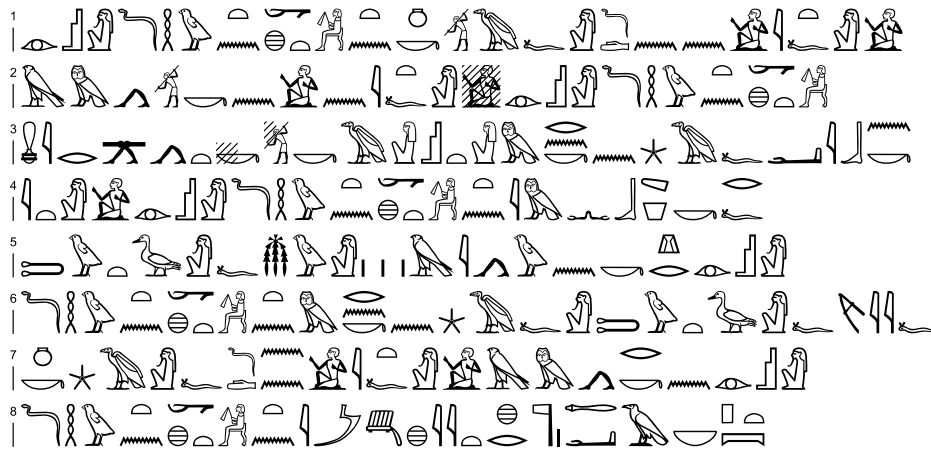
¹⁰⁶ LEITZ 2002f: 406.

¹⁰⁷ LEITZ 2002f: 402.

¹⁰⁸ DE BUCK 1956: 113-114.

¹⁰⁹ SETHE 1908: 134A-135C; ALLEN 2013: 134A-135C.







¹¹⁰ SETHE 1908: 136A-137C; ALLEN 2013: 136A-137C.



(1) *Wsir Dḥwty-nḥt tn ink dw3-mwt.f dd.n n.i it.i Hr* (2) *my dw3.k n.i n it(.i) Wsir Dḥwty-nḥt* (3) *mi r isbt.k dw3.k mwt.i 3st m rn.k n dw3-mwt.f i' b.n.k* (4) *it.i Wsir Dḥwty-nḥt im.k bi3w r.f* (5) *tw̄t s3.f msw Hr iw n.k hr Wsir* (6) *Dḥwty-nḥt tn m rn.k n dw3-mwt.f tw̄t s3.f mry.f* (7) *ink dw3-mwt.f dd.n n.i it.i Hr my r.k n Wsir* (8) *Dḥwty-nḥt tn im3ḥyt hr ntr ʿ3 nb pt*

« (1) O this Wsir Djehotynakht, I am Duamutef,^(A) my father^(B) Horus said to me: (2) Come! you worship^(C) my father Wsir Djehotynakht for me, (3) as you go, you might worship^(D) my mother Isis in your name of Duamutef. Join up^(E) (4) my father and do not be far from him. (5) You are my son, child of Horus. You have come beneath this Wsir (6) Djehotynakht in your name of Duamutef; you are his son and his beloved. (7) I am Duamutef, my father Horus said to me: come to this Wsir (8) Djehotynakht revered/honored by the great god, the lord of the sky.^(F)»

A. Commentary

- (A) In this passage there is a unique writing of Duamutef's name with the sign  instead of , and which is still read as *dw3*. This writing is clear in another variant in the same spell (B5B0)¹¹¹.
- (B) In this passage, referring Duamutef's father as Horus isn't shown in the other variants¹¹².
- (C) In this passage, the verb *dw3* is written in a unique way as , and it is followed by *n.i n it.i wsir*, although the other variants in the same spell¹¹³ only show *dw3.k n wsir*.
- (D) The verb *dw3* here is written in the same unusual way as earlier in the same spell¹¹⁴ as .
- (E) In this passage, the verb *i' b* was written in a different order as  instead of .
- (F) This passage isn't shown in the other variants in the same spell¹¹⁵.

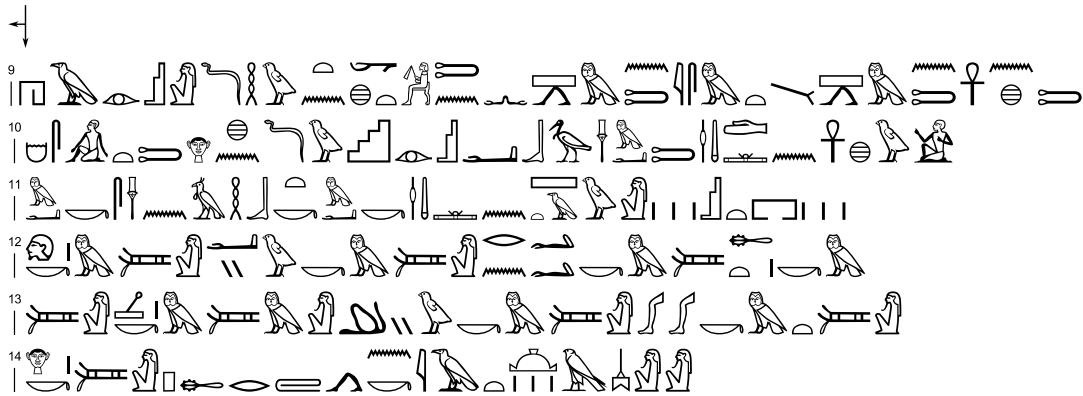
¹¹¹ DE BUCK 1956: 113.

¹¹² DE BUCK 1956: 113.

¹¹³ DE BUCK 1956: 113.

¹¹⁴ DE BUCK 1956: 113.



¹¹⁵ DE BUCK 1956: 113.






(9) *h3 Wsir Dhwtj-nḥt tn n šm.n.t is mwt.ti šm.n.t ḥnh.t* (10) *hmst.t hr ḥndw Wsir ḥb3 m-ḥ.t wḏ md n ḥnhw* (11) *mks nḥbt.k m-ḥ.k wḏ md n šṯ3w iswt* (12) *tp.k m tm ḥwy.k m tm rmnwy.k m tm ḥt.k m* (13) *tm s3.k m tm phwy.k m tm rdwy.k m tm* (14) *hr.k m tm phr.n.k i3wt Hr Sth*

« (9) O Wsir Djehotynakht, you have not gone dead,^(A) you have gone alive (so) (10) may you sit on the throne^(B) of Osiris? The scepter^(C) is in your hand so that you may give your orders to the living, (11) the handle of your lotus-shaped scepter is in your hand. Give commands to the ones hidden of place^(D) / those of the Mysterious Sites (the dead)! (12) Your head is that of Atum.^(E) Your arm is that of Atum, your shoulders are those of Atum, your belly is that of (13) Atum, your backs^(F) are that of Atum, your bottom^(G) is that of Atum, your two legs are those of Atum, (14) your face is that of Atum. Go around the mounds¹¹⁶ of Horus serve you, go around the mounds of Seth^(H). »

B. Commentary

(A) In this passage, *mwt* is written as in most other variants in CT VIII as ; however, it was written differently, as  in PT 213¹¹⁷.

(B) In this passage, the throne of *Wsir* was written as ; however, in CT VIII (S5C),¹¹⁸ it is shown with an unusual determinative .

(C) In this passage, *ḥb3* was written with the sign  followed by the suffix-pronoun *.k* in PT 213.¹¹⁹ But here it is shown without a suffix and, thus, I translated it as «the scepter» instead of adding (*.k*) after the noun *ḥb3* to match the other variants.

(D) This passage with the meaning is shown again in PT¹²⁰ and read as *wḏ.k mdw n šṯ3w iswt* with the suffix-pronoun *.k* after the verb *wḏ*.

(E) This passage did not occur in this spell, although it could be found as a concept, but with a different god's name, in PT 215¹²¹.

(F) In this passage, it reads only as *ph* in PT 213,¹²² but here and in other variants in CT VIII,¹²³ it gives the meaning of his backs or his ends,¹²⁴ and read as *phwy*.

¹¹⁶ WB 1982: vol.1, 13, 26.

¹¹⁷ SETHE 1908: 134A; ALLEN 2013: 134A.

¹¹⁸ ALLEN 2006: 49.

¹¹⁹ SETHE 1908: 134B; ALLEN 2013: 134B.

¹²⁰ SETHE 1908: 134C; 873B; HAYS 2012: 570; ALLEN 2013: 134C; 873B.

¹²¹ SETHE 1908: 148A; ALLEN 2013: 148A.

¹²² SETHE 1908: 135B; ALLEN 2013: 135B.

(G) All the other variants of this passage, in PT 213¹²⁵ and in CT VIII,¹²⁶ show the name of *Inpw*, instead of *tm* as shown here.



(H) This passage is written substantially, its variants in PT 213¹²⁷ are written with more details as *phr n.k i3wt Hr phr n.k i3wt Sth*.



(14) *h3 Dhwtynht* (15) *s3 kw š 3 ii wpwt R^c ir.k ii wpwt* (16) *it.k ir.k i.si m-ht r^c w^cb.k ir.k ksw.k m*
 (17) *bikwt ntrwt imit pt wn.k r-gs ntr 3*

« (14) O Wsir Djehotynakht, (15) beware^(A) of the Lake, beware of the Lake, beware of the Lake! ^(B) The messengers of Re have come to you, the messengers of (16) your father have come to you. ^(C) Go after the sun! ^(D) You are to purify yourself. Your bones are as (17) those of female hawks, the goddesses who are in heaven, so that you may be by the side of the great god. ^(E)»

C. Commentary

(A) The verb *s3* was written with a very rare sign:  instead of .

(B) This passage came in all variants in PT 214¹²⁸ as *s3 kw š dd-mdw sp 4*, repeated 4 times, although here it is only repeated 3 times. This same meaning appeared in other spells⁽¹²⁹⁾ in PT(130) but in different grammatical form as *s3 tw š wr*, in which *s3* seems to be an imperative that is followed by an object *tw*.

(C) This passage is shown here in a different order than PT 214¹³¹ as *ii wpwt k3.k ir.k ii wpwt it.k ir.k ii wpwt r3 ir.k*.

(D) The noun *ra* is shown here without a suffix-pronoun unlike the other variants in PT 214¹³² and CT VIII¹³³ in which it is shown as *r^c.k/ r^c.t/ r^c.f*.

(E) *ntr* in this passage is followed by 3, as in other variants in CT VIII (B4B0; B6C; B1P; M2C);¹³⁴ however, the variants in PT 214¹³⁵ does not show this epithet¹³⁶.

¹²³ ALLEN 2006: 54-55.

¹²⁴ WB 1982: vol.1, 535, 14; FAULKNER 1972: 92.

¹²⁵ SETHE 1908: 135C; ALLEN 2013:135C.

¹²⁶ ALLEN 2006: 56-66.

¹²⁷ SETHE 1908: 135C; ALLEN 2013: 135C.

¹²⁸ SETHE 1908: 136A; ALLEN 2013: 136A.

¹²⁹ HAYS 2012: 498.

¹³⁰ SETHE 1908: 872D, 885, 1752C; ALLEN 2013: 872D, 885, 1752C.

¹³¹ SETHE 1908: 136B; ALLEN 2013: 136B.

¹³² SETHE 1908: 137A; ALLEN 2013: 137A.

¹³³ ALLEN 2006: 62-63.


¹³⁴ ALLEN 2006: 64-65.

¹³⁵ SETHE 1908: 137C; ALLEN 2013: 137C.

4. Western Side (H) [FIGURE 16]

This side is divided into two parts: a vertical text in the upper part, and beneath that are two figures of deities both facing right; in front of each of them is the name of the deity. On the right, Qebhsenuf is represented by a standing figure with a falcon head without his name showing. Ideally, Qebhsenuf is depicted as being protected by the goddess Serket.¹³⁷ However, he is protected here by a female goddess standing behind



him; facing her is the name «Renenutet» which is written as:  ¹³⁸. Framing these two parts from above and on both sides is a colored band in the order: green, red, blue, and yellow starting from the bottom of the left band and ending at the end of the right band [FIGURE 17].

This side consists of 15 vertical lines [FIGURE 18], each starting with the *dd-mdw* formula. The first 8 lines are quoted from the CT 523 (B19C),¹³⁹ with only a few changes, although in the rest of this side text, the 7 lines are quoted from the PT 217¹⁴⁰ as:



(1) *Wsir ink Kbh-snw.f dd.n n.i it.i Hr* (2) *my skbb.n.k it(.i) Djwty-nht tn* (3) *ms kw hr.k m rn.k n Kbh-snw.f iw.n.k* (4) *skbb.k n.f m-ht.f n.k sw ts.n. {n.} k* (5) *sw r ksw.f Wsir Djwty-nht tn im.k* (6) *bi3w ir.f h3 kbh.snw.f my ms kw* (7) *hr.f kbh.n.k sw twt it m rn.k* (8) *n Kbh-snw.f iw.k m-s3 Djwty-nht tn*

« (1) O Wsir, I am Qebhsenuf, my father Horus said to me: (2) Come! You refreshed this (my) father^(A) Djehotynakht, (3) betake^(B) yourself to him^(C) in your name of Qebhsenuf.»

You have come, (4) so you may cool for him after you, he is yours, put him together knit^(D) him up as (5) regarding his bones. O this Wsir Djehotynakht (6) do not be far from

¹³⁶ HAYS 2012: 546.

¹³⁷ CAMACHO 2014: 65, 4.



¹³⁸ TANJA suggested that 31/01/2019; LÜSCHER mentioned many other examples in which Renenutet was represented protecting Qebhsenuf. LÜSCHER 1990: 18; LEITZ 2002d: 686-689.

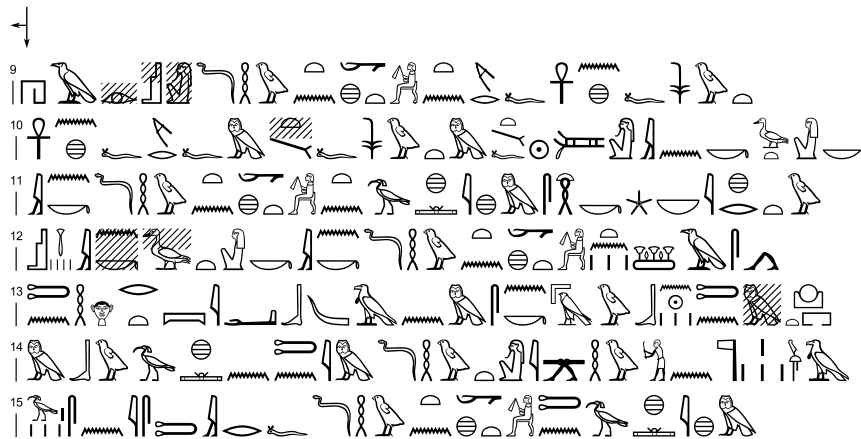
¹³⁹ DE BUCK 1956: 114D-116C.

¹⁴⁰ SETHE 1908: 155D-157B; ALLEN 2013: 155D-157B.

him. O Qebehsenuf, come! Betake yourself (7) beneath him and refresh him, you are the father in your name (8) of Qebehsenuf, you are in the protection of this Djehotynakht.»

A. Commentary

- (A) Like the other variants, this passage does not show a suffix-pronoun, although I preferred adding the first-person suffix-pronoun between two brackets to match the other texts related to the sons of Horus.
- (B) In this passage, the imperative that was used in all the variants is , although, in only one variant (B18C), it is shown as . Both verbs are followed by the absolute pronoun *kw* of Old Egyptian¹⁴¹.
- (C) Faulkner¹⁴² noted that *hr.k* shown in all the variants cannot be true, and it should be read as *hr(.f)*; however, it could be considered a reflexive pronoun, and in this case a different meaning is intended.
- (D) In this passage, the verbal formula seems a little different than the other variants with the appearance of two n signs, in which one of them could be superfluous.



(9) *h3 Wsir Dḥwty-nḥt tn mrw.f ḥnh.f swt* (10) *ḥnh.f mrw.f mwt.f swt mwt.f R^c-tm ii n.k s3t.k* (11) *ii n.k Dḥwty-nḥt tn 3ḥ i.ḥm-sk nb hr(T)wt* (12) *ist-w3d 4 ii n.k s3t.k ii n.k Dḥwty-nḥt tn 3s* (13) *.tn hrt iʿb.twn n.(T) m snkw wbn.tn m 3ḥt* (14) *m bw 3ḥ.n.tn im Dḥwty i.si ḥww n nṯrw imntyw* (15) *3ḥyw.sn ist ii r.f Dḥwty-nḥt tn 3ḥ i.ḥm(-sk)*

« (9) O this Djehotynakht, whom he wills that he live, he lives. (10) Whom he will that he die, he dies. O Re-Atum, your daughter (11) comes to you,^(A) this Djehotynakht comes to you, an Imperishable Spirit, Lord of the affairs of (12) the place of the four papyrus pillars.^(B) Your daughter comes to you, this Djehotynakht comes to you, that you may stride (13) over the sky, united¹⁴³ in darkness,¹⁴⁴ shining in the horizon (14) in the place where it is Akh for you.¹⁴⁵ Thoth, hurry! Announce to the gods of the west and (15) their spirits: He comes indeed, this Djehotynakht, an Imperishable Spirit.»







¹⁴¹ WB 1982: vol. 5, 116.
¹⁴² FAULKNER 1977: 151.
¹⁴³ WB 1982: vol.1, 40.
¹⁴⁴ WB 1982: vol.3, 461.
¹⁴⁵ HAYS 2012: 542.

B. Commentary

- (A) This passage is shown as *R^c-tm ii n.k s3t.k ii n.k Dḥwty-nḥt tn*, however, the variants in PT 217¹⁴⁶ and most of the variants in CT VIII only show *ii n.k N*.
- (B) The word *nb ḥr(T)wt* is related to the dead¹⁴⁷; thus, the whole title could be translated as «Lord of the affairs of the place of the four papyrus pillars». ¹⁴⁸ The same pattern is shown in the same spell in other passages¹⁴⁹. Vernus¹⁵⁰ also cited other examples of the four papyrus pillars¹⁵¹.

V. GENERAL COMMENTS ON THE WRITING(Conclusion)

The text was written in cursive hieroglyphic, and it is clear that the scribe made a few corrections during the preparation of the chest; these could be noted through the brownish color of the texts in specific spots, such as:

- 1) In the interior text (E.2), the last part is read as *it.i*. Reisner, however, copied it as , which differs completely from the other variants in the same spell in CT 520 and the corrected text on the chest.
- 2) The interior text (F) has 4 different corrected parts: (F.1) the upper part of the sign  was corrected, (F.2) the whole word *it.i* was corrected, (F.4) the determinative after the adjective *wr*, and (F.13) the first part in the line that is read as *m rn.k n* is all rewritten.
- 3) In the interior text (G.16), the sign  was written as .
- 4) In the interior text (H.10), the part  was written as .

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I am grateful to Mrs. Sabah Abdel Razek, Ms. Marwa Abdel Razek, & Mr. Ahmed Amin for permission to publish this chest of canopic jars and for providing both the photographs and the technical data (courtesy of the Egyptian museum, Cairo); also, I would like to thank Tanja Pommerening, and Barbara Lüscher for their help.

¹⁴⁶ SETHE 1908: 156A; ALLEN 2013: 156A.

¹⁴⁷ WB 1982: vol.3, 324, 4.

¹⁴⁸ HAYS 2012: 553.

¹⁴⁹ SETHE 1908: 152A, 154A, 156A, 158A; ALLEN 2013: 152A, 154A, 156A, 158A; HAYS 2012: 553.

¹⁵⁰ VERNUS 2004: 281-282.

¹⁵¹ Urk 1929: vol.4, 842[1], 843[1].

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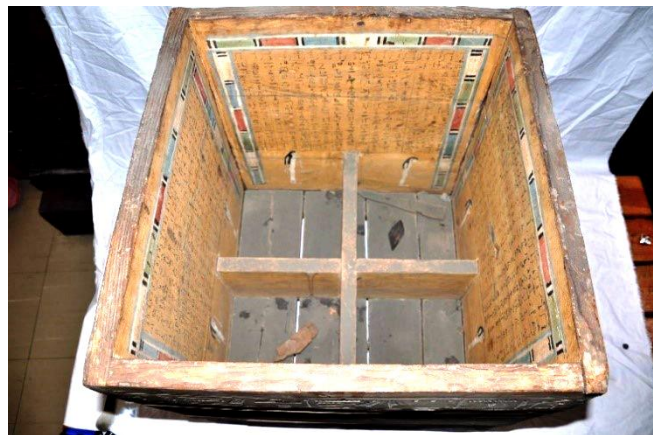
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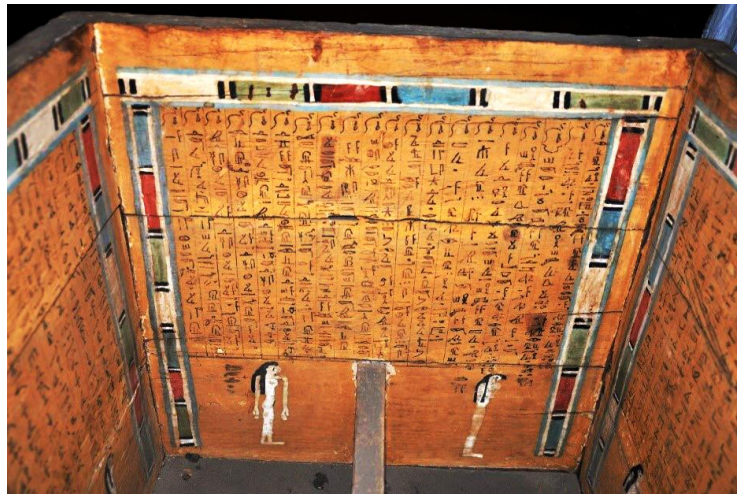
[FIGURE 4]: The Eastern side of the Exterior of the chest CCG 4740
Courtesy of the Egyptian Museum. © Ahmed Amin.



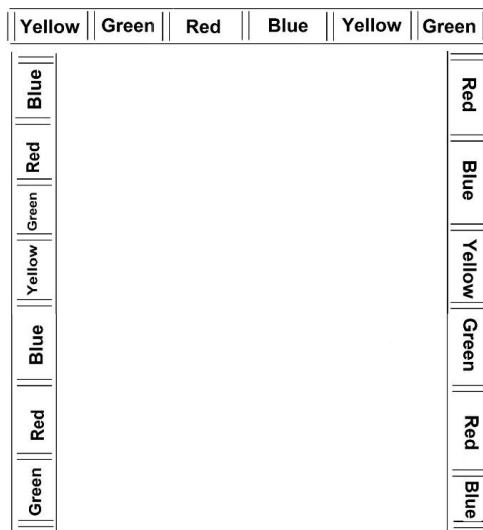
[FIGURE 5]: The Western side of the Exterior of the chest CCG 4740.
Courtesy of the Egyptian Museum. © Ahmed Amin.



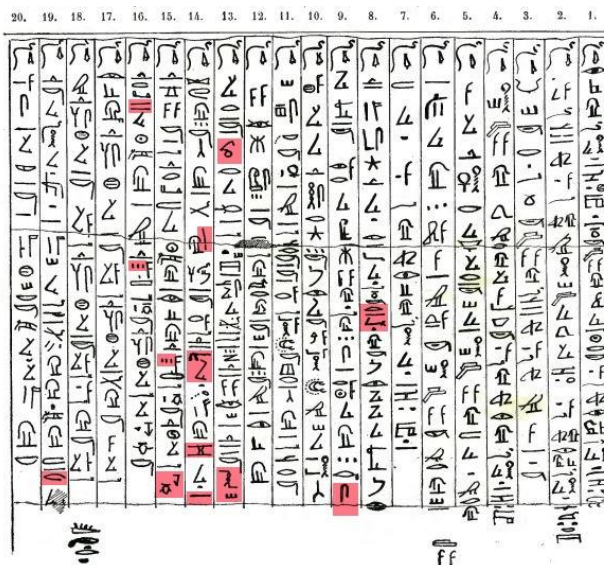
[FIGURE 6]: The interior of CCG 4740.
Courtesy of the Egyptian Museum. © Ahmed Amin.



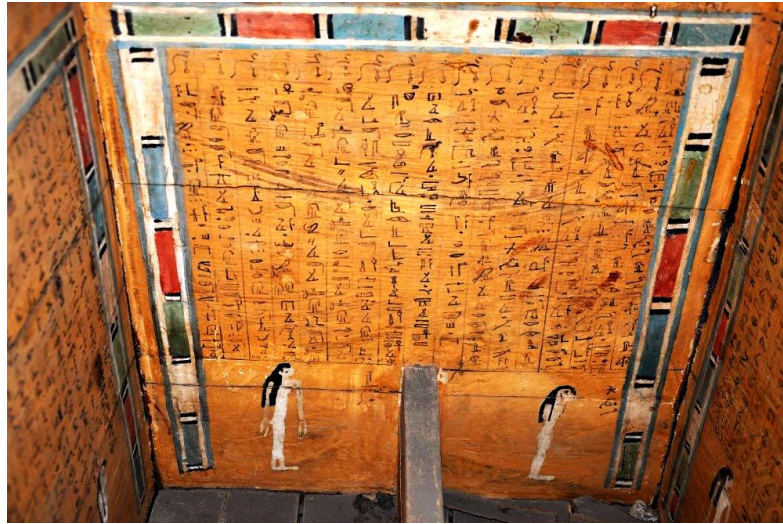
[FIGURE 10]: The northern side of the interior of CCG 4740. Courtesy of the Egyptian Museum. © Ahmed Amin



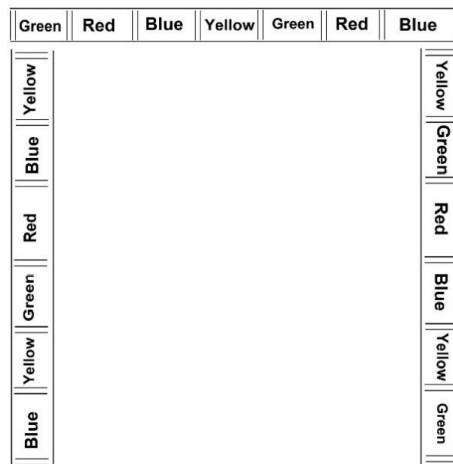
[FIGURE 11]: The northern side of the interior of CCG 4740. Schematic by the researcher



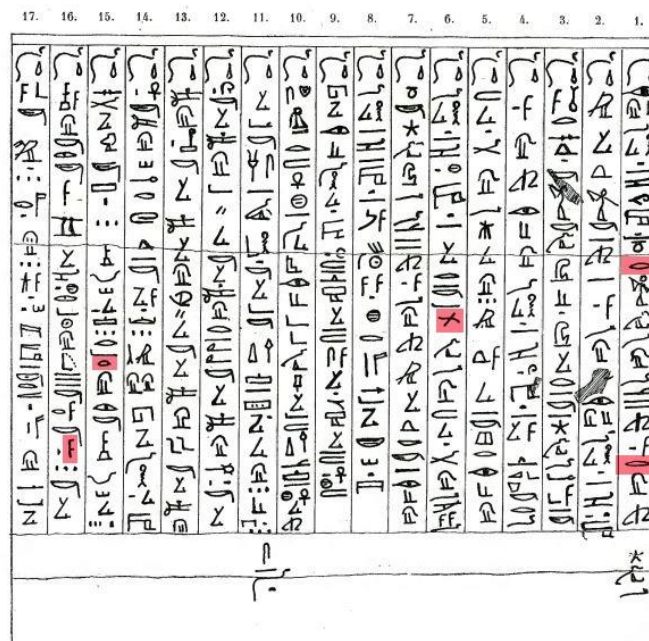
[FIGURE 12]: The northern side of the interior of CCG 4740. Line drawing by REISNER 1967: 379. The colored parts clarify the miscopied parts.



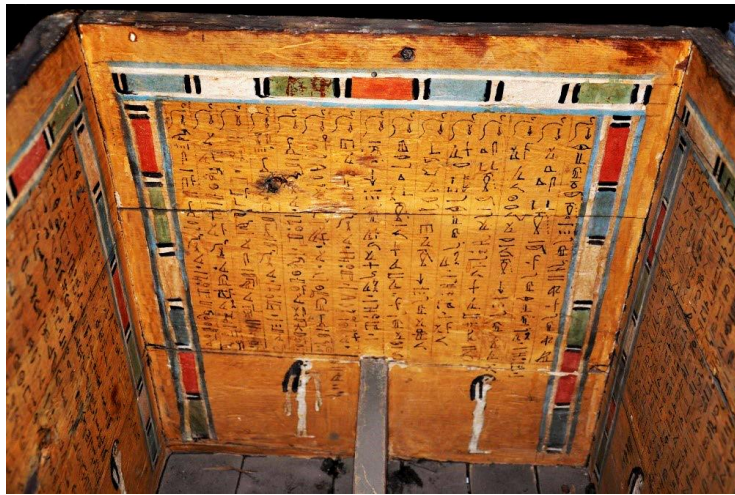
[FIGURE 13]: The eastern side of the interior of CCG 4740.
 Courtesy of the Egyptian Museum. © Ahmed Amin



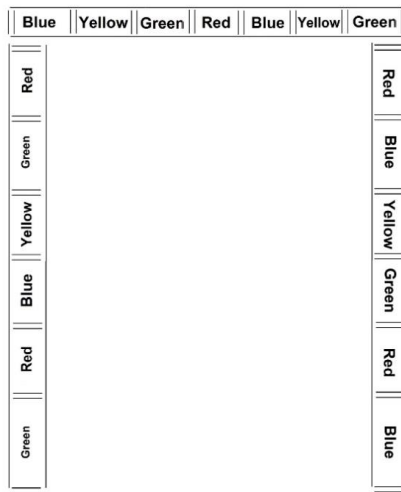
[FIGURE 14]: The eastern side of the interior of CCG 4740. Schematic by the researcher



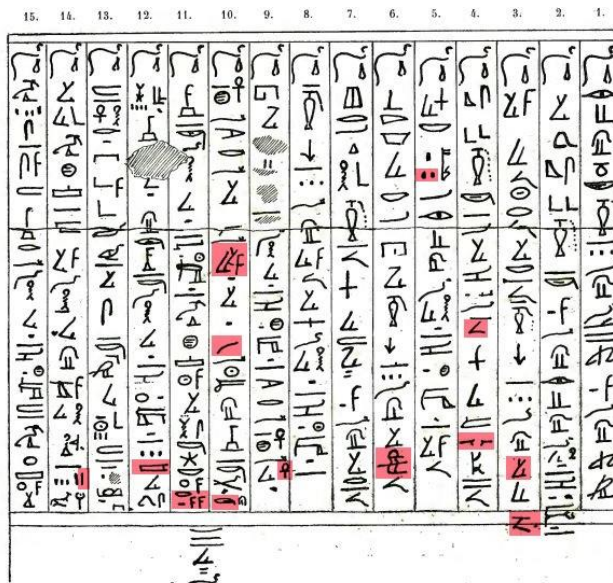
[FIGURE 15]: The eastern side of the interior of CCG 4740. Line drawing by REISNER 1967: 380.
 The colored parts clarify the miscopied parts.



[FIGURE 16]: The western side of the interior of CCG 4740. Courtesy of the Egyptian Museum. © Ahmed Amin



[FIGURE 17]: The western side of the interior of CCG 4740. Schematic by the researcher



[FIGURE 18]: The western side of the interior of CCG 4740 (Line drawing by © Reisner¹⁵².The colored parts clarify the miscopied parts.

¹⁵² REISNER 1967: 381.



II. COPTIC & ISLAMIC STUDIES

2022

THE FUNCTION AND IDENTITY OF THE STEWARD «Oikonomoc» A LINGUISTIC ANALYTICAL STUDY OF COPTIC DOCUMENTS

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THE FUNCTION AND IDENTITY OF THE STEWARD «ΟΙΚΟΝΟΜΟΣ»
A LINGUISTIC ANALYTICAL STUDY OF COPTIC DOCUMENTS

BY

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ABSTRACT

[AR] وظيفة وهوية الوكيل «الإيكونوموس»: دراسة تحليلية لغوية للوثائق القبطية
تعتبر دراسة الوثائق القبطية من أهم المصادر التي يمكن الإعتماد عليها في التعرف على ملامح الحياة اليومية للأقباط. وقد ذخرت الوثائق القبطية بكثير من النصوص التي توثق وتوضح ماهية «الإيكونوموس»، لذا يقدم هذا البحث دراسة شاملة لهذا المصطلح الذي يعنى الوكيل، والذي يمكن وصفه بدقة على أنه لقب وظيفي لأحد رجال الدين الذي يقوم بمجموعة من الأعمال الديرية والكنسية الهامة. وقد أوضح البحث أن مسؤوليات الوكيل كثيرة ومتنوعة وتمثل في كونه مسؤول مالى وإدارى كبير يقوم بكافة المعاملات المالية والادارية المتعلقة بموارد وممتلكات الدير، كما كان له دور دينى كبير، فضلاً عن مسؤوليته كأمين الخزانة، ذلك بالإضافة إلى عقد دراسة مقارنة بين مفهوم ووظيفة هذا اللقب منذ بداية ظهوره في الوثائق القبطية وتطوره مع مرور الزمن. وأخيراً يهدف البحث إلى رسم تصور لأحد جوانب الحياة الرهبانية والتعرف على الأنشطة الكنسية التي كانت تمارس ومن ثم إلقاء الضوء على كيفية إدارة وتنظيم الأقباط للأديرة والكنائس في الفترة ما بين القرن الخامس حتى القرن الحادي عشر الميلادي.

[EN] The study of Coptic documents is considered as one of the most important sources that can be relied upon to give a glimpse into the Copts' daily life. The Coptic documents are replete with many texts that document and clarify the identity of the «ΟΙΚΟΝΟΜΟΣ», so this research presents a comprehensive study of this term which means steward. This can be accurately described as the job title for a clergyman who performs a number of important monastic and ecclesiastical tasks. The research explained that the responsibilities of the steward were many and varied, namely a high financial and administrative officer who performed all financial and administrative transactions related to the resources and properties of the monastery and he also had a great religious role, as well as his responsibility as treasurer. This is in addition to conducting a comparative study between the concept and function of this title since the beginning of its appearance in Coptic documents and its development over time. Finally, the research aims to draw a perception of one of the aspects of monastic life, identify the ecclesiastical activities that were practiced and then shed light on how the Copts managed and organized monasteries and churches in the 5th century AD until the 11th century AD.

KEYWORDS: steward, church, monastery, responsibilities, administration role, financial role, religious role, treasurer.

I. INTRODUCTION

At the outset, it should be noted that all the documents in this research have been previously published and the majority of them are from Thebes. Some studies dealt with this title from a historical point of view, contrary to what is dealt with in this research, where it relies mainly on Coptic documents in its methodology. These studies are:

The article written by Benaissa Amin on abishop, a village, and the nomination of a church *Steward*¹ is a Greek document dating back to the 5th century AD. Sheds light on the relationship between bishop and villages and the nomination of a church Steward.

The study by Ewa Wipszycka on *Les ressources et les activités économiques des églises en Égypte du IV^e au VIII^e siècle*² is church's economical affairs, which mentioned part of the steward's role in the management but without dealing with the Coptic documents.

The study by Georg Schmelz, *Kirchliche Amtsträger im spätantiken Ägypten nach den Aussagen der griechischen und koptischen Papyri und Ostraka*³ contains a chapter on bishops, priests and deacons in economic life. It must be noted that this study is based mainly on Greek documents.

The research methodology follows the linguistic and civilization analysis of all Coptic documents related to the steward, in addition to study this function historically in order that it can be more readily known by specialists. The research is divided into five parts.

The first part defines the term ΟΙΚΟΝΟΜΟΣ. The second one explains how the steward in the monasteries is appointed and specifies the nature and levels of this job. The third part is devoted to the various responsibilities of the steward, while the fourth one shows the evolution of the concept and function of ΟΙΚΟΝΟΜΟΣ. The fifth part attempts to determine the most famous Copts who held this position. Finally, the research will present the most important results.

II. THE TERM ΟΙΚΟΝΟΜΟΣ

ΟΙΚΟΝΟΜΟΣ is a title among various titles employed in Greek and Coptic sources. It is generally translated in specialized dictionaries as «steward»⁴, and is of Greek origin «οἰκονόμος»⁵. In fact, the title ΟΙΚΟΝΟΜΟΣ cannot be considered among the honorary routine monastic titles but is perceived as a function, which is represented by a very important and precise ecclesiastical and monastic functionary. This function was known from the Greek era⁶ which represented a subordinate state official in charge of the serapeum, also of a high financial officer⁷. As for the presence of the steward in monasteries and churches is declared obligatory by Canon 26 of the council of Chalcedon of 451 AD, which decided that any church that has a bishop would also have a steward from the clergy of that church⁸, he will have to administer the goods of the

¹ BENAÏSSA 2009: 175–180.

² WIPSYZKA 1972: 135–141.

³ SCHMELZ 2002: 163–164.

⁴ SOPHOCLES 1900: 796; *FD* 2002: 563.

⁵ LIDDELL & SCOTT 1986: 2683.

⁶ Oxyrhynchus is one of the richest archaeological sites for Greek papyri and a very large number of texts relating to church officials. SCHMELZ 2002: 7.

⁷ LIDDELL & SCOTT 1986: 2683.

⁸ The steward was responsible to the bishop, and all of his belongings served as a guarantee for any losses.

church under the direction of his bishop⁹. And we find an accurate depiction of the relationship between the steward and the bishop in the canons of Athanasius¹⁰ mentioned that the steward should do nought without the bishop and also likewise the bishop shall do nought without the steward «ΕΤΒΕ ΠΟΙΚΟΝΟΜΟΣ ΔΕ ΘΩΩΥ ΠΝΕΥΓΛΑΔΥ ΝΘΩΒ ΔJM ΠΕΠΙΣΚΟΠΟΣ ΟΥΔΕ ΠΝΕΠΕ ΠΙΣΚΟΠΟΣΓΛΑΔΥ ΝΘΩΒ ΔJM ΠΟΙΚΟΝΟΜΟΣ»¹¹. So that the administration of the church is not without witnesses and that the ecclesiastical goods are not dissipated, but in Egyptian churches the oldest mentions¹² of οἰκονομῶς is well attested already in date back to the 4th century AD¹³, despite this. By studying the Coptic documents, it becomes clear that this title did not appear in any document dated before the 5th century AD, while it is mentioned in lots of documents that are confirmed dating from the beginning of the 5th century AD until the 11th century AD¹⁴. It was noticed that the great bulk of these documents fall in the period including 7th & 8th centuries. It refers that this function became great and fundamental importance in the Egyptian churches and monasteries during this period. It should be noted that the title or function of οἰκονομῶς was restricted to men only, as no document was found indicating that a woman had this title or performed any of its functions, as for linguistic aspect, the Copts wrote this title¹⁵ usually after the names in many forms in their documents, as follows: ΕΓΕΝΟΜΟΣ, ΕΓΕΝΩΜΟΣ, ΕΓΗΝΟΜΟΣ, ΕΓΩΝΟΜΟΣ¹⁶, ΕΙΚΟΝΟΜΟΣ¹⁷, ΕΙΚΩΝΟΜΟΣ¹⁸, ΕΚΕΝΟΜΟΣ¹⁹, ΕΚΟΝΙΟΜΟΣ²⁰, ΕΚΟΝΟΜΟΣ²¹, ΕΚΟΝΟΝΟΜΟΣ²², ΕΚΩΝΟΜΟΣ²³, ΕΚΩΝΩΜΟΣ²⁴, ΕΚΩΝΩΜΩΟΣ²⁵, ΗΚΟΝΟΜΟΣ²⁶,

⁹ WIPSZYCKA 1972: 135.

¹⁰ WIPSZYCKA 2018: 10.

¹¹ CRUM 1904: 97.

¹² One of these mentions is transmitted to us concerns a steward of the Episcopal church of Saint Pachomius.

¹³ WIPSZYCKA 1972: 135.

¹⁴ This means that it was known in the Islamic period, and undoubtedly, this title was reserved for Copts only. It is not found in Arabic names.

¹⁵ There are many linguistic derivation of this title for example:

-οἰκονομία, noun means administration « ΤΕΦΟΙΚΟΝΟΜΙΑ ΓΑΡ ΟΥΔΑΤΣΜΟΤ ΤΕ », see: <http://data.copticscriptorium.org/texts/proclushomilies/proclus-homily-23-on-the-nativity-in-budge-ed/analytic> Accessed on 5/06/2022.

-οἰκονομει, verb means control « ΕΚΟΙΚΟΝΟΜΕΙ ΠΝΕΚΩΔΞΕ », see:

<http://data.copticscriptorium.org/texts/pachomiusinstructions/instructions-of-apa-pachomius-in-mercator-in-budge-ed-part-2/analytic> Accessed on 5/06/2022.

¹⁶ KRU 1912: N^o. 18,92.

¹⁷ LANTSCHOOT: 1959, N^o. lix, lxxiv.

¹⁸ WS 1922: N^o. 97,192.

¹⁹ KRU 1912: N^o.107.

²⁰ LANTSCHOOT 1959, N^o. lxxvi, this written form is not mentioned in specialized dictionaries.

²¹ CPR 1958: vol.4, N^o.153.

²² KRAUSE 1958: N^o.4.

²³ KOW 1960: N^o.294.

²⁴ BROWNE 1984: N^o.204.

²⁵ QUIBELL 1912: N^o.261.

²⁶ WS 1922: N^o.181.

THE FUNCTION AND IDENTITY OF THE STEWARD «ΟΙΚΟΝΟΜΟΣ»
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ΙΚΟΝΟΜΟΣ²⁷, ΙΟΚΟΝΟΜΟΣ²⁸, ΚΟΝΟΜΟΣ²⁹, ΟΙΚΟΝΟΜΟΥ³⁰, ΟΙΚΟΝΟΜΟΥΣ³¹, ΟΙΚΟΝΟΜΟΣ³², ΟΙΚΟΝΟΜΟΣ³³, ΟΙΚΟΝ^ΟΜΟΣ³⁴, ΟΙΚ³⁵, ΟΙΚΟ³⁶, ΟΙΚΟΜΟΣ, ΟΙΚΟΥΝΟΜΟΣ³⁷, ΟΙΚΩΝΟΜΟΥ³⁸ ΟΙΧΟΝΟΜΟΣ³⁹, ΩΙΚ⁴⁰, ΩΚΟΝΟΜΟΣ⁴¹, ΩΚΩΝΟΜΟΣ⁴². With it was mentioned that the Coptic equivalent of this term is ρμνη⁴³, but in fact the Copts used only the word ΟΙΚΟΝΟΜΟΣ to express the function «steward» in their documents.

III. HOW TO NOMINATE AND CHOOSE THE STEWARD

The Greek document published by Benaissa Amin is the first document that shed light on the selection of the steward of a church⁴⁴. However, no Coptic document states how the steward was nominated in the monasteries and churches. It often happens that higher positions are entrusted to clerics⁴⁵. This is confirmed by the titles attached to the stewards in the Coptic documents, as in the following [TABLE 1].

Title	Meaning	Publication
απα	Father	Ws 1922: N°.97
αρχιπρεσβυτερος	Chief of priests	KRU 1912: N°.102
Διακονς	Deacon	CPR 1958: vol.4, N°.147
Επισκοπος	Bishop	KRU 1912: N°.96,100
μονοχς	Monk	CO 1902: N°.158
ελαχιστος	Smallest	BALL 1954: N°.177
Ευδαβεστατος	Godly- Righteous	KRU 1912: N°.107
Πενηωτ	Our father	KRU 1912: N°.96
Πρεσβυτερος	Priest	EP 1926: vol.2,N°.162
Προεστος	Chief- Director	QUIBELL 1912: N°.232
Соп	Brother	VC 1939: N°.87
Συγουμενος	Hegumenos (head of a church)	KRU 1912: Nos.94,98,101

[TABLE 1]: Done by the researcher

²⁷ KRU 1912: N°.100; LANTSCHOOT: 1959, N°. xxiii, xlv, xlvii & xlviii.

²⁸ HENRI 1922: 196, this written form is not mentioned in specialized dictionaries.

²⁹ BALL 1954: N°. 177.

³⁰ LANTSCHOOT 1959: N°. cxi, this written form is not mentioned in specialized dictionaries.

³¹ Ws 1922: N°. 178.

³² KRU 1912: N°.85.

³³ CPR 1958: vol. 4, N°.32, 54; MACCOWL 1994: N°.2.

³⁴ BUDGE 1915: 191, Fol.9b2.

³⁵ O.BRIT.COPT 1905: N°.LXXII.

³⁶ EP 1926: vol.2, N°. 166.

³⁷ KRU 1912: N°.109, 85.

³⁸ LANTSCHOOT: 1973, N°.cvii, this written form is not mentioned in specialized dictionaries.

³⁹ Ws 1922: N°.104.

⁴⁰ RÉMONDON 1965: N°.18.

⁴¹ O. BRIT.COPT 1905: N°.XXXI.

⁴² CPR 1958: vol.4, N°.147.

⁴³ FD2002: 563.

⁴⁴ BENAISSA 2009: 175–180.

⁴⁵ HOWARD 2005: 71.

In addition to some information in this regard can be found through what came in the Coptic sources and references, it was mentioned in the Canons of the Athanasius in its Coptic version that the steward must be a chosen man and a God-fearing «εγεσοτρη δε εφροτε ρητφ»⁴⁶, and be chosen from among the clerics of the church. In addition to that, he was received his appointment from the bishop at Easter⁴⁷. The bishop was responsible for supervising the steward and could remove him from his post if any defect was proven to him⁴⁸ «ποι]κονομον ετνα [κω ρμπ] σαββατον μητκ [γριακη επ]εφτοπος εβολη πατ [βμπ] εφωινε φοναποκ [ληροσπ]ετναρψα επεφτοπος φον απο]κληρος»⁴⁹.

As for the number of people appointed to occupy this position, whether in the monastery or the church, it was not unified, many documents show that one steward was appointed for the monastery, who could exercise his functions for several years⁵⁰. However, many documents⁵¹ indicate that some monasteries and churches had more than a steward at the same time «ειςρδαι ηητη ητωτη απα κυριακος μη μαθαιος πεσον ηνσοφροφς ποικονομος ηπτοπος ετοφδαβ»⁵². It is noted that it is limited to the huge monasteries and churches only. It is stated in the documents of the monastery of Apa Apollo «+ανοκ παφλος πρεσβυτερος πεκονομος ηπεντωτ απα παμοφνη τιστηχε ++κολλοφθος πρεσβυτερος ποικονομος ηπεννοβ ηιωτ τιομμετρε++ανοκ κωσμα πρεσβυτερος πεκονομος ητηνοβ ηεκκλησια τιομμετρε+»⁵³. On the other hand, sometimes, one steward was appointed to more than one monastery or church at the same time⁵⁴, which indicates the existence of administrative and financial links between several monasteries and churches.⁵⁵ Finally, evidenced from the study of some documents that there is a hierarchy for the steward's function (chief steward, general steward, assistant steward and lesser steward) «πενσον παπα αν... ηνοβ ποικονομος αφω ηιωτ ηπμα ηοφωμ», «πιδλαχ ηηνα πεβωψ ηκοφη ποικονομος»⁵⁶. In this context, the rank of the lesser stewards was mentioned in the Canons of Athanasius as responsible to the church for the preserving of precious objects «ηεκκλησια... ριχωφ παϊ οηπε ηπομος ηηκοφη ποικονομος»⁵⁷, and Coptic documents prove that in the event that there was more than one steward for the same monastery, each of them was responsible for a part of it, as stated in document of DairBawit 6204 «πασον πετρος

⁴⁶ CRUM 1904: 97.

⁴⁷ WIPSYCKA 1972: 137, 148.

⁴⁸The authority to expel a priest, deacon or another officer from the clergy generally rested with the bishop, the head of the diocese and superior of the clergy, but the archipresbyters, as superiors of the priests of a church, could also impose this penalty. SCHMELZ 2002: 141-162.

⁴⁹CO 1902: N°.76; REVILLOUT 1900: 143, N°.8.

⁵⁰ WIPSYCKA 1972: 138.

⁵¹ KRU 1912: N°.103, 109; CO 1902: N°.44; QUIBELL 1909: N°.73; MACCOWL 1994: N°. 2- 4.

⁵² KRU 1912: N°.103.

⁵³ MACCOWL 1994: N°.3.

⁵⁴ It is probable that the rich churches, possessing property to administer, had their steward, and that the less fortunate churches either did without a steward or used a common administrator with other churches. This appears in a receipt issued by a steward as an administrator of small churches. WIPSYCKA 1972: 137.

⁵⁵RYL 1909: N°.142.

⁵⁶ QUIBELL 1902: N°.328, 313.

⁵⁷ CRUM 1904: 100.

περσον ποικονομος ππενεϊωτ απα παμοϋν»⁵⁸. Delter explains that these are stewards of lower status «that the stewards of our father Apa Pamoun» are the stewards of a part of the monastery dedicated to Pamoun⁵⁹, «κολλουθος πειεαλχιςτος ηπρεσβυτερος ποικονομος ππενηοσ ηϊωτ»⁶⁰ «our father's steward» is probably the general steward, attached to the monastic superior⁶¹, «ανοκ κωσμα πρεσβυτερος πεκονομος ητηνοσ ηεκκλησια»⁶² «the steward of the great church» is in charge of the main church of the monastery⁶³.

Before passing this point, it should be noted that the steward may have become abbot of the monastery subsequently, as evidenced by some Coptic documents showing the steward holding the title of abbot of the monastery «ζιτοοτϋ παεοφιλ, ηπρεσβυτερος κυριακος πμοηχος αϋω πρηγοϋμ, μπτοπος ετοϋϋαβ ηπρδατος απα φοιβαμωη»⁶⁴, «ζιτοοτκ πεϋλαβεστατος κυριακος πρεσβυτορος αϋω ποικονομος μπτοπος ετοϋϋαβ»⁶⁵.

IV. THE RESPONSIBILITIES AND ROLES OF ΟΙΚΟΝΟΥΟΣ IN MONASTERIES AND CHURCHES

The Coptic documents highlighted the multiplicity and diversity of the functions and tasks performed by the steward and his effective role in the Coptic community. Accordingly, it can be divided into several roles.

A. The Administration Role of οικονομος

In general, the resources mention that the steward participates in the management of the economic affairs of a monastery, but by studying the Coptic documents, we can say that the steward is a senior administrative officer responsible for all administrative matters in the monastery as the organizer and manager of the monastery's resources and property, as follows:

1. He was responsible for authorizing the Coptic farmers to cultivate or sow part of lands owned by the monastery, and he received the production from them «+ανοκ απα ιωαννης π... αϋω ποικονομος ηπτοπος μιχαηλ ηππολις ρμοντ ...ε πεϋλαβ, ημωη⁶⁶ χε ηεπιτρεπε ηακ ετρεχο τεντε ηετρωζε μπτοπος τοϋϋ...»⁶⁶.
2. He supervised the church's priests and punished the guilty as well as followed up on the performance of the church-related work and he was responsible for following up on the duties of the priesthood⁶⁷ «+ηηπϋωρπ ερ...τ ηφωβ ... Βικτωρ ζιτ ... πελοσ μιχαηλ ...πωηοσ ζαμα ηε... χοϋ ηπρεσβυτερος ετϋαϋτε ητεκκλησια ηφαγεοσ Βικτωρ ηστοιχει»⁶⁸.

⁵⁸ MACCOWL 1994: N^o.4, L.15.

⁵⁹ ALAIN 2004: 68; Brussels Coptic Database (BCD)

⁶⁰ MACCOWL 1994: N^o.4, L.73.

⁶¹ ALAIN 2004: 68.

⁶² MACCOWL 1994: N^o.4, L.75.

⁶³ ALAIN 2004: 68.

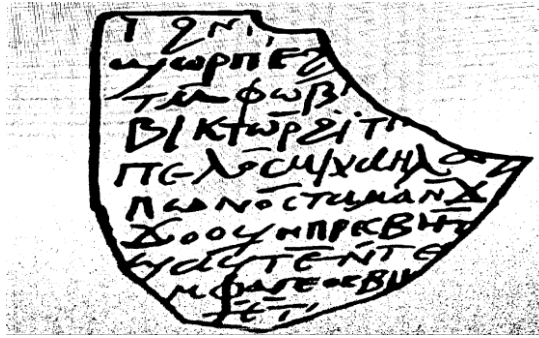
⁶⁴ KRU 1912: N^o.98.

⁶⁵ KRU 1912: N^o.101.

⁶⁶ CRUM 1934: 78.

⁶⁷ CO 1902: N^o.87; O.BRIT.COPT 1905: N^o. XLVII.

⁶⁸ O.BRIT.COPT 1905: N^o. XLVII.



[FIGURE 1]: Part of this *ostraca* mentions the administration role of the steward.

O. Brit.Copt 1905: Pl. 61.

3. Many Coptic documents⁶⁹ reveal that the steward represents the administrator who takes care of managing the monastic goods, as follows:
 - He was responsible for orders payments and the delivery of wine⁷⁰ and other foodstuffs «+ΤΙ ΥΟΜΤΕ ΝΖΟΥΤΣ ΝΕΤΗ ΝΤΕ ΠΜΑ ΜΠΟΥΛΙ ΔΥΩ ΕΜ ΠΕΚΒΙΝΕ ΝΤΕ ΠΜΑ ΜΠΟΥΛΙ ΤΑΔΑ ΝΑΥ ΝΤΕ ΤΑΚΟΥΤΗΣ ΤΑΔΣ ΝΑΠΑ ΖΩΡ ΖΙΤΗΠΑΠΝΟΥΤΕ ΠΕΚΟΝΟΜ»,⁷¹.
 - There are many orders issued by the steward to various subordinates to sending of foodstuffs⁷² «ΕΡ ΤΑΓΑΠΗ ΝΓ† ΒΤΟ ΝΒΟΟΥΝΕ ΝΜΧΩΛ ΝΠΑΠΑ ΪΩΖΑΝΗΣ ΦΕΒΕΤΩΡΕ ΠΕ ΠΑΪ ΚΑΤΑ ΘΕ ΝΤΑΚ ΧΟΟΣ ΧΕΜΑΙΒΩΚ ΕΒΟΛ ΝΑΤΟΥΠΡΗΥ Δ ΧΟΟΣ ΕΡΟΚ ΧΕΨΑΡΕ ΝΕΣΝΗΥ ΖΟΒΕΚ ΝΟΥΤΑΔΥ ΝΑΒ ΤΑΔΣ ΝΠΑΣΟΝ ΠΒΩΛ ΖΙΤΗ ΕΠΩΧ ΠΟΪΚΟΝΟΜΟΣ»,⁷³.
 - Some Coptic documents indicate that receiving the needs of monasteries and churches was the responsibility of the steward «ΑΙΤΗΝΟΥΣΟΥ ΝΑΚ ΖΙΤΟΥ ΝΙΩΖΣΑΝΗΣ ΜΑΝ ΝΒΑΜΟΥΛ ΤΑΣ ΝΑΠΑ ΝΑΖΡΟΥ ΠΕΙΚΟΝΟΜΟΣ ΖΙΤΗΝΙΩΖΑΝΗ»,⁷⁴.
4. The steward was in charge of the postal administration of the monastery, which came in the Coptic documents⁷⁵ represented in receiving letters which were related to ecclesiastical issues, in addition to editing it for various subordinates, whether in the same monastery or outside it «+ΧΙ ΝΕΒΕΛΧΕ ΝΕΜΑΝΒΑΜΟΥΛ ΜΚΥΡΙΣ ΣΑΡΑΠΙΩΝ ΔΥΩ ΕΙΜΕ ΧΕΨΟΥ ΝΑΚ ΤΑΔΣ ΝΠΑΣΟΝ ΠΑΠΝΟΥΤΕ ΠΟΙΚΟΝΟΜΟΣ ΖΙΤΗΝΕΩΧ ΠΕΦΕΙΩΤ+»,⁷⁶.

⁶⁹ ALAIN 2004: N^os.13, 19, 22; Ws 1922: N^os.88-89, 98, 110, 177- 178, 181, 188; BM 1905: N^o. 212.

⁷⁰ During each mass, it was obviously necessary to use a certain quantity of bread and wine for «Eu charist». WALAA 2021.

⁷¹ Ws 1922: N^o.177.

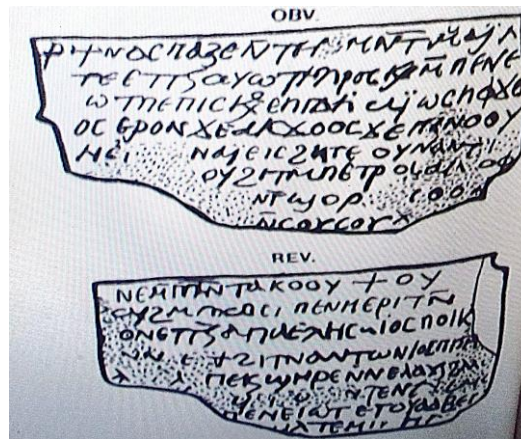
⁷² For more information on monastic food systems, see: HIND 2020.

⁷³ Ws 1922: N^o.88.

⁷⁴ Ws 1922: N^o.192.

⁷⁵ KOW 1960: N^o.361; O.BRIT.COPT 1905: N^o. LXXII; Ws 1922: N^o.95; EP 1926: vol.2, N^o. 166.

⁷⁶ Ws 1922: N^o.95.



[FIGURE 2]: Part of ostraca mentions that the steward was in charge of the postal administration of the monastery. *O.BRIT.COPT* 1905: Pl. 72.

5. He was supervising the camel herds and following up on their drivers duties «+σαμουνηλ
 atsau ετσαϊ μπεφσον πετρος πεκονομος μπτοπος χεετβε πρωβ Πευανδαμουλ,
 μπτοπος.....».⁷⁷
6. One of the Coptic documents sheds light on the fact that the steward is supplying of passing
 sailors's needs «ταδς η απα ενωχ ποιχονομος ριτηπασον ενωχ εις γεωργε
 πνεεβ μπλιβερνος αχει ηακ ερραϊ αρι ταγαπη βωκ επμα ηησαν υβηηε»⁷⁸.
7. The Coptic documents of donations reveal that the steward was the administrative official
 who received all kinds of donations presented to the monastery, which consisted of:
 - The children's donations: the documents prove that the steward played a major role in
 this regard, as he was responsible for receiving these children⁷⁹ and had to take care of
 them, supervise their upbringing, and provide everything they needed in their daily
 lives until they reached the age in which they could serve the monastery⁸⁰. He also had
 to rehabilitate and train them in the work⁸¹ they would do in the monastery⁸² «χε ηται
 δωριζε υπαμεριτ ηυηρε ερονη ετοπος ηαπαφοιβαμμων ταργρ ρεραλ εροφ
 ρεμντβαγον ημ ετετη ηακελεγε μμοφ ηαφ επεροφ ηη τενη ητοκ
 πευλαβεστατος κυριακος κημεριαρχης αυω ποικονομος επτοπος ετοφραβ
 ηαπαφοιβαμμων»⁸³.
 - The properties donations: the steward was the administrative and legal official in the
 monasteries and churches to receive property donations from the lands, homes and
 other properties of the Copts⁸⁴ «+ανοκ μηη πυνηωαηηης ρηερμοντ ετσαϊ

⁷⁷ VC 1939: N°.87.

⁷⁸ Ws 1922: N°.104.

⁷⁹ KRU 1912: N°.78, 80, 89, 91, 92, 96, 100.

⁸⁰ KRU 1912: N°.87.

⁸¹ Such as sweeping, spraying water, caring for the baptismal basins and working in fields.

⁸² KRU 1912: N°.80, 85, 87, 95.

⁸³ KRU 1912: N°.95.

⁸⁴ CPR 1958: vol.4 N°.32; KRALL 1895: N°. LXXV, LXXVI; LANTSCHOOT 1973: N°.XXIII.

μΠΤΟΠΟC ΕΤΟΥΑΔΒ ΠΡΑΓΙΟC ΦΟΙΒΑΜΩΝ ΜΠΤΟΥ ΝΧΗΜΕ ΖΙΤΟΟΤΤΗΥΤΗ CΟΥΡΟΥC ΜΝΜΑΘΘΑΙΟC ΝΦΟΙΚΟΝΟΜΟC ΧΕΤΙΕΠΙΤΡΕΠΕ ΝΗΤΗ ΕΠΕΙΩΡΕ»⁸⁵.

- The self – donation: one document indicates that the steward was responsible for receiving the person who donated himself to the monastery «ΑΙΧΙΜΟΟΥ ΖΜΠΛΟΥΤΗΡ ΕΤΟΥΑΔΒ ΕΤΖΙΘΗ ΜΠΕΘΥCΙΑCΤΗΡΙΟΝ ΖΗΝΒΙΧ ΕΤΟΥΑΔΒ ΜΠΕΚΕΝΟΜΟC ΕΤΜΜΑΥ ΔΥΕΙΜΕ ΔΥΝΟΥΧC ΕΧΩΙ».⁸⁶

8. He is mentioned in one of the Coptic lists as one of the employees in a pagarchy as the organizational structure, he was among the statesmen who were given gifts «ΤΕΓΗΩCΙC ΝΠΕΡΩΜΕ ΝΤΑΥΝ ΤΑΙΟ ΕΝΑ ΤΠΑΓΑΡΧΙΑ ΖΑ ΙΟΥCΤΑ ΠΑΤΨΙΝΙΔΑ..... ΖΑΠΕΚΟΝΟΜΟC ΝΑΠΑ ΙΟΥCΤΑ ΨΜΟΥΝ ΝΚΟΜΜΑ ΝΨΕ ΟΥΧΕΝΟΦ ΝΒΑΔΒΕ ΜΗΤ ΝΠΗΡΕ ΩΒΤ CΝΑΥ ΟΥCΟΡΤ ΒΤΟΟΥ ΝΠΑΠΟΙ»⁸⁷.

B. The Financial Role of οικονομος⁸⁸

The Coptic documents give numerous examples of the steward bearing all the financial burdens of the monastery and the church, as it is considered a high financial official with all financial transactions, as follows:

1. Before the state, the steward is responsible for paying the taxes which encumber the ecclesiastical goods; in this capacity, he sometimes appears in tax documents⁸⁹. Also «Steinwenter» mentioned that the οικονομος was probably responsible for the delivery of taxes to the village authorities⁹⁰, and documents from Deir El- Balai'zah confirm that he was responsible for the monastic tax account «... ΠΧΟ ΕΒΟΛ ΕΤΔΙΟΙΓΕΙCΙC ΝΠΜΟΝΑCΤΗΡ,^ο ΧΙΝΕΝΤΑΦCΗΓΧΩΡΕΙ ΝΟΙΚ,^ο ΝΑΠΑ ... »⁹¹, Gascou also proved that the tax collecting in a particular area was sometimes part of the episcopal church steward's tasks⁹².
2. The steward was entrusted with the receiving the rent of the monasteries and writing receipts of it⁹³ «ΑΝΟΚ ΙΟΥCΤΑ ΠΕΙΕΔΑΧΙCΤΟC ΝΔΙΑΚ, ΔΥΩ ΠΕΚΟΝΟΜΟC ΝΠΕΡΖΒΗΥΕ ΝΠΕΙΤΟΠΟC ΕΤΟΥΑΔΒ ΕΙCΖΑΪ ΝΖΕΡΟΥΟΧ ΧΕ ΔΙΧΙ ΔΥΩ ΔΙΠΔΗΡΩ ΝΠΟΟΤΚ ΝΠΕΜΦΗΤΕΥΜΑ ΝΠΗΙ ΕΠΤΟΠΟC ΕΤΕ ΠΑΙ ΠΕ ΟΥΚΑC ΕΖΟΜΕΤ»⁹⁴.
3. He was responsible for paying the wages of the workmen he contracted to work in the monastery or church⁹⁵ «ΠΕΝΕΙΩΤ ΠΕΤCΖΑΪ ΜΠCΨΗΡΕ ΔΠΑ ΠΕΤΡΟC ΠΟΙΚΟΝΟΜΟC ΧΕ ΤΙ ΟΥΔΟΥΒΙΤΟΥ ΜΝ ΟΥΚΟΥΪ ΝΖΟΪΤΕ ΝΑΜΜΩΝΕ ΕCΚΗ ΕΠΑΝΚΑΔΟΥ ΝCΩΚ ΑΠΑΡΧΗ»⁹⁶.

⁸⁵ KRU 1912: N°.109.

⁸⁶ KRU 1912: N°.104.

⁸⁷ HASITZKA 1987: N°.30.

⁸⁸ Since the 4th century there have been stewards who regulated the financial affairs of the diocese under the supervision of the bishop. SCHMELZ 2002: 162.

⁸⁹ P.LOND 1910: vol. 4, N°.1419.

⁹⁰ STEINWENTER 1920: 34.

⁹¹ BALL 1954: N°.301.

⁹² WIPSYZKA 1991: vol.4, 1825.

⁹³ KRU 1912: N°.147; CO 1902: N°.200, 405; KRALL 1895: N°. LXXV; CPR 1958: vol.4, N°.147, 153.

⁹⁴ KRALL 1895: N°.LXXV.

⁹⁵ CO 1902: N°.88, 89; CLACKSON 2008: N°.24.

⁹⁶ CLACKSON 2008: N°.24.

4. The steward appeared in some Coptic documents⁹⁷ as one of the members of governing board of the monastery «diakonia»⁹⁸ and even suppose that the diakonia was headed by the steward who had the right to sell the monastery's property⁹⁹ and pledge to the buyer a guarantee of the sale, beside to impose a fine for those who violated him «εντι εβολ ηηκ ητοκ απα βικτωρ πωηρε ηπμακαριος αθανασιος ρηχημε ρανομος ηππολις ηημερος ηταγεοργιος πωηρε ηιογανηε τωηρε ιυρηλιας ηαπα βικτωρ τεσμαυτε ευλωζια τααυ αρονη επραγιος ... ανοκ ιωραηηης πεγενωμος ηπραγιος απα φεβαμων ηπραγιος απα φεβαμων †κελεγε τμητρελααυ ηρωμε ρητεκσηεα ητοκ απα βικτωρ»¹⁰⁰.
5. Coptic documents¹⁰¹ showed the steward sometimes as a lender to Coptic citizens, as a community economic activity practiced by the monastery «+ανοκ ιωσηφ πωε ημηηα ηρωμ ηραβε ειςραη ηαπα λαηηηλ ποικονομος ηπτοπος παχηαρ πελος ηωμογη ηε τυχρεωστε ηακ η^ο κερ, βλ ηι, κ, λυο τεταρ,»¹⁰².
6. The steward was the one who made accounts for the expenses of churches and monasteries and collected them as annual report and signed it¹⁰³ «+θεδωρακ λκρωσ δ, ιω... πακ^τ, επαυλεωσ διαφ^ε τλαγι ε... φαμ^θ ι^δ ζ^ω φαμ^θ ινδ^ο, ηθυμι κερατ + ευστεφιος ελ^x, οικ^ο, στοι +»¹⁰⁴.

C. The Religious Role of the Οικονομος

1. Coptic documents¹⁰⁵ prove that the steward had a prominent religious status among the Copts, so they resorted to him in the monastery to take the oath before him and the Coptic pleaded for him as one of the holy religious figures to ask for intercession and healing, «ησι ηαωηρε ηητηνμααυ αυταρκοϊ ηπαηαυ ρητημπεοφιλεστ, ηπρεσβυτ, αυω ποικονομος εαιωκ ηπραγιος ιωραηηης»¹⁰⁶, «ηιωτ πωηρε πεηηα ετογααβ ... ηηλαυειλ ποικονομος απα σαμματε απα απολλω ,μγ»¹⁰⁷, in addition to mentioning him in the Coptic sermons¹⁰⁸ «μφωρ ονη ω ηαμηνρα† ηπηνθρηνηωπι ηραηοικονομος επρωου ηεηηη εταυτηη»¹⁰⁹.

⁹⁷ MACCOWL 1994: Nos.1, 2, 3; KRU 1912: Nos.18, 50.

⁹⁸ It is a charitable institution and the decision-making center of the monastery. WIPSZYCKA 1991: 896.

⁹⁹ It is noted by studying the documents that the lands owned by churches and monasteries were not sold, but were only rented. As for the houses belonging to the monasteries, they were sold, but in some documents, it is mentioned that in the event of the buyer's death, the ownership of the house returns to the monastery again. MACCOWL 1994: Nos.3- 4.

¹⁰⁰ KRU 1912: N^o.18.

¹⁰¹ CO 1902: N^o.158; KRALL 1895: N^o.LII; CPR 1958: vol.4, N^o.54.

¹⁰² KRALL 1895: N^o.LII; CPR 1958: vol.4, N^o.54.

¹⁰³ Indeed, the steward receives all revenues in kind and cash and disposes of them with the bishop. WIPSZYCKA 1972: 128.

¹⁰⁴ RYL 1909: N^o.142.

¹⁰⁵ BM 1905: 217; QUIBELL 1912: Nos 207, 232, 295; EP 1926: vol.2, Nos. 144,162.

¹⁰⁶ EP 1926: vol.2, 162.

¹⁰⁷ QUIBELL 1912: N^o.295.

¹⁰⁸ The Coptic sermons are considered one of the branches of literary documents that aren't without mentioning the steward. HENRI 1922: 196.

¹⁰⁸ RYL 1909: N^o. 437.

¹⁰⁹ RYL 1909: N^o. 437.

2. He is one of the clerics required to make charitable distributions either in money or in foodstuffs¹¹⁰, and he had a role in dispensing ecclesiastical benevolence. He also was a father to the orphans and widows «ΠΤΟΧ ΛΕ ΠΟΙΚΟΝΟΜΟΣ ΕΡΕΠΟΔΟΓΟΣ ΠΖΩΒ ΝΙΜ ΨΩΠΕ ΠΤΟΟΤΓ ΠΕΦΟΡΟΣ ΜΠΝΕ ΒΡΩΩΒ ΠΤΕΚΚΔΗΝΙΑ ΠΟΡΦΑΝΟΣ ΜΠΝΕΧΗΡΑ ΕΦΟΝΑΥ ΠΕΙΩΤ ΕΡΧΙΨΟΧΝΕ ΜΠΠΕΠΙΣΚΟΠΟΣ ΕΤΒΕ ΖΩΒ ΝΙΜ ΕΓΓΑΝΑΥ ΜΠΝΟΥΤΕ»¹¹¹, in addition to his role in the organization of assistance for the sick¹¹².
3. The steward appeared in many stories of Coptic miracles as a religious man who resorted to him in religious shrines and sanctuaries to obtain healing¹¹³.
4. The steward was one of the clergies responsible for baptism in the monastery and was most often named on the stand of water jars¹¹⁴. No doubt that also he was responsible for their supply¹¹⁵ «ΑΠΩΔΩ ΠΕΚΟΝΟΜΟΣ ΑΒΡΑΖΑΜ ΠΕΡΣΟΝ ΖΑΜΗΝ»¹¹⁶.



[FIGURE 3]: Stand for water jars bearing the name of the steward Apollo
QUIBELL 1912: PL. XLIII, 1.

5. He had a key role in providing the monastery library's needs of religious books¹¹⁷, as it was necessary to have a library inside each monastery to supply the monks with the texts necessary for prayer and performing rituals¹¹⁸ «ΑΚΟΥΩ ΜΠΧΩΜΕ ΤΠΠΟΥ ΕΖΟΥΝ ΠΑΪ ΠΤΟΤΓ ΠΑΒΡΑΖΑΜ ΠΔΙΑΚ, ... ΖΙΤΠ ΘΕΟΔΩΣΙΟΣ ΠΕΚΩΝΟΜΟΣ ΜΦΑΓΙΟΣ ΜΗΝΑΣ»¹¹⁹.

¹¹⁰ It is mentioned that the stewards prove that the charitable activity of an Episcopal church was directed directly by its stewards.

¹¹¹ CRUM 1904: 97, 98.

¹¹² WIPSYCKA 1972: 110,139.

¹¹³ DRESCHER 1946: 118-119, 123-125; WIPSYCKA 1972:140-141.

¹¹⁴ QUIBELL 1912: N^{os} 261-262, 294.

¹¹⁵ Stand water was used to afford refreshment to worshippers after service in the church.

¹¹⁶ QUIBELL 1912: N^o. 261.

¹¹⁶ QUIBELL 1912: N^o. 261.

¹¹⁷ Monastic libraries had started since the beginning of the emergence of collective monasticism organized by St. Pachomius, who urged the monks to read daily and made reading an essential thing in their lives; HERMAN 2010: 328. <https://www.jstor.org/stable/25750346> Accessed on 5/05/2022.

¹¹⁸ STAIKOS 2007: 246.

¹¹⁹ ST 1921: N^o. 217; KOW 1960: N^o.294.

6. The title ΟΙΚΟΝΟΜΟΣ was carried by the Archangel Michael¹²⁰, who mentioned that he is the trustworthy steward Michael, who manages well «ΑΓΓΕΛΟ ΤΗΡΟΥ ΜΙΧΑ/Ι ΠΕ ΠΝΟΒ ΠΑΡΧΩΝ ΠΝΑΤΠΕ ΜΠ ΠΑΚΑΡ ΜΙΧΑ/Ι ΠΕ ΠΟΙΚΟΝΟΜΟΣ ΕΤΗΡΟΤ ΕΦΟΙΚΟΝΟΜΕΙ ΚΑΔΩΣ»¹²¹, «ΑΝΟΚ ΠΕ ΜΙΧΑΗΛ ΠΟΙΚΟΝΟΜΟΣ ΠΤΜΠΤΕΡΟ ΠΜΠΗΥΕ ΑΝΟΚ ΜΙΧΑΗΛ ΠΑΡΧΑΓΓΕΛΟΣ »¹²². This title was also mentioned in the four gospels¹²³, f, where the god described him as the honest and wise¹²⁴.



[FIGURE 4]: The Archangel Michael

«Miscellaneous Coptic texts in the dialect of Upper Egypt»

https://openlibrary.org/books/OL7154052M/Miscellaneous_Coptic_texts_in_the_dialect_of_Upper_Egypt
Accessed on 28/04/2022.

D: The ΟΙΚΟΝΟΜΟΣ as a Treasurer¹²⁵

One of the most important responsibilities of the steward is to manage the treasury of the monastery or the church, so that all valuables are under his hand. In this regard, Coptic documents indicated the following:

1. The lesser stewards were responsible to the church for the conserving precious objects, especially the liturgical or sacred vessels¹²⁶, which were often of precious metal and of great value. They had to be kept in the treasury, under the control of the steward¹²⁷.
2. The steward was also responsible for keeping the documents in the library of the monastery, as he was undoubtedly the one in charge of organizing the archives «ΑΙΣΜΗ ΠΕΙΔΩΡΕΑΣΤΙΚΟΝ ΑΙΤΑΔΑϞ ΜΠΕΠΕΙΩΤ ΠΕΠΙΣΚΟΠΟΣ ΜΠΟΙΚΟΝΟΜΟΣ ΤΑΡΕΚΑΔΑϞ

¹²⁰ Archangel Michael appeared bearing the title οίκονομος in many literary documents as in the church book of Basilus and in Encomium of Theodosius Archbishop of Alexandria of the Archangel Michael.

¹²¹ KÖNIGLICHE MUSEEN ZU BERLIN 1904: N°. 190².

¹²² BUDGE 1915: 397, Fol.38b.

¹²³ LK.12:41-44.

¹²⁴ https://coptic-treasures.com/bible-book/new-testament/gospels/49-luke_ Accessed on 7/05/2022.

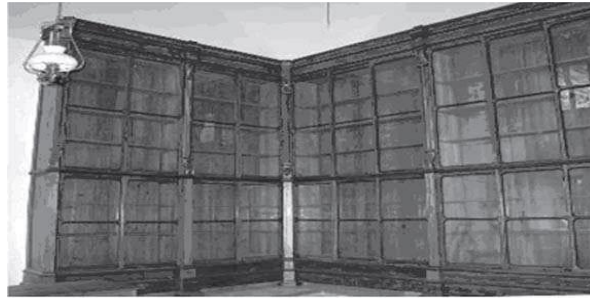
¹²⁵ The Greek documents stated that the treasury would be handed over to the responsible cleric who was appointed as a manager; in P.Grenf. II 111.3 is expressly designated as πρεσβυτερος και οικονομος (priests and steward). SCHMELZ 2002: 93.

¹²⁶ Impossibility of finding the vases of the church because of the death of the steward), appears in a story told by the Synarair. BASSET 1924: 614 - 615.

¹²⁶ WIPSYCKA 1972: 101,140.

¹²⁷ WIPSYCKA 1972: 101,140.

ϪΝΤΒΙΒΔΙΩΘΗΚΗ ΜΠΜΟΝΑΣΤΗΡΙΟΝ ΕΤΟΥΑΔΒ>>¹²⁸, «ζουρ παπα συμμεων ευωοβε επετρο πτετααϪ ππσαρ αβραραμ εποικονομος παπα ιωρανησ>>¹²⁹.



[FIGURE 5]: Cupboards for keeping books in monasteries.

3. One of his most important duties as a treasurer was to keep the keys of the monastery and the church in his secretariat, and when he was separated, the keys were taken from his hands «ΤΕΤΗΜΗΤΜΑΙΝΟΥΤΕ ΠΕΙΩΤ... ΕΤΟΥΑΔΒ ϪΖΑΙ ΠΣΑϪ ΕΤΒΕ ΠΟΙΚΟΝΟΜΟΣ ΠΠϪΚΤΗΡΙΟΝ ΠΠΡΑΓΙΟΣ ΙΩΡΑΝΗΣ ΠΦΕΛΔΟ ΤΑΡΟΥΝΤϪ ΕΒΟΛ ΠΤΟΥΒΙ ΠϪΟΥΤ ΠΤΟΟΤϪ»¹³⁰.
4. He was considered a trustworthy and trusty person so he appeared in many documents as a witness¹³¹ «+ ΑΝΟΚ ΑΠΑ ΙΣΑΔΚ ΠΪΚΟΝΟΜΟΣ ΠΠ ΑΠΑ ϪΟΡΩΠ ΠΤΠΕΡϪΙϪ ΠΒΑΒΥΔΩΝ †ο μμντρε+»¹³², «ΑΠΠΑΡΑΚΑΔΕΙ ΠΡΗΚΑΙ ΜΑΡΤΥΡΟΣ ΠΑΪΩΜΑΤΙΚΟΣ ΔΥΕΡΜΗΤΡΕ+ΑΝΟΚ ΚΩΣΜΑ ΠΡΕΣΒΥΤΕΡΟΣ ΠΕΚΟΝΟΜΟΣ ΠΤΝΟΒ ΠΕΚΚΔΗΣΙΑ ΤΙΟΜΗΤΡΕ++ΚΟΔΛΟΥΘΟΣ ΠΡΕΣΒΥΤΕΡΟΣ ΠΕΚΟΝΟΜΟΣ ΜΠΝΟΒ ΠΙΩΤ ΤΙΟΜΜΕΤΡΕ+»¹³³.

V. EVOLUTION OF THE CONCEPT AND FUNCTION OF ΟΙΚΟΝΟΜΟΣ

By the 4th century AD¹³⁴, the function of the steward is well attested in monasteries and churches¹³⁵. It can be said that this function has become a religious nature¹³⁶, as it was a rule performed by a presbyter or deacon¹³⁷. The steward was one of the medical personnel in early monastic communities¹³⁸, where he was one of those responsible for medical organizations such as providing medical tools and food for sick monastics¹³⁹.

The 5th century AD¹⁴⁰, The steward was mentioned in many documents that show the continuation of the religious nature of this function, we find the tasks of the steward in the 5th

¹²⁸ KRU 1912: N^o.96.

¹²⁹ EP 1926: vol.2, N^o. 397.

¹³⁰ REVILLOUT 1900: 143, N^o 8.

¹³¹ MACCOWL 1994: N^{os}. 3- 4; BM 1905: N^o.51; BALL 1954: N^o.116; KRU 1912: N^o.75.

¹³² REVILLOUT 1876: N^o.3, <https://www.trismegistos.org/text/85277>

Accessed on 4/05/2022

¹³³ MACCOWL 1994: N^o.4.

¹³⁴ To talk about the steward in this period, we rely on what historians mentioned in the literary sources, as the research didn't find Coptic documents for this title dated at this period.

¹³⁴ WIPSYKA 1991: vol.4, 1825.

¹³⁵ WIPSYCKA 1991: vol.4,1825.

¹³⁶ During the Greek era, this function had only an administrative nature.

¹³⁷ WIPSCZYCKA 1991: vol.4,1825.

¹³⁸ Since the early 4th century AD, the monastic leaders were responsible for keeping monastics as healthy as possible. REHAB 2019.

¹³⁹ CRISLIP 2005: 17, <https://www.jstor.org/stable/40005981>

Accessed on 29/04/2022.

¹⁴⁰ The council of Chalcedon of 451 AD sanctioned an already existing practice of the steward.

century revolving around religious works, as he was responsible for baptism in the monastery and providing the needs of worshipers after service in the church¹⁴¹. It was also mentioned in literary documents that he had a role in dispensing ecclesiastical benevolence; he also was a father to the orphans and widows¹⁴².

The 6th century AD¹⁴³, this period testifies to the beginning of the steward's involvement in the economic and organizational work of the monasteries, where he was responsible for providing the needs of the monastery and issuing many orders related to foodstuffs¹⁴⁴. He was also entrusted with the charge of bursar in a church of Djeme, in the middle of the 6th century¹⁴⁵.

From the 7th to 9th century AD, the documents of this period show the multiplicity of the tasks of the steward and the increase in its authority. The steward became the administrative and legal representative and was responsible for all financial transactions of the monastery or the church¹⁴⁶, who hand to him over all the community work and demanding contacts with the world, and he was considered one of the employees in a pagarchy as the organizational structure¹⁴⁷. He also reached a great religious status¹⁴⁸, even the title *oikonomoc* was mentioned in one of the literary documents as a title for the archangel Gabriel in the church book of Basilius¹⁴⁹. Finally, it can be said that the function of the steward has reached the height of its prosperity and strength in this period, and this is confirmed by an ensemble of documents pertaining to this period which reflects a shift in the meaning of the term *οικονομος*, which had come to be used interchangeably with title *πρεσβυτερος*¹⁵⁰ in order to describe the abbot¹⁵¹.

The 10th centuries AD¹⁵², Wipszycka mentioned that the new meaning of the term *οικονομος* survived later on during the 10th century¹⁵³.

11th centuries AD¹⁵⁴, the Coptic documents dating from this period are generally few, and we find the emergence of the term *οικονομος* in this century represented as a title for names of some people on stelae only¹⁵⁵.

This century can be considered the end of the appearance of the term *οικονομος*, but its function didn't disappear, as the term *οικονομος*, was replaced by the term «'AL-qwms» in the Arabic documents, who performed the same tasks¹⁵⁶.

¹⁴¹ QUIBELL 1912: N^{os}. 261-262,294.

¹⁴² CRUM 1904: 97, 98.

¹⁴³ The source of all documents of this period came from wadi sarga.

¹⁴⁴ WS 1922: N^{os}.88- 89, 98, 110, 177, 178, 181, 188.

¹⁴⁵ WIPSYZKA 1972: 140.

¹⁴⁶ There are many documents that explain this: CO 1902: N^{os}.87-89,158,200,212; BALL 1954: N^{os}.177, 301; CPR 1985: vol.4, N^{os}.33,147,153; KRU 1912: N^{os}. 78,80,89,91; KRALL 1895: N^{os} LXXV, LXXVI, MACCOWL 1994: 145,149.

¹⁴⁷ HASITZKA 1987: N^o.30.

¹⁴⁸ EP 1926: vol.2, N^{os}.144, 162; BM 1905: 217.

¹⁴⁹ KÖNIGLICHE MUSEEN ZU BERLIN 1904: N^o. 190².

¹⁵⁰ The steward held this title in many Coptic documents.

¹⁵¹ KRU 1912: N^{os}. 98,101; BUDGE 1915: 244, Fol.16b.

¹⁵² It should be noted that the research didn't find any Coptic documents for the steward's function dated to this period.

¹⁵³ WIPSYZKA 1991: vol.4, 1826.

¹⁵⁴ The use of Arabic as an official language prevailed.

¹⁵⁵ O.BRIT.COPT 1905: vol.7.

¹⁵⁶ 'Al- Farīd 1993: 247.

VI. THE MOST FAMOUS STEWARDS IN THE COPTIC DOCUMENTS

The following table sums up some information that can be drawn from the Coptic documents about the most famous stewards who were employed in the monasteries and churches:

Name	Date	Provenance	Publication
απωλω	5 th century	Monastery of Apa Jeremias	QUIBELL 1912: Nos. 203, 207, 232, 261-262, 295, 313.
Γεωργε			
Δαυειδ			
Κολλουθεο			
Κυρος			
μηνα			
Ενωχ	6 th -7 th century	Monastery of Wadi Serga	Ws 1922: Nos. 86-87,89-,91,93,95- 96, 97,98, 104, 110, 150, 177, 178, 181, 188, 192, 376- 378.
Ιουστο			
Ναζρο			
Παπνουτε			
Στεφανος			
Ιωαννης	7 th century	Topos of Michael in Armant	CRUM 1934: 78.
πθεοφιλετο	7 th century	Monastery of Phoibammon	CO 1902: N°.158.
Ιωζααννης	7 th -8 th century	Monastery of Phoibammon	KRU 1912: Nos.18, 80, 89, 91- 92, 98, 100-102,107,109.
Κυριακος			
Coυρος			
Θεοδωσιος	7 th -8 th century	Monastery of Mena	KOW 1960: N°.294.
μαρο	7 th -8 th century	Topos of Markos	CPR 1958: vol.4, N°.32.
Πετρος	7 th -8 th century	Topos in Thebes.	VC: 1939 N°.87.
Αβρααμ	8 th century	Monastery of	EP 1926: vol.2, Nos. 144, 397.

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ΑΚΤΟΥΑΡΙΟΣ		Epiphanius	
ΒΙΣΤΩΡ	8 th century	Monastery of Phoibammon	<i>Co</i> 1902: N ^o .223.
ΔΑΝΗΖ	8 th century	Topos of Psohêar in Schmûn.	<i>CPR</i> 1958: vol.2, N ^o .54; <i>KRALL</i> 1895: N ^o .LII.
ΕΙΣΑΚ	8 th century	Monastery of Dair al- Bala'izah	<i>BALL</i> : N ^{os} .167, 177.
ΕΖΗΣΑΪΟΣ	8 th century	Topos in Antonuos.	<i>O. BRIT. COPT</i> 1905: LXXII.
ΙΟΥΣΤΑ	8 th century	Topos in Thebes.	<i>CPR</i> 1958: vol.4, N ^o .153.
ΙΣΑΑΚ	8 th century	Monastery of jeremias in Memphis	<i>REVILLOUT</i> 1876: N ^o 3.
ΚΟΖΖΟΥΘΟΣ	8 th century	Topos in Thebes.	<i>Co</i> 1902: N ^o .405.
ΜΙΧΑΗΛ	8 th century	Church of St. Victor	<i>O. BRIT. COPT</i> 1905: XLVII.
ΠΑΡΟΜΟ	8 th century	Unknown	<i>CPR</i> 1958: vol.4, N ^o .147.
ΣΑΛΩΜ	8 th century	Church or monaste of Apa Faustus	<i>Co</i> 1902: N ^o .51.
ΚΩΣΜΑ	9 th century	Monastery	MACCOWL 1994: 145, 149, 153.
ΠΑΥΛΟΣ		of Apa Apollo	

[TABLE 2]: Done by the researcher.

VII. CONCLUSION

The Copts used the term *ΟΙΚΟΝΟΜΟΣ* to express a job title for an ecclesiastical or monastic functionary. It cannot be considered a religious or honorary title, but whoever holds this title is considered a representative of the church or monastery, and it is worth noting that this job was limited to men only.

The linguistic use of the title *Oikonomoc* in Coptic documents can be dated from the beginning of the 5th century AD to the 11th century AD, and it is noted that it was more common in the period between the 7th -9th centuries AD, which indicates that the function of *Oikonomoc* became of great and fundamental importance in the Egyptian churches in this period.

The steward was chosen from among the clergy by the bishop, and in most monasteries and churches this position was held by one person each. But, it was noticed that in the rich monasteries and churches, sometimes two or three persons were appointed to take over, and each of them was assigned to manage a separate part from the other. In addition, some documents indicate that one steward was appointed to more than a church at the same time which indicates the existence of financial and administrative links between the churches.

The study shows that there was a gradation in the function of the steward, which mentioned the chief steward, general steward, assistant and lesser steward.

The research reached to determine the responsibilities and functions that were carried out by the Stewards, which reveal many aspects of the organization of the monasteries, and bespeak a sophisticated legal culture on the part of the Copts in the period from the 7th to the 11th century AD.

The functions of the steward were very extensive. He had the upper hand over the monastic administration, as he was a high financial official with all financial transactions and his authority is also asserted on the monastery treasury, in addition to his religious duties, and in several documents dated to the 7th -9th centuries. The steward almost always appears as the legal representative of the convent and in his name signs contracts, accepts donations and consecrated children to the convent.

The study of this function reveals many aspects of the life of the Copts, which are: Monasteries and churches had great economic independence for through their resources, which were managed by the steward. Monasteries and churches had an active role in the economic activities of the Copts outside the monastery, which appeared in lending, providing job opportunities and providing foodstuffs.

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THE EFFECT OF IRAN'S QAJAR ARCHAISM ON THE DEVELOPMENT OF STATE ARCHITECTURE UNDER THE REZA SHAH PAHLAVI'S RULE

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ABSTRACT

[AR]

تأثير الفكر القاجاري الأثري على تكوين وتوسع العمارة في الدولة خلال فترة رضا شاه بهلوي

أصبح نشر وتعزيز الهوية الوطنية لإيران الحديثة من خلال التأكيد على الإرث الحضاري لعصر ما قبل الإسلام، والذي تم طرحه في الأوساط الفكرية للفترة القاجارية، سياسةً رسميةً للبلاد خلال الحكومة الهلوية الأولى وانعكس ذلك في تصميم عدد من المباني الحكومية الجديدة تحت عنوان الطراز «الأثري»؛ كما أن الأعمال التي تنتهي إلى الطراز المذكور تعتبر اليوم سمات دائمة للعصر الهلوي الأول. تتناول هذه المقالة مسألتين تتعلقان بهذا النوع من الهندسة المعمارية؛ أولاً، من أجل إنشاء طراز أثري وطني، كان هناك نوعان من الأنماط هي الأخمينية والساسانية، تجاهل المهندسون المعماريون عن وعي الطراز الساساني - باستثناء نماذج قليلة - وجعلوا العمارة والزخارف الأخمينية النموذج الرئيسي لعملهم. ثانياً، على الرغم من الأهمية الكبيرة لبناء الهوية التاريخية لدى النظام الهلوي الأول، فإن المباني الحكومية التي تحمل هذا الطراز من العمارة تم بناءها في الغالب في العاصمة فقط، وتتواجد بقلة في الأجزاء الأخرى من البلاد. من خلال دراسة أفكار الشخصيات الجوهرية الأثري مثل فتح علي أخوند زاده وجلال الدين ميرزا قاجار وأغا خان كرمانى، تم دراسة وتحليل المكونات الرئيسية لهذه الأفكار مثل الحاجة إلى الخروج على التقاليد، التنافس مع الغرب، إظهار القوة والنظر إلى التاريخ باعتباره كأداة، حيث اتضح أنه لا يمكن لأي طراز معماري أن يشمل جميع هذه المكونات سوى الطراز الأخميني. فيما يتعلق بالعوامل التي تحدد عدد الأعمال التي تحمل هذا الطراز، فقد أثرت القضايا الاقتصادية والثقافية المتزايدة كعوامل رئيسية محددة لذلك. تخلى المعماريون الإيرانيون الداعون للحدثة عن طراز العمارة القديمة عند توليهم المشاريع الحكومية الكبيرة أواخر الثلاثينيات من القرن الماضي. يعتمد النهج النظري لهذه المقالة على نهج التاريخ الثقافي والطريقة التاريخية التحليلية.

[EN] Discussions among Qajar intellectuals on promoting modern Iranian national identity with an emphasis on pre-Islamic heritage became official state policy in the Reza Shah Pahlavi government. This was manifested in several «archaic» public buildings now seen as the lasting monuments of this period. This study explores two points on this architectural style: Firstly, despite the availability of Achaemenid and Sassanid models to inspire their indigenous archaic style, most architects consciously ignored the Sassanid style and modeled their works after Achaemenid architecture. Secondly, despite the profound importance of archaic identity in the Pahlavi government, most such buildings were built in the capital and only a few in other regions. The ideas of major figures such as Fath-Ali Akhundzadeh, Jalal-al-Din Mirza Qajar, and Aqa Khan Kermani were explored to study the main components of archaism, such as anti-traditionalism, confrontation with the West, manifestation of power, and historical instrumentalism. Only the neo-Achaemenid style could have provided all these components, and economic and cultural problems explain the limited number of works. Iranian archaic architecture was rooted in 19th-century AD European eclecticism with a similar end. Like the western modernist movement's ability to put aside eclecticism in the early 20th century AD, modernist Iranian architects designed most state projects in the late 1940s and dropped archaism. This historical-cultural study is based on a historical-analytical methodology.

KEYWORDS: Archaism, Qajar era, Pahlavi era, Qajar architecture, architecture during Reza Shah period, Fath-Ali Akhundzadeh, Jalal-al-Din Mirza Qajar.

I. INTRODUCTION

The beginning of Reza Shah's reign in 1925 AD marked a turning point in contemporary Iranian history. With the support of a new generation of intellectuals, he came to power amidst public discontent with the post-Constitutional Revolution political turmoil and began to modernize the country under an authoritarian centralized government¹. This period was characterized by an urban style for new public buildings with pre-Islamic Iranian monumental architecture famously seen in the Tomb of Ferdowsi in Tus, the headquarters of Bank Melli Iran, Şahrbāni [*Police*] Palace, and Museum of Ancient Iran in Tehran. Although under Reza Shah's reign archaism was mostly restricted to Tehran, it is still an architectural symbol of the First Pahlavi period.

Pahlavi state theorists consistently tried to introduce the absolute dissonance of the new identity with the Qajar past –seen as reactionary and humiliating²– by, for example, using archaist style to end the «decadent» Qajar architecture³. Meanwhile, reformism, from a modernized military to the Unveiling [*Kaşf-e Hejāb*] policy, was rooted in the Qajar era and implemented by its elites.

This study regards archaism as a continuation of Qajar and Pahlavi reformism and reviews its root causes to show the manifestation of Qajar intellectuals' activism in Pahlavi archaist architecture and its stylistic features.

II. LITERATURE REVIEW

Until the Islamic Revolution of Iran, researchers have somewhat neglected architecture of the First Pahlavi period. Parviz Rajabi⁴ was a pioneer in this field. He divided Iranian architectural history to the periods preceding and following Reza Shah's reign and categorized each period's works into three groups based on their origins, namely the government, the wealthy, and the plebian. His biased and idealistic view of Pahlavi architecture is rejected due to his description of the Constitutional Revolution as the period of quiescence⁵ and its architecture as the embodiment of decadence, inelegance, and instability, and brusque⁶. He also attributes to Reza Shah the initiative to combine Western architectural techniques with traditional Iranian architecture⁷, which will be proven to be incorrect. Rajabi's writings represent the official stance of the Pahlavi state regarding contemporary architecture. Banimasoud⁸ has studied Iranian architecture since the dawn of modernity during the reign of Fath–Ali Shah Qajar to the first decade of the Islamic Republic by describing works based on their cultural and political background. The author has dedicated his book to influential figures in contemporary architecture, including architects, intellectuals, and statesmen. With a focus on the First Pahlavi period, Mostafa

¹ ABRAHAMIAN 2018: 120.

² ATABAKI & ZÜRCHER 2004: 71.

³ RAJABI 1976: 28-26, 40.

⁴ RAJABI 1976: 13-34

⁵ RAJABI 1976: 40.

⁶ RAJABI 1976: 28-26.

⁷ RAJABI 1976: 41.

⁸ BANIMASOUD 2019: 53-70, 228-261.

Kiani⁹ has tried to identify the various factors shaping this period's architecture according to archaeological findings, modernism, militarism, and new functions using state documents from this period's development plans. Unlike the previous eras, the major Pahlavi civil projects paved the way for well-documented architects. Monographs about famous architects, including Nikolai Markov¹⁰ and Vartan Hovanesian¹¹ provide an accurate evaluation of their approach and influence.

The archaism manifested in this period's architecture requires a careful examination of late Qajar and early Pahlavi political and cultural changes. Atabaki and Zürcher¹² have investigated Reza Shah's modernization of Iran and Mustafa Kemal Atatürk's in Turkey and their effect on the two nations' governments, societies, and clergy. Zia-Ebrahimi¹³ has explored Iran's romantic nationalism – named dislocative nationalism– since its inception in the writings of Fath-Ali Akhundzadeh (1812-1878 AD), Jalal-al-Din Mirza Qajar (1827-1872 AD), and Mirza Aqa Khan Kermani (1854-1896 AD) until the end of the Pahlavi period and the major historical factors contributing to their creation.

Questions

Two points related to archaic Pahlavi architecture were studied:

1. Why did Reza Shah Pahlavi's state architects mostly follow the Achaemenid architecture in their nationalistic style?
2. Despite the central government's extensive reach, why did this specific architectural style nearly fail to reach beyond the capital?

Research Method

The data was collected with field and library research of works and the theoretical historical approach to cultural studies.

III. Qajar Archaism

Modernity in Iran began with a sense of dread over severe backwardness compared to the West and the strategic need to address it. The humiliating military defeats of the Qajars against Russia and Britain, covert and overt encroachments by the two superpowers, and the corruption and mismanagement of the ruling class made certain political and cultural figures seek solutions for the forthcoming crisis in the nation.

Theories by Qajar elites presented over decades to identify crises and find solutions can be expressed as follows:

1. Technological backwardness that Abbas Mirza Qajar (1789-1833 AD) and his minister Mirza Issa Qa'em-Maqam sought to rectify following defeat at the hand of the Russians¹⁴. This view was based on the lived experience that technological inferiority

⁹ KIANI 2014.

¹⁰ DANIEL & SHAFE'I & SOROUSHIANI 2004.

¹¹ SOROUSHIANI & DANIEL & SHAFE'I 2008.

¹² ATABAKI & ZÜRCHER 2004.

¹³ ZIA-EBRAHIMI 2016: 41-73.

¹⁴ ADAMIYAT 2015: 21-20.

was Iran's main vulnerability, especially in defense, and the solution was scientific and technological development¹⁵.

2. Certain intellectuals, who had lived or studied in Europe and were able to thoroughly evaluate its conditions believed that the prosperity of Western nations was rooted in their political structure and their government's adherence to the law¹⁶. Mirza Saleh Shirazi was a leading figure with this belief¹⁷, which was also shared by Mirza Yousuf Khan Mostashar-al-Dowleh (1824-1896 AD)¹⁸.
3. Archaists saw tradition as the root of Iran's problems and an infertile mother for a rebirth. They believed that Iranian civilization could be reanimated and brought to parity with the West were it not for centuries of «Arab-Islamic» cultural dominance waning its creative power. Therefore, they argued that the effects and manifestations of this culture should be wiped from society and people's minds to return Iran to its ancient «originality» with the power to progress¹⁹.

Particular beliefs, such as honoring ancient history or linguistic purism, were common in the late Qajar intellectual community; but archaism was distinguished from other discourses as a politically-motivated negative view toward social culture. Thus, Mohammad-Hassan Khan E'temad-al-Saltaneh (1843-1896 AD), author of *Durar al-Tijan fi Tariḥ Bani Aškan* (on Parthian History) or Mohammad-Nasir Forsat-al-Dowleh Shirazi (1854-1920 AD), author of *Ātār-e 'Ajam [Persian Monuments]*, cannot be considered archaists. In fact, early archaism owed its views to a minority of dissenting intellectuals such as Mirza Fath-Ali Akhundzadeh²⁰, Jalal-al-Din Mirza Qajar, Mirza Aqa Khan Kermani²¹ and Maneckji Limji Hataria (1813-1890 AD)²².

IV. Components of Archaism

The authors believe that the archaic components in Qajar literature and Pahlavi architecture can be identified from the writings and buildings left from these periods. It appears that Fath-Ali Akhundzadeh, Jalal-al-Din Mirza, and Mirza Aqa Khan Kermani's ultimate goal in writing was not merely to promote knowledge, but to fundamentally change society. Akhundzadeh tried to reach some wider audiences by turning to critical playwriting²³, and had the simple-minded belief that publishing *Maktubāt-e Kamāl-al-Dawla [Letters of Kamal-al-Dawla]*, in Asia and Africa would destroy Islam²⁴. The full title of Jalal-al-Din Mirza's book, *Nāme-ye Ḥosrovān: The Story of Persian Kings in Persian, which Benefits People, Especially Children*, also reflects the author's promotional objectives.

¹⁵ BANIMASSOUD 2019: 2; SARIOLGHALAM 2018: 12, 59-58; BUSSE 1987: 80-82.

¹⁶ ZIA-EBRAHIMI, 2016: 26-27.

¹⁷ SHIRAZI, 1969: 207, 219-323.

¹⁸ MOSTASHAR-AL-DOWLEH 2018: 75-79; KERMANI 2006: vol.1: 186-205.

¹⁹ ZIA-EBRAHIMI 2016: 2.

²⁰ AKHUNDOV 1963; AKHUNDZADEH 1977: 7-13; ADAMIYAT 1971: 9-32; MOWLAVI 1995. : 153-154 Number

²¹ MIRZA AGA KHAN KERMANI, 2016: 66-77, 2000; BAYAT, 2011.

²² KOTWAL & ET AL: 2016.

²³ AKHUNDZADEH 1977.

²⁴ AKHUNDOV 1963: 235-234; MOWLAVI 1995: 157.

These pioneers never tried to formulate the ideological foundations of archaism. After Akhundzadeh's death, it took Abd-al-Hossein Teymourdash half a century to introduce some of these principles in the New Iran Party manifesto²⁵. However, the following shows that Qajar archaism had specific identifiable components in the First Pahlavi period's architectural expression:

The inferiority/power complex, shared between archaism and mainstream reformism, is rooted in the bitter experience of the Russo-Iranian wars. The annexation of the Caucasus from Iran by a non-Muslim superpower stunned Fath-Ali Shah's statesmen. Europe, considered *Dār-al-Kufr [land of infidelity]* and a despised distant land, was suddenly at Iran's doorstep and threatening their political existence²⁶. The Iranians had woken up to a new geopolitical reality of Eurasia that the Ottoman Empire had faced a century earlier. The next developments, especially Herat's annexation with Britain's military pressure, superpowers turning Iran into the arena for their «Great Game», and the political turmoil of the Constitutional Revolution made a strong government a pipe dream for Iranian intellectuals²⁷. Thus, Reza Khan's actions as Prime Minister and Minister of War toward the end of the Qajar period in organizing the army and suppressing rogue forces were favored by the elites, who accepted him as Shah with open arms²⁸.

Reza Shah's architectural prowess was not bound by archaist style and covered all urban architecture; and the Pahlavi government had both the ability and the will to turn construction into a symbol of its greatness and efficiency. Significant historical sections of cities were destroyed to build streets, parks, and boulevards. The long, wide streets that connected cities end to end became a symbol of modernity and the government's power²⁹. European-style street projects in Iran dates back to the Naser-al-Din Shah Qajari period, and the first cobblestone street was paved inside the Tehran's Arg [*royal citadel*] in 1850 AD³⁰; but such projects were restricted to the capital and sparsely populated areas outside downtown due to the central government's weakness and empty treasury³¹. The government neither wanted nor could rebuild the dense historical districts of cities with residential and commercial properties. Unlike the Qajar period, the Pahlavi municipal authorities, especially the mayor of Tehran Karim Bouzarjomehri, did as they pleased when it came to appropriation and destruction³². Kilometers of streets and thousands of new office buildings were constructed and some cities were visually transformed in short order, showing that the central government's power extended throughout Iran.

A comparison of some government buildings before and after the beginning of Reza Shah's reign shows the resulting morphological transformation of urban architecture. *Telegrāfhāneh [the Telegraph House]*. [FIGURE 1] was built by the Reza Shah-appointed mayor Karim Bouzarjomehri's order between 1926-1928 AD on the south side of Tehran

²⁵ ATABAKI & ZÜRCHER 2004: 71.

²⁶ ZIA-EBRAHIMI 2016: 21-23.

²⁷ ABRAHAMIAN 1983: 103-118.

²⁸ ABRAHAMIAN 2018: 108-109; ATABAKI & ZÜRCHER, 2004: 17-19, 22, 130-131.

²⁹ BANIMASSOUD 2019: 192.

³⁰ VAQAYE'-E ETEFAQIYE 1850: 1.

³¹ GHOBADIAN & GHOBADIAN 2018: 75.

³² KIANI 2014: 111.

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Tuphāneh Square with a neo-renaissance style, a giant metal dome, and an alien appearance. It was a fitting example of an institution that fearlessly accompanied the visual transformation of the city. The Qajar Baladiyyeh [*Municipality*] Palace [FIGURE 2] on the north side of the square built between 1921-1923 AD during Seyyed Zia'-al-Din Tabatabai's premiership appears humble compared to Telegrāfhāneh. The two buildings were separated by less than a decade and demonstrate the extent of changes in courage and financial and executive ability of statesmen and municipal authorities.



[FIGURE 1]: Telegrāfhāneh, south side of Tehran's Tuphāneh Sq.
TAHAMI & HADDADI 2013: 18-19.



[FIGURE 2]: Baladiyyeh, north side of Tuphāneh Sq.
KIANI 2014: 293.

The Qajar Naẓmiyyeh [*Police*] Palace [FIGURE 3] on the west side of Tupḥāneh Square and Pahlavi Şahrbāni Palace [FIGURES 4-5] in Bāq-e Melli [*the National Garden Area*] better illustrate this difference. The first is a typical functional building with intricate column pairs and a metal gable roof that is a rather unadorned example of residential architecture of Qajar nobles. In contrast, the Pahlavi Şahrbāni Palace is a spectacular office building in the capital. The massive crenellated structures on either side of the main entrance and the sturdy columns of the main portico with bull-protome Capital and rows of sculptured reliefs of lancer-bearers with spears on the outer stairways wall symbolize the Pahlavi government's iron-fist of discipline and punishment.

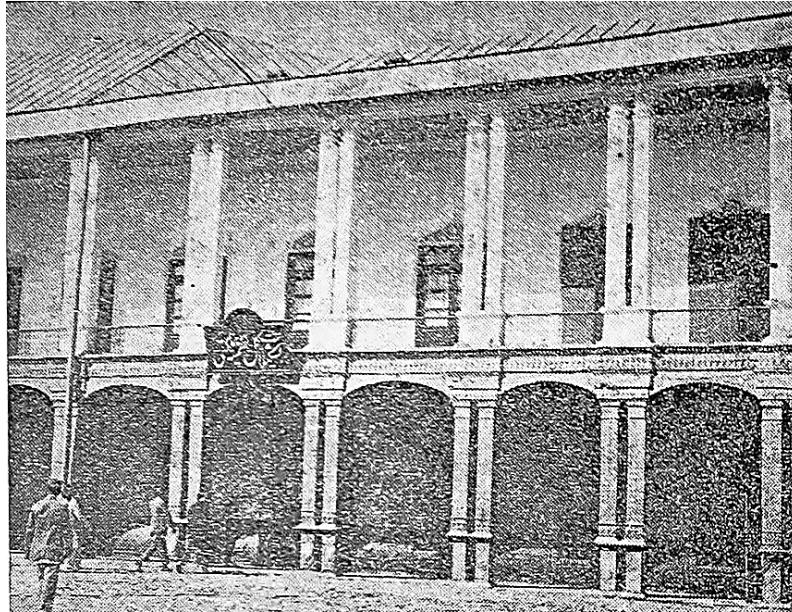
Another feature of Qajar archaism is its instrumental view of history seemingly focusing on cultural heritage and history but with inaccurate and biased references. To understand this feature, remember that archaism has an inherently political approach and specifically aimed to discrediting the Islamic tradition and replace it with secular nationalism³³. To this end, history, art, architecture, archeology, and literature are mere instruments. Archaism boldly combines the myths of Šāhnāmeḥ, Dasātir, and Islamic and Western histories to present a magnificent ancient Iran against a dark and corrupt Arabic culture³⁴. Thus, it is not important to verify sources and citations. For example, the first volume of Jalal-al-Din Mirza history textbook only cites Dasātiri sources, such as Dabestān-e Maḍāheb [*School of Religious Doctrines*] and Šārestan-e Chahār-Chaman and their mythological narratives. In the liberation of the Jews of Babylon by Cyrus the Great and the story of the false Bardiya (Smerdis), he replaces Bahman and Tahmuras with historical figures³⁵.

³³ ZIA-EBRAHIMI 2016: 71.

³⁴ KERMANI 2016: 62-55.

³⁵ JALAL-AL-DIN MIRZA 1868: 64, 184.

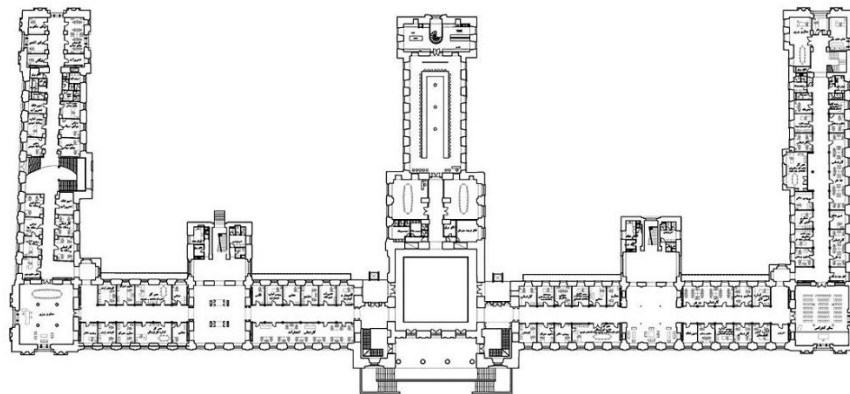
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[FIGURE 3]: Nazmiyyeh, west side of Tehran Tuphāneh Sq.
JAHED 1929: 179.



[FIGURE 4]: Former Şahrbāni Palace, Tehran Bāq-e Melli.
@ Taken by the researchers.



[FIGURE 5]: Ground Floor Plan of Şahrbāni Palace, Tehran Bāq-e Melli. EMARAT-E KHORSHID
CONSULTING ENGINEERS 2007.

Reza Shah's rule gave the archaists the highest levels of executive authority, such as extensive governmental construction. To express their pre-Islamic architectural nationalism, these statesmen could seek inspiration from Achaemenid and Sassanid patterns; but mostly chose the former in practice.

The roots of this tendency should be sought in the instrumentalist view of their progenitors; Politicians who use history and culture as tools and instinctively choose the least costly route. Thus, the Achaemenid style presented undeniable advantages to Pahlavi statesmen, including its prestige due to its affiliation with a glorious period of Iranian civilization, visual charisma and relative recreational simplicity due to the lack of arches made a row of façade columns or half-columns applicable to and harmonious with the modern plan of government buildings.

Pahlavi statesmen were raised in the late Qajar period and were more dependent on its aristocratic culture than they showed, a culture which was influenced by the luxurious architecture of Georges-Eugène Haussmann's Paris (1809-1891 AD), St. Petersburg, Vienna, and Istanbul³⁶. In this period, the classical columns adorning buildings with or without round Roman arches were common among renewed architecture imitating «Farangi» style. Solidifying columns and replacing Corinthian capitals with the Achaemenid double-protome ones resulted in a style consistent with the Qajari taste of Reza Shah's statesmen and the Pahlavi official policy of reviving ancient Iranian culture.

The important feature of anti-traditional/otherism often occurs in under-developed societies when presented with Western civilization. Qajar statesmen, intellectuals and activists saw a huge gulf between Iran and Europe. But none like Akhundzadeh and Kermani had based their ideology on the contradiction of contemporary Iran with its past golden age and the progressive West.

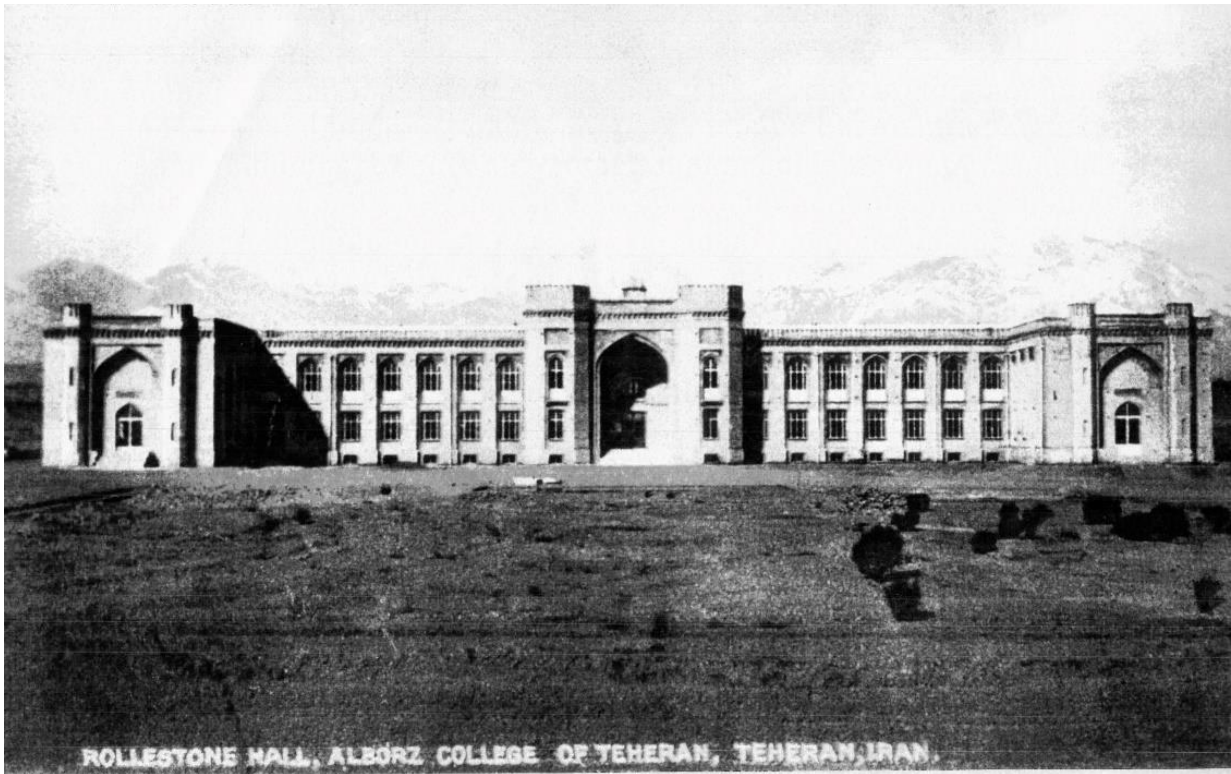
Pahlavi statesmen assented with their predecessors that the West should become the model for progress, and with education, society should return to the correct path and rediscover its cultural originality. However, the argument on where this «originality» could be found was reflected in the period's urban architecture.

Some connoisseurs, art historians, and especially foreign scholars saw the roots of the deviation in the Qajar era and wish a return to the norms of the Safavid era, which was respected internationally in art and architecture. In a 1925 AD speech with Prime Minister Reza Khan Sardar-e Sepah, members of parliament and ministers, Arthur Upham Pope praised ancient Iran, but pointed his arrow of criticism at the Qajars and called their art a low imitation of «original» Safavid art³⁷.

³⁶ GURNEY 1996: 31-32.

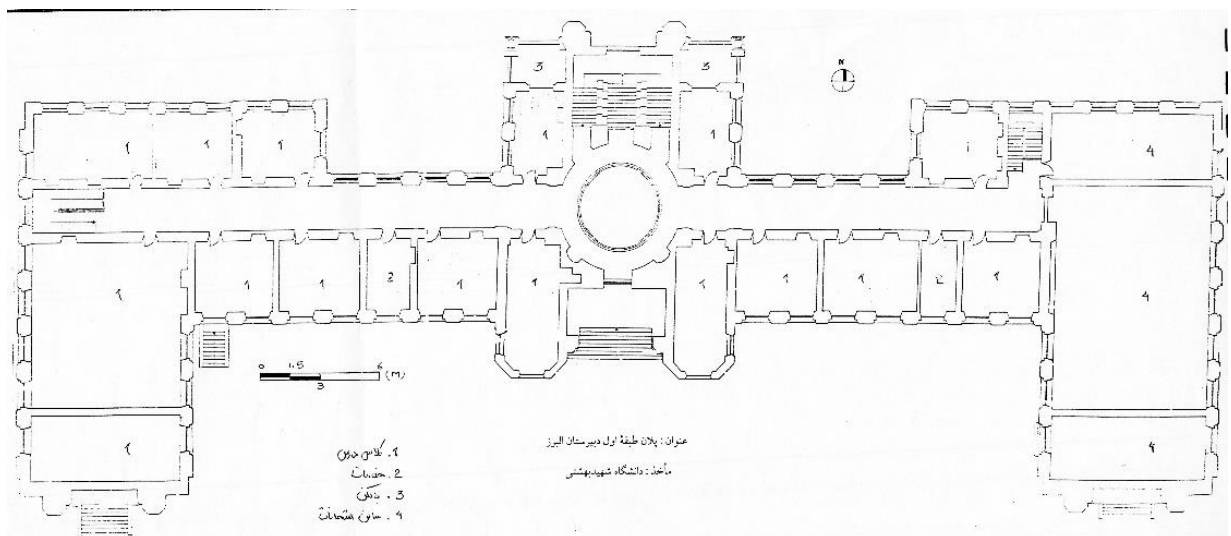
³⁷ POPE 1976: 56.

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[FIGURE 6]: Alborz College, Rolleston Hall.

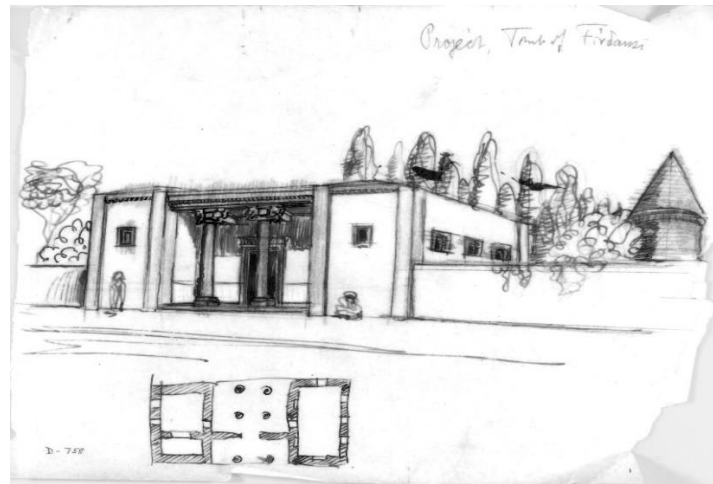
REGISTRATION FILE OF ALBORZ EDUCATIONAL CENTER 1997: 35.



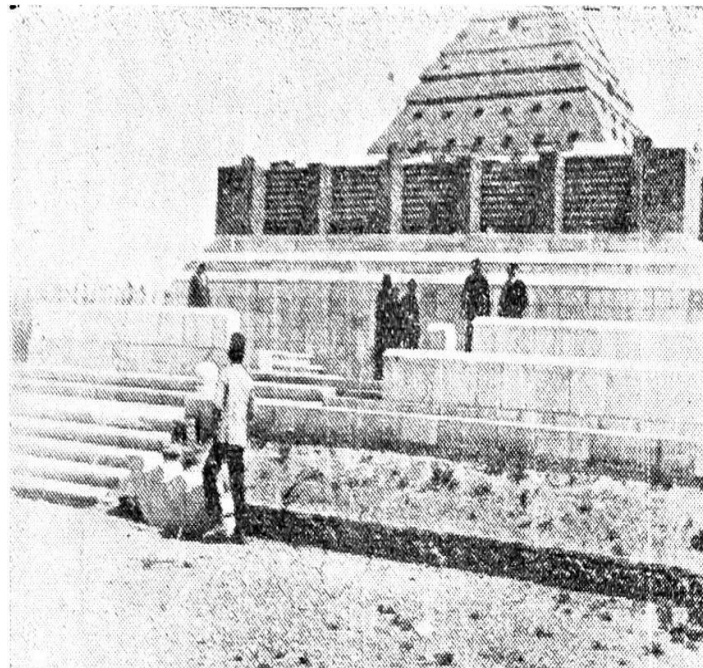
[FIGURE 7]: Alborz College, ground floor plan of Rolleston Hall. Registration file of Alborz Educational Center 1997: 35.

Dānešsarā-ye 'Āli [*The High Teachers' College*] in Negārestān Garden (1928 AD), the two main buildings of Alborz College (Rolleston Hall, 1921-1925 AD, [FIGURES 6-7] and the Science Building, 1931 AD) by Nikolai Markov (1882-1957 AD), and Hāfeḍiyeh in Shiraz by André Godard (1881-1965 AD) represent this sympathetic view toward Islamic Iranian heritage. Ernst Herzfeld's (1879-1948 AD) abandoned proposal for Ferdowsi's tomb [FIGURE 8] is another example of this approach's opposition to radical anti-traditionalism. Herzfeld designed the main structure as a tomb tower with a conical roof in a garden that

was somewhat reminiscent of the tombs of Ferdowsi's contemporaries, such as Gunbad-i Qabus (1006 AD) and Mil-i Gharb Radkan (1016-1020 AD). Meanwhile, the garden's entrance hall adorned with Achaemenid-style columns and Persepolitan-style plan evokes Šāhnāmeḥ's ancient atmosphere. This balanced approach incorporating the poet's era and works was rejected in favor of André Godard's pyramidal design [FIGURE 9] (1928 AD) with no semblance of Iranian history, which was demolished and replaced by the present structure³⁸. Indigenous anti-traditionalists finally «discovered» the potential of Achaemenid architecture, and found an «original» language far from Islamic heritage, a feat finally achieved by Teymourtash and his proposal to model Ferdowsi's tomb in the form of the Tomb of Cyrus the Great³⁹.



[FIGURE 8]: Ernst Herzfeld's proposal for Ferdowsi's tomb Smithsonian Learning Lab.



[FIGURE 9]: The early Ferdowsi Tomb, Tus. JAHED 1933: 122.

³⁸ MOFID & RAISZADEH 2007: 31-32.

³⁹ KIANI 2014: 87.

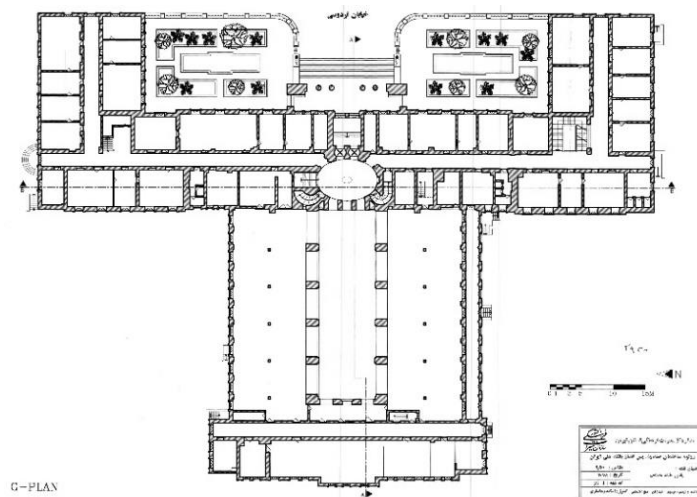
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[FIGURE 10]: Final Ferdowsi Tomb, Tus. Registration file of Ferdowsi Tomb 1976: 6.



[FIGURE 11]: Central portico of the headquarters of Bank Melli, Ferdowsi St., Tehran.
@ Taken by the researchers.



[FIGURE 12]: Ground floor plan of the headquarters of Bank Melli building, Ferdowsi St., Tehran. Bank MELLI IRAN SAVINGS FUND RECORDS 1996: 37.



[FIGURE 13]: Former Imperial Bank of Persia building, east side of Tūphāneh Square.
@Taken by the researchers.

Architects built such unfamiliar elevation for Ferdowsi's tomb [FIGURE 10] and Bank Melli [FIGURES 11-12] to leave no doubt in the viewer that this chapter of history was closed and a «New Iran» was born. For thousands of years, common Iranian architecture predominately was based on building arches; Achaemenid monumental style with its emphasis on the trabeated system is the exception⁴⁰ and a good candidate for archaists due to the lack of arches and domed chamber compared to Sassanid architecture, which Islamic mosques and mausoleums were based on. Comparing the Bank Melli and Imperial Bank of Persia buildings [FIGURE 13] clearly illustrates the different views of rulers and businessmen toward society. Pahlavi aimed to change the public's taste through construction⁴¹, whereas the Imperial Bank of Persia's British managers did not seek to change, but to be accepted by society. Thus, they called on Hossein Lorzadeh to build an Iranian arched portal for their new building⁴² to win the hearts of their traditional Iranian clientele with an architectural element.

Restoration of pride/confrontation with the West, the main stimulant of Iranian archaism, also reflects a self-deprecation complex. Archaists combined history and myth to raise ancient Iran to be on par with Europe and above the Islamic era. Jalal-al-Din Mirza attributed the construction of Istaḥr city to Keyumars to extend its age to thousands of years⁴³. That such extravagant claims originated in Dasātiri literature such as Dabestān-e Maḍāheb explains their warm reception among Qajar intellectuals⁴⁴.

Although Reza Shah's ascending the throne satisfied Iranian nationalists, it increased dependence on foreign advisers. The nation was in a predicament in expertise, and traditional architects could not design modern office and industrial buildings. Out of necessity, some offices, hospitals, and factories were planned by European architects contracted by the government and executed by local masters in the capital and towns⁴⁵.

⁴⁰ PIRNIA 1991: 5.

⁴¹ GRIGOR 2004: 44.

⁴² MOFID & RAISZADEH 2007: 29-28.

⁴³ JALAL-AL-DIN MIRZA 1868: 20, 24.

⁴⁴ TAVAKOLI-TARGHI 2001: 97.

⁴⁵ KIANI 2014: 136.

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The predilection toward modern architecture provoked a defensive reaction from both groups. First, archaists with claims to the golden age of Iran's millennial civilization did not see traditional architecture adequate for modern needs and considered the unfamiliar soulless Western architecture as inadequate for the country⁴⁶. The second group were the traditional architects who executed these plans. The solution of both groups was to preserve their independence in composition and familiarize the strange appearance of buildings as much possible. Archaists were more attached to the neo-Achaemenid columned façade that fit the bill for reviving Iran's ancient heritage and closely resembled the neoclassical style, implying Iran's equivalence to Europe. Traditionalists, however, utilized the Qajar-Islamic architectural heritage. Many government buildings in cities were built on a modern plan with local and even Qajar execution and appearance [FIGURE 14], or are restrained by a structural or figurative traditional element⁴⁷. Nikolai Markov, a Russian-born Iranian architect, had combined traditional elements with modern planning as his signature style in the Rolleston Hall of Alborz College, Dānešsarā-ye 'Āli, and the Qasr Prison⁴⁸. With this approach, the traditional or archaic façade was a cover for the building that did not interfere with its modern plan and function. The General Post Office of Tehran is a good example of this where Achaemenid columns have been lowered to shallow half-columns on the building [FIGURE 15].

Iranians were among the few nations in the Middle East that entered the era of 19th-century AD romantic nationalism with a national awareness of their ancient roots, thanks to Ferdowsi's Šāhnāmeḥ and the ancient tradition of Naqqāli. For many, the Šāhnāmeḥ – even its mythology – was not merely story but history⁴⁹. Since such a strong tradition is not easily withered, Qajar archaists such as Jalal-al-Din Mirza, who knew little of Achaemenid history, based their nationalist discourse on the Šāhnāmeḥ's and Dasātiri literature.

Since the beginning, archaists focused on the Pishdadids and Kayanids in their historical romanticization of Iran, leaving the Parthian and Sassanid ers to professional historians such as Mohammad-Hassan Khan E'temad-al-Saltaneh. Despite their traditional beliefs, certain scholars of this era did not neglect new findings and sought to reconcile two perspectives. Starting in the West until the 19th century AD, European historians, like their Iranian counterparts, considered the Kayanid dynasty historical and comparable to Oriental kings. Robert Ker Porter (1777-1842 AD) equated Kay Kawad with Deioces, Kay Kavus with Cyrus the Great, and Esfandiār with Xerxes I⁵⁰.

After his introduction to Achaemenid kings and with the help of Russian sources, Forsat-al-Dowleh compared Cyrus the Great with Kay Khosrow, Darius I with Dārā, and Xerxes I with Esfandiār⁵¹.

⁴⁶ RAJABI 1976: 41.

⁴⁷ E.g. Isfahan Risbāf Factory. KIANI 2014: 333.

⁴⁸ DANIEL, SHAFE'I & SOROUSHIANI 2004: 163-162.

⁴⁹ FORSAT-AL-DAWLAH 1983: 122.

⁵⁰ PORTER 1821: xiv, xv.

⁵¹ FORSAT-AL-DOWLEH 1983: 154.

He, for instance, translated the famous Pasargadae inscription (CMA) «I, Cyrus the king, an Achaemenid» to «I am Kay Khosrow, Kayanid king»⁵².



[FIGURE 14]: Former building of Babol Municipality(right).
@ Taken by the researchers.



[FIGURE 15]: Former General Tehran Post Office, facing Imam Khomeini St.
@ Taken by the researchers.

⁵² FORSAT-AL-DAWLEH 1983: 234.

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[FIGURE 16]: The first building of Bank Melli. JAHED 1929, 142.



[FIGURE 17]: Ministry of Foreign Affairs Building N° 1, Tehran, @Taken by the researchers.



[FIGURE 18]: Courthouse of Tehran. REGISTRATION FILE OF TEHRAN COURTHOUSE 2006: 7.

Foroughi (1907-1983 AD), Vartan Hovanessian (1895-1982 AD), and Gabriel Guevrekian (1900-1970 AD), who were all followers of the Western modernist movement. These leading modern architects leapt into the lead and even deprecated Nikolai Markov's evolutionary traditional style. It is assumed that the Ministry of Foreign Affairs Building No. 1 (1939 AD, FIGURE 17) with a rectangular tower inspired by Ka'ba-ye Zartosht [*Ka'ba of Zoroaster*]⁵³ and the Courthouse of Tehran (1946 AD, FIGURE 18) depicting Khosrow I Anushirvan the Just is evidence of the rushed marriage of Pahlavi's neo-Achaemenid architecture to Iranian modernist style⁵⁴.

Furthermore, most Achaemenid-style buildings were built in Tehran since it was costly to construct gaudy buildings⁵⁵. Fearing the profiteering of subordinates, Reza Shah barred spending to decorate buildings without his direct supervision⁵⁶.

⁵³ RAJABI 1976: 50.

⁵⁴For more information on the academic background of its architect, see: HAKIM 2001: 77-85.

⁵⁵ RAJABI 1976: 80-81.

⁵⁶ KIANI 2014: 415, Document 5-a.

V. CONCLUSION

Although the neo-Achaemenid state style is a lasting monument to the not-so-distant First Pahlavi period, like other Reza Shah's macro-endeavors, it was influenced by the late Qajar political and intellectual atmosphere and actually implemented by Qajar elites. Like other monumental structures, Pahlavi archaic architecture conveys a message to the audience while reflecting the aspirations of its designers and commissioners. To create a national identity, romantic nationalism does depict the present and the near past as a consequence of domination by oppressive foreigners. Thus, it must be confronted for the sake of national resurrection and replaced by the glorious distant past as a model for the future. Having seen the highest forms of national humiliation in the Qajar era, archaists were determined to overthrow the living traditions and replace them with *hobb-e vatan* [*patriotism*]. They often had Qajar aristocratic upbringing, lacked deep architectural knowledge, and disliked the emergent modernist style; Their tastes were shaped by the lavish eclecticism of Georges-Eugène Haussmann's Paris (1809-1891 AD) – responsible for the massive undertaking to rebuilt Paris during the reign of Napoleon III (r. 1852-1870 AD)– and St. Petersburg, Vienna, and Istanbul. After coming to power and influenced by decades of promotion of neo-Zoroastrian literature and Pahlavi archaeological excavations of Persepolis, they found Achaemenid architecture to fit their revolutionary ideas. A novel style unfamiliar to the public and distant from Islamic Iranian heritage that was «national» but dissimilar to the Sassanid style is not evoking Islamic architecture. An indigenous style that was a match for the distinctive 19th century AD European architecture and luxurious like Neo-Baroque that reflected neoclassical authority and majesty and could be applied to buildings with a few plaster and cement sculptures. Clearly, only the renowned Neo-Achaemenid style could satisfy these idealistic statesmen. However, due to its view of national heritage, this style has inherent contradictions since it was inspired by and was a sub-branch of 19th century AD European art and architectural eclecticism. Reza Shah's urban renovation began when modernism was gaining prominence in Western academic architecture; In this way; archaist style only had a decade to flourish before young modernist architects took charge of government projects. Despite its compelling manifestation, archaic Iranian architecture arrived late, was soon ignored by its supporters, and could not withstand 20th century AD cultural and political disruptions and was inevitably replaced by modernist architecture.

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III.RESTORATION

2022

TRICHODERMA SPP. IN CULTURAL HERITAGE MURAL PAINTINGS OF ANCIENT EGYPTIAN TOMB, THEIR ANTIFUNGAL AND BIOACTIVITY

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TRICHODERMA SPP. IN CULTURAL HERITAGE MURAL PAINTINGS OF ANCIENT EGYPTIAN TOMB, THEIR ANTIFUNGAL AND BIOACTIVITY

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ABSTRACT

[AR] النشاط الحيوي وضد الفطري للتريكوديرما في التراث الثقافي للصور الجدارية في مقبرة مصرية قديمة. لقد تم عزل أجناس فطر التريكوثيرما *Trichoderma spp* من أسطح الصور الجدارية بمقبرة «نفر-باو-بتاح». لقد تعرضت هذه المقبرة سابقاً في عام 2007 لهجوم ميكروبي مُتمثل في *A. niger* و *A. flavus* و *Alternaria alternata* في عام 2019 تم عزل فطر الاسبرجلس نيجر فقط، بالإضافة إلى عزل أنواع من فطر التريكوثيرما والتي لم يتم عزلها من قبل خلال عام 2007. لقد تم تحديد ثلاثة أجناس من فطر التريكوثيرما وفقاً لتأثيرها الحيوي على *A. niger* و *A. flavus* و *A. alternata* ومن خلال تسلسلها في GenBank إلى *Trichoderma harzianum* و *T. aureoviride* و *T. hamatum*. ولقد تم تحليل اللوحات الجدارية في حجرة الدفن بتقنية تحليل EDX الذي أظهر أن الطبقة الأرضية تتكون من الكوارتز والكالسيت والجبس، بينما أظهر تحليل المواد الملونة استخدام الألوان المتمثلة في الأخضر المصري والأزرق المصري والهيمايتيت. ولقد أثبت تحليل الرامان أن الوسيط اللوني المُستخدم كان بمثابة وسيط صفار البيض. لقد تم قياس المواد الملونة باستخدام جهاز السبيكترومتر وفتوميتر مرتين: الأولى خلال عام 2007 والثانية بعد نمو *Trichoderma* خلال عام 2019. ولقد أظهرت النتائج أن عملية التمثيل الغذائي خارج الخلية لفطر التريكوثيرما اثر على اللون الأزرق المصري والأخضر المصري وتجدر الإشارة إلى أن نتائج التحليل قد أظهرت قدرة فطر التريكوثيرما على تثبيط نمو *A. niger* و *A. flavus* و *Alternaria alternata*، والتي تم العثور عليها سابقاً خلال عام 2007م. ولقد تم تحديد العوامل القياسية لتعزيز نمو فطر التريكوثيرما، حيث أظهرت النتائج أن 5٪ من (1: 1) $\text{NaCl} : \text{NaNO}_3$ كان بمثابة أفضل تركيز للنشاط المضاد للفطريات لجميع أنواع *Trichoderma* عند درجة الحرارة الواقعة بين 30 و 35 درجة مئوية في وسط حمضي. تجدر الإشارة إلى أن عملية الحفظ الحيوي للتراث الثقافي مازالت قليلة الاستخدام في نطاق الشرق الأوسط، وهي تعتبر منهجية علمية وتقنية علاج صديقة للبيئة، وذلك مع الأخذ في الاعتبار للمخاطر التي تُسبب التغير اللوني، بالإضافة إلى كونها تقنية سهلة التطبيق، حيث يُمكن تطبيقها في نطاق الحيز المكاني والبيئات المفتوحة أو في نطاق المتاحف.

[EN] *Trichoderma spp.* was isolated from the mural paintings' surfaces of the tomb of Nefer-Bau-Betah. This tomb was previously deteriorated in 2007 by *Aspergillus niger*, *A. flavus*, and *Alternaria alternata* but in 2019, the tomb was deteriorated by only *A. niger*, and *Trichoderma* species that had not been isolated before in 2007. Three species of *Trichoderma* were identified according to their bioactivity effect on these microorganisms and by their sequences in the GenBank to *Trichoderma harzianum*, *T. hamatum*, and *T. aureoviride*. Furthermore, mural paintings in the burial chamber were characterized by EDX analysis which indicated that the ground layer consisted of Quartz, Calcite and Gypsum, while the pigments were characterized as Egyptian green, Egyptian blue, and hematite (Fe_2O_3). The binding media was egg yolk according to the spectrum of Raman spectroscopy. The pigments were assayed by the spectrophotometer but it caused a little effect in the color change of the pigment inside the tomb especially the blue and green Egyptian pigments, while it caused less effect in the color change of red hematite pigment. The optimization factors for increasing the bioactivity of the *Trichoderma spp.* were 5% of sodium nitrate and sodium chlorine that crystallize in the tomb, where the average temperature is between 30:35°C in acidic pH (pH=5.5). These conditions helped *Trichoderma* species to grow and work as antifungal factors in the tomb *A. niger*, *A. flavus*, and *Alternaria alternata*. *Trichoderma spp.* can be used as a new methodology for controlling the deterioration of cultural heritage. It is an eco-friendly methodology, risk-free when controlling the color change, and easy to apply anywhere *in vivo* or *in vitro* in cultural heritage found in open air or in the museums.

KEYWORDS: Applied microbiology, *Aspergillus*, Bioactivity, Biotreatments, biodeterioration, color changes, mural paintings, pharaonic tomb, *Trichoderma*.

I. INTRODUCTION

Biodeterioration of cultural heritage is considered as one of the most critical factors that may destroy the mural paintings, while other environmental factors like relative humidity, salts, organic matter, and high temperatures help in increasing the deterioration effect of the microorganisms¹.

Microorganisms in cultural heritage may cause biomechanical deterioration due to the growth or penetration of them or their parts such as hyphae, mycelium, fruiting bodies, and extensive root systems inside the pores of the stone and mural paintings which leads to cause cracks or micro-cracks². Otherwise, it causes biochemical deterioration resulting from metabolic processes. Microorganisms can react with the mural painting minerals by their acids and enzymes or even toxic products. These acids decompose the minerals of pigments and shed layers by producing salt and chalets. When the soluble salts or chalets crystalize, they cause stresses in the mural paintings' pores resulting in cracks³. In addition to the aesthetic biodeterioration, the growth of microbes on the mural paintings' surfaces cover the pigments and destroy historical evidence⁴.

Conservators around the world applied numerous methodologies to prevent the cultural heritage from biodeterioration, including physical treatments of radiation⁵, fumigation⁶, low-temperature helium⁷, essential oils⁸, chemical treatments by biocides⁹, applied nanoparticles¹⁰ and bio-control by valuable microbes cells¹¹.

Trichoderma strains were well known for their anti-microbial ability towards fungi by their bio-control agents. The production of secondary metabolites by *Trichoderma* strains showed high application potential in the cultural heritage field¹². Although, *Trichoderma* species were well-known producers of enzymes essentially cellulases, Tanshinone IIA, Tanshinone I, and chitinases¹³. These enzymes could control the growth and activity of fungi¹⁴.

Bio-cleaning treatment methodology is not widespread in Egyptian tombs and the cultural heritage field, it is still a new field in Egypt. In 2007, numerous fungi were isolated from the tomb Nefer Bou Betah, like *Aspergillus niger*, *Aspergillus flavus*,

¹ CRISPIM & GAYLARDE 2005: 1-9; FAVERO -LONGO & VILES 2020: 100.

² STERFINGER 2010: 47-55; BJELLAND & ET AL. 2011: 434-442; BARTOLI & ET AL. 2014: 157-165.

³ ADAMIAK & ET AL. 2017: 2448; DYDA & ET AL. 2019: 416.

⁴ EL HAGRASSY 2018: 43 – 50.

⁵ DRÁBKOVÁ & ET AL. 2018: 75-80.

⁶ KHAIRY & ET AL. 2019: 289-300.

⁷ TURNAU & ET AL. 2020: 126485

⁸ PALLA & ET AL. 2020: 730.

⁹ FIDANZA & CANEVA 2019: 271-286; KAKAKHEL & ET AL. 2019: 104721.

¹⁰ GALDIERO & ET AL. 2011: 8894-8918; REYES-ESTEBANEZ & ET AL. 2018:1-11.

¹¹ EL HAGRASSY & HAKEEM 2018: 43-50; TURNAU & ET AL. 2020: 126485

¹² KESZLER & ET AL. 2000: 421-424; HOELL & ET AL. 2005: 180-186.

¹³ STERNBERG & DOVAL 1980: 181-192; DI PIETRO & ET AL. 1993: 308-313; MING & ET AL. 2012:330-333.

¹⁴ LOEPPKY & ET AL. 1983: 798-799; SEGUIN & ET AL. 1995: 445-448; KLEIN & EVELEIGH 1998: 57-69; HARMAN & ET AL. 2004: 43-56.

Penicillium, *Alternaria*, *Rhizopus*¹⁵. The black fungi as *Aspergillus niger*, *Alternaria*, and *Rhizopus* were a problem and caused a color change in the tomb pigments. In 2020, species of *Trichoderma* were isolated from the same mural paintings in Nefer- Bau- Betah tomb, and a crystalline salt has deteriorated the mural paintings.

II. MATERIAL AND METHODS

1. Scanning Electron Microscope {SEM}

The scanning electron microscope was used for characterizing the Mural painting's structure. The model of the SEM was Philips XL 30, Jeol JSM (5600 LV) used for micrographs. The SEM microscope was associated with the EDX Unit, «30 KV. The image magnification started from (10x to 400.000x), with the resolution for W. about (3.5nm) ». The samples were examined without coating by gold, and the conductive layer had not been sputtered. The examination was applied on the whole sample as a map not as points.

2. Raman Spectroscopy

The spectroscopy was applied via a laser beam with an average wavelength of 785nm, the power was 25 MW while the aperture setting was 50*1000 µm. The cross-sections were scanned twice, and the spectrometer calibration was obtained from a silicon crystal in which the «Raman signal was at 520.5cm⁻¹».

3. Spectrophotometer

Color –E Y E- 3100- Spectrophotometer – operation manual, S D L Company. To essay the color change of the mineral pigments, primary points were selected. These points were measured both in 2007 and 2019 to indicate the ΔE according to this equation:

$$\Delta E_{ab}^* = \sqrt{(L_2^* - L_1^*)^2 + (a_2^* - a_1^*)^2 + (b_2^* - b_1^*)^2}$$

, (L) indicates lightness, (a) is (green/ red) coordinate, and (b) is blue / yellow coordinate.

4. Fungal Strains

Fungi used in this study were obtained as follows:

- A. *Aspergillus niger*, *Aspergillus flavus*, *A. alternate* that were previously isolated in summer 2007 and identified by (El Hagrassy; 2010). The identification of fungi genus was carried out according to their morphology and spore structures. (Richardson and Watling, 1997). Each single fungi was inoculated in 20 ml of YEA 01497, of YEM (Yeast extract media) from Sigma Aldrich and incubated for 84 h at 25°C.
- B. *Trichoderma* species were isolated from the same mural paintings in summer and winter 2019 and cultured in Petri dish containing 20ml of Czapek's Dox broth medium and incubated for 7 days at 25°C. After this step the collecting mycelium and spores inoculated (vaccination) into 50ml of PDA for another 7 days at 30°C for optimal growth.

¹⁵ EL HAGRASSY 2010: 163

5. Bioactivity Media

(PDA) Potato dextrose agar powder was used to determine the bioactivity of *Trichoderma sp.* against *Aspergillus niger*, *Aspergillus flavus*, and *Alternaria alternata*. The commercial PDA NutriSelect® Plus consist of 20g of Dextrose, 15 g Agar, 4g Potato extract in addition to Chloramphenicol, VETRANAL® about 25mg/L with a final pH of 5.6 +/- 0.2 at 25°C.

6. Antifungal Activity

The biculture test method was prepared according to (Soytong and Quimio; 1989). A growing mycelium plugs disc (0.5 cm-diameter) was taken from the edge of PDA plate for each *Trichoderma spp.* and transferred to one side of a PDA plate about 2.0 cm from the center of the 9 mm Petri dishes). An agar disc of *Aspergillus niger*, *Aspergillus flavus*, and *A. alternata* was placed on the other side of the plate.

For positive control treatment, an agar disc of *Aspergillus niger*, *Aspergillus flavus*, and *A. alternata* were placed in the center of the Petri dish (9mm diameter). All plates were incubated at 28±2°C until the colony of control grew to a full plate.

Colony diameter was measured using a measuring ruler. The percentage of the growth inhibition was calculated using the following formula:

$$\text{inhibition} = (A-B/A) \times 100\%$$

A = colony diameter in control, B = colony diameter in biculture.

7. Identification of *Trichoderma*

For the identification of bioactive *Trichoderma spp.* the mycelium plugs of *Trichoderma* growing on PDA were taken using a (0.5-cm-diameter) cork borer and transferred to Czapek's Dox broth according to (Allen, 1950) in 500 ml flask. All flasks were incubated in a shaken incubator at 25°C for 7-10 days, then the DNA was extracted and purified by the DNA PowerPlant® Pro Kit (Qiagen, Milan, Italy).

The identification was carried out by amplification and analysis of the regions of the (ITS) region of ribosomal DNA (RDNA) *Internal Transcribed Spacer*. The amplification was made by *Taq* DNA polymerase, recombinant (Invitrogen, Milan, Italy) with the universal primer pair ITS 5 and 4 regions of the ribosomal RNA gene cluster sequences according to the method described¹⁶ as ITS 5 «(50-GGAAGTAAAAGTCGTAACAAGG-30)» and ITS-4 «(50-TCCTCCGCTTATTGATATGC-30)».

PCR amplification mixture reaction carried out using PCR buffer «(1X), dNTP mixture (0.2 mm), MgCl₂ (1.5 mm) », forward and reverse primers (0.5 mm), *Taq* DNA Polymerase (1 U), and 100 ng of DNA.

Thermo-cycler conditions were: 94° C for 3 min in a «C1000 Touch™ Thermal Cycler (Bio-Rad, Munich, Germany)» followed by 35 cycles of 0.5 min at 94°C, 0.5 min at 55°C, 0.5 min at 72°C, and ending with 10 min at 72°C. Amplified DNA products were analyzed using electrophoresis in 1% agarose gels run in Tris/borate/EDTA buffer and sequenced in the Scientific Research Center of the Biotechnology, Lebanon. Obtained sequences were analyzed using FinchTV¹⁷ v.1.4.0¹⁸. The sequencing data were compared with the GenBank database¹⁹.

¹⁶ THE METHOD DESCRIBED BY WHITE & ET AL. 1990.

¹⁷ FINCH: «FINCHTV 1.4», <https://finchtv.software.informer.com/1.4/>

Accessed on 13 /08 2020.

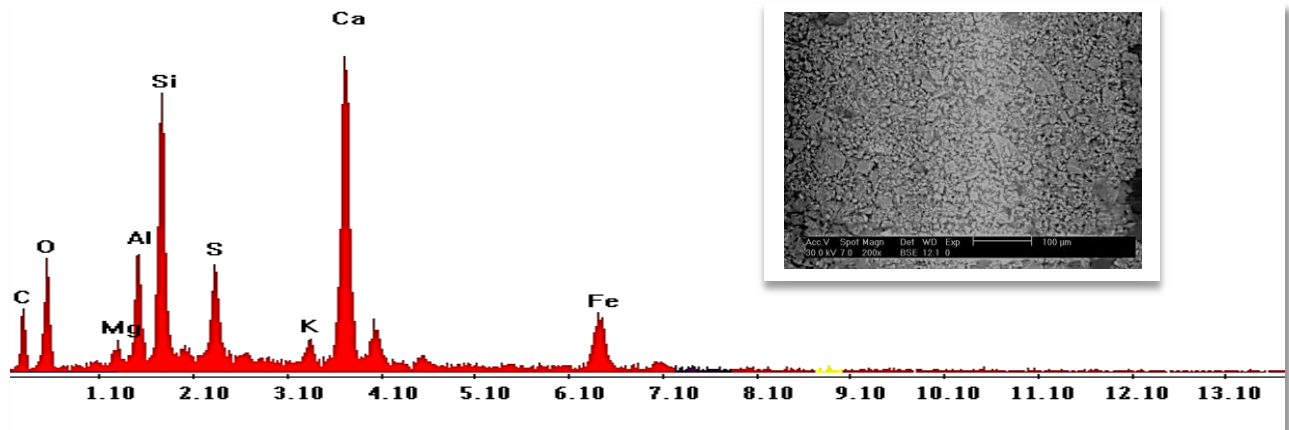
III. RESULTS

1. Structure of Nefer Bau Betah Mural Painting

Fragments were taken from ground layer and pigments of the mural painting.

A. Ground Layer

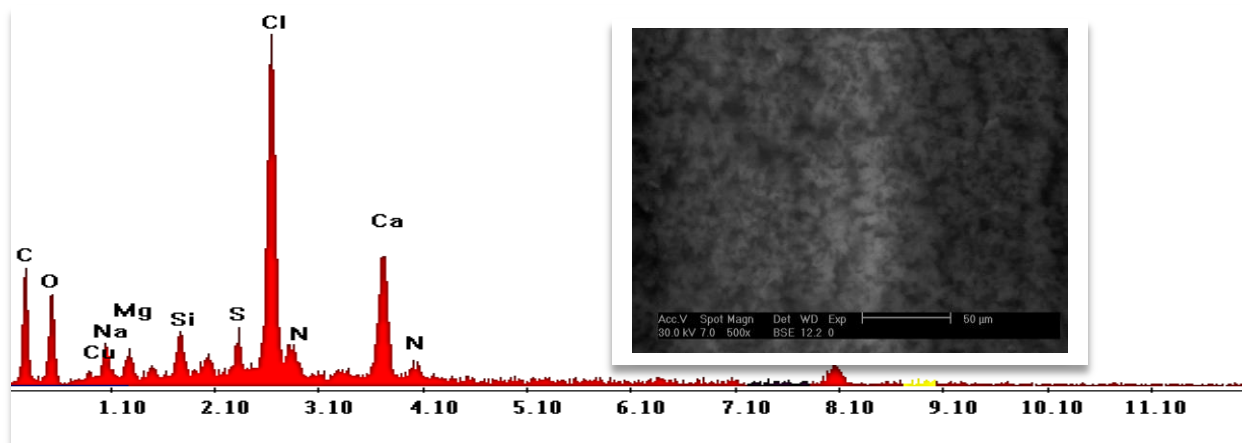
The SEM- EDX analysis showed that the ground layer consisted of Calcite " CaCO_3 " therefore the presence of (Ca, O & C). In addition to the Quartz « SiO_2 » due to the existence of (Si, O) element, as well Gypsum « CaSO_4 » considering the presence of (Ca, S, O) elements [FIGURE 1].



[FIGURE 1]: EDX *spectrum* the component elements consisted the ground layer of the mural paintings 500x, Acc V =30KV, spot 7, Det: BSE, WD: 12.1, scale: 100µm

B. Pigments

Small fragments of the pigments were investigated and analyzed by SEM-EDX. The analysis showed that, the green pigment was Egyptian green (CaSiO_3), [FIGURE2], the blue pigment was Egyptian blue ($\text{CaCuSi}_4\text{O}_{10}$) as shown in [FIGURE 3], and the red pigment is hematite (Fe_2O_3), [FIGURE 4].

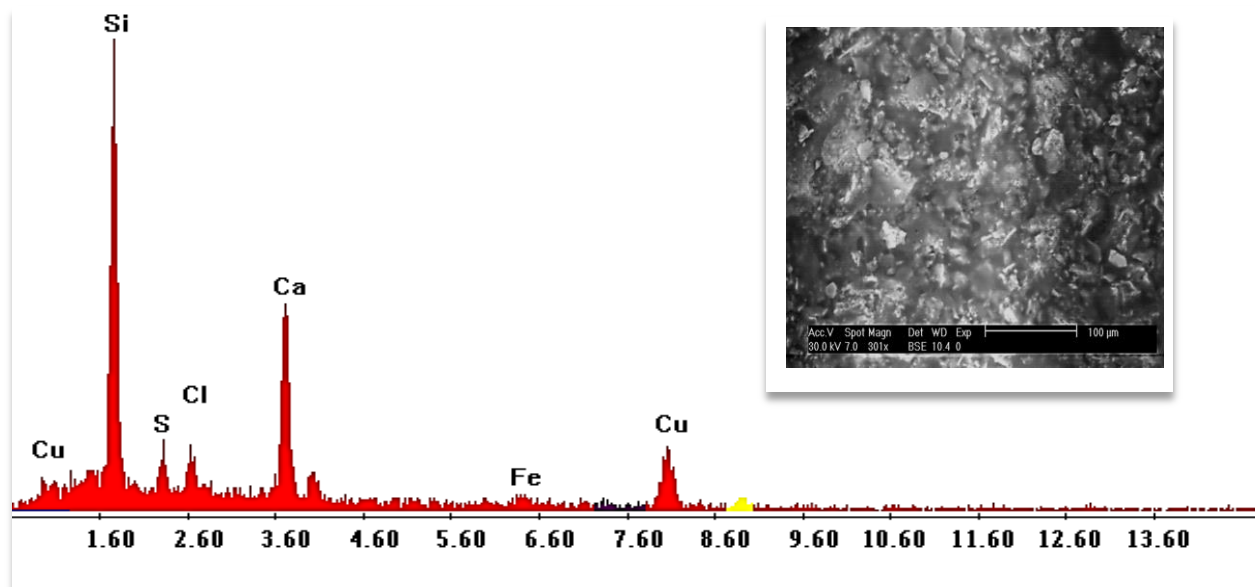


[FIGURE 2]: EDX *spectrum* the component elements consisted the Green pigment of the mural paintings 500x, Acc V =30KV, spot 7, Det: BSE, WD: 12.2, scale: 100µm.

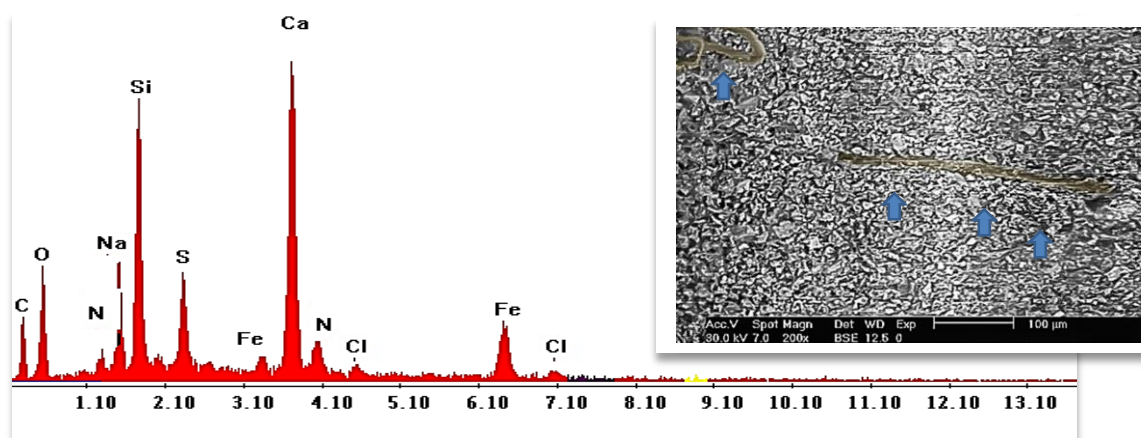
¹⁸ FINCH: «FINCHTV 1.4», (<https://finchtv.software.informer.com/1.4>)

Accessed on 13 /08 2020.

¹⁹ GENE BANK: «Basic Local Alignment Search Tool», <https://blast.ncbi.nlm.nih.gov/Blast.cgi> Accessed on 13/08 2020.



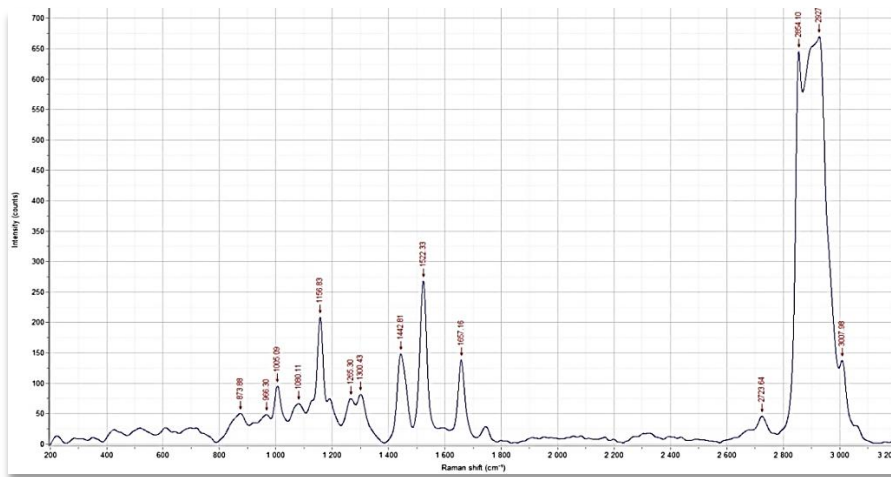
[FIGURE 3]: EDX *spectrum* the component elements consisted the Blue pigment of the mural paintings 500x. Acc V =30KV, spot 7, Det: BSE, WD: 10.4, scale: 100µm.



[FIGURE 4]: EDX *spectrum* the component elements consisted the red pigment of the mural paintings with the presence of mycelium 200x, Acc V =30KV, spot 7, Det: BSE, WD: 12.5, scale: 100µm.

C. Binding Medium

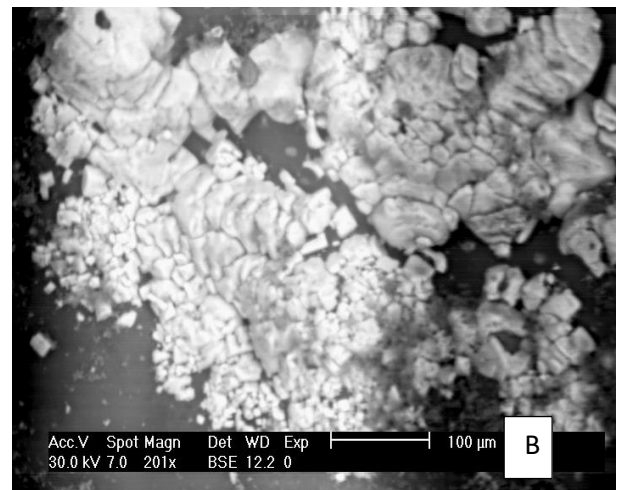
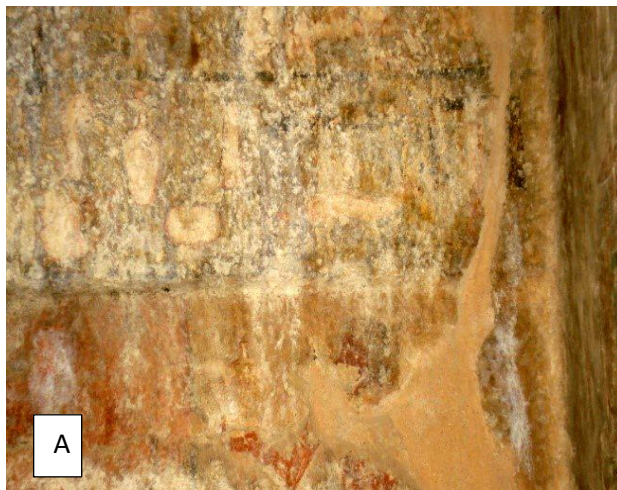
Raman spectra showed a slight degree of egg yolk that was used as a binding media. The sample was characterized due to the presence of the functional groups as follows: (n=CH) in 3007, (n=CH) in 2927, (C=C) in 1667, (d- CH) in 1442, (C≡H) in 1265 and (C-O) in 1156 as presented in [FIGURE 5].



[FIGURE5]: The spectra presented the use of egg yolk as a binding media of the pigment.

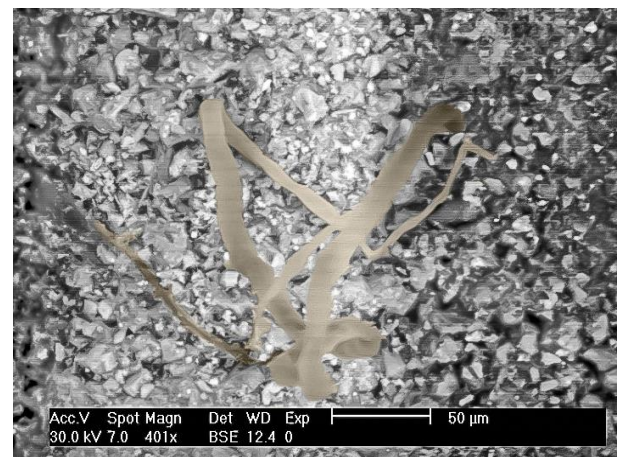
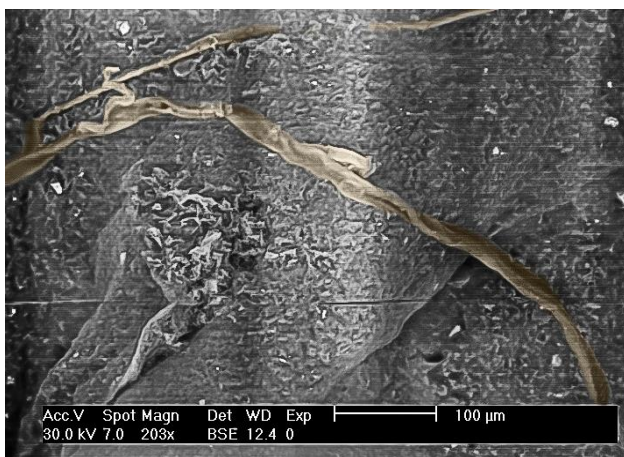
D. Deterioration Phenomena

Three main factors should be studied to understand the deterioration factor; first; the environmental conditions inside the tomb, especially after it was closed for five years, second; the crystallization of salts inside the tomb [FIGURE 6], and third; the different species of microorganism affecting the mural painting's structure that changes with time [FIGURE 7].



[FIGURE 6]: A: the crystallization of salts over the pigments, B: The SEM of the salts (200X).

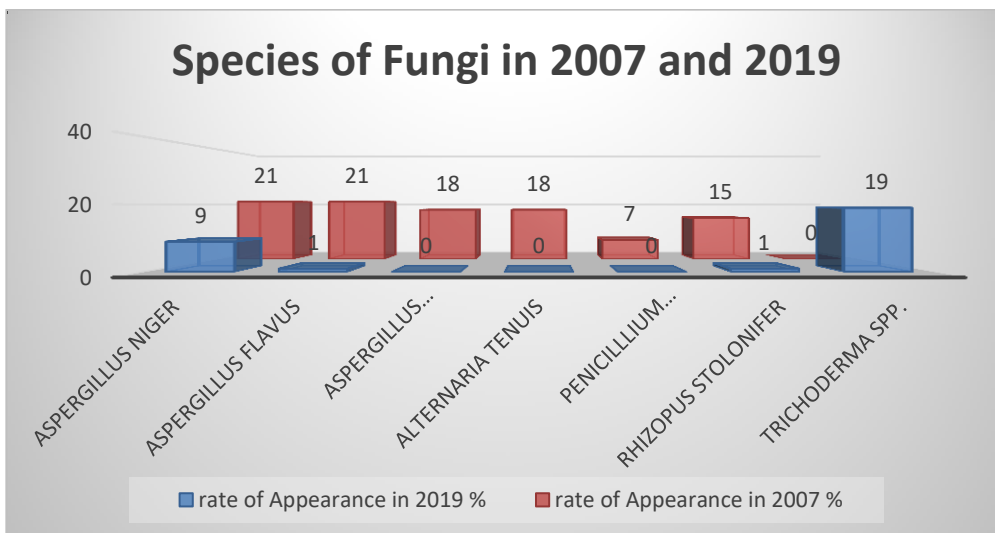
© Photo taken by the researcher



[FIGURE 7]: The mycelium penetrate the mural paintings layer. (200x, 400x)

E. Identification of Microorganisms

During the four seasons in 2019 swabs analysis were taken to culture the microorganisms and compared with the microorganisms that had previously deteriorated the tomb in 2007 and in 2019 [FIGURE 8].



[FIGURE 8]: The species of fungi founded in 2007 and on 2019.
© Designed by the researcher

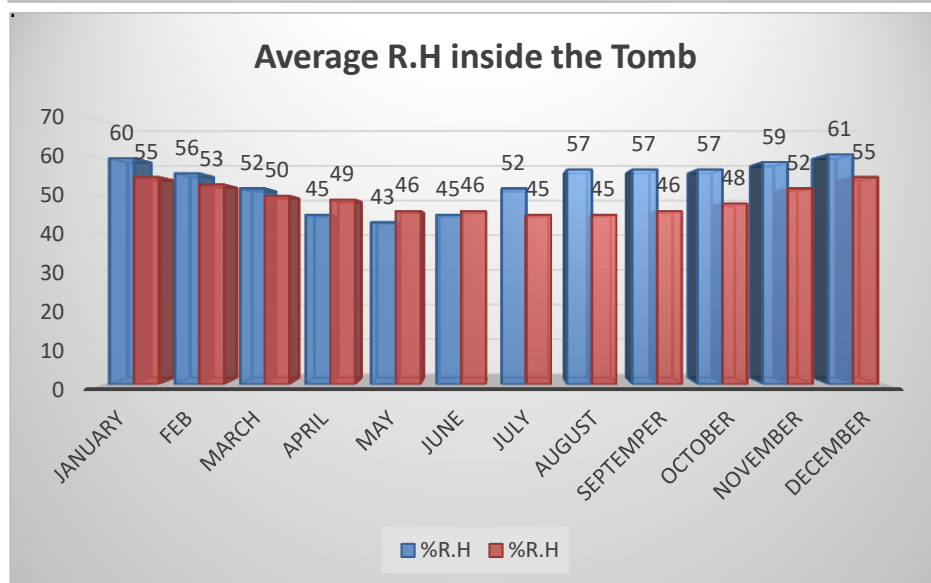
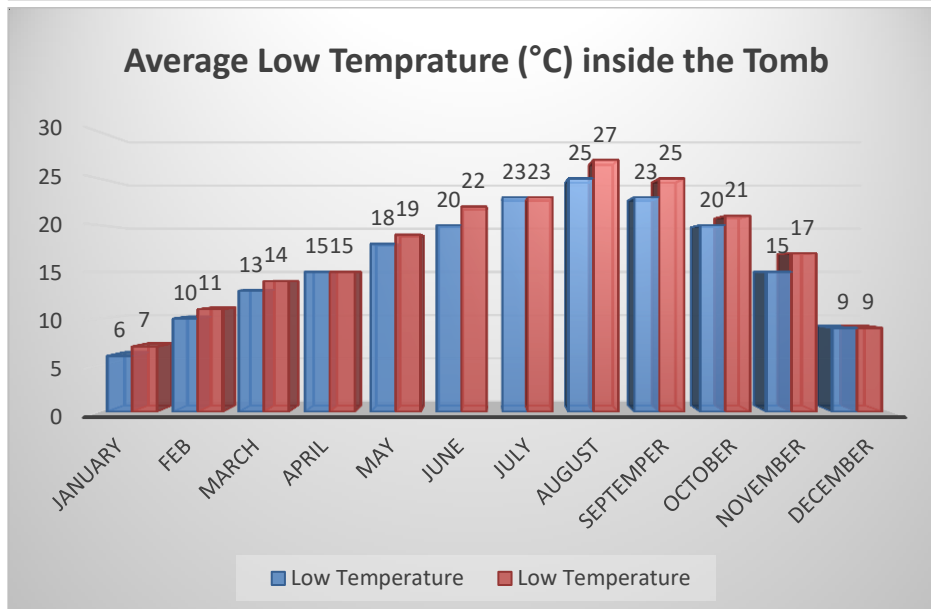
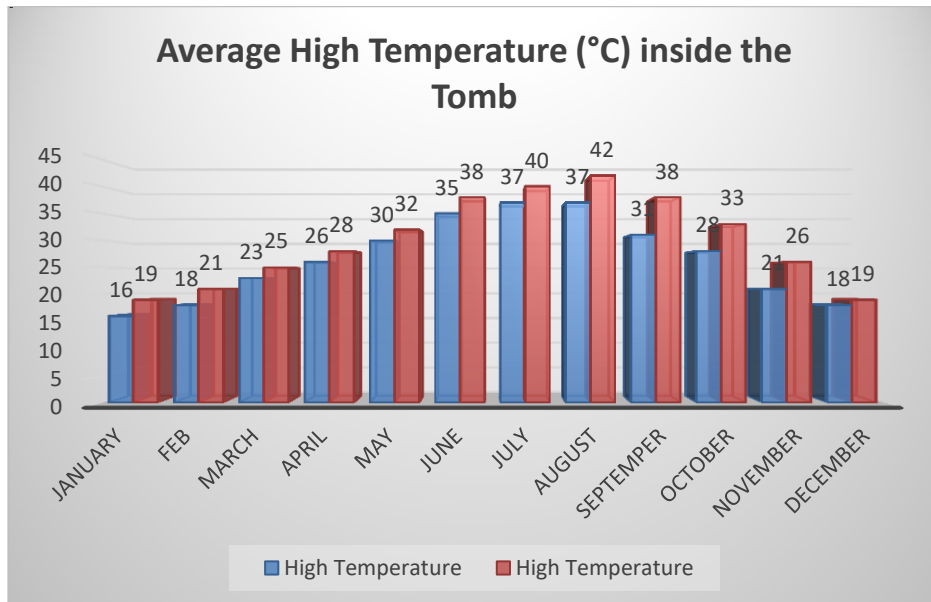
The tomb was closed particularly from 2011 to 2017, then re-opened for conservation in 2018 after crystallization of salts over the wall paintings. The swabs in 2019, showed that the tomb deteriorated with *Aspergillus niger* and species of *Trichoderma* [FIGURE 9].



[FIGURE 9]: The deterioration of the tomb by salts and Biodeterioration effects.
© Photo taken by the researcher

F. Environmental Condition

The environmental conditions inside the tomb in both 2007 and 2019 were with average high temperature from 18 to 35°C, and the average low temperature 8 to 11°C in 2007 and from 9 to 10 °C in 2019, while the average relative humidity from 45 to 59% in 2007 and from 46 to 61% in 2019 [FIGURE 10].



[FIGURE 10]: The environmental condition inside the tomb in 2007 and 2019.

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G. Color Change by Colorimeter

The data showed that the color change (ΔE) for the pigments in the tomb were less than 5 which is in the safe range as presented in [TABLE 1].

Pigments	2007			2019			ΔE
	ΔL	Δa	Δb	ΔL	Δa	Δb	
Red	53.53	-1.98	13.47	52.98	-3.29	13.11	1.51
Blue	-54.53	-1.77	36.26	-53.51	-3.34	35.15	2.66
Green	-59.45	-45.98	55.03	-57.90	-43.59	54.79	2.86

[TABLE 1]: The color change for the main pigments inside the tomb in 2007 and 2019.

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H. Antifungal Activity and the Identification of Active *Trichoderma spp*

The positive control of *Aspergillus niger*, *Aspergillus flavus*, and *A. alternata* grew faster and significantly formed a large colony in the control plate; the growth diameter was about 8.89; 8.81; 8.71, respectively. According to the biculture plate, only three species of *Trichoderma* affected the growth rate of the three fungi *Aspergillus niger*, *Aspergillus flavus*, and *Alternaria alternata*. The effective *Trichoderma* species were identified according to the GenBank as «*Trichoderma harzianum*, *T. hamatum*, and *T. aureoviride*».

The antifungal activity of the three *Trichoderma* species were assayed as illustrated in [TABLE 2].

Fungi	<i>A. niger</i>		<i>A. flavus</i>		<i>Alternaria alternata</i>	
	Colony diameter (mm)	Inhibition %	Colony diameter (mm)	Inhibition %	Colony diameter (mm)	Inhibition %
Control	8.89	0	8.81	0	8.71	0
<i>Trichoderma harzianum</i>	4.52	65.12	3.23	63.33	2.11	75.77
<i>T. aureoviride</i>	4.16	48.14	3.35	61.97	2.24	74.28
<i>T. hamatum</i>	4.66	4.58	3.09	64.92	2.36	72.90

[TABLE 2]: Antifungal effects of *Trichoderma spp.* on *Aspergillus niger*, *Aspergillus flavus*, and *Alternaria alternata*. © Designed by the researcher

1. Optimisation of Antifungal Activity

The tomb was deteriorated by three main factors. First, salt crystallization. Second, the temperature inside the tomb. Third, poor ventilation which increases humidity, especially inside the burial chamber.

A. Salt Concentration

According to the EDX analysis, the tomb was deteriorated by two types of salts, sodium nitrate, and sodium chloride. To detect the effect of salt on growth and antifungal

activity, after incubation for 14 days in a shaker, different concentrations of NaCl: NaNO₃ (1: 1) from 0 to 5% were carried out. In the end, the biomass accumulations for each concentration were dried and weighed, the percentage of inhibition was calculated according to Topps and Wain equation methodology²⁰, as represented in the [TABLE 3]

NaCl:NaNO ₃ (1: 1) Salt concentration	<i>Trichoderma spp.</i> Dry weight		Growth Reduction (%)		
			<i>A. niger</i>	<i>A. flavus</i>	<i>Alternaria alternata</i>
0	<i>T. harzianum</i>	0.36± 0.01	23.1±0.4	31.6±0.26	36±0.3
	<i>T. hamatum</i>	0.37±0.1	18.6±0.2	20.12±0.1	18.5±0.36
	<i>T. aureoviride</i>	0.39±0.1	19.6±0.1	19.1±0.37	20.1±0.01
1	<i>T. harzianum</i>	0.38±0.02	30.4±0.1	32.2±0.26	36.9±0.006
	<i>T. hamatum</i>	0.40±0.001	19.2±0.34	22±0.001	19.14±0.01
	<i>T. aureoviride</i>	0.39±0.001	20.3±12	22.3±0.01	21.8±0.42
2	<i>T. harzianum</i>	0.38±0.02	32±0.42	33±0.01	41.3±0.24
	<i>T. hamatum</i>	0.41±0.1	23.53±0.23	24.2±0.04	23.75±0.3
	<i>T. aureoviride</i>	0.40±0.001	23.4±0.02	24.98±0.25	25.3±0.1
3	<i>T. harzianum</i>	0.39±0.002	45.8±0.54	49.2±0.002	48.9±0.36
	<i>T. hamatum</i>	0.43±0.2	31.82±0.65	29.86±0.14	31.56±0.001
	<i>T. aureoviride</i>	0.44±0.1	27.12±0.7	28.6±0.01	30.12±0.02
4	<i>T. harzianum</i>	0.44±0.001	51.3±0.2	53.21±0.1	53.28±0.003
	<i>T. hamatum</i>	0.43±0.02	33.1±2.3	33.6±14	33.9±0.1
	<i>T. aureoviride</i>	0.41±0.002	31.98±0.2	31.9±0.7	35.13±0.01
5	<i>T. harzianum</i>	0.46±0.002	52.12±0.5	52.4±0.32	53.6±0.12
	<i>T. hamatum</i>	0.45±0.001	33.69±0.1	36.12±45	35.9±21
	<i>T. aureoviride</i>	0.40±0.001	33.15±0.4	33.7±0.25	35.64±0.23

[TABLE 3]: Dry weights of *Trichoderma harzianum*, *T. hamatum*, and *T. aureoviride*. and its Antifungal activity expressed as % of the growth reduction of the *Aspergillus niger*, *Aspergillus flavus*, and *Alternaria alternata* at different salt concentration. © Designed by the researcher

B: Temperature

To assay, the effect of temperature, different degrees from 20°C to 50°C were applied and essayed its effect on the growth and antifungal activity after incubation for 14 days in a shaker. The biomass accumulations were dried and weighed, as represented in the [TABLE 4].

²⁰ TOPPS & WAIN 1957: 506-511.

TRICHODERMA SPP. IN CULTURAL HERITAGE MURAL PAINTINGS OF ANCIENT EGYPTIAN TOMB, THEIR ANTIFUNGAL AND BIOACTIVITY

Temperature (°C)	Trichoderma spp. Dry weight		Growth Reduction (%)		
			<i>A. niger</i>	<i>A. flavus</i>	<i>Alternaria alternata</i>
20	<i>T. harzianum</i>	0.21±0.1	24.16±0.3	20.13±0.65	18.21±0.64
	<i>T. hamatum</i>	0.23±0.001	29.32±0.001	28.11±0.01	25.12±0.06
	<i>T. aureoviride</i>	0.25±0.1	31.22±0.11	34.24±0.25	37.23±0.007
25	<i>T. harzianum</i>	0.24±0.002	45.23±0.14	43.32±0.1	39.32±0.6
	<i>T. hamatum</i>	0.26±0.01	48.32±0.35	48.2±0.004	47.32±0.1
	<i>T. aureoviride</i>	0.25±0.06	45.21±0.17	46.98±0.3	47.98±0.1
30	<i>T. harzianum</i>	0.48±0.002	56.3±0.4	55.21±0.01	58.6±0.21
	<i>T. hamatum</i>	0.39±0.3	51.36±0.1	64.93±0.87	50.36±0.41
	<i>T. aureoviride</i>	0.40±0.6	48.37±0.1	50.33±0.12	52.69±0.005
35	<i>T. harzianum</i>	0.41±0.25	54.31±0.02	52.4±0.21	55.24±0.2
	<i>T. hamatum</i>	0.43±0.06	54.1±0.2	67.12±0.3	49.65±0.001
	<i>T. aureoviride</i>	0.45±0.004	50.71±0.8	52.3±0.04	55.36±0.01
40	<i>T. harzianum</i>	0.46±0.6	40.32±0.1	45.21±0.25	50.21±0.03
	<i>T. hamatum</i>	0.37±0.1	38.21±0.04	39.54±0.36	36.51±0.01
	<i>T. aureoviride</i>	0.40±0.7	36.65±0.1	39.74±0.42	37.62±0.69
45	<i>T. harzianum</i>	0.41±0.001	35.21±0.74	33.96±0.1	31.6±0.2
	<i>T. hamatum</i>	0.31±0.8	31.23±0.2	32.6±0.81	31.12±0.5
	<i>T. aureoviride</i>	0.35±0.01	30.6±12	31.21±0.4	30.61±0.03
50	<i>T. harzianum</i>	0.30±0.01	28.12±0.3	24.31±0.65	20.17±0.64
	<i>T. hamatum</i>	0.29±0.3	29.32±0.001	28.11±0.01	25.12±0.06
	<i>T. aureoviride</i>	0.29±0.01	25.21±0.18	24.54±0.32	20.69±0.23

[TABLE 4]: Dry weights of *Trichoderma harzianum*, *T. hamatum*, and *T. aureoviride* and its Antifungal activity expressed as % of the growth reduction of the *Aspergillus niger*, *Aspergillus flavus*, and *Alternaria alternata* at different temperature. © Designed by the researcher

C. pH Value

The average pH from (5 to 8) was examined its effect after incubation for 14 days at 35°C by using 0.1 N HCL and 0.1 N NaOH. The biomass accumulations were dried and weighed, as represented in the [TABLE 5].

pH Value	Trichoderma spp. Dry weight		Growth Reduction (%)		
			<i>A. niger</i>	<i>A. flavus</i>	<i>Alternaria alternata</i>
5	<i>T. harzianum</i>	0.47±0.024	46.23±0.07	50.1±0.06	51.62±0.06
	<i>T. hamatum</i>	0.44±0.001	45.91±0.01	42.31±0.07	50.41±0.02
	<i>T. aureoviride</i>	0.40±0.32	41.23±0.06	51.01±0.001	51.36±0.9
5.5	<i>T. harzianum</i>	0.49±0.063	58.98±0.12	60.23±0.2	67.32±0.12
	<i>T. hamatum</i>	0.46±0.004	56.14±0.65	57.36±0.001	60.32±0.01
	<i>T. aureoviride</i>	0.44±0.17	52.13±0.1	53.62±0.22	57.32±0.23
6	<i>T. harzianum</i>	0.33±0.52	0.13±0.007	0.55±0.01	0.38±0.21
	<i>T. hamatum</i>	0.31±0.06	35.45±0.06	35.98±0.36	34.22±0.9
	<i>T. aureoviride</i>	0.30±0.14	36.2±0.01	38.62±0.11	40.98±0.07
6.5	<i>T. harzianum</i>	0.24±0.004	34.12±0.007	38.16±0.012	38.33±0.001
	<i>T. hamatum</i>	0.20±0.19	30.18±0.01	30.98±0.03	31.15±0.01
	<i>T. aureoviride</i>	0.19±0.001	29.26±0.07	29.88±0.045	30.19±0.07
7	<i>T. harzianum</i>	0.20±0.025	28.7±0.06	29.64±0.73	30.15±0.08
	<i>T. hamatum</i>	0.20±0.17	25.11±0.041	26.79±0.16	29.50±0.1
	<i>T. aureoviride</i>	0.19±0.1	21.33±0.4	22.14±0.01	20.36±0.41
7.5	<i>T. harzianum</i>	0.17±0.041	15.32±0.01	18.98±0.2	19.63±0.03
	<i>T. hamatum</i>	0.15±0.01	16.9±0.21	18.63±0.01	19.1±0.23
	<i>T. aureoviride</i>	0.15±0.021	14.32±0.01	14.82±0.31	14.66±0.5
8	<i>T. harzianum</i>	0.11±0.021	10.22±0.003	17.32±14	20.35±0.01
	<i>T. hamatum</i>	0.10±0.15	13.34±0.1	13.45±0.06	11.62±0.07
	<i>T. aureoviride</i>	0.08±0.021	14.23±0.21	13.98±0.01	14.25±0.03

[TABLE 5]: Dry weights of *Trichoderma harzianum*, *T. hamatum*, and *T. aureoviride* and its antifungal activity expressed as % of the growth reduction of the *Aspergillus niger*, *Aspergillus flavus*, and *Alternaria alternata* at different pH value. ©Designed by the researcher

IV. DISCUSSION

According to the swabs that were previously taken from the mural paintings of the Egyptian tomb (Nefer- Bau- Betah) in 2019, species of *Trichoderma* were detected. The EDX analysis of the ground layer of the paintings consisted of calcite and gypsum which is an evidence that the tomb had been prepared by tempera technique²¹. The EDX of the pigments showed that both the blue and green pigment were ancient manufactured pigments; Egyptian blue and Egyptian green, while, the red pigment was hematite. All these pigments were mixed with a binding media. The Raman spectroscopy analysis indicated that the binding media was egg yolk. According to Lucas & Harris²², mixing the pigments with binding media was applied only when ancient Egyptians prepared tombs by tempera technique and in this case Nefer Bau Betah Tomb was decorated by the egg yolk tempera technique which is one of the most common technologies used in ancient Egypt.

The tomb of Nefer- Bau- Betah had been deteriorated in 2007 by *Aspergillus niger*, *Aspergillus flavus*, and *Alternaria alternata*. These three fungi were considered as the most deteriorating fungi that usually cause damage to the Egyptian mural paintings²³. Therefore, the threats posed by the biodeterioration factor have been studied in several researches in different countries²⁴. In 2019, the same tomb was badly affected by *Aspergillus niger* and species of *Trichoderma* and was deteriorated by salt crystallization.

According to the EDX analysis, two types of salts deteriorated the tomb, namely sodium chloride, and sodium nitrate. In 2007, the high temperature inside the tomb was on average from (31 to 39°C), but in 2019 the high-temperature average increased from (35 to 44°C). These temperatures were theorized as an optimized temperature for the growth of *Trichoderma*.²⁵ On the other hand, the relative humidity inside the tomb ranged from 46 to 61 %. These three main factors inside the tomb (temperature, humidity, and salt) played a main role for the growth of *Trichoderma*.

The swabs that were taken in 2019 displayed that the tomb was deteriorated by only *Aspergillus niger* and 3 species of *Trichoderma*. The growth of *Trichoderma* helped to control the growth and the bioactivity of other species that previously deteriorated the same tomb in 2007. Numerous studies have been carried out on the effect of *Trichoderma* in the inhibition of fungi.²⁶

Although *Trichoderma* saved the mural paintings from the effect of other microorganisms, it caused further effects by the color change in the natural and synthetic pigment. According to the spectrophotometer analysis, the ΔE was a little high in Egyptian blue and Egyptian green (the ΔE was about 2.5 which is easy to be noticed by the naked eye), while red hematite as a natural pigment was less deteriorated (the ΔE was

²¹NICHOLSON & SHAW 2000: 269.

²²LUCAS & HARRIS 1948: 202.

²³HELMI& ET AL. 2009: 306.

²⁴CIFERRI 1999: 879-885; HOFFLAND & ET AL. 2004: 258-264; MILANESI & ET AL. 2006A: 168-173; MILANESI& ET AL. 2006B: 7-13; VENERANDA & ET AL. 2017: 19599-19608.

²⁵ABOU-ZEID & ET AL. 2011: 233-244; DARYAEI & ET AL. 2016A: 999-1009; DARYAEI& ET AL. 2016B: 24-30.

²⁶ZHOU & ET AL. 2017: 18-20; ZHANG & ET AL. 2018: 59-66; KHAN & ET AL. 2020: 817; ZHU & ET AL. 2020: 105161.

about 1.5 which can be neglected). This result needs special studies in the future to assay why the synthetic pigments are more sensitive than the natural pigments.

The preliminary examination for antifungal activity of all *Trichoderma spp.* showed that only three species have the ability to control the growth of "*Aspergillus niger*, *A. flavus*, *Alternaria alternata*." which were identified according to 16s DNA sequences to "*Trichoderma harzianum*, *T. hamatum*, and *T. aureoviride*." These three species of *Trichoderma* have the ability to control the growth of the other fungi.²⁷

To assess the optimum conditions three main factors were studied, first, salt crystallization inside the tomb as presented in the EDX results, where two types of salts were found: NaCl and NaNO₃, second, the temperature inside the tomb and third, pH value.

The optimum salt concentration required for the production of antifungal activity was examined with different salt concentrations (0- 5%), the sodium chloride and sodium nitrate were prepared (1:1). The data showed that 4% of NaCl: NaNO₃ (1:1) was the optimum concentration of antifungal activity²⁸ for *T. harzianum* in inhibiting the growth of *A. flavus*, while 5 % of NaCl: NaNO₃ (1:1) was the best concentration for antifungal activity of all *Trichoderma* species to control the growth rate of other fungi.²⁹

The experimental test represented that the antifungal activity of *T. harzianum* was found to be optimum at 30°C, while the 35°C was the optimum temperature for the antifungal activity for both *Trichoderma hamatum*, and *T. aureovirid*. These results corresponded with the results of Sterflinger³⁰, Hoell³¹ and Hossemi & Soltani³². The pH value was essayed to indicate the optimum value for antifungal activity of the *Trichoderma* species, the acidic 5.5 pH was the optimum value of antifungal activity of all species of *Trichoderma* and controlled the growth rate of other fungi³³.

²⁷ LORITO & ET AL. 1993: 302-307; VITERBO & ET AL. 2001:169-174; KÜÇÜK& ET AL. 2003: 247-253; SHALINI & KOTASTHANE 2007: 2272-2281; SHARMA & ET AL. 2011: 19898-19907; BAAZEEM& ET AL. 2021: 331.

²⁸ AIT-LAHSEN & ET AL. 2001: 5833–5839.

²⁹ BUGNI & IRELAND 2004: 143-163; HARMAN 2006: 190-194.

³⁰ STERFLINGER 1998: 217-281; STERFLINGER 2018: 10-12.

³¹ HOELL & ET AL. 2005: 180-186.

³² HOSSENI & SOLTANI 2014: 753–761.

³³ STEYAERT& ET AL. 2010A: 198-208; STEYAERT & ET AL. 2010B: 179-188; DARYAEI & ET AL. 2016: 999-1009.

V. CONCLUSION

In this research, two swabs were taken from the same tomb Nefer Bau Betah in 2007 and 2019. The swab analysis in 2019 showed that the microorganisms that were previously found in 2007 had disappeared and new species of *Trichoderma* were isolated. Three species of *Trichoderma* were identified according to their bioactivity effect over *Aspergillus niger*, *Aspergillus flavus*, and *Alternaria alternata* and by their sequences in the GenBank to «*Trichoderma harzianum*, *T. hamatum*, and *T. aureoviride*» These three *Trichoderma* species have the ability to control the growth rate of the microbes that were found in 2007. The optimization factors for increasing the bioactivity of the *Trichoderma* spp. were 5% of sodium nitrate and sodium chloride that crystallize in the tomb with an average temperature between 30:35°C in acidic pH (pH=5.5). These conditions helped *Trichoderma* species to grow and work as antifungal factors in the tomb *Aspergillus niger*, *Aspergillus flavus*, and *Alternaria alternata* but it caused a little effect in the color change of the pigment inside the tomb especially the blue and green Egyptian pigments, while it caused less effect in the color change of red hematite pigment.

Finally, the effect of the bioactivity of *Trichoderma* species on the ancient Egyptian pigments and media, and a biochemical studies for these pigments will be discussed in a future study.

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THYMOL EFFICIENCY IN CONSERVATION PROCEDURES APPLIED TO INFECTED
HANDWRITTEN PAPER ARCHIVE IN
THE EGYPTIAN NATIONAL ARCHIVES *DAR-ELMAHFOUZAT*

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ABSTRACT

[AR] تقييم كفاءة الثيمول كاحدى اجراءات الصيانة والترميم تطبيقا على السجلات الورقية المصابة بدار المحفوظات المصرية دار المحفوظات الوطنية المصرية هي ثاني أقدم دار أرشيفية في العالم من أجل حماية جميع الوثائق والأوراق الأثرية والتاريخية الرسمية من الضياع والسرقة. و الدار تمتلك بنحو 150 مليون وثيقة أثرية و تاريخية رسمية. الا انه و للأسف الشديد اغلب هذه المواد الأثرية قد تعرضت لتدهور بيولوجي مما أدى إلى خسارة كبيرة. ومن هنا تظهر أهمية استخدام مبيدات الفطريات و قد وقع الاختيار على أحد أكثر المبيدات شيوعا في مجال الآثار وهو «الثيمول» لدراسة مدى كفاءته تجاه الفطريات عند استخدامه بتركيزات مختلفة. هذا إلى جانب دراسة أولوية الحفظ للأرشيف الورقي المكتوب بخط اليد لعقود الزواج «بمحكمة دمياط» لما له من أهمية كبيرة في إبراز معلومات غاية في الأهمية وثائقيا وذلك بعد تعرضه لعدوى فطرية. استراتيجيات عمليات الترميم والصيانة التي تمت بالدراسة تتم من اجل الحفاظ على هذا الدفتر الورقي من أجل الحفاظ عليه لما يحويه من معلومات أثرية هامة. كما تم استخدام بعض التقنيات الفحوص والتحليل خلال الدراسة وهي: طريقة حيود الأشعة السينية (XRD) للتعرف على الحبر الكربوني، والتحليل الطيفي للأشعة تحت الحمراء (FTIR) لتحديد المادة الرابطة للأحبار المستخدمة ومدى بلورة السيليلوز المكون الرئيسي للورق، حيث أظهرت النتائج أن الحبر الأسود المستخدم فلا الوثائق الورقية بالدفتر عبارة عن كربون وأن المادة الرابطة للحبر هي الصمغ العربي. تم تطبيق عدة خطوات لترميم الدفتر مثل عملية التنظيف، تثبيت الأحبار، فرد الأوراق، إصلاح التمزقات، تدعيم الأجزاء الضعيفة وإزالة الترميمات السابقة غير المناسبة. وعلى هذا تهدف هذه الدراسة إلى إلقاء الضوء على دار المحفوظات الوطنية المصرية وإبراز دورها المهم في حماية وحفظ الوثائق الأثرية والتاريخية فضلا عن تقييم كفاءة الثيمول تجاه الفطريات باستخدام تركيزات مختلفة مع شرح أهم إجراءات الترميم المختارة للدفتر الورقي المكتوب بخط اليد الخاص بعقود الزواج بمحكمة دمياط.

[EN] The Egyptian National Archives *Dar-Elmahfouzat* is the second oldest archive house in the world built in order to protect all the official archaeological and historical documents and papers from loss and theft. It possesses about 150 million official archaeological and historical documents.

Unfortunately, all these archaeological materials are exposed to biological degradation which results in great loss. Hence the importance of using fungicides. The choice fell on one of the most commonly used in the field "thymol" and its efficiency towards fungi in different concentrations. The author gives the priority of conservation to this important handwritten paper archive of the marriage contracts' of Damietta court, because of their great importance to posterity and to highlight such significant historical data threatened by fungal infection. The specific conservation strategies employed to conserve this paper archive were meant to keep them safe and secure and to give us the important archaeological information that they contain. Also some analytical methods were used here: X-ray diffraction (XRD) method for identifying the carbon ink, Fourier Transform Infrared Spectroscopy (FTIR) for determining the ink binder and the paper crystallinity. The results revealed that the black ink was carbon and ink binder was Gum Arabic. Different types of conservation processes were used: Cleaning process; fixing the inks; flattening and crease removal; repairing tears and supporting the weaker parts in completion process; and inappropriate previous repairs removal. This study aims to shed light on the Egyptian National Archives *Dar-Elmahfouzat* and highlight its important role. Also clarifying its importance in protecting and preserving the archaeological and historical documents, explain the thymol efficiency towards fungi in different concentrations and the most important treatment procedures for the selected handwritten paper archive of the marriage contracts of the court of Damietta.

KEYWORDS: Archive, conservation, *Dar-Elmahfouzat*, paper, previous repairs.

I. INTRODUCTION

The Egyptian national archives *Dar-Elmahfouzat* is the second oldest archive house in the world¹. Its establishment dates back to 1829 by Muhammad ʿAli Pasha under the name of the *aL-Daftarkhana*; in order to protect all the official archaeological and historical documents and papers from loss and theft. Its name was changed to the Egyptian National Archives *Dar-Elmahfouzat* in 1935. About 150 million official archaeological and historical documents and a rare library that includes 10833 books and all the treaties of Egypt during the Ottoman Empire and 27,500 rare maps for Egypt and the world are housed there.

This building includes:

- **Records:** For all births and deaths all over Egypt.
- **Expense Records:** It includes agricultural lands tax expense from the year 1905.
- **The Library:** It includes most importantly 10,833 copies of books e.g. (Newspaper of «The Egyptian Facts» from the year 1885, the «Decreto» or Khedives' decisions, the ambassadors' agreements at the Ministry of the Foreign Affairs, the yearly statistic for the Egyptian cotton from the year 1911, treaties between Egypt and other foreign countries, the old law of Egyptian police, geographic evidence of Egyptian cotton).
- **The Other Building (the Archives of *Al-Daftarkhana*) includes a set of documents:**

Such as: Records of the money house competent of Legacy; records of births, vaccinations for the Ministry of Health, and records of deaths or death reports².

Due to unfavorable conditions of storage the archaeological and historical documents are currently in a bad condition. The most significant types of damage include dirt, stains, tears, loss, biological deterioration, brittleness, folding, creasing, fading of colors and ink damage. If these worthy documents are not treated, they could be lost forever.

A lot of steps of restoration need to be applied: cleaning, consolidation and ink fixing³. Different methods have been developed by conservators and scientists interested in manuscripts to develop techniques in closely related fields (Librarians and owners of special collections)⁴. In the last years a lot of developments have been made in paper conservation⁵.

Using thymol is one of the most important phytochemical components against fungal activity because of its pharmacological and bioactive potential effects as an alternative natural anti-parasite. Thymol is a natural product found in *Thymus*

¹ KIAN BYRNE 2020: 1-3.

² MINISTRY OF FINANCE DOCUMENTS 2020: 10.

³ WOODS 2006: 200-224; ABDEL-MAKSOUH 2011: 47-49.

⁴ SHAHINE 1990: 217-223; QUANDT 1996: 1-12; ABIGAIL 1996: 1-30; EL-MOSELHY 2012: 184-186.

⁵ SHAHINE 1990: 217-223; QUANDT 1996: 1-12; ABIGAIL 1996: 1-30.

kotschyanus. It is a phenol that is a natural monoterpene derivative of cymene. It has a role as a volatile oil component⁶.

This study aims to highlight the importance of the Egyptian National Archives *Dar-Elmahfouzat* in protecting different archaeological and historical documents. The study illustrates the restoration and conservation procedures for the handwritten paper archive of the marriage contracts from the court of Damietta through different steps of conservation. Also, analytical techniques were applied in the study: X-Ray diffraction (XRD) for identifying the ink type, Fourier Transform Infrared Spectroscopy (FTIR) for determining the ink binder and paper crystallinity and finally, confirmation on the thymol efficiency in conservation procedures.

II. MATERIALS AND METHODS

Controlling the biological degradation is considered one of the most important procedures of the conservation process. In this study the author used thymol, one of the fungicides which already have been proven effective in the field, after restoration of the handwritten paper archive of the Marriage Contracts' from the Court of Damietta that are preserved in the Egyptian National Archives *Dar-Elmahfouzat*. Some analytical methods have been also done. The author provided the steps as follows:

1. Visual Assessment

The authors used high resolution Nikon camera for documentation process, in order to record the different aspects of deterioration on the paper archive and in addition to the critical eye observations.

2. X-Ray Investigations for Identification of Ink and Determining the Paper Crystallinity

A few milligrams of the ink powder from some fragments was prepared as ink sample then analyzed by X-ray diffraction using Compact X-ray Diffractometer System PW 1840 – Analytical Equipment – Philips – Eindhoven. The sample was studied in Cairo University labs.

For determining the paper crystallinity a very small fragment (the paper sample) was analyzed by Compact X-ray Diffractometer System PW 1840 – Analytical Equipment – Philips – Eindhoven – the Netherlands (Cu K α radiation with Ni-filter) in Cairo University labs.

⁶ JOHN WILEY & SONS, INC. 2021: 1-100; WAFAA HIKAL 2021: 2162.

3. Fourier Transform Infrared Spectroscopy (FTIR) for determining the Ink Binder

Identification of ink binder was done by using total reflectance – Fourier transform infrared (ATR FT-IR) spectroscopy using Fourier transform infrared spectroscopy (JASCO-FT/IR-6100) in Laser Technology Unit (LTU), Center of Excellence for Advanced Sciences (CEAS), National Research Center (NRC), Dokki, Giza, Egypt.

4. Thymol Preparation

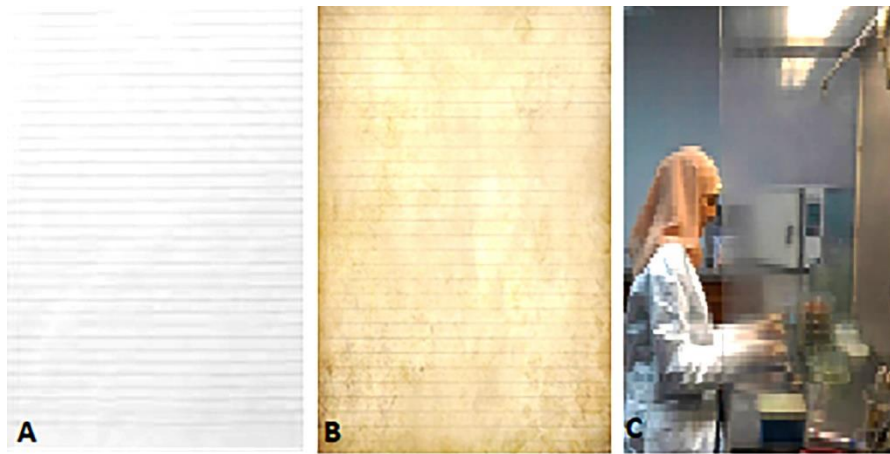
Thymol has been selected in the study due to its broad antimicrobial and pesticidal spectrum, also it is commercially available for treatment as it was more economical and effective. Thymol was obtained from the local market: Company of «Sons El-Araby Shama» in Bab El-Khalq – Cairo. Thymol suspensions were prepared according to recommended manufacturer's concentrations: three different concentrations (0.3%, 0.5%, and 0.7%). Thymol traces were dissolved in distilled water or other suitable organic solvents to get the required concentration. In this study thymol came in the form of a white powder and then was solubilized in alcohol 70%.

A. Paper Sample Preparation

After thymol concentrations were prepared, the paper sample was prepared. A sheet of paper was chosen from the surplus of the dilapidated records used in the place of study (*Dar-ELmahfouzat*) in order to be the closest to the document under study and application, as these records have the same chemical and structural composition. Then the sheet of paper was aged in calibrated condition room (heat oven) at the National Institute for Standards with conditions of temperature (70°C) and relative humidity RH (50%) for 8-16 days⁷. This sheet of aged paper was treated with thymol by spraying according to the areas (A/0.3%, B/0.5%, C/0.7%, D/control (210 X 279 mm)). The infected sheet with identified microbial spores of *Aspergillus sp.* (as this family is the most common in affecting the archaeological papers) was placed inside a vacuum chamber and incubated under optimum conditions at 28-30°C⁸ as showed in [FIGURE 1]. The antifungal activity of the thymol used was tested according to growth zone (%) of the treatment aged sheet of paper. The sheets treated with thymol in different concentrations were compared with the control sheet of aged paper. The percentage of fungal growth inhibition was calculated according to the Pandey *et al.* (1982) formula: Growth inhibition% = [(growth in the control — growth in the sample)/growth in the control] × 100.

⁷ JIM REEB & MIKE MILOTA 1999: 66-74.

⁸ ORLITA 2004: 157-163; PANGALLO *et AL.* 2007: 87-94.



[FIGURE 1]: The sheet of paper before and after ageing and after treated with thymol and infected with fungi inside the vacuum chamber: A- the sheet of new paper; B- the sheet of paper after ageing; C- treatments of the aged sheet of paper inside the vacuum chamber.

III. RESULTS AND DISCUSSION

1. Visual Assessment and Historical Background

A handwritten paper archive of the marriage contracts of the court of Damietta that preserved in The Egyptian National Archives *Dar-Elmahfouzat*. Its contents were written in black ink and the numbers are in red ink. The storage conditions of the paper archive are unsuitable which resulted in different deterioration aspects. Documentation process for the condition survey was done by using high resolution camera. The results revealed some dirty moist dust on the surface, contraction in different places, embrittlement of some parts, loosening in the stitching, warping of some parts of the edges, stiffness and lack of flexibility of the edges, inappropriate old restoration, and loosening in some parts which resulted in separation of small parts from the sheets [FIGURE 2].

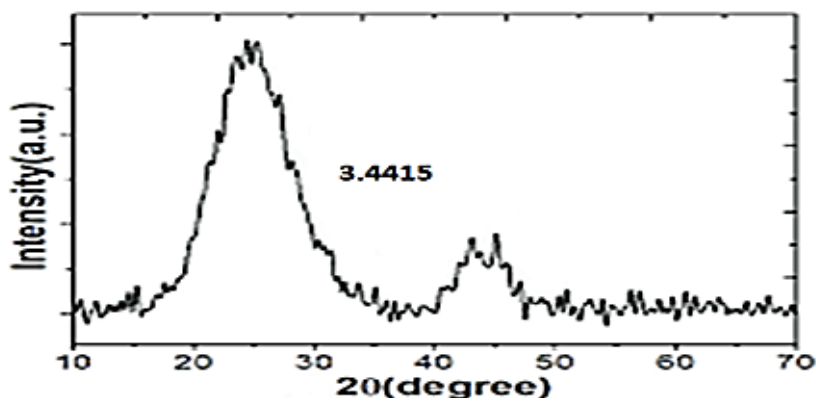


[FIGURE 2]: Visual Assessment of the paper archive showing different aspects of deterioration on the paper sheets: 1- Inappropriate old restoration, some dirty moist dust found on the surface and warping of some parts of edges; 2- Contraction in different places, embrittlement of some parts and loosening in the stitching; 3- The loosening in some parts resulted in separation of small parts from the sheets.

2. X-Ray Investigations

A. Identification of Inks by X-Ray Diffraction (XRD)

The results showed that the black ink was made of carbon ink (which appeared in $002\theta=25.86^\circ$ which refers to 3.4415 \AA) [FIGURE 3]. Carbon inks were made from lampblack or soot mixed with a binder, commonly Gum Arabic which keeps carbon particles in suspension and adhere to paper⁹.



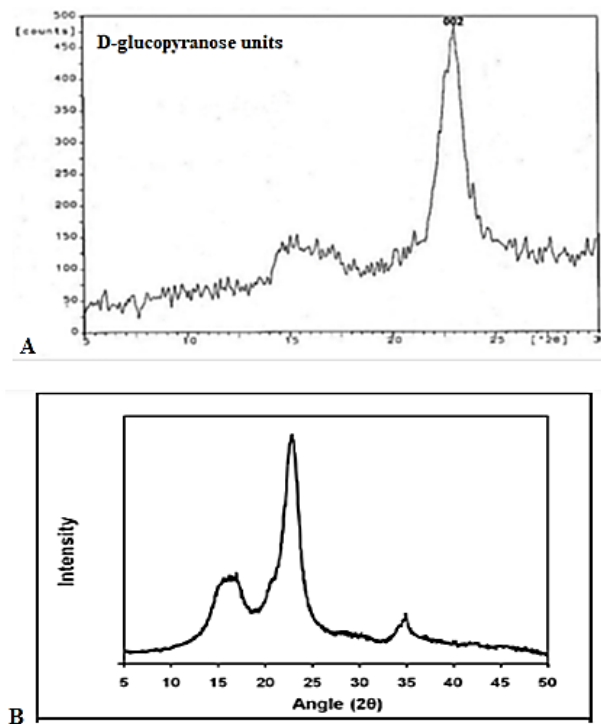
[FIGURE 3]: Identification of carbon ink by X-ray diffraction (XRD) of the paper archive.

© Done by researcher

B. X-Ray Diffraction Analysis for Determining the Paper Crystallinity

Cellulose is a high molecular weight linear polymer composed of D-glucopyranose units linked by β -1,4-glycosidic bonds. The repeating unit of cellulose is called cellobiose. Hydroxyl groups present in cellulose macromolecules are involved in a number of intra- and intermolecular hydrogen bonds that result in various ordered crystalline arrangements. This appeared in the peak 002 compared to the other parts of the chart in [FIGURE 4] which are a result in the ageing cycle with larger amorphous contributions.

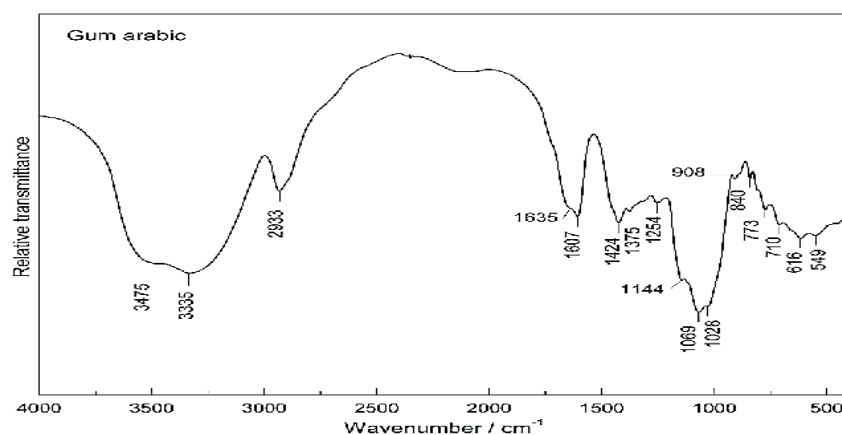
⁹ SIMMONS et AL. 2007: 129.



[FIGURE 4]: A- X-ray diffraction pattern of archaeological archive paper (done by researcher) compared to B- the standard X-ray diffraction spectra of cellulose crystallinity¹⁰

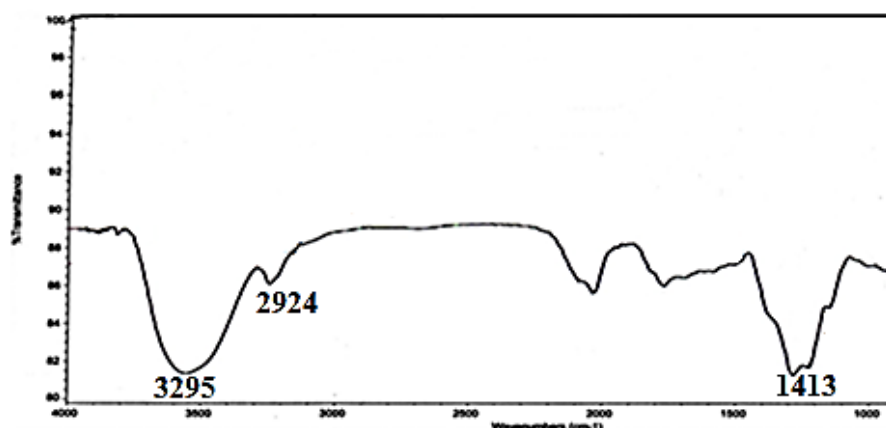
3. Fourier Transform Infrared Spectroscopy (FTIR) for determining the Ink Binder

The results reveal that the ink binder is Gum Arabic compared to the standard chart [FIGURES 5 & 6]. The FTIR spectra of Gum Arabic showed a broad and strong absorption band in the range of 3400 to 4000 cm^{-1} . Very strong band at 1300-900 cm^{-1} due to C–O and O–H stretching band at 3600 - 3200 cm^{-1} , which indicated the characteristics of polysaccharides.



[FIGURE 5]: Standard FTIR Spectrum of gum Arabic: ŽELJKA 2017: 18.

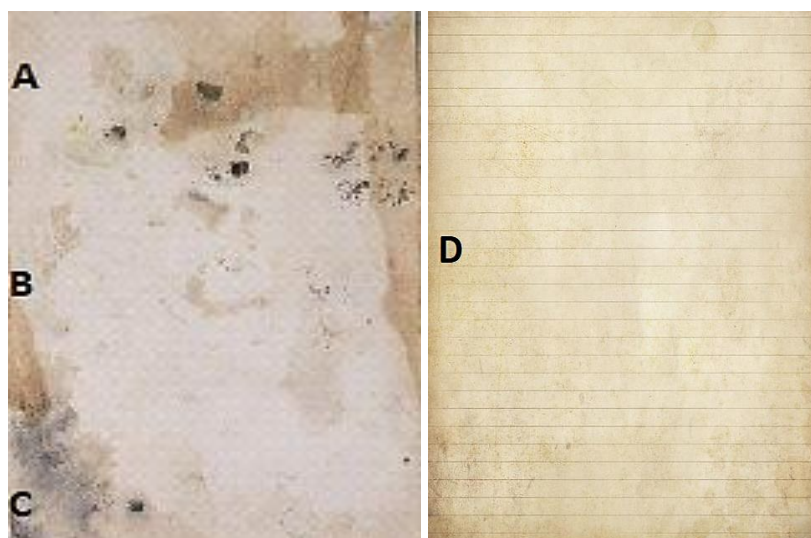
¹⁰ SUNKYU et AL. 2010: 3-10.



[FIGURE 6]: Fourier Transform Infrared Spectroscopy (FTIR) for determining the ink binder
© done by researcher

4. Thymol Efficiency in Conservation Procedures

After observation of the aged sheet paper which was treated with different concentrations (0.3%, 0.5%, and 0.7%) throughout a period of four weeks, it was noticed that the presence of fungal activity in the area of low concentration 0.3% was less than the area of 0.5% concentration (A and B region) and in the region of higher concentration 0.7%, where the fungal activity was much less in the area (C area) illustrated in [FIGURE 7].



[FIGURE 7]: Observation of the aged sheet paper which was treated with different concentrations in different areas (A/0.3%, B/0.5%, and C/0.7%, compared with the D/control area) after being infected with fungi.

The antifungal activity of thymol which were observed in the plates of the aged paper sample was explained in table 1 as follows:

Time	Concentration/ Growth inhibition (%)			
	A/0.3%	B/0.5%	C/0.7%	D/Control
Week 1	0	0	0	100
Week 2	1	0	0	100
Week 3	1.5	0	0	100
Week 4	2	1	0.5	100

[TABLE 1]: Antifungal activity of thymol which was observed in the aged sheet of paper areas compared with control. © done by researcher

IV. DISCUSSION

The investigations of the paper archive with the visual assessment which were explained in detail above revealed that the storage conditions of the paper archive were unsuitable which resulted in a lot of deterioration aspects. Damage processes left it suffering from weakness and susceptible to mechanical damage¹¹.

Carbon-based materials, such as carbon black inks in manuscripts have various structures ranging from amorphous to crystalline, with a high degree of graphitization and crystallinity.

Many researchers studied the structure of the carbon based materials and paper archive using various analytical tools, such as XRD which has been most widely employed for quantitative analysis¹². The analysis in the study approved that the black ink was made of carbon ink which is referred to in the interplanar distance of 3.4415 Å. Moreover, the FTIR proved that the binder of the ink was Gum Arabic, which includes a broad and strong absorption band in the range of 3400 to 4000 cm⁻¹ after comparing with the standard chart of Gum Arabic. Gum Arabic is used commercially as most common old poly-saccharine¹³.

All the different aspects of deterioration which appeared in the paper archive require different treatment and conservations procedures, that were applied by the author including the disinfection process, loosening of the binding, numbering the sheets of paper and cleaning process, fixing the inks, inappropriate previous repairs removal, flattening and crease removal, repairing tears, supporting the weakened parts and reassembling the separate small parts from the sheets, and finally the completion process for the missing parts.

¹¹ KIRSTY 2020: 8, 83.

¹² SANG-MIN LEE et AL. 2021: 153.

¹³ HAJER ADAM et AL. 2013: 174.

V. TREATMENT AND CONSERVATION PROCEDURES

Different materials and techniques were used to complete the procedures of the study. First using the alcohol for disinfection, and then using soft brushes in mechanical cleaning to remove dust. Subsequently, chemical cleaning of stains and rust, followed by the use of Klucel G for fixing the ink. Also flattening and crease removal and then completion process by using dyed tissue paper 7 g/m² and Klucel G 2% to offer support to paper in order to keep it safe and strong enough for handling and transport and inappropriate previous repairs removal as explained in the following steps:

1. Disinfection Process

The disinfection step can be applied before or after conservation steps¹⁴. There are a lot of obtainable physical and chemical methods of fungal damage disinfection¹⁵. In testing antimicrobial products' effectiveness, a 70% solution has far superior efficacy performance than the higher or lower concentrations. The most used forms in alcohols are isopropyl alcohol and ethyl alcohol (ethanol and alcohol). Alcohols have been used for years in sanitizing sprays; wiping agents to remove possible existent residues from contact surfaces; cleaning agent products (ethyl alcohol only), and fulfill the criteria of low toxicity to man and to the environment. Also thymol has a good relationship with collagen materials which promote the growth of micro-organism, it is transparent, colorless and thus does not change the color of the paper surface or produce any unwanted optical effects; and it has a long service of life¹⁶.

Ethanol was used commonly in microbiology as a disinfectant as it has a good toxic effect on fungi if the contact time is at least 2–3 min¹⁷. So the author used ethanol (98%) applied by spray techniques on the paper archive then left it to dry in the room temperature [FIGURE 9]. Also the author applied thymol in the successful concentration (0.7%); its efficacy has been previously tested for future antifungal preservation by spraying technique.

¹⁴ ABDEL-MAKSOU D 2006: 58-67.

¹⁵ ALLSOPP 2004: 25

¹⁶ ARTHUR 1998: 14

¹⁷ NITTÉRUS 2000a: 101-115.



[FIGURE 9]: The disinfection process applied by spray techniques.

2. Detaching the Binding, Numbering the Sheets of Papers and Cleaning Process

In order to obtain a better cleaning process of all parts of the archive paper document, the binding of paper should be detached then the sheets of papers must be numbered. Dirt and soiling were found on the surface of the paper archive. This resulted in physical damage to the document by abrading the fiber structure and inks. It had destroyed the aesthetic value of the document that lead to deformation of the other parts. The danger of the dirt is that it attracts moisture, atmospheric pollutants such as sulphur dioxide and hence forming sulphuric acid. Moisture could encourage mould growth as the spores are often found in the surface dust and disserve the visibility of decorations, inscriptions or information in the document¹⁸. Cleaning (mechanical and chemical)¹⁹ is an essential and vital technique of removing foreign materials from different sources for aesthetic reasons or reduction of superficial soil, grime or other types of dirt and deposits²⁰.

The author used the following steps in cleaning: For the safest intervention cleaning should be applied by gentle brushing for removal of the spots of loose surface dirt. Dust was collected from the document pages with a very soft brush²¹. White vinyl eraser to remove the sticky dirt²² in some areas where no writings are present²³, but in the case of soil/dust a soft brush was first, followed by a sponge rubber. Also the scalpel was used slightly. After dry cleaning with brush and eraser, absolute isopropyl alcohol was used away of ink writing. Soil deposits were removed by wet cleaning using a mixture of

¹⁸ ABDEL-MAKSOU D 2011: 47-49

¹⁹ MOURA 2008: 86-90.

²⁰ SHAHINE 1990: 217-223; WOODS 2006: 200-224; CROSSMAN 2010: 18.

²¹ MUNN 1989: 8.

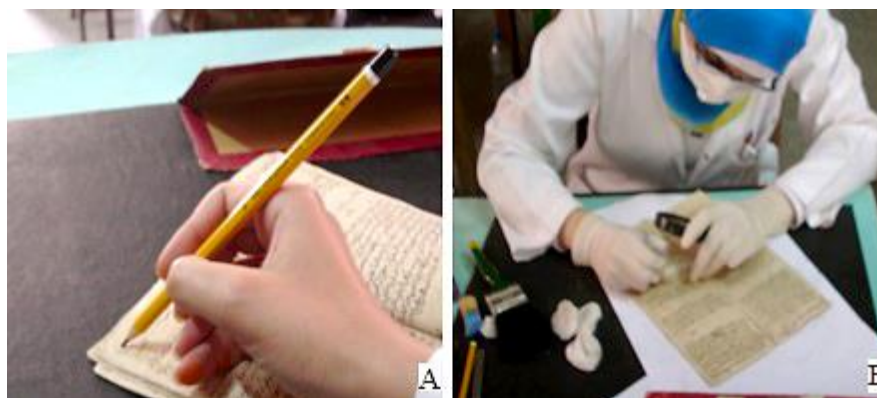
²² ARTHUR 1998: 14; CROSSMAN 2010: 18; ALLSOPP 2004: 25.

²³ CHAHINE 1996: 363-369.

alcohol/ water 3:1²⁴. After each cleaning step the document was flattened and pressed with a light weight²⁵.

According to WÄCHTER & LYDIA there are some notes that should be taken into consideration:

- The brush used should be very soft in order to prevent any scratching in the document especially in near places of inks.
- The cleaning process should be carried out from the center to the edges of the document in order not to get the dirt inside the document's tissue.
- The scalpel (if used) should not be used sharp so as not to "hurt" the fibers' tissue.
- Also the magnifying glass should be used during all the cleaning steps to get accurate work²⁶.
- In chemical cleaning, water should not be used alone but must be mixed with an organic solvent. Mechanical cleaning methods are safer than chemical cleaning methods²⁷ [FIGURE 9].



[FIGURE 9]: Some of the conservation producers: A- numbering the sheets of paper before loosening the binding; B-mechanical cleaning using different tools between the lines and on the edges under magnifying glass.

3. Fixing the Inks

Fixing inks is an important step of conservation treatments to secure the water-sensitive ink found, while the aqueous conservation treatment is carried out. The sensitivity of the inks with the different chemicals must be measured²⁸. One of the most common materials used in that process is Klucel G (hydroxypropylcellulose) in ethanol at 0.5% applied with a very fine brush²⁹. The pH value should be also measured³⁰. The

²⁴ ABDEL-MAKSOUDE 2009: 69-87.

²⁵ ABDEL-MAKSOUDE 2011: 47-49.

²⁶ WÄCHTER 1962: 22-26.

²⁷ EL-MOSELHY 2012: 184-186.

²⁸ WOODS 2006: 200-224; EL-MOSELHY 2012: 184-186

²⁹ DOBRUSINA 1994: 209; QUANDT 1996: 1-12; CHAHINE 1996: 363-369; WOODS 2006: 200-224.

author found that red inks used in numbers in the paper document are sensitive to alcohol so the author used a very fine brush to fix the ink with Klucel G by spraying technique [FIGURE 10].



[FIGURE 10]: Fixing inks in some parts of the document (the sensitive red inks): A, B-covering the other parts surrounding the sensitive red inks in the document then spraying technique.

4. Inappropriate Previous Repairs Removal

Removing inappropriate previous repairs is important in order not to lead to further deterioration aspects. Past repair techniques were carried out using new paper patches adhered with adhesive. The cases require removing when it causes damage or obliterate parts of the document. Inappropriate previous repairs can be removed by mechanical or wet methods. The author used topically alcohol/water solution with a piece of wet blotter in some parts and adhesive residue was removed with a micro spatula. Additional methods can be used by using poultices or humidified swabs³¹ such as a topically humidifying by putting the adhesive with a micro spatula, then trying to remove the outsides edges of the old repairs under the magnifying lens with the fine needle and spatula. Gore-Tex (polyester web) was used to absorb the moisture and put the slight weights to flatten the parts. The author used a metal sink of water for soaking the archive paper sheets, placed between Reemay (white, non-woven polyester fabric) for preserving the sheets from rush of water, and removing the old inappropriate repairs. The author recommends using this technique [FIGURE 11], which was useful as water naturally will work as deacidification agent. Besides, water adjusts the degree of pH of the papers and releases the fibers themselves after ridding the papers of impurities and contaminations.

³⁰ DOBRUSINA 1994: 209; QUANDT 1996: 1-12; CHAHINE 1996: 363-369.

³¹ MUNN 1989: 8; DOBRUSINA 1994: 209; BOTTI 1996: 563-581.



[FIGURE 11]: Inappropriate previous repairs removal: A- putting the sheets between Reemay; B- moving the water by brush as Reemay preserve the sheets not to be hurt by the rush of water; C & D- remove the old repairs (different types of old deteriorated papers).

5. Crease Removal

Removing creases was determined according to the state of the case of paper³² by raising its moisture content³³. Alcohol has a lower surface tension than water so Alcohol-Water mixture is isotropic as both components will evaporate simultaneously which causes the fibers less shrinkage³⁴. The warped parts of the document were folded with a spatula after adding a small amount of HPC to humidify the area, then small pieces of Plexiglas (or Perspex as light weights) were placed on the outer perimeter of the part then left to dry. The process was repeated all over the warped parts of the paper document³⁵. The author added another method by using a hot digital spatula. It should be noticed that the paper sheets should be placed above the Teflon (plastic material polytetrafluoroethylene (PTFE) which is not affected with the heat of the spatula [FIGURE 12].

³² KOLAR 2001: 135–138.

³³ EL-MOSELHY 2012: 184-186; SINGER 1992: 40-45.

³⁴ QUANDT 1996:1-12; EL-MOSELHY 2012: 184-186.

³⁵ EL-MOSELHY 2012: 184-186; LAURA 1992: 540-590.



[FIGURE 13]: Flattening and crease removal: remove the creased parts by using hot digital *spatula*.

6. Repairing Tears, Supporting the Weakened Parts and Reassembling the Separate Small Parts

Cruickshank (2004) and Wills (2001)³⁶ described the importance of supporting the weakened parts after the first stage of the flattening process. Tear repairs are an important step of conservation. Tears should be fixed in order to improve the appearance, prevent lengthening, separating, and make a document safer to handle. Using a proper adhesive is essential³⁷. The author used Klucel G (hydroxyl propyl cellulose (HPC)) which is highly recommended for its solubility in water, ethanol, and methanol also has a low-medium viscosity-grade³⁸. Additionally, the author used a sheet of Japanese paper (9g) divided into wide strips using a needle in order to obtain small or narrow strips. These strips were picked up with a tweezer and placed over the tears, then adhesive was applied in a low concentration (1%)³⁹. Finally, a piece of Gore-Tex was put on the top of the repair area (to absorb excess moisture and adhesive), then pieces of light weight glass were placed, and the paper was left to dry. After drying the excess tissue was cut off.

Then pressed, using a 1% solution of Kucel G (hydroxyl-propyl-cellulose) (dissolved in ethanol) sprayed on the verso of the document. It is also noteworthy that reassembling the separate small parts from the paper sheets together was done by using the hot digital spatula under the magnifying glass with thin strips of thermoplastic polymer [FIGURE 14]. Some notes should be taken into consideration:

- These steps should be carried out from one side, but if the part was so weak and the tear was so long it could be carried out from two sides like a sandwich.
- This process should give the document strength during handling.
- The materials in that case should be transparent enough not to obliterate any part of the document or the writing lines.

³⁶WILLS 2001: 51-62; CRUICKSHANK 2004: 63-70.

³⁷ EL-MOSELHY 2012: 184-186

³⁸ CLARKSON 1992: 27-30.

³⁹WOODS 1995: 221-239; LARSEN 1997: 39-68; WILLS 2001: 51-62; CRUICKSHANK 2004: 63-70.

- A soft brush should be used and applied from the center to the edges in order not to contain any bubbles of air or an extra adhesive.
- Approximately 1cm was allowed to extend beyond the edge of the paper to protect the document from future adverse contact⁴⁰.
- After finishing the extra pieces should be cut out in a horizontal way not to make any distortions after drying⁴¹.

Any adhesive used for mending tears should be characterized with strength, no tendency to discolor and reversibility⁴². To minimize damage, repairs are performed using adhesives with the least amount of moisture required for the specific task⁴³.



[FIGURE 14]: Reassembly of the separate small parts from the sheets: A-collecting the separate parts; B-reassembling the separate small parts with the sheets under the magnifying glass; C-Reassembling the separate parts using hot digital spatula with thin strips of thermoplastic polymer.

7. Completion Process of Missing Parts

The author prepared the dyed sheets, that will be used in the completion process, with natural dyes (tea with different concentrations). CMC (carboxy methyl cellulose) was used as adhesive with fine brush and sharp metal scalpel for the peeling steps [FIGURE 15]⁴⁴.

⁴⁰ CAINS 1983: 15-23; JOHN 2007: 48-57.

⁴¹ EL-MOSELHY 2012: 184-186

⁴² HANSEN 1992: 325-342.

⁴³ LAURA 1992: 540-590; CATHLEEN 2010: 7.

⁴⁴ BLANK 1997: 39-45.



[FIGURE 15]: Completion process of missing parts: A & B- preparing the dyed sheets of papers that are used in the completion process; C & D- putting CMC adhesive with fine brush then using sharp metal scalpel for the peeling steps and the sheet after finishing the process.

8. Finishing Procedures

Preservation procedures play an important role in keeping archaeological materials in good condition, after completing the steps for restoration. If the conditions are not favorable; a chain of reactions will start to damage the objects. The adverse effects of air pollutants and micro-organisms are greater in unfavorable climatic conditions. Controlled climate, particularly controlled temperature and humidity keep the objects in good shape⁴⁵. As a final step of the conservation process, the handwritten paper archive of the marriage contracts' from the Damietta Court was finished by reassembling the sheets of papers together into folders, then the total archive was sewn and rebound [FIGURE 16].



[FIGURE 16]: Finishing procedures: A- reassembling the sheets of papers together into folders; B & C- the archive folders after sewing and rebinding process.

⁴⁵ ABDEL-MAKSOU D 2000: 212-222.

IV. CONCLUSION

The Egyptian National Archives «*Dar-Elmahfouzat*» is the second oldest archive house in Egypt which has an important role in protecting and preserving archaeological and historical documents. Most of them were not preserved in good conditions. Consequently, the author selected the handwritten paper archive of the marriage contracts of the court of Damietta and explains the thymol efficiency in different concentrations towards biological deterioration. Examination techniques have been also applied in order to determine the ink type and its binder, in addition to cellulose crystallinity. Explaining also the most important treatments procedures for the paper archive.

The conservation strategies employed to conserve this paper archive are as follows: disinfection process; detach the binding, numbering the sheets of papers and cleaning process; fixing the inks; inappropriate previous repairs removal; flattening and crease removal; repairing tears, supporting the weakened parts and reassembling the separate small parts from the sheets; completion process of missing parts; finishing process. The study emphasizes the necessity of applying the mentioned method of using the Gore-Tex/Reemay technique in removing inappropriate previous repairs, in addition to the lack of modern equipment in «*Dar-Elmahfouzat*» compared to other modern conservation laboratories.

V. ACKNOWLEDGMENT

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