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I

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II

ART AND ARCHITECTURE

La plateforme de soubassement en briques crues à caissons de Tell Heboua I (Sinaï du Nord)

SITUATION GÉNÉRALE

(fig. 1)

Au cours des campagnes de fouilles dans la partie sud-ouest de Tell Heboua I, plusieurs structures ont été fouillées¹, révélant des bâtiments entourés d'un mur de 10 m de large construit en briques crues. Deux segments de cette enceinte dépourvus des bastions, considérés comme délimitant un temenos, ont été découverts : le sud mesure 120 m, l'ouest 112 m.

Dans ce complexe, les fouilles ont révélé une très grande construction, un temple (bâtiment A) de plan classique, orienté est-ouest. Au nord-est du temple, près de la partie nord de son pylône, se trouvait une structure rectangulaire en briques crues, identifiée comme un palais (bâtiment B). Il a été construit en tenant compte de l'axe d'entrée du temple, perpendiculaire à celui-ci. Une porte monumentale, dont le seuil de calcaire repose sur une couche de sable, avec une esplanade ouverte sur l'allée centrale. Immédiatement au sud du temple, les fouilles nous ont permis de détecter les fondations d'une plateforme (bâtiment C).

BÂTIMENT SUR SOUBASSEMENT DE BRIQUES CRUES (BÂTIMENT C)

(fig. 2)

Ce bâtiment, de dimensions plus modestes, couvre une superficie de 20,20 m sur 18,70 m. Il est bâti sur un réseau de murs massifs séparant des caissons carrés ou rectangulaires sans communication entre eux. Il est orienté est-ouest et est construit en briques crues (42/40 × 20 × 10 cm) composées d'un mélange d'argile et de sable, avec une petite quantité de coquillages.

La partie supérieure du bâtiment était détruite jusque sous le niveau de son sol intérieur. Les vestiges conservés se réduisent à la surface arasée d'un soubassement constitué d'un réseau de murs épais mesurant 1,80 m à l'est, 2,40 m à l'ouest, 2,30 m au nord et 3 m au sud, ainsi que des annexes prévues pour des fours à pains, qui témoignent de son exploitation pour la préparation des offrandes.

Ce bâtiment arasé, réduit aux fondations, était conservé sur un seul mètre de hauteur depuis la base des fondations enfouies sur presque 2 m par rapport au sol environnant.

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1. ABDEL-ALIM 2020.

Les parois extérieures présentent des assises concaves avec un net pendage du centre vers les angles surélevés. On pourrait donc déduire que ces fondations étaient construites en assises courbes. En ce qui concerne l'entrée, elle est aménagée au centre du mur oriental du bâtiment. On remarque aussi que des annexes se trouvent à l'est du bâtiment. Elles se composent d'une chambre, une cour et deux fours. Ces annexes et l'atelier pourvu de fours occupent le même niveau que le bâtiment et suivent la même orientation.

La plupart des caissons étaient remplis soit d'une maçonnerie de briques, soit de terre. Ce remplissage ne provenait pas de la destruction de la superstructure de l'édifice. Il est plus vraisemblable, d'après d'autres exemples de ce genre de fondations, que le comblement ait été réalisé au moment de la construction. Néanmoins, un de ces caissons contenait des récipients en céramiques locales et importées. Parmi ceux-ci, un conteneur d'importation chypriote (jarre à anses de panier), a permis de dater l'ensemble du VI^e siècle av. J.-C. (fig. 3).

Les murs extérieurs sont en assises courbes. Cette particularité avait été interprétée d'un point de vue religieux et architectural par Paul Barguet, Erik Hornung et d'autres². Cette opinion a été soutenue par Alan J. Spencer³. Ces rangées de briques ondulées évoquent des sortes de vagues symbolisant le chaos et l'eau primordiale du Noun qui entoure le monde. Du point de vue architectural cependant, les murs à assises courbes présentent généralement un parement en fruit. Cette obliquité de la face extérieure du mur permet de le rendre plus résistant aux forces qui pourraient le pousser vers l'extérieur et allège son poids⁴.

Le bâtiment comporte 12 caissons dans les secteurs nord et sud, et au centre tout au long de l'axe du bâtiment. Le vestibule d'entrée est en relation avec un escalier qui occupait l'angle nord-est du bâtiment. Le dégagement du secteur nord du bâtiment a permis de mettre au jour un sarcophage en pierre avec son couvercle. Le caveau funéraire a été aménagé avec un espace annexe à l'est. Cette partie pavée correspond à une sorte de puits d'accès. Il existait à cet endroit une porte vers le sarcophage dont la dalle de fermeture a été retrouvée.

CAGE D'ESCALIER

L'escalier menait à l'antichambre de la tombe où le sarcophage a été découvert. Le sol du caisson à l'angle nord-est du bâtiment, où se trouve l'escalier, est complètement différent des autres, il est couvert de briques crues (42 × 20 × 10 cm), posées irrégulièrement sur une couche de sable, et constitue la base de l'escalier du bâtiment.

LE CAVEAU FUNÉRAIRE ET SON ANTICHAMBRE

C'est sans doute après l'abandon partiel du bâtiment qu'un grand caveau funéraire et son antichambre ont été creusés dans les fondations de l'édifice. Ils occupent l'emplacement d'une ancienne salle du bâtiment, une salle particulièrement importante située au nord.

2. BARGUET 1962, p. 32; HORNUNG 1992, p. 119.

3. SPENCER 1979b, p. 133.

4. LECLÈRE 2008, p. 631.

La tombe, monumentale, dispose d'une entrée étroite du côté oriental, son seuil de pierre déborde sur le pavement de l'antichambre. C'est dans l'angle sud-ouest de ce local que devait se trouver une porte d'accès au caveau.

Une chambre était prévue pour le sarcophage, se présentant comme l'antichambre. Le sarcophage monolithique en calcaire a été découvert pillé, le squelette ayant disparu. Le couvercle plat était renversé sur le côté. Un sarcophage monolithique du même type fut retrouvé au centre de la ville de Tell Heboua I il y a 20 ans ; il était déposé dans une couche de sable sans aucune superstructure⁵.

LES ANNEXES DU BÂTIMENT C

À l'est du bâtiment, la fouille nous a permis de dégager des structures proches de son accès : il s'agit d'annexes destinées au service de l'édifice, probablement à la préparation d'offrandes. Dans l'angle sud-est, à l'extérieur du bâtiment, nous avons mis au jour une extension, vers l'est, de la paroi sud. Nous avons trouvé, dans l'espace constitué par cette extension et la façade du bâtiment, une construction de forme rectangulaire. Cet ensemble dispose, à l'angle nord-est de la cour, d'une petite chambre de plan carré. Au sud de cette petite chambre, se trouve une grande dalle de calcaire de 1,70 m sur 1,50 m. Cette dalle pourrait avoir servi d'abattoir pour la découpe de la viande, car des bovins étaient sans doute sacrifiés à cet endroit. La préparation de la viande pour les offrandes est attestée pour un *chenâ-ouâb*. À l'est de la cour, nous avons dégagé deux fours en céramique, englobés dans un massif de briques crues.

Il s'agit certainement de fours à pains.

Ces aménagements constituent des indices de la vocation économique du bâtiment, à savoir un lieu de préparation, de consécration et de stockage des offrandes.

LES BÂTIMENTS À CAISSONS DU I^{er} MILLÉNAIRE AV. J.-C.

Vers le milieu du VII^e siècle av. J.-C., plusieurs édifices de ce type apparaissent en particulier dans le delta : Tell el-Balamoun⁶ et Dafana⁷. Quelques exemples contemporains existent également pour la Haute Égypte⁸.

L'exemple comparable le plus proche de celui de Tell Heboua I est celui de Tell Dafana où se trouvent deux bâtiments à caissons : le plus grand a 43 m de côté⁹, mais c'est le plus petit qui nous intéresse, puisqu'il présente à peu près les mêmes dimensions que celles de notre édifice. Selon W.M.F. Petrie, le petit bâtiment à caissons, situé au nord-est du bâtiment principal, mesurait environ 21,50 m d'est en ouest et 22,50 m du nord au sud ; les briques crues utilisées dans la construction variaient entre 40-43 × 20-22 × 12-13 cm. Les faces extérieures ont été faites en assises légèrement courbes, l'accès se faisant du côté sud, par une rampe¹⁰.

5. ABD EL-MAKSoud 1998, p. 93.

6. SPENCER 1996a, p. 51-62, pl. 26, 32 ; SPENCER 1999, p. 296, fig. 3.

7. PETRIE 1888, p. 48, 52-61, pl. XLIV.

8. SPENCER 1979b, p. 132-137 ; TRAUNECKER 1987.

9. PETRIE 1888, p. 53, pl. XLIV.

10. LECLÈRE, SPENCER (éd.) 2014, p. 15.

À Tell el-Balamoun, l'intérieur de l'angle sud-est du *temenos* est occupé par une plateforme cellulaire en briques crues couvrant une superficie d'environ 54,15 × 61,10 m. Elle est composée d'un mur de rive épais d'environ 5,50 m de large délimitant des caissons répartis de manière symétrique, sans communication entre eux et remplis de terre, de briques cassées et d'éclats de calcaire. Les murs extérieurs possèdent des parois concaves, caractéristiques des constructions en assises courbes. L'accès se fait par une rampe d'à peu près 60 m de long, accolée à l'angle nord-ouest de l'édifice¹¹.

De même, un exemple de ce type de construction a été fouillé récemment à Tell Boueib, à environ 20 km au nord-ouest de Tanis. Une plateforme à caissons de forme carrée de 33,50 m de côté a été découverte. Elle contient 24 cellules de différentes formes et dimensions. Les murs extérieurs mesurent 4,20 m d'épaisseur et sont construits en assises légèrement concaves à l'aide de briques crues de grand module (36-38 × 18-19 × 10-12 cm). D'après la poterie trouvée dans l'édifice, A.J. Spencer a daté celui-ci entre les VIII^e et VII^e siècles av. J.-C.¹².

Ce type de structure est également attesté dans la région memphite, puisque des constructions similaires ont été découvertes à Abou Rawash. Rizkallah Macramallah a révélé un bâtiment de forme carrée, de 20 m de côté; les briques crues de 39-44 × 19,5-22 × 10-14 cm qui le composent ont des lits concaves¹³. Quoique cette construction ait été datée du Moyen Empire, A.J. Spencer pense qu'elle pourrait être attribuée à la Basse Époque, puisque les dimensions des briques étaient alors exceptionnellement grandes¹⁴.

Ces structures ne se limitent pas au Delta et ont aussi été identifiées en Haute Égypte. Quelques édifices sur soubassemens de briques crues sont attestés à Karnak, dans l'enceinte d'Amon, au sud du lac sacré. Une construction en briques crues, de forme rectangulaire (55,50 × 45,50 m)¹⁵, a été élevée sous la XXVI^e dynastie et la XXIX^e dynastie¹⁶. Elle comporte 24 caissons de stockage, séparés par deux couloirs principaux. Une rampe rénovée sous le règne d'Achoris menait à sa porte ouest¹⁷. Il faut signaler que le bâtiment abritait dans son angle nord-est un enclos à ciel ouvert, dont un bloc d'amarrage percé d'un trou servait peut-être à attacher les animaux de boucherie¹⁸; cela rappelle l'annexe de la plateforme de Tell Heboua I, qui possède également un.

Dans l'enceinte d'Amon également, au nord-ouest du temple de Khonsou, se trouve une autre plateforme, de plan carré, en très mauvais état de conservation. Seuls les seuils de deux cellules sont conservés et la chapelle a disparu. La rampe d'accès est actuellement enfouie sous le magasin de *talatats*, à l'ouest du temple de Khonsou¹⁹. Cet édifice date du règne de Ptolémée III, mais la présence d'un décor de la XXV^e dynastie réutilisé témoigne d'un état plus ancien²⁰.

11. SPENCER 1996a, p. 51-59, pl. 26-27; SPENCER 1996b, p. 88.

12. SPENCER 2016, p. 16-17, pl. 40.

13. MACRAMALLAH 1932, p. 167-168, pl. I-IV.

14. SPENCER 1979a, p. 107.

15. TRAUNECKER 1979, p. 411, 426; TRAUNECKER 1987, fig. 3A.

16. TRAUNECKER 1979, p. 423.

17. TRAUNECKER 1987, p. 147-148.

18. TRAUNECKER 1987, p. 148.

19. TRAUNECKER 1987, p. 153, fig. 2B et 3C.

20. TRAUNECKER 1987, p. 153.

Un autre bâtiment de ce type, construit lui aussi en briques crues, est situé dans l'enceinte de Mout, à l'est du temple. Il est de plan carré, muni d'une rampe sur le côté ouest²¹. Cet édifice date probablement de la XXX^e dynastie²².

À l'extérieur de l'enceinte du temple d'Amoun, à 450 m au sud de l'axe central est-ouest, les fouilles sur le site de Kôm el-Ahmar ont révélé un bâtiment avec des fondations importantes et une structure cellulaire pouvant supporter plusieurs étages²³. Les fondations à caissons, disposées en assises courbes²⁴, mesurent approximativement 22,5 m de côté ; elles sont constituées de briques crues (37 × 19 × 15 cm)²⁵. Le bâtiment est constitué d'une plateforme dépourvue d'entrée, comprenant 13 chambres rectangulaires de différentes tailles, entourées par des murs extérieurs de 3,5 m d'épaisseur. Grâce à la céramique et aux différents objets découverts à l'intérieur de ce bâtiment, le fouilleur a attribué cette structure à la période saïto-perse²⁶.

Enfin, dans l'oasis de Bahariya, un de ces bâtiments a été attesté à Qasr Allam, où une plateforme de fondation cellulaire du VIII^e/VII^e siècle av. J.-C. a été dégagée. L'édifice, auquel on accède par une rampe du côté ouest, mesure 40 m sur 29 m²⁷.

FONCTION DU BÂTIMENT

La fonction de ce type de bâtiment a fait l'objet d'explications variables. Pour Édouard Naville, il ne pouvait s'agir que des magasins, évoqués dans la Bible, bâtis par les Hébreux à Pithom²⁸. Mais l'idée de silos à grains a été rejetée par Alan H. Gardiner²⁹ et Thomas E. Peet, qui pensent que les « *storehouses* » qu'il a découverts ne sont probablement que les fondations d'une construction semblable à celles qui avaient été trouvées à Naukratis et Dafana³⁰. W.M.F. Petrie proposa une interprétation militaire en raison du caractère massif des bâtiments de Naukratis³¹ et Dafana³², de leur hauteur et de leurs rampes d'accès. Mais cette idée fut réfutée par Friedrich W. von Bissing en l'absence de preuve sur la présence de soldats : il vit dans le cas de Naukratis un complexe de stockage ou un trésor associé à un temple³³, hypothèse plus raisonnable.

D'autres études ont permis de mieux cerner la fonction de ces bâtiments, en particulier celle de Claude Traunecker³⁴. En effet, les inscriptions des montants de portes de l'édifice sur soubassement de Psammouthis à Karnak définissent le bâtiment comme un lieu de préparation, de consécration

21. TRAUNECKER 1987, p. 154, fig. 2C et 3D.

22. TRAUNECKER 1987, p. 154.

23. REDFORD 1981, p. 261-262.

24. REDFORD 1994, pl. CXVI.

25. REDFORD 1994, p. 2.

26. REDFORD 1994, p. 9.

27. COLIN 2011, p. 63, fig. 12.

28. NAVILLE 1885, p. 10.

29. GARDINER 1924, p. 96.

30. PEET 1922, p. 86, n. 2.

31. PETRIE 1886, p. 8.

32. PETRIE 1888, p. 53-54.

33. VON BISSING 1951, p. 59.

34. TRAUNECKER 1987, p. 147-162.

et de stockage des offrandes nécessaires aux cultes divins : *chena ouâb*, « magasin pur³⁵ ». Cette analyse est celle qui nous paraît la plus convaincante. C'est aussi l'avis de Jean Yoyotte³⁶ et de Brian Muhs³⁷, qui classent les bâtiments à caissons parmi les édifices à envisager comme des lieux de préparation, de consécration et de stockage des offrandes rituelles³⁸. L'édifice de Tell Héboua I constituerait donc un exemple supplémentaire de ces magasins purs. Cela explique peut-être la présence de sable tamisé autour du bâtiment, qui aurait servi à accentuer la dimension pure de la construction.

CONCLUSION

D'après les parallèles qui nous sont connus, il ressort que les bâtiments de briques crues sur soubassement à caissons ont des dimensions variables, mais présentent tous une forme carrée ou rectangulaire. Le point commun entre eux tient à la méthode de construction des murs extérieurs, qui sont construits en briques crues disposées en assises courbes et enferment une série de cellules carrées ou rectangulaires sans communication entre elles. Cette technique de construction semble avoir fait son apparition dans toute l'Égypte, notamment dans le delta, à partir de la période saïte, et elle est devenue l'élément le plus prédominant du paysage urbain à l'époque gréco-romaine.

En ce qui concerne la fonction de ce type de constructions, on peut dire qu'elles ont été considérées comme des édifices cultuels correspondant aux « magasins purs » attestés dans les textes (*šn' ('3) w'b*), à savoir des lieux de préparation, de consécration et de stockage des offrandes, toujours situés à l'intérieur du temenos, à proximité du temple principal.

Cependant, on observe que d'autres types de constructions, dites maisons-tours, ont les mêmes caractéristiques architecturales, hormis le fait qu'elles sont de petites dimensions. Elles constituent, selon leur répartition spatiale et fonctionnelle, des éléments communs du paysage urbain égyptien. Elles étaient généralement situées à l'intérieur de quartiers résidentiels, au milieu, donc, du tissu urbain.

35. TRAUNECKER 1987, p. 149.

36. YOYOTTE 1994-1995, p. 681.

37. MUHS 1994, p. 112.

38. LECLÈRE 2008, p. 137.

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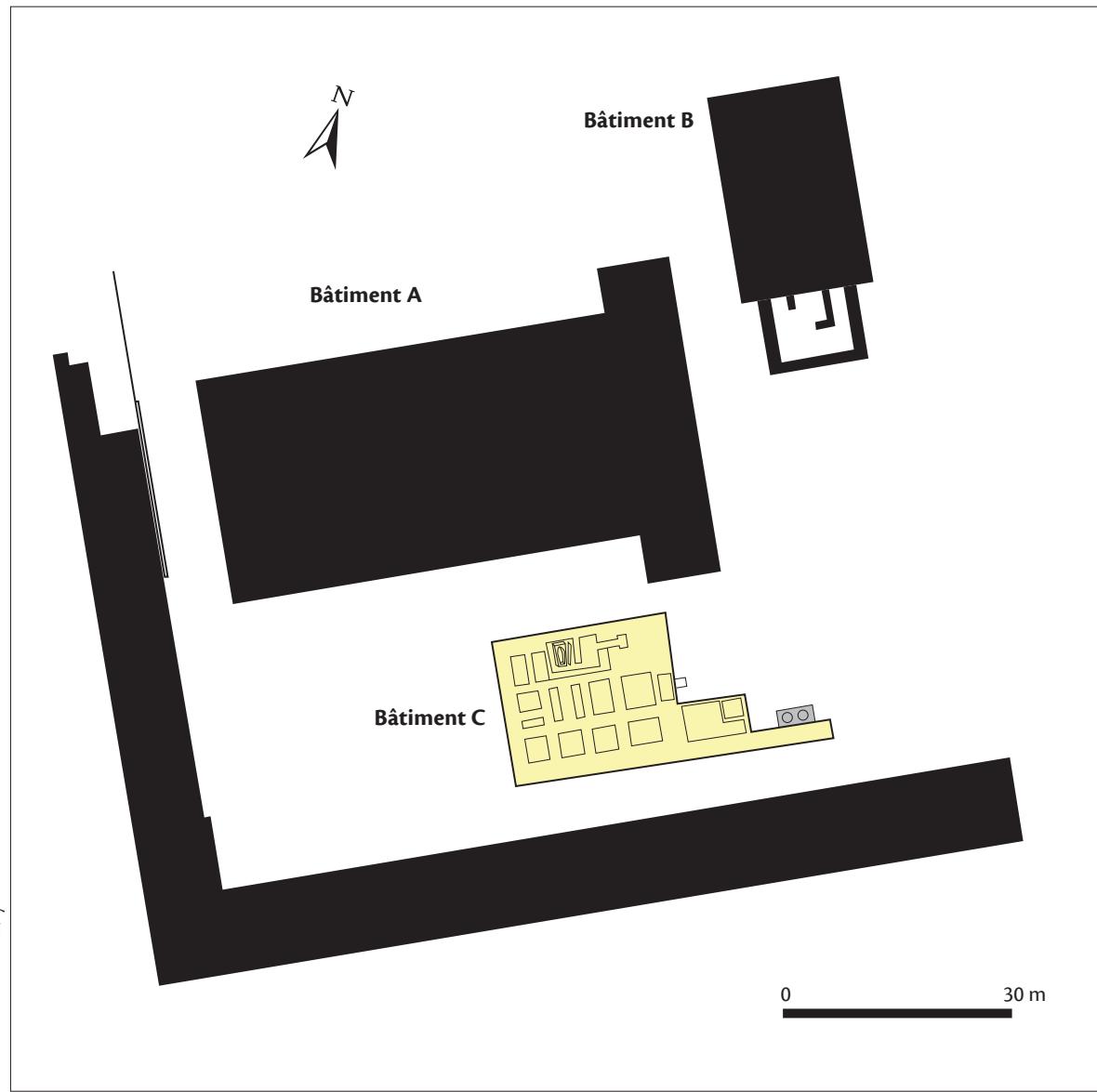


Fig. 1. Plan du complexe religieux de Tell Heboua I.



Fig. 2. Vue générale du sud de la plateforme de soubassement en briques crues à caissons (bâtiment C).



Fig. 3. Jarre à anses de panier d'origine chypriote (vers vi^e siècle av. J.-C.).

‘Progetto Sekhmet’

First Results of an Interdisciplinary Team Project

In 2016, the Department of Ancient Egyptian and Near Eastern Antiquities of the Musei Vaticani, in collaboration with the Cabinet of Scientific Research Applied to Culture, set up the ‘Sekhmet Project’ following the restoration of statues of the goddess Sekhmet in the Vatican collection.¹ Today it is a collaboration between the Musei Vaticani, the Museo Egizio in Turin and ‘The Colossi of Memnon and Amenhotep III Temple Conservation Project’² directed by Hourig Sourouzian.³

This is a research and study project on the sculptural production of hundreds of granodiorite Sekhmet statues, made during the reign of Amenhotep III for his funerary temple at Kom el-Hettan. It is a unique architectural project, intriguing in its many aspects, fascinating in its splendid realisation, a grandiose “litany of granite”.⁴

After an earthquake that took place around 1200 BC the area of the temple was exploited as a stone quarry. The Sekhmet statues were mostly left abandoned on the site, most of them had already fallen down, some remained standing, many were transported to other buildings over time. The statues remaining on the site were gradually buried over time and have suffered from fires and water infiltrations due to the presence of an aquifer in the area. Many Sekhmet statues were later collected by archaeologists and travelers and are now scattered around the world.

To sum up, the hundreds of Sekhmet statues can be divided into two groups: sitting on a throne and standing. At the end of the last 2022 campaign at Kom el-Hettan, a total number of 376 statues (including whole and fragmentary statues as well as fragments) were recorded in the project database.

1. There are eleven of them in granodiorite, six seated and five standing, including a head and a fragment of a standing one.

2. The project has been active in the Funerary Temple of Amenhotep III since 1998. See the contribution by H. Sourouzian in this volume.

3. The team is interdisciplinary and coordinated by Alessia Amenta, with the collaboration of Mario Cappozzo (Musei Vaticani) and Emiliano Ricchi (conservator). The following people are participating: Stefano Mastrostefano (machine-learning engineer, Università della Tuscia, Viterbo) and Luigi Mastrostefano (mathematician, MIUR), for the cluster analysis and the development GUI of the ‘Seek-hmet’ software; Silvio Rotolo and Giulia Lo Voi (Dept. of Sciences of Earth and Sea, Università di Palermo), for the petrographic and quarries investigations; Azimut LP, for 3D scanning and graphic documentation. The project is a cooperation with the Qurna Inspectorate, the Scientific Committee of the Theban Magazines and the Mut Temple Projects. I herein wish to thank H. Sourouzian for her generosity to share the ‘Sekhmet world’ of Kom el-Hettan with the ‘Sekhmet Project’ team.

4. YOYOTTE 1980.

To this list must be added the 288 statues of the Mut Precinct (including fragments) and about 210 statues scattered around the world. However, this figure is expected to increase over time.⁵ This gives a total number of almost 800 statues, not counting all the fragments. It should also be taken into consideration that every year, new Sekhmet statues, mostly fragmented, are brought to light during the excavations at Kom el-Hettan.⁶

On the basis of the archaeological evidence, the Sekhmet statues were all originally arranged in the area of the peristyle courtyard and the hypostyle hall.⁷ This grandiose display formed a powerful defensive chain for the *sed*-festival of the king.⁸

In the shadows of the peristyle courtyard and the hypostyle hall, ‘hundreds of red eyes’ rendered the goddess even more terrific. The iridescent polished black stone also reflected flashes of light in the semi-darkness and the goddess was splendid in her polychrome decorations in red, blue and yellow.⁹

In order to respect conciseness, this article aims to make brief reference to this work in progress and to the different research streams that have been undertaken. Our starting point is the Fifth Report at Kom el-Hettan:

It is demonstrated the variety of the representations, the range of proportions, the differences in workmanship and the inconstant degree of details or inscriptions, not to forget the great variety of dark stones used. All of this makes us insist again that far from being mechanized productions, this ensemble of statues presents a *corpus* of skillfully executed and dramatically displayed masterpieces of sculpture.¹⁰

This is the current state, which strongly influences our perception of the statues:

- a very large number of statues, mostly fragmented;
- many “unfinished” statues;
- at distinct phases of production;
- in different states of conservation;
- with different sizes and proportions;
- with an inconstant degree of detail;
- with/without inscriptions;
- conserved in very different contexts and places;
- identification of different lithotypes;
- difficulty in measuring and moving the statues;

5. Listed to date by Tara Draper Stumm. I herein wish to thank Tara for her generous sharing.

6. To mention the last campaign in 2022, 16 fragmented statues and 2 standing ones were found.

7. SOUROUZIAN et al. 2011, pp. 413 ff.

8. BRYAN 1997.

9. The wide collar, bracelets and ankle bands, the frontal uræus, the decoration of the tunic and the cartouche engraved on the throne were mostly painted.

10. SOUROUZIAN et al. 2011.

leading to:

- a confused reading of the complete set;
- a distorted perception of the data as a whole;
- a difficult objective comparison.

The project intends to follow the different streams of research, deriving from the observation, measurement and comparison of all the statues, as herein below listed:

1. The measurement and the comparison of the dimensional and proportional parameters of the statues, aiming to identifying all possible ‘typologies’;
1.a. The study of the volume and the weight of each individual statue will also be performed;¹¹
2. The development of a ‘comparative *abacus*’, presenting the comparison among different iconographic and architectural elements of the statues;
3. The software development that we have called ‘*Seek-hmet*’, in order to cluster the statues and cross-check and compare on multiple levels all data from the statues;
4. The database development is also capable to dialogue with the ‘*Seek-hmet*’ software;
5. The analyses and the recovery of the sculptural project, summarised in three main stages:¹²
5.a. The ‘project conception’ definition: reconstruction of the setting within the temple;
5.b. The ‘executive project’: the drawing of a Sekhmet reference “model” (did this executive project provide a unique model or were there already many models? Might this possible multiplicity of models ideally correspond to the representation of a goddess under multiple aspects? There are many possible scenarios opening);
5.c. The ‘sculptural production’: the shape (the drawing of a model becomes a sculpture with its own peculiar identity).

This third point shall also concern the study of the execution technique;

6. The study of the inscriptions on the statues;
7. The study of the damages to the statues: deliberate or ritual damages (?), looting (?);
8. Comparison between the Sekhmet statues from Kom el-Hettan and those from the Mut Precinct.¹³

The project is based on the research and development of innovative investigative methods, based upon the formal and technical archaeological evidences. We are certain to find answers to the many questions raised by the sculptural project itself.

¹¹. On average, according to calculations made using 3D scanning of the Sekhmet statues, a hypothetical quarry block lost 74% of its weight for a standing statue, while for a sitting one it lost 58%. If, for example, the weight of 100 standing specimens in the quarry might hover around 168 tons, its weight as finished statues was reduced to 42 tons. This also meant a saving of the labour force of over 400 men, see DELVAUX 2018, pp. 51–53. New prospects and avenues of thought are opening up for quarrying limestone blocks, see BURGOS, LAROZE 2020. The most significant ancient evidence still lays in the scene of the transport of the colossus of Djehutyhotep: see, among others, MONNIER 2020.

¹². The production of around 800 granodiorite statues in the Bronze Age could not, in any case, have been concluded within a limited period of time, even if rationally organized. The project aims to deal with this aspect too.

¹³. I herein wish to thank Richard and Mary Fazzini for having shared all data sheets and photos of the Mut Precinct Sekhmet statues. I also wish to thank Betsy Bryan for her collaboration to the project, as far as the Sekhmet statues from the Mut temple are concerned.

In the absence of written documentation, our guiding idea was to ‘make the statues speak’. It means that a sort of ‘textual translation’ of every formal characteristic was carried out for each statue. The ‘textual translation’ was then inserted into a ‘comparative *abacus*’ while, at the same time, a ‘numerical translation’ of the proportional and dimensional parameters was identified for each statue.

What does ‘numerical translation’ mean? The numbers are those resulting from the measuring of the statues. Moving back to the first steps undertaken with the Vatican and the Turin Sekhmet statues, our initial goal was to measure each of them on their 3D models in order to establish a comparison.

3D modelling allows statues to be measured, manipulated, compared and observed in a way that would not otherwise be possible (since they are kept in various places and heavy to be moved elsewhere), especially when considering serial works.

Digital orthophotos of a 3D model can be compared to the two-dimensional preparatory drawings of the Egyptian sculptor as he approaches a block of stone (fig. 1):

Egypt does not sculpt ‘out from within’, but rather ‘in from without’... Egyptian sculpture proceeds from a set of contour drawings on the block surfaces... Egypt’s three-dimensional work can therefore be seen as a unique synthesis of drawing on the flat and down-cutting, relief-carving, and modelling what is essentially always a plane surface.¹⁴

We identified the sectional drawings of each statue and measured its 3D model in all its proportions and dimensions, always clearly distinguishing the group of standing statues from the group of seated statues (fig. 2). Each statue was inserted within 18 square grid, from the feet (point 0) to the forehead (point 18), according to the canons of Egyptian art, and measured in squares as well as cubits¹⁵ (as well as centimetres) (fig. 3).

All statues were grouped according to their dimensions and proportion. To cite just one objective, three main groups (could one speak of ‘typologies’?) of standing statues were identified according to their ‘silhouettes’; this result should then be cross-checked with the dimensions, the decoration engravings, the inscriptions, the lithotype.

By taking a *corpus* of 30 statues, as is the batch from the Vatican and Turin, it is still possible to test some relationships between the data sets. At the current stage of research, we are talking about a *corpus* of hundreds of statues and of 62 measurements attributed to each of them, which gives a total of thousands of measurements, just to take into account the proportion/dimension comparison. We therefore sought the collaboration of a mathematician and a machine-learning engineer, as we are entering into the field of Statistics and Artificial Intelligence (AI).

Statistics faces the use of data in a context of *uncertainty*, while on the other hand it deals with decision-making *in the face of uncertainty*. So, what is the best way to define the ‘Sekhmet-question’ on the site?

14. DAVIS 1989, pp. 31ff.

15. Very interesting the metrological study relating to the attestation of the use of the Egyptian cubit in architecture, see ROSSI, FIORILLO 2018.

'Artificial Intelligence' (AI) calls for the application of statistical concepts through 'human-machine' collaboration.

This is why the software '*Seek-hmet*' was conceived. The very name of the program underlines its purpose, which is to study, analyse and research as much data as possible on each Sekhmet statue. This software employs the clustering method, a powerful AI technique.¹⁶

Since the software relies on statistical calculations, it is important to recover the greatest number of statues, so that the margin of error decreases. It is therefore fundamental to be able to include measurements of the considerable number of fragmented statues. In the *corpus* of standing statues on which we are currently working, for example, only 19 of them are whole, while 181 are fragmented. It is also very important to find the original height of these fragmented statues, in order to compare them with the *corpus* of whole standing statues. First of all, the height is a fundamental value to better understand the original setting of the statues in the temple. The collaboration of the machine-learning engineer and the mathematician involved in the project is precious in this case too, as it allows us to enter the statistical field of 'predictive analysis'.

This is not the appropriate context to analyse further the many aspects of using statistics and AI in our research.

The sculptural production of the Sekhmet statues contains a treasury of information hidden in their 'numbers', but it also contains a great deal of other information through close observation of the statues themselves. At this stage of the research, we are confident that we can confirm that the statues taken as a whole represent a vast construction project that was never completed, a gigantic work in progress, a 'fluid production system' of sculptures. It is clear that it was not a case of carving and finishing one statue after another, but, as the evidence shows, many statues were worked on simultaneously, both at the quarry site and in the temple itself.¹⁷

To check the evidence, the site of Kom el-Hettan site as well as the Precinct of Mut brought to light many 'unfinished' statues. They represent the crystallization of a specific moment in space and time in which the data of the execution techniques, the dimensions and proportions of the statue, the recovery of a possible reference 'model', the phase of execution and the place of the work interact (fig. 4).¹⁸ The publication of Peter Rockwell on the art of stone working is instructive, and our starting point is his unequivocal statement: "Stone working is a technology that meets certain conditions wherever and whenever practiced. The first condition of stone working is the stone itself. [...] To a carver, each piece of stone can seem an individual."¹⁹

¹⁶. Clustering techniques applied to archaeological artefacts is a new investigative frontier, see KLARE et al. 2010 for its application in the Angkor Wat temple.

¹⁷. This line of the research is coordinated by Emiliano Ricchi.

¹⁸. The study of Karin Dohrmann about the ten seated statues of Sesosiris I from el-Lisht, representing different degrees of quarry stone working, proves to be very interesting in this respect, see DOHRMANN 2004. See also DEVAUX 1998, pl. 5a, for the two unfinished ones in the precinct of the Step Pyramid; those in granite of Menkaure from his Valley temple are equally interesting. Sculptor models offer a perspective on important considerations, see among others: TOUMOUM 2005.

¹⁹. ROCKWELL 1993, p. 8.

The block of stone from which a statue ‘is given birth’ is reaching its own initial character, derived and influenced by the stone itself.²⁰ The collaboration with the University of Palermo focuses on the study of lithotypes, including all subsequent petrographic aspects. At a macroscopic level, an important variety of granodiorite is evident in the production of the Sekhmet statues, which will be the subject of a ‘Reference Atlas’ that we intend to organise.

We are confronted with a gigantic ‘serial’ production, which can best be defined by the oxymoron ‘serial variety’ production.

The statues can be divided into groups (clusters) with the same formal and executional characteristics, produced according to a ‘figurative interpretation’ (of the ‘model’), on a ‘fluid timing’, but clearly divided into distinct phases. The whole production must be carried out in accordance with a centralised organisation of the construction site. The software ‘Seek-hmet’ shall therefore help us to crosscheck so many variables and so many different data.

In any case, imagining ‘credible settings’ will certainly be of great help in understanding how things really happened.

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²⁰. Carving on granodiorite proceeds through many phases of rough carving, hitting the stone with an extremely round-headed scalpel, which was mainly achieved at a perpendicular angle, breaking up the surface, so that no trace of the work remains on the stone surface.

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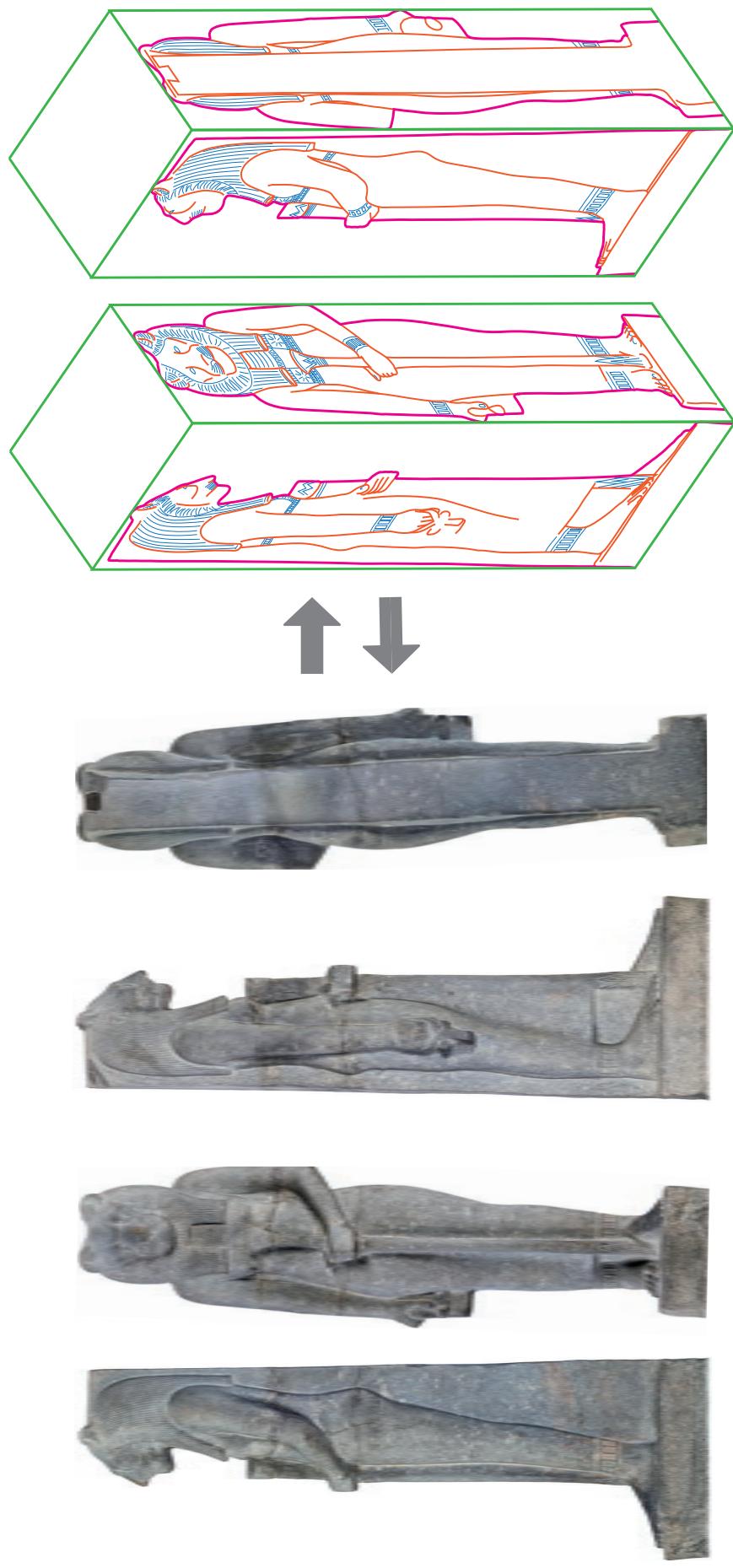


Fig. 1. The digital orthophotos of a 3D model can be compared with the preparatory two-dimensional drawings of the ancient Egyptian sculptor when approaching a block of stone.

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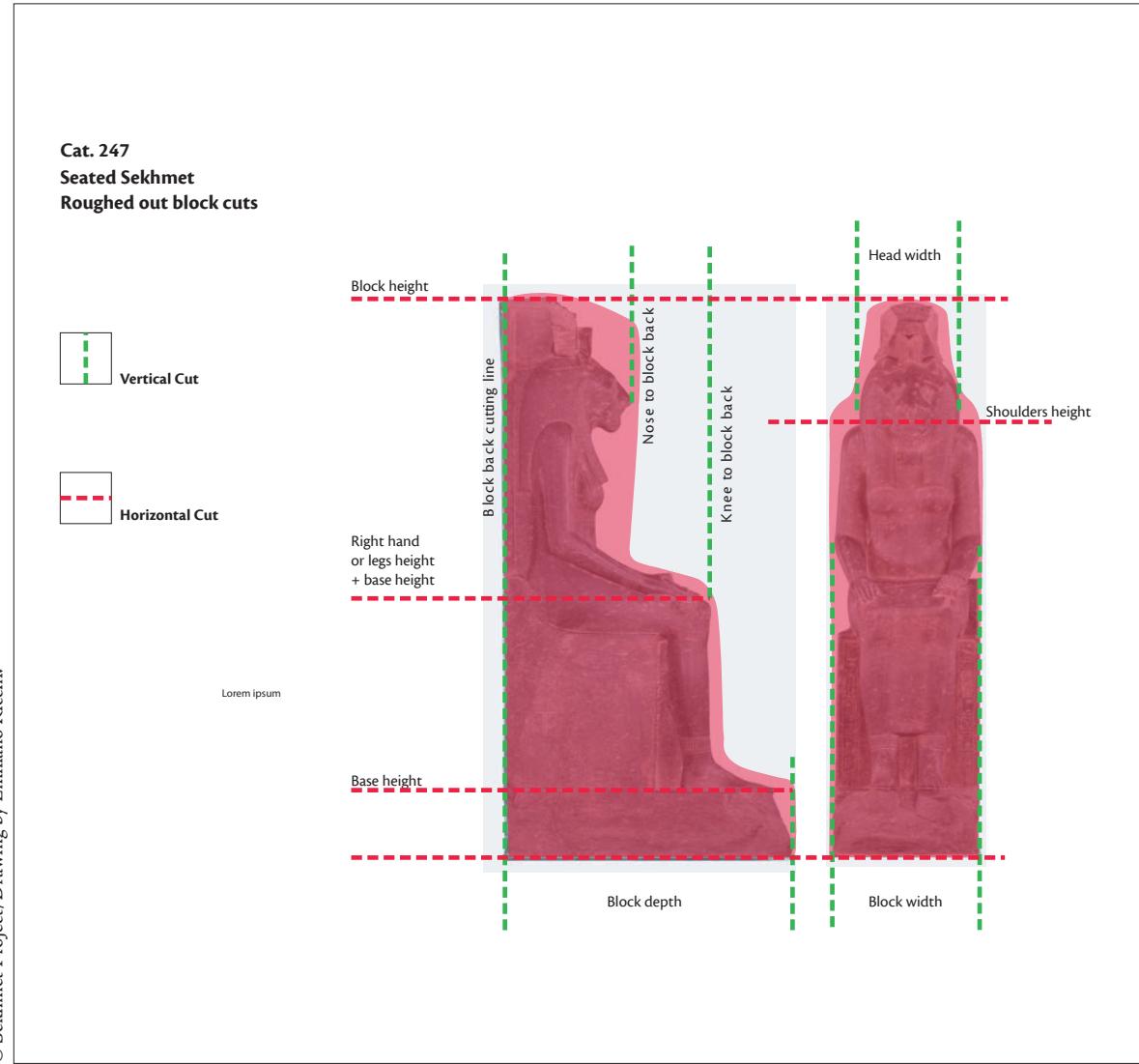


Fig. 2. The cutting planes of the block of granodiorite of a seated Sekhmet statue.

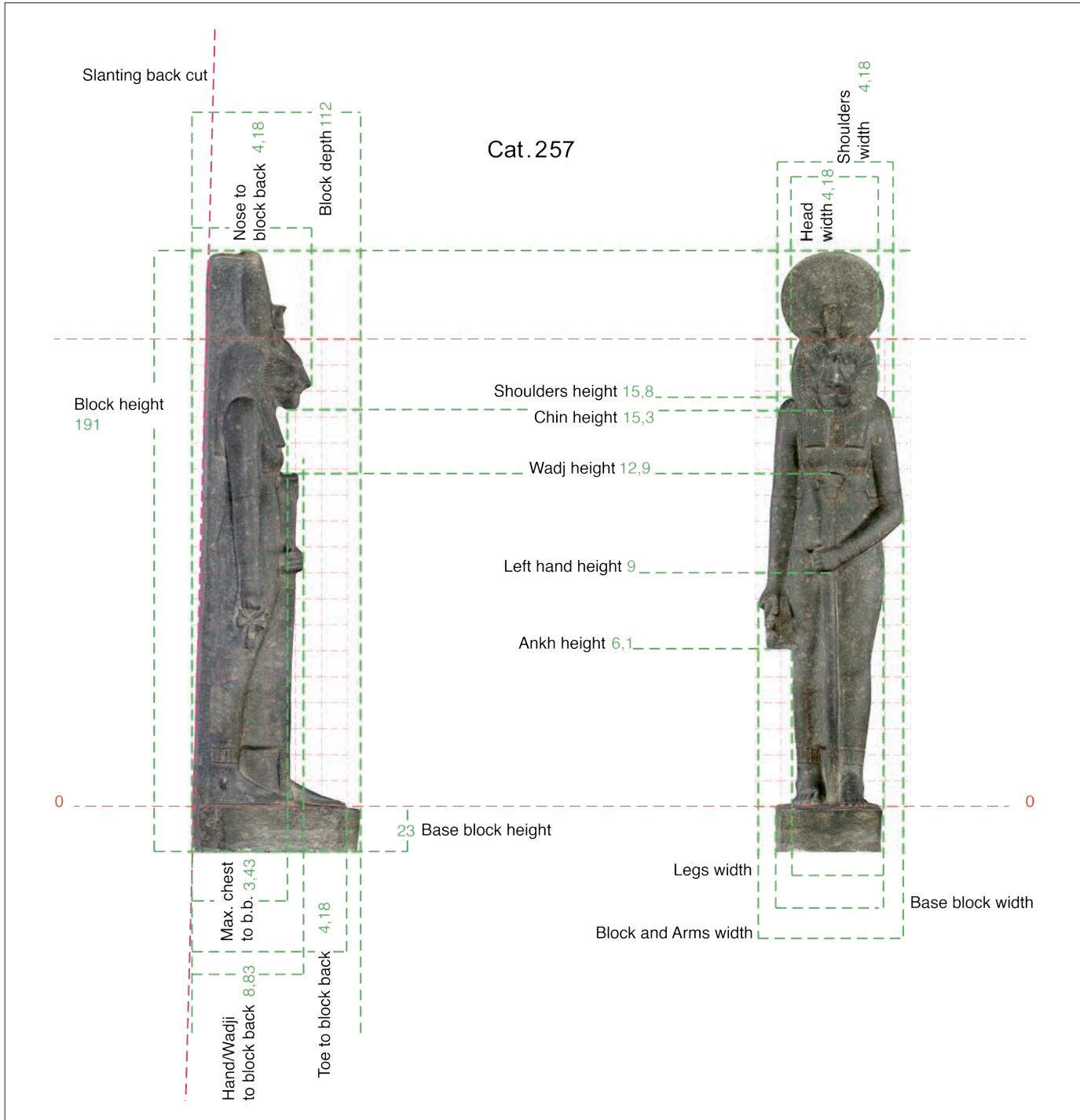


Fig. 3. A standing statue within 18 square grid measured in squares, in cubits, as well as in centimetres.



Fig. 4. The move from one phase of execution to the next is clearly visible in these three unfinished statues from the Mut precinct: from the initial squaring off of the shape (left statue) to the beginning of detailed anatomical definition (right statue).

A Baroque Period

Gebel el-Silsila at the End of the 18th Dynasty

THE ARCHAEOLOGICAL SITE of Gebel el-Silsila, between Edfu and Kom Ombo, has preserved the largest ancient Egyptian quarry. Archaeologically known since the beginning of the 19th century and portrayed in the *Description de l'Égypte*, it was documented by the *Egypt Exploration Society* and Ricardo Caminos during the 1950s–1980s. However, Caminos's thorough graphic work remains mainly unpublished, while the archaeological exploration of the site had been left untouched. The existing documentation is scarce and the bibliography has remained very limited for such a large and important site. The site's archaeological and historical value has been largely ignored or undervalued, long being considered mainly of interest for quarry scape specialists. These were the main reasons the Gebel el-Silsila Project was launched a decade ago by Lund University under the direction of Dr. Maria Nilsson and John Ward, with the help of a growing and international team of specialists and students.

GEBEL EL-SILSILA EXPLORATION TODAY

The Gebel el-Silsila Project has taken the exploration of the site where Caminos left it, but with different aims and approaches. A renewed survey of the inscribed monuments has been produced by Philippe Martinez, using tracing technique in combination with recent technologies like high-resolution digital photography and photo-based 3D modelling. The work entails a comprehensive survey of the area with the objective of highlighting the importance of all the inscriptions and monuments within their quarryscape environment. This is done in close collaboration with the Ministry of Antiquities, Gebel el-Silsila Inspectorate.

One of our recent archaeological endeavours focuses on the northern part of the east bank. Maria Nilsson and John Ward have uncovered a large necropolis, featuring various styles of stone cut tombs dating to the New Kingdom¹ as well as what remains of a temple, which recent excavations by the Gebel el-Silsila Project could confirm was devoted to Sobek. Reused blocks and decorated

* Nils Billing: Uppsala University; Philippe Martinez: Sorbonne Université/CNRS; Maria Nilsson & John Ward: Lund University.

1. An area that was explored very succinctly by Archibald Henry Sayce in 1906. See "Excavations at Gebel Silsila", ASAE 8, 1907, pp. 97–98. This dynastic cemetery is not similar to the Predynastic cemetery discovered further east by Georges Legrain in 1901; see "Notes d'inspection", ASAE 4, 1903, pp. 218–219.

fragments specify part of its chronology to the reigns of Thutmosis II-III, Amenhotep III and Ramesses II. Finally, the northern area includes a full survey of the quarries, many of which can be linked to inscribed monuments dating to the reigns of Amenhotep III and Amenhotep IV/Akhenaten.

A GROUP OF SHRINES DATING TO AMENHOTEP III

The focal point of this paper is a group of monuments that have been known since the beginning of the exploration of Gebel el-Silsila, some of which were published already by Lepsius.² His early documentation is highly valuable, as the monuments since then have suffered heavily from vandalism. After an inspection of the area in 1902, Legrain provided a brief description of all the monuments with a documentation of the remaining texts. In addition, he published some notes about the large stela of Amenhotep IV further to the north.³

DOCUMENTATION OF THE MONUMENTS: THEN AND NOW

Legrain categorized the monuments as *socle A* (a small free-standing aedicule in the shape of a square naos), *stelae B and C* (two rock-hewn stelae set side by side, slightly to the south of *socle A*), *chapel D* (an unfinished naos further south still attached to the cliff), and *naos E and F*, situated in an adjacent quarry to the north-west.

This categorization needs to be revised in the near future. While using six letters, Legrain actually spoke of “five monuments”, recognizing that his *stelae B and C* were in fact artificial parts of one single monument. In the same manner, he remarked that *naos E and F* presented the same plan but with slight differences. Thus, he interpreted them as two monuments based on their different contexts. All that remains of *naos E* is a plinth and the monument’s foundations, situated at the top of what Legrain defines as a “cliff”, but what is now recognized as a 6 m high remnant pillar of a dismantled subterranean quarry. Legrain’s description of *naos F* is rather more interesting: it is broken and lies at a lower level close to a group of unfinished sphinxes, but also beneath a set of two large uninscribed stelae, set high in the eastern cliff, as well as a smaller stela on the east side of the plinth of *naos E*.

Thus, it is clear that the topographical and archaeological context is much more complex than Legrain’s description initially indicates. Legrain states that “he was not able to retrieve the original setting of *naos F*”, while recognizing that *naos E and F* presented the same plan. This common denominator should have pushed him to reflect that those were the upper and lower parts of the same naos. Hence, the area preserves five monuments and to which must be added the three uninscribed stelae situated to the east of *naos E* and the smaller uninscribed stela beneath *naos E-F*.

2. I. ROSELLINI, *I monumenti dell’Egitto e della Nubia: Monumenti del Culto*, Pisa, 1844, pp. 234–235 as well as *Monumenti Storici*, Pisa, 1832, Text I, p. 238 and III, Pt. I, pp. 215–216; LD III, p. 81 and Text IV, p. 99. See also F.L. GRIFFITH, “Notes on a Tour in Upper Egypt”, *PSBA* 11, 1889, pp. 228–234.

3. G. LEGRAIN, “Notes d’inspection I, Les stèles d’Amenöthès IV à Zernick et à Gebel Silsileh”, *ASAE* 3, 1902, pp. 262–266.

In addition, the Gebel el-Silsila Project has recently discovered a previously unknown, partially destroyed and uninscribed stela adjacent to the south of chapel D, preliminarily allocated the letter O, bringing the total number of these monuments from the reign of Amenhotep III to nine.

In his article, Legrain raised an interesting point. The roof of his *base A* had been prepared to receive a statuary decoration, consisting of two small obelisks flanking a large falcon statue. His observations were based on fragments discovered nearby of a sandstone pyramidion and a divine falcon wearing the double crown. Studying the architectural structure of the top of *naos F*, Legrain proposed the same reconstruction with a falcon set between two obelisks.

We are now able to confirm this reconstruction after a systematic survey of both areas, which produced numerous fragments of an obelisk inscribed with the five royal names of Amenhotep III. Likewise, we were able to digitally piece together a fragmentary falcon. However, what is more interesting is that, in fact, five monuments, including the uninscribed stelae and shrine, show clear man-made traces on their roofs of architectural rework. All the monuments of Amenhotep III at Gebel el-Silsila were thus intended to be crowned by such three-dimensional decoration. For *stelae B and C*, the traces show clearly the same disposition as with *base A* and *naos E*. For *chapel D* and for the three blank stelae, the traces are more difficult to read but seem to display the presence of similar arrangements⁴. In addition, during the last season (autumn 2021), the expedition recovered numerous obelisk fragments in front of *chapel D*.

A COMPLEX MONUMENT RECONSTRUCTED: NAOS E-F

(fig. 3)

Legrain's graphic reconstructions are already impressive but also somewhat problematic when compared to what is preserved of contemporaneous architecture. The monuments of Amenhotep III are known for their classical elegance, while the small shrines of Gebel el-Silsila erected during his reign in these quarries display an overabundant decoration of add-ons of solar symbolism.⁵ Our recent analysis emphasizes this apparent discrepancy even further.

Naos F is completely shattered and its remnants now consist of four main parts and an important number of smaller fragments collected in the area surrounding its preserved foundation (Legrain's *naos E*).⁶

4. Last season's cleaning revealed, for instance, fragments of yet another obelisk near the top surface of the triple stelae.

5. This might be linked to stylistic changes already traced to the last decade of the reign: W. RAYMOND JOHNSON, "The Revolutionary Role of the Sun in the Reliefs and Statuary of Amenhotep III", *The Oriental Institute News & Notes* 151, 1996, pp. 1–6.

6. All these elements seem to have been moved around quite a lot. While Legrain claimed to have found the falcon statue with its crown near the unfinished chapel D, they now lie farther to the north near the remnants of *Naos E*. It is thus impossible to know to which monument it was originally attached. One of the large blocks of *Naos E* has also been overturned since the 19th century. It bears an upside-down tourist graffito reading "Sarah Dane, Jenuary 9 1818", likely identified with a member of Earl Belmore's party who stopped in Gebel el-Silsila on the evening of the 8th of January 1818. See R. RICHARDSON, *Travels Along the Mediterranean... in Company of the Earl of Belmore During the Years 1816–17–18*, London, 1822, vol. I, pp. 520–525.

The shrine bears depictions of Amun that were destroyed during the reign of Akhenaten but later restored, through either sculpture or painting. If the monument survived the end of the 18th Dynasty, it is difficult to establish an absolute date for its destruction. Neither is it possible at this time to answer if the destruction was intentional or if the shrine collapsed under its own weight and fell to the ground during an undated seismic event that fractured various quarry faces. Indeed, the monolith was sculpted in an area where the sandstone is of poor quality and its lower part shows a heterogeneous layer that could simply have weathered badly⁷. However, the presence of several wedge marks on one of the larger fragments indicate such an attempt and may well have been the cause of its final collapse. Thankfully, however, the monument can be restored from the preserved fragments.

In this context, one must consider the empty, smaller stela located directly under the preserved lower part of the shrine. It is difficult to date, though the style of its frame leads towards a tentative dating to the Late Period. A number of such “empty stelae” are known on the site on both banks of the Nile, each being linked to a destroyed dynastic monument; one example can be found close to a stela of Ramesses II.⁸ The cliff bearing the stela has collapsed after the overwork of an open quarry, perhaps – again – in association with seismic activity. Such an “empty stela”, engraved on what is left of the original rock, is positioned vertically and was thus added after the collapse. As a working hypothesis, we interpret these stelae as engraved during an ancient general inspection of the site to mark, symbolically, the presence of already vanished inscribed monuments.

The geometry of *naos E-F* is so peculiar that Legrain’s detailed study did not fully manage to capture it. We produced 3D models of the fragments and virtually put them back together in a likely representative model of the shrine within its topographical setting. *Naos E* is a small but complete temple in itself. Its façade consists of a single towered pylon adorned with two stelae showing the king making a double offering to Amun and inscribed with royal texts. The two sides showed possibly an individual called Amenhotep adoring the cartouches of the divinized Amenhotep III. These surfaces are not set perpendicularly to the pylon, as drawn by Legrain, but taper towards the rear, so that the external width of the inner sanctuary is smaller than that of its front. The same subtle phenomenon can be observed on the inner walls of the sanctuary, opening from the exterior towards the interior, thus giving shape to a larger back wall. This complex geometry is clearly linked to the way the sun light shined on the shrine. The morning light could thus bear on the exterior walls, while the sunset would light up the pylon and illuminate the shrine’s interior and the images of the king in the presence of Amun, as well as those of an Amenhotep in adoration.

DIFFERENT, BUT SIMILAR: BASE A

(fig. 1)

Base A is a simplified version of *naos E-F*. Our recent cleaning confirms the presence of statuary decoration upon its roof, with also two obelisks and a falcon.⁹ The shrine is a solid cube of rock with a flat roof set upon a plinth. If *base A* does not present a hollow shrine, its decorative structure

7. Recently a large fragment of the quarry roof collapsed just south of the naos, after a heavy rainstorm, braking off along the same marly mud bed layer.

8. P. MARTINEZ, “Une commande royale pour le Ramesseum : une stèle inédite de Ramsès II au Gebel es-Silsileh”, *Memnonia* 20, 2009, pp. 133–172.

9. The falcon is from Edfu and the second obelisk is a mirror of the first.

is parallel to that of *naos E-F*. The western side is devoted to a royal stela showing Amenhotep III offering fresh water to Amun, to the north, and wine to Sobek to the south. This representation is situated above a text dated to “Year 35, first month of Shemu, day 1”,¹⁰ damaged by a large opening set in the centre. Legrain assumed that this mutilation was the deliberate act of a treasure hunter. Our complete cleaning, however, points instead to a Pharaonic date, perhaps even the reign of Amenhotep III. Sculpted very cleanly, the hole perforates the whole sandstone block. The rear opening was thus found protected by a stone stopper that was cleanly set in place by the use of a whitish, lime mortar. Such a stopper might have existed also in the front; it would have been inscribed and has since disappeared. This carefully worked installation is the interesting clue that the monolith actually may have hidden a sacred object. Dedicated to Sobek-Ra-Amun, one wonders whether it could possibly have been the mummy of a small crocodile. In any case, it is difficult to understand why an excavation accessible solely from the back of the structure did not fully satisfy the architect, who took the risk of partially defacing the royal text of the shrine.

STELAE B & C

(fig. 2)

The group of *stelae B and C* forms one single monument and overall presents the same iconographic device. One stela shows again the king offering liquids to Amun-Ra and Sobek-Ra. If the royal text is now almost completely destroyed, Legrain was still able to note an incomplete date linked again to the last decade of the reign of Amenhotep III, in connection with his jubilees. In its conclusion, the text strongly underlines the architectural wonders created by the king, “never had the like been witnessed since the primeval time of this land, it had never been done by the kings who came before this king”. The northern part of the monument shows an Amenhotep adoring the two cartouches of Amenhotep III surmounted by ostrich feathers and set on a *sema-tawy*. This confirms the personal implication of the Vizier(?) and Master of Works of Amenhotep III in the cult of his divine kingly persona and thus the relatively late date in the reign.

A COMPLETE QUARRYSCAPE DATING TO THE END OF THE REIGN OF AMENHOTEP III

The nine different monuments were thus erected along the same topographic level of the sandstone bed, at the end of the reign of Amenhotep III, by his “Master of works” Amenhotep. Some monuments bear the precise dates of years 34 and 35. A privileged space for the personal worship of an elite individual towards the divinized and solarized manifestation of his king, they are the east bank’s equivalent of the 32 private shrines of the 18th Dynasty present on the West Bank.¹¹ This

10. For this Text, see LD III, 81c and Urk. IV, 1920–1921.

11. R. CAMINOS, T.G.H. JAMES, *Gebel es-Silsilah I: The Shrines*, ASEG 31, London, 1963.

private worship of the king is still present on the stela of Ramesses II mentioned above¹² and can be discerned on Caminos's "stela 100" dating to the reign of Sheshonq I.¹³ Such a private adoration also invaded the broad hall of the Speos during the Ramesside period.¹⁴

The destroyed *naos E-F* once stood at the top of a gallery quarry that was supported by large stone pillars. It overhung an open quarry whose bed was at least set 6 meters below. The western rock face was decorated by a large *dipinti* image of the goddess Taweret and a hieratic inscription indicating year 34, a date that can only relate to the reign of Amenhotep III¹⁵. Near *base A* and *stelae B and C*, quarried surfaces were also revealed. The stone was extracted after Amenhotep III's first *heb-sed*, to produce large blocks that seem typical of the structures built by the king in Luxor temple or at Kom el-Heitan. However, in some areas, the extraction footprints are of a much smaller size, evoking the *talatat*-blocks usually linked to the reign of Amenhotep IV. Perfectly defined, although roughly dressed *talatat*-blocks were found close to *Naos E-F*. Of course, this cannot be seen as absolute evidence that *talatat*-blocks were actually quarried in years 34–35 of Amenhotep III. The quarrymen working for the Karnak project of Amenhotep IV could logically keep on working on quarry fronts of quality that were open barely a few years before.

However, the area of extraction of *talatat*-blocks under Amenhotep IV lies just a few meters away. Our recent survey of these impressive galleries brought to light a number of hieratic inscriptions bearing dates (the first or second month of Akhet), but without providing a reigning year. A larger hieratic text clearly stresses a connection with the *Aten, Life, Prosperity and Health*, its name ostensibly written inside a royal cartouche¹⁶. Even if a date to the early reign of Amenhotep IV logically makes sense, these short texts and their paleography could also be connected with the end of the reign of Amenhotep III and the nearby quarries where the monuments erected under the order of the "Master of works" Amenhotep are still visible.

Although our survey has tried to be as systematic as possible, massive quantities of quarrying waste still need to be moved in order to get a better understanding of this archaeological ensemble. The adjacent sculptor workshop containing a series of large ram-headed sphinxes has shown that, under the opaque layer of later quarrying heaps, most of these surfaces are still untouched, appearing as if "*the labourer had only left his work the evening before, and was going to resume in the following day*".¹⁷ Much thus remains to be discovered.

12. P. MARTINEZ, *op. cit.*, *Memnonia* 20, 2009, pp. 133–172.

13. R.A. CAMINOS, "Gebel es-Silsilah No. 100", *JEA* 38, 1952, pp. 46–61.

14. M. NILSSON, P. MARTINEZ, "In the Footsteps of Ricardo Caminos: Rediscovering the Speos of Gebel el Silsila", in G. Rosati, M.C. Guidotti (eds), *Proceedings of the XIth International Congress of Egyptologists*, Oxford, 2017, pp. 445–449.

15. M. NILSSON et al., "18th Dynasty Dipinti from Gebel el-Silsila", *JAEA*, 2021, pp. 7–57.

16. For all these new documents, see M. NILSSON et al., *op. cit.*

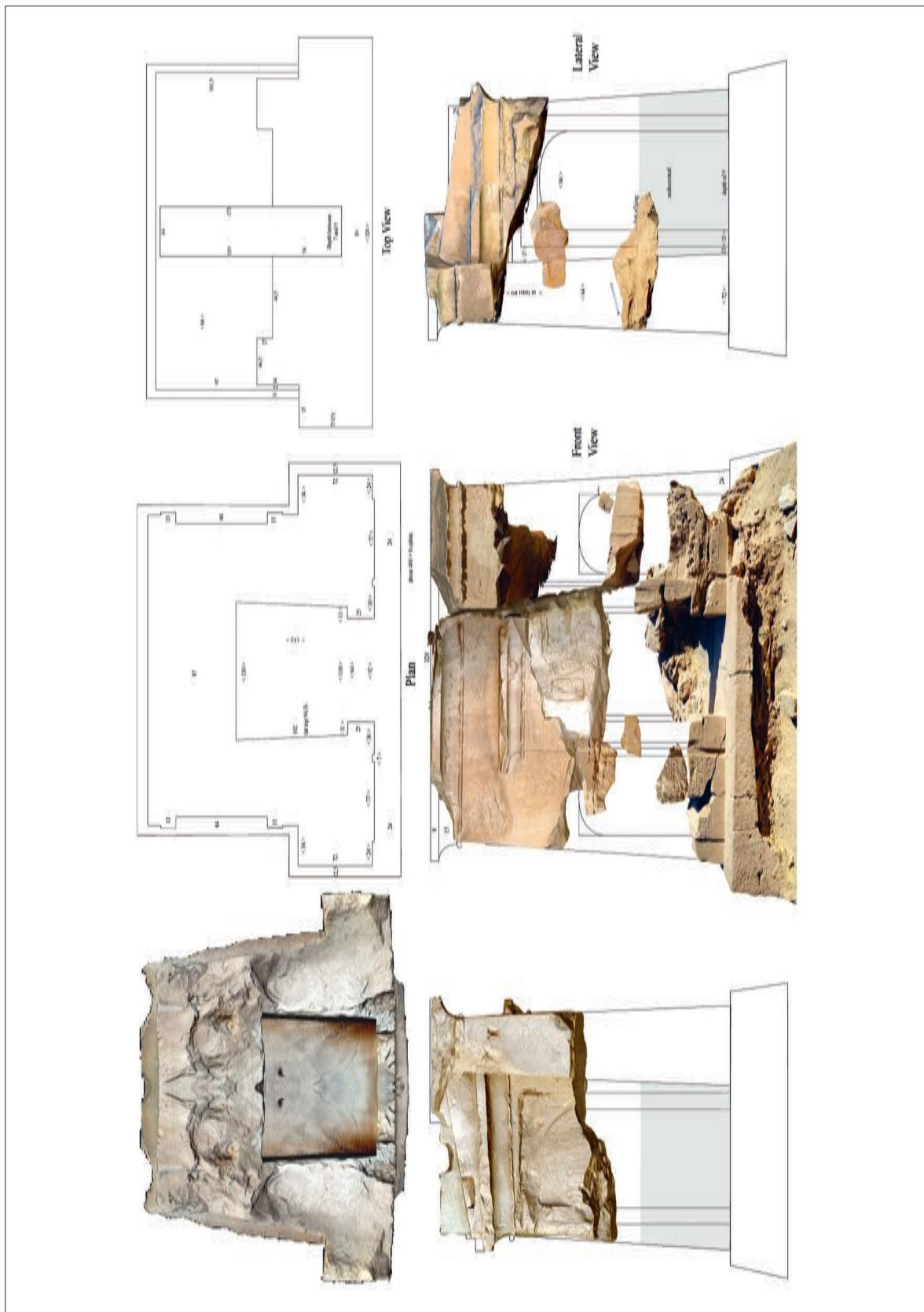
17. R. RICHARDSON, *op. cit.*, p. 522.



Fig. 2. The group of "Stelae B and C" in its quarry context.



Fig. 1. Preliminary reconstruction of the elevation of "Base A".



© Gebel el-Silsila Project 2021.

Fig. 3. Plan and reconstruction of the elevations of "Naos E".

Dialogue at Edfu?

The Dedications of Lichas, Son of Pyrrhus and the Concept of Egyptian Double Composition

THE SUBJECT of this paper is a double composition, following the Egyptian concept of the term, but manifesting in two matching Greek texts of the Ptolemaic period that have been associated with the site of Edfu.¹ These are the double dedications of Lichas, son of Pyrrhus, the Akarnanian, who served under King Ptolemy III and King Ptolemy IV, and who is further attested in a series of ancient literary sources and inscriptions for his military prowess and for hunting elephants.² His career makes this pair of inscriptions especially significant to examine and place. The first of them (CPI 397, OGIS 82, including SB 174 and SB 8866) is more secure in its provenance; the second (CPI 601, SB 7306) is more problematic; but in the end, as will be argued here, the two were intended as a pair, both in their conception and their display at the same site.

The dedication with the secure provenance is located today in the Brooklyn Museum of Art (Acc. no. 16.89). It is completely intact, with dimensions of 19.3cm in height, 34.5cm in width, and 4.8cm in depth³ (fig. 1). Lichas dedicated the heavy black stone plaque to the Father-loving Gods Ptolemy IV and Arsinoë III as well as to Serapis and Isis on the occasion of his second campaign as commander of the expedition to obtain elephants for the king's military engagements. The inscription has been dated more precisely 217–212 BCE because of the Battle of Raphia, fought on 22 June 217 BCE, with Ptolemy IV victorious against Antiochus III.⁴ The elephants of Ptolemy IV played a significant, although not entirely successful, role. The need to replace them became crucial. The inscribed plaque was obtained by Ch. Wilbour on 25 February 1887 at Edfu “after discovery in the town some ten days earlier”.⁵ K. Herbert calls the plaque “handsomely lettered” and gives the letterform height from 1.2 to 2.0cm⁶. The letterforms are indeed exceptionally strong, evoking the quadrata in their formation. There is some variation in the serifs. While Herbert

* Savannah College of Art and Design.

1. I wish to sincerely acknowledge the Organizers of ICE XII and the Committee for the Proceedings. Egyptian double composition is understood to mean the propensity in Egyptian art to present a composition twice in clearly related, although not identical, forms. It may occur two-dimensionally or three-dimensionally.

2. HERBERT 1972, p. 20, no. 7.

3. My measurements concur with BROOKLYN MUSEUM n.d. and HERBERT 1972.

4. HERBERT 1972, p. 21; HÖLBL 2001, pp. 162–163.

5. HERBERT 1972, p. 19.

6. HERBERT 1972, p. 19.

notes them as being at right angles to the main stroke, many are strongly bracketed; the omega in Line 7 combines both. Moreover, there can be a subtle manipulation of letterform height despite the overall consistency of the palaeography. This is most apparent in the central Line 4, where the height of the lettering increases over the norm of the inscription, exactly where the commander's name stands following that of Isis. What appears to be two interpuncts, one before and one after the IX of ΛΙΧΑΣ, act as restrained but deliberate ornamentation. The other clear evidence for visual control on the text is the isolation of the words TO ΔΕΥΤΕΡΟΝ at the end of Line 7. The size and impact of these letters matches that of Lichas' own name in Line 4. The fact that Lichas was asked to retrieve the requisite elephants a second time is the pinnacle of achievement in his abbreviated biography. It argues that there could well be two plaques dedicated at the same site to reinforce that very achievement.

The second inscription is not intact. References indicate it to be fragmentary, with essentially the entire left half of the plaque missing. In what must be regarded as the editio princeps of this inscription, S. De Ricci gives the dimensions as follows: "Hauteur, 0.18 m; largeur, 0.18 m; épaisseur, 0.05 m."⁷ A comparison with the Brooklyn dimensions confirms that the fragment was originally part of a plaque very close in size, and that it preserves the right half of the text. De Ricci was given permission by the curators of the State Hermitage Museum in St. Petersburg, the location of the inscription, to physically study "toute une série d'inscriptions grecques inédites achetées, pour la plupart en 1898, en Égypte [...]."⁸ Although not specified where, this statement confirms that the Hermitage fragment was definitely acquired in Egypt. After transcribing the inscription and supplying the presumed restoration, De Ricci makes the following connection: "Sauf pour le nom de Dionysos à la troisième ligne, cette inscription est un double exact d'une inscription d'Edfou (OGIS., t. I, no. 82)".⁹ Dionysos in the dative replaces Serapis in the dative at the end of Line 3, which is correct; but there is another difference he does not note. KAI does not follow the name of Dionysos, and without the stone or a photograph, it is impossible to know if there was simply not enough room and KAI opened Line 4 before the name of Isis or different deity; or if KAI was not necessary because no other god's name stood at the beginning of Line 4. Spacing would be an important factor. Both De Ricci and SB 7307, however, restore KAI and the name of Isis in the dative at the beginning of Line 4, but with a question mark. But the possibility that Dionysos stood alone as the dedicant after the divine king and queen on the Hermitage stone should be considered. Dionysos was uniquely favored by Ptolemy IV, and Lichas as a member of the military elite would be sensitive to that fact. But eliminating Isis also takes away an important parallel construction: the double dedication to the divine royal couple and the male and female divinities. Saraois and Isis are obvious team players on the Brooklyn inscription. While Dionysos could occupy the Hermitage fragment exclusively, it is also logical that he was paired with a goddess for affinity with the divinized Arsinoë¹⁰.

7. DE RICCI 1913, p. 253, no. 1.

8. DE RICCI 1913, p. 253, no. 1.

9. DE RICCI 1913, p. 253, no. 1.

10. BUTZ 2017, 46–56.

There are two other disparities between the De Ricci text and SB 7306. The first is minor. De Ricci prints only the horizontal crossbar for the extant letterform beginning the patronymic in Line 3, while SB 7306 reads the pi of ΠΥΠPOY intact. The second, however, is curious, especially since SB 7306 follows the De Ricci text in date. In Line 6, the genitive ΕΛΕΦΑΝΤΩΝ is divided differently. In De Ricci, the nu ends the line; in SB 7306, the tau ends the line. Looking at the Brooklyn stone as the model, the nu should end the line. The bigger question is whether or not the two plaques were inscribed by the same hand. De Ricci gives no indication of the height of the letterforms, nor does he discuss palaeography. One significant aspect of his transcription, however, suggests that it was the same hand. De Ricci prints an appreciably smaller omicron throughout his text; likewise, the omicron on the Brooklyn inscription is small, accounting for the low 1.2 cm measurement by Herbert. However, De Ricci's transcription also shows the omicron as riding on the groundline, whereas the Brooklyn omicron is suspended within the line. There is no indication in De Ricci that the Hermitage omega follows the Brooklyn model and is consequently shorter in height; in De Ricci the omega is simply printed at full height. It must be stated that despite communications with the Hermitage and its staff in both the Near Eastern and Classical departments, specifically for this paper, the Lichas inscription fragment has not, at present, been found in their collections. In the meantime, I am very grateful to Ch. Crowther at the Centre for the Study of Ancient Documents at Oxford for sharing the notes of the great P.M. Fraser, which confirm Fraser's knowledge of both inscriptions: the Brooklyn by personal autopsy but the Hermitage only via De Ricci's publication (figs. 2 and 3).

Another important point of comparison between the two plaques concerns their material. Even on the Brooklyn Museum's own published webpage for the object, there is inconsistency between whether the dedication is cut on basalt or granite.¹¹ The challenge of the identification was not lost on Fraser. For the Brooklyn inscription (fig. 2), he changes his mind three times from black marble to granite to basalt. Having examined the plaque myself, I would identify basalt. The writing surface, while smooth, remains slightly textured and lightly pocked. The back of the plaque reveals the deeper, artificial texturing for the installation of the plaque produced by the pointed chisel. All lettering is strongly affected by the material. Even as the Brooklyn stone is very dense and heavy in weight, the inscription proper is correspondingly heavy, pastose, but highly legible. In another area of his notes, Fraser affirms the influence of material on lettering for the Brooklyn inscription: "The inscription (one of an identical pair) is carved on basalt, & has that muzzy appearance we now have learned to expect from inscriptions carved on that material or syenite. The ductus is hard and did not encourage fancy arabesques..."¹² The Hermitage fragment, however, is described as granite in both De Ricci and SB 7306, the latter referring to it typologically as "Granittafel"; De Ricci specifically calls it "granit noir".¹³ Granite may be acting for them as a default material. Nevertheless, it would be extremely interesting if the two stones were not the same. The Hermitage fragment simply needs to be found.

11. BROOKLYN MUSEUM n.d.

12. THE FRASER ARCHIVE, No. 205 A and B, Hellenistic palaeography course pages.

13. DE RICCI 1913, p. 153.

The most useful precedent for a double dedication at a single site, but utilizing vastly different materials, is that by the elite royal scribe and lector priest Nebmerutef at Hermopolis Magna, sacred to the god Thoth. The two statuettes are in the Louvre, dated to the New Kingdom reign of Amenhotep III (fig. 4). Depicted in the massive folio publication *The Art Museum*, the caption for the greywacke version of the dedication reads as follows: "This is one of a pair of identical 18th Dynasty groups offered by the same official, perhaps in the temple of Thoth at Hermopolis; the other was made out of Egyptian alabaster".¹⁴ First of all, the use of the word "identical" needs reevaluation. It is a given in Egyptian art that nothing is "identical". These pieces are nearly identical in basic dimensions: length and depth.¹⁵ Looking at them together carefully, there are important differences. The greywacke composition is designed more formally. Nebmerutef leans forward intently, with legs precisely crossed and his papyrus roll resting squarely on his thighs. He is clearly checking it over, reading but doing no writing, and holding the tool for keeping the papyrus roll open in his left proper hand. His right proper hand holds the other side of the papyrus, which curves over his right thigh. The forward tilt of Nebmerutef's head displays the perfection of the lines of his hair, radiating out from a small disc in the center of his cranium. That attention to surface detail, enabled by the physical properties of greywacke, is matched in the overlapping diamond patterning of the baboon's coat as it spills out from between his rounded ears, framing the magnificent ruff that surrounds his head. The god is seated comfortably on his elevated altar with a substantially supplied offering mat on the ground in front of him. His hook-like snout is evident in the profile view. There is a certain matter-of-factness about the whole: the god's presence is not one that Nebmerutef would be surprised at; it's not that he is oblivious to it either, as *The Art Museum* caption further states;¹⁶ rather, Thoth's presence is almost assumed.

The alabaster composition, however, is another matter. It might even be termed gestural in its design. Instead of being governed by a series of short, strong horizontals and verticals, this statuette is built on one major diagonal as is evidenced by the true optimum viewpoint. The same two participants, Nebmerutef and Thoth, are now visually united by the more informal, upraised, bent leg of the scribe as he focuses in a very different way on the papyrus. He is completely "into" the act of his writing and he holds the tools to accomplish this in both hands: the palette in the proper left and his writing instrument in the right, unconsciously showing how it is done. There is no offering mat necessary between him and his god; the sloped ascender to the top of the altar echoes the triangulation of Nebmerutef's bent leg. The baboon appears almost abstracted given the robust rotundity of his face and body parts, complemented by the perfectly squared projection of his snout. Nebmerutef is much more under the protection and vigilance of Thoth, thanks to the bronze attachment for the solar crown supported by the lunar crescent and its added height. There is no detachment between them but rather connectivity, indeed intimacy, of purpose. The sense is that the two "know" each other and the role to be played by each.

14. MORKOT 2011, Room 17, no. 5.

15. FILE: ROYAL SCRIBE NEBMERUTEF 2020. E-III153 (alabaster): H=12.30cm, L=20.30cm, PR=9.20cm. E-III154 (greywacke): H=19.50cm, L=20.50cm, PR=8.50cm.

16. MOROT 2011, Room 17, no. 5.

Applying this type of analysis to the dedicatory plaques of Lichas may seem extreme, but it is not so. The fundamental difference between the dedications of Nebmerutef and Lichas is the conventional simplicity of the two carriers Lichas chose. The stone plaque on which each of his dedications is cut and the Greek alphabet are doing all of the work: no relief or sculptural elements are available to amplify the message. The fundamental similarity between Nebmerutef and Lichas is their shared desire to say what was important twice and in two different yet coordinated ways. It is why, again, the Hermitage inscription is so necessary to find.

What were the dualities for Lichas? If thinking like an Egyptian, he would be concerned about the preservation of his dedication in multiple formats. That alone would qualify for a “second” or double. But the most important difference between the Brooklyn and Hermitage inscriptions lies in the names of the gods honored. The power of Edfu, the “House of Horus”, connects with the very kingship of Egypt. On the Brooklyn plaque, Isis and Sarapis, standing in the dative, receive the dedication in parallel construction with Ptolemy IV and Arsinoë III, and the connection between all four is made abundantly clear. Isis and Sarapis are favorites of Ptolemy IV and they connect with Horus. As explained by G. Hölbl, “during the early years of his reign, he [Philopator] added a small shrine dedicated to Harpocrates next to the naos for Sarapis in the Alexandrian Serapeum. According to bilingual (hieroglyphic-Greek) foundation tablets, the shrine had been made as the fulfillment of a command (*πρόσταγμα*) from Sarapis and Isis”.¹⁷ Ptolemy IV is also the first to use the Golden Horus name translated into Greek; it occurs on the Raphia Decree where Ptolemy IV and Arsinoë III are depicted exclusively in the lunette.¹⁸ The couple famously marries after Raphia.

The god Dionysos is no less favored in the personal cult of this king, although as Hölbl points out, the Ptolemies favored him from the start. Ptolemy IV achieved another first for the dynasty: his personal reception of the epithet *Νέος Διόνυσος*. His court established new and special cult affiliations, and the very naming of the Alexandrian phyle system privileged Dionysiaca names.¹⁹ The list goes on. One of the greatest monuments of the dynasty, the so-called “Circle of Poets” connects the Ptolemaic image, including the emphasis on Homer, with Serapis and Dionysos.²⁰ Lichas could not have related more strongly to the identity of his divine superiors than he does by inclusion of their preferred divinities into his own dedications.

Finally, Lichas, son of Pyrrhus, the Arcananian, named strategos at the beginning of Line 5, is tasked with the retrieval of war elephants for the king, not just once but twice. The graphic position of TO ΔΕΥΤΕΡΟΝ, separated from the bulk of the text by two vacats,²¹ is rhythmic. Closing out the text, the two words circle back to the double naming of the king and queen at the outset. By claiming the final double associated with himself, Lichas is elevated as a consequence. It is a matter of numbers.

The final question is why should Edfu be favored for both of Lichas’ dedications. The site would need to be argued as highly significant to Lichas personally, in that he would want the reinforcement

17. Hölbl 2001, p. 170.

18. Hölbl 2001, p. 164.

19. Hölbl 2001, p. 171.

20. I have studied the monument on site and in the paper, “The ‘Circle of Poets’ on the Dromos at Saqqara: Egypt and Greece at right angles to each other,” abstract for the ARCE 2017 Annual Meeting.

21. Herbert 1972, 19.

of two dedications. For Nebmerutef, the choice of Hermopolis Magna must have been obvious. The god Thoth occupies Hermopolis Magna throughout its archaeological timeline. Lichas' association with Edfu may be argued equally work-oriented. At Edfu, despite a continuous archeological record for the temple since the Middle Kingdom, the Ptolemies made it their own: Ptolemy III Euregetes is credited with starting work on the Temple of Horus as we see it today,²² and this was the first king that Lichas served under. Literally, there is built into the temple a concept of repository and record-keeping through the vehicle of architecture, consistent with the Ptolemaic mindset. Even though exhibited most brilliantly in the Great Building Inscription many kingships after Ptolemy III and IV, the foundations for the epigraphical character of the complex is laid early. Lichas may have logged into this. There is furthermore a deeply militaristic identity associated with the site. Not only is Edfu the traditional location of the Battle between Horus and Seth, but a locus for new attempts at unification, especially following the Great Revolt in which Edfu played a role,²³ that would emanate from the age-old confrontation of order vs. chaos. Lichas' dedications may even be seen to support evidence for military euergetism in the temple building projects of the Ptolemies, explored by C. Fischer-Bovet.²⁴ And something so basic as the color of the stone used for the plaques: Lichas may have wanted both dark, echoing the trend shown by the Ptolemaic kings for hard dark stone taking their cue from Late Period statuary.

In the end, Lichas had as good a reason to make a double dedication at Edfu as Nebmerutef did at Hermopolis Magna. I believe Lichas' second dedication, the Hermitage plaque, was on black basalt as well as the first: a perfectly matched pair, almost identical, in the spirit of the dark stone portraiture so favored by the Ptolemies, and the legacy of their Late Period "forebears". While Fraser considered the Lichas dedication "purely Greek",²⁵ Graeco-Egyptian is better for its double composition, many internal dualities, quadratic letterforms, and the visual dialogue implied by the two plaques wherever they were installed. Edfu was the place, consummate in its long history and devotion to Horus, for Lichas' own double composition to be fully realized and empowered.

^{22.} ARNOLD 2003, p. 78. The date given for the foundation is 23 August 237 BCE.

^{23.} JOHSTON 2016, pp. 183–184.

^{24.} FISCHER-BOVET 2014.

^{25.} THE FRASER ARCHIVE, text edition pages where Fraser compares the Lichas dedication with an inscription he considered "Greco-Egyptian" in lettering style (now CPI 130).

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FILE: ROYAL SCRIBE NEBMERUTEF 2020

Wikimedia Commons, File: Royal Scribe Nebmerutef-E_11153 and E_11154-Louvre_122006_032.jpg, https://commons.wikimedia.org/wiki/File:Royal_scribe_Nebmerutef-E_11153_and_E_11154-Louvre_122006_032.jpg, last edited 30 October 2020, accessed 10 April 2021.

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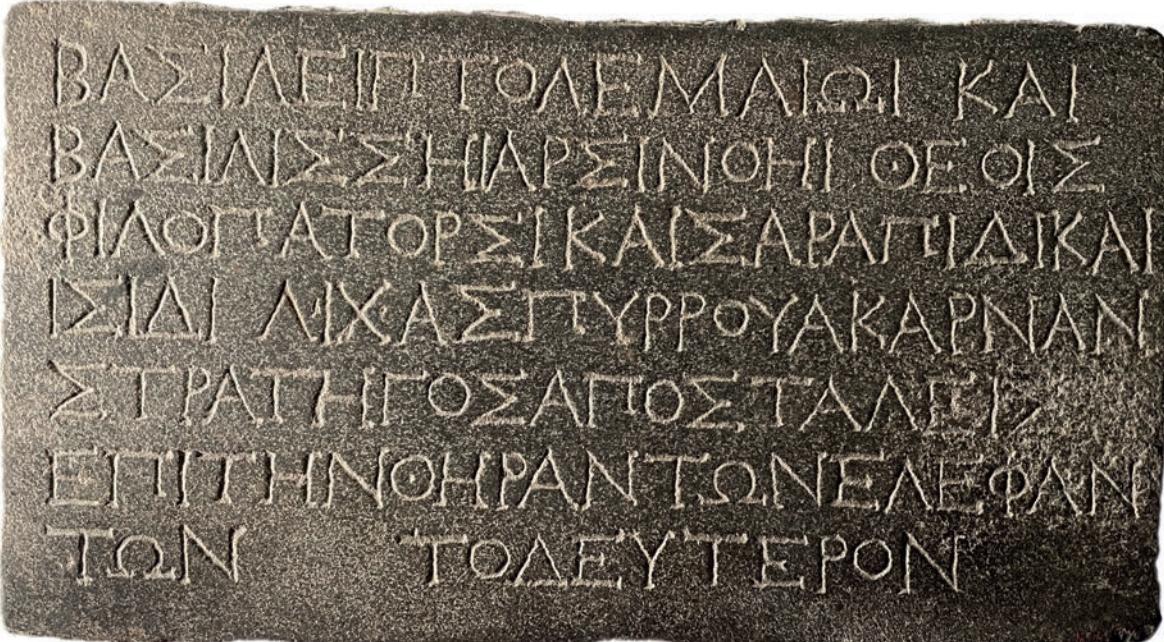


Fig. 1. The Dedication of Lichas to Ptolemy IV Philopator and Arsinoë III and to Sarapis and Isis. Brooklyn Museum, gift from of Evangeline Wilbour Blashfield, Theodora Wilbour, and Victor Wilbour honoring the wishes of their mother, Charlotte Beebe Wilbour, as a memorial to their father, Charles Edwin Wilbour.

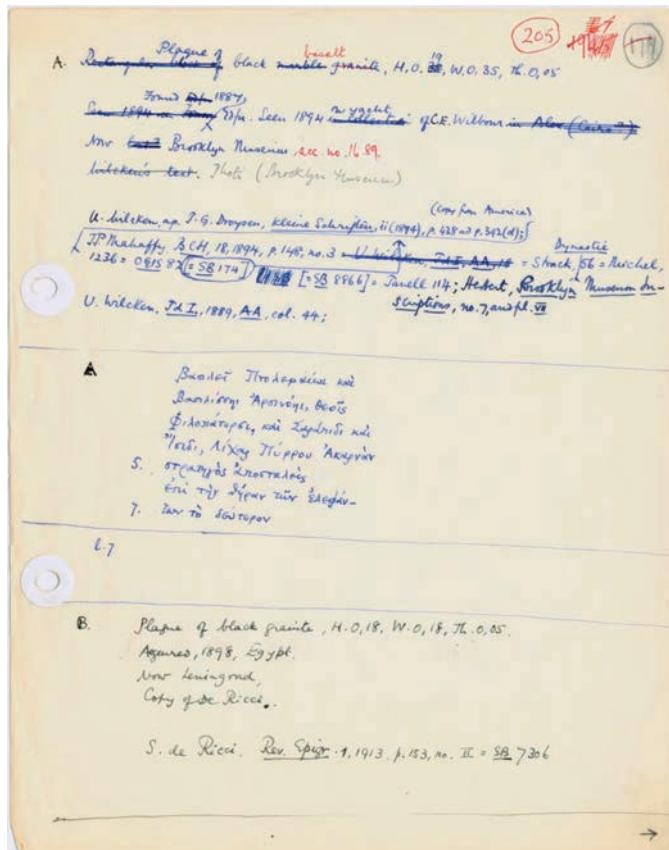


Fig. 2. The Fraser Archive in the Centre for the Study of Ancient Documents, Oxford. First page of Fraser's entry for his own No. 205, A and B, the Brooklyn Lichas and the Hermitage Lichas. Pages prepared for his class in Hellenistic palaeography.

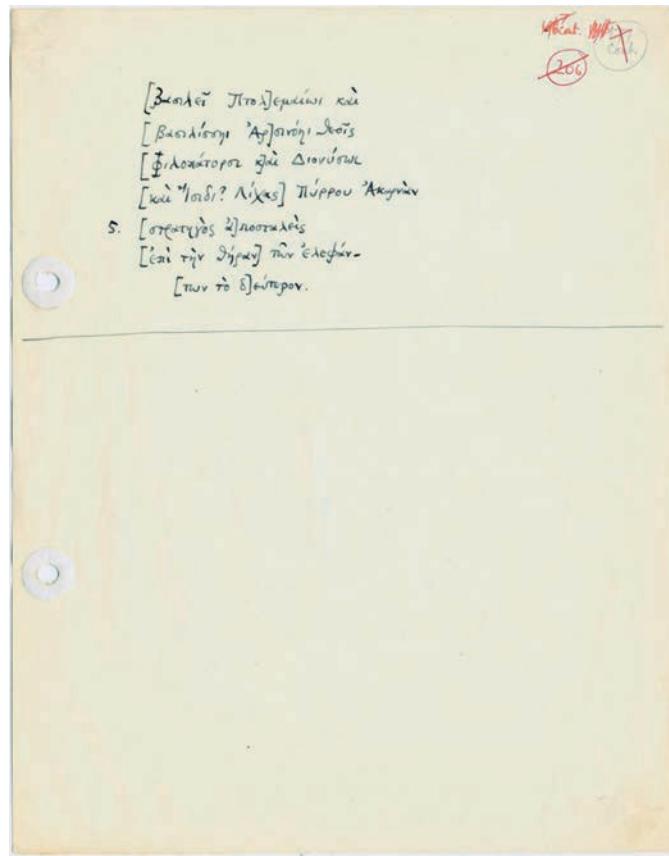


Fig. 3. The Fraser Archive in the Centre for the Study of Ancient Documents, Oxford. Second page of Fraser's No. 205 showing his handwritten copy of the De Ricci transcription, after *RevEp* 1, 1913, p. 153.



Fig. 4. The Double Dedication of the Royal Scribe Nebmerutef, Louvre Museum, E 11153 (in alabaster on the left) and E 11154 (in greywacke on the right).

© Wikimedia Creative Commons, <https://commons.wikimedia.org/wiki/File:Royal_scribe_Nebmerutef-E_11153_and_E_11154-Louvre_122006_032.jpg>.

Reactions to Images in the Theban Necropolis

Towards Socio-professional Visualities

THE FOLLOWING ARTICLE explores one of the main guiding questions of my doctoral research on the reception of image in New Kingdom Egypt, namely the role of the beholder in the reception process.¹ Through the analysis of anthropogenic reactions to images imprinted on the walls of private tomb-chapels of the Theban necropolis, I will try to bring forward some opening remarks about the way ancient Egyptians engaged with these iconographic environments.

Ancient Egyptian pictorial representations have long fascinated various visual cultures. Today, countless art books, exhibitions, posters and postcards of all kinds clearly show the impact that ancient Egyptian images still have on us. At the same time, they reflect the way we engage with them as later beholders stemming from various exogenous socio-cultural contexts, among which Egyptologists themselves constitute a very specific category purposefully driven by objectivity. In this respect, one may refer to *non-systemic* reception patterns. Conversely, we could ask ourselves how the ancient Egyptians themselves looked at those images. How did they consider them as they wandered in their architectural setting and observed the decorated walls? How did they apprehend them intellectually; how did they understand their multiple meanings? Did they all comprehend them the same way owing to their *Egyptian* culture? How did they comment on definite visual representations or specific iconographies, whether alone, mentally, or in a group with one another? What were their reactions then, and how do these reactions reflect the way they engaged with the images?

These questions are all the more interesting as they may in fact have already been relevant in ancient times. This is to say that the issue of the reception of image by a certain audience has some emic value, as seen from an anthropological viewpoint. In his autobiographical text including an appeal to the living, the first royal herald of Thutmose III, Iamunedjeh, indeed asks the visitors to his tomb-chapel (TT 84) to “see what he has done on earth for the great god”,² predicated the participation of targeted beholders in the very performance of the representations, with an eye to involving them in his funerary cult. Hence, it is tempting to wonder what these ancient visitors

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1. My PhD thesis entitled *Réactions aux images. Pour une réception des images en Égypte ancienne* is under publication. It was defended at the University of Liège in December 2019.

2. Urk. IV, 939–940.

actually saw, especially those belonging to the same cultural sphere as the tomb owner: how were these elaborated visual (and textual) rhetorical devices *received* as soon as they were *emitted*? Iamunedjeh's explicit testimony leads to a possible study of such patterns of *systemic* reception of images.

I. REACTIONS TO IMAGES

One possible way to explore the ancient beholders' reception is to examine the visible reactions that some ancient visitors to these funerary monuments left on the decorated walls. It is then possible to analyse the relation of these anthropogenic reactions to images to the iconographic units that appear to be concerned, if not specifically targeted. In this regard, the private tomb-chapels of the Theban necropolis provide one of the largest ancient Egyptian imagery archives still containing such reactions to images, namely: textual or figural graffiti (sometimes labelled as "informal writings" or "secondary epigraphy"), image altering (from attacks and damages to transformation, restoration, retouching, etc.), as well as "copies" or reproductions of single, or groups of, depictions from one chapel to another; in sum, any kind of human action that appears to *respond* to the monument's decoration or some iconographic unit. Most of these reactions to images reveal one major aspect, or potentiality, of the decorations: their "agency". Considered here as a mere methodological tool to approach the issue of image reception, Alfred Gell's concept of agency leads us to consider an artwork as an agent with which one can establish a certain relationship beyond aesthetical or material criteria³—whether it was seen as such by the ancients is, for now, not a matter of our concern. From this perspective, private tomb-chapel painting is not only an assemblage of aesthetical and symbolical conceptions but an object with which one can engage and interact in a specific (socio-) cultural context. In addition, Charles S. Peirce's *Theory of Signs*⁴ (admittedly simplified here) helps us to distinguish the *iconic* value of an image from its *symbolic* underlying meaning and the *index* that it can possibly form according to the beholder's knowledge (with correspondence of facts; the paradigmatic example being the smoke indicating fire only to someone aware of what fire is). It thus seems that it is actually the beholder who eventually validates and therefore determines the value of the sign, beyond the author's intentions.

The copy of the vizier's office scene from the famous tomb-chapel of Rekhmire (TT 100) in that of his successor, Amenemopet (TT 29) clarifies this well. If, as an icon, the depiction in TT 29 represents an idealised and stylised version of the real office where Amenemopet used to receive petitioners, it also refers, on a more symbolical level, to the *Duties of the Vizier* text inscribed right next to it (fig. 1). Taking into account the numerous parallels between the scene and its textual referent (or prototype), it is likely that the draughtsman who originally created it was asked to transcribe the text in image so as to make the statements explicit to illiterate visitors. However, as an index, the depiction directly points to Rekhmire's version of the same scene in the neighbouring TT 100 (fig. 2), provided that the beholder knows about it and can therefore

3. GELL 1998.

4. HARTSHORNE, WEISS, BURKS (eds.) 1965, pp. 2247–2249.

recognise the reference itself.⁵ Considered as a direct copy of a model related to an individual's identity (Rekhmire's) in the eyes of the targeted audience (= the same community of people), the depiction can be approached as a reaction to image (the model) and thereby as a medium communicating implicitly a certain socio-professional positioning with regard to its original owner, the predecessor.⁶ As Jan Assmann suggested: in this respect, Egyptian art can be referred to as an *eponym* art, insofar as it carries the name (and identity) of the owner of the object or the monument, and almost never its designer.⁷ As Amenemopet commissioned the same depiction of the vizier's office as Rekhmire's, one should indeed suspect he expected a certain audience to appreciate the reference, but even more the way he positioned himself *vis-à-vis* his predecessor. While he made use of same visual codes in reaction to the need for legitimating his position within the Thutmoside vizieral tradition, he also re-contextualised them in a different architectural environment and a new personal apparatus with smart adaptations in order to define his own self-fashioning.⁸ In this context, it is clear that Amenemopet's position as Rekhmire's successor had a strong impact on his reception of the depiction he used as a model.

Another category of such responses to images is textual graffiti. These are the most explicit sources as much as they provide textual evidence for the reception of either specific depictions or the whole tomb-chapel decoration. To further explore the links between identity and reception, one might recall two visitor inscriptions from the well-known corpus of the 12th Dynasty tomb-chapel of Antefiqa and/or Senet (TT 60). They can be dated to the first half of the 18th Dynasty on palaeographical grounds.⁹ Graffito G.60.2 runs as follows: "This is a visit [made] by the scribe [...] to see] this tomb of Sobeknefer[u]. He found it as if [the sky] was in it."¹⁰ As suggested by Chloé Ragazzoli, G.60.3 could be an addition to G.60.2: "The scribe Bak, to see the tomb of the time of Sobekneferu. He found it as if the sky was in it."¹¹ As will be seen, it seems likely that the scribe(s) who wrote these two inscriptions visited the chapel in the beginning of the reign of Hatshepsut. First of all, they both mentioned Queen Sobekneferu as the owner of the tomb, which is of course an erroneous attribution. Two "false clues" probably led to this mistake: 1) the sole and unusual presence of the female statue of Senet in the shrine at the back of the chapel alongside with her numerous and conspicuous depictions within the iconographic programme; 2) and perhaps, the name of a wife of Antefiqa, Satessobek, as suspected by Richard Parkinson.¹²

Several scholars have shown and described the interest that Hatshepsut had for the late 12th Dynasty queen, whom she actually emulated in various ways, notably in her statuary, aiming to introduce her as female pharaoh in the early times of the coregency.¹³ In the context of the ideological and political definition of the Thutmoside kingship, the emulation of Middle Kingdom

5. On the mechanics of visual indexicality, see DEN DONCKER 2022.

6. See DEN DONCKER 2017.

7. ASSMANN 1991, p. 139.

8. DEN DONCKER 2017, pp. 349–351.

9. RAGAZZOLI 2013, p. 272.

10. RAGAZZOLI 2013, p. 299.

11. RAGAZZOLI 2013, p. 300.

12. PARKINSON 1991, p. 147.

13. See LABOURY 2014, pp. 19–20, n. 56 for complete bibliography.

was already in vogue at that time, especially among the professional milieus concerned by the conception and decoration of royal monuments, and the fashioning of royal portraits. Whereas the early Thutmoside kings used to refer to the 12th Dynasty on various levels—with a clear focus on Senusret I—¹⁴ Hatshepsut found in Sobekneferu the ideal legitimating figure to model herself on as a prototype of female kingship. Furthermore, some of the officials who were concretely involved in these royal commissions are attested in the graffiti of TT 60. This is the case of the steward of the vizier Useramun, Amenemhat (owner of TT 82),¹⁵ as well as possibly the seal-bearer Nehesy and the overseer of the Treasure Djehuty (TT 11).¹⁶ While a number of graffiti from the Memphite necropolis include dates that correspond precisely to royal monumental works led by Hatshepsut and Thutmose III all over Egypt,¹⁷ one might postulate accordingly that their visit to TT 60 was commissioned similarly by the court (or higher officials) in the context of the works carried in Deir el-Bahari and the search for iconographic models from the 12th Dynasty. To some extent, copies of representations from TT 60 to TT 61, TT 131 (Useramun), and TT 82 (Amenemhat), who were active in these operations, support this suggestion.¹⁸

In regard to the reception of image, the scribes' mistaken attribution of TT 60 to Sobekneferu reveals, in a way, what they had in mind when they entered the chapel. It also underlines the predetermined mindset that made them see what they probably *expected* to see under the influence of their socio-professional environment, particularly receptive to the growing interest for Sobekneferu. One might say that this mindset affected, or even *conditioned*, their reception of the decoration, leading them to see Sobekneferu instead of Senet, and to really believe that they were in the "famous" queen's tomb. Intimately linked to, and stimulated by a certain socio-professional knowledge and experience, the two scribes somehow *projected* this mindset on the depictions, as seen from a psychological viewpoint. In some ways, one sees what one is looking for.

Like most other visitor inscriptions, G.60.2 and G.60.3 are composed of standard formulae. The use of formality to express their impressions and transcribe, in this case, some kind of aesthetical emotion about the tomb-chapel decoration (indicated by the use of the metaphor "as if the sky was in it") was a way to display their knowledge and education as members of a certain community of literate people, as C. Ragazzoli aptly showed.¹⁹ Moreover, beyond the formality of these so-called "informal writings", it is likely that their authors not only influenced each other's compositions, but also affected their personal feelings on a mere emotional level, as is well established by social anthropology.²⁰ This phenomenon results from their socio-professional experience and commonly shared identity, that also seem to have determined the way they regarded old monuments, assessed the decorations, and comprehended and reacted to specific depictions.

14. LABOURY 2014, p. 13. G.60.29 evokes "the time of Kheperkare (= Senusret I)", see RAGAZZOLI 2013, p. 311.

15. RAGAZZOLI 2013, p. 313; DEN DONCKER 2017, pp. 335–336.

16. G.60.7, see GALÁN 2014, p. 266; RAGAZZOLI 2013, p. 302.

17. See NAVRÁTILOVÁ 2017, p. 553.

18. DEN DONCKER 2017, pp. 340–346, with bibliography.

19. RAGAZZOLI 2013, pp. 279–282.

20. See among others HOCHSCHILD 2003; BARRETT 2017.

As a third category of reactions to images, various processes of image altering confirm how the socio-professional affiliation, activity and identity of the ancient beholders had a strong impact on the way they engaged with tomb-chapel decorations. This is the case of the 20th Dynasty head of the weavers of Amun in the temple of Karnak, Djehutyemheb, who reused the tomb of a kind of professional ancestor and homonym, another Djehuty, from the time of Amenhotep II (TT 45).²¹ Multiple transformations of the chapel's decorative programme consist essentially in: 1) the addition of totally new scenes on initially undecorated walls, in accordance with new religious needs for divine presence and proximity within the funerary monument (characteristic of the Ramesside period); 2) compositional changes in the main offering scene, with the replacement of the figures of the original tomb owner and his wife by personally selected divinities; 3) the retouching of several iconographic motifs.

By way of explaining the retouching of the originally naked maidservants of the banquet scene (fig. 3), Sigfried Schott suggested in 1939 that Djehutyemheb did not tolerate such depictions of scantily clad young women as a matter of prudery²² (his assessment being clearly reminiscent of his own value system). However, the clear relation between Djehutyemheb's socio-professional background and status, and his reception of the motif of the naked maidservants helps us understand that he probably sought to promote his identity as the head of the weavers and fabricant of fine linen of Amun as he asked his painter to have them clothed. A careful examination of the wall in 2012 revealed that the scene had been left unfinished in the 18th Dynasty, so that the Ramesside painter was in fact probably requested to complete it (as evidenced by the re-outlining of some of the figures) and, at the same time, to add a long dress on the maidservants and transform their hairstyle. His patron, Djehutyemheb, considered these motifs had to be completed but also apparently refashioned. In the same way, he indeed ordered the retouching of a large number of iconographic motifs of the chapel decoration with a significant focus on the kilts of the male and the dresses of the female figures, which were consequently redesigned meticulously by the painter into the Ramesside style (figs. 3–4). This process of refashioning the stylistic characteristics of distinctive figures betrays Djehutyemheb's will to make the depictions reflect accurately his socio-professional identity. As the head of the weavers of Amun, had he kept the old-fashioned figures of his new tomb-chapel decoration, it would surely not have helped his self-presentation and socio-professional credibility within his community. With regards to the naked maidservants, one might add that nudity could also directly refer to poverty and misery, as it was a frequently used *topos* in literature, especially in Ramesside times. It thus appears that, again, some socio-professional predispositions most probably determined the way the beholder, Djehutyemheb, projected his identity on the images as he evaluated the tomb decoration and focused more specifically on the iconographic motifs to which he was clearly more receptive due to his life experience as professional weaver and fabricant of linen.

21. POLZ 1990, pp. 304–307. The tomb is going to be republished by Carina van den Hoven (Leiden University).

22. SCHOTT 1939.

TOWARDS SOCIO-PROFESSIONAL “VISUALITIES”

These three case studies lead us to propose some opening remarks about the reception of image in New Kingdom Egypt, particularly in this context of the productive reuse of sacred yet accessible iconographic environments.

As a rule, it appears that one sees in the image what one is actually projecting on it in terms of self-centred personal needs, expectations, motivations, knowledge and experience, albeit common to other members of one’s community. Consequently, there was most likely no single culturally predetermined “Egyptian” way of looking at visual representations. It rather seems that constructed socio-professional predispositions contributed to defining identity and therefore, as a result, the way individuals engaged with images reflecting it. Conditioned by the socio-professional situation and experience, these predispositions reveal, in terms of meaning, a broad range of potentialities somehow enclosed in the images. The actualisation of these potentialities depends on the beholder’s active participation in the definition of the representation. In this respect, meaning and agency are as dynamic as they shift in accordance with the beholder.²³ Hence, as regards the process of image reception, to take on Whitney Davis’s concept of “visuality”—that can be defined as the cultural part of vision and the visual part of culture—²⁴ I would like to plead for clear socio-professional conditioning in the way ancient Egyptians assessed and appreciated the images, and therefore to raise the notion of *socio-professional visualities*. Including the external beholder in the very description of monumental decorative programmes might help reassess their meaning and function, their various significances, as well as, to some extent, our Egyptological definitions.

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²³ For other examples of such dynamics, see DEN DONCKER 2019.

²⁴ DAVIS 2011, p. 8.

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Fig. 1. Vizier's office (copy in TT 29).



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Fig. 2. Vizier's office (model in TT 100).



Fig. 3. Completion and refashioning of the maid servant and the female guests (TT 45).



Fig. 4. Refashioning of the dress of the tomb owner's wife (TT 45).

Un art sans artiste... vraiment?

Pour une approche iconographique:
les (auto)représentations des praticiens de la *ḥmw.t*

PROLÉGOMÈNES

L'égyptologie a longtemps contesté l'existence d'artistes véritables en Égypte antique¹. La nature proprement artistique de la plupart des statues ou peintures pharaoniques, qui attirent, aujourd'hui comme hier, une multitude de visiteurs dans les grands musées d'art à travers le monde, paraît pourtant difficilement discutable. L'art de l'ancienne Égypte est donc bel et bien reconnu comme tel par notre société contemporaine. Or on ne peut bien évidemment pas concevoir d'art, par essence artificiel, sans ses facteurs d'œuvres : les artistes.

Plusieurs arguments ont été auparavant avancés pour justifier, au sein des études égyptologiques, l'éviction des artistes, réputés au mieux indétectables, au pire inexistant. Cependant, il y a près d'un siècle, l'article fondateur d'Edith Williams Ware attirait déjà l'attention sur une trentaine de signatures d'artistes², preuve indéniable de la reconnaissance dont jouissaient ceux-ci dans la société égyptienne en étant autorisés à revendiquer « l'autorité » de leurs œuvres³. La liste d'E. Williams Ware a, depuis lors, été constamment enrichie par différentes contributions sur le sujet⁴. Les spécialistes s'accordent ainsi aujourd'hui pour affirmer l'existence de réels artistes égyptiens⁵. Ceux-ci peuvent être étudiés sous différents angles d'approche, dont l'étude iconographique de leurs (auto)représentations. Hermann Junker⁶ puis, plus récemment, Naguib Kanawati et Alexandra Woods⁷, les ont recensées

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1. Il est ainsi très révélateur que la notice « *Künstler* » du *Lexikon der Ägyptologie* commence par l'affirmation « *In Äg., gibt es keine K. im eigentlichen Sinne des Wortes* » (SCHOTT 1980, col. 833).

2. WILLIAMS WARE 1927.

3. LABOURY 2016, p. 389.

4. Pour un *status quaestionis* davantage développé, voir LABOURY, DEVILLERS 2022.

5. M. Eaton-Krauss, dans sa notice relative aux artistes dans l'*Oxford Encyclopedia of Ancient Egypt*, dresse une parfaite synthèse de l'état de la question (EATON-KRAUSS 2001).

6. JUNKER 1959.

7. KANAWATI, WOODS 2010.

pour l'Ancien Empire. Dans le cadre de ma thèse de doctorat⁸, je me suis proposée d'élargir la discussion en investiguant et en recensant les (auto)représentations d'artistes pour l'ensemble de l'ère pharaonique à partir de la documentation actuellement disponible⁹.

ANGLE D'APPROCHE ET CORPORA

Cette étude vise notamment à mettre en perspective les (auto)représentations d'artistes en tant qu'individus avec l'image que ces derniers donnent à voir d'eux-mêmes, à titre collectif, en tant que catégories socioprofessionnelles. Pour ce faire, ont été mobilisés plusieurs types de sources qui constituent deux *corpora* principaux. Le premier rassemble les représentations individuelles d'artistes. Il peut s'agir de leur auto-thématisation sur un objet leur appartenant ou, sur le monument d'une tierce personne, d'un autoportrait « *in assistenza*¹⁰ ». Le second *corpus* comprend les figurations collectives d'artistes dans l'exercice de leur fonction, c'est-à-dire les scènes d'ateliers qui jalonnent les parois de nombreuses tombes privées. En associant ces deux types de sources à un troisième constitué de données de natures diverses évoquant des artistes (par exemple, des monuments mentionnant uniquement textuellement ceux-ci, certains textes sapientiaux et didactiques, etc.), l'objectif est de permettre d'aborder la représentation, cette fois-ci sociologique, de l'artiste en Égypte antique et d'ainsi appréhender son statut sociétal.

Afin de se conformer au mieux à la « *Berufstypologie* » égyptienne¹¹ et d'envisager cette problématique dans une perspective émique, sont considérées comme artistiques toutes les catégories socioprofessionnelles qui relèvent du domaine de la *Hmw.t*. Comme de récentes études l'ont souligné¹², ce concept est particulièrement proche de ce que nous appelons aujourd'hui « œuvre d'art », définie, de manière générique, comme un objet doté d'une valeur ajoutée d'ordre esthétique¹³. Sont dès lors concernés par cette étude :

- les artistes qui se désignent comme *hmw.w* en ne spécifiant pas davantage leur métier ;
- les dessinateurs ou peintres (*zs.w-kd(.wt)*) ;
- les sculpteurs (*ks.ty.w, s'nb.w* ou *t3y.w-md3.t*) ;
- les travailleurs de métaux précieux (*nby.w, hmt.y.w* ou *t3y.w-bsn.t*) ;

8. Cette thèse a été réalisée à la faveur d'un mandat d'aspirante F.R.S.-FNRS à l'université de Liège, sous la direction de Dimitri Laboury (directeur de recherches F.R.S.-FNRS), que je remercie pour la relecture attentive apportée à cet article.

9. Cette étude n'a bien évidemment pas la prétention d'être exhaustive, tant le hasard des découvertes et la variabilité des publications conditionnent ce type de recensement.

10. Il s'agit d'une catégorie iconographique empruntée à l'Histoire de l'Art de la Renaissance et théorisée pour la première fois par André Chastel (1971). L'autoportrait « *in assistenza* » désigne la représentation du créateur d'une œuvre au sein de celle-ci, où il figure en tant que simple spectateur (sur ce concept appliqué à l'égyptologie, se reporter à LABOURY 2015, p. 327-330).

11. La « *Berufstypologie* », telle que définie par Stephan Jäger (2004) et Kai Widmaier (2013), rappelle combien toute catégorisation professionnelle est profondément culturalisée. Celle à laquelle on avait recours en Égypte antique est donc, tout naturellement, différente de la nôtre.

12. LABOURY 2016, p. 374-376.

13. LABOURY 2020, p. 87.

- les cordonniers (*tbw.w*)¹⁴;
- et les menuisiers (*mdḥ.w*)¹⁵.

Afin d'éviter un biais documentaire évident, la communauté des artistes de Deir el-Médina n'a pas été prise en compte dans le recensement des corps de métiers susmentionnés. Elle a toutefois été mobilisée dans le cadre de cette étude comme *comparandum*, tout en tenant compte de son caractère tout à fait exceptionnel.

PREMIERS RÉSULTATS

À ce jour, il a été possible de recenser 111 représentations d'*ḥmw.w*, 120 de *zš.w-kd(.wt)*, 161 de sculpteurs, 145 de travailleurs de métaux précieux ainsi que 16 figurations de *tbw.w* et 41 de *mdḥ.w*¹⁶ (fig. 1). Seuls 62 praticiens de la *Hmw.t* sont individualisés dans les 121 scènes d'ateliers répertoriées. Évidemment, la majorité des artistes individualisés sont en réalité des supérieurs (*im̄i-r, ḥry, shd*, etc.) des corps de métiers susmentionnés. À ces données s'ajoutent 577 documents de divers types qui viennent souligner et confirmer la présence des praticiens de la *ḥmw.t* dans la civilisation pharaonique.

D'un point de vue chronologique, les artistes apparaissent sur des supports qui varient au cours du temps (fig. 2) et témoignent de l'appropriation graduelle des accès à la commémoration funéraire par une frange de la population égyptienne de plus en plus large. Ainsi, la majorité des praticiens de la *ḥmw.t* connus à l'Ancien Empire sont figurés entre la V^e et la VI^e dynastie, une période charnière durant laquelle émerge une élite intermédiaire qui ne provient plus exclusivement du cercle familial de Pharaon¹⁷. Les artistes sont figurés généralement sur les parois des mastabas des hauts dignitaires où ils exécutent un rituel¹⁸, officient en tant que porteurs d'offrandes, ou encore accompagnent le défunt dans une scène de chasse et pêche dans les marais. Au Moyen Empire, la majorité de leurs (auto)représentations se concentrent sur des petites stèles votives¹⁹ où ils apparaissent aux côtés de leur famille et/ou de leur réseau professionnel. Enfin, avec le Nouvel Empire et la stratification sociale toujours plus fine qui s'y opère²⁰, les artistes deviennent propriétaires d'une grande variété de monuments : du bien le plus onéreux, la chapelle funéraire (mutualisée ou non), aux cercueils, Livres des Morts, stèles et statues de différents types, etc.

¹⁴. En copte, un terme dérivant du mot égyptien *ḥmw.w* désigne le cordonnier (VYCICHL 1983, p. 299). Le récent article d'André J. Veldmeijer (2019) souligne par ailleurs la valeur esthétique attachée à certaines chaussures, finement élaborées, qui pouvaient faire partie du trousseau funéraire royal.

¹⁵. On dénombre au moins cinq *mdḥ.w* qui se présentent également en tant que chef de la *ḥmw.t*. C'est par exemple le cas du *ḥmw wr* et constructeur de la barque sacrée de tous les dieux, Iounna (British Museum, EA1332).

¹⁶. Il faut signaler ici le caractère approximatif de ce système de comptage car un même individu pouvait porter plusieurs titres artistiques.

¹⁷. BARTA 2020, p. 320, 346 et suivantes.

¹⁸. Concernant le rôle rituel que pouvaient occuper les artistes pour assurer l'efficacité magique des tombes de l'Ancien Empire, se reporter à l'article de Violaine Chauvet qui traite de la question (CHAUVET 2015).

¹⁹. Il faut signaler ici un biais documentaire, fruit de l'importante étude que William K. Simpson a dédiée aux stèles abydéniennes retrouvées en connexion avec la « Terrasse du Grand Dieu » (SIMPSON 1974).

²⁰. À ce sujet, voir par exemple KEMP 1989 (éd. 2018), p. 247.

Si le type de support d'apparition de l'artiste varie et se diversifie au cours du temps, les stratégies visuelles qu'il utilise pour négocier son identité sont, quant à elles, relativement constantes. Elles sont doubles et bien illustrées par les deux principaux *corpora* mobilisés dans le cadre de cette étude. Dans ses (auto)représentations (le premier *corpus*), l'artiste s'intègre dans le cadre de référence sociologique de l'Égypte pharaonique. Il emprunte ainsi les codes de (re)présentation que l'élite lettrée emploie pour afficher son statut et son prestige social²¹. Ainsi, l'artiste adore des divinités funéraires, offre de l'encens ou exécute une libation devant un proche parent (ou un collègue), quand il n'est pas assis à la traditionnelle table d'offrandes, occupé à recevoir les hommages rendus par sa famille²². Dans le second *corpus*, les scènes d'ateliers, les artistes sont figurés collectivement dans l'exercice de leur fonction, vêtus humblement, voire manifestant un manque d'apprêt évident qui les distingue de l'élite²³.

Le dimorphisme observé entre les deux *corpora* susmentionnés relève de ce que Pascal Vernus a suggéré d'appeler « la stratégie d'appogiature²⁴ ». Il s'agit pour le propriétaire d'une chapelle funéraire d'élaborer son programme iconographique de sorte à le valoriser en utilisant l'Autre, c'est-à-dire les personnages secondaires de son décor, comme « repoussoir » ou « faire-valoir²⁵ ». D'un point de vue sociologique, on se trouve ici face à deux des trois « temps » de l'identité²⁶, définie comme une construction d'ordre social²⁷. Les (auto)représentations d'artistes correspondent à la présentation par soi à l'Autre²⁸, tandis que les scènes d'ateliers sont une désignation des artistes par autrui²⁹.

21. Il s'affilie par ailleurs à cette élite par le fait même d'être propriétaire d'un monument commémoratif.

22. Si l'artiste emprunte ces thématiques à l'élite égyptienne, il n'empêche qu'il ne se représente jamais, à ma connaissance, dans certaines autres scènes issues de ce répertoire, comme le recensement des troupeaux ou l'inspection des champs (Pahéry d'Elkab, un artiste devenu gouverneur, sur lequel on reviendra plus loin, est représenté dans sa chapelle en train d'inspecter les champs et les troupeaux sous sa supervision. Toutefois, à aucun moment il ne fait référence explicitement à son ancienne profession, voir *infra*).

23. Le fragment ÄM 23731 conservé au Neues Museum de Berlin, en est un exemple flagrant. Le menuisier dont on conserve l'image et qui est affairé sur un échafaudage, présente une barbe naissante et des cheveux hirsutes (ARNST *et al.* 1991, p. 85).

24. VERNUS 2009-2010.

25. VERNUS 2009-2010.

26. Le premier « temps » de l'identité, qui est ici inatteignable, est l'auto-perception, c'est-à-dire la manière dont un individu se perçoit intimement (HEINICH 2018, p. 68).

27. L'état de la question relatif aux théories de l'identité a été récemment synthétisé par la sociologue Nathalie Heinich, qui propose ensuite sa propre définition du concept (HEINICH 2018). Louis-Jacques Dorais insiste quant à lui sur le « bricolage relationnel » qui donne naissance au sentiment d'identité d'un individu (DORAIS 2004, p. 2, 10). Il est à noter que la plupart des théoriciens de l'identité ne reconnaissent pas aux sociétés antiques le développement d'un tel concept. Or, pour le domaine qui nous occupe, de très nombreuses études ont démontré que les anciens Égyptiens négociaient leur sentiment identitaire à des degrés variables (par exemple, ROBINS 2016 ; VISCHAK 2015 ; HAGEN 2013 ; BAINES 2004). Dès lors, il est apparu opportun de transposer ici – tout en les adaptant – des réflexions qui concernent généralement l'époque contemporaine mais qui peuvent entrer en résonnance avec d'autres cadres socioculturels, notamment antiques. À ce sujet, l'étude de Martin Sökefeld est intéressante, même si elle s'ancre encore une fois dans l'époque contemporaine, puisque l'auteur cherche à démontrer l'universalité de la notion de « soi » (SÖKEFELD 1999).

28. Ce que M. Sökefeld a proposé d'appeler « *the narrative self* » (SÖKEFELD 1999).

29. HEINICH 2018, p. 68. On remarque par ailleurs que les deux *corpora* mobilisés ici reflètent l'ambiguïté inhérente au concept même d'identité. En effet, l'artiste affirme son altérité (son identité *ipse*) en se distinguant de ses collègues par son autoprésentation qui l'apparente à l'élite de son temps. À l'inverse, dans les scènes d'ateliers, lorsqu'il s'agit de représenter collectivement les catégories socioprofessionnelles de la *Hmw.t*, l'artiste insiste sur la similarité des membres de ces corps de métiers (l'identité *idem*), toujours pour servir la stratégie d'appogiature

La confrontation d'un des sculpteurs en chef propriétaire de la TT 181 avec les individus au travail dans une scène d'ateliers est une parfaite illustration de ces deux « temps » de l'identité (fig. 3). En effet, Nébamon ou Ipouky affirme son prestige social en mobilisant les attributs de l'élite et se distingue ainsi des humbles praticiens de la *hmw.t* qui s'affairent devant lui sur trois registres superposés.

Parmi la documentation recensée, on distingue quelques individus exceptionnels qui témoignent de la mobilité tant géographique que sociale dont pouvaient faire preuve les artistes. Le célèbre Pahéry d'Elkab en constitue un exemple tout à fait notable. Scribe du grain et dessinateur à Thèbes, où il crée selon toute vraisemblance le programme iconographique de la tombe d'un de ses probables collègues et/ou amis (TT A4)³⁰, il obtint dans un second temps le poste de gouverneur de sa ville natale, Elkab, et, par là même, celui de chef des prêtres de la déesse locale, Nekhbet. À Elkab, il dirigea le chantier de deux autres chapelles, celle de son illustre grand-père, Ahmose fils d'Abana (EK5) et la sienne (EK3). S'il n'a rien laissé paraître de son ancienne profession de *zs.w-kd.wt* dans sa propre tombe, du moins explicitement³¹, il se représente à de nombreuses reprises sur les parois de la EK5, où il apparaît un plus grand nombre de fois que le défunt lui-même³², et clame qu'il est l'initiateur du chantier³³. L'inscription qui le désigne comme « le fils de sa fille, qui a dirigé les travaux dans cette tombe [...] »³⁴ accompagne une autoreprésentation de Pahéry muni d'une palette de scribe, ce qui appuie ainsi l'ambiguïté qui existait entre peintres et scribes, tout en indexant l'érudition des artistes (fig. 4)³⁵. Pahéry d'Elkab illustre parfaitement le cas d'un individu qui embrassa une carrière artistique alors même qu'il n'était pas issu d'une famille en lien avec l'un des domaines de la *hmw.t*³⁶. De plus, il permet de suspecter l'existence d'autres artistes qui, une fois promus à des postes haut placés, ne font pas, ou plus, allusion explicitement à leur ancienne profession sur leur(s) support(s) de commémoration funéraire.

mise au service du propriétaire de la chapelle funéraire. Concernant l'ambivalence du concept d'identité, se reporter à HEINICH 2018, p. 48 et suivantes.

30. Pahéry d'Elkab s'inscrit dans un intéressant jeu de copies iconographiques et textuelles qui englobe plusieurs tombes. À ce sujet, se reporter à MANNICHE 1988; MERZEBAN 2014; LABOURY 2017; et DEVILLERS 2018.

31. Il y a fort à parier que les visiteurs de la chapelle devaient savoir pertinemment qu'il était un ancien peintre (à ce sujet, cf. LABOURY 2016, p. 394-395) et qu'il avait conçu la EK5, à peu près à la même époque, comme une partie de son mémorial familial (DAVIES 2009). De plus, la phrase sibylline de son inscription « autobiographique », « mon calame m'a rendu célèbre », pourrait à la fois faire référence à son travail de scribe du grain (ALLON, NAVRÁTILOVÁ 2017) et à son ancienne profession de *zs.w-kd.(wt)*.

32. Même si la chapelle funéraire EK5 est inachevée, la grande majorité de son programme iconographique a été terminée. On y distingue à six reprises Pahéry alors qu'on ne dénombre que quatre représentations avérées d'Ahmose (DAVIES 2009).

33. DAVIES 2009.

34. LABOURY 2016, p. 387.

35. Concernant l'ambiguïté entre les fonctions respectives des scribes et des scribes des formes, se référer à l'article de D. Laboury (LABOURY 2016).

36. En effet, son grand-père maternel était un célèbre militaire tandis que son père officiait en tant que précepteur royal (pour des considérations généalogiques relatives à la famille de Pahéry, se reporter à DAVIES 2009). Pahéry y fait par ailleurs référence en s'appropriant le titre de son père et en se faisant représenter, dans la EK3, assis, le prince Ouadjmose sur les genoux. Selon William V. Davies, Pahéry a dû obtenir l'autorisation de la Résidence pour utiliser cette formule iconographique inhabituelle (on compte en effet, pour la XVIII^e dynastie, six à sept représentations de ce type (ROEHRIG 1990, p. 289-294; DAVIES 2009, p. 153-154).

Pahéry d'Elkab et quelques autres individus font ainsi figure d'exception parmi les artistes qui saisissent l'opportunité de s'(auto)représenter. En effet, la grande majorité d'entre eux assurent leur autopromotion et leur autodéfinition en empruntant les outils habituels employés par l'élite pour mettre en scène son prestige social. Ce faisant, ils prétendent visuellement appartenir à une catégorie socioéconomique dont ils ne faisaient souvent pas véritablement partie³⁷. Au regard de l'évolution chronologique des supports de représentation des praticiens de la *ḥmw.t*, il apparaît très clairement qu'ils profitent de l'accès toujours élargi à la commémoration funéraire et s'insèrent ainsi parmi les catégories sociales qui ont réussi à négocier progressivement leur intégration dans la frange inférieure de l'élite pharaonique.

D'un point de vue iconographique, les stratégies identitaires visuelles de l'expert des images qu'est l'artiste ne consistaient donc pas en la mise en scène de sa profession, comme ce sera le cas dans d'autres contextes culturels, mais bien en l'emprunt des codes de représentation propres à l'élite sociétale. Les praticiens de la *ḥmw.t*, cependant, ne nient pas leur profession, puisqu'ils sont rendus détectables par les légendes qui les accompagnent. Lorsqu'il s'agit de se représenter collectivement sur les parois d'une chapelle funéraire privée, les artistes s'intègrent dans le programme de valorisation du propriétaire de la tombe et permettent à ce dernier de se distinguer des êtres du commun. Dès lors, qu'il s'agisse de s'autoreprésenter individuellement ou de se figurer collectivement, en tant que catégories socioprofessionnelles, les artistes respectent toujours le cadre systémique dans lequel ils s'inscrivent. Ponctuellement, certains s'en éloignent (ou, à tout le moins, jouent avec ses limites), pour élaborer des compositions plus personnelles révélant davantage leur profession³⁸. Cependant, ils relèvent toujours de l'exception. Enfin, il ne faut bien évidemment pas négliger le grand nombre de praticiens de la *ḥmw.t* qui n'ont jamais pu saisir l'opportunité de commémorer leur mémoire et sont dès lors restés indétectables pour l'égyptologue.

Cette étude révèle que les artistes occupaient divers degrés de l'échelle sociale de l'ancienne Égypte. Entre la masse restée anonyme et les quelques cas exceptionnels dont la documentation égyptologique a gardé la trace, près de 600 d'entre eux³⁹, au moins, ont saisi l'opportunité de commémorer leur identité sur des supports variables au cours du temps. Leur mode de représentation est dimorphe puisque, individuellement, ils empruntent aux codes de figuration de l'élite sociétale et se distinguent des autres praticiens de la *ḥmw.t*, tandis que, à titre collectif, ils s'inscrivent eux-mêmes dans le *decorum* des chapelles funéraires en s'intégrant à la « stratégie d'appogiature » qui valorise le propriétaire de la tombe. Ainsi, les représentations des artistes en tant que corps de métiers reflètent la perception de leur propre société, c'est-à-dire du point de vue des classes sociales dominantes. Toutefois, lorsque certains artistes accèdent aux sphères de l'élite et se représentent individuellement, ils contredisent la vision sociologique globale de leurs catégories professionnelles, telle que véhiculée par les scènes d'ateliers.

37. Ce jeu sur l'autodéfinition en fonction de son appartenance ou non-appartenance à un groupe social correspond aux stratégies identitaires *in-group* et *out-group* théorisées par Henri Tajfel (cité dans BENWELL, STOCKOE 2006, p. 25).

38. La célèbre « tombe des artistes » du Boubasteion, par exemple, présente un « autoportrait à la palette » de son propriétaire (pour reprendre les termes de l'auteur de cette découverte, Alain-Pierre Zivie (2013)).

39. À l'heure de la relecture de ces lignes, plus de 700 artistes ont été au total recensés dans le cadre de cette étude.

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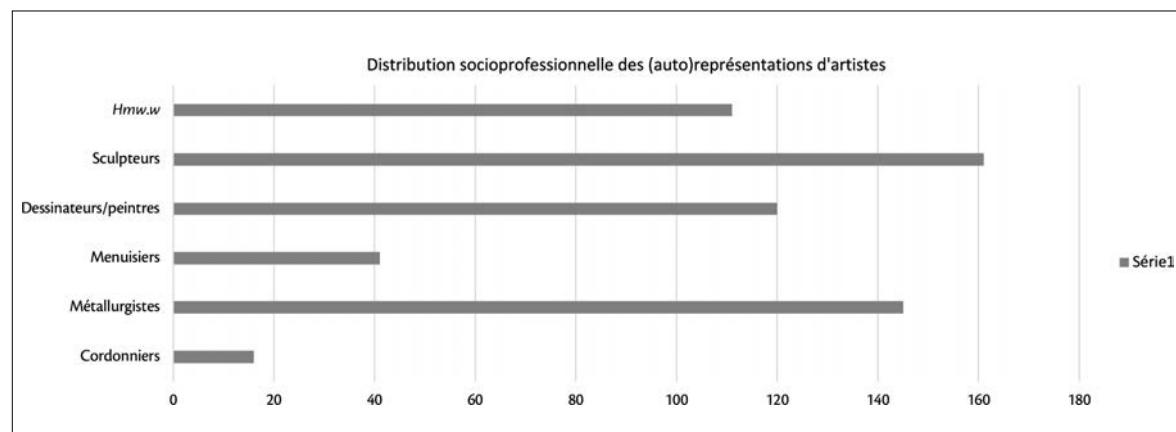


Fig. 1. Graphique reprenant la distribution socioprofessionnelle des artistes dont on conserve une (auto)représentation.

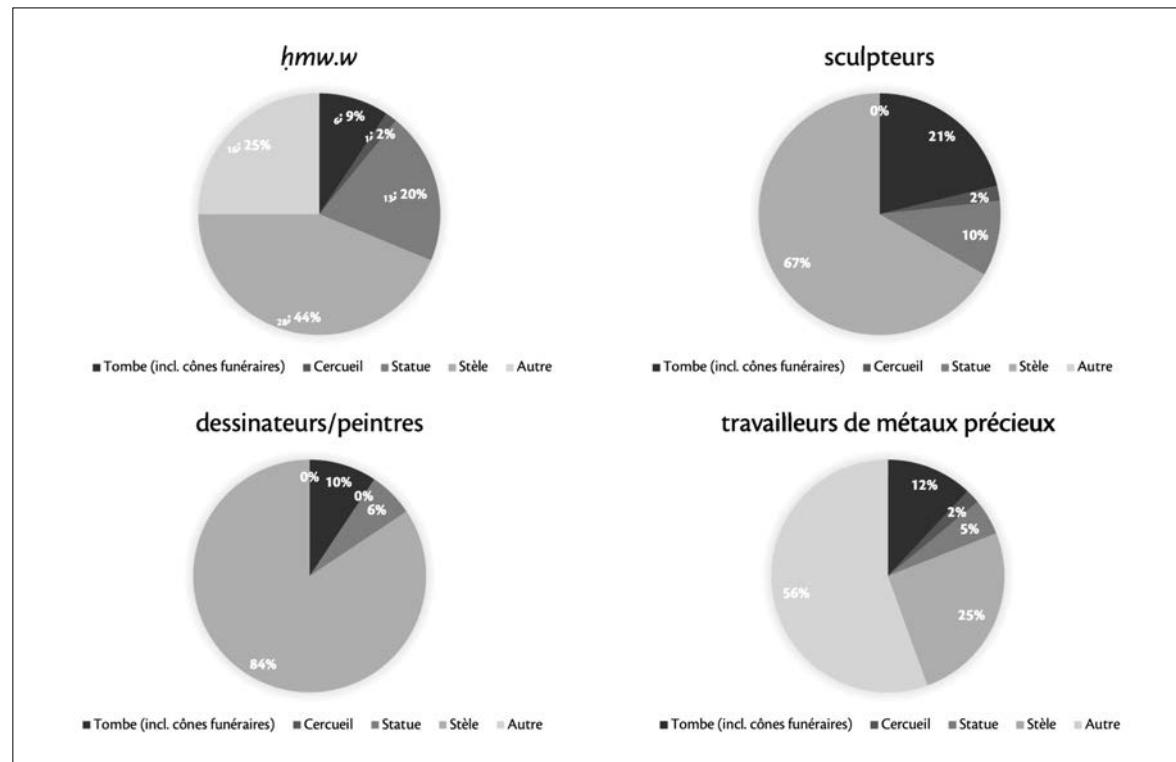


Fig. 2. Graphique reprenant la répartition des supports d'apparition des praticiens de la *hmw.t* en fonction de quatre catégories socioprofessionnelles.

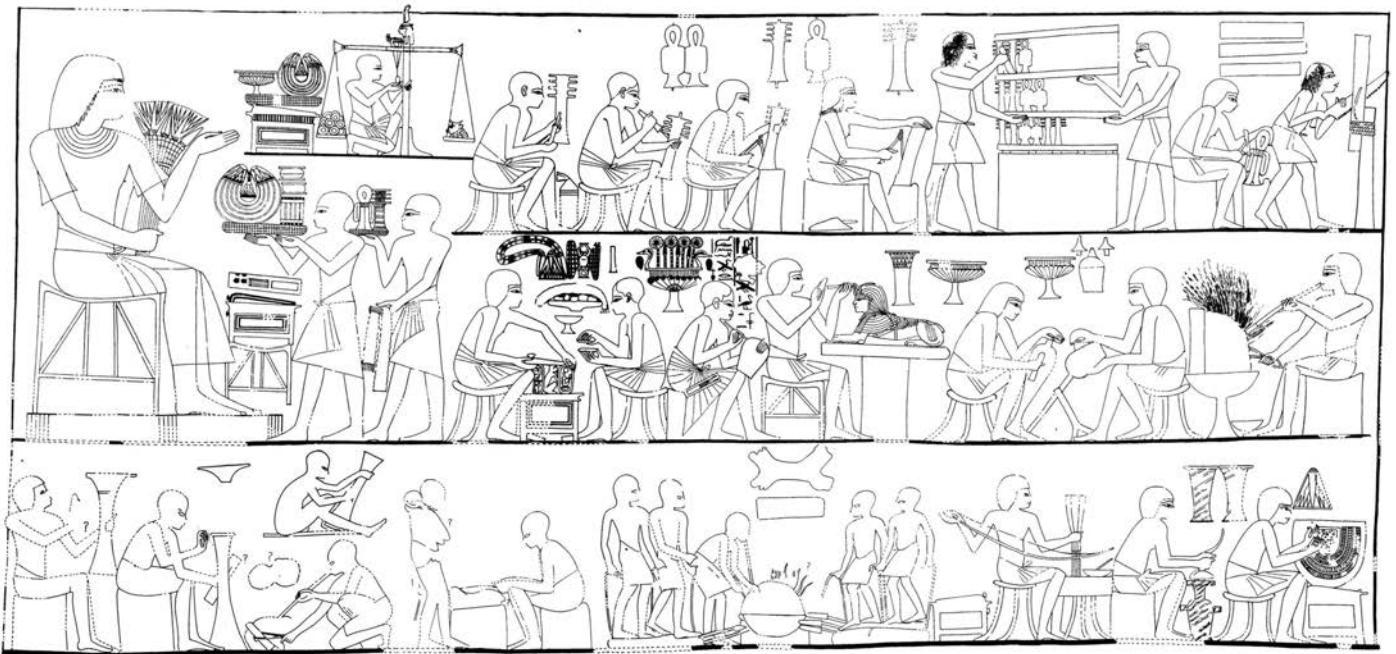
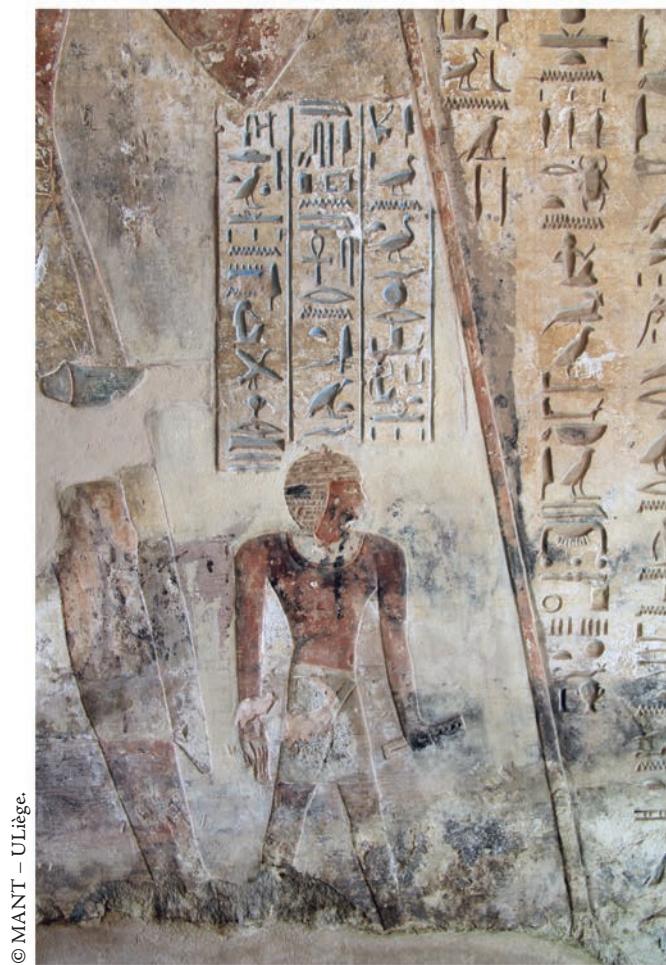


Fig. 3. Scène d'ateliers dans la chapelle des chefs sculpteurs Nébamon et Ipouky (d'après De Garis Davies 1925, pl. XI).



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Fig. 4. Autoreprésentation de Pahéry d'Elkab dans la tombe de son grand-père, Ahmose fils d'Abana (EK5).

Espace rituel et polysensorialité

L'exemple du temple d'Hathor à Dendara

APPRÉHENDER les perceptions sensorielles des Anciens au sein d'un espace sacré et au cours d'un rituel peut sembler une gageure : il s'agit de traiter de données évanescentes issues d'une époque lointaine, dont les traces ne nous sont plus accessibles que de manière partielle et indirecte via des sources archéologiques et textuelles nécessairement éparses. Pourtant, l'esplanade des sanctuaires de Dendara, située en Haute Égypte, à environ 70 km au nord de Louqsor, offre un cas d'étude remarquable pour trois raisons essentielles. Le temple principal et les édifices secondaires, datés des époques ptolémaïque et romaine, sont dans un état de conservation exceptionnel et permettent une mise en relation entre le rituel et l'espace. D'après les inscriptions, la déesse Hathor, maîtresse de la musique, de la danse, de la joie et de l'ivresse, y était vénérée au son des sistres, colliers-*menit*, tambourins, harpes, et par diverses manifestations vocales. La décoration des parois du temple d'Hathor, mais aussi celles des mammisis (lieux riches en manifestations sonores et bruyantes en rapport avec la naissance) et des chapelles osiriennes (lieux de mort et de renaissance où le silence était de rigueur à certaines périodes de l'année), permettent d'observer des musiciens à l'œuvre dans certaines salles¹, tandis que les textes nous renseignent sur la façon dont les sens étaient sollicités dans le culte. Si l'ensemble du site apparaît comme un terrain d'étude prometteur pour tenter de restituer les processions et mieux comprendre les pratiques religieuses en lien avec les sens, c'est le *pronaos* du temple d'Hathor qui retient en premier lieu notre attention. Deux orientations méthodologiques sont envisagées dans cet article afin de mettre en évidence leur complémentarité : l'archéo-acoustique et l'analyse du vocabulaire² sensoriel.

CADRE DE L'ÉTUDE

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1. EMERIT 2015, p. 133-134 et ELWART, EMERIT 2019, p. 326-330.

2. Une version abrégée, mais richement illustrée de cet article a été publiée dans les *Dossiers d'archéologie* n° 413, 2022, p. 60-65.

3. Programme initié en 2012 : <https://www.ifao.egnet.net/recherche/operations/op17216/>.

4. Contrat postdoctoral 2018-2019 du Laboratoire d'Excellence Histoire et Anthropologie des Sciences, des Techniques et des Croyances, université PSL (Paris Sciences et Lettres).

méthodologiques de plusieurs champs disciplinaires. Les perspectives ouvertes ces dernières années tant par les *Sensory Studies* et *Visual Studies*, que par les *Sound Studies*⁵, paraissent particulièrement adaptées à une culture antique dont les croyances religieuses accordaient une place indéniable aux sens. S'intéresser au sensoriel du point de vue de concepts et du système de pensée autochtone permet d'accéder à une meilleure compréhension des comportements humains des groupes sociaux étudiés. En Égypte ancienne, plusieurs travaux ont déjà souligné l'importance de la vue et de l'ouïe dans les stratégies mises en œuvre pour entrer en relation avec les dieux⁶. De manière plus générale, il semble qu'une polysensorialité ait été mise à l'œuvre au sein des « demeures » divines afin d'assurer la bonne marche des cultes⁷. Notre perspective est de croiser toutes les données sensorielles dont nous disposons à l'échelle d'un espace sacré et plus particulièrement du *pronaos* du temple d'Hathor à Dendara. Cet immense vestibule (26 m de large, 42 m de long, 24 colonnes d'environ 16 m de haut) qui précède le sanctuaire à proprement parler (*naos*) est le point de départ de la sortie en procession de la déesse lors des fêtes en son honneur. Plusieurs fois par an, la statue d'Hathor quittait sa chapelle, située au fond du temple, pour apparaître dans le *pronaos*, après avoir franchi l'imposante porte en bois le séparant de la « salle de l'apparition »⁸. Il semble que lors de ces fêtes, l'occasion était donnée aux participants de pénétrer dans l'enceinte du domaine sacré et de se rassembler dans le *pronaos* (ou au moins devant), de « voir » la déesse, de la « ressentir », et de faire ainsi leur expérience du divin, dans un cadre à la fois officiel, collectif et festif. Ce hall de plus de mille mètres carrés pouvait sans aucun doute accueillir un très grand nombre d'individus⁹, et faisait office, le cas échéant, de point de contact et d'échanges entre les mondes humain et divin. À ce titre, le *pronaos* est un lieu tout à fait propice aux études sensorielles.

ARCHITECTURE ET DÉCOR DU PRONAOS

Aujourd'hui encore, lorsque le visiteur aperçoit au loin le *temenos* d'Hathor, le regard est immédiatement saisi par la grandeur du site et attiré par les têtes hathoriques monumentales qui ornent la façade du temple principal¹⁰ : elles surmontent, en guise de chapiteaux, les vingt-quatre colonnes du *pronaos*. Lorsqu'on pénètre dans cet espace, l'image de la déesse est omniprésente. Quel que soit l'endroit dans lequel on se trouve, son visage (sculpté 96 fois), semble suivre la déambulation du

5. Les références bibliographiques dans ces trois domaines sont trop nombreuses pour pouvoir les citer toutes. Parmi les réflexions épistémologiques récentes, voir COHEN, KERESTETZI, MOTTIER 2017; HOWES, CLASSEN 2019; MEHL, PÉAUD 2019; ALVAR NUÑO, ALVAR EZQUERRA, WOOLF 2021 et plus spécifiquement pour l'Égypte ancienne ELWART, EMERIT 2019.

6. VAN DER PLAS 1983; ASSMANN 1994; EMERIT 2011 et 2015; TOYE-DUBS 2016.

7. À ce sujet, voir l'étude menée par Barbara Richter sur les techniques scripturaires tant visuelles que sonores utilisées pour mettre en scène et en résonance textes et décor dans la chapelle du *pr-wr* du temple d'Hathor (RICHTER 2016).

8. ZIGNANI 2010; CAUVILLE 2013.

9. On ne connaît pas l'identité des participants ni leur nombre, mais les images des musiciens gravées sur les colonnes ne laissent pas la place au doute : le *pronaos* était ouvert à la population lors des fêtes. À ce sujet, voir en dernier lieu l'étude d'Alexa Rickert sur la célébration de la fête du Nouvel An à Dendara et l'accès des profanes aux espaces du *temenos* (RICKERT 2019, p. 562-569, p. 640 et p. 708).

10. Il s'agit plus précisément de têtes à quatre visages (*quadrifrons*), chacun des visages étant orienté dans une direction cardinale et symbolisant l'universalité de la déesse (DERCHAIN 1972).

visiteur, cette impression étant accentuée par la taille de ses yeux fardés et par celle de ses oreilles de vache, sorte de capteurs auditifs géants. Cette présence divine qui domine visuellement l'espace, devait déjà faire grande impression dans l'Antiquité, d'autant que le récent nettoyage des plafonds, au début des années 2010, en a fait réapparaître toutes les couleurs originales, dont la dominante de bleus est saisissante (voir *infra*). À hauteur d'homme, la « forêt » de colonnes du *pronaos* coupe sans cesse le champ visuel et provoque une perte des repères que le caractère redondant des éléments architectoniques et du décor (qui couvre intégralement la surface de toutes les parois, plafond compris), renforcent. Cette impression s'accentue encore dans des conditions nocturnes, et l'on sait que des fêtes s'y déroulaient la nuit¹¹, sans doute avec des cheminements répétés dans les travées, qui devaient contribuer à un brouillage des sens.

La sensation physique du son y est également singulière, puisqu'il est à la fois amplifié par la réverbération de cette salle monumentale en grès qui culmine à une hauteur d'environ 16 m, tout en restant parfaitement intelligible, créant simultanément un sentiment d'immensité et de proximité. Les reliefs qui décorent la base des colonnes du *pronaos* portent la représentation d'une multitude de musiciens et de danseurs illustrant les performances¹². Ces images, situées de chaque côté de l'axe central du temple, ont été mises en scène délibérément dans l'espace rituel pour conserver dans la pierre la mémoire des fêtes. Les musiciens – hommes, femmes et divinités – sont tournés vers le *naos*, comme s'ils se tenaient prêt à acclamer l'apparition de la déesse Hathor au moment de sa sortie en procession¹³.

Même les odeurs diffusées lors des rites et des fêtes ont été matérialisées par une frise de lotus, alternant boutons et fleurs épanouies, à la base des murs entourant le *pronaos*, à l'extérieur comme à l'intérieur. Fugaces et ascensionnels par nature, les odeurs et les sons émis lors des célébrations, devaient s'élever vers le haut de la salle pour aller symboliquement réjouir et illuminer la déesse universelle aux quatre visages.

Bien que ce lieu de culte antique, ouvert au tourisme, ne soit plus dans son état originel, faussant le ressenti des visiteurs modernes¹⁴, il n'en demeure pas moins que le dispositif architectural et le décor d'un monument contribue à « une sensorialité de l'espace qui fait partie intégrante de l'expérience des pratiquants¹⁵ ».

PEUT-ON MESURER ET RESTITUER LA PORTÉE SENSORIELLE DU PRONAOS?

Un édifice s'apprécie autant par le biais des sensations visuelles que par celui des sensations auditives¹⁶. L'analyse architecturale du temple principal de Dendara par Pierre Zignani a établi le rôle de la lumière dans sa conception¹⁷. Jusqu'à présent, aucun monument de l'Égypte ancienne

11. DAUMAS 1958, p. 220 ; DAUMAS 1968, p. 15 et n. 118.

12. EMERIT 2021.

13. C'est le seul espace du temple d'Hathor où des êtres humains sont représentés (cf. n. 9).

14. ZIGNANI 2010, p. 83.

15. COHEN, KERESTETZI, MOTTIER 2017, p. 14.

16. BLESSER, SALTER 2007.

17. ZIGNANI 2010, p. 309 et ZIGNANI 2011.

n'a été étudié sous l'angle de l'acoustique, alors que nous savons par les textes hiéroglyphiques qu'il existait des recommandations aux prêtres, relatives aux bruits¹⁸. Si aucune source n'atteste de l'existence d'une théorie de l'acoustique qui aurait pu fixer les normes pour la construction d'un monument, comme celle de Vitruve pour le théâtre romain, il n'en demeure pas moins qu'un édifice possède des propriétés acoustiques, qu'elles soient le fruit d'une conception réfléchie ou le résultat d'une expérience empirique. La qualité du silence ou les bruits environnementaux dans les différentes zones d'un sanctuaire, ainsi que les propriétés de résonance et de réverbération des salles, devaient être ressenties dans le cadre du culte quotidien ou lors des processions.

De façon à mieux cerner la signification du décor des musiciens sur les bases des colonnes du *pronaos*, une comparaison avec deux autres édifices de l'Égypte ptolémaïque et romaine a été établie : le petit temple d'Hathor à Philae et le mammisi d'Edfou, dont les colonnes portent le même type de représentations¹⁹. Il ressort de cette étude qu'ils ont une forme architecturale similaire à celle du *pronaos* de Dendara, bien que de dimension bien inférieure : il s'agit de salles à colonnes ouvertes dans leur partie supérieure. Les murs d'entrecolonnements empêchaient de voir les festivités qui se déroulaient à l'intérieur, mais laissaient sûrement le son se répandre à l'extérieur. L'analyse acoustique du temple de Dendara nous permet de mesurer si ce phénomène était signifiant, et donc recherché, lors de la conception de ce type d'édifices.

Comme il est impossible de mener une étude d'archéo-acoustique avec les seuls outils de l'égyptologie, la première étape du projet, mis en place en 2017, a été de réunir les compétences nécessaires et de fédérer plusieurs spécialistes : architecte, acousticien et ingénieur 3D²⁰. De façon à obtenir un rendu réaliste des propriétés acoustiques, un modèle numérique 3D du temple principal a été élaboré pour permettre l'ajout des éléments manquants, tels que les portes, la cour à péristyle, etc. Il a été créé à partir des relevés architecturaux de Pierre Zignani, plutôt que par une acquisition des données sur place à l'aide d'un scanner 3D, puisque le but était de reconstituer les volumes de l'édifice, et non pas de numériser son état actuel ou de reproduire le décor qui couvre intégralement les murs. Une mission sur le terrain s'est avérée néanmoins nécessaire pour intégrer l'acoustique des nombreuses salles du temple dans le modèle 3D. Elle a eu lieu en novembre 2019 et a consisté à relever une série de réponses impulsionales afin de caractériser l'acoustique de différentes zones de l'édifice, notamment du *pronaos*, et estimer les coefficients d'absorption et de diffusion des parois, grâce à un microphone spécifique doté d'une tête sphérique munie de 32 cellules (EigenMike® de MH Acoustics). Bien que les conditions de travail se soient révélées bien plus difficiles que prévues en raison des multiples bruits venus perturber les mesures (touristes, oiseaux, aboiements,

18. LEROUX 2018, p. 101-102, 173, 231-232, 287, 290, 311, 329, 331, 332, 340-341, 346 350.

19. EMERIT 2021, p. 207-209, pl. 17-19 (p. 228-230). D. Elwart et S. Emerit ont présenté une étude comparative plus complète lors du 1st Colloquium on Mammisis of Egypt (Ifao, Le Caire, 27-28 mars 2019) organisé par Ali Abdelhalim Ali.

20. L'équipe est composée par Pierre Zignani, architecte et responsable du site archéologique de Dendara pour l'Ifao (CNRS, IRAMAT-LMC, UMR 7065), Olivier Warusfel, directeur de l'équipe « espaces acoustique et cognitifs » (STMS UMR 9912 IRCAM/CNRS/Sorbonne-Université) et Pascal Mora, ingénieur 3D (Plateforme Archeovision, Archeosciences Bordeaux, UMR 6034). Les résultats préliminaires de l'étude acoustique ont été publiés dans WARUSFEL, EMERIT 2021.

talkie-walkie, téléphones portables, bruits de moteur au loin), le nombre de prises s'avère suffisant pour intégrer l'acoustique dans le modèle numérique 3D, mais chaque réponse impulsionale enregistrée nécessite un important nettoyage des sons parasites.

En attendant ses résultats complets, cette étude acoustique confirme que deux espaces distincts s'opposent, du point de vue de la perception tant auditive que visuelle : le *naos*, sanctuaire exclusivement réservé au divin, et le *pronaos*, vestibule semi-ouvert, qui accueillait les grandes fêtes. Si l'accès au *pronaos* était certainement limité, le reste de la population pouvait tout à fait entendre les célébrations en restant à l'extérieur, le son y est même plus intelligible encore qu'à l'intérieur, avec un effet d'amplification. La réalité virtuelle constitue dans le cas présent un outil intéressant pour restituer l'expérience sensible, et on aimerait pouvoir intégrer l'ensemble des propriétés acoustiques et visuelles (couleurs comprises) du temple dans le modèle 3D pour nourrir plus avant le questionnement sur la manière dont l'expérience religieuse était vécue et régulée au sein de cet espace sacré antique. La tâche est immense, mais ouvre des perspectives prometteuses dans le domaine de l'archéologie sensorielle²¹.

SENS, EFFICACITÉ RITUELLE ET INCARNATION DIVINE : L'APPORT DES TEXTES

D'après les textes gravés dans le *pronaos*, certaines offrandes faites à Hathor stimulaient les sens (odorat, vue et ouïe) de la déesse. Les odeurs agréables et douces des végétaux, qu'elles soient naturelles (bouquets floraux, plantes), issues de fumigation (encens, gommes résineuses) ou travaillées sous forme d'onguents et d'huiles, se répandaient dans cet espace et étaient respirées par Hathor lors des fêtes en son honneur²². La déesse était également sensible à la vue des offrandes : son visage s'éclairait en recevant les couleurs végétales et la brillance du lapis-lazuli, de la turquoise et de l'or composant certains objets²³. Enfin, Hathor s'apaisait et se réjouissait à l'écoute et à la vue des sistres, tout à la fois objets sonores (les sons allant à ses oreilles) et effigies de la déesse (la perfection de sa propre image illuminant son visage)²⁴.

21. En dernier lieu, voir SKEATES, DAY (éd.) 2020.

22. Par exemple, « Présenter les bouquets composés de toutes fleurs et de toutes plantes au doux parfum » : *ms msw n hr̄rw nbtw ḫ̄yw nbw bn̄rw* (*Dend. XIII*, 335-3) ; « la gomme résineuse est pour ton nez » : *iḥm r fnd.t* (*Dend. XIII*, 365-15) ; « l'odeur du natron du sud vient à toi, ta présence respire son parfum » : *ii st̄i šm' r.t m Nḥn, snsñ hmt.t m bnm.f* (*Dend. XIII*, 290, 11-12) ; « ton nez s'ouvre à leur odeur (des plantes *rnpwt*) » : *wb̄ fnd.t m st̄i.f* (*Dend. XIII*, 336, 5).

23. Le collier-*bēb* notamment : « Le collier-*bēb* est équipé, rempli de pierres fines [...] on se réjouit de le voir, sa présence (divine) se réjouit du lapis-lazuli et de la turquoise, son visage s'éclaire au moyen de l'or » : *bb 'pr.tw mb.tw m '3wt [...] b''.tw r m33.s, ḫntš hmt.s m ḫsbdt mfk3t, shd hr.s m s3wy* (*Dend. XIII*, 260, 12-13).

24. Par exemple, « Si je saisiss le sistre-*sekhem* et empoigne le sistre-*sechech*, c'est pour diffuser leurs sons à tes oreilles, ton visage s'égaye d'être parmi les puissances divines, j'ai fait que soit apaisé ton beau visage : *šsp.n.i šhm, ḫf'.n.i sss, bnm.i hrw.sn r 'nbwy.t, mfk hr.t imy.tw shmw, htp.n.i hr.t nfr* (*Dend. XIII* 395, 3-4). Pour les fonctions sensorielles des sistres, voir ELWART 2015.

L'expression dans ces textes d'une polysensorialité stimulant le nez, le visage et les oreilles d'Hathor, laisse à penser que le matériel de culte était justement choisi et utilisé pour ses vertus sensorielles, dont les effets bénéfiques sur la déesse honorée permettaient de rendre efficace les rites en son honneur.

Ainsi, indispensables au bon déroulement rituel, les sens permettent également à la déesse Hathor de s'incarner dans son temple lorsqu'elle « apparaît (*ḥ'*) » dans le *pronaos*. Probablement accueillie par le brouhaha produit par le son des sistres, des tambourins (*nhm*) et des instruments à cordes (*ḥsi*)²⁵, c'est par la vue et l'odorat que la déesse se manifeste et qu'elle est ressentie par les participants. Ces deux perceptions agissent d'abord en tant que marqueurs de la présence divine dans le *pronaos*: on voit Hathor et on la hume. Pour le sens visuel, l'exemple le plus significatif est celui des miroirs qui sont offerts à la déesse quand elle sort en procession (*m pr-ḥʒ*). Dans les miroirs en or, la déesse est visible autant qu'elle contemple son propre reflet: elle admire son corps parfait apaisé et voit sa perfection²⁶. La déesse se manifeste également par un doux parfum dont on apprend qu'il est issu de l'huile, de l'onguent²⁷. Ailleurs, on lit que l'odeur de la présence de la déesse provient du « laboratoire » (*is*)²⁸. L'olfaction semble donc liée à la préparation en amont d'une effigie de la déesse qui serait ointe et parfumée dans une partie du temple avant d'être présentée lors des fêtes, puis portée en procession. L'incarnation de la déesse dans le *pronaos* se manifeste ainsi principalement par la vue (reflet et brillance des miroirs en or) et par l'odeur issue des huiles, des onguents parfumés et des fleurs.

Le duo vue-odorat est également en lien étroit avec le corps d'Hathor, dont les descriptions se font d'après ce prisme sensoriel. Le visage de la déesse brille comme l'or. Ses cheveux sont parfumés avec un onguent²⁹. Son corps est décrit à partir du nom de pierres de couleur bleue: sa poitrine est bleu-« faïence » (*ṭḥn*), sa peau est bleu-turquoise (*mfkʒt*) et sa tête en bleu-lapis lazuli (*ḥsbt*)³⁰. Le corps hathorique est ainsi dépeint comme parfumé, brillant et coloré dans une dominante de bleus, allant d'un bleu clair à un bleu foncé, en passant par un bleu-vert, à l'exception du visage, brillant comme l'or.

Le trio sensoriel ouïe-vue-odorat jouait donc un rôle de premier choix lors des grands rassemblements au temple de Dendara. Cette polysensorialité servait les rites, tout en appelant la déesse à se manifester.

25. EMERIT 2021, pl. 7-10 (p. 218-221) et pl. 12-16 (p. 223-227).

26. Par exemple, « Prends pour toi les miroirs façonnés en or, tu contemples ton corps parfait apaisé, ton cœur est épanoui quand tu sors en procession, tu vois ta perfection en lui »: *mn n.t wnt-ḥr nby m nbw, gmḥ.t dt.t nfr m htp, wnf ib.t m pr.t r-ḥʒ, m33.t nfrw.t im.s* (Dend. XIII, 262, 3-4).

27. Par exemple, « Son parfum est celui de l'huile et de l'onguent »: *ḥnm.s m ibr ḫknw* (Dend. XIII, 366, 9); « Celle au doux parfum »: *ndmt idt* (Dend. XIII, 366, 14); « L'huile véritable au doux parfum, ton corps se réjouit de son parfum »: *ibr mʒ' ndm sti, ḫ' t m sti.f* (Dend. XIII, 231, 5-6).

28. « Son parfum provient du "laboratoire-is" »: *ḥnm.s m is* (Dend. XIII, 366, 11 – 367, 1).

29. « Le parfum de la myrrhe est dans ta chevelure »: *sti 'ntyw m šny.f* (Dend. XIII, 365, 15).

30. « Celle dont la poitrine est en faïence, la peau en turquoise et la tête en lapis-lazuli »: *ṭḥnt šnbt, mfkʒt īnnw, ḫsbđt tp* (Dend. XIII, 261, 7-8).

ORCHESTRER L'EXPÉRIENCE SENSIBLE DU DIVIN

Les contacts avec Hathor s'appuyaient sur ces nombreuses stimulations sensorielles. Particulièrement sollicités, l'ouïe, la vue et l'odorat devaient probablement saturer l'atmosphère du *pronaos* et ainsi « provoquer » et « soutenir » l'expérience du divin des participants qui, en ayant l'occasion d'approcher la ou les incarnation(s) de la déesse dans son temple, étaient « amenés » ou « invités » à une rencontre sensible avec elle. Les multiples sollicitations sensorielles, leur combinaison et leur intensité provoquaient à n'en pas douter des brouillages perceptifs et des altérations de conscience que les textes rendent par le mot « ivresse » (*th*)³¹, sans toutefois en préciser la teneur exacte. Nous savons que cette ivresse était particulièrement liée à l'absorption du breuvage-*menou*, préparé à base de bière et d'autres composants végétaux, et offert à la déesse³². Hathor est qualifiée dans de très nombreux textes de « maîtresse de l'ivresse » (*nbt th*) et sur le linteau extérieur d'une porte du *pronaos* est mentionnée l'ivresse donnée à tous les Égyptiens³³. Les musiciens et les danseurs représentés sur les bases des colonnes du *pronaos* officient dans « la place de l'ivresse (*st-th*)³⁴. Il serait intéressant d'interroger les valeurs de cette ivresse rituelle institutionnalisée durant les fêtes hathoriques, ainsi que dans les espaces sacrés dévolus à ces manifestations. Ces dernières années, plusieurs chercheurs et chercheuses ont entrepris des travaux sur ces questions : Alexa Rickert a confirmé l'importance de l'ivresse lors de la fête du Nouvel An à Dendara³⁵ ; Betsy Bryan a fait la très belle découverte d'un porche de l'ivresse datant du Nouvel Empire à l'avant du temple de la déesse Mout à Karnak³⁶ ; Mark Depauw, Richard Jasnow et Mark Smith ont discuté de la valeur orgiastique des rassemblements populaires dans le cadre de l'apaisement rituel d'une déesse, à partir de textes inscrits en écriture démotique sur ostraca et papyri³⁷. Toutefois, nous manquons encore d'une étude plus globale et diachronique sur l'ivresse en tant qu'expérience polysensorielle destinée à accéder à la déesse, à la « voir » (*m33*). Les textes du *pronaos* ne manquent pas d'expressions telles que « se réjouir en voyant la déesse ». Là encore, il s'agit de s'interroger sur la signification de cette vision de la déesse, car elle dépassait certainement le cadre d'une simple perception visuelle à proprement parler³⁸. En d'autres mots, les Égyptiens ne voyaient-ils la déesse qu'avec leurs yeux, ou faisaient-ils l'expérience de contacts plus subtils avec le divin ? L'image de la déesse se révélant « dans de la vaisselle » tel que le mentionne un texte démotique³⁹, en parallèle de la découverte d'une coupe à boire dans le porche de l'ivresse du temple de Mout à Karnak⁴⁰, nous invite à envisager ces questions.

31. DONNAT 2017.

32. STERNBERG-EL HOTABI 1992 ; RICKERT 2019, p. 636-641.

33. « Je (la déesse) te donne (au roi) l'ivresse afin que tu renouvelles l'enivrement et la joie sans interruption, les Égyptiens réunis en un viennent pour toi, ils dansent au moyen de ton ivresse » : *di.i n.k th whm(.k) th pb3-ib nn ir 3b, iw n.k T3-mryw dmd n sp, ib3.sn m t(h).k* (Dend. XI, 105, 14-15).

34. EMERIT 2021, pl. 9-10 (p. 220-221).

35. RICKERT 2019, p. 636-641.

36. BRYAN 2014.

37. DEPAUW, SMITH 2004 ; JASNOW, SMITH 2010-2011 ; JASNOW, SMITH 2015.

38. VAN DER PLAS 1989.

39. DEPAUW, SMITH 2004, p. 70-71 et 75-76.

40. BRYAN 2014, p. 107, fig. 6.23.

CONCLUSION

C'est la première fois que les sens font l'objet d'une étude qui vise à comprendre leur rôle dans un contexte rituel et festif à l'échelle d'un monument de l'Égypte ancienne. Il en ressort que textes, images, mais aussi architecture du *pronaos* du temple d'Hathor à Dendara nous renseignent sur les fonctions religieuses d'un espace qui apparaît comme un lieu éminemment polysensoriel. Ce sont essentiellement les perceptions visuelles, auditives et olfactives qui y sont déployées, le goût et le toucher n'étant pas mentionnés dans les textes. L'étude préliminaire des inscriptions relatives aux sens révèle qu'ils rendent efficace le culte d'Hathor et qu'ils agissent en faveur du bon déroulement des rites et de leur performativité. Ils ont la capacité de signifier la présence divine et ouvrent la voie d'accès au divin lors des fêtes, permettant aux êtres humains d'approcher la déesse en la rendant tangible et de la « ressentir ». La matérialité de l'édifice et son décor participent pleinement de l'effet recherché, tandis que la progression des actes rituels conduit petit à petit les participants à « voir » le divin « dans une configuration sensorielle partagée⁴¹ » et grâce à « une orchestration subtile des sens⁴² », dont on aimerait pouvoir mieux saisir les étapes. L'*ivresse-th*, en dépit des débordements possibles, semble en réalité s'inscrire dans un dispositif normé des sensorialités religieuses.

Bien qu'il ne porte pas sur l'Antiquité, les perspectives d'anthropologie religieuse et spatiale décrites dans le texte introductif du volume *En croire ses sens* (2017), offrent de nombreux points de comparaison avec les observations préliminaires que nous avons menées à Dendara⁴³. Elles nous invitent à poursuivre les investigations à l'échelle des différents espaces du temple pour tenter de comprendre le ressenti global qu'avaient les anciens Égyptiens de l'architecture sacrée. Grâce à ce projet exploratoire et interdisciplinaire, qui allie archéo-acoustique, 3D et étude du vocabulaire sensoriel, il paraît donc possible d'appréhender l'expérience sensible du culte d'Hathor.

ABRÉVIATIONS

Dend. XI = S. Cauville, *Le temple de Dendara XI*, Le Caire, 2000, version numérique Ifao (<https://www.ifao.egnet.net/uploads/publications/enligne/Temples-Dendarao11.pdf>).

Dend. XIII = S. Cauville, *Le temple de Dendara XIII*, Le Caire, 2020, version numérique Ifao (<https://www.ifao.egnet.net/uploads/publications/enligne/Temples-Dendarao13.pdf>).

41. COHEN, KERESTETZI, MOTTIER 2017, p. 14.

42. COHEN, KERESTETZI, MOTTIER 2017, p. 18.

43. À titre d'exemple, les éditeurs soulignent dans l'introduction que « les sensations n'émergent pas simplement dans un lieu ; bien plus, elles en procèdent » (COHEN, KERESTETZI, MOTTIER 2017, p. 13). Ils ajoutent : « Aussi, loin d'être un simple support de symboles, l'espace, appréhendé dans sa matérialité – soit en tenant compte de ses dimensions morphologiques et topologiques –, encadre la perception, impacte les états corporels, prescrit des comportements et conditionne la manière dont les entités spirituelles peuvent être ressenties » (COHEN, KERESTETZI, MOTTIER 2017, p. 17). Et un peu plus loin : « Le corps y est modelé par un filtrage spécifique des stimuli sensoriels qui peut procéder de démarches involontaires tenant par exemple de l'espace-cadre [...] de la pratique religieuse ou bien de mesures politiques » (COHEN, KERESTETZI, MOTTIER 2017, p. 18).

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Les prières de Taharqa à Karnak Un nouvel examen

LES SCÈNES ET INSCRIPTIONS de Taharqa gravées sur le mur sud de la cour nord du 6^e pylône du temple de Karnak constituent un témoignage remarquable concernant la fin de la XXV^e dynastie. Cette paroi, en partie effondrée, a été reconstruite récemment par le CFEETK dans le cadre du projet de restauration de la statue d'Amon de Toutânkhamon et d'anastylose du mur nord de la salle des *Annales* de Thoutmosis III¹. La découverte de documents inédits apporte un nouvel éclairage sur le programme décoratif du roi kouchite.

I. LA COUR NORD DU 6^E PYLÔNE ET LA DÉCORATION DE SON MUR SUD

Conçu d'abord comme une unique cour péristyle, l'espace entre le 6^e pylône et la chapelle de la barque fut divisé en trois sous le règne de Thoutmosis III. L'adjonction de deux nouvelles parois permit de constituer, au centre, une salle couverte dans laquelle fut inscrite une partie des fameuses *Annales* ouvrant, au nord et au sud, sur deux cours plus petites. Si la paroi sud fut largement remaniée sous Séthi II², celle au nord ne fut pas modifiée et sa face extérieure qui fermait la cour septentrionale resta apparemment sans décoration au Nouvel Empire.

Cette cour occupait une place stratégique : située à proximité immédiate de la chapelle de la barque processionnelle d'Amon-Rê, elle permettait aussi d'accéder au couloir péribole du temple du Moyen Empire³, ainsi qu'à l'espace solaire au nord⁴. Les statues d'Amon-Rê et d'Amonet dressées devant sa porte d'accès témoignent de son importance⁵. En outre, deux documents majeurs de Thoutmosis III y furent découverts : la stèle de fondation de l'*Akh-menou* évoquant l'intervention

* CFEETK, UAR 3172 du CNRS.

1. GABOLDE 2019.

2. BARGUET 1962, p. 131-133 ; L. GABOLDE, M. GABOLDE 2015.

3. Cet accès était encore utilisé à la 3^e période intermédiaire, cf. FROOD 2010.

4. BARGUET 1962, p. 125-126 ; L. GABOLDE 2018, p. 209-210.

5. Ces statues de Toutânkhamon et Aï se dressaient possiblement dans l'*Akh-menou* avant d'avoir été déplacées devant la chapelle de la barque, cf. L. GABOLDE *et al.* À paraître.

miraculeuse d'Amon-Rê⁶, et la stèle poétique⁷ relatant un discours du dieu à son fils. Bien qu'on ne puisse exclure un déplacement de ces stèles depuis son règne, Dimitri Laboury supposa que cette cour aurait pu « servi[r] de lieu d'affichage pour des textes de propagande cautionnés par la divinité⁸ ».

La paroi sud fut justement choisie pour afficher des décrets royaux à partir de la XXII^e dynastie. Le plus ancien, un décret oraculaire de Chéchonq I^{er}, évoque la construction de châteaux de millions d'années à Memphis et, très probablement, à Thèbes⁹. Un deuxième décret, d'Osorkon II, sans caution divine, concerne l'organisation du clergé local¹⁰. Sous la XXV^e dynastie, Taharqa fit décorer l'ensemble de cette paroi (pl. 1) avec quatre tableaux, orientés d'ouest en est, répartis autour de la porte, figurant le roi seul, sans aucune divinité. Il consacre des offrandes à Amon-Rê, sauf dans la 3^e scène. Le 4^e tableau, situé dans l'angle sud-est de la cour, est gravé à un niveau plus élevé ; il est surmonté, tout comme le 1^{er} tableau, d'un long texte de 21 colonnes. Celui-ci transcrit un oracle rendu par Amon en faveur du roi qui le suppliait.

2. DE NOUVEAUX FRAGMENTS DU MUR SUD DE LA COUR NORD DU 6^e PYLÔNE

Deux blocs trouvés au cours des fouilles menées entre 2002 et 2003¹¹ dans la cour nord du 6^e pylône et appartenant aux tableaux de Taharqa ont été replacés lors de l'anastylose de la paroi de Thoutmosis III. Trois fragments inédits ont aussi été découverts lors de la préparation de ce remontage.

2.1. DEUX COMPLÉMENTS AUX PREMIÈRES SCÈNES DE TAHARQA

Le 1^{er} tableau de Taharqa a été complété avec un bloc découvert en 2002 au nord du seuil de la porte adjacente, près de sa position d'origine¹². Il conserve la gravure en creux de trois gazelles sacrifiées appartenant à une consécration similaire à celle représentée dans la 4^e scène. Un second bloc, fortement endommagé, fut trouvé dans les remblais au-dessus du pressoir à huile d'époque romaine mis au jour dans la cour¹³. Il complète le 2^e tableau avec la partie supérieure des offrandes et la formule associée qui est identique à celle du 4^e tableau : [r]dt 'ȝbt [n] jtȝf J[mn]-R' [nb] nswt Tȝwy [jr]ȝf [...], « Donner la grande offrande [pour] son père Amon-Rê, [maître] des trônes du Double Pays, puisse-t-il agir [...]. »

6. Le Caire CG 34012, KLUG 2002, p. 121-128.

7. Le Caire CG 34010, KLUG 2002, p. 111-120.

8. LABOURY 1998, p. 565.

9. VERNUS 1975, p. 16; RITNER 2009, p. 215.

10. Pour les inscriptions de la XXII^e dynastie, cf. VERNUS 1975, p. 13-26; RITNER 2009, p. 213-215, 288-290. Voir aussi les commentaires de BARGUET 1962, p. 122-124.

11. CHARLOUX, JET 2007.

12. CHARLOUX, JET 2007, p. 299 (O.A..9001-2); photo CFEETK n° 65116.

13. Photo CFEETK n° 65108.

Si les circonstances de leur découverte n'ont pu être clairement établies, trois fragments ont été trouvés près des blocs appartenant au mur des *Annales*¹⁴. Ils présentent les mêmes caractéristiques avec deux inscriptions superposées, ce qui permet d'assurer une provenance commune (pl. I).

Une nouvelle inscription de Chéchonq I^{er}

La plus ancienne inscription, composée de hiéroglyphes de grande taille gravés dans le creux et peints en jaune, peut être datée du règne de Chéchonq I^{er}. En effet, sur le bloc A, on lit, dans la première colonne, son nom d'Horus (*Kȝ-nȝt Mry-[Rȝ-shȝ-f-m-nswt-r-smȝ-Tȝwy]*), « Le taureau puissant, celui que [Rê] aime [et a fait apparaître en tant que roi pour unir le Double Pays] ») et, dans la seconde, son nom d'Horus d'Or (*Shm-pȝty-hw-[pdt-psdt-wr-nhtw-m-tȝw-nbw]*), « Celui dont la force est puissante et qui frappe [les Neuf-Arcs, dont les victoires sont grandes dans tous les pays] »). Bien que le contour du cartouche et les hiéroglyphes soient en partie comblés par du plâtre, son nom de naissance [*Š]ȝ(n)q*] se lit sur la première colonne du bloc B. Le nom d'Amon pourrait avoir été inscrit sur la première colonne du bloc C, étant donné la disposition du signe *n* et du déterminatif divin, alors que, dans la seconde colonne, on lit celui de Mout.

Cette inscription de Chéchonq I^{er} ne peut être directement associée au texte oraculaire gravé sur la partie ouest du mur. En effet, la taille des colonnes de texte et le module des hiéroglyphes sont ici plus grands. En outre, l'inscription a été recouverte par un texte kouchite, contrairement au décret bubastite déjà connu¹⁵.

Une nouvelle inscription de Taharqa

Par-dessus le plâtre masquant l'inscription de Chéchonq I^{er}, un second texte fut gravé avec de petits hiéroglyphes faiblement incisés, peints en bleu et des lignes de séparation rouges. Si aucun nom royal ne peut être lu et les bribes du texte restent difficilement compréhensibles, ses caractéristiques permettent tout de même de le dater du règne de Taharqa. En effet, il partage de fortes similitudes avec les inscriptions de ce roi déjà connues dans la cour. Le style peu détaillé des hiéroglyphes est similaire, tout comme la largeur des colonnes (12-13 cm) et le sens de lecture (de gauche à droite).

Cette nouvelle inscription ne peut cependant pas être rapprochée directement de l'un des deux textes kouchites gravés sur la paroi sud de la cour. En effet, ces derniers ne sont pas gravés au-dessus d'une inscription plus ancienne¹⁶.

14. Les blocs furent déplacés, au début des années 2000, depuis la cour du 6^e pylône vers les « magasins nord » de Thoutmosis III (restaurés à partir de 2013), puis transférés sur un mastaba au nord de l'enceinte du temple.

15. Seul un signe du ciel qui marquait la limite supérieure des 2^e et 3^e scènes de Taharqa est gravé au-dessus de ce texte.

16. Le texte oraculaire de Taharqa pourrait toutefois remplacer une décoration plus ancienne, comme en témoigne le ravalement visible à ce niveau de la paroi.

Si la provenance de ces trois fragments semble assurée, leur position exacte au sein même du mur sud de la cour du 6^e pylône est incertaine. Étant donné l'absence de lien direct avec les textes contemporains sur le mur, ces inscriptions devaient être gravées sur une section aujourd'hui détruite. Leur enfouissement ancien les aurait ainsi protégées en préservant notamment une partie des couleurs.

Le débitage du linteau en granit de la porte sud de la cour renforce l'hypothèse d'une destruction ancienne¹⁷. Cette opération dut provoquer l'effondrement de la partie centrale de la paroi, avant même que sa partie orientale, décorée par les *Annales de Thoutmosis III*, ne fût enlevée puis envoyée au musée du Louvre au XIX^e siècle¹⁸. Sa section occidentale s'effondra quant à elle autour des années 1860, peut-être à la suite du dégagement et de l'affaiblissement progressif de ses soubassements. La cour continua à être occupée après l'abandon des cultes anciens, comme en témoigne le pressoir à huile romain voisin de la paroi ici étudiée¹⁹.

Les trois blocs présentés précédemment proviennent donc probablement de la partie centrale du mur. La présence d'une inscription de Taharqa nous conduirait à les placer sur le registre supérieur, au-dessus de la représentation du roi du 2^e tableau, ou sur le revers du linteau de la porte. Ils auraient alors appartenu à une inscription inédite ou constitué le début du premier texte historique relatant des événements en Nubie et l'arrivée à Thèbes d'un important tribut pour Amon-Rê.

3.

LE CONTEXTE DU PROGRAMME DÉCORATIF DE TAHARQA

3.1.

LA DATATION

Les inscriptions de Taharqa sont connues depuis les débuts de l'égyptologie ; Jean-François Champollion, notamment, en recopia des extraits aujourd'hui perdus. Si Wilhelm Max Müller data l'ensemble du règne de Chéchonq I^{er}, Kurt Sethe²⁰ puis Paul Barguet²¹ les réatribuèrent à Taharqa. En effet, en plus des critères stylistiques et des éléments contextuels qui appuient cette hypothèse, Ippolito Rosellini avait lu les noms du souverain kouchite peints en rouge au-dessus de plâtre, dans les cartouches effacés, aujourd'hui vides²².

L'étude la plus complète à ce jour a été réalisée en 1975 par Pascal Vernus qui démontra que ces textes s'inscrivaient dans le contexte du conflit qui opposait Taharqa à l'Assyrie²³. En 2004, Dan'el Kahn resserra cette datation en les plaçant peu après la première prise de Memphis

¹⁷. La moitié orientale du linteau, retaillé en meule, a été retrouvée près de Dendara : L. GABOLDE 2019, p. 39 ; L. GABOLDE 1999.

¹⁸. Dernièrement, DELANGE 2015, p. 117.

¹⁹. CHARLOUX, JET 2007, p. 293-295.

²⁰. Pour la bibliographie ancienne, voir VERNUS 1975, p. 1.

²¹. BARGUET 1962, p. 122-124.

²². LECLANT 1965, p. 18.

²³. VERNUS 1975, p. 26-66. Voir aussi FHN I, p. 189-190 ou DALLIBOR 2005, p. 99-104, pour une datation similaire entre l'an 14 et l'an 17 de Taharqa.

en 671 av. J.-C. (env. an 20 de Taharqa) par Assahardon, lorsqu'une partie de la famille royale, dont le prince héritier, fut capturée²⁴. Frédéric Payraudeau souligna toutefois les incertitudes autour de cette dernière proposition²⁵.

On notera enfin le caractère inhabituel de l'effacement complet des images de Taharqa, alors qu'habituellement, seuls les noms et le double uræus étaient martelés sous Psammétique II²⁶. Cela s'expliquerait en situant ces textes dans le contexte de la lutte opposant Napata et Saïs, qui était soutenue par les Assyriens. Les images royales furent regravées et les noms peints, peut-être lors de la réhabilitation du souvenir kouchite à partir de la XXIX^e dynastie²⁷.

3.2. UN RETOUR DE TAHARQA À THÈBES APRÈS DES ÉVÈNEMENTS EN NUBIE

Si les chercheurs se sont intéressés au contexte assyrien de ces inscriptions, le fait que la Nubie soit mentionnée a suscité peu de remarques²⁸. Du fait de l'organisation du programme décoratif de la paroi, le texte gravé au-dessus de la 1^{re} scène, à l'ouest, devait être lu en premier, précisant ainsi le contexte de l'oracle²⁹. Un passage de ce dernier confirme l'ordre de la lecture :

(15) *i ḥmn p(j) (i.)ir=i n p(j) T3-Nḥsy i.di [...]* (16) *... [...] m(y) ir=i sw n p(j)=k inw n p(j) t3 n H3rw i.'md=w r-r=k*

Ô Amon, ce que j'ai fait pour la Nubie, fais (?) [...] ... [...] permet que je le fasse pour ton tribut du pays de Khor dont (les habitants) se sont écartés de toi.

Même si les lacunes empêchent de préciser la séquence des évènements, le roi évoque donc un fait qui s'est déroulé auparavant en Nubie, avant même que Taharqa ait pu mener une action contre les Assyriens afin de récupérer le tribut du pays de Khor. Le premier texte mentionne justement à plusieurs reprises la Nubie et ce qui s'apparente à un « tribut » apporté par Taharqa à son père Amon-Rê de Karnak :

(8) *[...] Nḥsy (j)mj jn=j sw n=k n T3-Nḥsy [...]*

[...] la Nubie. Fais que j'apporte cela pour toi de Nubie [...].

24. KAHN 2004, p. 109-128, suivi par POPE 2014a, p. 127-128.

25. PAYRAUDEAU 2020, p. 214.

26. YOYOTTE 1951; GOZZOLI 2017, p. 61-66.

27. À Karnak, voir notamment la mention de Taharqa dans la chapelle d'Achôris : TRAUNECKER *et al.* 1981, p. 17, 25-26, pl. II ; la restauration macédonienne des dédicaces de Chabaka sur la porte du 4^e pylône : LECLANT 1951.

28. Lien également souligné par POPE 2014b, p. 126.

29. Lecture inverse par VERNUS 1975, p. 55.

⁽⁹⁾ [...] *nkt nb(t) ntt jj n=k n p(3y)=k T3-Nhsy* (...)

[...] chaque chose qui arrive pour toi depuis ton pays de Nubie : (...).

Cette dernière phrase sert d'introduction à une liste de produits, détaillés dans les trois dernières colonnes, offerts à Amon afin d'enrichir son offrande divine (col. II). La liste est partiellement préservée : des « taureaux rouges, des troupeaux-*hrp*, des oryx, des peaux de léopards, des fruits de palmier-doûm, de l'ocre nubien, du sable pur, des longues tiges de palmier-doûm » (col. 9-10). On notera justement que, dans trois scènes, Taharqa consacre une grande offrande pour son père. Cette surreprésentation inhabituelle n'est sans doute pas sans lien avec les richesses apportées qui semblent être offertes par le roi, dans le cadre de l'oracle, afin de demander l'aide divine de son père avant de s'opposer à ses ennemis.

Les raisons qui ont conduit Taharqa à ramener de Nubie ce « tribut » ne sont pas connues. Il est régulièrement évoqué le fait que, suite à sa défaite face à Assarhaddon, il aurait fui à Thèbes puis vers Napata. C'est son absence même d'Égypte qui aurait amené les principales villes du sud, dont Thèbes, à se soumettre au nouveau pouvoir assyrien³⁰. Il est en effet improbable que les gouverneurs de ces villes, dont Montouemhat, aient parlementé si Taharqa avait été encore présent en Haute Égypte. Même si cette soumission ne devait être que théorique – il faut semble-t-il attendre le règne d'Assurbanipal pour une présence militaire assyrienne dans le sud – et temporaire, elle paraît appuyer l'hypothèse selon laquelle le roi kouchite aurait alors bien été en Nubie.

La situation en Nubie est quant à elle incertaine. Quelques indices dans les inscriptions de Karnak laissent entendre que l'autorité même de Taharqa y fut remise en question. Si l'onde de choc de la défaite dut se répercuter loin au sud, il est improbable que le cœur du royaume de Napata se soit révolté ; il est toutefois possible que, sur ses franges, des adversaires aient tenté de profiter de la situation. Malheureusement, le contexte politique dans le Soudan ancien au cours de la XXVe dynastie est méconnu.

3.3.

UN LIEN HISTORIQUE AVEC LES « BLOCS DE PIANKHY » ?

Découverts dans le temple de Mout à la fin du XIX^e siècle par Margaret Benson et Janet Gourley³¹, cinq blocs en grès dits « de Piankhy » ont suscité de nombreuses discussions quant à la nature de l'événement historique relaté. Ils appartiendraient à des murets d'entrecolonnement d'un portique construit entre les XXV^e et XXVI^e dynasties. Sur l'une des faces est représentée une flotte composée de navires d'apparat ainsi que de barges de transport qui se dirigent depuis le sud vers la tribune du temple de Karnak où une prêtresse, vraisemblablement la Divine adoratrice, se tient debout.

30. Dernièrement, PAYRAUDEAU 2020, p. 217.

31. BENSON, GOURLEY 1899, p. 46, 257-259, 370-379, pl. XX-XXII.

Deux interprétations de ces scènes ont dernièrement été avancées par Olivier Perdu³² et Gerard P.F. Broekman³³. Selon le premier, nous aurions ici une décoration saïte réalisée peu après l'installation de Nitocris à Thèbes³⁴. Elle témoignerait du retour d'une expédition diplomatique en Nubie à laquelle le général Sémetaouytefnakht aurait participé avant d'usurper l'image d'un Thébain, possiblement Montouemhat. Pour le second chercheur, ces blocs dateraient plutôt du règne de Piânkhy, dont le nom se retrouve dans l'appellation de l'un des bateaux. Selon lui, la scène « *might represent the arrival in Thebes of Amenirdis I, the sister of Piankhy, to be adopted by the God's Wife of Amun Shepenupet I* ». Les blocs auraient été usurpés dans un second temps³⁵.

Une datation saïte me semble incertaine. L'hypothèse d'O. Perdu repose sur l'existence d'un hypothétique roi « Piânkhy II » inconnu en Nubie. En outre, un tel échange diplomatique, si peu de temps après la défaite de Tanoutamon, paraît improbable. Enfin, indépendamment de la présence d'une Divine adoratrice sur la tribune de Karnak et de deux bateaux qui appartiennent à sa flotte, rien ne permet d'affirmer que ces reliefs célèbrent l'arrivée d'une princesse kouchite (ou saïte) à Thèbes pour devenir la future épouse d'Amon³⁶. Ces blocs furent, à mon avis, décorés à la fin de la XXV^e dynastie, lorsque d'importants travaux furent menés par Montouemhat dans le temple de Mout alors que Taharqa était encore roi. Le noble thébain dirigea notamment l'érection de la colonnade propylée inscrite aux noms du roi kouchite³⁷. En outre, dans une « crypte » du temple ornée d'inscriptions biographiques, une scène figure Montouemhat derrière le souverain nubien³⁸. Le fait que la flottille arrive de Nubie, que l'un des bateaux mentionne le nom de Piânkhy³⁹ et un autre le « *kour* », désignation méroïtique du monarque de Napata⁴⁰, plaide aussi pour une datation kouchite. Enfin, si on accepte de reconnaître une Divine adoratrice sur la tribune de Karnak, ne pourrait-on aussi pas voir, derrière elle, une image d'un roi, à genoux face au temple ?

Le témoignage des « blocs de Piânkhy » et celui des inscriptions de Taharqa dans la cour nord du 6^e pylône de Karnak pourraient alors être rapprochés. En effet, la liste des produits évoqués sur les barges⁴¹ est similaire à celle des offrandes qu'il amena de Nubie⁴². Il est dès lors envisageable que les blocs du temple de Mout et les inscriptions ici étudiées ne mentionnent qu'un unique événement historique : le retour de Taharqa à Thèbes depuis la Nubie, accompagné d'un riche tribut destiné à être offert à son père dans le temple de Karnak.

32. PERDU 2011.

33. BROEKMAN 2012.

34. Suivi par PAYRAUDEAU 2020, p. 234. Voir aussi MOJE 2014, p. 387.

35. Hypothèse reprise récemment dans BEIKER *et al.* 2020, p. 132-134.

36. Je n'exclus toutefois pas un possible lien avec un tel événement. En effet, dans le texte du 1^{er} tableau de Karnak, on peut lire « *sa (= Amon) fille (?)* » (col. 5) dans un passage lacunaire (VERNUS 1975, p. 9, fig. 8; RITNER 2009, p. 509; photo CFEETK n° 202832).

37. FAZZINI 2015, p. 7-8. Pour le *ḥwt-kj* de son fils Nesptah B dans cette colonnade, voir FAZZINI 2005, p. 86.

38. LECLANT 1961, p. 231-232. Voir également le contre-temples de Mout, FAZZINI, O'Rourke 2008.

39. Pour un bateau au nom d'Horemheb sous Séthi I^{er}, voir GOLDWASSER, OREN 2015, p. 32. Pour l'usage du nom de Piânkhy sous Taharqa, voir le scarabée New York MMA 0.3.395 : JWIS III, p. 189.

40. Écrit *gwr*, voir RILLY 2007, p. 378.

41. JWIS II, p. 354-357 (35.18).

42. Les similarités des listes avaient déjà été soulignées par VERNUS 1975, p. 51-52 et PERDU 2010, p. 154.

CONCLUSION

L'anastylose du mur nord des *Annales* a permis d'identifier une série de blocs complétant la décoration de Chéchonq I^{er} et celle de Taharqa dans la cour nord du 6^e pylône du temple de Karnak. Cet espace fut privilégié par ces rois pour afficher le compte rendu d'oracles. L'intégralité de son mur sud servit de support pour mettre en scène un oracle extraordinaire d'Amon-Rê en faveur du roi kouchite à son retour de Nubie. En outre, il est envisageable que cet évènement se soit déroulé dans cette cour, à proximité du sanctuaire de la barque. En effet, le dernier tableau de Taharqa fut gravé à un niveau plus élevé que les autres. Ce décalage semble indiquer la présence d'un objet ou d'une structure dans l'angle sud-est de la cour ; une table d'offrandes⁴³, voire une estrade, se dressait peut-être à cet endroit⁴⁴. Ceci expliquerait pourquoi Amon (ou son image processionnelle) n'est pas représenté dans les scènes alors qu'il est bien mentionné comme l'unique bénéficiaire des offrandes.

Il semble qu'il faille établir un lien direct entre les produits apportés depuis la Nubie par Taharqa et ceux offerts à Amon afin de le prier de l'aider. Ces témoignages uniques, au cœur de son temple, sont le reflet des difficultés que rencontrait le roi dont l'autorité, en Égypte, voire même en Nubie⁴⁵, avait été ébranlée par les assauts assyriens. Cet épisode pourrait peut-être également avoir un lien direct avec celui relaté sur les « blocs de Piânkhy », découverts dans le temple de Mout, sur lesquels est représentée l'arrivée à Karnak d'une flotte depuis la Nubie chargée des mêmes produits. Seule une publication complète de ces blocs permettrait de confronter les différentes hypothèses de datation.

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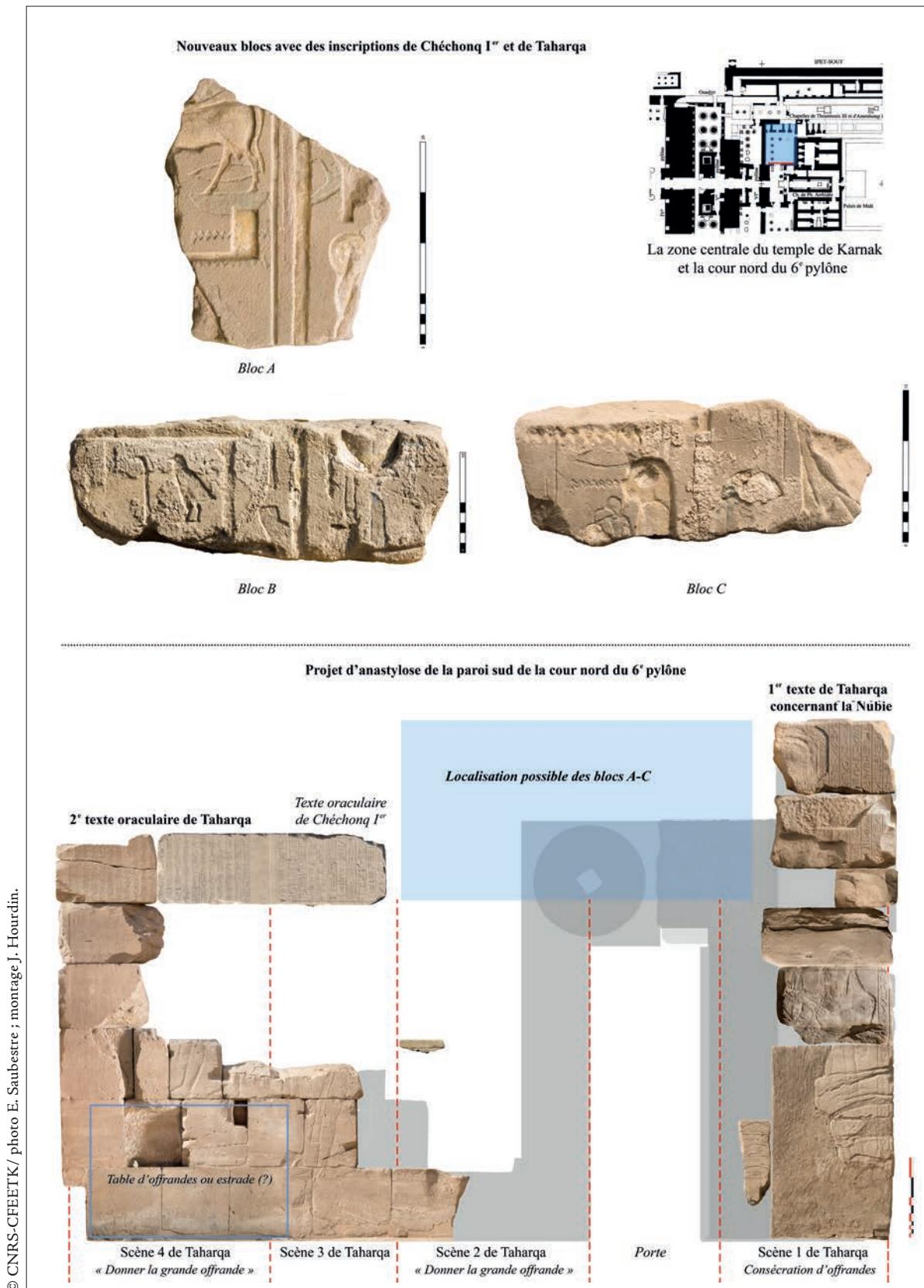
43. Georges Legrain (1904, p. 29) y découvrit une table d'offrandes en calcite de Sésostris I^{er} identique à celle de Thoutmosis III dédiée à Rê-Horakhty ; cf. L. GABOLDE 2018, p. 318–323.

44. Cette cour à ciel ouvert n'est pas sans rappeler lesdites chapelles de Rê-Horakhty dans les temples nubiens de Taharqa. Sur ces dernières, voir notamment COPPENS 2007, p. 215–219.

45. Dans l'inscription historique de Sanam très lacunaire, étudiée par Jeremy Pope (2014b, p. 59–145), un passage semble faire directement référence à une expédition « punitive » menée par Taharqa contre une ville et la prise d'un butin (POPE 2014b, p. 125). Elle pourrait avoir eu lieu en Nubie, mais aussi en Égypte, d'autant plus que Memphis et un canal de Mérenrê I^{er} sont mentionnés (POPE 2014b, p. 137). Il y est aussi cité l'apparition d'un Amon (POPE 2014b, p. 137).

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Pl. I. La paroi sud de la cour nord du 6^e pylône et les blocs découverts.

Functions of Pharaonic Purification Scenes in Greco-Roman Temples

SCENES depicting the purification of the pharaoh are often featured in temple decoration (fig. 1). The apparent function of such episodes is to assert the purity of the monarch-figure in view of his role in other rituals in the ideal temple setting.¹ In many cases pharaonic purification scenes are part of a sequence that depicts the stages of the pharaoh's journey towards the core of the temple. The four mainstay episodes of the sequence depict the monarch leaving his palace of residence (Royal Exit), undergoing purification, receiving a crown and finally being introduced to the patron of the temple.²

The present article will bring forth evidence which suggests that most Greco-Roman examples of the purification scene and sequence adhere to a common format. Studying some of the key features of this format suggests that the purification of the pharaoh was adapted to function as a prototype for the ritual purity of individuals entering the temple.³

COMPARISON

In order to understand examples of pharaonic purification and the related sequence in the Greco-Roman temples, some context is required. This is provided by comparisons with earlier examples.⁴

1. GARDINER 1950, p. 3; SMITH 2005, pp. 329–336.

2. VASSILIKI 1989, p. 3–4.

3. Temple personnel and visitors were purified upon entry according to texts that accompany doorway purification scenes (BLACKMAN 1915, pp. 44–45; ALLIOT 1949, pp. 140–141). Regarding purity as a requirement for temple access, see QUACK 2013, pp. 118–122.

4. The purification of the pharaoh appears as a theme in temple decoration as early as the Old Kingdom (LANDGRAFOVA 2011, fig. 4; NUZZOLO 2015, fig. 9.4). The scene is displayed as part of the typical sequence at least as early as the reign of Hatshepsut, but for the purpose of comparison this study is mostly focused on Ramesside and later pre-Ptolemaic examples.

RAMESSIDE AND LATER PRE-PTOLEMAIC EXAMPLES

Examples from the Ramesside period are found throughout all layers of the temple, including the inner layers, close to the main sanctuary;⁵ they fluctuate in registers, appearing at different heights on walls and taller architectural elements.⁶ If the sequence appears, the principal episodes exchange places, some might be missing and often others are added.⁷

In most of the preserved purification scenes, Thoth and Horus are the actors but not exclusively.⁸ This type of scene shows the pharaoh with a variety of crowns and wigs, as well as different clothes, and examples often include details such as a vulture or sun disk above the pharaoh.⁹ The inscriptions that accompany purification episodes are not very revealing—the most stable elements are the names of the pharaoh and the actors, and a short reciprocal purification formula.¹⁰ Royal Exit, Coronation and Introduction scenes also show variety in composition and actors.¹¹

The surviving evidence suggests that some of the Ramesside trends continue into the Third Intermediate Period and the Late Period. The Nubian examples from Karnak show a distinct style and a shift towards simplicity, but like their earlier counterparts, the sequences present scenes in a different order, with additions and omissions.¹² At the temple of Amun at Hibis, the pharaonic purification and the related episodes can be found in different layers and different registers,¹³ displaying variety in the roster of actors, their clothing and other elements.¹⁴

The variations characteristic of the Ramesside and later pre-Ptolemaic examples suggest that these scenes were interactive and adaptable to other rituals. In most cases these variations also make it hard to comment on the function of individual examples beyond what is apparent—securing the purity of the pharaoh, who represents the link between the terrestrial realm (marked by the palace in the Royal Exit scenes) and the divine domain (meeting the patron-deity after the coronation episode). Nevertheless, the placement closer to the core of the temple suggests that the purification of the pharaoh was, at least in some cases, considered a secret matter.

5. Illustrated by examples at the temple of Seti I at Abydos (PM VI, p. 5, n. 48, 56; p. 7, n. 75; p. 21, n. 192), the temple of Khonsu at Karnak (PM II, p. 230, n. 18; p. 233, n. 25; p. 236, n. 40) and the temple of Ramesses III at Medinet Habu (PM II, p. 502, n. 107; p. 505, n. 111; p. 510, n. 148–h).

6. This can be observed in examples from the Great Hypostyle Hall at Karnak (PM II, pp. 43–44, n. 152, II; p. 47, n. 158; pp. 48–49, n. 160, IV), the north face of the Eighth Pylon at Karnak (PM II, p. 174, n. 519) and the temple of Khonsu (see previous note).

7. NELSON 1981, pls. 259a, 259b, 262.

8. With some exceptions such as NELSON 1981, pls. 51, 148.

9. For example, BLACKMAN 1913, pl. XLIII; NELSON 1981, pls. 105, 156; EPIGRAPHIC SURVEY 1957, pl. 309.

10. GARDINER 1950, p. 9.

11. This variety can be illustrated by examples of coronation scenes (compare NELSON 1981, pls. 70, 74, 106) and Introduction scenes (compare NELSON 1981, pls. 62, 106, 199) from the Great Hypostyle Hall.

12. BARGUET, LECLANT, ROBICHON 1954, pl. LXI; PARKER, LECLANT, GOYON 1979, pp. 12–14.

13. PM VII, p. 279, n. 17, 18; p. 282, n. 68; p. 282, n. 72–74.

14. CRUZ-URIBE 1988, pls. 10A, 12, 70A.

GRECO-ROMAN TEMPLES

In the Greco-Roman period the purification of the pharaoh and the related sequence can be found predominantly in the outer layers of the temple.¹⁵ The examples are located in the direct vicinity of the doorways and transitional areas, always at eye level, confined to the lowermost register.¹⁶ Corresponding, almost identical, placement can be observed in several temples.¹⁷

The Greco-Roman purification sequence appears more rigid—statistically speaking, the four principal scenes appear in the same order, with fewer variations compared to earlier examples.¹⁸ The same can be said of the internal composition of the individual scenes. Most of the Royal Exit scenes share a similar configuration of mainstay elements;¹⁹ in the other three scenes, the pharaoh retains an upright posture, usually surrounded by two acting deities.²⁰ The Greco-Roman images of the pharaonic purification share a very similar internal arrangement. Surviving examples invariably show Thoth and Horus purifying the monarch, who is usually depicted in very minimalistic clothing—most often wearing a tight-fitting skull-cap and a simple skirt.²¹ This is in stark contrast to earlier iterations of the purification scene; it is also in stark contrast to neighboring contemporary scenes,

^{15.} In the temple of Horus at Edfu, examples of the purification sequence are placed on the exterior (PM VI, p. 167, n. 337) and interior of the surrounding wall (PM VI, p. 164, n. 318–319), on the internal surface of the pylon (PM VI, p. 125, n. 35–38 and p. 126, n. 43–46), inside the outer hypostyle hall (PM VI, p. 132, n. 85–86) and on the exterior of the naos (PM VI, p. 156, n. 291–293; p. 159, n. 302–304), but the scenes are absent from the innermost layers surrounding the shrine. The situation is similar at Dendara—the purification of the pharaoh is present in the outer hypostyle hall (PM VI, p. 46, n. 17–21, p. 47, n. 23–26) but does not appear further inside. At Kom Ombo examples appear in the second hypostyle (PM VI, p. 188, n. 71–74) hall and even closer to the main shrines (PM VI, p. 190, n. 94), but also on the façade of the hypostyle (effectively in the courtyard—PM VI, p. 182, n. 24–25, n. 26–27) and on the exterior of the surrounding wall (PM VI, p. 181, n. 4–5).

^{16.} Kalabsha (PM VII, p. 15, n. 29–31 and n. 33–34); Edfu Pylon (PM VI, p. 125, n. 35–38 and p. 126, n. 43–46).

^{17.} Compare the placement of scenes on the exterior of the naos at Edfu temple (see above), the Hathor temple at Dendara (PM VI, p. 75, n. 216–219; p. 76, n. 238–241) and the Isis temple at Philae (PM VI, p. 246, n. 382–383; p. 245, n. 375–377).

^{18.} Illustrated by examples from Kalabsha (PM VII, p. 15, n. 29–31 and n. 33–34), also see previous note.

^{19.} In Royal Exit scenes the pharaoh is represented with a staff and a scepter, a white or red crown in accordance with the decoration patterns of the hosting temple; the monarch is usually preceded by four or five standards and the figure of Iunmutef (for example BÉNÉDITE 1893, pl. XXVII; CHASSINAT 1960, pl. CLI; CAUVILLE 2007, pls. 58, 130). There are some exceptions to this, such as scenes placed on the façade of the hypostyle hall at Esna temple (SAUNERON 1963, p. 114) and the Kom Ombo temple (DE MORGAN et al. 1895, pls. 72, 73). The difference between the two types of Royal Exit episodes and their relation to doorway purification scenes suggests possible additional functions for some examples of the purification scenes and the related sequence. This matter is beyond the scope of the present study and will be reserved for a future publication.

^{20.} Regarding the posture of the monarch, exceptions can be observed at the temple of Horus at Edfu. A coronation inside the outer hypostyle hall (CHASSINAT 1929, pl. LXIII) and the purification scenes inside the *pr-dw3t* shrine display the pharaoh seated (CHASSINAT 1929, pl. LXXXI).

^{21.} For example, GAUTHIER 1911, pls. XLVIIa, LIIIb, LXVa; ROEDER 1930, pl. 80; JUNKER et al. 1965, p. 230.

which tend to present the pharaoh with a variety of elaborate crowns.²² Some of the inscriptions that accompany the Greco-Roman purification scenes are somewhat more revealing in their description of the ritual purification performed on the monarch.²³

COMPARISON AND FUNCTIONS

Concerning the sequence and the purification scene in particular, the Greco-Roman examples show a remarkable consistency with each other, unlike earlier iterations. This indicates that, for the most part, designers were observing the same core format (fig. 2), while introducing only minor adjustments and adaptations.²⁴ This common format represents a significant shift in the way that the purification sequence was expressed in temple decoration.

The changes in the placement, arrangement and appearance of the purification sequence suggest changes in the function of these scenes. The Greco-Roman examples are placed predominantly in the outer layers of the temple, exposing the scenes to a wider audience. The purification sequence occupies some of the most visible parts of the temple—in direct proximity to doorways, at eye level, directly in the line of sight of anyone walking inwards. At Edfu and later temples, the purification scenes appear very simplistic, which sets them apart from their predecessors and neighboring scenes. In this way, the emphasis is placed on the human nature of the monarch. In other words, Greco-Roman purification scenes become more visible, understandable and relatable for visitors, compared to earlier iterations.

This suggests that the images addressing the pharaonic purification at Edfu and later temples also functioned as a kind of standard for purity which employed the pharaoh as a divine prototype—an ideal example for visitors to observe and follow when entering into the domain of the god.

This additional function is not explicitly reflected in the texts of the pharaonic purification scenes, but it is indirectly confirmed by the relation of a text at Esna temple and the placement of an example at Edfu temple. The inscription from Esna suggests that the purification of the personnel and other visitors to the temple occurred at an entrance on the side of the pylon.²⁵ Unfortunately, this part of the Khnum temple is not preserved, but an entrance at a corresponding place is preserved at the temple of Horus at Edfu. At this entrance, there are no scenes that directly address the purification of the visitors, but we find a sequence for the purification of the pharaoh.²⁶

²². This could be illustrated by consulting the catalogue for the types of headgear that appear in the Ptolemaic decoration program at Philae. See VASSILIKA 1989, pp. 83–95, pp. 293–313; VASSILIKA 1998, pp. 941–944, pp. 948–951.

²³. For examples, see ELGAWADY 2016, pp. 149–151; p. 198; LABRIQUE 1992, p. 173.

²⁴. The examples from the temples at Edfu, Dendera and Kom Ombo display some outstanding features, which indicate regional preferences and adaptations to the common format of the purification sequence; nevertheless, the similarities in composition are still enough to confirm adherence to a common format (IVANOV 2019, pp. 74–80).

²⁵. SAUNERON 1962, p. 345; QUACK 2013, p. 120.

²⁶. PM VI, p. 167, n. 337.

SUMMARY AND CONCLUSION

By studying the placement, order and details of pharaonic purification and the related sequence, it is possible to detect some additional functions of these scenes. Examples after the founding of Edfu follow a common format which (unlike most of the earlier scenes) was accessible, visible and simplistic. This suggests that the purification of the pharaoh was meant to be observed and imitated by temple visitors as an ideal example of purity.

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Fig. 1. Purification of the Pharaoh, Temple of Khonsu, Karnak.

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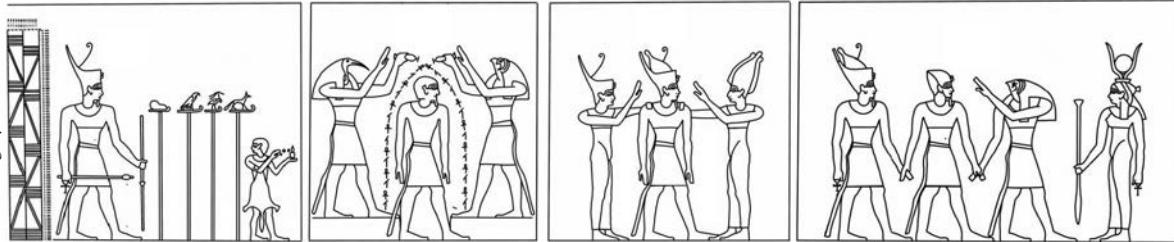


Fig. 2. Speculative projection of the common Greco-Roman format for the purification sequence.

Katarzyna Kapiec*

The Southern Room of Amun Project

Preliminary Results of the Study on Its Decoration and Function in the Temple of Hatshepsut at Deir el-Bahari

THE ‘SOUTHERN ROOM OF AMUN PROJECT’ is one of the Egyptological projects of the Polish-Egyptian Archaeological and Conservation Mission working in the temple of Hatshepsut at Deir el-Bahari¹ and was initiated by the author in the late 2014. The aims of the project are: epigraphic and photographic documentation, theoretical reconstruction of the missing blocks, studies on the decoration, interpretation of the room’s function within the temple and final publication.²

THE SOUTHERN ROOM OF AMUN: DESCRIPTION

The small Southern Room of Amun ($3.2 \times 2.7\text{m}$) is located in the south-western corner of the Upper Courtyard of the temple of Hatshepsut at Deir el-Bahari (fig. 1).

The inner decoration, published by Edouard Naville,³ is very well preserved, the polychrome of the reliefs underwent the conservation treatment in the 2006–2007 season.⁴ Decoration is mainly one registered carved in raised relief. The repertoire of scenes executed in the reign of Hatshepsut is as follows:

1. North wall: scene of embrace with Hatshepsut and Amunet, located to the right of the entrance, and frieze of objects depicting oil vases and linen chests, featured just above the lintel;⁵
2. East wall: scene of Hatshepsut accompanied by her *ka* offering oils to Amun-Kamutef;⁶
3. South wall: antithetical scene depicting Hatshepsut (on the left) and Thutmose III (on the right) offering linen to Amun-Ra;⁷
4. West wall: scene of Hatshepsut accompanied by her *ka* offering oils to Amun-Kamutef.⁸

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1. The mission is affiliated with the Polish Centre of Mediterranean Archaeology, University of Warsaw.

2. The first volume of the publication is KAPIEC 2021.

3. NAVILLE 1906, pls. CXXX–CXXXIII.

4. See UCHMAN-LASKOWSKA 2010. See also appendix by Izabela Uchman in KAPIEC 2021, pp. 145–193.

5. NAVILLE 1906, pl. CXXX; KAPIEC 2016, fig. 2; KAPIEC 2018, fig. 2.

6. NAVILLE 1906, pl. CXXXI; KAPIEC 2017, fig. 5.

7. NAVILLE 1906, pl. CXXXIII.

8. NAVILLE 1906, pl. CXXXII.

No name of the room, which would be helpful in defining its function, is to be found on the jambs. Above the outer lintel a coronation scene is depicted, reconstructed by the Polish-Egyptian Archaeological and Conservation Mission.⁹

PRELIMINARY RESULT OF THE EPIGRAPHIC WORKS

The whole inner and outer decoration was recorded in drawings and photography. The epigraphic documentation (based on facsimiles and orthophotography) made it possible to reconstruct the original layout and the missing parts of the decoration.

The detailed documentation provided a lot of information about the re-carvings in the room, which were not included in Naville's publication. These changes can be divided mainly in two groups in terms of chronology—the sole reign of Thutmose III and Amarna along with post-Amarna period.

The first group concerns the process of erasures and/or re-carvings of the figures and names of Hatshepsut, which had begun around 42nd till 43rd year of Thutmose III.¹⁰ This process resulted in the Southern Room of Amun in changing all the names of Hatshepsut into Thutmose II. Furthermore, on the west wall the whole figure of Hatshepsut was replaced with an offering table (fig. 2), creating the scene where the royal *ka* of Thutmose II performs the offering towards Amun-Kamutef. However, the outline of her figure is still visible and thanks to the epigraphic documentation it has been possible to reconstruct the whole shape, including the details of the costume and the held objects.

The second group concerns the erasures of the gods' names and figures in the Amarna period and their restoration in the post-Amarna period (late 18th/early 19th Dynasties). Figures, names and epithets of Amunet and Amun were erased, protective birds were left untouched, only their names were erased. Destinations were very deep and harmful. Only a few traces of original relief outline are preserved, making the reconstruction process more difficult than in the case of Thutmose III's mutilations.

However, it has been possible to record the change in the epithets in the scene with Amunet and with Amun-Kamutef on the east wall.¹¹ The original epithet of Amunet was *nb.t pt*, but the restored one is *ḥrj.t jb Jp.t-s.wt*. The changes in the name and epithets of Amun on the east wall are broader, as in the original layer Amun was described as *Jmn K3-mwt.f ḥrj st.f wr.t nb pt*, and in the restoration layer as *Jmn-R' K3-mwt.f ntr '3 nb pt*. The reconstruction of Amun's name with the epithet of *R'* is typical of the time following the Amarna Period, reflecting the significant influence of this short period on the emphasis of the solar aspects of the gods.¹²

The epithet *ḥrj st.f wr.t* is attested quite rarely in Hatshepsut's reign, but became quite popular in the Ramesside period.¹³ In most cases it is applied to the ithyphallic forms of Amun (mainly Kamutef

9. KWAŚNICA 2001.

10. For instance: DORMAN 1988, pp. 46–65; LABOURY 2006, pp. 263–264.

11. KAPIEC 2017, p. 217.

12. BICKEL 1997, p. 95; ASSMANN 2012, pp. 79–83.

13. Another place in the temple at Deir el-Bahari (NAVILLE 1908, pl. CLXI), the 18th Dynasty Temple in Medinet Habu (THE EPIGRAPHIC SURVEY 2009, pl. 23), the Chapelle Rouge (LACAU, CHERVIER 1977, p. 59; BURGOS, LARCHÉ 2006, p. 137), 8th Pylon in Karnak (Urk. IV, 282, 15) or Speos Artemidos (Urk. IV, 285, 2);

and Amun of Luxor).¹⁴ The “pedestal”, which is mentioned in this epithet, might indicate Karnak. According to Luc Gabolde’s study, originally, this “seat” may refer to the holiest status of Amun and was originally kept in the temple built by Senuseret I.¹⁵ As this epithet is also attested outside Thebes, L. Gabolde has proposed the theory according to which it would be applied to a deity whenever it is in the place (temple, sanctuary) dedicated to him/her.¹⁶

The applied methods of documentation and the restoration work revealed also that chests from the frieze of objects were decorated with small scenes, depicting Hatshepsut performing offerings to Amun-Ra.¹⁷ These scenes were executed in a very fine red line on a yellow background, what made them invisible from the ground level. This is quite an unusual occurrence as this type of decoration is rarely preserved.

PRELIMINARY RESULTS OF THE STUDY ON THE DECORATION MOTIFS

The decoration of the room was divided into several study topics. One of the main research areas were oils and linen, which were linked to the offering rituals represented in the room in question, as the whole decoration of the room is devoted to these products.

Particular attention was paid to the depiction of products on the north wall, represented in the manner of the frieze of objects (fig. 3).¹⁸ This arrangement is unique in the New Kingdom as there is no analogy in other temples of this period. The application of the frieze of objects in the Southern Room of Amun indicates the influence of the Old and Middle Kingdom art. This phenomenon of implementing motifs inspired by the earlier historical periods has already been discussed by scholars and the author, and is well-attested in other parts of the *Djeser-djeseru* temple.¹⁹ It can be understood as a persistence of continuity of art and rituals, whose guidelines were kept on papyri in archives.

In the upper row there are four vases with oils from the list of seven sacred oils (*stj-hb*, *hkñw*, *nḥnm*, and *twʒwt*) and ‘*ntjw*, which has replaced *sft* in this codified sequence. The products on the list of seven sacred oils list are well documented as they are frequently attested, mainly in the

more information about this epithet can be found in the article by GABOLDE 1999, pp. 198–200; see also JACOBSON 1939, p. 22, n. 6; KUHLMANN 1977, pp. 28–32.

14. For instance: JACOBSON 1939, p. 22, n. 6; ARNAUDIÈS-MONTÉLIMARD 2003, pl. XIId; ABD EL-RAZIQ 1984, p. 13, pl. 4b; BRUNNER 1997, pl. 137; NELSON, MURNANE 1981, pls. 18, 20, 24, 30, 45, 47, 56, 88, 90, 95, 114, 116, 125, 132, 134, 141, 143, 145–147, 153, 155, 157, 159, 167, 173, 195, 206, 214, 218, 219, 221, 237, 245, 254, 256; BRAND, FELEG, MURNANE 2019, pls. 18, 20, 24, 30, 45, 47, 56, 88, 90, 95, 114, 116, 125, 132, 134, 141, 143, 145–147, 153, 155, 157, 159, 167, 173, 195, 206, 214, 218, 219, 221, 237, 245, 254, 256. Exceptions: see GABOLDE 1999, pp. 195–200, nn. 12–13.

15. GABOLDE 1999, p. 199, n. 10.

16. GABOLDE 1999, pp. 199–200.

17. KAPIEC 2016.

18. JÉQUIER 1921.

19. ROTH 2005, pp. 147–151; ĆWIEK 2014, pp. 61–93; STUPKO-LUBCZYŃSKA 2016, pp. 7–18, 26–36, 65, 91, 106, 150, 225, 231, 265–271, 274–279; KAPIEC 2019, pp. 442–447.

funerary sphere.²⁰ The unique exchange of *sft*-oil for ‘*ntjw* can be understood as an attempt to incorporate this resinous product into the traditionally codified sequence. It strongly highlights the importance of ‘*ntjw* in the reign of Hatshepsut, imported mainly from Punt.²¹

In the lower row there are five chests with textiles: *sšr tpj*, (*j*)*dmj*, *sšr nswt*, *sšr tpj wʒd*, and *jrtjw*. It seems that the inspiration for the choice of these textiles should be sought in the possible frieze of objects from the temple of Sahura in Abusir.²² However, it should be noted that the exact sequence of linen as in the Southern Room of Amun is not attested anywhere else before or after the reign of Hatshepsut.

Both oils and linen were used at the beginning of various rituals. The purpose was the transformation of the executor of the ritual to be able to proceed further. It constituted the transition from the *profanum* to *sacrum* sphere.²³ Furthermore, colours of linen (white, green, red, blue) and the glow given by the freshly applied oils are the key factors in the regeneration process, highlighted in rituals using these products.²⁴

The selection of depicted gods is another crucial aspect of the character study of the Southern Room of Amun. The entering king is welcomed by Amunet in the embracing scene just next to the door. Then Hatshepsut proceeds and is depicted offering oils to ithyphallic Amun-Kamutef and (with Thutmose III) offering linen to the striding Amun-Ra. The role of Amunet and Amun-Kamutef is particularly emphasized in the room in question.

The embracing scene with Amunet is deeply symbolic, as the act of embracing indicates the close and intimate relationship, the unification and acceptance of the king by the goddess. Hatshepsut introduced Amunet into the iconography of the temples and expanded her cult, for before her reign, the goddess was only attested in textual sources. This action not only served to introduce a new form of feminine aspect into her reign, but also strengthened the close connection with Amun, since Amunet is his spouse and partner in the Theban Ennead. Furthermore, the broad range of Amunet’s competences related to the royal power is attested in the decoration of the *Chapelle Rouge*.²⁵

The figures of Amun-Kamutef are located on the east and west walls in the scenes of oil offerings, where Hatshepsut was originally accompanied by her *ka*. In the orations of Amun-Kamutef accompanying these scenes, Hatshepsut’s destiny to become king is mentioned and her building activity is highlighted.²⁶ Through representations of the ithyphallic feature of the deity, the creation aspect was emphasised and echoed the capacity for constant rebirth and regeneration, aspects evoked in this room also *via* the presence of oils and linen.

The theoretical reconstruction of the missing decoration has shown that in the scene caption on the east wall *jbr* and *bʒk*-oils were mentioned (possibly *mđt* too). When one looks at the ritual scheme (fig. 4), one can notice that these products are the counterpart of *stj-hb* and *ḥknw*-oils on the west wall. Both *jbr* and *bʒk*-oils have strong solar connotations, especially the latter one

20. See for instance KOURA 1999, pp. 19–35, 40–42, 289–290.

21. This exchange was studied by the author in KAPIEC 2018; on ‘*ntjw* and expeditions to Punt, see TATERKA 2017.

22. BORCHARDT 1913, pls. 61–63.

23. For instance, THOMPSON 1994, p. 242.

24. GOEBS 2011, pp. 78–79.

25. GRASSART-BLÉSÈS 2017, p. 253; KAPIEC 2021.

26. KAPIEC 2020.

as the word *bȝk* means to be bright,²⁷ while *stj-hb* and *ḥknw*-oils, the first products in the list of seven sacred oils, have a strong link with the afterlife.²⁸ Therefore the *jbr* and *bȝk*-oils can be seen as symbols of the daytime cycle, while the *stj-hb* and *ḥknw*-oils, as regeneration products, can be seen as symbols of the nighttime cycle, giving a fairly clear division of the room in question on the east/west axis. The clear division is emphasized by the selection of textiles offered in the antithetical scene on the south wall. The *mnht*-linen (offered to Amun in the left scene) was most likely a plain cloth,²⁹ meaning of bright colour, which is consistent with the oils on the east wall. Then the linen from the right scene should be combined with the *stj-hb* and *ḥknw*-oils, thus completing its regenerative powers. This circumstance suggests *jdmj*-linen, which was perhaps the most suitable due to its properties.³⁰

Such an interpretation is further strengthened by the details of the clothing and headgear of the rulers in each scene. The composite *šwtj*-crown on the east wall symbolise the sunrise and the sun in its zenith. The crown with the tall falcon feathers from the west wall is the crown of Amun, indicating the divine status of Hatshepsut, and is linked by the scholars with the sunset and, by extension, with the Netherworld.³¹ This ideological dualism is reinforced by the choice of the crowns in the antithetical scene on the south wall: the White Crown, worn by Hatshepsut, can be linked with life and luminous effect,³² while the Red Crown, worn by Thutmose III, is strongly linked to aspects of regeneration.³³

Therefore, it becomes clear that the distribution of the products offered in the Southern Room of Amun applies to the act of providing constant regeneration throughout the day and night cycle (fig. 4).

In addition, the role of the royal *ka*, the coronation scene above the outer gate and the problem of erasures and/or re-carvings of the names and figures of Hatshepsut have been studied within the present project.

CONCLUSIONS

The above concise presentation of the Southern Room of Amun announces the most important elements of a coherent ideological message expressed in the decoration of this room referring to regeneration, transformation and rejuvenation. This notion is indicated through the personality of the gods who are the beneficiaries of the offerings, the specific symbolism of the offerings, the costumes and attributes of the rulers-celebrants. The decorative elements displaying the legality and durability of Hatshepsut's reign are in harmony with this notion.

27. *Wb.* I, 424.12–425.17.

28. KOURA 1999, pp. 155–157, 173–176.

29. *Wb.* II, 87.13–88.2.

30. See for instance RUMMEL 2006, pp. 398–401.

31. COLLIER 1996, p.127.

32. PT 524 § 123, CT VI, 123j, CT VI, 363b, CT III, 378d; GOEBS 2008, pp. 140–152.

33. For instance, some passages from Pyramid and Coffin Texts refer to the swallowing of the Red Crown by the deceased king: PT 273–274; CT VI, 177a–183e; GOEBS 2008, pp. 198–203.

The decorative motifs described in this article suggest the function of the room: the Southern Room of Amun was most likely a repository and/or a changing room, where anointing and clothing took place, preparing the ritual performer to proceed.

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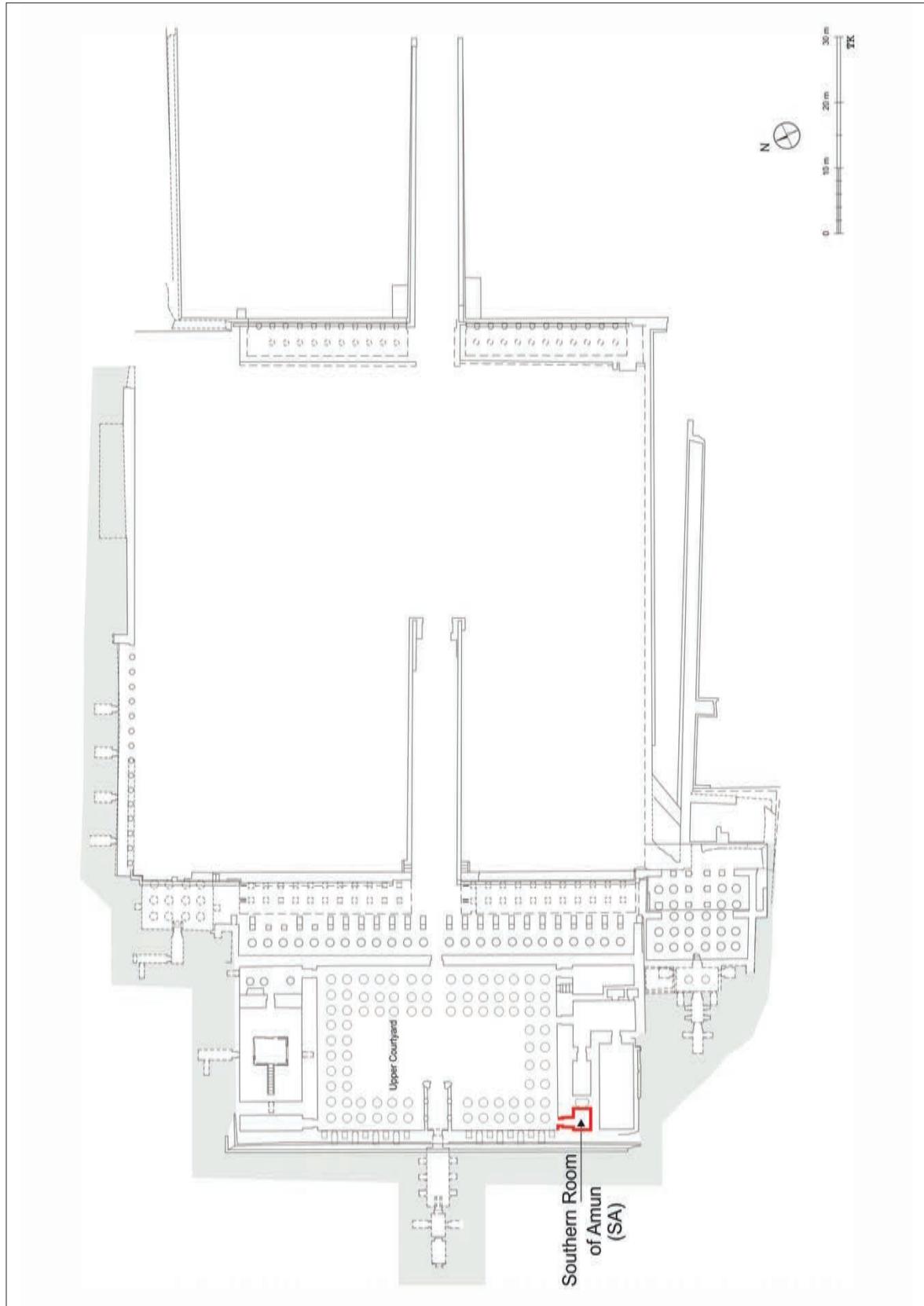


Fig. 1. Map of the temple of Harshepsut at Deir el-Bahari.

© Institute of Mediterranean and Oriental Culture, Polish Academy of Sciences/Polish Centre of Mediterranean Archaeology, University of Warsaw/drawing by T. Dziedzic, with modifications by K. Kapieć.

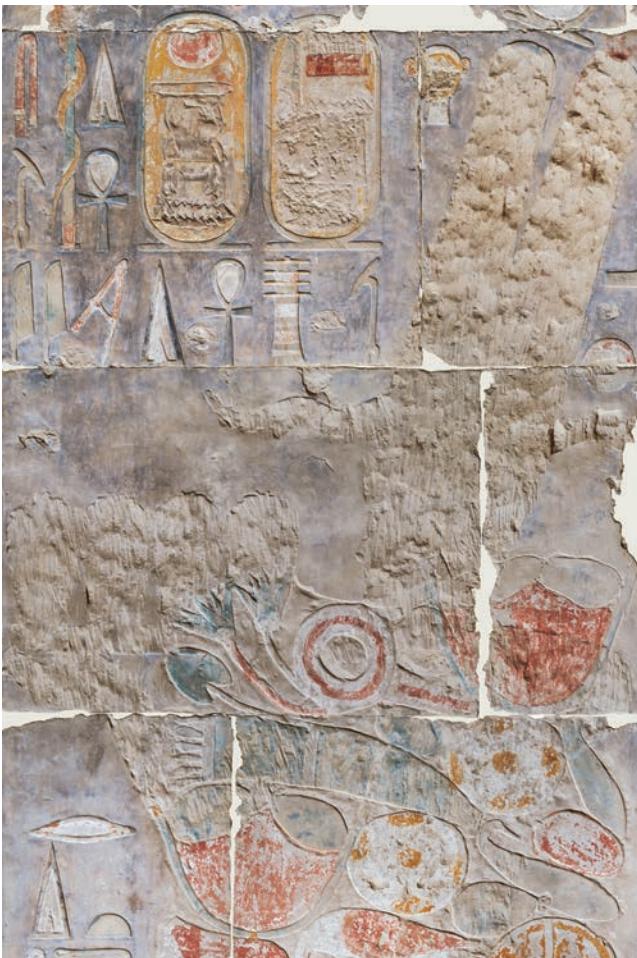


Fig. 2. Fragment of Hatshepsut's figure replaced with an offering table on the west wall of the Southern Room of Amun.



Fig. 3. Fragment of products (vases with oils and chests with linen) represented in the manner of the frieze of objects on the north wall of the Southern Room of Amun.

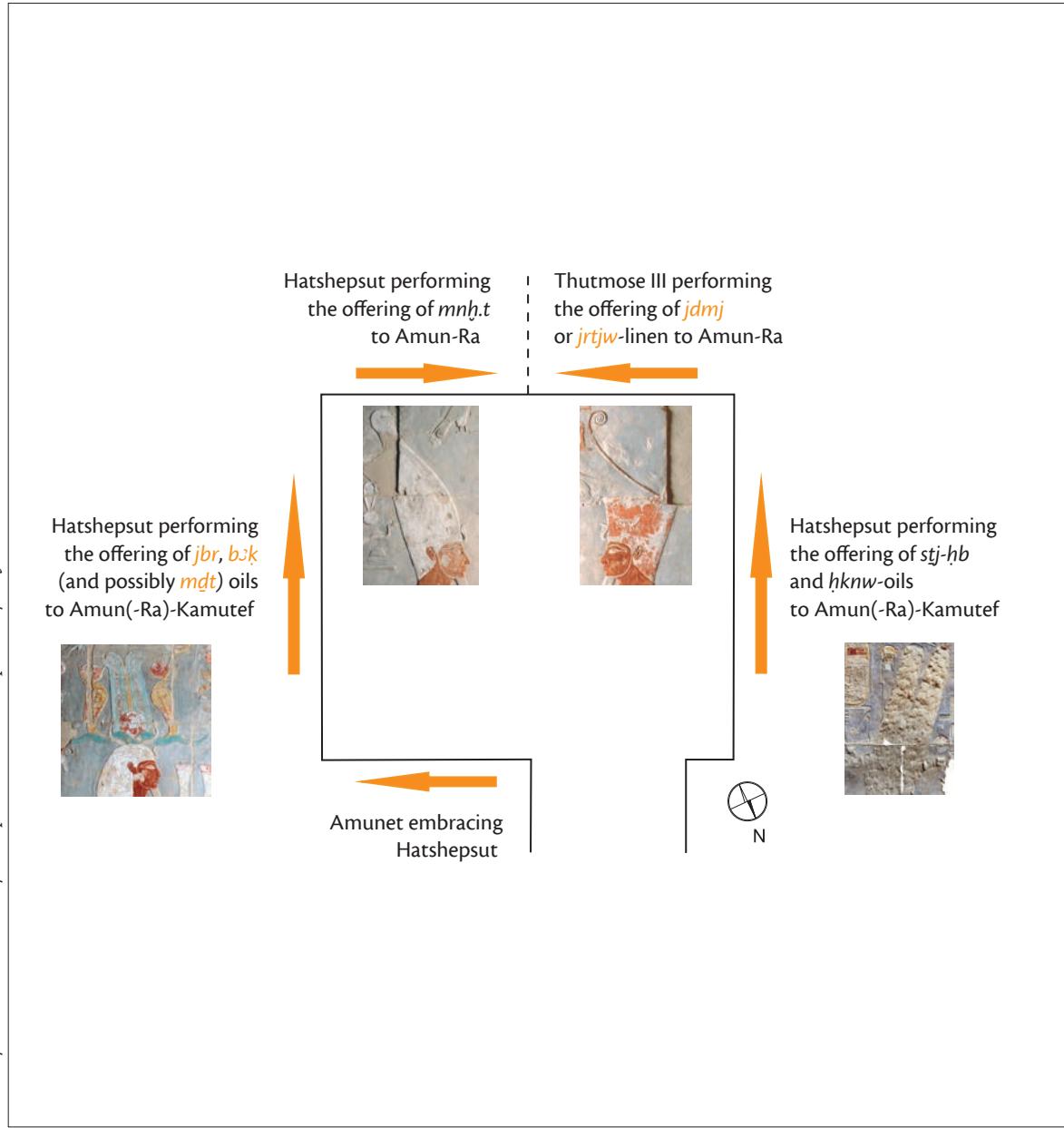


Fig. 4. Ritual cycle with reconstructed products in the Southern Room of Amun.

Unpublished Blocks of Ancient Egypt from Old Cairo

THE FAMOUS SALADIN, founder of the Ayyubid dynasty, who ruled Egypt between the mid-twelfth and mid-thirteenth centuries in the Medieval Era, attempted to include all the ancient capitals of Egypt in a fortification with new walls to defend them against any crusader attack.¹ The Egyptians therefore needed a huge number of blocks to erect such buildings. They dismantled some pharaonic buildings to reuse their blocks in new buildings. This custom was practised at that time to save effort and time, as mentioned by the Arab historian al-Maqrizi.²

In 2001, wall restorers found several ancient Egyptian blocks with hieroglyphic inscriptions inside the Ayyubid walls of Old Cairo.³ These blocks were kept in the Open Panorama, near the Al-Nasr Gate, in Old Cairo.⁴ This paper aims to publish three of these blocks to provide new historical results on the destroyed monuments of ancient Egypt and their original sites.

Although twenty-four blocks of Old Cairo have been discovered to date, only twelve of them have been published.⁵ Although three of these blocks bear the cartouches of some Ramesside kings, they belong mainly to the reign of King Ramesses II.

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1. SANDERS 2008, p. 128.

2. AL-MAQRIZI 1850, p. 233.

3. MACKENZIE 1992, pp. 19–21.

4. Al-Nasr Gate is between three great gates of Old Cairo fortification and dates back to the Fatimide Period. See CRESWELL 1952, p. 195.

5. Cf. HEIDEN 2001; HEIDEN 2002, pp. 257–264; EL-MEZAIN, KACEM 2019.

I.

BLOCK STUDY

I.I.

FIRST BLOCK

I.I.I.

Description

Irregular sandstone block measuring L. 150cm, H. 81cm, and D. 38cm. It represents a traditional scene of an offering to the falcon-headed god Re-Horakhty, who is crowned with a solar disc. The god wears a broad collar and a short kilt. His bipartite headdress covers his chest. He holds a *w3s*-scepter in his left hand. While his right hand is missing, it may have held a ‘*nḥ*-sign; the sign for the year (*rnpt*) appears behind him. He looks to the right towards a human figure of which only the right hand remains extended, because the right part of the block has been lost. This figure represents king Ramesses II whose cartouche is engraved before him. He seems to present offerings to the god, because we can notice a lotus flower, which should have been placed on an offering table (fig. 1).

I.I.2.

Texts

The block records five cartouches and some traditional titles in the sunk relief:

(a) A vertical big size cartouche with the birth name of the king inscribed behind the god. It runs from left to right:



R‘-ms-sw mr(y)-Imn

Ramesses, beloved of Amun.

(b) A vertical cartouche of the throne's name inscribed in front of the standing figure of the king.



Wsr-m3‘t-R‘ stp.n-R‘

User-Maat-Re (The-justice-of-Re-is-powerful, Ramesses II), chosen from Re.

(c) A badly preserved vertical cartouche is seen before the god's figure:



[*(di) 'nb wdʒ] s(nb) nb tʒwy Wsr-mʒ' t-R' mry-ʒmn mry-R' Hr-ʒbty*

[Given all life, prosperity and] health, (Lord of) the Two lands, Usermaatre, beloved of Amun, beloved of Re-Horakhty.⁶

(d) A horizontal cartouche of the throne's name is engraved below the hand of the human figure. It seems to have been added later because the inscription of the royal name in such a position was not traditional:



Wsr-mʒ' t-R' stp-n-R'

Usermaatre, chosen from Amun.

(e) A horizontal cartouche is engraved above the hand of the human figure. It registers an ambiguous royal name, and its content may indicate some remnants of signs: (). There are two suggestions concerning the reading of these signs as follows:

1. It may be read () [*Hkʒ-]mʒ' t-R' [R'-ms-sw]*], which is similar to the throne's name of Ramesses IV.⁷
2. It may be read as () *Nb-mʒ' t-R' [-mry-ʒmn]*, which is similar to the throne's name of King Ramesses VI: () *Nb-mʒ' t-R' -mry-ʒmn*.⁸

There is *ir(t)* "making (of an offering)" upon the lotus offering before the royal figure.

1.1.3.

Discussion

The five cartouches on the block have been attributed to the Ramesside Period. The current issue with these block inscriptions is the unreadable signs of the royal names. Not to mention that

6. BECKERATH 1999, pp. 166–167, 2: T1.

7. BECKERATH 1999, pp. 168–169 (e8).

8. LR III, 1913, p. 200; BECKERATH 1999, p. 170 (fn. 1).

the royal titulary of the Ramesside Period was almost identical, particularly the royal birth names.⁹ Hence, we can define the cartouches on the blocks of Old Cairo by comparing the forms of these cartouches to other known examples.

The cartouche (a) of the birth name, “Ramesses,” was popular among the Ramesside kings. This cartouche’s writing style is similar to Apis IV’s stela, dated to Ramesses II’s reign in the year 30(?).¹⁰ As a result, this cartouche is associated with this king.

The cartouche (b) is also original, because it is professionally inscribed beside the royal figure. Furthermore, the size of its signs corresponds to that of the royal figure. This cartouche, thus, belongs to King Ramesses II because its writing style is similar to Ramesses II’s cartouches at the entrance to the Great Temple of Abu Simbel¹¹. Because the two cartouches (a) and (b) have the same carving depth, the level of sunk relief technique is typical. The signs in cartouche (b) are minor compared to cartouche (a), because the space is narrow between the king and the deity.

The writing style of cartouche (c) was attributed to King Ramesses III. It appears in some graffiti from Sehel Island¹² and other inscriptions on two colossal granite statues from Karnak Temple (preserved in the Cairo Museum CG 42149 and 42150).¹³ To express the traditional title *nb tAwy* “lord of the two lands,” the scribe added later the signs of *tAwy*-word to the remaining *nb*-sign of the missed royal formula [*di anx wDA*] *s(nb)* *nb* “given all life, prosperity and health.”

The cartouche (d) writing style, particularly the sign *n* in the form , is related to King Ramesses IV’s name. Another similar example could be found in the inscription of Wadi el-Hammamat no. 86.¹⁴

On this block, two levels of relief are defined. The first is the original, carved in sunk relief during King Ramses II’s reign. This level contains the figure of the deity, the lotus offering, the royal hand, and the large inscriptions (cartouches (a) and (b)). Furthermore, this type of lotus offering is popular in numerous Ramesside temple inscriptions. This typical scene of deity offerings reminds us of one of the methods used by Ramesside rulers to fulfil their duties to the deities.¹⁵ The second level includes the cartouches (c), (d), and (e) in front of the god Re-Horakhty and around the royal hand. Unprofessional scribes inscribed this level in a poor writing style. It seems that they added it later as a memorial inscription.

At first glance, the presence of such cartouches side by side suggests that the Ramesside kings usurped each other’s monuments. At Karnak, for example, there is a dedicatory stela of Ramesses V before Pylon IV. King Ramesses X erased Ramesses V’s name to inscribe his own name.¹⁶ King Ramesses VI also took over Ramesses V’s tomb and funerary temple.¹⁷ Furthermore, Ramesses VI replaced the cartouches of Ramesses IV and V’s with his own cartouche to erase the

9. LEPROHON 2013, p. 126.

10. GAUTHIER 1913, p. 40.

11. GAUTHIER 1913, p. 34.

12. GAUTHIER 1913, p. 164.

13. GAUTHIER 1913, pp. 171–172.

14. GAUTHIER 1913, p. 178; BECKERATH 1999, p. 169 (T3, T4).

15. PECK 1972, p. II.

16. PEDEN 1989, p. 41.

17. CARTER, GARDINER 1917; KITCHEN 1982, p. 122; PEDEN 1994, p. 81; BLYTH 2006, pp. 179, 180, pl. 13.1; BRAND, MURNANE 2017, p. 121 (fn. 153).

memory of these kings, as he was hostile to them and considered himself the true heir of Ramesses III.¹⁸ While some Ramesside kings tended to replace their names with those of their forefathers, there is no evidence that other royal names were erased on this block in Old Cairo. These kings added their royal names to the monuments of Ramesses II without erasing those of their namesakes in addition to Ramesses II's. They respected his name and monuments and wanted to be associated with him as their great-grandfather. This fact may lead us to one of the most glaring misconceptions about the Twentieth Dynasty. Previous data from this section of Old Cairo revealed that Ramesses VI did not always persecute Ramesses IV and V.

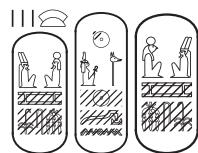
1.2. SECOND BLOCK

1.2.1. Description

Limestone block measuring L. 120cm, H. 48cm, and D. 46cm. It depicts the upper part of the double crown on the left side of the block and four cartouches with royal names (fig. 2).

1.2.2. Texts

The block inscriptions recorded three Ramesside cartouches:



(nb) *b'w R'-ms-sw-mry-İmn Wsr-m'şt-R'-stp-n-R' R'-ms-sw-mry-İmn*

(Lord of) appearances Ramesses, beloved of Amun, Usermaatre chosen from Re, Ramesses, beloved of Amun

1.2.3. Discussion

Although the ancient Egyptian kings have fivefold titulary, two of the titulary were written in cartouches. The second block of Old Cairo bears three adjacent cartouches of King Ramesses II. This style is untraditional, but it can be interpreted as follows:

1. The double crown refers to the royal figure oriented to the rightward, where another supposed figure was facing it.
2. Ramesses II represented himself twice in a side-gallery scene of the great Abu Simbel Temple. He shows himself as a kneeling king with two cartouches, presenting an offering to Ramesses II as a seated divine king with one cartouche.¹⁹ Thus, the scene of the block of Old Cairo showing three cartouches with two figures of King Ramesses II may denote Ramesses II as a human king, while the third cartouche would refer to him as a divine king.

18. KITCHEN 1982, p. 122.

19. <https://www.molon.de/galleries/Egypt/AbuSimbel/Ramses/img.php?pic=30> (Accessed in July 20, 2020).

1.3.

THE THIRD BLOCK

1.3.1.

Description

Limestone section of the drum of a column measuring L. 58cm, H. 48 cm, and D. 69 cm. In sunk relief, the text records Ramesses II's throne name in a cartouche flanked by two *uræi* and topped with a sun disk. Each *uræus* represents the goddess Wadjet protecting the coronation name of King Ramesses I (fig. 3).

1.3.2.

Texts

The middle part of the section is damaged, but some signs can be read as follows:



Pj-R'[-ms-sw-mr(y)-]Imn

Pa-Ramesses beloved of Amun

1.3.3.

Discussion

The definite article  *pj* (together with *tj/nj*) appeared for the first time in letters from the north of Egypt during the 6th Dynasty. Despite being extensively documented during the Middle Kingdom, the article *pj* was still regarded as too colloquial, if not vulgar, for the official language, as seen in the Mentuwoser stela.²⁰ It eventually conquers most semantic domains as it expands across the language, going from the 'less unique' to the more unique.²¹ Unique nouns relate to solitary objects that do not require a demonstrative to be identified by the addressee (e.g., the proper names, sun, moon, and body parts, etc.). The process of article expansion in colloquial speech ends during the Second Intermediate Period, since it gradually penetrates the semantic fields of proper/unique nouns.²² Based on the Great Hymn and the Boundary Stelae at Amarna during the New Kingdom, the definite article was officially integrated into literary and state writings.²³ They all used definite articles with unique nouns such as: *pj R'* 'Re', *pj Itn 'nb* 'the living Aton', *pj ntr w'* 'the sole God', *pj nb nbj* 'the lord of eternity', *pj Jtn* 'Aten', *pj ntr 'j* 'the great god', *pj ntr* 'the god', *pj sw* 'the sun', *pj hk'* 'the ruler', *hmt nswt wrt* 'the great king's wife'.²⁴

20. KUPREYEV 2014, pp. 229–230.

21. KROEBER 1970, p. 7.

22. KUPREYEV 2014, p. 231.

23. KROEBER 1970, *passim*.

24. KUPREYEV 2014, p. 232.

The article *p3* appears inside a similar cartouche of King Ramesses II on another block in Old Cairo.²⁵ According to two examples from those reused blocks of Old Cairo Walls originated from Heliopolis, *p3* precedes the royal name of King Ramesses II to distinguish the name of this great king from other sequent kings with the same name.

2. GENERAL DISCUSSION

ORIGINAL LOCATION OF THE THREE BLOCKS

A search for the original buildings of these inscribed blocks would be fruitful. Although the planned demolition of these structures was almost entirely due to political reasons, other buildings fell because of natural factors such as flooding. Over the years, generations have reused the remains of these structures to supply new construction.

Memphis and Heliopolis are prime examples of the reuse phenomenon. As for Memphis, it is very far from Old Cairo (about 35km). Moreover, the Nile River separates the two sites. Therefore, Memphis was most probably not the original proposed site for these blocks from Old Cairo. Instead, many notes refer to Heliopolis as the original site, as can be seen below:

1. Heliopolis is just around 12 km away from the excavated location of these blocks.
2. Recent excavations at Heliopolis' Ain Shams University mission have uncovered a unique ceremonial chapel of Ramesses II, which has not yet been published and which was virtually used for royal festivals.²⁶ These discoveries indicate the presence of Ramesside structures at Heliopolis.
3. The Cairo University mission discovered a rectangular block of Ramesses II among Ramesses IV's temple ruins at Heliopolis.²⁷ This block was part of a structure of Ramesses II that Ramesses IV subsequently reused.
4. The discovery of a block of King Ramesses V at Heliopolis may suggest architectural activity in the expansion of a Ramesside temple at this site.²⁸ As a result, we suggest that this examined block is related to the temple of Re-Horakhty in Heliopolis. Over time, the remains of this temple were turned into a quarry.
5. Ramesses II's cartouche, Pa-Ramesses, has a unique writing style.²⁹ This cartouche has another instance. It was found in the western section of the main temple of Heliopolis, more precisely in Area 248, around 450m west of the obelisk of Senusret I's. As a result, it is probable that the inhabitants of Old Cairo carried King Ramesses II's column drum from Heliopolis.
6. Another discovered block in the same Old Cairo walls portrays King Pami of the 22nd Dynasty presenting an offering and records: "The son of Re [Pamy] endowed with life forever. He did

25. HEIDEN 2002, p. 273 (nr. 3), taf. 31a.

26. Cf. M. ELDAMATY, "Recent Excavations at Arab el-Hisn": lecture held in the 50th anniversary of the excavation project Elephantine, International Conference in Aswan, 27–28 March 2019.

27. This block is kept in the Museum of Archaeology, Cairo University no. 1755814. See RAWASH 2019, p. 38, fig. 1.

28. RAWASH 2019, p. 42, fig. 2.

29. HEIDEN 2002, p. 273 (nr. 3), taf. 31a.

as an endowment for the *Bau* of Heliopolis, the lords of the Great Temple that dominates Heliopolis, the establishment of their daily offering and [for] every feast of the Great Temple forever [...] with them like Re [eternally].”³⁰ This inscription is engraved on a reused block from Heliopolis’ Great Temple.

7. The block scene depicting King Ramesses II worshipping Re-Horakhty may indicate a related temple for this deity, whose cult centre was Heliopolis (see above). Additionally, many other blocks bore the royal title of King Ramesses II and were found among Old Cairo’s ruins. For example, a block of Ramesses II was reused as a threshold in the Wakala of Qawsun St. (Old Cairo).³¹
8. Two sphinxes of Ramesses II and Amenemhat V were reused as a threshold and a lintel of the Ayyubian wall’s side gate.³²

Accordingly, Heliopolis was the original site of these Old Cairo blocks. The remains of the building of Ramesses II were used as a source for the blocks of Old Cairo.

Two additional remarks can be made:

1. The decoration of these blocks is traditional in composition and subject matter, as attested on the temple walls.
2. The sunk relief technique reveals the details of the depictions and the inscriptions of these blocks. The contrast between the shadow of low-relief and the light of sunshine is regarded as an artistic system known in the open courtyards of temples.

These and many other thematic blocks featuring Re-Horakhty and the Ramesside kings must therefore all be related to the same source. They were brought back from the ruins of the great temple of Re-Horakhty in Heliopolis to be reused in other buildings, such as the north wall of the Ayyubid dynasty.

According to these facts, it might be suggested that building activities in the main temple did not cease during the Ramesside period, as the Ramesside kings continuously enlarged the temple of their deity during their reigns. Then the temple was destroyed over time and the area was used as a quarry, and its blocks were reused in other monuments in the years that followed, when people of the Medieval Age carried its ruins, especially the smaller blocks, across the branches of the Nile River for reuse in the building structures of Old Cairo.

This phenomenon was known in ancient Egypt. And as the area between Heliopolis and Old Cairo was easily accessible, Heliopolis was the chosen source for building supplies in Old Cairo, as shown from the archaeological investigation of the blocks under study.³³

30. BICKEL, GABOLDE, TALLET 1998, pp. 37, 39, 43–44(j).

31. Cf. LORAND 2013.

32. EL-MEZAIN, KACEM 2019, 85–96.

33. Cf. BICKEL 1997.

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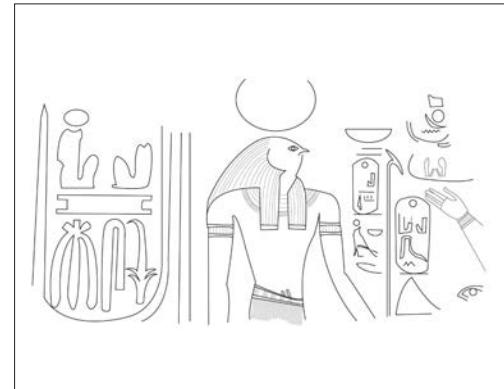
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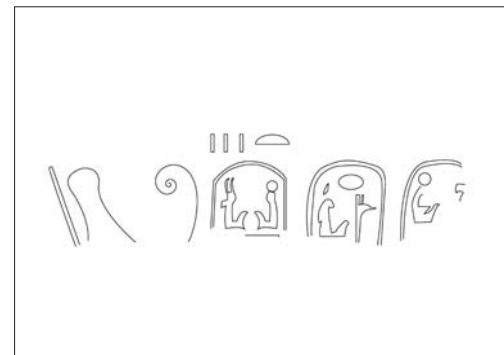
Fig. 1. A block of King Ramesside II.



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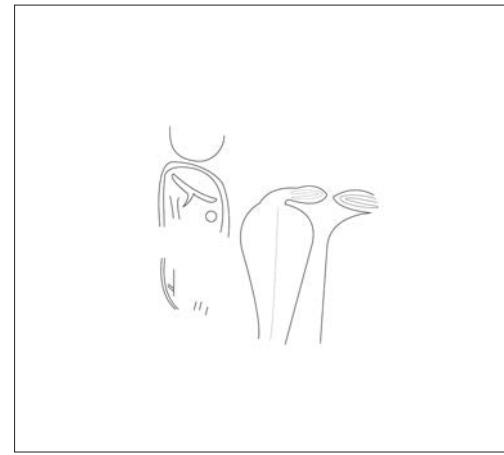
Fig. 2. A block with three Ramesside cartouches.



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Fig. 3. A section of a column drum of King Ramesses II.



A New Study of an Outstanding Decoration in the 3rd Dynasty Tomb of Hesyra at Saqqara

THE THIRD DYNASTY tomb of Hesyra at Saqqara north (no. 2405) was discovered and excavated by Auguste Mariette in the late 1860s, but the main archaeological work was directed by James Edward Quibell in the years 1910–1912. The results were published by him in a monograph.¹ At the end of the works the tomb was covered with sand to protect it, and is still covered nowadays.

The eastern wall of the corridor is built with bricks covered by layers of mud and white plaster, and all paintings are made with remarkable accuracy.² Divided into three registers, they represent games, vessels, work tools, furniture, and other objects of daily use, for the well-being of the deceased in the afterlife.³ This paper focuses on a wall painting with two almost identical rows of cylindrical measuring vessels, which J.E. Quibell reproduced in his publication at the scale of 1:11.⁴ In figure 1, I have added to the left side two rectangular elements, which J.E. Quibell drew separately, and indicative colours in accordance with his descriptions. Each row is composed of fourteen containers of increasing size. The vessels on the upper row are painted with wood veins but the first four, which are white; those on the lower row are dull red with yellow hoops but the first four, which are dull red all over. The red colour of the cylinders on the lower row may indicate copper.⁵

The first attempt to estimate the volumes of the actual containers was made by William M. Flinders Petrie, who suggested that the cylinders were drawn full size in the tomb.⁶ Such an assumption is plausible, as furniture and other objects are drawn full size. But the knowledge of ancient Egyptian capacity measures at that time was limited, and W.M.F. Petrie identified in the volume of the cylinders fractions and multiples of improbable capacity measures: the *hin*, which is not attested before the Middle Kingdom, and the Syrian Kotyle.⁷

* Bocconi University, Milan.

1. QUIBELL 1913.

2. QUIBELL 1913, p. 5, pl. 6.

3. QUIBELL 1913, pp. 16–36, pls. 8–23.

4. QUIBELL 1913, p. 18, pp. 25–26, pl. 17.

5. T. Pommerening (2005, p. 282) proposed reddish animal skin as alternative material.

6. PETRIE 1926, p. 34. PETRIE 1934, p. 9.

7. PETRIE 1934, p. 9.

In recent years, Tanja Pommerening identified in the volumes of the cylinders fractions and multiples of the *hekat* measure, which is certainly reasonable.⁸ However, the results of her model are not convincing, as none of the vessels has the capacity of 1 *hekat*.⁹ She proposed that the size of the actual cylinders was reduced in the painting, identifying fractions and multiples of the *hekat* on the basis of the observation that the outer volume of the 5th cylinder is approximately 1/128 of that of the 14th cylinder.

Scale factors are unlikely in representations of that size. Why representing a 4-*hekat* vessel slightly reduced in size, for example by 2/3, when it could be represented conveniently full size?¹⁰ As we will see, the present paper identifies in the painting also a cylinder of capacity 4 *hekat*, drawn full size. The main data of the study have been already published,¹¹ and this article aims at discussing selected elements of the analysis, and the results of the research.

A NEW APPROACH OF ESTIMATION AND THE CYLINDERS FROM THE 8TH TO THE 14TH

Figure 1 shows at the bottom the average inner and outer volumes of the fourteen cylinders, assuming that they were drawn full size.¹² The hypothesis is that the inner volume of the 12th cylinder is 4,800cm³, that is, 1 *hekat*.¹³ This hypothesis implies a ratio of about 0.84 between inner and outer volume, which is then applied to the other cylinders. In a cylindrical container in basalt with hoops, from the New Kingdom, the ratio between inner and outer volume is 0.74.¹⁴ A constant ratio is a plausible and convenient simplification. For example, in a series of cylindrical vessels in bronze from the 26th Dynasty, the ratio between inner and outer volume is 0.84–0.87.¹⁵ In general, the wall thickness increases with the volume, and the ratio is fairly constant.

As indicated in table 1, the inner volumes of the cylinders from the 8th to the 14th can be ascribed to the *hekat* capacity system. Percentage deviations from the theoretical values are low, ranging from 0 to 4.5 %, and the volumes of the 13th and 14th cylinder approximate 1/3 and 2/3 of the quadruple *hekat*.

8. POMMERENING 2005, pp. 281–287.

9. The author herself is perplexed by the lack of a 1-*hekat* vessel in her model: POMMERENING 2005, pp. 286–287.

10. Cooper's attempt of correcting Pommerening's results to include measures of 1, 4, and 10 *hekat* implies a different scale ratio: COOPER 2010, pp. 21–22. Reductions in size are implied also in the attempt of estimation by Walter F. Reineke (2014, pp. 94–95), who assumed that the 14th cylinder represented a 4-*hekat* vessel. The 4-*hekat* vessel is the 13th according to T. Pommerening (2005, p. 286); the 12th according to Leon Cooper (2010, p. 22). Approximate scale factors: Reineke 0.8–0.9; Pommerening 0.6–0.7; Cooper 0.55–0.65.

11. MIATELLO 2018, pp. 129–135.

12. The outer volumes are those estimated by T. Pommerening (2005, p. 284, Tab. D01.a). Slightly greater accuracy in the estimations could derive from the original drawing, executed at the scale of 1:5 (QUIBELL 1913, p. 18), but the drawing is not present in Quibell's archive at the Università degli Studi di Milano, as a curator informed me.

13. MIATELLO 2018, pp. 131–132, Tab. 1–2. On the volume of 4,800 cm³ for the *hekat*: POMMERENING 2005, pp. 136–139.

14. London British Museum EA 29205: POMMERENING 2005, p. 364.

15. London Science Museum, Inv. 1935-467/1-3: PETRIE 1926, p. 36 (5, 10, 18), p. 37 (5, 10, 18), pl. 21 (5/77, 10/78, 18/79); POMMERENING 2005, pp. 378–379 (M37–M39).

With regard to the last two cylinders on the two rows, the hieroglyph depicted twice in the middle is presumably the sealed-scroll sign (Gardiner's sign list Y2), which here probably indicates a common correspondence, or a sum.¹⁶ In fact, the sum of the last two cylinders on each row is the quadruple *hekat*, which is the capacity of the 15th cylinder. The cylinders from the 8th to the 11th may have been also used in experiments involving sums of capacity measures: their sum is 1 *hekat*. The sum of the fractions 1/16 and 1/64 is found often in New Kingdom medical papyri.¹⁷

	Average inner volume	Hekat of 4,800cm ³	4 hekat of 19,200cm ³	Error %
Cylinder 8	367.2	1/16 + 1/64		- 2.1 %
Cylinder 9	799.0	1/8 + 1/32 + 1/64		- 3.3 %
Cylinder 10	1,146.0	1/4	1/16	- 4.5 %
Cylinder 11	2,400.0	1/2	1/8	0.0 %
Cylinder 12	4,800.0	1	1/4	0.0 %
Cylinder 13	6,567.1	1 + 1/3	1/3	+ 2.6 %
Cylinder 14	12,508.0	2 + 2/3	2/3	- 2.3 %

Tab. 1. Estimated inner volumes of the cylinders from the 8th to the 14th.

Another possible experiment concerns the 8th and 10th vessels, whose capacities add up approximately to 1/3 *hekat*: $1/4 + 1/16 + 1/64 \approx 1/3$. The volume of the 13th cylinder ($= 1 + 1/3$ *hekat*) corresponds to the sum of the volumes of the 8th, 10th, and 12th cylinder. The value of 1/3 *hekat* is inscribed in offering lists of the Second Dynasty,¹⁸ and its equivalence with sums of dyadic fractions and *rw*-parts appears in Middle Kingdom sources.¹⁹

My estimations are supported also by a new interpretation of the two leftmost rectangular elements in figure 1, which contain a series of vertical strips.²⁰

16. J.E. Quibell (1913, p. 26) identified the hieroglyph AA29, but the sign is identical to Old Kingdom attestations of the sealed-scroll sign.

17. POMMERENING 2005, p. 379, n. 58; the author attributes the capacity of 1/16 + 1/64 *oipe* to the vessel in bronze London Science Museum Inv. 1935-467/1.

18. POMMERENING 2005, p. 106 (T5.003), p. 107 (T5.006).

19. See the expression of 1/3 *hekat* in hieratic in the wooden tablets Cairo CG 25367-8: VYMAZALOVÁ 2002, pp. 29–31.

20. QUIBELL 1913, pp. 23–25, pl. 16 (16–17).

THE IDENTIFICATION OF A 15TH CYLINDER AND A STAGGERING IMAGE IN CROSS-SECTION

Figure 2, left, shows an image of the upper rectangle from J.E. Quibell,²¹ who interpreted conditionally these representations as looms.²² Each rectangle contains 30 vertical strips; black lunettes are depicted along oblique lines, and there are also horizontal strips at the bottom. All of these features indicate that the rectangular element is an image in cross-section of fifteen cylinders inserted one inside the other.²³

The image of figure 2, right, which I have constructed using the size of the fourteen cylinders, leaves no doubts of interpretation: the fourteen containers on each row could be stored within a 15th cylinder.²⁴ In the tomb painting the spaces between the cylinders are supposed equal for simplicity's sake. On the right half of the rectangle there may be also two blades that simulate the cut of the vessels: the concept of cross section was probably derived from that of "rip cut" in woodworking.

Considering the dimensions of the 15th cylinder on the basis of the scale ratio of 1:11 used by J.E. Quibell in his drawings, it is possible to estimate its inner volume, which corresponds to 4 *hekat*: inner height 32.6cm; inner diameter 27.4cm; volume $19,222\text{cm}^3 = 4 \text{ hekat}$. All four large rectangles on the left side of figure 1 are practically the same size.²⁵ The two with a fringed cloth depict the 15th cylinder in profile, as the fourteen containers on the two rows. A central hoop is painted black on the middle of the upper rectangle. The cloth could be the hieroglyph of the mantle, Gardiner's sign list S25.²⁶ "Mantle" (*jɜ*, or *jɜ'*) would be a technical term to indicate the outermost cylinder.²⁷

Returning to the two images in cross-section of fifteen cylinders, table 2 shows the estimation of the space between the cylinders inserted one inside the other, with hypothetical inner diameters and heights in compliance with the inner volumes in figure 1.²⁸

	Average outer height (cm)	Average outer diameter (cm)	Inner height (cm)	Inner diameter (cm)	Wall thickness (cm)	Space between cylinders (cm)
Cylinder 15	33.30	28.40	32.60	27.40	0.50	-
Cylinder 14	28.87	25.57	28.01	23.85	0.86	+ 1.83
Cylinder 13	25.30	19.80	24.62	18.44	0.68	+ 4.05
Cylinder 12	22.00	18.15	21.40	16.95	0.60	+ 0.29

21. QUIBELL 1913, pl. 12 (16), pl. 16 (16).

22. QUIBELL 1913, pp. 24–25.

23. MIATELLO 2018, pp. 132–133.

24. In the enclosure wall of the pyramid of Djoser there are fourteen dummy gates and a 15th actual door: MIATELLO 2010, p. II.

25. There is only a small discrepancy in the height of the lower rectangle with fringed cloth: MIATELLO 2018, p. 133.

26. For different forms of the glyph, which varies greatly, even during the Old Kingdom: GARDINER 1915, pp. II7–II9, pl. II.

27. On *jɜ*, *jɜ'*: ERMAN, GRAPOW 1971, p. 27 (15), p. 40 (4); VAN WALSEM 1998, pp. 1479–1485.

28. Space between cylinders n and n-1 = (inner diameter cylinder n) - (outer diameter cylinder n-1). The thickness at the base is assumed to be equal to the wall thickness.

	Average outer height (cm)	Average outer diameter (cm)	Inner height (cm)	Inner diameter (cm)	Wall thickness (cm)	Space between cylinders (cm)
Cylinder 11	18.42	14.02	17.94	13.06	0.48	+ 2.93
Cylinder 10	14.30	11.00	13.92	10.24	0.38	+ 2.06
Cylinder 9	12.65	9.76	12.32	9.10	0.33	+ 0.48
Cylinder 8	9.35	7.70	9.09	7.18	0.26	+ 1.40
Cylinder 7	7.97	7.15	7.73	6.67	0.24	+ 0.03
Cylinder 6	7.15	6.32	6.94	5.90	0.21	+ 0.35
Cylinder 5	6.05	4.95	5.87	4.59	0.18	+ 0.95
Cylinder 4	4.95	4.54	4.79	4.22	0.16	+ 0.05
Cylinder 3	3.85	4.40	3.71	4.12	0.14	- 0.18
Cylinder 2	3.85	3.85	3.72	3.59	0.13	+ 0.27
Cylinder 1	3.30	3.57	3.19	3.35	0.11	+ 0.02

Tab. 2. Estimation of the space between the cylinders inserted one inside the other.

Only the 3rd cylinder presents a negative value, but it is small. Some positive values are also relatively small, which would hinder the vessel's insertion in consideration of the hoops. However, the hoops were probably decorative and/or reinforcing strips of leather, whose thickness could be thinner than in the painting.

We have seen that the cylinders from the 8th to the 14th, and a 15th cylinder drawn separately, can be attributed to the *hekāt* capacity system. A different explanation concerns the first seven cylinders on the two rows.

THE CYLINDERS FROM THE 1ST TO THE 7TH

I would propose two possible solutions. The first hypothesis is that they represent *rw*-parts. The second is that the 7th cylinder of volume 270cm^3 represents an *a*-portion, with the other six cylinders constructed as fractions of it. Table 3 shows the estimated average inner volume of the cylinders, with corresponding quantities in *rw*-parts and *a*-portions. Percentage deviations are practically identical in the two hypotheses. The offering table depicted twice between the 7th and 8th cylinder could have the function of logical separator between the other seven cylinders, which belong to the *hekāt* capacity system.

	Average inner volume (cm^3)	<i>r</i> -part of 15cm^3	Error %	<i>a</i> -portion of 270cm^3	Error %
Cylinder 1	28.1	2	- 6.3 %	$1/9$	- 6.3 %
Cylinder 2	37.8	$2 + 1/2$	+ 0.8 %	$1/7$	- 2.0 %
Cylinder 3	49.3	3	+ 9.6 %	$1/6$	+ 9.6 %
Cylinder 4	67.6	$4 + 1/2$	+ 0.1 %	$1/4$	+ 0.1 %

	Average inner volume (cm ³)	r-part of 15cm ³	Error %	α -portion of 270cm ³	Error %
Cylinder 5	98.2	6	+ 9.1 %	1/3	+ 9.1 %
Cylinder 6	190.0	12	+ 5.6 %	2/3	+ 5.6 %
Cylinder 7	270.1	18	0.0 %	1	0.0 %

Tab. 3. Estimated inner volumes of the cylinders from the 1st to the 7th.

The *r*-system, with *r* defined as the 320th part of the *hekut*, is not attested before the Middle Kingdom, but there is evidence that it was in use already in the Old Kingdom. In fact, the hieratic sign for 1/16 *hekut* in the 4th Dynasty papyri from Gebelein is clearly constructed as *r*-20, and the sign for 1/32 as *r*-10.²⁹

On the other hand, vessels identified by the forearm sign, Gardiner's sign list D36, are attested as early as the Archaic Period.³⁰ W.M.F. Petrie and others in the last century suggested that the *a*-portion was a capacity measure of about 260cm³, corresponding to the volume formed by the cupped hands.³¹ Even if there were *a*-vessels of different capacity and shape, it is plausible to assume that a volume of about 260–270cm³ was attributed to the *a*-portion in the Archaic Period.³²

The two hypotheses are not necessarily alternative: the 7th cylinder could represent both an *a*-portion and 18 *rw*-parts. As pointed out by Otto Neugebauer, the *r* measure is peculiar for its large partitioning.³³ Why was the *hekut* subdivided into 320 *rw*-parts, instead of 64, which is the reciprocal of its smallest dyadic fraction? A possible explanation is that the *a*-portion of 260–270cm³, that is, 1/18 of the *hekut*, was subdivided into 18 *rw*-parts. The *r*-part of 15cm³ (= 270/18cm³) would have been created originally for the *a*-portion, and then applied to the *hekut*.

THE 12TH CYLINDER OF 1 HEKAT AND THE AREA OF A CIRCLE

Returning to the hypothesis that the 12th cylinder represents a container of 4,800cm³, that is, 1 *hekut*, it is noteworthy that with that volume the inner diameter is 9 fingers (= 16.9cm), and the inner height 11.5 fingers (= 21.4cm). These values would have defined a standard vessel of 1 *hekut*.³⁴ In fact, the volume of the *hekut* corresponds to the cube of 9 fingers, that is, 729 cubic fingers.³⁵ That the volume of the *hekut* was calculated in fingers is suggested also by the corn-measure sign with the finger on top (Gardiner's sign list U12).³⁶ Knowing that 1 *hekut* is equivalent to 729 cubic

29. NEUGEBAUER 1930, pp. 47–48.

30. KAHL 2002, pp. 69–70; LACAU, LAUER 1965, pp. 29–30, p. 28 (38), pl. 20 (7); MIATELLO 2019, pp. 179–181.

31. MESNIL DU BOISSON 1935, p. 57; PETRIE 1937, p. 31 (8), pl. 45 (8).

32. MIATELLO 2019, pp. 174–182.

33. NEUGEBAUER 1930, p. 45.

34. MIATELLO 2018, pp. 129, 134.

35. The finger is 1/28 of the cubit (= ca. 52.4cm), i.e., 1.87cm.

36. The hieroglyph is attested in the tomb of Puyemra, from the Eighteenth Dynasty (DAVIES 1922, p. 87, pl. 36). An example in hieratic from the Middle Kingdom (Moscow mathematical papyrus, no. 22, line 1): .

ingers, the construction of a cylindrical container of diameter 9 fingers and height 11.5 fingers would have allowed to calculate immediately the area of a circle of diameter 9.³⁷ In fact, the division of 729 cubic fingers by 11.5 fingers yields 63.4 square fingers. With this result, the area of a circle of diameter 9 can be approximated by the square of 8, as shown in the Rhind Mathematical Papyrus.³⁸ The squaring of the circle is described first in problem no. 41 of the papyrus, which deals with the calculation of a cylindrical granary of diameter 9.³⁹ The equivalence between the cubic cubit and 30 *hekat*, which is proposed in the problem text, was probably obtained from calculations in fingers.⁴⁰ Further evidence can be found in religious texts.

THE HEKAT AND THE FULLNESS OF THE EYE OF HORUS

In spell 359 of the Pyramid Texts and spells 396–398 of the Coffin Texts, the deceased, to be transported by the celestial ferryman, must solve a test of competence, numbering the fingers with reference to the eye of Horus. As I proposed in a recent examination of the texts, the final picture of the ritual of finger-counting is apparently a rebus, with the solution “729” (fingers) referred to the volume of the *hekat*, symbolic of the complete eye.⁴¹

CONCLUSIONS

A new approach is proposed in this paper to estimate the capacity of the cylindrical vessels depicted in a wall painting of the tomb of Hesyra: the cylinders are assumed to be drawn full size, and their inner volumes are estimated on the basis of the identification of a 1-*hekat* container. The proposed model would provide new insights into the technical knowledge of that time.

37. Once the diameter of a cylinder was defined, the height could be determined empirically, removing successively circular layers of material from a trial block. In inscriptions on vessels from the pyramid of Djoser, the diameter is *hr*, literally “upon”, while the height is ‘*b*’ (LACAU, LAUER 1965, pp. 25–27), which in Middle Kingdom mathematical papyri is a quantity to be determined.

38. MIATELLO 2018, p. 129.

39. MIATELLO 2018, pp. 127–29.

40. MIATELLO 2018, p. 128. Cubic cubit = 28^3 cubic fingers = 21,952 cubic fingers; 729 cubic fingers × 30 = 21,870 cubic fingers.

41. MIATELLO 2020, pp. 91–108.

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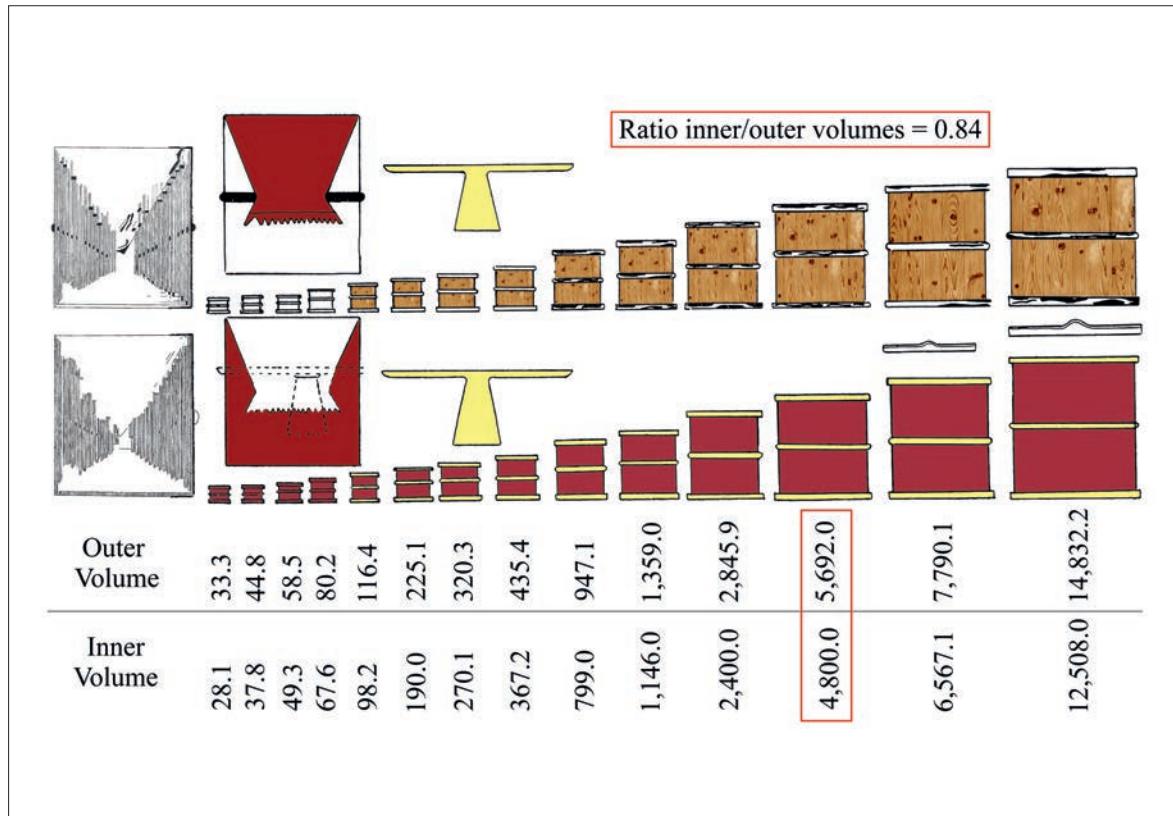


Fig. 1. Tomb painting with cylindrical measuring vessels. Drawing after J.E. Quibell.
Indicative colours and average volumes added by the author.

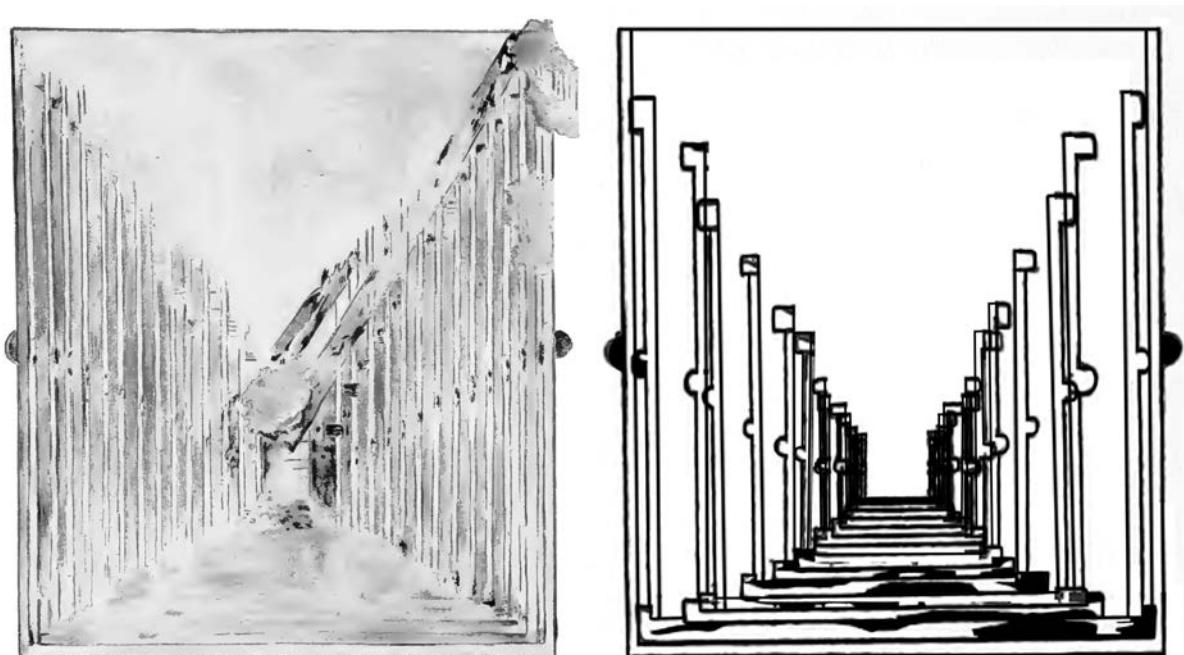


Fig. 2. Rectangular element in the tomb painting, from J.E. Quibell (left).
Cross-section of the cylinders inserted one inside the other, executed by the author (right).

The Sharing of Ideas

The Position of Belgian Egyptology in Western Intellectual History 1900–1950

RESEARCH into the history of Egyptology as an academic discipline is increasing. In recent years, attempts have been made to trace the intellectual evolution of the discipline in the context of wider cultural developments. In Belgium, an interdisciplinary research project entitled 'Pyramids and Progress. Belgian Expansionism and the Making of Egyptology, 1830–1952' (P&P) has been launched, which studies the development of Belgian Egyptology in the context of the country's industrial and political expansionism towards Egypt.¹ This paper presents the framework and objectives of a research component of the project that aims to define in which theoretical currents the emerging discipline in Belgium operated in the first half of the twentieth century.²

DISCIPLINARY HISTORIES OF EGYPTOLOGY IN SOCIO-POLITICAL CONTEXTS

It is only in recent years that the history of Egyptology has become a scientific research field in its own right. With the rise of this research area, debate has started on what effectively constitutes Egyptology.³ Amongst professionals, no agreement has been reached yet and the definition still seems to be open.⁴ Since Egyptology itself is poorly defined, it comes as no surprise that the history of Egyptology is poorly defined as well, and hence scholars started to speak of 'histories' of 'Egyptologies'.⁵ In the short period of its existence, contributions to this expanding research area have deployed multiple approaches. The subject can be addressed from a number of different perspectives and by using a variety of methodologies.⁶ Earlier works on the history of Egyptology

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3. CARRUTHERS (ed.) 2015.

4. GERTZEN 2020, p. 189.

5. CARRUTHERS 2015; GERTZEN 2020, p. 189; BEDNARSKI 2020, p. 33.

6. BEDNARSKI 2019, p. 21; NAVRATILOVA et al. (eds.) 2019.

usually focused on the accounts of early travellers, the period of the great discoveries and their protagonists, on (auto)biographies of Egyptologists and the effects of Pharaonic visual culture on the West (Egyptomania).⁷ More recent research, however, attempts to trace the intellectual evolution of Egyptology against the background of broader cultural developments, also paying attention to Egyptian researchers.⁸ Within the broadly construed history of Egyptology a sub-area of scientific studies specifically focusing on the history of Egyptology as an academic discipline is accordingly emerging. A number of these studies in this sub-area have paid particular attention to socio-political regional and national contexts.⁹ In Belgium, a similar new interdisciplinary project has now been set up to investigate the development of Egyptology within the Belgian socio-economic and political context.¹⁰

PYRAMIDS AND PROGRESS: BELGIAN EXPANSIONISM AND THE MAKING OF EGYPTOLOGY, 1830–1952

The P&P project, launched in 2018, is carried out by a consortium of five Belgian institutions studying the development of Egyptology as an academic discipline in Belgium within the context of the country's industrial and political expansionism towards Egypt.¹¹ The starting point of the timeframe of the project is the year the Belgian state was founded.¹² The Belgian Revolution (August 25, 1830–August 12, 1831), which led to the secession of the southern provinces from the United Kingdom of the Netherlands and the establishment of an independent Kingdom of Belgium, had major consequences for both the Dutch and the Belgians, also from an Egyptological perspective. For the *Rijksmuseum van Oudheden* (Dutch National Museum of Antiquities) in Leiden, the golden age of acquiring antiquities came to an abrupt end.¹³ However, the collection of Egyptian antiquities and the university library secured the continuity of Egyptology in the Netherlands, while the new independent country lacked resources and instruction for Egyptological research.¹⁴ As a consequence, there was a long collection-oriented focus in Belgium and Egyptology was only formalized as an academic discipline in the early twentieth century, long after chairs in Egyptology had been established across Europe. The academic discipline did not develop in a vacuum, but was strongly tied to the specific socio-economic and political relations between Belgium and Egypt during the 19th and early 20th centuries.¹⁵ Due to this relatively late, but remarkably rapid, emergence of Belgian Egyptology,

7. E.g. for Belgian Egyptomania, see WARMENBOL 2012.

8. Ground-breaking publications for this approach are REID 2002; REID 2015.

9. Pioneering studies to such disciplinary histories of Egyptology are e.g. SCHIPPER (ed.) 2006; GERTZEN 2015; VOSS, RAUE 2016.

10. See DE MEYER et al. 2019. See also the contributions by C. De Meyer and A. Van der Perre in this volume.

11. KU Leuven (PI), Ghent University, Université libre de Bruxelles (ULB), the Royal Museums of Art and History and the *Musée royal de Mariemont*.

12. The new Belgian state came to pursue expansionist policies in a playing field that was increasingly dominated by the opportunities created by the British occupation of Egypt, which only ended with the revolution of 1952, hence the period of 1830–1952 was chosen for the project.

13. HALBERTSMA 2003, pp. 125, 137–139.

14. WARMENBOL 2012, p. 170; BRUFFAERTS 2021.

15. DE MEYER et al. 2019, p. 173.

is is likely that theoretical developments were imported not only from Egyptological schools abroad but also from other disciplines that were flourishing at the end of the 19th century, such as archaeology, social anthropology and history of religion. In close collaboration with other research strands within the project, the research introduced in this paper aims to define which theoretical currents had an impact on Belgian Egyptology in the first decades of its institutionalization in the early 20th century. An attempt is made to identify to which theoretical currents Belgian Egyptology was most receptive, both in relation to European Egyptological schools (the so-called Petrie School in the United Kingdom, the Berlin School in Germany, and the school of Maspero at the Sorbonne in France) and to theorists outside of the field of Egyptology (such as British social anthropologists and French sociologists, historians of religion).

THE RISE OF EGYPTOLOGY AS AN ACADEMIC DISCIPLINE IN BELGIUM

In Belgium, the turning point towards Egyptology as a scientific discipline came with Jean Capart (1877-1947). As no Egyptological education was yet available in the country, Capart first studied Law, in which he obtained a PhD in 1898.¹⁶ Only after winning a travel grant subsequent to this, Capart was able to go abroad to study Egyptology. Rather than going to one place, he traveled across Europe to study with some of the great Egyptologists of his time: Pieter Adriaan Aart Boeser in Leiden, Alfred Wiedemann in Bonn, Gaston Maspero in Paris, and Sir William Matthew Flinders Petrie in London. After returning to Belgium, Capart became the first curator of the Egyptian department of the Royal Museums of Art and History in Brussels and in 1902 occupied the first Belgian lectureship in Egyptology at the University of Liège. Later he commenced the first excavations in Egypt and he founded the *Fondation Égyptologique Reine Élisabeth* (FÉRÉ). His wide range of endeavors led to a growing Egyptological community in Belgium and successfully placed the country on the map as a centre of Egyptology. These impressive achievements ensure that Capart is rightly regarded as the founding father of Belgian Egyptology.

THE SHARING OF IDEAS

Besides their different nationalities, the scholars who served as a model for Capart all had different theoretical backgrounds. Their academic backgrounds must have exerted great influence on his thinking, and indirectly on that of his own students. Already during his law school period, Capart started to network with Egyptologists abroad and due to his trip across Europe his social network grew extensively. The young scholar stayed in close contact with his mentors and other scholars with whom he was sharing ideas on issues, objects and (their) interpretations through exchanges of letters. From archives and his publications, it becomes clear that Capart was not only sharing ideas with Egyptologists, but also with theorists from outside of the field of Egyptology. While studying law at the ULB, Capart seems to have attended classes of the Belgian Professor of the history of religions Eugène Goblet d'Alviella (1846–1925), who was rector of the same

¹⁶ WARMENBOL 2012, pp. 585–605; BRUFFAERTS 2013.

university from 1896 to 1898.¹⁷ In his works, Goblet d'Alviella refers frequently to Maspero and to Herbert Spencer (1820–1903), the English philosopher-scientist principally responsible for the introduction of evolutionary thinking into scientific discourse. Already in his first Egyptological article, *Le Double d'après Maspero*,¹⁸ published in 1896 during his law studies, Capart followed up on work of Maspero and linked his work to the social sciences and anthropology by referring to anthropologists and quoting Spencer. Indeed, in this article, he also refers to a work of Goblet d'Alviella on the history of religion.¹⁹ Capart's later teacher and lifelong friend Petrie explicitly linked his work in Egypt to broader theories of human development.²⁰ Petrie was deeply influenced by the theories of the eugenics pioneer Sir Francis Galton (1822–1911), whose close working relationship developed into a deeply personal one.²¹ Petrie often explained changes in society in evolutionary and racial terms.²² Capart became his student in 1899 and the two remained close colleagues till Petrie's death in 1942. Encouraged by Petrie, Capart managed to convince the Belgian government to subscribe to the excavations carried out in Egypt by various organisations such as the Egypt Exploration Fund (EEF).²³ To negotiate the share for the museum, Capart travelled regularly to London. He dedicated *Les débuts de l'Art en Égypte* (1904) to his teacher and even translated one of Petrie's works into French.²⁴ In the preface to the English translation of *Les débuts, Primitive Art in Egypt* (1905), Capart states that the works of English ethnologists, more especially of Sir John Lubbock, Sir Edward Burnett Tylor, Andrew Lang, Alfred Cort Haddon, Sir James George Frazer, Sir Walter Baldwin Spencer, and Francis James Gillen, "were the first to draw attention to a whole series of problems of the greatest importance for a study of the origin of Art".²⁵ Each of the scholars mentioned made significant contributions to archaeology, ethnography, and several branches of biology. In the English edition Capart confesses: "In submitting my work to the English-speaking public, I am aware that those points which ensured its originality for the French public may perhaps give the book the appearance of a compilation, borrowed from the works of English scholars."²⁶ As these examples have demonstrated, Capart undoubtedly imposed templates on the pharaonic evidence that were originally developed in the social sciences and other human sciences by scholars who had at the time made only little impact in French-speaking Egyptology.

In my current research, I have so far concentrated on Capart, but future research will also focus on other Belgian Egyptologists. Through literature study, archival research and analysis an attempt is made to identify all relevant actors and their research themes as well as their (correspondence) networks. Next, the objective is to place the key themes of Egyptological research within the context of the then current academic debates and approaches in the human sciences. How were Belgian

17. WARMENBOL, BRUFFAERTS 2011; WARMENBOL 1995. For an extensive work on Goblet d'Alviella, see DIERKENS (ed.) 1995.

18. CAPART 1896.

19. GOBLET D'ALVIELLA 1892.

20. HOWLEY, NYORD 2018, p. vi.

21. SHEPPARD 2010; CHALLIS 2013.

22. SILBERMAN 1991, pp. 80–81.

23. VAN DER PERRE 2023.

24. PETRIE 1912.

25. CAPART 1905, p. vii.

26. *Ibid.*

Egyptologists in the first half of the 20th century influenced by intellectual trends in Egyptology and in the human sciences at large and by whom? In turn, how did they influence intellectual trends in Egyptology and in the human sciences at large?

CONCLUSIONS

Attempts to trace the genealogies of theories and schools of thought in Egyptology are rare. Yet works of Egyptologists, often unconsciously, impose templates on the pharaonic evidence that were originally developed in the social sciences and other human sciences. Such theories were unwittingly transmitted in the discipline until quite recently, and recognizing them is of direct relevance to understand the development of Egyptology. It will be highly rewarding to place Belgian Egyptology of the period investigated in the broader context of developments in the humanities and the social sciences. The research conducted so far indeed confirms the adoption, both implicit and explicit, of mental templates from other fields such as anthropology in Belgian Egyptological writings. The founding father Capart received training of different Egyptological schools of thought. Through a transnational and interdisciplinary network, he was in contact with a range of scholars from various disciplines. Their connections led to a sharing of ideas. As first professor of Egyptology in Belgium, Capart subsequently taught for more than a quarter of a century, training the first generations of Belgian Egyptologists. Consequently, he could be considered as the funnel through which different theoretical backgrounds were passed on to the succeeding scholars.

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Non-invasive Investigation of the Meidum Geese Painting

New Insights from an Old kingdom Remarkable Masterpiece

THE MASTABA OF ITET (a joint tomb with Itet's husband, Nefermaat, a vizier of the reign of King Snefru) contained a decoration in an unusual style, with the shapes deeply cut out and filled with paste. Its decoration includes some of the oldest known painted scenes in Egypt. Nefermaat's tomb is famous for the scene referred to as the "Meidum Geese" (now in the Egyptian Museum, JE 34571/CG 1742). Discovered in 1871 by Auguste Mariette and Luigi Vassalli, the scene was executed in painted plaster.¹ The painting was removed from the wall in order to be reassembled inside the Bulaq Museum. The tomb of Nefermaat and Itet was cleared by Mariette in the 1870s but its reliefs were not recorded systematically until 1892, as a result of Petrie's work at Meidum.²

The full scene depicts six geese (graylag, greater white-fronted and red-breasted geese), three pointing to the left and three pointing to the right. Each group of three geese consists of one goose shown with head bowed down, eating, and two geese with heads held up. This example of Egyptian painting is considered a master piece. The geese were depicted below a scene showing men trapping birds in a clap net and offering them to the tomb's owner. While it is not uncommon to find scenes of fowling in the marshes in Old Kingdom tombs, this example is one of the earliest and is notable for the extraordinary quality of the painting. The artist took great care in rendering the colors and textures of the birds' feathers and even included serrated bills on the two geese bending to graze.

Various kinds (species) of geese depicted in the painting, white-fronted geese (*Anser albifrons*), red-breasted goose (*Branta ruficollis*), and bean goose (*Anser fabalis*). In addition, an Egyptian vulture (*Neophron percnopterus*) was depicted in another piece from the same wall painting of the tomb. Both are preserved and displayed together at the Egyptian museum.

This research aims to provide high resolution documentation and visual examination of the painting through implementation of various advanced imaging techniques. Furthermore, preliminary scientific investigation of the painting materials and techniques was accomplished. The non-invasive scientific investigation of the painting materials and techniques was accomplished through the use of microscopic investigation, which revealed the paintings' layers structure. The portable

1. Mariette excavation, 1871.

2. PETRIE 1892.

X-Ray Fluorescence (XRF) was used to identify any pigments used in the Meidum painting. This information provides the essential groundwork for a better scientific understanding of the painting specifics and its current preservation condition.

1. MATERIALS AND METHODS

1.1. DIGITAL IMAGING

High resolution imaging was used for the documentation of the painting and its details. High resolution representative digital images were created following the standard guidelines for the digital imaging of museum objects.³ A DSLR Canon 5D Mark III camera equipped with 24–70mm and 100mm micro lenses were used for the general and detailed images respectively. In order to ensure optimal and even lighting for the imaging of the painting and to avoid reflections and shadows, the painting glass cover was removed during the imaging, and two light sources covered with light diffusers provided the required even lighting conditions for the imaging. To ensure best color management, and to achieve precise colors representation in the digital images, a standard color target (X-rite color checker) was included in all images, then all images were processed accordingly, using the Color checker and Adobe Photoshop softwares. Two copies of the master images were saved as a reference while digital derivates in various formats were created for various usages.

1.2. INFRARED (IR) IMAGING

IR imaging is usually used for the primary investigation of painting details through the characteristic reactions (absorbance or reflection) of the colorant materials in the paintings when exposed to the IR lighting. Some materials/pigments reflect light more than others and therefore appear whiter, while other materials/pigments absorb light and appear darker.⁴ IR imaging was used to reveal very fine details of the paintings and any original corrections or underdrawings of the paintings, IR imaging could enhance the visualization of some of the details of the faded pigments, and to verify any new conservation retouching additions with different coloring materials.⁵ A Sony camera (ILCE-5000 with E16-50mm lens) and a LED infrared lamp were used for the IR imaging.

1.3. ULTRAVIOLET (UV) IMAGING

Ultraviolet fluorescence (UVF) imaging has been used for the surface examination of paintings as some pigments produce specific fluorescence colors under ultraviolet (UV) lighting.⁶ Two hand-held UV lamps (long-wave 395nm) were used as light sources. A UV filter was used on the lens to cut off any reflected UV light and allow only UV-induced visible fluorescence to reach the camera sensor.

3. WARD A (ed.) 2011; BIGRAS, CHOQUETTE, POWELL 2010.

4. COSENTINO 2016.

5. STUART 2007.

6. STUART 2007.

1.4.

DECORRELATION STRETCH (D-STRETCH)

Decorrelation stretch (D-Stretch) plugin to ImageJ software was developed by Jon Harman (Image Enhancement using D-Stretch 2019) to enrich the colors of rock art paintings in digital images.⁷ As the Meidum painting palette includes many pigments with various colors and shades, D-stretch plugin was implemented with high resolution images to enhance the various colors' details in the painting.

1.5.

LIGHT OPTICAL MICROSCOPE (LOM)

A portative optical light microscope was used in order to reveal details such as grain morphology for the pigments, and the preparation layer. The used device (Dino-Lite Digital Microscope) allows to take high quality photos (from 50 to 250x), even without direct contact with the surface of the object.

1.6.

X-RAY FLUORESCENCE (XRF)

X-ray Fluorescence analysis was conducted using a portable EDXRF spectrometer (Elio Spectrometer, XGlab srl, Milan, Italy). The analysis was performed directly on the painting without any sampling after disassembling the glass cover. Several points for each color (pigment) were analyzed. The following analysis conditions were used.

Measurement settings used to analyze the Meidum geese painting with the portable X-Ray Fluorescence (p-XRF)			
Measurement Time	40,0 s	Elio Device	SN177
Tube Voltage	40 kV	Device Mode	Head
Tube Current	20 µA	Acquisition Mode	Manual
Tube Target Material	Rh	Acquisition Channels	4096
Sample to Detector Material	Air		

2.

RESULTS AND DISCUSSION

2.1.

DIGITAL IMAGING

The images (figs. 1–3) document the most recent condition of the Meidum geese painting. The images show general condition and details of various pigments and painting techniques used in the painting panel. All general and detailed images will be added to the museum database as a visual reference.

7. PIQUETTE 2018.

2.2.

INFRARED (IR) IMAGING

The IR images of the painting revealed some details (figs. 2 and 3) of the painting technique. Brush marks with painting directions were obvious under IR lighting. Painting fine details in the black pigment, such as goose feathers and vulture nails, appears darker and more distinct as it absorbs IR radiation, while the red pigment used for outlines and the yellow pigment used for vulture peek and claws appear transparent as they do not absorb IR radiation. The faded green pigment used for the small plants in the background has been enriched and their details are more evident because they have absorbed the IR radiation. Microcracks in the painting surface were better detected by IR imaging as well.

2.3.

ULTRAVIOLET (UV) IMAGING

The UV images (fig. 1) show some aspects of damage aspects, which resemble aspects of water damage. It appears in the form of dripping stains scattered throughout the painting. This damage might have occurred while the painting was in its original location in the tomb, before it was detached and moved to the museum. The red and yellow colors are most probably, as they appear darker under UV light, such as the reddish outlines.

2.4.

DECORRELATION STRETCH (D-STRETCH)

The D-stretch images (fig. 1) provide highly distinct details of the painting through images with various representative colors. Through these images, all the details of the painting were revealed, including some faded pigments.

2.5.

LIGHT OPTICAL MICROSCOPE (LOM)

A small fragment was separated from the paintings, we had the chance to study the layers under the microscope before fixing them back. The morphology of the pigments and the layers of the painting could then be observed. The first preparation layer consists of clay mixed with straw, which is covered with another white layer of calcium sulfate forming a suitable layer for the painting (fig. 3).

2.6.

X-RAY FLUORESCENCE (XRF)

Through the portable X-ray fluorescence results, the major elements in the various pigments used in the painting were detected. Copper (Cu) was detected as the main element in both blue and green pigments, indicating the use of copper-based pigments to obtain both colors. It is possible that malachite was used as a green pigment. The white pigment used is most probably calcium carbonate, with a relatively high percentage of calcium (Ca) in the white areas. The presence of iron (Fe) as a major element in the red and yellow pigments used in the painting (e.g. the red outlines and yellow used in the vulture, fig. 3) suggests the use of the red ochre and yellow ochre pigments that were widely used during the Old Kingdom.

CONCLUSION

The research provided several visual and scientific investigations that all lead to the fact that the technique and materials used for the painting were almost the same methods and materials used for most of the ancient Egyptian wall paintings (from the Old Kingdom). However, the uniqueness of the painting's design and subject matter at the time reveals a very high quality and professionalism. Extensive scientific research reveals similar painting techniques in other several tombs from the same period. The non-invasive methods used in this preliminary study, including the scientific imaging and the XRF analysis, revealed significant characteristics of the painting and its preservation conditions. The results of both methods, along with the microscopic investigations of the painting layers, show similar characteristics of the painting materials and techniques used in the Old Kingdom. This research provides the first advanced visual and scientific investigations for the Old Kingdom iconic painting that revealed several aspects of the method and materials used for its production; this research is preliminary investigation of the meidum geese painting and further approaches are planned to be used, as they would disclose additional information that would help in understanding the production methods used in the painting and its state of preservation. In addition, studies to improve the display method to highlight the significance of the painting and its historical context are also being considered.

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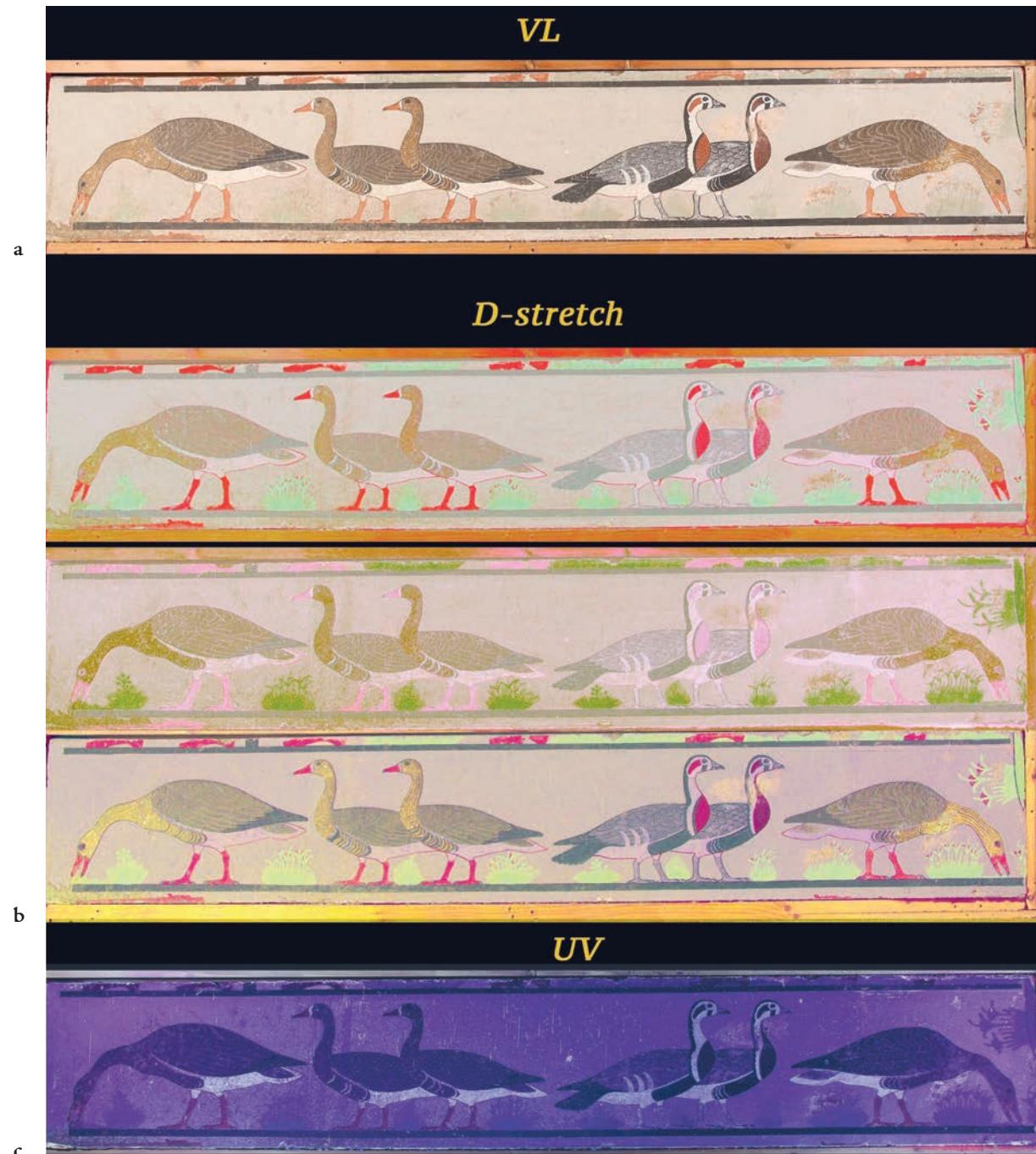


Fig. 1. Images of the Meidum geese painting under visible light (a), ultraviolet (UV) radiation (c), and some of the D-stretch application results (b). The use of various digital imaging techniques revealed several details in the painting. Some damage aspects (e.g., drippings, cracks, and flaking) were clearly noted and recorded under the UV lighting, while various color tones in the D-stretch images highlighted the variety of colors (colorant materials) represented (used) in the painting.

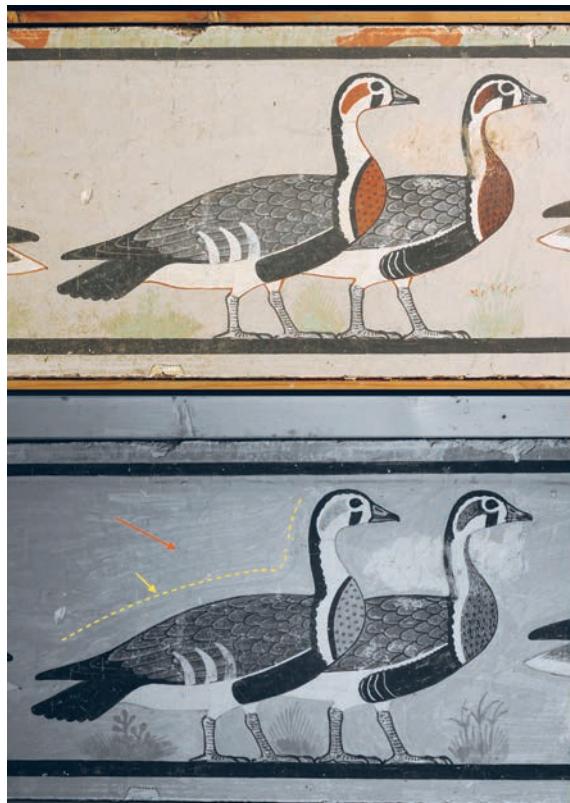


Fig. 2. Meidum gees painting:
a. visible image; b. IR image. Note the brush stroke marks (red arrow) and possible corrections (yellow dotted line).

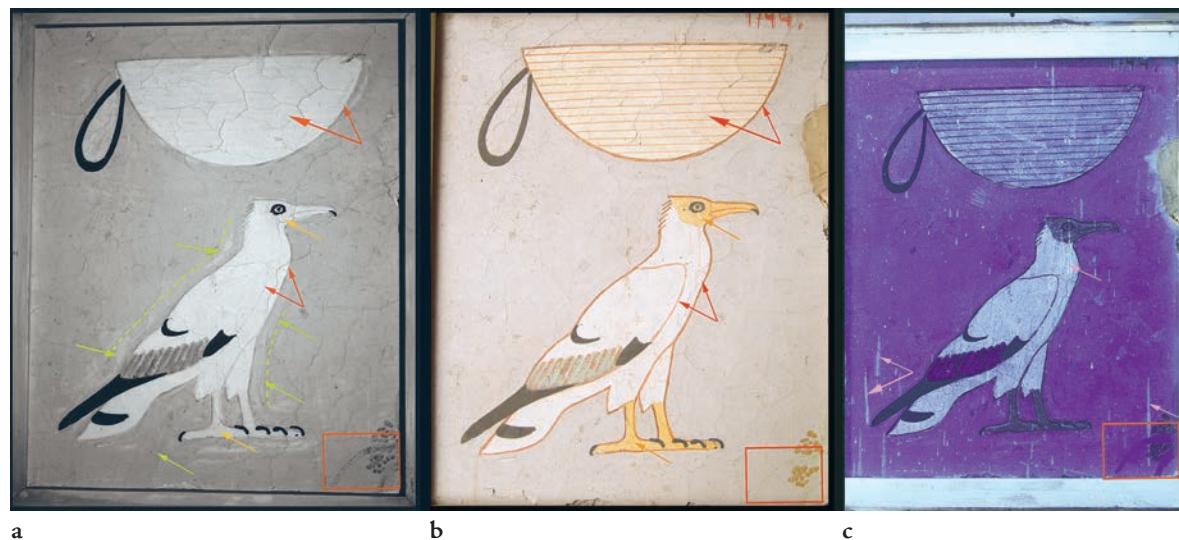


Fig. 3. Visible, IR, and UV images of the vulture fragment. Green lines indicate possible corrections through brush marks visible in the IR image, red outlines are a bit darker in the UV image while being more transparent in the IR image. The yellow color used in the legs and the head appears darker in the UV image. In addition, dripping marks from a possible old water (rain) damage appear in the UV image as well.

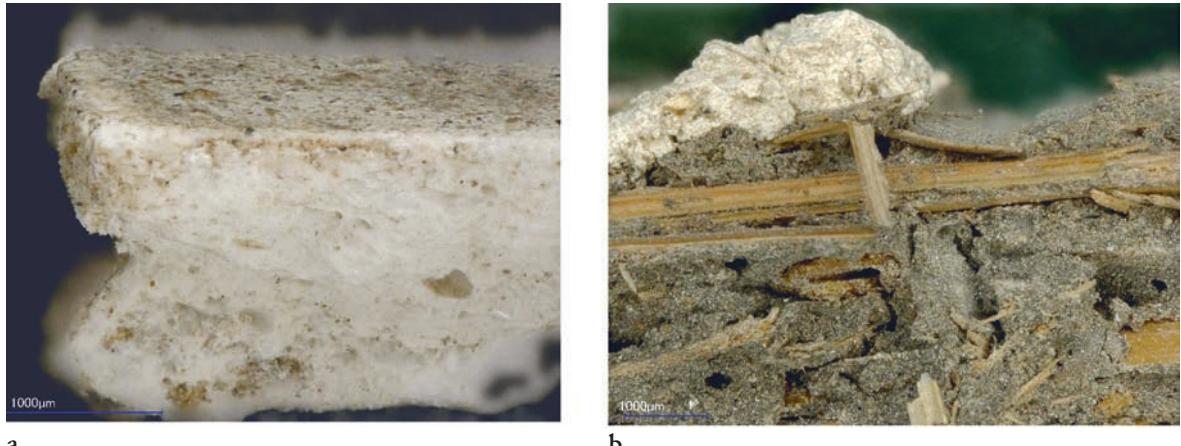


Fig. 4. Cross section samples under microscope show the preparation layers for the painting (a and b).

Egyptian Rock-Cut Temples and the *Speos Artemidos*

A New Interpretative Hypothesis on its Architectural Structure**

DEDICATED to the goddess Pakhet, the monument known as *Speos Artemidos*¹ is a rock-cut temple located in the Eastern Desert, approximately 2 km south of Beni Hassan and not far from the entrance of the Wadi Batn el-Baqara, in an area 4 km wide which had been long known for its limestone quarries.²

The temple was founded in the 18th Dynasty, by the Queen Hatshepsut, daughter of Thutmose I and co-ruler with her stepson, Thutmose III. Hatshepsut's reign lasted some 15 years, approximately between 1473 and 1458 BCE, and the *Speos* was probably constructed during her last regnal years, as a successful completion of her political program.

Subsequently, the temple was not used continuously. There is clear evidence of interventions by the pharaohs Akhenaten and Seti I during the pharaonic era, respectively in the 18th and 19th dynasties. The temple is also mentioned in Ptolemaic and Roman sources,³ and lastly several graffiti were left by Coptic monks who used ancient monuments as temporary shelters.⁴

Jean-François Champollion was the first to identify the temple as the *Speos Artemidos*, in which the lion-headed goddess Pakhet, "She who scratches", was worshipped.⁵

More recently, starting from the 1980s, Susanne Bickel and Jean-Luc Chappaz conducted several archaeological campaigns for the "Fonds de l'Égyptologie de Genève", casting new light on the interventions that the temple underwent over the centuries.⁶

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1. This name was given to it by the Greeks, who associated Pakhet with the Greek huntress goddess Artemis (PIACENTINI 1990, pp. 15–17).

2. RO. KLEMM, DI. KLEMM 2008, p. 77.

3. DREW-BEAR 1979, p. 74.

4. HOLTHOER 1976.

5. CHAMPOLLION 1889, pp. 325–326. For a more exhaustive compendium of past literature see CHAPPAZ 2014.

6. BICKEL, CHAPPAZ 1988; BICKEL, CHAPPAZ 1993; BICKEL, CHAPPAZ 2000; CHAPPAZ 1994; CHAPPAZ 2014.

However, a new analysis of these previous studies, combined with new and more recent data, suggests a new reconstructive hypothesis and a new chronology of the architectural phases of the *Speos Artemidos*.

I. THE SPEOS ARTEMIDOS: GENERAL DESCRIPTION

The temple, with its façade oriented northwards, is T-shaped in plan with two main chambers (fig. 1), entirely cut into a cliff face. The façade featured four Hathoric pillars surmounted by an architrave. Three out of four pillars are still preserved—the fourth has been reconstructed in modern times.

The first room is a transverse vestibule that contained a second row of four pillars, none of which have survived.

A door in the centre of the southern wall of the vestibule gives access, through a narrow corridor, to the second room. This smaller space is a simple square room which constitutes the *naos*. Here, in a small niche excavated in the back wall, the simulacrum of the deity was probably kept. This statue must have been of modest size and was not sculpted from the bedrock, unlike in most other rock-cut temples.

Some niches carved in the other walls of the structure are probably later additions.

I.I. DECORATIONS AND INSCRIPTIONS

Decorated surfaces and inscriptions are not abundant, and the temple seems to have been unfinished. Starting from the outside, we find a dedicatory inscription on the western half of the façade architrave, a relief on both the eastern and western sides of the vestibule's back wall, two more reliefs on the walls of the corridor, and lastly the decorated frame of the niche in the *naos*.

Further decorations cover the pillars—Hathoric capitals on the façade and rough Osiriac figures on the opposite side, while the other sides are covered by inscriptions of Thutmose III and Seti I.

Only the inscription on the façade and the coronation scene on the eastern side of the back wall of the vestibule may be reliably attributed to Hatshepsut, while the other decorations, in particular those in the western half of the vestibule and the reliefs in the corridor, were made by Seti I.

However, the latter also made significant changes to Hatshepsut's coronation scene, after it was partially destroyed during the Amarna Period. This relief currently shows the kneeling figure of Seti I at the moment of his coronation by Amon, who is sitting on a throne. The lioness goddess Pakhet stands behind the king. It is likely that this scene originally depicted the coronation of Hatshepsut in front of Pakhet, with the crowning god Amon sitting behind the queen. The initial presence of Hatshepsut is confirmed by some traces on the relief which predate the final execution and the use of the female gender in the inscriptions accompanying the scene.⁷

Finally, several minor decorative elements can be attributed to the 21st Dynasty.

7. BICKEL, CHAPPAZ 2000, pp. 27–30.

The temple was clearly unfinished and shows a rather asymmetric structure. This asymmetry is particularly visible in the western side of the *Speos*, where the restored pillar is 3m from the side wall of the vestibule (whereas the eastern pillar is 1.72m from the wall).

Furthermore, above the façade, on its western side, there is a steep slope which might have prevented the broadening and harmonization of the façade itself, but not of the vestibule, which was hewn out beneath this slope. It matters little whether this collapse occurred during the building work—either during the initial excavation or during some later intervention—or whether it was already there, because it seems very likely that the façade was produced bearing in mind the limit imposed by this slope.

A further anomaly is constituted by the arrangement of the evidence associated with Hatshepsut, because the inscription and the coronation scene are located on the opposite sides of the temple, although they could have been made in line with one another.

2.

THE CURRENT HYPOTHESIS ON THE STRUCTURE
OF THE TEMPLE UNDER HATSHEPSUT

This evidence has led scholars to suggest a different ground plan for the temple in the original project.

According to Jean-Luc Chappaz,⁸ during Hatshepsut's reign the *Speos Artemidos* may have consisted of an L-shaped hallway leading to a single, small room decorated with the coronation scene. Access from the outside was by means of a still unidentified door, while the façade was a front wall decorated with many steles placed in niches, unlike its current appearance with Hathoric pillars.

Subsequently, Seti I would have modified and enlarged the temple, which took on its current appearance, by opening both the front wall and the *naos*, altering the original architectural layout to create a more symmetrical one.

This hypothesis is mostly based on the aforementioned elements—asymmetry and the arrangement of the Hatshepsut features—and on the lack in other parts of the temple of further connections with the queen. Moreover, J.-L. Chappaz maintains that pillars are peculiar to Seti I's temples (and more generally of those of the Ramesside Period), so their presence may be reliably attributed to this pharaoh rather than to Hatshepsut.

A last supposed affirmation of this hypothesis concerns the mention in Hatshepsut's inscription of two doors installed by the queen.⁹ To explain this passage, J.-L. Chappaz suggests the possible presence of an enclosure in front of the temple, but there is no evidence for such a feature.

3.

A NEW HYPOTHESIS

After this brief analysis of the temple, there are many points that require more detailed reflection.

In my opinion, the structure of the temple during Hatshepsut's reign had only minor, if any, differences compared to its current state.

8. CHAPPAZ 2014.

9. ALLEN 2002, p. 4, pl. I, col. 21.

As mentioned above, the area around the temple had long been used as a limestone quarry, where many “quarries were still mostly set up as gallery quarries. So here, too, it made sense to take over an existing quarry cave and install a rock shrine”.¹⁰ In other words, it is probable that Hatshepsut’s workforce used an already existing cavity to create the vestibule of the temple, exploiting the probable quarry and its pillars and trying to harmonize the structure wherever possible.¹¹ In any case, this intervention did not aim at radically changing the available space, possibly to avoid the structure’s collapse. Hence the lack of perfect symmetry, but much to the advantage of its structural stability.

Moreover, it should be noted that the concept of symmetry cannot be applied automatically to rock-cut temples as it would be to free-standing temples, since certain factors were not under human control and might have affected the construction work—as in the case of the slope above the façade of the *Speos Artemidos*.

With regard to the symmetry of the *Speos Artemidos*, it should be noted that the door granting access to the current corridor is perfectly aligned with the two central pillars. This door constitutes a pivotal element, especially if connected to the two pieces of evidence in the temple associated with Hatshepsut—the inscription on the façade and the relief in the vestibule. These two elements are located on opposite sides of the central axis, and therefore also on either side of the door. They suggest the presence of an opening that existed previously and which guided the monument’s construction, determining the symmetrical broadening of the space on both sides, considering the western limit imposed by the slope.

Given the lack of further evidence of her involvement in the temple, it might be thought that Hatshepsut made only the vestibule, but comparison with at least three other rock-cut shrines made by (or attributed to) Hatshepsut leads to a different conclusion.

The first example is the funerary temple of Hatshepsut at Deir el-Bahari,¹² where there are four rock-cut shrines excavated into the mountainside. Two of them, both located on the second terrace of the temple, match the structure of the *Speos Artemidos*: the Hathor shrine (fig. 2b) and the Anubi shrine (fig. 2c). The architectural structure of the rock-cut part of the former features a vestibule with Hathoric pillars followed by another long, narrow perpendicular chamber, without a corridor between the two rooms.

The Anubi shrine presents a portico with three rows of columns directly linked to the rock-cut portion, which consists of a narrow L-shaped corridor divided into three parts. This structure can be explained by the presence of a pre-existing natural cavity which was left unaltered in plan.

Nevertheless, the structure was given a more harmonic and symmetrical configuration by the construction of a portico.

The presence of pillars and columns in these examples must also be emphasized, because therefore these elements cannot be considered diagnostic of the architecture of a specific sovereign. Anyway,

¹⁰. RO. KLEMM, DI. KLEMM 2008, p. 79.

¹¹. An attempt to convert a quarry into a temple has clearly been made at Gebel Abu Foda (RO. KLEMM, DI. KLEMM 2008, p. 99).

¹². NAVILLE 1894–1908.

it is probable that in the *Speos Artemidos* the Osiriac figures on the inner side of the pillars were added by Seti I; this is suggested by the different quality of their production in comparison to the Hathoric capitals on the front sides.

While the first example is a well-known temple, the second is, on the contrary, a little-known one. It is the *speos* of Gebelein (fig. 2a), recently analysed by the “Gebelein Archaeological Project” team.¹³

This temple possesses a T-shaped ground plan, with a transverse vestibule followed by a corridor, and then a second room with a niche in which the deity’s statue was (originally) carved in the rock. The vestibule bears no traces of decoration, while—although badly damaged—the reliefs in the inner room allow attribution of the temple’s construction to Hatshepsut. Hence the Gebelein *speos* is probably the most similar example, demonstrating that under Hatshepsut the general structure of the *Speos Artemidos* was probably exactly as it is now.

A further example could be the *speos* of Gebel Silsila built by Horemheb,¹⁴ where recent careful investigations have brought to the light a first decorative phase dated to at least at the beginning of the 18th Dynasty, and most likely to Hatshepsut.¹⁵ If this dating were extended to the entire monument, it would constitute another example of a rock-cut temple with a structure very similar to that of the *Speos Artemidos*, furthermore created from an already existing quarry.

Last, but not least, is the issue regarding the doors installed by Hatshepsut.

In the light of the evidence discussed above, it seems more than likely that the temple was conceived in origin with a vestibule linked through a corridor to the *naos*, in which there was a niche containing the simulacrum of the deity. Hence, two doors were needed: the first closing off the corridor, and a second closing and protecting the niche—and in fact the slots of the pivots and door bolts are still visible in both cases.¹⁶ This explanation fits better with the queen’s inscription than J.-L. Chappaz’s hypothesis of the presence of an enclosure.

CONCLUSION

In summary, we may conclude that Seti I was responsible only for minor changes to the structure of the *Speos Artemidos*; the temple we can now admire is thus the result of Hatshepsut’s architects’ project.

This project would have been based on the presence of structures that were already present, in particular the existence of pillars and a cavity in the mountain. This cavity might have been considered sacred or might have been the site of a divine manifestation which called for commemoration by the erection of a majestic monument.

Therefore, on the basis of the limits imposed by the shape of the site—such as the steep slope to the west and also on the right side of the pediment—the structure was extended to the east, in order to create a symmetrical façade and incorporate the supporting elements already in place.

13. TAKÁCS 2020.

14. THIEM 2000.

15. NILSSON, MARTINEZ 2017.

16. CHAPPAZ 2014, p. 169.

This would offer a better explanation of the diagonal disposition of the epigraphic and iconographic evidence left by the queen, which hence occupy the entire space of the vestibule, in an opposing yet symmetrical fashion.

The construction of such a monument in the second half of Hatshepsut's reign suggests a reason for the unfinished state of the temple and for the lack of further epigraphic or iconographic evidence dating from her reign. Nevertheless, the similarity between the *Speos Artemidos* and other contemporary rock-cut temples, as well as the installation of two doors mentioned by Hatshepsut, seem to confirm the original presence of both the corridor and the *naos*.

It should be borne in mind that the last years of Hatshepsut's rule are mostly uncertain, in part due to the *damnatio memoriae* cast on the queen upon her death. By constructing this temple, Hatshepsut tried to obtain the favour of Pakhet, the tutelary deity of the valley and its limestone, while at the peak of her political and building activity. During the mining activities the goddess might have shown her fury through some unexpected event, and this anger needed to be appeased. The grand opening of a new temple, entirely dedicated to Pakhet, might have been the perfect occasion to ask for forgiveness.

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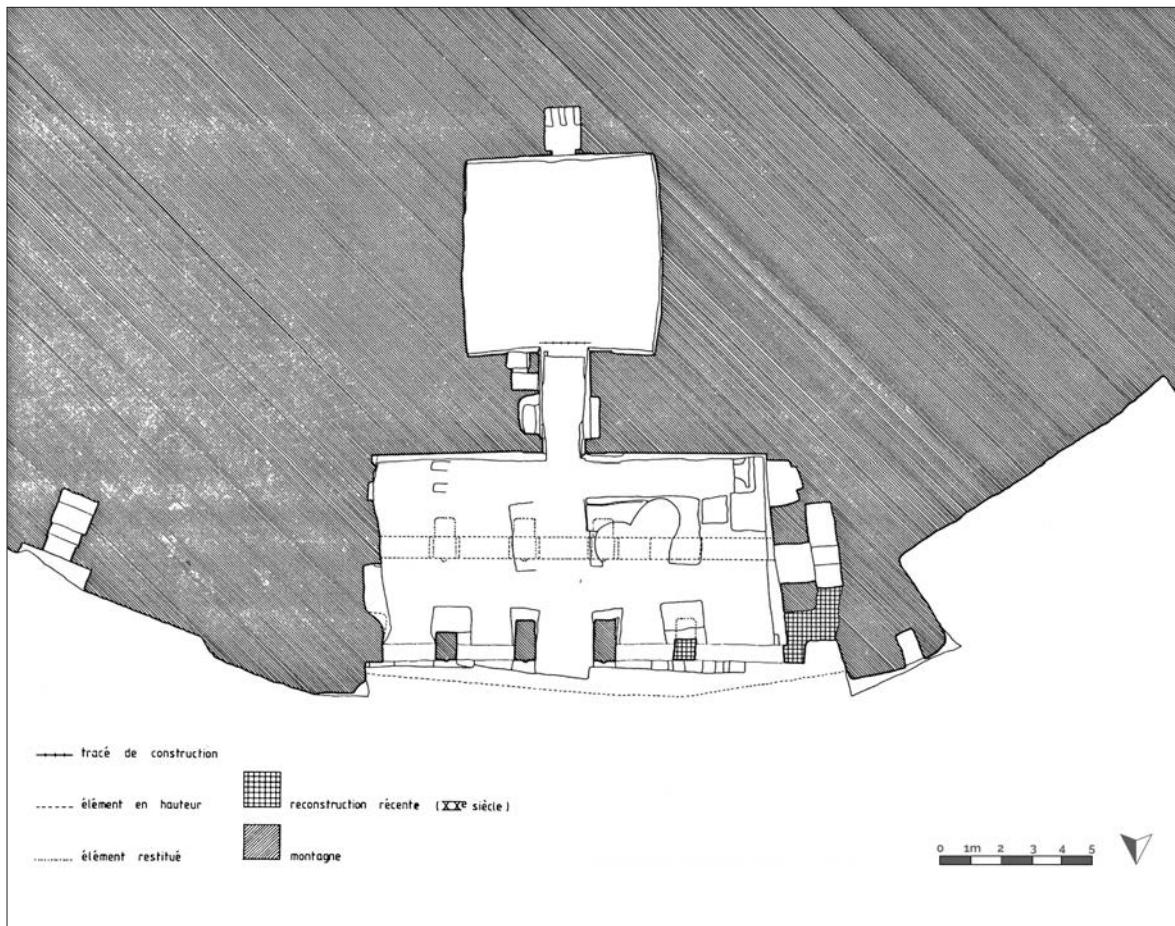


Fig. 1. Speos Artemidos, plan (after Chappaz 2014, p. 158).

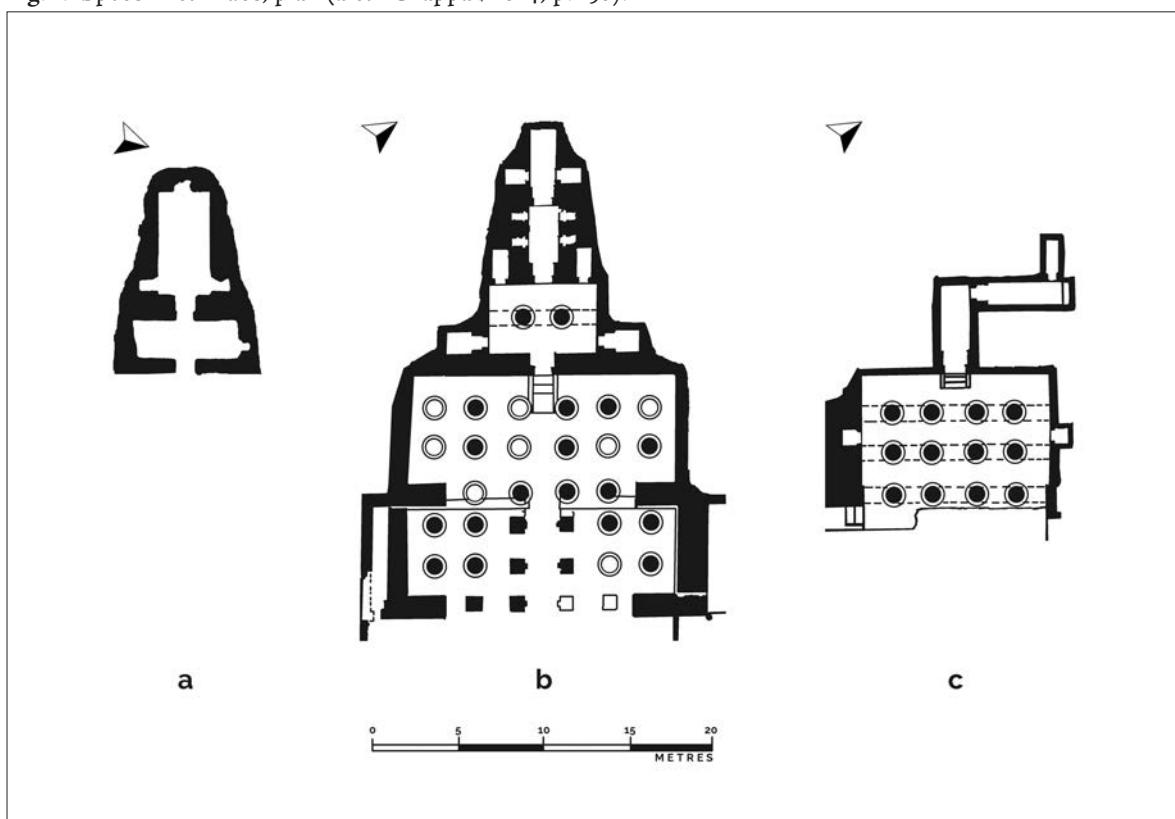


Fig. 2. a. Gebelein, plan (after Takács 2020, pl. 2); b. Deir el-Bahari, Hathor shrine, plan (after Naville 1908, vol. 6, pl. CLXXII); c. Deir el-Bahari, Anubi shrine, plan (after Naville 1908, vol. 6, pl. CLXXII).

A Headdress Full of Flowers

Special Coffins from the Third Intermediate Period

THE AIM of this paper is to present a preliminary account of a research dealing with anthropoid coffins and mummy-cases with a floral decoration on the head, sometimes a rather naturalistic decoration, extending over the lappets of the headdress. As this feature is present together with very large floral wreaths on the coffin lids, on stola-coffins and on *cartonnage* mummy-cases, their dating is probably late 21st–22nd Dynasty; nay, it is included in the typology of stola-coffins by René van Walsem, and the decoration of “jasmine flowers” is considered an indication of a later dating within the 22nd Dynasty.¹

The following is the list of all the examples I have been able to collect,² with a short description of each one (A = mummy-case; B = coffin; typologies according to TAYLOR 2003 and NIWIŃSKI 1988; dating as in references).

A1 – London, British Museum, EA 6686, from Thebes; anonymous, 22nd Dynasty, early 8th c. BC.³

Design 2C. Black wig, with double red lappet-bands, and a high head-band, with a very thin red fillet below, so that the top of the head looks like a sort of cap. Long white bell-shaped flowers, likely lotuses, are hanging on the lappets, two flanking the face, right and left, a third one below the lappet-bands: their identification is not obvious, for the moment I keep that of the white lotus (*Nymphaea lotus* L.), depicted with three outer and two inner petals. A pair of rosettes, or daisies, with eight white petals and yellow disc, flanks the lower flower. This very widespread pattern is generally understood to derive from the flowers of *Chrysanthemum coronarium* L., or from other kinds of *Compositae*, such as chamomile, and probably there is not only one original model.⁴

1. VAN WALSEM 1997, I, pp. III, 113, 179.

2. I am very grateful to Alain Dautant, who pointed out to me A3 and A4, and the existence of an example in the great discovery of coffins in the Asasif in October 2019.

3. https://www.britishmuseum.org/collection/object/Y_EA6686; MORGAN 2017, pp. 304, 307.

4. KEIMER 1924, pp. 10–11; GERMER 1985, pp. 180–182.

A2 – Newcastle upon Tyne, Great North Museum, Reg. no. Aregypt605 (formerly Hancock Museum), from Gurna; owner: Lady of the House Baketenhor, daughter of the God's Father Nakhtenmut; 22nd Dynasty, end of 9th c. BC.⁵

Design 2A. The head decoration is very simple: the wig, painted black, shows a high head-band and, on the lappets, single red bands. Over the dark background, without stems, a pair of hanging lotus chalices, right and left, painted white with very thin black lines outlining petals.

A3 – Brighton Museum, AF 155; anonymous, unpublished.⁶

Design 1. Rather well-preserved mummy-case with bright colors. The simple black wig, with high head-band and no lappet-band, shows on each side two white hanging bell-shaped flowers, similar to those on A2, isolated on the surface, without any stem or details, apparently, except a wavy edge.

A4 – Boston, Museum of Fine Arts, Acc. no. 72.4835; owner: Sistrum-player of Amon-Ra Tasenetnethor; unpublished.⁷

Design 2A. Broken and missing in the face. Black wig with single lappet-bands, rows of dots on the surface, and three bell-shaped chalices (like A3), painted pale pink (?), above the lappet-band on the left side.

B1 – Bernisches Historisches Museum, Inv. AE 10; anonymous set from Bab el-Gusus.⁸

Type IIIb, late 21st Dynasty. Breast molded. The floral decoration we are interested in is only on the inner coffin lid and on the mummy-board, and they are perfectly matching. A high head-band results from rows of petals, floral and vegetal patterns, and, in the middle, rosettes, alternatively red and white. A more naturalistic clump of blue lotus flowers (*Nymphaea coerulea* Sav.) is on the forehead, as usual, while the same rosettes, even simplified, as if they were petals, spread over the headdress, into the spaces created by the intertwining of two ribbons on the sides of the face, down to the level of the large round earrings, in a row on the forehead, perhaps also on top of the head (only “petals” are clearly visible), not over the lappets. Both for this reason, and for a greater stylization of the flowers, their choice and distribution, these two examples differ from all the others.

B2 – Leiden, Rijksmuseum van Oudheden, Inv. AMM 21-c, inner coffin of the set,⁹ from Thebes; owner: Lady of the House Takheret (or Tanetkher¹⁰), wife (*hebesyt*) of Pasenhor.

Design 2. The coffin lid's decoration recalls contemporary *cartonnages*: under the wide floral wreath, regular rows of divine figures are painted directly onto the wood, which creates a beautiful reddish background, whereas a long axial inscription bisects the entire lid. The face, particularly

5. GRAY 1967, pp. 77–78; WATSON, MYERS 1993, pl. XV,1; TAYLOR 2003, p. 106, n. 105; MAITLAND 2015, pp. 17–18, 21–23.

6. OAKLEY 2009, pp. 69, 71.

7. collections.mfa.org/objects/137165.

8. DARESSY 1907, pp. 9, 20, A 74, Lot 9; NIWIŃSKI 1988, p. III, no. 40; KÜFFER, RENFER 1997; inner box in Wien, Inv. No. 6267 b: EGNER, HASLAUER 1994, pp. 190–216.

9. BOESER 1920, p. 5, Taf. XIV.

10. The second form on her outer coffin, BOESER 1920, p. 5, Fig. 19; RANKE 1935, p. 367,3, records the first form only.

well crafted, is truly amazing, with a lifelike effect, probably due to the fact that the skin is not painted, it has the natural color of wood. A special feature is the white painted neck, perhaps to reproduce the bandages. She shows a high, double head-band, and the wings of the vulture headdress, three-fold lappet-bands, and, below them, white bell-shaped flowers in full silhouette, flanked by their buds. Another identical flower is depicted hanging on the right and left of the neck, while a single bud is above the flower on the (proper) right.

B3 – Cairo, Egyptian Museum, Inv. 21.II.16.1; anonymous, unpublished.

Type V, early 22nd Dynasty.¹¹ I only know one old black and white photo of the left side. On the dark wig, with uncovered ears, a rich decoration, made of head-band and vulture headdress, the vulture talon holding a *shen*-ring; three-fold lappet-band, and above it one, below two hanging bell-shaped chalices, which are repeated, one under the *shen*-ring, three beside the vulture leg, laterally.

B4 – Asti, Museo Archeologico, Inv. no. 93; anonymous (fig. 1).¹²

Type IIIa. Bad conservation due probably to flooding, its surface was found covered by a sort of film of mud. No varnish. The floor-board shows a West Goddess holding flowers, under a sandy *akhet*-sign, and, below, two peculiar gods, one snake-headed. On the interior right wall, fourth and last vignette (the opposite is blank), a motif is to be noted for its unusual size, a large *udjat*-eye, unfinished (fig. 2). The lid is very thin, looking like a mummy-board used as a real lid (feet are lost). On the wig, head-band and clump of blue lotuses; a thin red fillet from the forehead passes obliquely on the lappets, with a single band; above and below, likely white lotuses outlined in red with green peduncle, and red round buds (*Papaver*?).

B5 – Firenze, Museo Egizio, Inv. no. 7244; reworked, anonymous.¹³

Type IIIa; breast molded. Very curious coffin, heavily repainted before it was acquired in 1885. The result is a bit perplexing, but despite a negative first impression, many details can be compared with authentic coffins, and photos in the Visible Induced Luminescence technique revealed traces of original designs, such as on the face. Decorative motifs show some similarities with B4. On the floor-board, with dark red background, probably Nut, although without feet and with strange shoulders, wearing a white tunic and black belt. A sandy *akhet*-sign and the snake-headed god are here, too, and on the walls two large *udjat*-eyes, near the head. A sort of white cap on the head, with band, red single lappet-bands, and the same large white lotuses as in the B4 head, but asymmetrical (7 on the right, 6 on the left).

11. NIWIŃSKI 1988, p. 132, no. 147: I cannot see braces. Perhaps not the same as Ca 4 in VAN WALSEM 1997, I, p. 378, no. 23. In Cairo since 1892, as ascertained by A. Dautant, "Old Photographic Images of 21st Dynasty Coffins as Displayed in the Gizeh and Cairo Museums, 1891-1920", poster presented at the event "Forgotten Discovery: Tomb of the Priest and Priestesses of Amun – 1891–2016: 125th Anniversary Conference, Cairo, 5 May 2016".

12. LEOSPO 1986, pp. 20–25.

13. FILECCIA, ROSATI 2012.

B6 – Ipswich Museum, no. 1953.33; anonymous, unpublished.¹⁴

Type V. It was literally discovered in a cellar at Stowmarket in 1953, where it had been flooded. Exceptional as it shows only painted hands, it has a light-yellow background, without varnish. Probably a great figure of a deity was painted on the floor-board; rows of mummiform gods on the interior walls, and near the head, both left and right, large *udjat*-eyes (fig. 3). The most remarkable part is the lid head (fig. 4), with black wig, high head-band and no lappet-band, only so lively flowers which are different this time, mixing red poppies, lotuses and hollyhocks (or marshmallows), or bindweeds, all outlined in red, with little green leaves, and drop-shaped buds (?).

B7 – Detroit Institute of Art, Acc. No. 90.1SII799; anonymous, unpublished.

Type IVc/V, early 22nd Dynasty.¹⁵ Breast molded. The owner is depicted as if she were living, but she is not in the dress of daily life, only her feet are uncovered, the left arm is bent under a large wreath, with hand closed on the breast, above thin braces; the right arm is extended along her side. The headdress is the richest found so far: black wig with head-band, double lappet-bands decorated with daisies and the block-band pattern on the edges; ribbons decorated with petals, intertwining over the forehead and on the head, and on the sides of the face. In the free spaces and on the lappets, petals and small round buds (?) and bell-shaped flowers, freely arranged without symmetry, painted white, outlined in red and with green peduncle, the larger ones probably lotuses, and star-shaped white flowers, with four petals and light red or yellow disc.

Although this research is clearly still in its early stages, it is possible to make some observations: this special decoration is reserved for female owners and, when applicable, inner lids or cases; 8 out of 11 owners are anonymous; one has a priestly title, a second one is the daughter of a priest. A rich set, however different in style, is from Bab el-Gusus. When known (four times), the provenance is Thebes.

Two coffins (B4, B5) show many similarities, and a third one (B6) shares with them the peculiar and unusual motif of large *udjat*-eyes in the interior decoration.¹⁶ It would be interesting to be able to establish a common workshop.

One of the main purposes would be to explain the meaning of that decoration, and this necessarily also involves a correct identification of the flowers. Their definition as “jasmines”, however conventional it may be, needs to be set aside. It is not at all sure the presence of jasmines in Egypt during the Pharaonic period, but only from the Roman period onwards: they were found for the first time at Hawara by William M. Flinders Petrie and described by Percy E. Newberry¹⁷ as *Jasminum Sambac* L., or Arabic Jasmine, coming from India. Then some misunderstandings and opinions confused the facts.¹⁸ Newberry himself mentioned the chief “culprit”, a garland in Milan with jasmines, reported to come from the famous *trouvaille* by Gaston Maspero at

14. PLUNKETT 1993, pp. 46–47.

15. NIWIŃSKI 1988, p. 138, no. 180; www.dia.org/art/collection/object/mummy-case-12650?page=1.

16. VAN WALSEM 1997, I, p. 273, e: in his coffin no. 40, Dr 1, is the only instance of a large, asymmetrical *udjat*-eye, combined with a winged sun-disk.

17. Newberry in PETRIE 1890, p. 47.

18. GERMER 1985, pp. 152–153.

Deir el-Bahari in 1881: on the contrary, its provenance is uncertain and consequently also its dating. Georg August Schweinfurth however wrote this information,¹⁹ while the corrections went unnoticed. Ludwig Keimer, after him, with others, suggested that some nice faience necklaces, dating from the New Kingdom, might reproduce jasmine flowers.²⁰ Moreover, some stylized flowers gathered for ornamental purposes were considered, on the same base, to be also jasmines.

In order to find a solution, Karl-Heinz Priese suggested that the faience necklaces were imitating instead pomegranate flowers.²¹ However, while the fruit is well known from many representations, the flowers are much less so.²² Yet the shape of the leaves and of the red chalices in coffin B6 could be matching with those indicated as pomegranate; on the contrary, the white bell-shaped flowers on headdresses, similar to the faience examples and, for this reason, until now called “jasmines”, can hardly be defined instead pomegranate flowers: the faience examples, for necklaces, may be independent of a perfect color match, but in my opinion it is unlikely that such a bright red flower was depicted in white. Pomegranate flowers and leaves have been identified in funerary wreaths,²³ even in royal examples, another flower was also recognized, whose chalices may resemble the bell-shaped ones: it is the hollyhock, or marshmallow, *Alcea ficiifolia* L.,²⁴ and it might be identified in the headdress of B6 (also A4?), unless it is a type of *Papaveraceae*.²⁵

There is, however, another possibility, known in the “classic” literature on Egyptian botany, but focused more recently.²⁶ It is a kind of *Convolvulaceae*, which may be even the common field bindweed, often depicted since the New Kingdom together with papyrus, on whose tall stems it may be found as a creeper. Their association, in wall paintings, offerings, bouquets, is perhaps beyond naturalistic data, it is based on a shared symbolism, a strong link with Hathor: it evokes the Goddess’ role as protector of women and children, of birth, and, in a funerary context, of course rebirth. There is also a solar interpretation of this plant, known in the Amarna art, too: it seems to seek the sun, manages to reach its light. Due to its heliotropic nature (a kind is called nowadays “morning glory”), it becomes the very image of sunlight: in the famous Louvre stela E 52 (22nd Dynasty), rows of bell-shaped multicolored bindweeds represent the rays of light that spread from the Sun God on the adoring woman.²⁷

Therefore, we must also consider this flower together with the range of blossoms on headdresses, certainly to enrich their symbolism and activate rebirth.

For the moment, even beyond any religious meaning, we can appreciate that such strong hope and belief were expressed by the most delicate and charming creations of nature.

19. WOENIG 1897, p. 344.

20. KEIMER 1924, pp. 28, 92, 175; SPALINGER 1982; DITTMAR 1986, pp. 21–22; DUNN FRIEDMAN 1998, p. 222, no. 104.

21. PRIESE 1991, p. 249; SCHOSKE, KREISSL, GERMER 1992, p. 224, no. 152: widespread in Egypt since the beginning of the 18th Dynasty (the first written mention of its name in Ineni’s tomb, TT81), but probably cultivated much before: BAUM 1988, p. 151.

22. KEIMER 1924, pp. 47–51, 104–106, 180–182; MEURER 1999.

23. E.g. SCHOSKE, KREISSL, GERMER 1992, pp. 60–61; GERMER 1990, p. 10.

24. KEIMER 1924, pp. 57–59, 110, 183; GERMER 1985, p. 121; GERMER 1990, p. 10.

25. GERMER 1985, pp. 44–45; DITTMAR 1986, p. 29.

26. HUGONOT 1994; AUFRÈRE, LOPEZ-MONCET 2001; BACKHOUSE 2020, pp. 89–93.

27. AUFRÈRE, LOPEZ-MONCET 2001, p. 71; COLIN 2005, p. 322–325; their arrangement in a row is somewhat reminiscent, of course, of the faience necklaces we mentioned *supra*.

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Fig. 1. Coffin Asti Museum, Inv. no. 93: close-up of lid head.



Fig. 3. Coffin Ipswich Museum, no. 1953.33: close-up of box interior, right wall.



Fig. 2. Coffin Asti Museum, Inv. no. 93: close-up of box interior, right wall.



Fig. 4. Coffin Ipswich Museum, no. 1953.33: close-up of lid head.

Between Freedom and Formality

The Visuality of New Kingdom Theban Tombs

I.

RESEARCH FOCUS AND DATASET

This paper presents an outline of the author's PhD research on visual formality and flexibility in Theban tomb paintings from the New Kingdom.¹ The focus lies on the methodological approach developed to analyse the relationship between written and figurative representation, and the possibilities of individual manipulation offered to artists.²

The main purpose is to investigate the relationship between "writing" and "painting" in a world that put so much effort into the production of any kind of pictorial object. Despite the common origin and the shared visual vocabulary, script and figure are not stiff reproductions of each other. The objective is to analyse the characteristics of script and figure from a *graphic* point of view, in order to evaluate: a) the level of freedom enjoyed by artists in the production of a pictorial unit and b) their personal approaches to the iconic material inherited from earlier models. In addition, this paper aims to understand the influence that the artists' training exercised on their work.

A corpus of twenty New Kingdom tombs in various parts of the Theban necropolis supplied the pictorial material to this end. Most of the investigated tombs are located in Sheikh Abd el-Gurna, where the Swiss mission has its concession: TT84 and TT95, excavated by the University of Basel; TT51, TT56, TT69, TT74, TT82, TT92, TT138, TT259, TT343.

The other tombs are located in El-Khokha (TT178, TT181, TT295 and TT296), Deir el-Medina (TT8, TT340, and TT354), Dra Abu el-Naga (TT17), and Qurnet Murai (TT277).

In each tomb, the focus was placed on the analysis of the pictorial registers present.³ These were: a) monochrome hieroglyphs, i.e., inscriptions painted only in one colour; b) polychrome inscriptions; c) emblematic signs, that is, pictorial units recognizable as hieroglyphs but used in a figurative context and not as part of an inscription; d) and properly figurative scenes.

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2. The term manipulation is here used to express the active and conscious changes operated by painters on the basic visual vocabulary at their disposal.

3. For the use of the term 'register', see RAGAZZOLI, ALBERT in preparation.

The parameters chosen in order to analyse and compare single units from each register were the degree of iconicity shown—that is, closeness to the *realia* they represent—, as well as their dimensions, position within the tomb, and colours used. Where possible, the thickness of the brush used for the outline and for the inner details was also recorded.

All the collected data (over two thousands pictorial units) is stored in a Filemaker Pro Database, with additional information on the tomb dating and position for diatopic and diachronic research. Each unit also received an identifying Gardiner's list code, in order to compare how the depictions of the same object differ in written and figurative registers.

2. METHODOLOGY

2.1. DISTRIBUTION OF PICTORIAL REGISTERS

Two main methods helped to investigate the relationship between written and figurative representation. The first consisted of mapping and visualizing the distribution of pictorial registers in a given tomb. The initial step to this end was an epigraphic survey *in situ*, after which colour-coded diagrams made with Adobe Illustrator on top of high-resolution photos clearly displayed the spatial domains of polychrome and monochrome inscriptions, as well as of figurative scenes.

Some first results from the analysis of these visualizations show, for example, that short walls in the entrance hall of an early 18th Dynasty tomb typically present mostly monochrome hieroglyphs and figurative scenes. Emblems are also mostly relegated to lunettes of the same short walls, in stelae-like compositions⁴ (in particular the focal walls). Longer walls instead present a greater number of polychrome inscriptions and figurative scenes.

When compared with a Ramesside tomb, however, many changes become visible. One striking difference in the approach to the written and figurative material is the use of friezes. The typical 18th Dynasty frieze is the simple *khekher*, which runs continuously along the top of the walls. In the Ramesside period, however, very complex friezes begin to appear, that mix not only different emblems, such as Anubis jackals or Hathor heads, but also monochrome inscriptions. Therefore, written and figurative tend to mingle much more in Ramesside friezes.

Most of all, Ramesside tombs often completely renounce the use of polychrome inscriptions in favour of long monochrome inscriptions on a yellow background. Even when polychrome hieroglyphs are included, they are no longer the extremely detailed “picture writing” of the 18th Dynasty⁵: instead, they often present a reduced colour palette, and omit any outlines or fine inner details. All elements are painted with the same brush, and the final impression visually is that of a much faster execution.⁶

There are indeed very rare cases in which the tomb still presents monumental polychrome inscriptions. This occurs in TT259, the tomb of Hori, who bears the title of a *sesh qedwt* and would

4. HERMANN 1940.

5. NI. DE GARIS DAVIES 1958.

6. For a comparison between the two styles in the same tomb, see TT259, FEUCHT 2006, colour pl. XX.

therefore be personally interested in keeping the use of the most pictorial type of inscriptions alive.⁷ Nevertheless, the quality of Ramesside polychrome hieroglyphs does not seem to keep up with the models of the 18th Dynasty, and the painter of TT259 is unsure about the proportions of single signs.⁸ The brush used is also bigger than the extra fine kind used for the outlines during the 18th Dynasty.

The graphic registers chosen for the tomb ceiling are much more stable during the 18th Dynasty: here, mostly patterns and monochrome hieroglyphs are present, but never polychrome inscriptions, whereas figurative scenes occur only in exceptional cases. In the Ramesside period, however, a change in the conception of the space introduces figurative scenes also on the ceiling, while still showing a preference for monochrome inscriptions more often. The above-mentioned tomb of Hori once again represents a special case, since the ceiling inscriptions here are written as reduced polychrome hieroglyphs.⁹

2.2. COMPARISONS OF PICTORIAL UNITS

The second method consisted in selecting a pictorial object and examining it in its various renditions in the different registers.

Although there are seemingly limits to the rendition of specific signs—the human arm (Gardiner sign D36) stays very similar in all graphic registers—, even apparently “standardized” elements can show variation. The human eye, for example, presents various possibilities of manipulation. As a polychrome hieroglyph (Gard. D4), it can present a higher degree of iconicity in contrast to the other two representational types, even to a figurative scene detail, which is usually almost identical to the simple, linear monochrome hieroglyph version. During the first half of the 18th Dynasty, this greater care taken in the execution of the polychrome hieroglyph can take the shape of red strokes filling the corners of the eye.¹⁰ However, from the reign of Thutmose IV onward, a new way of enhancing the iconicity of the sign appears in tombs: instead of embellishing the corners of the eye, the painters prefer to add the distinction between pupil and iris.¹¹ This shows how palaeographic evolution works: somewhere along the scribal line, there is the will to enhance different parts of a pictorial unit, thus introducing new possibilities and new trends.

Another example for how even the most basic pictorial element can be approached differently is the representation of bread loaf on mat (Gard. R4).¹² During the 18th Dynasty, the same element appears quite differently in all the graphic registers, highlighting different details in each. The monochrome hieroglyph is often a simple rectangle with an oval on top; the polychrome hieroglyph is more detailed, with lines showing the bundle of reeds tied together and the bread with a more lozenge shape, parted in the middle; finally, the scene version presents the same mat type as the polychrome, but the bread features different details and colours.

7. FEUCHT 2006. Another notable exception is TT65, belonging to Imiseba, see BÁCS 2001, colour pl. 31, fig. 3–4. Here probably the influence of the decoration by the former 18th Dynasty owner played a role in this decision.

8. SARTORI 2020a, p. 130, fig. 4.

9. FEUCHT 2006, colour pl. XVIII–XXIII.

10. NO. DE GARIS DAVIES 1935, pl. XIX.

11. AN. BRACK, AR. BRACK 1977, pl. 10. For the Ramesside period, see TT259, FEUCHT 2006, colour pl. XX.

12. For a more in-depth analysis of the pictorial unit “bread loaf on reed mat”, see SARTORI 2020b.

By the Ramesside period, the same pictorial unit undergoes profound changes. The focus clearly shifts away from the script, which appears much more stylized and homogeneous in its variants, whereas the figurative representation has taken a completely different path. The painter of TT277, for example, completely abandons the visual model of the 18th Dynasty and opts for a more naturalistic rendition of the reed mat, which is not a stiff rectangle anymore, while instead stylizing the bread to a series of overlapping circles.¹³

Despite script and figure clearly being bound together and taking inspiration from each other, they can be manipulated in different ways, depending on the personal inclinations of the painter(s).

3.

LOOKING FOR INDIVIDUAL MANIPULATION

Manipulation occurs not only among the different pictorial registers, but also within the same. Despite a general idea of a “canon of polychrome hieroglyphs”, examples from Theban tombs say otherwise. Within TT84 alone, there are at least five possible colour combinations for the *netjer* sign (Gard. R8): yellow and red, red and white, red and pink, red and blue, yellow and blue.¹⁴ This clearly shows that painting customs are not *per se* fixed, but are dependent on the mental image of the painter, who has the authority to decide which elements to change or enhance.

In the Ramesside period as well, there are examples of colour manipulation, even in the reduced polychrome hieroglyphs. An example is the inversion in the colours used for the two parts of the oar hieroglyph (Gard. P8), the shaft and the blade.¹⁵ The double colour actually already represents a new Ramesside evolution, since in the 18th Dynasty the oar is usually painted either completely yellow or completely red.¹⁶

Other types of manipulation affect the structure of the pictorial unit itself. Examples from friezes and emblems, supposedly some of the most stable pictorial elements, show that in reality their internal components could undergo personal reinterpretations. One case in point is the depiction of the three water ripples, commonly depicted together with two *udjat* eyes and a basket of vegetables on wall lunettes during the 18th Dynasty.¹⁷ Whereas the most common emblem presents *three* ripples of water (comparable to Gard. N35a, typical threefold plural of the basic sign),¹⁸ in TT354, in Deir el-Medina, the emblem quite surprisingly presents an extra line of water, possibly added for the sake of strengthening the power of the picture itself.¹⁹ In this case, the manipulation could have been a result of the peculiar training of the painter, which seems not to have been too advanced, considering the execution of the ceiling or other pictorial elements.²⁰

Another case is that of the necropolis emblem mostly featured in figurative scenes showing the funerary barge cortège. Its most common component is a falcon on top of a standard, inserted on

13. For an overview of these shapes, see SARTORI 2020b, figs 1a-c, 2a-c.

14. For an example of three of these combinations, see SARTORI 2021, p. 93, fig. 79.

15. FEUCHT 2006, colour pls. XX vs. XXVIII.

16. Examples in TT74 (yellow), AN. BRACK, AR. BRACK 1977, pls. 6; in TT52 (only red), TIRADRITTI 2008, p. 253.

17. This emblematic composition is attested already since the Middle Kingdom on stelae, HÖLZL 1990.

18. HAWASS 2009, pp. 79, 82.

19. CHERPION 1999, pl. 37. See also SARTORI 2022, pp. 654–655 and fig. 9a–b.

20. SARTORI 2022.

a base with a butcher's block (Gard. T28) and a hilltop (Gard. N29). However, three analysed versions in Thutmoside tombs in Sheikh Abd el-Qurna, TT82,²¹ TT84,²² and TT92, all located very close to each other, show that the basic emblem could be reimagined by adding and changing details. In TT82, the falcon is completely yellow and shows a detailed plumage; at the bottom of the standard, the remains of a hilltop and of a butcher's block are slightly visible. The example from TT92 renounces these last two elements, but adds a feather and a piece of cloth to the standard; the representation in TT84 is similar to that in TT82, but the rendition of the falcon is very different, its plumage being green and white without inner details; in addition, a piece of cloth hangs from the standard. The depiction from the Ramesside tomb of Hori adds yet another twist to the basic structure of the emblem: instead of a standard, the falcon is perched atop the sign for *jment* (Gard. R14), together with a feather; further, a beer jug and a loaf of bread feature on top of the (not preserved) butcher's block and hilltop, respectively.²³

The Ramesside period offers examples for the individual manipulation of friezes as well. A common early Ramesside frieze shows an emblem of Anubis on the shrine of secrets and a head of Hathor as *nebt sepāt*, usually accompanied by *khekher* bundles. Again, friezes do not usually attract much attention, as they are “repetitive” patterns. Thus, it can happen that one does not notice how their structure is in fact often individually adapted and changed. For example, the friezes from TT51,²⁴ TT178,²⁵ and TT296,²⁶ might seem identical, yet each of them presents a different version of the Anubis emblem, as well as of the other elements. Regarding the study of the interaction of word and image, it is interesting to see that in TT178 and TT296 the epithet of Hathor presents the phonetic complement *t* (Gard. X1), while in TT51 it is absent. In the latter tomb, it is instead Anubis' shrine that presents an extra hidden hieroglyph, the mountain (Gard. N26), which composes the epithet of *tep-djw*, “on top of his mountain”, absent in the other two cases.²⁷ Hathor's headdress is also different in all the examples, as are the details and colours of Anubis' shrines. The *khekher* bundles separate in TT178 and TT51 the two divine emblems, but not in TT296.

Finally, another way of manipulating the “traditional” iconic material comes from choosing versions of a pictorial element originated in a different context or time. In TT178 and in TT296, both in Khokha and actually attributed to the same artist(s) by scholars,²⁸ the painter chose the type of *khekher* typical of the Ramesside period for most parts of the tombs.²⁹ This version of the frieze displays, aside the long vertical coloured stripes found already in the 18th Dynasty, a yellow disc at the base and a red solar disc topping the whole composition. However, in smaller areas such as passage doorjambs, the painter(s) of these two tombs have revived one of the oldest versions of the *khekher* frieze, which if not in private tombs, features prominently in the tomb of Ramesses I,³⁰

21. HAWASS 2009, p. 30.

22. SARTORI 2021.

23. FEUCHT 2006, colour pl. XX.

24. NO. DE GARIS DAVIES 1927, pl. VI; SARTORI 2020a, p. 131, figs 5a–b.

25. HOFMANN 1995, colour pl. II.

26. FEUCHT 1985, colour pl. IV.

27. For a picture, SARTORI 2020a, p. 131, fig. 5b.

28. HOFMANN 1995, pp. 114–115.

29. FEUCHT 1985, colour pl. Ib; HOFMANN 1995, colour pl. IIa.

30. TIRADRITTI 2008, pp. 286–287.

and is present in the tomb of Nefertari as well.³¹ This type of *khekher* is more similar to the rendition of the corresponding hieroglyph (Gard. Aa30), and presents only a yellow outline with green filling instead of the symmetrical coloured stripes. In addition, it only has a circular binding at its base and no horizontal binding on the top. The effort made by the painters to avoid repetition by skilfully integrating the more common repertoire with less common royal models therefore becomes clear.

4. CONCLUSIONS

Through the analysis of these details, it becomes clear that in the case of tomb paintings, the balance seems to be more in favour of artistic freedom than of formal rules. There is indeed a tendency towards a consistent spatial distribution of pictorial registers; however, this as well evolves with time, showing that rather than rules, these regularities represent artistic trends. The approach to some pictorial units can also appear formal, but such rare cases of inflexibility too seem to depend on the artist's personal inclinations, as even very simple hieroglyphs like the human eye can present variation.

The painters' artistic freedom instead manifests itself in many ways: in the choice of the graphic registers, introducing elements based on the personal interest of the tomb owner (as in the case of the polychrome hieroglyphs in the tomb of Hori); in the choice of colours, as shown by the case of the divine emblem, Gard. R8; or in the manipulation of the structure of a pictorial unit, by adding or removing details or components, as can be seen with the necropolis emblem. Finally, the painters can play with different visual repertoires and draw inspiration from models rooted in different contexts. The training of the artist may also play a part in the tendency to experiment, as in the case of the water emblem.

The picture that emerges from this overview indicates that Egyptian wall paintings are far from being merely "canonical", and that artistic changes were constantly happening—most importantly, they were most often the product of conscious agency and a will to experiment.

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The Temple of Amenhotep III at Wadi es-Sebua

WADI ES-SEBUA in northern Nubia is mainly known for the large temple built by Ramesses II in the 5th decade of his reign. This Ramesside sanctuary was not, however, the first Egyptian temple at this spot: about 150 years before Ramesses II, Amenhotep III had already established a temple there. This much smaller building from the 18th Dynasty is less well known, probably because it was never thoroughly investigated and published and because it has been submerged by the waters of the Lake Nasser for over 40 years.

The ongoing project, which was presented at the 12th ICE in Cairo, aims to reconstruct the significance of the temple of Amenhotep III at Wadi es-Sebua within the ritual landscape of Lower Nubia. At the core of the project are the wall paintings in the central sanctuary of the temple which, when the area was flooded by the waters of Lake Nasser in 1964, were removed, inserted into seven wooden frames and transferred to the Egyptian Museum in Cairo (EMC). However, knowledge of their removal and the new location of the paintings had been lost, and it was only a few years ago, that they were rediscovered and investigated in the magazines of the Egyptian Museum.¹

The significance of the project derives from the following points:

- The 18th Dynasty temple at Wadi es-Sebua is the only cult building from the period of Amenhotep III in northern Nubia of which substantial parts have been documented and preserved;
- The relatively small corpus of painted temple decoration—in contrast to carved decoration—from the mid 18th Dynasty is considerably enlarged by the paintings from Wadi es-Sebua;
- The iconographic program of the rear wall of the sanctuary is in some parts extremely unusual;

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1. The project originally began in 2008, when the paintings were identified in the basement of the Egyptian Museum in Cairo by Sabah Abd el-Raziq and the author. In 2010, work on the paintings in the museum started with comprehensive photographic documentation and a small series of test cleanings. The planned continuation of the work in 2011 and 2012 was cancelled due to the political situation. It was only in 2018 that the work could be restarted as a joint research project between the Institute of Egyptology at Ludwig-Maximilians-University Munich (Martina Ullmann), the Roemer- and Pelizaeus-Museum Hildesheim (Regine Schulz) and the Egyptian Museum in Cairo (Sabah Abd el-Raziq, Moamen Mohamed Othman). In the meantime, Kathryn Piquette from University College London's Centre for Digital Humanities joined the team and a collaboration was established with Mona Hess from the Centre for Heritage Conservation Studies and Technologies at the University of Bamberg.

- The paintings show numerous traces of reworking, which relate to up to four different decoration phases within a very limited time span of a few decades. An art historical and religious analysis is therefore particularly important. One of the most remarkable features is that the main recipient of the temple cult seems to have been changed twice during this time. Thus, the reworking bears witness to religious changes from the later reign of Amenhotep III, during the Amarna Period and afterwards.

The project encompasses the conservation, documentation, investigation by various techniques and analysis of these unique examples of temple paintings, as well as a virtual reconstruction of the cult building and its phases of use. Finally, this shall lead to a reconstruction of the interactions between changing religious ideas and royal ideology in the later 18th Dynasty and their transfer into the decoration of cult buildings and ritual activities. Another ultimate goal of the project is to present the wall paintings after research and conservation treatment to a general audience in the EMC.

I. TEMPLE ARCHITECTURE

The east-west oriented temple of Amenhotep III is situated 169 metres to the southwest of the Ramesside temple and consists of a small rock-cut sanctuary with, in front, several rooms, mainly built of mud-brick.² In the centre was an elongated hall (3,9 metres wide; 8,12 metres long), probably surmounted by a mud-brick vault. A sandstone altar or pedestal (with cartouches of Ramesses II) stood roughly in the middle of the hall. In front of the hall and its side rooms there were two relatively large courtyards and a *dromos* leading towards the riverbank. Amenhotep III is recorded in the wall decoration as the king responsible for the erection of the cult building. Some extension and restoration work were undertaken during the reign of Ramesses II. The rear wall of the main hall was formed by the cliff face. Along the east-west axis of the temple lay the entrance to a small rock-cut chamber (2,27 metres wide; 2,9 metres long; 1,9 metres high). A rectangular altar or pedestal made from sandstone stood inside the speos. Doubtless this small rock-cut room functioned as the sanctuary, where the main deity of the temple was provided with the appropriate ritual performances.

A virtual reconstruction of the temple was begun in 2019.³ It includes the main building phase of the temple in the reign of Amenhotep III and the second phase during the reign of Ramesses II, as well as the “archaeological” phase in the 20th century, before the flooding of the area in 1964. All phases are reconstructed by using published and archival documentation.

2. For a plan of the building see ULLMANN 2013, p. 38.

3. Conducted mainly by Nicoletta Campofiorito and Petra Olossz under the supervision of Mona Hess (Centre for Heritage Conservation Studies and Technologies, University of Bamberg). The results will be published in an online database in the near future.

2.

THE SANCTUARY'S WALL PAINTINGS

The rock walls inside the speos and the mud-brick façade before the cliff face had been covered with a thin layer of mud plaster with a lime wash as a base for the decoration. In the early 1960s the paintings inside the speos were still well preserved, while the decoration of the outer façade had suffered considerably since the early 20th century, when Cecil Firth undertook the first comprehensive documentation of the temple.⁴ Comparison of the paintings now kept in the EMC with photos taken in the 1960s shortly before their removal shows that some sections were heavily damaged during the removal and remounting process.

The sanctuary's façade, south and north part:⁵ the largely destroyed upper registers showed Amenhotep III standing with offerings before a deity, most probably Amun. In the lower registers minor deities present offerings. Three accompanying inscriptions mention the bringing of the products for "Amun, the Lord of the Ways", i. e. the local form of Amun.

The sanctuary's east wall, north and south of the entrance: these two panels each consist of two vertical lines with the names and titles of Amenhotep III, beloved of Amun.

The south and north walls of the sanctuary: both of these partly-damaged side walls show the king—presumably originally with libations and incense—in front of the enthroned Amun with traces of his reworked name and epithets in front of him. Between them, offerings are set up, with a large offering list above.

The west wall of the sanctuary: on the right half of the rear wall Amenhotep III is shown offering water to the enthroned Amun. On the left half a vulture, wearing the white crown, is depicted, hovering with folded wings above a clump of papyrus, with *shen*-rings in its claws. Above each wing are two feathered cartouches of Amenhotep III. At the far left a ram's head rests on a tall pedestal, surmounted by an ostrich feather fan. The accompanying inscription reads "Amun-Re, Lord of the [sky]".

3.

DISCUSSION OF THE PAINT LAYERS ON THE WEST WALL OF THE SANCTUARY

In the following, a selection of the numerous modifications traceable in various parts of the paintings will be presented and their significance and possible interpretation will be discussed. Since these remarks are based on work in progress, they are mainly of a preliminary nature.

Already in 1910 Cecil Firth had described traces of remodelling of the paintings⁶ and Christiane Desroches Noblecourt published three drawings of the paintings on the rear wall of the speos which are supposed to reflect three subsequent decoration phases, but without distinguishing

4. FIRTH 1927, pp. 235–237, pls. 31–34, plan XIV.

5. For drawings of the temple paintings see FIRTH 1927, pls. 31–34; for photos taken in 2010 in the EMC see ULLMANN 2011, pp. 16–18, figs. 2–8.

6. FIRTH 1927, pp. 236–237.

between visible traces and reconstruction.⁷ One of the main goals of the ongoing project, therefore, is an in-depth investigation of the different layers of the paintings to achieve a reliable reconstruction of the different decoration phases inside the sanctuary.

During our work in the EMC in March and April 2019 we undertook multimodal imaging of the wall paintings. Our work focused mainly on those areas of the paintings that show evidence for reworking but remain difficult to interpret. The suite of optical techniques employed included photography using visible, ultraviolet (UV) and infrared (IR) light, with Reflectance Transformation Imaging (RTI) providing particularly valuable image data.⁸

The investigation of the west or rear wall of the sanctuary (fig. 1) revealed very complex sequences of paint layers in different parts of the wall, which remain only partially understood. It became clear that the different segments of the decoration underwent various alterations at different points in time. Most of the modifications can be assigned to four main decoration phases, with the first and second phases dating to the reign of Amenhotep III, the third phase belonging to the Amarna Period and the fourth phase dating to the post Amarna or early Ramesside time. There is one exception: the figure of the standing and offering king to the right shows no traces of reworking. It can be firmly dated to the reign of Amenhotep III by its proportion and style.⁹

The observance that the “vulture with white crown surmounting a clump of papyrus” motif was originally placed directly in the centre of the wall (already recognised by Firth and Desroches Noblecourt)¹⁰ was confirmed by numerous traces of paint belonging to the black feathers from the right wing of the vulture of the first phase underneath the enthroned deity of the later phases to the right of the vulture motif.

But our work also revealed that some earlier assumptions about the reconstruction of the decoration of the rear wall of the first phase most probably need to be thoroughly revised: Firth, followed by Desroches Noblecourt, proposed that an enthroned god was depicted to the left of the central vulture motif and oriented to the left, i.e. towards the south wall.¹¹ A very unbalanced composition like this one, in the right half of which the king offers towards the vulture goddess in the centre of the wall, whilst in the left part an enthroned god is placed without anyone attending to him, would be quite unique. After scrutinizing the different layers of paint within the area in question, we cannot confirm the depiction of an enthroned god to the left of the vulture in the first decoration phase. Taking into account the two preserved cartouches of Amenhotep III situated to the left of the head of the vulture, which we believe belong to the first decoration phase,¹² as well as

7. DESROCHES-NOBLECOURT 1999, p. 156.

8. Kathryn Piquette (UCL) undertook this work in spring 2019 with the help of several members from the Conservation Department of the EMC.

9. Photos taken in the early 1960s, which show the depiction of the king in a much better state of preservation than today, confirm this dating, see ULLMANN 2013, p. 39.

10. FIRTH 1927, p. 237, pl. 34 middle; DESROCHES-NOBLECOURT 1999, drawing on p. 156, discussion on pp. 158–159.

11. FIRTH 1927, pl. 34 middle; DESROCHES-NOBLECOURT 1999, drawing on p. 156, text on p. 158.

12. These cartouches are similar in style and proportions to those on the right side before the standing king which are firmly dated to the first phase and are placed on the same line as the last ones, whereas the cartouches to the right of the vulture’s head added in the second phase are of a different style and placed higher than those on the left.

the Egyptian artistic tendency towards symmetry, we come to the—albeit preliminary—conclusion that the decoration on the left part of the wall essentially mirrored that of the right part, i.e. a figure of the king standing and offering towards the central vulture motif.

In the second decoration phase, which probably took place in the later reign of Amenhotep III,¹³ the central vulture motif was moved from the middle of the wall to the left (as seen now). This shift made way on the right half of the wall for the insertion of an enthroned deity, who then became the recipient of the offering presented by—the unaltered—Amenhotep III on the extreme right. To the left of the vulture motif now occupying parts of the area of the standing and offering king (as proposed above for the first phase), a pedestal was introduced upon which rested a falcon-head crowned by a sun disc, representing the sun-god Ra-Horakhty. This reconstruction is suggested by the remains of an inscription in front and above the pedestal that can be read as “Ra-Horakhty” before it was altered to “Amun-Rā” in a subsequent decoration phase.

One of the most intriguing questions is the identity of the enthroned deity on the right of the vulture motif that was inserted in the second phase. Desroches Noblecourt proposed a falcon-headed deity with a double crown, but without providing the suitable empirical basis for this reconstruction.¹⁴ Therefore, we paid particular attention to this issue when studying the traces in the area of the head and crown of the deity. We observed several anomalies in the human face of the god belonging to the latest phase four, which might be interpreted as the remains of an earlier falcon’s head altered subsequently to a human face (e.g. the outer contour of the face, the shape of the eye). The remains of a black wig at the rear of the head can also clearly be seen. In addition, our RTI images reveal traces of a non-human head beneath the head of Amun, whose brushstrokes appear to follow the contour of a falcon’s head (figs. 2–3). Directly above the falcon’s head, the remains of the lower edge of a large sun disk can also be distinguished. This leads to the conclusion that on the rear wall (and also on the north wall, where similar traces can be found), the cult recipient of the second decoration phase of the sanctuary had been a falcon-headed deity crowned with a sun disk. On the basis of this iconography, the god might be identified as Ra-Horakhty, which would also be consistent with the probable presence of a falcon’s head with a sun disk in the left part of the rear wall during the same decoration phase.

The third decoration phase of the rear wall is characterized by the erasure of the name of Amun within the cartouches of Amenhotep III, which strongly points towards the later reign of Akhenaten. Beyond this alteration, the decoration of the rear wall seems not to have been adjusted. The name of Amun was also eliminated from the side walls and the façade of the sanctuary.

During the fourth decoration phase, either executed as early as Tutankhamun or later in the reign of Ramesses II, Amun’s name was inserted again and the enthroned deity on the right half of the rear wall was transformed into a figure of Amun with a human face and a tall feather crown (the same can be said for the side walls).

The possible falcon’s head set upon the pedestal on the far left of the composition in the second decoration phase, was changed into a ram’s head, surmounted by an ostrich feather fan, representing Amun, which is substantiated by the accompanying inscription (which overwrites the earlier Ra-Horakhty inscription).

13. The cartouches newly added in this phase are still the ones of Amenhotep III.

14. DESROCHES-NOBLECOURT 1999, drawing on p. 156, text on p. 159.

CONCLUSION

As mentioned before, the suggested sequence and interpretation of the decoration phases inside the sanctuary of the temple of Amenhotep III at Wadi es-Sebua need further corroboration and elaboration by the ongoing work on the project. But we can safely state that this provincial temple was kept very much up-to-date with changing ideas in religion and royal ideology in the time of Amenhotep III, Akhenaten, and the aftermath of the Amarna Period. What began as a cult building for the local form of Amun as “Lord of the Ways” was apparently transformed into a place of worship for the sun god in his form as Ra-Horakhty—and thereby kept in accordance with the evolving solar theology of the later reign of Amenhotep III. And since Amenhotep III during his last years and subsequently in the reign of his son Akhenaten was considered as the living Ra-Horakhty,¹⁵ it might very well be that the main cult recipient in this period was seen as the divine Amenhotep III. This theory offers also an explanation for the fact that, apart from effacing the name of Amun, the decoration program was otherwise unaltered during the reign of Akhenaten. After the Amarna Period, however, the ritual focus was shifted back to the original local form of Amun—again in accordance with the state religion. In the later reign of Ramesses II the sacred landscape at Wadi es-Sebua was augmented by a huge new temple dedicated primarily to Amun-Ra and, thus, the older sanctuary nearby was incorporated into a larger local ritual network.

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15. On the divine Amenhotep III, see JOHNSON 1993; JOHNSON 1998 and BICKEL 2002, each with further literature.

16. Due to the restricted length of each contribution to the proceedings the bibliographic references have been kept to a minimum; for additional references regarding the temple in question see ULLMANN 2011.



Fig. 1. West wall of the sanctuary, taken in 2010.

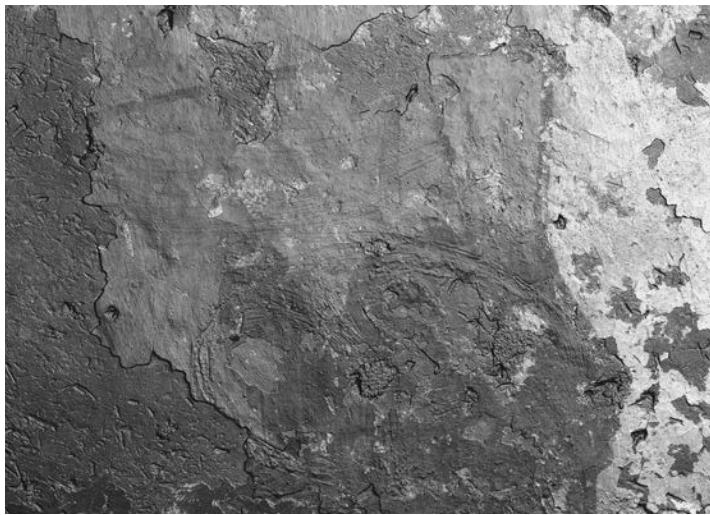


Fig. 2. RTI image of the head of the enthroned deity on the west wall, taken in 2019.



Fig. 3. For comparison: a depiction of the falcon-headed Ra-Horakhty from the tomb of Seti I, KV 17 (detail).

La fenêtre d'apparition sous Amenhotep IV-Akhenaton

De l'édifice prototype de Karnak au dispositif amarnien

AL'EST DE KARNAK, la mise en place d'une théologie dédiée au nouveau concept divin « Ankh-Rê-Horakhty/Aton » bouleverse le registre thématique des parois des temples. Les scènes rituelles offrent en ce début de règne d'Amenhotep IV-Akhenaton, un regard sur la vie quotidienne de la cour et l'organisation pratique du culte solaire. La vie du couple royal et les dispositifs qui l'entourent sont au centre des thèmes représentés sur les parois. Tout ce qui se trouve sous les rayons d'Aton existe de par sa magnificence. Les nouveaux édifices cultuels livrent un catalogue du « réel » inhabituel ; avec des thématiques figuratives inédites pour les murs d'un temple.

Les scènes retrouvées illustrent, entre autres, divers monuments dédiés au culte d'Aton¹. Les édifices représentés sont en fait les prototypes de ceux qui seront érigés plus tard dans le règne à partir de l'an V à Amarna². Les gravures des parois des premières années portent en elles des informations précieuses, car elles ont consigné les traces des adaptations progressives des monuments au nouveau culte solaire³. Parmi elles, l'innovation architecturale majeure introduite alors est sans conteste la suppression des toitures des édifices religieux avec pour corollaire l'utilisation de murs en *talatat*. Parmi les nouveaux bâtiments conçus pour la mise en scène solaire du couple royal, la fenêtre d'apparition a une place privilégiée⁴.

La fenêtre d'apparition est un édifice emblématique du règne d'Amenhotep IV-Akhenaton. Il est largement représenté dans les tombes des dignitaires amarniens. Ces derniers se sont fait figurer au pied de l'édifice, recevant des récompenses en or et en produits de toutes sortes des mains du roi. Lors de la phase proto-amarnienne du règne, des tombes thébaines ont également été décorées, par leurs propriétaires, de scènes identiques. Elles témoignent de l'usage précoce dans le règne d'un protocole de récompenses royales depuis le balcon. La documentation thébaine apporte cependant un éclairage nouveau quant à l'utilisation de l'édifice. Depuis le balcon de la fenêtre d'apparition, face

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1. VERGNIER 1999, vol. I, p. 153-167; LAUFFRAY 1980, p. 67-89; sur le culte divin journalier, voir DAVID, VERGNIER 2021.

2. La grande cour bordée de statues royales, le plan du Ténys-Ménou de Karnak transposé pour les deux sanctuaires des temples d'Aton à Amarna, les pylônes sans fruits, la fenêtre d'apparition.

3. Voir par exemple la titulature divine devenue cartouches dogmatiques avec la réactualisation des scènes antérieures ; de même pour la modification du cartouche du roi et la réactualisation de l'ensemble des scènes antérieures : celles dédiées à Rê-Horakhty, ainsi que celles dédiées à Aton.

4. BADAWY 1948, p. 98-115.

aux courtisans assemblés, le roi élève sous les rayons d'Aton les nouveaux cartouches dogmatiques du dieu. Cet usage purement cultuel de la fenêtre d'apparition avait échappé jusqu'à lors par l'absence de prise en compte des documents proto-amarniens⁵.

Il est tentant de chercher à comprendre la forme de cet édifice ainsi que le contexte architectural dans lequel il s'inscrit⁶. La fenêtre d'apparition a fait l'objet de nombreux commentaires à partir des scènes des tombes amarniennes. Mais aucune proposition architecturale convaincante n'a encore été proposée⁷. Il est peu probable de retrouver un jour *in situ* les vestiges d'une fenêtre d'apparition à Karnak puisque tous les édifices ont été démontés. Cependant, les représentations laissées par les dessinateurs égyptiens peuvent largement aider à en comprendre l'organisation.

1. L'ENSEMBLE ICONOGRAPHIQUE UTILISÉ

Les comparaisons synchroniques puis diachroniques des données figurées de ces ensembles architecturaux offrent un champ de compréhension renouvelé⁸.

Ainsi les scènes étudiées concernent l'ensemble du règne et peuvent être regroupées différemment selon la nature des renseignements recherchés :

- les scènes qui contiennent des informations sur la fenêtre d'apparition ;
- les scènes qui montrent l'environnement architectural immédiat dans lequel s'insère la fenêtre d'apparition ;
- les scènes dans lesquelles les dessinateurs livrent des informations sur l'environnement urbain de la fenêtre d'apparition.

Pour la période proto-amarnienne plus particulièrement, deux tombes⁹ et cinq assemblages de *talatat* fournissent des informations précieuses auxquelles il faut ajouter de nombreuses pierres isolées. L'analyse des représentations conduit à proposer une hypothèse de restitution pour la fenêtre d'apparition d'une part et son contexte architectural d'autre part.

2. MÉTHODOLOGIE

La modélisation 3D est un outil incontournable pour tenter retrouver l'aspect d'un bâtiment disparu¹⁰. Une telle entreprise nécessite d'analyser les figurations dans les moindres détails. L'objectif est de créer une scène 3D numérique au plus proche de ce que les dessins montrent ; sans rien ajouter. L'utilisation des données iconographiques dans le cas de la fenêtre d'apparition oblige

5. Les scènes des parois des temples proto-amarniens ne montrent aucune séance honorifique se déroulant devant la fenêtre d'apparition, seule des tombes thébaines en témoignent.

6. KEMP 1976.

7. Le programme ATP1 s'était penché sur la question mais en partant d'assemblages fautifs ; comparez REDFORD, SMITH 1976, pl. 61, 62.I et p. 129, fig. 21 ; hypothèse de reconstitution, p. 130-131, fig. 22-23.

8. Les extensions architecturales figurées dans la documentation amarnienne de la fenêtre d'apparition ont été traitées mais ne sont pas présentées ici. Ces recherches sont comprises dans la publication générale.

9. Tombes de Ramose (TT 55), DAVIES 1941, pl. 32-37 et de Parennefer (TT188), DAVIES 1923, pl. 23 et 24.I.

10. L'usage des modèles 3D dans la méthodologie de restitution des espaces figurés sur les reliefs antiques est fondamentale. Sur les méthodologies 3D de restitution des espaces disparus, voir : VERGNIEUX 2008 p. 236-240.

à prendre des précautions méthodologiques. Si plusieurs fenêtres d'apparition ont été construites, tant à Karnak qu'à Amarna, il est possible de considérer que les dessins antiques traduisent au moins les caractéristiques d'un édifice type, même s'il en existe plusieurs exemplaires sur le terrain¹¹. Une autre précaution est de s'assurer que tous les éléments d'architectures figurés dans les dessins égyptiens sont pris en compte dans la restitution, même s'ils ne sont présents qu'une seule fois dans la documentation. Il reste cependant une inconnue importante pour la restitution. Elle concerne le dimensionnement des édifices. Tout au plus, les dessins antiques procurent des indications sur les dimensions relatives entre certains composants ainsi que les positions respectives des édifices sur le terrain. Les valeurs utilisées pour la modélisation des volumes se fondent alors sur des mesures s'inspirant de la mise en œuvre technique des *talatat* et des parties encore visibles du plan de la ville d'Amarna. Certaines *talatat* conservées dans les réserves de Karnak doivent provenir des murs mêmes de la fenêtre d'apparition, mais pour l'instant aucune n'a pu leur être affectée avec certitude.

La transformation en modèle 3D de ces données est nécessaire pour comprendre progressivement l'agencement physique des éléments architecturaux entre eux. La mise en volume numérique permet de combiner visuellement des informations multiples. Une approche volumique précise aide surtout à évacuer les erreurs d'interprétations lorsqu'elles conduisent à des impossibilités physiques. La comparaison récurrente entre le modèle 3D et les scènes figurées lors de séances de recherches conduit à l'élaboration progressive d'hypothèses de restitution plausibles¹². En fin de compte, la proposition retenue doit être compatible avec l'ensemble des représentations antiques connues. Elle peut évoluer à la suite de la découverte de nouveaux documents graphiques, archéologiques ou épigraphiques.

Ne sont présentés ici que quelques aspects de la recherche menée. L'étude d'ensemble sera publiée dans un article à part.

3.

ANASTYLOSE DE LA FENÊTRE D'APPARITION

Les représentations antiques de la fenêtre d'apparition sont caractérisées par une façade munie d'un balcon. Il peut être fermé à l'aide d'un double volet maintenu sur le haut par un linteau brisé. Deux montants latéraux, décorés au sommet de cobras dressés, bordent le balcon sur les côtés. La partie supérieure de la fenêtre est constituée d'une colonnade. Le point le plus délicat pour comprendre la structure architecturale de la fenêtre d'apparition est de pouvoir interpréter l'agencement physique de la colonnade dont on aperçoit la partie supérieure au-dessus du balcon.

11. La mise en œuvre de murs construits en *talatat* facilite la reproduction d'édifice à l'identique (modulo quelques détails) comme le sont le sanctuaire du Tény-Ménou à Karnak et les deux sanctuaires des temples d'Aton d'Amarna.

12. Cette recherche fait partie d'une étude plus large sur les édifices proto-amarniens. Elle a été menée sur la période d'une année à raison d'une moyenne de deux séances par mois. La modélisation 3D et l'étude des contraintes architecturales ont été menées en collaboration avec Odile Erhard, architecte DENSAIS).

Comment comprendre en effet ce dispositif qui est tantôt représenté comme deux hauts de colonnades disjointes situées de chaque côté de l'axe central du balcon¹³, tantôt comme la partie supérieure d'une unique colonnade située sur l'arrière¹⁴? Une analyse de l'ensemble de la documentation permet de trancher sans difficulté.

Les fenêtres d'apparition sont figurées avec ou sans rayons solaires franchissant la colonnade.

Lorsqu'il n'y a pas de rayons solaires franchissant la colonnade à l'aplomb du balcon, alors elle est dessinée d'un seul tenant et occupe toujours la totalité horizontale de la fenêtre. Il faut alors dans ce cas interpréter la colonnade comme une loggia en retrait par rapport au balcon.

Si des rayons solaires franchissent la colonnade pour venir irradier le balcon avec ou sans la présence du couple royal, alors la colonnade est séparée en deux. La césure de la colonnade laisse passer les rayons solaires. Elle doit être interprétée comme une solution graphique en réponse à la nouveauté architecturale. La fenêtre d'apparition est un lieu de mise en scène solaire du roi. Les rayons descendent sur lui jusqu'à venir le toucher avec les mains qui équipent leurs extrémités. La colonnade étant située en arrière du balcon, comment traduire graphiquement l'union entre le couple royal et les rayons solaires? Comment montrer que la colonnade est en retrait? Les dessinateurs ont ici utilisé les possibilités techniques du dessin égyptien consistant à pouvoir choisir pour tout élément représenté un angle de vue propre¹⁵. La colonnade est dessinée vue depuis la gauche, sur la gauche de la fenêtre. La colonnade est dessinée vue depuis la droite, sur la droite de la fenêtre¹⁶. Mais tout spectateur de l'époque devait synthétiser l'image en une colonnade continue à l'arrière de la fenêtre, avec les rayons solaires franchissant les airs en avant de celle-ci. Une scène de la tombe de Meryra¹⁷ semble le confirmer. C'est le seul cas de fenêtre d'apparition figurée avec une colonnade continue et des rayons solaires qui la franchissent. Elle est ici figurée d'un seul tenant. Les rayons solaires sont gravés en relief et non pas en relief dans le creux en franchissant la corniche. Ce détail indique définitivement que la colonnade est située en arrière-plan¹⁸. *A contrario*, comme il n'y a aucune scène de fenêtre d'apparition figurant la colonnade séparée en deux sans la présence des rayons solaires la franchissant, la conclusion qui s'impose est que dans tous les cas il s'agit d'une loggia couverte et en retrait par rapport au balcon (fig. 1b). Le dessin sous deux angles opposés pour la loggia est une solution graphique subtile à mettre au crédit des iconographes de pharaon.

13. Par exemple DAVIES 1905, pl. 10 ou pl. 43.

14. Par exemple DAVIES 1903, pl. 18 ou DAVIES 1905, pl. 14.

15. Voir VERGNIEUX, BELOV à paraître, chapitre 2.

16. Un dispositif graphique assez proche est utilisé dans l'image du pylône de Louqsor, située dans la cour de Ramsès II du temple de Louqsor, en tête de la cohorte des fils de Ramsès. Le groupe <obélisque/statues> de gauche est dessiné vue depuis la gauche alors que le groupe de droite est dessiné vue depuis la droite.

17. DAVIES 1903, pl. 6-7.

18. Sur l'utilisation du relief et relief dans le creux sous Amenhotep IV-Akhenaton: voir VERGNIEUX 1999. Sur les jeux graphiques des kiosques et rayons voir DAVIES 1905, pl. 37.

4.

LE CONTEXTE ARCHITECTURAL DE LA FENÊTRE D'APPARITION

Les nombreuses scènes des tombes amarniennes présentent l'environnement architectural immédiat lié à la fenêtre d'apparition. Il se compose d'une vaste cour à laquelle on accède par une porte monumentale surmontée d'un Aton rayonnant. La fenêtre d'apparition avec la loggia et son balcon donnent sur cette cour. À l'arrière se situe une salle couverte avec, au centre, les deux trônes royaux. Puis encore à l'arrière encore, un couloir donne accès à des salles, dont une avec un *malquaf* et un lit royal.

À Karnak (fig. 1a) le contexte architectural de la fenêtre d'apparition est très proche de celui d'Amarna¹⁹.

À la différence d'Amarna, ici le couple royal ne récompense pas un dignitaire, mais officie sous les rayons d'Aton²⁰. L'espace « avant » est également clos par une porte monumentale surmontée d'un soleil rayonnant. La fenêtre se compose également d'une loggia et d'un balcon. À l'arrière de la fenêtre, une porte à claustra à doubles vantaux donne accès non pas à une salle couverte, mais avec une cour dans laquelle se trouve un podium (fig. 1c)²¹. Au-delà de ce podium, à l'arrière d'un mur, un couloir dessert des pièces couvertes contenant des dressoirs à eau, des bassins et suspendues aux murs, des tringles supports à sandales²².

5.

« PODIUM À KARNAK » VERSUS « SALLE À AMARNA »

La comparaison des dispositifs architecturaux liés à la fenêtre d'apparition de Karnak et d'Amarna atteste d'une modification majeure entre le prototype proto-amarnien et sa réalisation amarnienne. Les illustrations des tombes amarniennes montrent clairement qu'une salle avec deux trônes a été substituée au podium solaire. Aucun élément ne permet d'identifier une raison à cela. Il est juste possible d'en faire le constat.

Ayant traduit lors de cette recherche les images égyptiennes de la fenêtre d'apparition en volumes et en plans, il était tentant d'identifier sommairement si un secteur, déjà fouillé de la ville d'Amarna, ne pouvait pas correspondre au plan type restitué. Très vite, une similitude a été identifiée entre des vestiges de Kôm el-Nana²³ et le plan restitué de la fenêtre d'apparition. En effectuant une adaptation des dimensions sans retoucher l'agencement des volumes, le modèle restitué trouve parfaitement sa place (fig. 2). Mais quelle ne fut pas la surprise de constater, à proximité immédiate, les traces d'une plateforme qui correspondent également assez fidèlement à l'implantation au sol du podium solaire restitué à l'arrière de la fenêtre d'apparition dans le modèle de Karnak.

Toute la conception de la mise en scène solaire a été pensée, testée, adaptée à l'est de Karnak avant de « produire » Amarna. Les quelques éléments présentés ici sont pour témoigner de l'importance de la documentation proto-amarnienne qui peut contribuer à porter un regard nouveau sur la période amarnienne.

19. Plusieurs assemblages et des pierres isolées permettent de restituer les volumes, VERGNIEUX 1999, vol. I, p. 115-122; VERGNIEUX à paraître, fig. 1.

20. VERGNIEUX 2005, p. 40 fig. 2.

21. Sur ce podium, voir VERGNIEUX à paraître, fig. 06.

22. Pour la description de la scène voir VERGNIEUX 2005, p. 44-50.

23. Voir TIETZE 2010, p. 85 et fig. 35; en dernier sur Kôm el-Nana, voir WILLIAMSON 2016.

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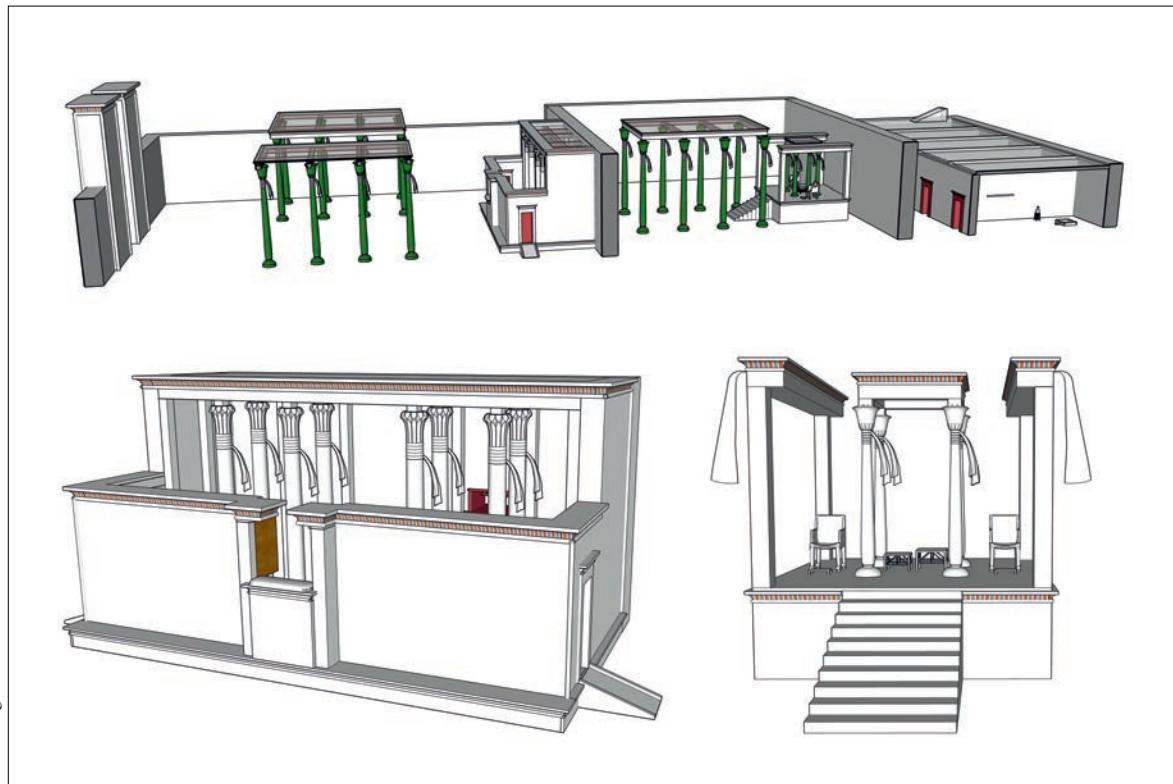


Fig. 1. Restitution du complexe architectural proto-amarnien de la fenêtre d'apparition.

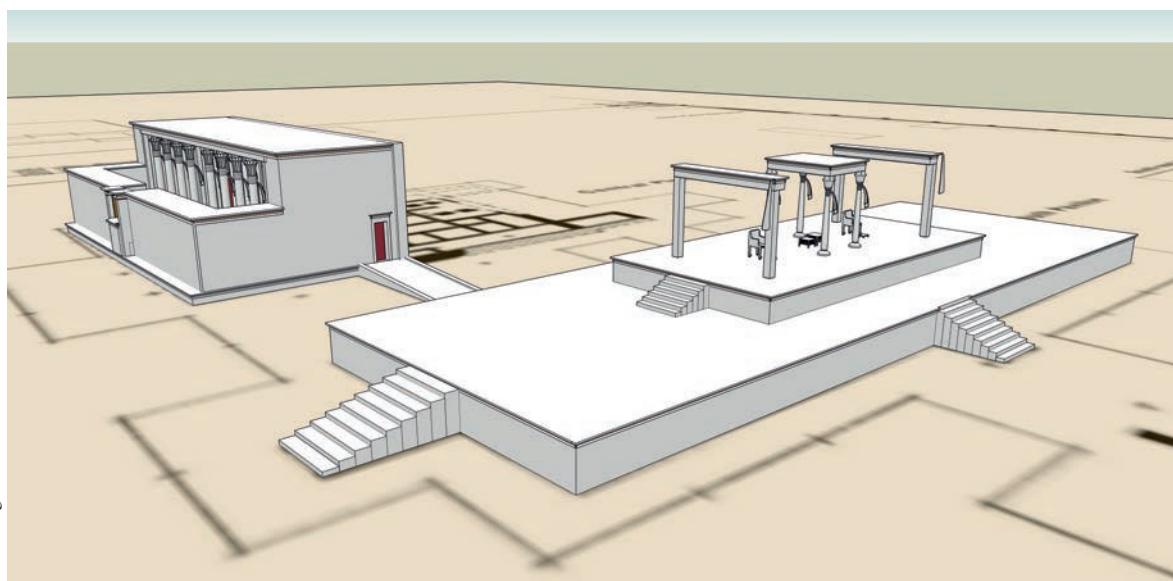


Fig. 2. Hypothèse d'implantation d'une fenêtre d'apparition et d'un podium solaire proto-amarniens dans le secteur de Kôm el-Nana à Amarna.

Manuel Villarruel Vázquez*

Architectural and Dimensional Analysis of the Tomb of Puimra (TT39)

SINCE 2005, a cultural management project has been launched for the rescue of the Theban Tomb 39 (TT39), an archaeological monument from the 18th Dynasty, in the Theban necropolis. This work has been carried out by the Mexican Society of Egyptology,¹ the University of the Valley of Mexico, the National Institute of Anthropology and History and the Ministry of Foreign Affairs of Mexico.

It is of great significance to mention that the noble Puimra is contemporary of two important monarchs in Egyptian history: Hatshepsut and Thutmose III. One of the objectives of the project of the Mexican Archaeological Mission of the TT39, is to increase knowledge of this period, in which the participation of Puimra in the political and religious life of Ancient Egypt will undoubtedly indicate new approaches to understand the reign of both kings.

TT39 is the tomb of the Second Priest of Amun Puimra, known in his funerary complex as "He who is in charge of the nobles, Second Priest of Amun, Puimra". He was also the King's Grand Treasurer, holding more than fifteen charges within the royal court. The tomb of Puimra was first rescued in the first quarter of the 20th century by Norman and Nina de Garis Davies, who performed extremely relevant rescue work, and published their book in 1922–1923. Since then, it has been practically closed, in constant deterioration and with serious raids by "tomb-robbers"; it was not until 2005 that this site was reopened and entrusted to the Mexican team of specialists for its conservation.

DESCRIPTION OF THE MONUMENT

The construction of this tomb was based on the geomorphological characteristics of the El-Asasif Valley and the tectonics of the architectural program, created by Puimra.

The tomb was placed facing the dromos that connected, by land, the temple of the god Amun Ra of Karnak, towards Deir el-Bahari, the area where the temples of Mentuhotep II, Hatshepsut and Thutmose III were located on the west bank. This site under the hill of El-Khokha would make the tomb of Puimra play a preponderant role in the symbolic-urban distribution of this large funerary space. Architecturally, the tomb was composed of an esplanade or ritual courtyard that

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1. The Project is conducted by Gabriela Arrache Vértiz.

connected the access to the tomb from the *dromos*, flanked by two walls of limestone blocks with escarpment. The courtyard of Puimra has been analyzed and compared with contemporary cases by José Manuel Galán, showing the relevance that open spaces had for the funerary rituals.²

Puimra started the process of selection of displacement area, its orientation and construction model, according to the general characteristics, geological constitution, shape and slopes of the hill of El-Khokha; due to these natural characteristics, the tomb had to be built within the limitations of the limestone composition of the mother rock, which allowed for the excavation and creation of almost regular internal spaces, and in areas where the stone material was not hard and homogeneous enough, the builders had to arrange ashlar walls to create the supporting walls. For the same reason, the portico solution was easily conceived as a structure of cut sandstone pieces installed at the entrance to the tomb.

The patio ended in a porch built of sandstone, roofed and supported by four 16-sided faceted columns and five square lintels. It was through this porch that the tomb was accessed; the entrance opening, according to N. de G. Davies,³ was flanked by two stelae with text referring to the priest's biography, and four false-doors, connecting the entrance to a corridor which, in turn, gave access to three chapels, named South, Central and North, which served to complete the funerary liturgy, covered by a roof in the form of a canopic lid, a horizontal flat roof, and a barrel vault, respectively.⁴ According to Davies' studies, access to the sarcophagus chamber began on the shaft VI, open at the north corner of the porch, leading through different passages to the place where Puimra's body was buried, below and to the northwest of the North Chapel. The walls, decorated with high and low relief images and several texts in hieroglyphic writing, still retain a high percentage of the rich decoration, both in the interiors and in the façade texts, and have allowed the epigraphy and iconography team of the Mexican Mission to develop new theories about Theban festivities and the registration of administrative and religious events of that time.⁵

It is important to note that the tomb was arranged practically in a symmetrical and tripartite order (fig. 1), where the axis of composition was established on the access door, passing through the Central Chamber and ending in the Sanctuary. By understanding the composition of the tomb, we can see that the architect's plan was a mortuary complex based on funerary temples. In this context, the hypothesis that the location of the tomb was selected for communicative purposes, oriented towards the processional roads leading to Deir el-Bahari, with a very special urban vision of Puimra, becomes important.⁶ From our own measurements, it is clear that the location of TT 39 could be related to the nearby funerary architectural assemblies of the pharaohs, and in particular to the Beautiful Feast of

2. GALÁN 2009, p. 250.

3. DAVIES 1923, pp. 51–56.

4. VILLARRUEL, JIMÉNEZ, SÁNCHEZ 2005, pp. 6–9. We are talking of a kind a subtractive architecture, a creation of underground architectural spaces through the mechanical subtraction of consistent or solid soils.

5. In this same edition of the International Congress of Egyptology 2019, it will be presented the analysis of the incense distribution, which belongs to a certain depicting area of the Hall of TT39, analyzed by Jesús Trello Espada, member of the team of the Mexican Mission. See also TRELO, ARRACHE 2018, pp. 207–240.

6. Measurements were taken from the beginning of the ramps of the platforms of the temples of Hatshepsut and Mentuhotep II, orienting their axes and extending them to the wadi of El-Asasif, in order to understand the relationship of these roads to the disposition of the tomb of Puimra. See VILLARRUEL et al. 2009, pp. 4–9; WILKINSON 2005, pp. 22, 175; and SHAW 2002, pp. 241–242.

the Valley; in that sense, with the help of topographic equipment, the axis of the processional *dromos* was located from the funerary complex of Hatshepsut, and with it, the hypothesis of the tracing of the roadway in its passage in front of TT 39. This unprecedented action made it possible to evaluate the urban and symbolic link of the necropolis with the pilgrimage stays at the temples and the importance of the location of the sepulcher of Puimra.

Constructively, the tomb, dug into the excellent quality limestone of the hill, was cleverly formulated as a thorough, sculptural excavation process, generating the spaces through the extraction of materials. The walls and ceilings were the result of careful cleaning and refining processes of the edges of each space,⁷ generating regular geometric voids, with roofs in the form of sanctuary covers (fig. 2). Only in some areas where it is assumed that the limestone found was not of good quality, or for reasons of artistic emphasis, were walls created with carved limestone; as is the case with the wall of the façade of the Sanctuary (and its roof) and the majestic façade that framed the false door on the west wall of the North Chapel.

Understanding the characteristics of the site chosen for the location of the tomb of Puimra, allows to evaluate more precisely the deterioration processes suffered in it.

THE INTERVENTION PROJECT

Since 2005, a detailed process of recording, mapping and analyzing the obvious deteriorations and alterations of the funerary complex has been carried out; as a result, we can group them into three main types, from the point of view of architectural conservation methodology:

1. Those produced by the characteristics of the geological composition of the hill of Khokha, where the characteristics of the limestone rock produced architectural cracks, board fissures and detachments of sections of the walls and ceilings of the funerary space.⁸
2. Injuries due to the agents of the natural and social environment of the time, including those produced by the various reuses of the funerary building,⁹ also as a dwelling and even as an animal pen in more recent times; the imprint of the different occupants and discordant uses, were marked on the walls, ceilings and floors, resulting in further deterioration. It is worth mentioning the insertion of dividing walls inside the corridor and the opening of a window/door which broke the compositional scheme of the façade and the axiality of the set, indicated above, and which also disturbed the decoration of the interior walls.

7. MACFAS 2014, pp. 16–21. It is very significant that some original tools were found, such as a couple of wooden mallets; this pair of implements bears marks of use, showing that they probably helped in the construction of the tomb.

8. The study conducted by Adam D. Booth, Kasia Szpakowska, Elena Pischikova and Kenneth Griffin on TT 223 in El-Asasif, points out similar problems in the area, which could serve to understand the behavior of soil materials and define an archeological characterization that explains fault processes and deterioration of the graves (BOOTH et al. 2014).

9. There are at least 10 burial shafts in addition to the original, which indicate the use and modification of TT 39, with the consequent structural risks involved. The Mexican Mission has not yet been able to enter and analyze all the funerary chambers, due to the lack of information at the time of writing this article. See DAVIES 1923, pl. LXXIII, and also see ENGELMANN VON CARNAP 2010, pp. 337–359.

3. Those caused by abrupt outbreaks inside, originated by looters who, in their eagerness to steal the treasures of the funerary objects or even the reliefs of the walls, broke, sawed and cracked very important sections of the walls.¹⁰

The restoration work was based on the methodology of intervention of monuments, commonly accepted in the world, generating a comprehensive intervention dossier, including groups of graphics and plans that detail each process.

As a primary study, various surveys were carried out: topographical, architectural, material and construction system surveys, mapping of alterations and deteriorations, all with photographic records, with which an accurate knowledge of the tomb was obtained; the tectonic analysis¹¹ of the tomb, the geological and topographical information and the damage pattern, made it possible to generate a diagnosis of the current situation, in order to draw up the intervention proposal. These activities had to be finely linked to the archeological conservation work and the restoration of the wall decoration teams. In the work of metric prospecting and architectural conservation, it is necessary to highlight the development of three-dimensional prospecting studies using 3D Scanning LEICA technology;¹² this action allowed the incorporation of architectural "design" processes for the restitution of the pieces, more precisely and to understand the overall structural behavior of the tomb.

Based on the dimensional analysis, we were able to contrast the hypothesis of N. de G. Davies, and re-create what could be the architectonic plan, before the intrusive tunnels, the additional shafts, and the disrupting window on the façade, resulting in a more logical and tectonic way of understanding the tomb/temple of Puimra. For example, the nearly consolidated soil on the north and south sides of the courtyard, could demonstrate the practicality of using simple limestone coating blocks instead of self-stable ashlar in the retaining wall of the area, contrary to N. de G. Davies' assumption, and of reducing the height and slope of the wall.

In this respect, the exterior design of the Patio and Portico seems to emphasize visual depth, based on the characteristics of the arrangement of the retaining walls and the discovery of possible traces of protective walls above the roofs of the tomb.

FIELD WORK

In 2005, we started releasing the rubble in the yard and removing the retaining wall of a vehicular road built over the funerary chambers; in the same way, the rubble of the patio caused by permanent landslides of the hill was removed and some retaining walls were built to allow the stability of the slopes of the hill of Khokha, and the protection of the tomb spaces.

¹⁰. In addition to the tunnels blinded by Davies, since 2005 the Mexican Mission has discovered and canceled three relevant looting tunnels, all three located in the South Chapel.

¹¹. Tectonics is defined as "the science or art of construction, both in relation to the use and artistic design" (MAULDEN 1986, p. 11). We mean that the analysis can deduce how a certain kind of architecture was built, so as to respect some artistic values.

¹². With the support of Leica Geosystems, SYSTOP of México, INAH, Juan Delgado, Ángel Mora and Marisela González; see SEVERAL AUTHORS 2005–2018.

The cleaning and excavation work has resulted in extremely important finds of objects and fragments.

It was necessary to substitute modern (20th century) adobe wall reconstructions in areas of the chambers where wall fragments had broken away or where there were looting tunnels with limestone and brick masonry. It was possible to record the entrance holes of the looting tunnels, their orientation and origin, in order to seal them securely; in one of these tunnels was the most important piece of the TT 39: a rectangular fragment of the niche of the South Chapel, which shows the best preserved image of Puimra and his wife Senseneb, which had been chiselled out by the looters and was ready to be taken out.

Similarly, the poor quality concrete slab roof of the corridor built by N de G. Davies was dismantled, due to its reduced state of conservation, and had to be replaced by another one with similar characteristics, but structurally reinforced, guaranteeing the safety and protection of workers and spaces.

The structural consolidation phase of the strata and rock faults was necessary to ensure the stability of the tomb spaces. The existing cracks in walls, extending onto the limestone rock decks, were consolidated by injecting the rifts to prevent slipping, using a procedure very common in different countries, but controlling the amount of water and taking advantage of the stabilized natural fibers of the region.

Partial restitution processes of walls and lintels were performed on the doors of the North and South Chapels, which made it possible to recover the spatial qualities of the tomb. It is worth highlighting the importance of the coordinated work of the different specialities of the Mission, because thanks to several years of analysis, it has been possible to classify, record and catalogue the original pieces with relief and hieroglyphs; from this study, the project to restore the lintel of the entrance of the South Chamber was detached; this stone beam contained original fragments but there was no continuity that allowed them to function again as a whole, as a structural enclosure for the door. For this reason, an almost invisible metal support structure for the fragments was designed, which performs the task of safely supporting.

The reintegration of the architectural elements consisted of restoring to their original location fragments of original pieces found in the same place, such as those found in the multiple sections of the corridor or the chambers and the seated figure of Puimra and Senseneb, already mentioned.

The particular rescue of the west wall of the North Chapel deserves special mention, made with limestone ashlar bearing religious texts and images of the funerary trousseau (fig. 3); and in the middle, there was the beautiful red granite stele or "False Door" of more than 2m high, which for its security and value, was moved to be kept in the Cairo Museum. After a multi-year project, the restoration of the original ashlar recovered by the Mexican Mission was achieved, by inserting the architectural grid with construction techniques similar to the original, to allow the North Chapel to recover a large part of this enclosure element that enhances its hierarchy in the architectural program of the tomb.

Important findings from the tectonic point of view are the vestiges of cuts in the original bedrock above the Hall; these subtle cuts indicate two linear strokes, possibly the existence of retaining walls on the roofs, to protect the Portico from unexpected landslides and hydraulic flows, similar to those recorded in several tombs of the Valley of the Kings, such as KV 9, KV 17 and KV 34, or

as hypothetically deduced in TT 181 (Nebamun), TT 157 (Nebunenef) and TT 288 (Setau),¹³ to name a few. This hypothesis of retaining walls, very close to the sandstone structure of the Portico of Puimra, should have had a lot of formal agreement with the facade; the three-dimensional analysis processes allowed the deduction of very specific design patterns for the patio and the facade of TT 39 (fig. 4).

CONCLUSIONS

The tectonic values of TT 39 and even its deficiencies make it possible to deduce the way in which it was built, but also the consolidation and restitution mechanisms required. In particular, the study of the 3D integral is shedding light on the Patio and the Portico, the body of contact with the outside of the tomb. In this context, the possible hypothetical variants for the recovery of the façade are being evaluated.

In the same way, dimensional and archaeological analyzes have made it possible to consolidate and recover lost ashlar wall patterns, which are now beginning to recover their original image. The Theban Tomb 39 rescue project is still ongoing and, as planned, there are still many fronts to be carried out, mainly finishing the stabilization and protection of the architectural ensemble. The studies presented here can perhaps serve as a comprehensive understanding of the interaction between funerary constructions, their open ritual space and the urban context, as J.M. Galán points out, by re-evaluating the little known values of the exteriors of the monuments.

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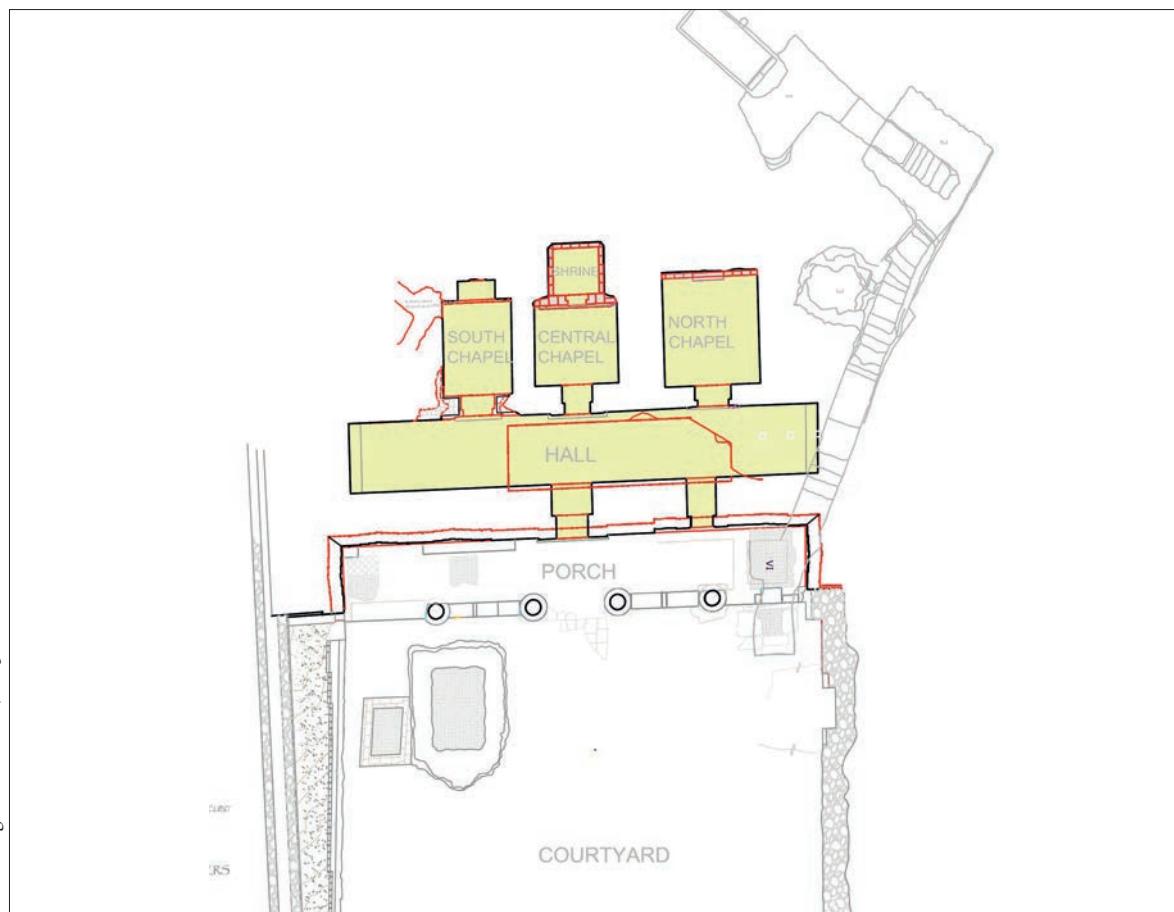


Fig. 1. General plan of TT39.

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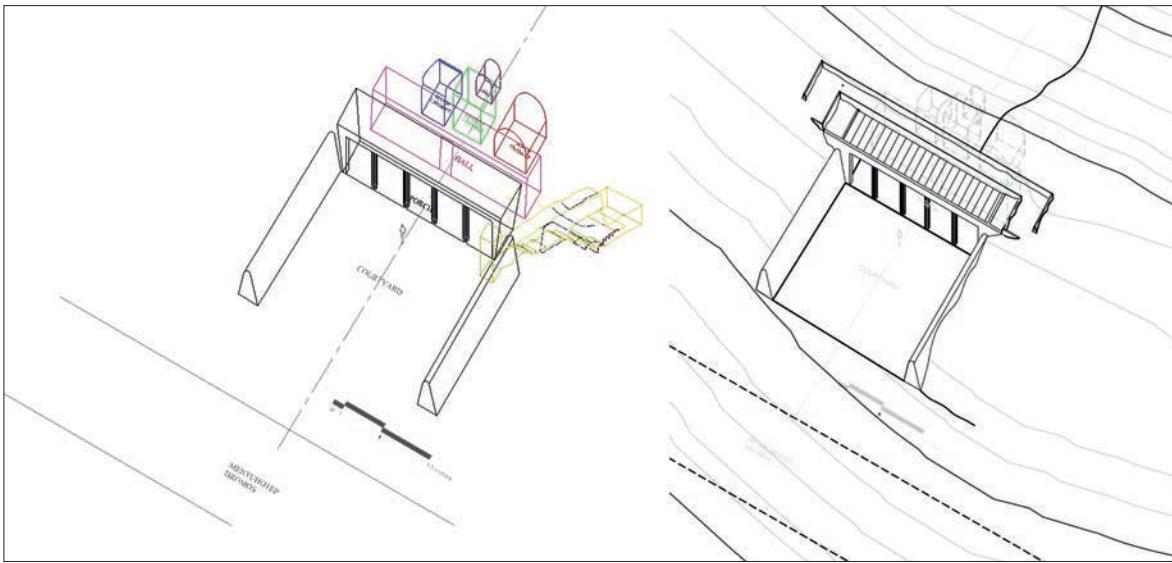


Fig. 2. Axonometric view of the architectural complex of TT39.

© Photo: M. Villarruel, 2018.



Fig. 3. West Wall of the North Chapel; block sills restitution process.



Fig. 4. 3D model created with the LIDAR technology (Ángel Mora, Juan Delgado and Manuel Villarruel, 2018).

An Unusual Graffito in the Cachette Wadi: Hunting in the Desert Boundary? Meaning, Function and Authorship

DURING a research stay in 2017 at the Griffith Institute (University of Oxford), I came across an intriguing figurative graffito published in 1921 by Wilhelm Spiegelberg in *Ägyptische und andere Graffiti (Inschriften und Zeichnungen) aus der Thebanischen Nekropolis*, which captured my attention from the very first moment.¹ It was numbered graffito 1058, located in the Wadi C2, on the west bank at Luxor, and contained a 'desert hunt scene'. Since 2017, the joint Spanish–Egyptian 'C2 Royal Cache Wadi Survey Project' has undertaken the exploration of the eponymous wadi, which contains the well-known Royal Cachette tomb, TT 320.² As a member of this project, I had the unique opportunity to register and analyse the graffito *in situ* during the fieldwork in 2019 and 2020. One of the main concerns of the project is the reciprocity between an ancient sacred place and its human activity, exemplified by the high concentration of graffiti in the Royal Cachette Wadi. Specific areas of the wadi seem to have been especially attractive for ancient graffitists—for example, section 207—where graffito 1058 was found—later numbered as 2952 in the publication *Graffiti de la montagne thébaine*, from now on GMT.

The site has been subject to previous archaeological interventions: the Royal Cachette itself, having been discovered in tomb TT 320 by the Abd el-Rassoul brothers, probably around 1871, was explored and emptied by Emile Brugsch and Ahmed Kamal in 1881. Subsequent archaeological activities have been carried out by Ambrose Lansing in the early 20th century (under the direction of Herbert Winlock), who made an extensive intervention in the whole wadi, and recently by Erhart Graefe and Galina Belova, who focused on the Royal Cachette tomb itself.³ In addition, other previously known indications of ancient human activity in the wadi are the graffiti surveyed by W. Spiegelberg, Jaroslav Černý and Abd el-Aziz Sadek.⁴ Besides, during a brief survey conducted in the Deir el-Bahari area by the Polish team, a new graffito made by the scribe Butehamun was identified,⁵ and later an

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2. The C2 Royal Cache Wadi Survey Project is codirected by Prof. Dr. Hisham El-Leithy and Dr. José Ramón Pérez-Accino.

3. LANSING 1920; WINLOCK 1920; WINLOCK 1942; GRAEFE, BELOVA 2010.

4. SPIEGELBERG 1921; ČERNÝ 1956; ČERNÝ, SADEK 1974.

5. NIWIŃSKI, BUDZANOWSKI, PAWLICKOWSKI, RZEPKA 2001.

interesting graffito of Nubkheperre Antef was located near the entrance of the Royal Cachette.⁶ From the starting point of the published graffiti corpus, the C2 Project has researched this as the evidence of human activity in the wadi and as an example of ‘space appropriation’.⁷ Graffito 3652, showing an interesting hunt in the desert scene, will be a case-study to show the possibilities of graffiti in order to understand the reception of New Kingdom funerary art and its transference into the rocky walls of the Theban mountain.

In situ analysis of the Wadi C2 graffiti proved they are incised, probably made with a flint tool, or with the flint chips commonly found in the area.⁸ Due to the complex access to many graffiti locations within the wadi, it was necessary to install scaffolding in order to reach and record new and old graffiti, using the ‘C2 Project Method’.⁹ Specific locations in the wadi show a striking concentration of graffiti in small areas, following the clustering trend attested in many other ancient Egyptian sites. Graffiti open up dialogues and public discourse, thus attracting more graffiti. Therefore, clustering is the main influence when choosing a graffito location. The graffitists were trying to perform an ‘appropriation of the space’, i.e. “A creative act, graffiti reshape a place”.¹⁰

In the C2 Wadi, textual graffiti are the most common typology, and examples combining text and image are also attested on the site, where the texts are usually placed within a frame (imitating the form of a stelae, as a ‘low-cost stelae’). In the present research, figurative graffiti is the main topic, though they represent a low percentage of the whole amount. Figurative examples are usually simple and small, usually made by people unable to write a text, perhaps with the intention to leave a trace of their presence. Graffito 3652 is clearly an exception, as it shows a complex and interesting ‘hunt in the desert’ scene with several human figures.

I. LOCATION AND VISIBILITY

Graffito 3652 is located in section 207, in the upper terrace of the Wadi C2, which concentrates a considerable number of graffiti (mainly hieratic texts and some in Coptic), most of them located on a promontory at the eastern area of the wadi (a belvedere, as it is labelled in GMT). 10 out of the 14 graffiti of section 207 are located in this belvedere, following the practise of clustering or attraction.

Visibility is an essential tool for landscape archaeology,¹¹ and the upper level of Wadi C2 provides a panoramic view of the entire Theban necropolis from Deir el-Medina to Dra Abu el-Naga, as well as an ideal view of the entire processional route from Karnak to Deir el-Bahari¹². From the location of graffito 3652, the belvedere, there is an impressive view of the adjacent valley, where the temple of Mentuhotep was first built and later the temples of Thutmose III and Hatshepsut (fig. 1). One may wonder if the exceptional visibility of this belvedere was determinant in the creation of

6. RZEPKA 2004.

7. PÉREZ-ACCINO, VIVAS SAINZ, MUÑOZ HERRERA, in press; and the contribution by J.R. Pérez-Accino and H. el-Leithy in this volume.

8. CANDELAS FISAC in press.

9. See the contribution by A. Muñoz Herrera in this volume.

10. VIVAS SAINZ 2019; RAGAZZOLI 2013, p. 293.

11. STEVENS 2016; YOFFEE 2007; DAVID, THOMAS 2016.

12. CABROL 2001, pp. 84–85.

graffiti on its rock walls, as it could have been used as a ‘gathering point’, where a reduced number of people could have a privileged view on special (and probably religious) occasions. During the fieldwork of 2019 and 2020, it was observed that the floor surface of the belvedere seems to have been smoothed, but only further archaeological work on the location will confirm this hypothesis. Besides, the presence of a ‘desert hunt scene’ on a liminal place (i.e the belvedere), may suggest this boundary location could have acted as a symbolic ‘desert boundary’.

2. DESCRIPTION

The graffito was partially recorded by W. Spiegelberg in his pioneering publication,¹³ but showing only the upper register of the scene. It was later fully published as *GMT* 3652, in section 207 (Northern part of the wadi) showing the whole hunting scene,¹⁴ including texts in hieratic and one in Coptic.

During the ‘Royal Cache Survey’ fieldwork in 2019 and 2020, the graffito was recorded and photographed, giving the opportunity to have exact dimensions: 103cm width × 95cm height. Unfortunately, the belvedere in section 207 has suffered from vandalism in modern times, damaging the area where the graffito 3652 was made, and making it even more difficult to register and analyse the scene *in situ* (fig. 2).

The figures in the scene are orientated from right to left, (i.e. the human figures and desert animals move towards the left). Graffito 3652 has two registers, the upper one being the most interesting and including a higher scale male figure, barefoot and wearing a short skirt, leaving his nude torso visible. He is shooting a bow, carrying arrows in his left hand, with his right leg flexed and his left one extended without touching the ground. The result is an active pose which reflects a remarkable movement, suggesting the archer’s tension. It is worth noting that the archer is made with a firm and welldefined stroke, but the figure is rather disproportional: long legs, short and thick torso and very small head. The inaccurate proportions are probably due to the high position of the figure within the scene, that is the creator of the scene could not easily reach this area of the rock surface, bearing in mind the average height for elite males during the New Kingdom was 1.61 metres.¹⁵

The archer is followed by a rather static male figure, a servant, dressed in a short skirt and holding arrows. The left side of the scene includes several animals fleeing in an undulating desert landscape, trying to avoid the arrows being shot by the archer. One of these desert animals, probably a hare, is being chased by a dog (the traditional companion of hunters in Egyptian tomb-paintings), which is biting the animal’s legs. The pose of the hare is remarkable, as it is depicted in flying gallop, a pose characteristic from the art of the 18th Dynasty, and more specifically from desert hunt scenes in Theban tombs. Interestingly, this flying gallop pose has been considered as a possible influence of Aegean art.¹⁶

13. SPIEGELBERG 1921, p. 90, fig. 123, graffito 1058.

14. SADEK 1973, pp. 24–25; SADEK, SHIMY 1974, p. 13.

15. HABICHT, HENNEBERG, ÖHRSTRÖM, STAUB, RÜHLI 2015, p. 3.

16. MORGAN 2006, p. 251.

The lower register consists only of a slender male figure dressed in a short skirt, holding an object (maybe a lamp or an offering). The man is standing before an element which is difficult to identify. This register is delimited by a vertical line on its left side, perhaps imitating the 'hunt in the desert scenes' in Theban tomb-paintings.

3.

TENTATIVE TRANSLATION OF THE HIERATIC TEXTS IN GRAFFITO 3652

A tentative initial transcription and translation of the texts has been provided by Bill Manley (University of Glasgow),¹⁷ epigraphist for the C2 Royal Cache Wadi Survey Project. Only A.A. Sadek has previously tried to give a transcription of the hieratic texts,¹⁸ and in neither version is there an evident relationship between text and image. However, a comparison of the two graffiti now indicates that: (a) they give the same text; and (b) though there are four lines in Sadek's transcription, the text in each case ran to five lines, as the copies published by W. Spiegelberg indicate. The reading of the first two lines remains difficult for the moment but the rest of the text apparently mentions two men: Maanakhlef and Amenemheb, whose names are known in other graffiti.¹⁹ In fact, the text mentions that the graffito was made by Amenemheb, who was scribe and priest of Amun-Ra, king of all the gods in the Place of Truth.

If the texts record a visit to the site, they could be explained as a draft and definitive version, or just that the text was copied later on by another scribe. The members of the Deir el-Medina community were active graffitists in the Theban mountain, as recent research has proved,²⁰ and further investigation may identify the two men mentioned in graffito 3652.

The duplication of the same text could be interpreted in two ways: a second text was literally copied by a second scribe on his visit to the site, or maybe they are two versions made by the same person, some kind of draft and final version. The practice of copying texts from previous informal inscriptions has been recently demonstrated in a different context, in the tomb N13.1 in Assiut where 201 graffiti were recorded, including simple signatures, formulaic texts and fragments from sapiential literature, showing that the tomb was used as a space for scribal practice.²¹

4.

AN ICONOGRAPHIC ANALYSIS

No parallel to the graffito 3652 is attested in any other graffiti in the Theban area, so they must be sought in the 18th Dynasty tombs with desert hunting scenes. Most of them are dated to the 18th Dynasty, except the 12th Dynasty tomb of Antefoker and his mother Senet (TT 60), which has several graffiti made during the 18th Dynasty, probably visitor inscriptions,²² and the scene in the tomb of Sayemiti (TT 273) dated to the 20th Dynasty.

17. Personal communication with William Manley (University of Glasgow).

18. SADEK 1973, p. 24–25.

19. SPIEGELBERG 1921, *Personennamen* nos. 35, 36, 185.

20. RZEPKA 2014.

21. VERHOEVEN 2012, pp. 55–57.

22. RAGAZZOLI 2013, pp. 201, 269–32; DEN DONCKER 2012, pp. 23–34.

There are twenty-six 18th Dynasty tombs with ‘hunting in the desert’ scenes,²³ comprising the following ones: Djehuti (TT 11), Hery (TT 12), Montuherkepeshef (TT 20), User (TT 21), Nebamun (TT 24), Puimre (TT 39), Amenemhat (TT 53), Userhat (TT 56), Re (TT 72), Ineni (TT 81), Amenemhat (TT 82), Amunedjeh (TT 84), Amenemheb (TT 85), Kenamun (TT 93), Rekhmire (TT 100), Min (TT 109), Amenemhat (TT 123), Amunuser (TT 131), Intef (TT 155), Mentuiwiw (TT 172), Amenemipet (TT 276), Ahmose (TT 241), Nebenkemet (TT 256), Djehutimes (TT 342) Neferhotep (A5) and Siuser (A4). Only ten of these tombs include a main hunter on foot: Djehuti (TT 11), Hery (TT 12), Puimre (TT 39), Amenemhat (TT 53), Ineni (TT 81), Amunedjeh (TT 84), Kenamun (TT 93), Min (TT 109), Mentuiwiw (TT 172) and Neferhotep (A5). But only two have exactly the same composition as the graffito 3652, a main hunter with a bow and a servant carrying arrows: the tomb of Mentuiwiw (TT 172), which is seriously damaged, tempus Thutmose III and Amenhotep II; and the tomb of Hery (TT 12), tempus Ahmose–Amenhotep I. The closest parallel is TT 12, which includes the same fleeing animals and even the same image of a dog biting its prey (fig. 3, courtesy of Dr. José M. Galán).

In ancient Egyptian art the ‘hunt in the desert’ scene is not a realistic one, that is, it does not try to represent an accurate desert landscape, and sometimes even shows animals that could never be together in real life (e.g. an oryx or a gazelle, typical from desert areas, are depicted together with species from the savannah).²⁴ The intention was to include several ‘clues’ which led the beholder to identify the landscape as a desert.

Turning back to the scene in graffito 3652, it seems to be a replica of the hunt scenes in 18th Dynasty Theban tombs, which include proportioned figures, the use of hierarchy in the size of the figures and the use of registers dividing the desert landscape. Several elements point to a Thutmoside date, such as the main hunter in an active pose, or the fleeing animal on the left side depicted in flying gallop, a pose probably imported from Aegean art, as mentioned before.²⁵

Besides, the scene has no register, the only parallel for this composition without register being the well-known tomb of the vizir Rekhmire, (TT 100). The transverse hall of TT 100 has an interesting desert hunt scene without the rigid horizontal registers which divide the animals in an ordered fashion common in 18th Dynasty tombs. Instead, the animals are arranged between multiple undulating lines, evoking the desert hills,²⁶ in a unique composition in Egyptian tombs, which resembles the vivid representations of nature and animals so typical of Aegean murals.²⁷ The result is a scene with depth, and the undulating lines emphasise the idea of chaos, within the symbolism of desert hunt scenes linked to the duality of order-chaos. We may wonder if the author of graffito 3652 could have seen the tomb of Rekhmire (or a similar scene now lost), but in any case, it reflects the deep knowledge of Egyptian mural art.

23. STRÄNDBERG 2009, pp. 205–208.

24. STRÄNDBERG 2009, pp. 47–49.

25. MORGAN 2006, p. 251.

26. DAVIES 1943, pp. 41–43, pl. XLIII.

27. MORGAN 2006, p. 251.

INTERPRETATION: MEANING, FUNCTION AND AUTHORSHIP

The quality of graffito 3652 is remarkable, showing proportioned figures, the use of hierarchy in the size of the figures, the use of registers, and a deep knowledge of the iconography of desert hunting scenes. All these elements may cause us to question its authorship: was the graffito made by a draughtsman/artist? In my opinion, it was probably made by a 'Scribe of contours', or by a scribe with a deep knowledge of Theban tomb paintings.

An 18th Dynasty tentative date could be argued for this graffito, based on iconographic parallels on Theban tombs, and more specifically in the period from Ahmose–Amenhotep I, according to the closest parallel, the tomb of Hery (TT 12), or in the Thutmoside period bearing in mind the same absence of registers in the desert animals attested in TT 100.

The existence of this 'hunting graffito' in the context of the C2 Wadi may be connected to the sacred role of the site and in particular the visibility from the Belvedere. The author of the graffito, possibly a draughtsman as argued above, may have come to that location on a special occasion.

The analysis of this exceptional graffito within the corpus of the Royal Cachette Wadi has attempted to show the connections between rock-art and tomb-paintings, exploring the reception of funerary iconography in a more informal context, and thus opens new trends of future research.

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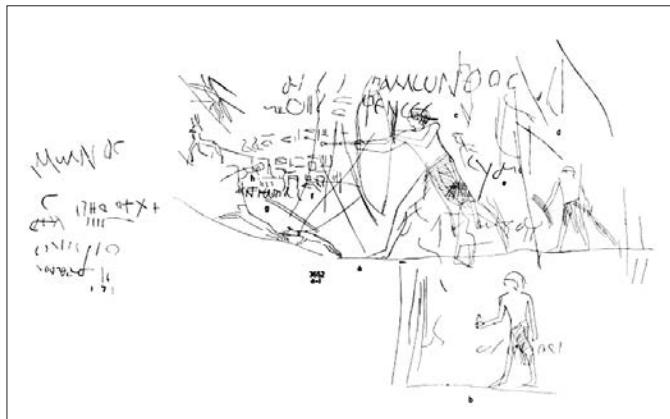
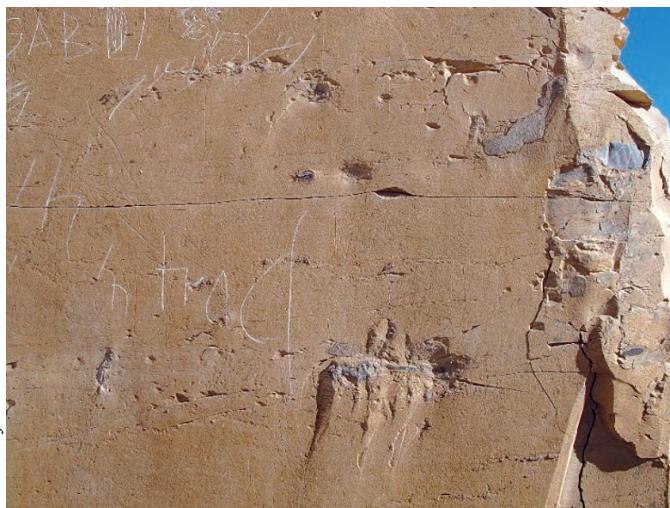


Fig. 3. Drawing of graffito 3652, adapted
from GMT.



Fig. 4. Hunting scene in the tomb of Hery
(TT 12), tempus Ahmose–Amenhotep I.



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Fig. 2. Photograph of graffito 3652 taken
during fieldwork in 2020 campaign, with
evidence of vandalism.

Waking-up a Sleeping Beauty

An Analysis of the So-called “Sculptors’ Models” in Museum Collections

THE SO-CALLED “sculptors’ models” are one of the most popular groups of objects that can be viewed in almost every collection of Egyptian art. Although the types of models known from Ancient Egypt are rich in number and variety, the term “sculptors’ models” usually denotes a specific group of objects that appeared dominantly in the Late Period and after.¹ They are small-scaled relief or sculptural work representing either a whole or a part of an anthropomorphic figure, a zoomorphic figure, or an architectural element. These usually retain the guidelines that were laid out on the initial surfaces by the artist prior to sculpting.

Popular as these objects are, only a few serious studies regarding this object group have been undertaken to date,² and many fundamental questions remain unanswered. The methodological difficulties of studying this group of objects, as will be discussed below, have hindered scholars to establish a reliable comprehensive study. Yet, these objects offer critical information about the proportionality and the design method of the Ancient Egyptian art from the Late Period to the Roman Period, which—when clarified—will have an impact not only on the Egyptian but also on the entire Mediterranean art history. This paper serves as an updated introduction to this topic and offers some guidelines and solutions to researchers and museum curators who are interested in analysing this object group.

TYPES

Broadly speaking, there are two types of models: the plaques for relief (two-dimensional representation) and the cuboids for sculpture (three-dimensional representation). The plaque is usually worked as reliefs on both sides, just as papyri were often used on the *recto* and the *verso*. Concerning the reliefs, a variety of themes are attested. The anthropomorphic representations display the whole figures of an adult male, an adult female, and a male infant. The detailed studies of the body parts are limited to the head or the bust with a very few exceptions. The zoomorphic

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1. There are isolated pieces from the earlier periods that may also be called as sculptor’s model (the “reserve heads”, Khufuankh’s bust, Nefertiti’s bust, plaster casts of royal heads in the Amarna Period, etc.).

2. EDGAR 1905; EDGAR 1906; MÜLLER 1973; TOMOUM 2005; FAUERBACH 2015.

representations, on the other hand, display the whole figure of a lion, a bull, or a ram. Other whole figures, such as Wadjet and Nekhbet on the *nb*-baskets and a variety of birds, are closer to hieroglyphic art than to animals in nature. The detailed studies focus on representations of the head, but show more species variations, including baboon, jackal, ibis, and crocodiles. These could represent either a natural or a deified form. Architectural elements are absent from the plaques, and therefore do not seem to have had any demand in the two-dimensional representation as we can also see in the wall decorations of contemporary sacred and funerary architecture.

As for the sculpture, the themes of the representations are more or less the same as those of the reliefs, but they lack variation. By far the most popular theme is the bust of the male pharaoh. Models of female deities are also attested but rather limited, and the representation of a male infant is not yet attested. Other anthropomorphic model types include the whole figure, either striding or seated, and additionally body parts such as the foot, leg, arm, hand, and torso.³ As a rule, the body parts usually display the left half. Although the body parts are applicable to various postures (standing, striding, seated, etc.) and anthropomorphic aspects (male, female, infant, royal, non-royal, etc.), the torso and the bust indicate that the standard anthropomorphic model type was a striding male pharaoh. Concerning the zoomorphic models, the recumbent lions and sphinxes looking straightforward seem to be the standard types. Some lion models have their head turned aside and their tails protruding from the lateral surface of the pedestal. The detailed study of the zoomorphic models is confined to the head. For instance, the lion head models are created usually with closed mouth, but also rarely a roaring type that is reminiscent of the Persian art.⁴ Architectural elements are confined to the detailed studies, such as capitals, shafts, doorway, and waterspout in the form of a lion's head.

FUNCTION

The models display auxiliary guidelines, which were either painted or incised to enable a precise layout of the figure. The grid system with additional guidelines is applied to all anthropomorphic, zoomorphic, and sistrum capital models, while other architectural elements do not adhere to the grid system. The two different layout methods are likely caused by the initial geometric form of the model, i.e. whether it can be worked wholly from a cuboid or contains a cylindrical or a conical form. For the latter type, the top and/or the bottom surface displays radial guidelines to allow precise juxtapositions of elements on the cylindrical surface.

The much discussed but unclarified function of these objects has led scholars to create various terms for describing these objects such as “sculptor's models/studies”, “trial pieces”, “student's exercises”, among others.⁵ Not a few scholars have assumed that these were votive offerings, but this is

3. Concerning other types of anthropomorphic models such as the whole figure and the body parts, see MÜLLER 1973; YASUOKA 2021.

4. Staatliches Museum Ägyptischer Kunst, Munich, ÄS 2046; TOMOUM 2005, p. 232, pl. 65a, no. 123.

5. HOSTENS-DELEU 1977, p. 6, n. 4; TOMOUM 2005, p. 15.

unlikely the case for the majority of models due to the incompleteness of the object as a piece of art.⁶ As Nadja S. Tomoum suggests, the simple term “model” is the best and safest description at the current state of research, for this can include not only the sculpture but also the reliefs.⁷

The precise function of these models is difficult to determine without a precise knowledge of the workmen’s community and of the art industry. There are relevant media that overlap either in their materiality or in their function with the models. For example, there are several drawings on papyrus with gridlines. Anthropomorphic and zoomorphic figures for painting or relief, a set of elevation drawings of a sphinx for sculpture, and another set of elevation drawings of a portable wooden shrine are drawn on papyrus with a grid.⁸ On the other hand, numerous unused or erased gridded tablets that could be used either as a model relief or a drawing are also attested.⁹ One of them, today in the Louvre museum, has a scene of Apries accompanied by two deities drawn and painted on the incised grid,¹⁰ which could be either an original *esquisse* made during this king’s reign, or a copy made from the ruins or monuments in the later period. Archaeological evidence suggests that people from the Late Period and later visited ancient monuments and ruins and copied the scenes and figures by applying the grid to them.¹¹ The current state of research does not allow us to draw lines among painters, draughtsmen, scribes specialized in drawings, and sculptors, who partly shared the same medium and skills for different purposes: copying, designing, and sculpting.

The modest size of the models suggest that these were worked by an individual rather than by a team of sculptors. Furthermore, the unfinished state of the sculpture, with no painting or gilding on the two- or three-dimensional models, suggests that the aim of the model was focused on the sculptural aspect. It is thus understandable that the sculptors chose limestone, which was the best material to demonstrate their sculpting skill.¹²

If the demonstration of an individual skill as a sculptor was the function of the models, then we may assume an individual-based contract, which seems to be different than the system of two teams (the left and the right) known from the New Kingdom Period. The popularity of the models from the Late Period and later seems to reflect the high demand for certain types of sculpture at the time, but also the strong tendency to reproduce the canon rather than to create a new type of sculpture.

On the other hand, many projects in the temples and tombs involve a commission of statues and relief works that cannot be finished by a single sculptor. Indeed, the lions, sphinxes, statues of

6. Whoever prefers to support the votive character of these objects must be able to explain why the Egyptian gods needed to be offered an unfinished work of art.

7. TOMOUM 2005, p. 23.

8. For parallels, see HEISEL 1993; ANDREU-LANOË (ed.) 2013.

9. See, for example, The Petrie Museum of Egyptian Archaeology, University College London, UC72525–72529, UC30643.

10. The Louvre Museum, Paris, E 11551; Musées royaux d’art et d’histoire, Brussels, E.2634.

11. FIRTH, QUIBELL 1935, pl. 15–16; BORCHARDT 1913, pl. 28–29; EL-AWADY 2009, pls 1, 5–6, 9, 13.

12. The sculptor’s models made in stones other than the limestone are thus highly questionable as models. For example, the rough statuettes in hard stones, such as the one in Munich (Staatliches Museum Ägyptischer Kunst, Munich, ÄS 4943; TOMOUM 2005, pl. 101.d.) or in Brussels (Musées royaux d’art et d’histoire, Brussels, E.2205, E.6759), should be considered simply as unfinished works.

a pharaoh were popular themes for sculpture, which had to be produced in large numbers. The same applies to huge projects, where a skilled sculptor could not complete the work alone. In this case, the sculptors may have been assigned to work only on certain parts of the body.

METHOD OF ANALYSIS

There are several reasons why previous scholars and curators have been unable to study the models.

First, the origins of most objects are unknown.¹³ Many objects were and still are purchased through auctions or from private collectors. This makes not only the precise dating of the object, but also the distinction between genuine pharaonic works and fake objects extremely difficult.

Secondly, the objects concerned are scattered in collections all over the world, as are the granodiorite Sekhmet statues.¹⁴ According to Thomas Liepsner, there were at least 3 000 pieces of known sculptor's models at the time of his entry in the encyclopaedia *Lexikon der Ägyptologie*.¹⁵ This makes it logically impossible for an individual scholar to carry out a complete study of this type of object.

Thirdly, the rich curvatures of the sculptural works mean that accurate documentation with rulers, measuring tapes and distance metres is time consuming. This left researchers with no sure way of studying the proportions of a large number of models within a realistic time frame.¹⁶

Fortunately, the development of 3D technologies over the last decades has finally allowed for accurate and rapid documentation of the sculpture, thus solving the third problem. Photogrammetry seems to be the most efficient way, especially for something as practical as the sculptor's models. Here is a brief description of the documentation technique.

For external researchers, who intend to visit museums and document objects in a limited time, a compact and portable photo studio is essential. A set consisting of a couple of LED lights, a turntable with a foam support, scale bars, a tripod, a digital camera with a shutter release, all weighing no more than 25kg is recommended.

First of all, it is necessary to decide how many positions are needed to produce a 3D model without allowing large holes and gaps. If an object can be turned upside down and is stable in both positions, it is likely that two positions are sufficient. This is likely the case for all plaques and most objects that retain the initial flat surfaces of the cuboid. In some cases, however, the fragmentary state of the objects may require the researcher to add an additional position in order to be able to photograph the parts that could not be covered by the recent two positions.

¹³ Just browsing through C.C. Edgar's catalogue of the Egyptian Museum in Cairo demonstrates that 108 out of 205 listed objects do not have a secured provenance. N.S. Tomoum's catalogue, partly overlapping with the former, but also including models in other museums, also shows that 95 out of 198 objects listed are of unknown provenance.

¹⁴ As presented in this congress, the painstaking documentation project has been undertaken by Dr Alessia Amenta and her team of the Musei Vaticani.

¹⁵ LÄ IV, cols. 168–180.

¹⁶ For this reason, previous studies have been conducted by means of photographs. The study of the proportions of kouroi is a well-known case. The researchers' endeavours to take orthogonal photographs of some 20 statues scattered around the world and present them as line drawings at the same scale are still very inaccurate due to the striding posture that strengthens perspective distortion and differences in the height position of the camera between the statues. See, for example, BOARDMAN 1978, p. 78 (fig.); STEWART 1990, pls. 42–43. These studies are to be replaced by new studies in the near future.

After setting the object on the turntable inside the photo studio, one should start taking photographs from an orthogonal view from the top or side and move towards the other by adjusting the angle and height of the camera. One should shoot a set of photographs by rotating the turntable for each angle. Only one photo is needed for the top orthogonal view, and about 36 photographs (10 degree rotation per shot) per angle. A good model may use around 6 different angles to cover one hemisphere of the model. The same should be done for one or two other positions of the object.

An experienced photographer would probably finish taking a total of ca. 250 photographs in 10–15 minutes per position and have ca. 500–750 photos to create the 3D model.

There is no need to touch the object except for positioning it on the turntable, and this method is applicable both in museums and in the field. For large objects, which cannot be set on the turntable, the photographer moves around the object. In this case, the tolerance of the model is kept below 0.2mm on average.¹⁷

The images can be processed, and the 3D model can be generated by a variety of software. For proportional analysis, the export of undistorted and orthogonal images is essential.

The other two problems, namely access to materials worldwide and secure dating of models, can only be solved over time.¹⁸ In what follows, I will present an example of an analysis that fellow researchers could adopt for their own studies.

AN EXAMPLE OF ANALYSIS

As an example of a method of documentation and presentation that stands up to proportional critical analysis of sculptural works, I will present here a bust of a pharaoh (fig. 1), today in Berlin.¹⁹

The bust is made of limestone and bears the gridlines on the flat surfaces, which retain the initial cuboid state, as well as on the lower part of the *nms*-headdress. Apparently, the work was left unfinished in an early carving phase, and therefore, the main parts such as the eyes, ears, uraeus are not rendered. The size of the initial cuboid can be reconstructed as 34.45 × 41.59 × 19.70cm (W × H × D) and the average grid square is 7.83cm. Although there is no direct evidence to date this sculpture, we may safely assume that it was made according to the so-called “late canon”, which was invented and used since the Late Period. The height of this pharaoh, if it were a whole figure, is estimated to be 174.70cm.²⁰ The bottom surface of the bust meets line 17. The lower end of the nose is set at line 20. Diodorus Siculus’ value “21 + 1/4” meets the lower end of the uncarved uraeus for this model.²¹ As Campbell C. Edgar noted, the distance between the temples is 2 squares. The inclination of the upper part of the *nms*-headdress viewed from the front is 1:2.5, and that of the lower part viewed from the side is 1:2.08. The middle axis in the side view runs through the ears.

17. A monograph on the sculptor’s models is currently in preparation.

18. Nowadays, it would be sufficient to identify a few general trends from a limited number of objects and create a secure method of analysing the models for future generations.

19. Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin, ÄM 4436.

20. I am inclined to think that the square of the grid (= 7.83cm) could be 1/7 of the cubit-rod (= 54.81cm), corresponding to a palm. However, the question of whether the square grid was given a specific cubit measure as a module must be firstly verified with other models, and thus, the metrological analysis is not possible from this object alone.

21. Diodorus Siculus, *The Library of History*, I, 98.

CONCLUDING REMARKS

The themes chosen for the representation of the models show the types of works commissioned mainly for sacred and funerary architecture. The large number of models seems to suggest a stable and static system of art manufacturing throughout the Late Period and the Greco-Roman Period. Future research should focus on the question of the social structure of the art industry and the organisation of workmen, in order to determine when and in what context the models were created and used.

The study of three-dimensional models can provide a clear understanding of the design method and principles of Ancient Egyptian art. The application of modern 3D technologies makes it possible to solve many of the known problems of model study and to carry out serious proportional analysis of three-dimensional objects. The accumulation of precise documentation and publications by future researchers and museum curators will certainly contribute to giving the models the relative chronological and morphological sequences. It is now up to us to analyse sculptures not only iconographically but also scientifically.

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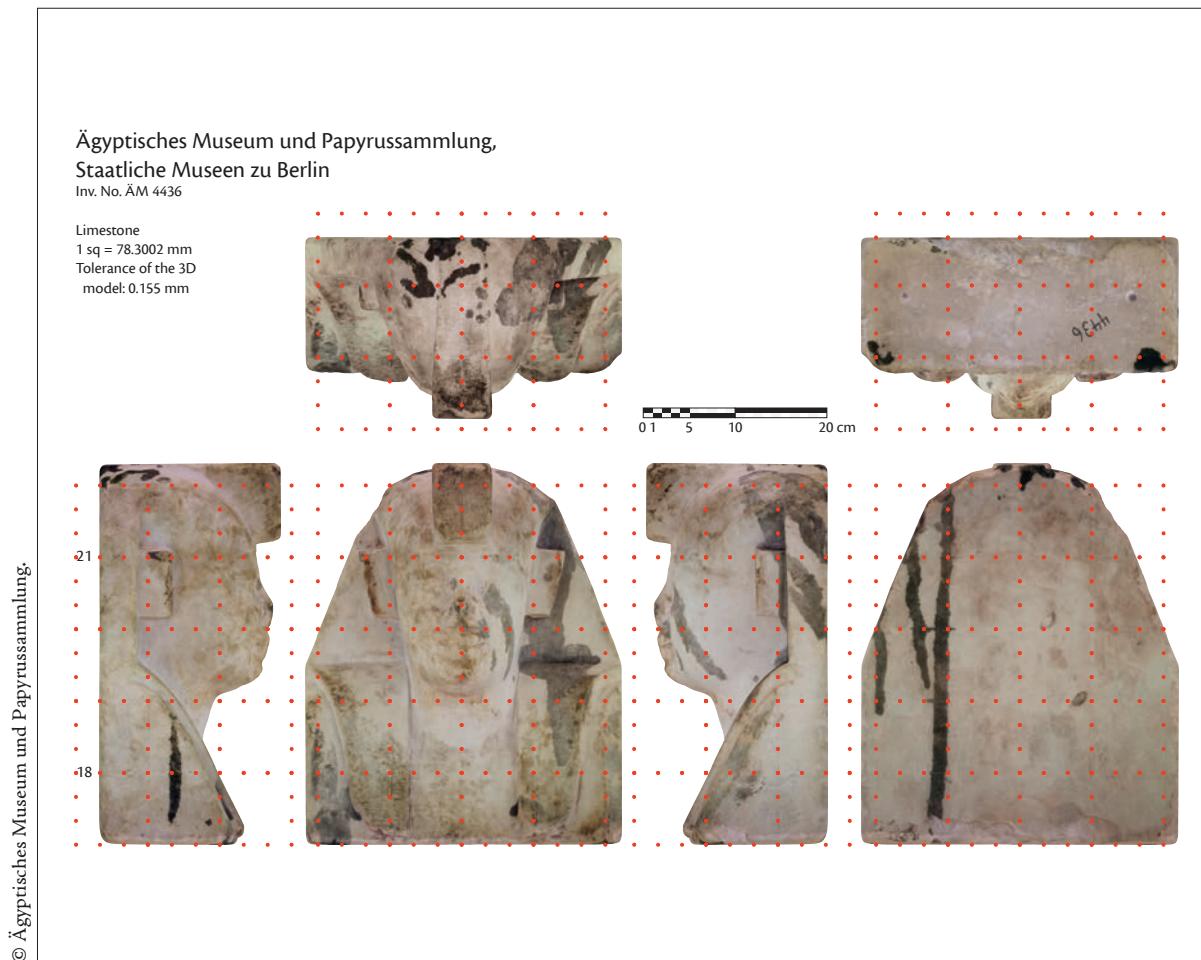


Fig. 1. A bust of a pharaoh in the Ägyptisches Museum und Papyrussammlung, Staatliche Museen zu Berlin (ÄM 4436).

