

Aegyptus et Pannonia IX.



Acta Symposií anno 2023

BUDAPEST

Aegyptus et Pannonia IX.

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On the cover: Vase from the Zsolnay factory, © private
collection (see FULLÉR – FERÓ, fig. 14.)

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Aegyptus et Pannonia IX.

Objects and Concepts.

Proceedings of the Conference

19th-20th January, 2023, Budapest, Hungary

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THE 'OBJECTS AND CONCEPTS' CONFERENCE AND THE HEFS AEC

DR. HEDVIG GYÓRY, PHD

HEFS AEC president

The Ancient Egyptian Committee of the Hungarian-Egyptian Friendship Society (HEFS AEC / MEPT ÓEB) organised the 'Objects and Concepts' conference in collaboration with the Semmelweis Medical History Museum of the Hungarian National Museum on 19th-20th January 2023. Scholars joined the event in person in Budapest and online from around the world.

The conference aimed to provide a platform for presenting ongoing Egyptological and medical historical research projects related to artefacts, as well as results. It also offered the professional community and a broader interested audience the opportunity to become acquainted with new discoveries, as well as theoretical and methodological approaches. A key objective was to initiate dialogue among specialists in Egyptology, archaeology, ancient history, ethnography, cultural anthropology, Oriental studies and African studies. This would broaden professional perspectives, expand and share knowledge, and shape research approaches. This objective was largely achieved during the conference.

From an Egyptological standpoint, 2022 marked a dual jubilee: the 200th anniversary of Jean-François Champollion's decipherment of hieroglyphic writing, and the commemoration of the discovery of Tutankhamun's tomb 100 years earlier. Drawing inspiration from these events, the conference aimed to reconsider what Tutankhamun's artefacts have taught us about ancient Egyptian culture and how the decipherment of hieroglyphs has deepened our understanding of ancient perceptions of artefacts, their meanings and their uses. The presentations focused on research projects exploring the understanding and interpretation of material culture in ancient and modern societies. This was achieved by reconsidering the real or perceived meanings of objects, or by examining their function, use, and social value.

Following the period of disruption caused by the COVID pandemic, this *Aegyptus et Pannonia* conference was announced as an in-person event in the hope that academic life would return to normal. In practice, however, online

participation has become a permanent feature of scholarly communication. There was still strong demand for remote presentations, with several participants requesting the option to attend online. To a limited extent, this was accommodated, and the conference was organised in a hybrid format. In keeping with tradition, the programme included both English- and Hungarian-language sections. Nevertheless, all contributors were asked to submit written versions of their papers in English for the conference volume. The speakers included nearly equal numbers of Hungarian and international scholars. Most of the studies published in the conference volume are revised versions of the presentations and reflect the discussions held during and after the event. A few papers were omitted due to the authors' other commitments. These were replaced by a study of Bes amulets, as a continuation done on the ornamental Bes amulets during the 18th Dynasty. Abstracts submitted to the 'Objects and Concepts' conference are available in a separate booklet and on the 'Fáraók Földjén' (In the Land of the Pharaohs / ibisz.iif.hu/ozirisz) website of the HEFS AEC, in both Hungarian and English.

Thursday, 19 January 2023

10:00–10:30

Arrival and Greeting

HEFS / MEBT + HNM CCP Semmelweis Medical History Museum (SOM)

10:30–12:00 / EN

Virginia Webb: Reception and alteration: Aegyptiaca in 8th- and 7th-century East Greece through the lens of sanctuary deposits on Samos and Miletus. Import or local production?

Benedek Varga: Connections in the museum representation of the Seuso Treasure

Urška Furlan: A case study of society through the production, consumption, and circulation of amulets of the Nile Delta in the first millennium BCE

12:30–14:00 / HU

Dóra Bohacsek: „Idézlek téged, démon, bárki vagy is (...)” – Latin nyelvű átoktáblák Észak-Afrikából [“I summon you, demon, whoever you are (...)” – Latin curse tablets from North Africa]

Krisztina Scheffer – Hedvig Győry: Udzsat szem amulettek a SOMban [Wedjat eye amulets in the collection of the HNM Semmelweis Museum for Medical history]

Gabriella Vámos: „Fújtak rá cukrot, hogy ne fájjon annyira...” A cukor mint a népi gyógyászat egyik alapanyaga [“They sprayed sugar on it so it wouldn't hurt so much...” Sugar as one of the ingredients of folk medicine]

Friday, 20 January 2023

10:00–11:30 / EN

Rita Simon: The curious history of Tutankhamun's scarab

Afaf Wahba: Objects associated with burials: concept, purpose, and meaning, with examples from recent excavations in Egypt

Esther Pons Mellado: A Predynastic vessel with human and animal representations

12:00–13:00 / HU

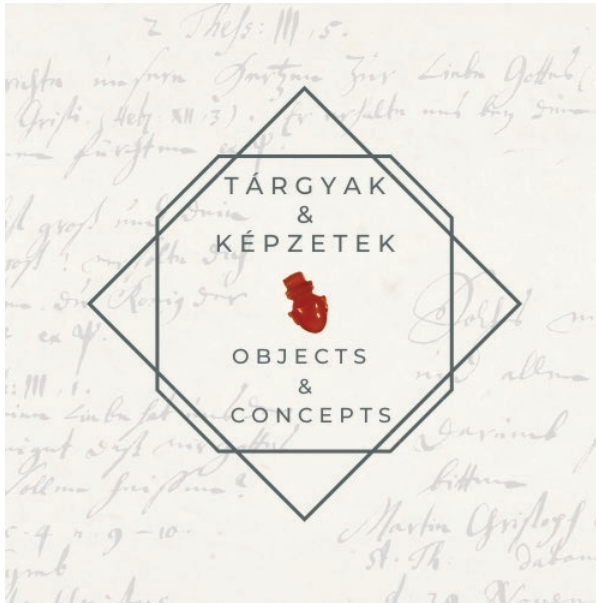
Andrea Fullér – Eszter Ferő: Tutanhamentől a szecesszióig: a Zsolnay gyár egyiptizáló díszműáruja [From Tutankhamun to Art Nouveau: the Zsolnay factory's Egyptionizing decorative goods]

Péter Véninger: Medma és Hipponion, két ókori görög város kerámia emlékei fazekas szemmel [Clay objects of two ancient Greek towns, Medma and Hipponion, with a potter's eye]

Hedvig Győry: Az év ókori egyiptomi emléke: A Thoerisz/Taweret amulettek kérdéséhez [The ancient Egyptian object of the year: To the question of the Thoeris/Taweret amulets]

13:00–13:30

Closing remarks



The title and design of the conference were linked to the double anniversary in 2022. In Hungary, as elsewhere, considerable attention was devoted to Jean-François Champollion, who used the Rosetta Stone to decipher the hieroglyphs, establish their grammatical system and identify their vocabulary. This paved the way for a new understanding of ancient Egyptian culture. Decades of intensive scholarly work have built on his results, enabling

modern audiences to read hieroglyphic texts and gain an understanding – at least in broad outlines – of the thought processes of ancient Egyptians. Nevertheless, further refinement is necessary in this field. One consequence of this breakthrough was that the interpretation of material culture reached a new level: previously uninterpretable or largely speculative assumptions were replaced by interpretations supported by textual sources or more precise approaches to perceived meanings.

The conference logo features a heart-shaped amulet inside a geometric frame, set against a 19th-century manuscript. This symbolises the ancient Egyptian belief that the heart was the key to both biological life and emotions and thought.

However, reading ancient Egyptian texts does not mean that all questions have been answered. One such issue concerns the Stela of Djedher¹ in the Museum of Fine Arts. In this stela the adoring official offering to Osiris, Isis, and Nephthys is shown – following New Kingdom models – with a balm cone on his head, yet its design suggests that its original meaning was lost in later periods. It became a cone-shaped element with branching lines emerging from it. This motif also highlights the deteriorated condition of the centuries-old models, later alterations to which were not always distinguished from the original forms by subsequent artists. By contrast, the jackal figure standing on a boat in the upper register of the stela – despite being a rare depiction – clearly symbolises Anubis's role as 'guide of the soul' in the afterlife. This role is explained from multiple perspectives in written Egyptian sources. For this reason, the stela was chosen as the backdrop for the call for papers.

Another significant anniversary in 2022 was the 100th anniversary of Howard Carter and Lord Carnarvon's discovery of the treasures in Tutankhamun's tomb. The objects unearthed at that time had an enormous global impact thanks to their breathtaking beauty, unique forms and exquisite craftsmanship. Public interest in ancient Egypt in Hungary has always been intense,² as evidenced by numerous Egyptian-style monuments, such as the

1 MEKIS, Tamás, *Quelques données nouvelles sur les stèles Budapest MBA inv. no 51.1928 et Prague MN P 1636, et sur la famille de Iâhmès fils de Smendès, propriétaire de la statue Caire JE 37075*, in Coulon, Laurent, *La Cachette de Karnak Nouvelles perspectives sur les découvertes de Georges Legrain*. Bibliothèque d'Étude 16. Cairo: Egyptian Ministry of Antiquities – Institut Français d'Archéologie Orientale 2016, 383-395.

2 For today's interest see e.g. FERÓ, Eszter, *The Body of Nefertiti: The Curious Incident of the Little Warsawa the Venice Biennial*, in JÚNOVÁ, Adéla Macková – STORCHOVÁ, Lucie – JÚN, Libor (eds.), *Egypt and Austria X – Visualizing the Orient: Central Europe and the Near East in the 19th and 20th Centuries*. Prague: Academy of Performing Arts in Prague 2016, 107-118.

Jewish cemetery in Budapest,³ the Szivárvány Cinema in Kaposvár,⁴ and the monuments in Csákvár and Hédervár,⁵ or part of them⁶. Likewise, the Zsolnay Factory's Egyptianising artefacts⁷ testify to this enduring popularity. Other Egyptian and Egyptianising artefacts illustrate this phenomenon further, including the wooden stela painted by Blanka Teleki (1806–1862). This was deciphered and published based on her painting by Emil Haeffner (1892–1953).⁸ When the stela – long thought lost – was later rediscovered, it emerged that the painting was an almost perfect copy.⁹ Further artefacts

3 FULLÉR, Andrea, *Egyiptizáló síremlékek a budapesti zsidó temetőben a 19–20. század fordulóján*. Ókor 18/3, 2019, 96-112; FULLÉR, Andrea, *Egyptianizing Funerary Architecture in Budapest*: Mladen Tomorad (ed.): *Egypt and Austria XII – Egypt and the Orient*, in *The Current Research. Proceedings of the Conference held at the Faculty of Croatian Studies, University of Zagreb* (September 17th-22nd, 2018). Oxford-Zagreb 2020, 353-373

4 FULLÉR, Andrea, *A kaposvári Szivárvány Kultúrpalota egyiptizáló dekorációja*. Ókor 4/2014, 67-78; FULLÉR, Andrea, *Egyptianizing Decoration of the Szivárvány Cinema in Kaposvár*. in JÜNOVA Macková, Adéla – STORCHOVÁ, Lucie - JÜN, Libor (eds), *Egypt and Austria X. Visualizing the Orient: Central Europe and the Near East in the 19th and 20th centuries*. Prague: Academy of Performing Arts in Prague 2016, 179-191; FULLÉR, Andrea, *A kaposvári Szivárvány Mozi – A húszas évek egyiptomi stílusú mozzijainak hazai példája*, in BÁCS, Tamás – DEZSŐ, Tamás – VÉR, Ádám (eds.) *Aegyptiaca et Assyriaca. Tanulmányok az Eötvös Loránd Tudományegyetem Ókortudományi Intézetéből*. Antiqua et Orientalia 5. Budapest: ELTE Eötvös Kiadó 2015, 76-92.

5 FERŐ, Eszter, *Csákvári piramis és hédervári szfinx: a magyar egyiptománia nyomában*. 4. Ókor 2014, 55-66; FERŐ, Eszter, *Pyramids in the „Back Garden”: Some Remarks on Egyptomania in Hungary*. Lecture at *The Perception of the Orient in Central Europe (1800–1918)*. Conference *Egypt and Austria IX*, 2013. Betliar, Slovakia, 2013. október 21-23; FERŐ, Eszter, *Az egyiptománia jelensége az újkori Magyarországon, avagy hogyan kerül piramis egy Esterházy kastélyparkba?* in BÁCS, Tamás – DEZSŐ, Tamás – VÉR, Ádám (eds.) *Aegyptiaca et Assyriaca. Tanulmányok az Eötvös Loránd Tudományegyetem Ókortudományi Intézetéből*. Antiqua et Orientalia 5. Budapest: ELTE Eötvös Kiadó 2015, 59-76.

6 GULYÁS, András, *A house with winged sundisks in Peterdy street, Budapest*, in *Festschrift Gábor Schreiber*, in print.

7 See the article in this volume, and FERŐ, Eszter, *In Search of the Orient: The Zsolnay Way*, in CZERNY, Ernst (ed.): *Egypt and Austria XI – In Search of the Orient*. Proceedings of the Symposium held at the Kunsthistorisches Museum Wien (September 20th to 24th, 2016). Egypt and Austria – Kunsthistorisches Museum, Wien - Kraków 2018, 45–57; FERŐ, Eszter, *Zsolnay-titok másképp: egyiptománia a magyar iparművészetben*. *Zsolnay's secret in a new light: Egyptomania in Hungarian applied arts*. *Belvedere* 31/1, 2019, 166-178 – DOI: <https://doi.org/10.14232/belv.2019.1.11>; FERŐ, E. – FULLÉR, A. *Tűzben született lótuszvirágok*. *Egyiptizáló alkotások a Zsolnay gyárban*. Pécs: Janus Pannonius Múzeum 2023; FERŐ, Eszter – FULLÉR, Andrea, *Eosin Cat and Pyrogranite Sphinx – New Remarks on the Egyptianizing Colours of the Zsolnay Factory*, in HUDAKOVA, Lubica – HUDEC, Josef (eds.), *Egypt and Austria XIII – Between the treaties of Sistova and Lausanne: Contacts between the Orient and Central Europe in the 19th and early 20th Centuries*. Proceedings of the Conference held by the Aigyptos Foundation and the Egypt and Austria Society at Topoľčiansky (October 21st-25th, 2020). In press.

8 HAEFFNER, Emil, *Ein verschollene Stele aus der Sammlung F. Kiss in Buda*. *Oriens Antiquus*, Budapest I, 1945, 59-65.

9 See the latest publication of the Stele at MEKIS, Tamás, *Quelques données nouvelles sur les stèles Budapest MBA inv. no 51.1928 et Prague MN P 1636, et sur la famille de Iâhmés fils de Smedès, propriétaire de la statue Caire JE 37075*, in COULON, Laurent, *La Cachette de Karnak*.



in this field have been brought together in a recently published volume by the Museum of Fine Arts¹⁰.

Nouvelles perspectives sur les découvertes de Georges Legrain. Bibliothèque d'Étude 161. Cairo: Egyptian Ministry of Antiquities and Institut Français d'Archéologie Orientale 2016, 383-398.

¹⁰ KÓTHAY, Katalin Anna – LIPTAY, Éva, *Az ókori Egyiptom Magyarországon. Pillanatképek a magyarországi Egyiptom-képek, egyiptizálás és aegyptiacagyűjtés történetéből a 18. század kezdetétől 1939-ig, az első egyiptomi kiállítás megnyitásáig.* Budapest: Szépművészeti Múzeum 2025, with contributions from András Gulyás, Flóra Kevély, Katalin Kóthay, Éva Liptay and Tamás Mekis.

Motivated by the growing interest in Egyptology, our committee launched the annual 'Ancient Egyptian Object of the Year' initiative. The first object was the lotus flower in 2019; the bee from royal titulary was selected in 2020; Amenhotep, son of Hapu, in 2021; the Thoeris/Taweret amulet, which initiated the Taweret research project, in 2022; a representation of the goddess Seshat in 2023; the figure of the goddess Maat in 2024; and the Middle Kingdom soul house in 2025. These naturally formed part of the research and outreach programme for those years. Alongside this, we continued to deliver our customary public lectures at our headquarters and in schools. Our members pursued their own research, and we continued to hold our scholarly international conferences and annual student drawing competition. Selected submissions from the latter are usually displayed in an exhibition. Just a few days ago, we opened a children's drawing exhibition at the Child Museum in Cairo for the first time in our Society's history. This is the Egyptian presentation of our 2024 exhibition, 'The Holy Family in Egypt', organised jointly with the Deák 17 Gallery. This time, it was organised in Egypt with the support of the Hungarian Liszt Institute in Cairo. In addition to raising awareness, we conducted research largely related to anniversaries that year.

The Tutankhamun jubilee in 2022 was commemorated internationally and aroused widespread interest in Hungary. To mark the occasion, the Hungarian Post issued a commemorative stamp block and matching envelope¹¹ depicting the famous gold mask and nested coffins. In the background is a gold relief scene from a small shrine (JE 61481¹²) from the tomb depicting Tutankhamun and his wife, Ankhesenamun. Among the finds from this naos was a pendant depicting the standing king being suckled by Weret-hekau, the snake-bodied goddess ("*Great of Magic*"; JE 61952)¹³, suspended from a necklace. As the shrine had been found looted, it is not known whose statue it originally adorned. The Hungarian Minting Company also issued a gold-plated silver coin¹⁴ featuring Tutankhamun's mask on the front and a 3D image of his tomb on the reverse. A documentary presenting the latest research was shown in cinemas – the Italian movie 'The Temples of Art: Tutankhamun – The Latest Exhibition', which was shown from May onwards. All of these events were preceded by the international travelling exhibition 'Tutankhamun: The Pharaoh's Burial Chamber', which ran from 2019 to 2020, but unfortunately closed prematurely due to the COVID pandemic. Although it presented only high-quality replicas, it nevertheless made artefacts that were previously only known through images tangible for many

11 The blocks were printed by Pénczjegynyomda Zrt. based on the designs of the graphic artist György Kara.

12 <http://www.griffith.ox.ac.uk/gri/carter/108.html>

13 <http://www.griffith.ox.ac.uk/gri/carter/108c.html>

14 <https://www.erekmibocsato.hu/webaruhaz/tutanhamon-maszki-100-efordulo>

Hungarian visitors. Since November, the Grand Egyptian Museum (GEM) has presented the assemblage in all its glory.

In addition to our educational outreach work, we continued to conduct research. The jubilee gave us the chance to focus more intensively on our Nephthys Project, which centres on Egyptian mummies. Within this framework, we organised several scholarly events, including a workshop on current issues in mummy research at the Hungarian Natural History Museum, as well as a special programme at the Semmelweis Museum dedicated to Tutankhamun's mummy. The amulets¹⁵ placed on his body in multiple layers played an important role in this programme. According to the Murray-Nuttall Handlist, there were 78 pieces in total. Interestingly, only three of these depict anthropomorphic deities, none of which are in the customary striding pose. Instead, they are all seated with their knees drawn up (Anubis, Thoth and Horus), and all have plain, undecorated backs. Among the animal amulets, in addition to various snake forms, only the vulture is depicted. There are two plant amulets (leaf and double leaf) and the majority are object amulets. Several are specifically royal protective objects, such as the was sceptres, while others are rare or otherwise unknown forms: Y- and T- shapes, knots, a khepesh, a mallet, a knife, a miniature bracelet, and a rhomboid form. Well-known examples include the wadj and the ankh. There is also a striking number of djed pillars and Isis knots, with seven of each. Two amulets stand out due to their material: an iron wedjat eye and an iron headrest amulet. The latter only became common in the Saite period. Carter recorded ten further items, which he simply called "amulets". One of these is a heart bearing a crest relief, and there are several beads inscribed with Tutankhamun's name, as well as a shell. The assemblage is supplemented by two earrings.

The objects around us reflect the era in which we live and our identity, whether our lives are structured according to religious or secular principles. In ancient Egypt, these two aspects were inextricably linked, as is perfectly illustrated by amulets. They were chosen to provide protection and enhance outward appearance. Beyond religious and secular considerations, their protective and aesthetic functions were expanded by elements that shaped identity. From this perspective, fashion and social expectations also played a significant role, sometimes even overriding individual characteristics — particularly in the case of a pharaoh. It is therefore especially interesting to examine the amulets placed on Tutankhamun's body to protect him in the afterlife. Even a young pharaoh was provided with everything necessary, since he was already regarded as a god in life — a status that became even more pronounced after death.

15 <http://www.griffith.ox.ac.uk/perl/gi-ca-qmakeres.pl?sid=41.33.51.9-1766043880&qno=1&sta=0&qtx=amulet>

The exceptionally high quality of the amulets reflects his rank, and the selection clearly reflects the period in which he lived: the transition from the Amarna reform to the Ramesside era, which emphasised individual religiosity.

As a result of the presentation of Tutankhamun's mummy, the HEFS AEC and the Semmelweis Museum have jointly initiated a project aimed at analysing the SOM amulets from historical, medical and religious perspectives. While the SOM amulets cannot rival Tutankhamun's exceptional *wedjat* eye, magnificent divine figures, or elegant papyrus columns, the everyday beauty of the SOM heart amulet likewise merits attention. Although the museum's *wedjat* eye amulets played a central role in the conference presentation, the heart, scarab, *djed* pillar and other amulets received limited attention. Nevertheless, this joint article focuses on the *djed* pillar. From a historical perspective relating to the museum's collections, it occupies a special place alongside the scarab with which it was acquired. As the scarab (*hpr* beetle) from one of Tutankhamun's pectorals is emphasised elsewhere in the volume, we have chosen to focus on the *djed* pillar instead. This symbol also played an important role in Tutankhamun's tomb. In addition to the seven *djed* amulets placed on his body, one¹⁶ was deposited in a niche on the southern side of the burial chamber in the western corner and subsequently walled up. Another pillar¹⁷ was found almost at the centre of the southern side of the fourth, innermost naos, directly in front of the sarcophagus. The solar-lunar form of the *djed* pillar also appears on one of the pharaoh's pectorals¹⁸.

The first article in the volume summarises the research of Andrea Fullér and Eszter Feró on Zsolnay ceramics, with a particular focus on the Tutankhamun series. Through their meticulous research, the authors were able to ascertain the location of numerous pieces, establish the identities of the artists, trace the origins of the motifs, and determine the sources of the images used. They also demonstrated that works produced prior to the discovery of the tomb were in fact included in the Tutankhamun series.

The author's study categorises 18th Dynasty naturalistic Bes amulets according to their iconography. Using excavation finds and museum collections

16 That is beside the head. Carter no. 260, H: JE 61379. <http://www.griffith.ox.ac.uk/perl/gi-ca-qmakesumm.pl?sid=82.131.230.142-1766356119&qno=1&curr=260>

17 Carter no. 250, JE 61785, max. H: 56 cm – <http://www.griffith.ox.ac.uk/perl/gi-ca-qmakesumm.pl?sid=82.131.230.142-1766356119&qno=1&curr=250>

18 Carter no. 261i – M: 12x 16,3 cm. The pectoral is representing the *djed* pillar topped by moon sickle and sun disc between Isis and Nephthys. Another pectoral in the same set has in the middle an Osiris figure, while at the third pectoral the central figure is missing. See <http://www.griffith.ox.ac.uk/perl/gi-ca-qmakesumm.pl?sid=82.131.230.142-1766356119&qno=1&curr=261i>.

as a basis, the study attempts to map the relationships between the resulting groups, as well as their chronological and spatial distribution. The study also highlights new conceptual phenomena present on amulets predating the Amarna period.

The third article, which was also written by the author, focuses on Old Kingdom Taweret amulets. It is primarily based on publications documenting excavations conducted by Guy Brunton in the Qau-Matmar region of Middle Egypt. As well as analysing iconographic groupings, the article examines the usage of Taweret amulets across individual cemeteries, assesses usage patterns and attempts to reconstruct contemporary perceptions of the goddess based on assemblages.

Esther Pons Mellado presents a Naqada II vessel from the Museo Arqueológico Nacional in Madrid, the provenance of which is unknown. The vessel is lavishly embellished with depictions of antelopes, goats, and gazelles, whose parallel depictions are listed on a variety of other vessels. Together, these vessels vividly illustrate how the ‘green desert’ surrounding the Nile — the Sahara of today — was able to sustain such rich wildlife during the Predynastic period.

In their joint study, the author and Krisztina Scheffer trace the acquisition of the djed pillar amulet in the Semmelweis Museum’s collection, explore the possible motivations behind its purchase, and introduce the collector who once owned it. The study also provides an overview of djed pillar representations and variations of the amulet form across periods, alongside an examination of their associated Pharaonic concepts. It also takes a brief look at some modern reinterpretations of the form.

Rita Simon examines one of Tutankhamun’s pectorals, the central feature of which is a scarab crafted from Libyan Desert Glass. She discusses the discovery of this material and considers possible pathways by which it arrived in Egypt, taking into account the contemporary role of the Western Desert. She also provides a theological interpretation of the composition as a whole. Her new interpretation emphasises Tutankhamun’s solar-lunar character.

Gabriella Vámos examines the medicinal use of sugar in eye treatments in Hungary using historical and ethnographic sources, which can be traced back to domestic sources from the 16th century onwards. Her research shows that, initially, cane sugar was used primarily among aristocratic circles to treat cataracts and trachoma. From the late 18th century onwards, sugar made from sugar beets appeared in peasant eye treatments; the most recent ethnographic source of which dates to 1974.

In his contribution, Péter Véninger discusses a technical phenomenon identified during a joint Hungarian–Italian project on terracottas from the southern Italian cities of Medma and Hipponion. Votive figurines in the

sanctuaries of these cities, founded by the Calabrian Lokroi, were typically produced not by trained craftsmen, but by the dedicators themselves. This meant that, in addition to offering tangible objects, they also offered their own labour to the goddess venerated at the sanctuary.

Afaf Wahba presents an Old Kingdom burial assemblage from Saqqara, notable for its reed coffin. Although the owner was not one of the wealthiest individuals, he can still be considered relatively prosperous. His body was wrapped in domestic linen, and he was given a headrest to accompany him into the afterlife. Anthropological analysis suggests that he was a middle-aged man whose skeletal remains show signs of diseases and alterations that may indicate his occupation.

Virginia Webb compares Egyptian and Egyptianising faience objects from the Heraion on Samos and the Sanctuary of Aphrodite at Miletus (Zeytintepe). She discusses these objects in several groups, including scarabs, amulets, falcon and cat figurines, non-suspendable bird, animal and human figurines, and miniature baskets. Her analysis reveals that visitors to the sanctuaries of the two goddesses offered Egyptianising objects that were made outside Egypt and differed from each other in many respects at the two sites.

As this brief overview demonstrates, the studies in this volume examine various aspects of Egypt's material culture, including archaeology, art, craftsmanship, everyday life, religion, and the country's influence on the wider world. A study also presents an example of ethnographic methodology, tracing the origins of the Hungarian use of sugar for medicinal purposes and illustrating how economic changes can lead to significant transformations in the use and interpretation of materials over time. This diversity of examples has enabled us to fulfil our primary objective of examining the historical changes and transformations in the meanings, interpretations and functions of objects.

Unfortunately, the publication of the volume was delayed due to technical and organisational issues, including a damaged hard drive. This resulted in the publication appearing later than planned. Nevertheless, the thorough and professional research conducted by the authors, the support received, and the efforts of the other contributors made the publication possible.

Firstly, we would like to thank the speakers who delivered inspiring lectures and shared insights into their research. We would also like to thank the HNM PCC Semmelweis Museum and its Director General, Benedek Varga; the House of Nations and its President, György Kilián; as the venue providers, and all the collaborators for their hard work on the technical and organisational tasks during the conference.

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Thanks to everyone's devoted efforts, we are once again able to present readers with a high-quality publication in both print and digital formats.

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THE CURIOUS HISTORY OF TUTANKHAMUN'S SCARAB

RITA SIMON

Egyptology Doctoral Program, Eötvös Loránd University
(ELTE), Budapest, HU

ABSTRACT

For modern times the so-called Libyan Desert Glass Area – about 800 km west of the Nile Valley in the Great Sand Sea of the Egyptian Western Desert – was probably discovered in 1846; and it was first mentioned in 1850 by the orientalist French consul of Jeddah, Fulgence Fresnel, in *Bulletin de la Société de Géographie*. The breakthrough scientific discovery of the area still awaited until 1932 by the expedition of Patrick A. Clayton.

The formation of Libyan Desert Glass (LDG) was for the most part cleared in 2019 by Aaron J. Cavoise and Christian Koeberl, who provided evidence about a meteorite impact origin of LDG approximately 30 million years ago.

Curiously enough, a *Hpr*/scarab figure was made of this greenish-yellow translucent natural glass in one of Tutankhamun's pectorals found by Howard Carter in 1922 which had previously been thought to be chalcedony until 1998. The appearance of an LDG artefact is so far unique in the material culture of pharaonic archaeology since no other object is known to have been made of LDG in the Nile Valley. The decorative motifs of the pectoral represent complex symbolism related to the movement of the sun and the moon, and the perpetual afterlife transformations of the deceased pharaoh.

In the following, after a short introduction into the background of LDG, an analysis will be carried out regarding how and when the scrap for Tutankhamun might have travelled to the Nile Valley, how the mineral might have been perceived there and how the symbolism of the scarab of special qualities can be interpreted in the pectoral.

I regard this paper as my commemoration of the 100th anniversary of the discovery of the tomb of Tutankhamun at the Objects and Concepts Conference held from 19th to 20th January 2023 by the Hungarian-Egyptian Friendship Society, Ancient Egyptian Committee (HEFS AEC) in Budapest.

KEYWORDS: Libyan Desert Glass, *ḥn.(t)*, expeditionary activities, royal *ka*, lunar-solar transformations

INTRODUCTION

The tomb of Tutankhamun¹ (KV62) was discovered in the Valley of the Kings about 5 km west of the Nile. Attached to the burial chamber, the tomb contains a Treasury,² which was meant to provide storing space for numerous valuable objects that held significance for the afterlife of the pharaoh. In the midst of these objects, to the right of the lying Anubis statue, a row of jewel caskets stood in situ, one of which (No. 267) contained the pectoral pendant (No. 267d) with the LDG gemstone fashioned into the form of a *Hpr*/scarab (Figure 1).³ According to the docket of the casket, the content was “*gold jewellery for the funeral, made for the bedchamber of Nebkheberure*”⁴. The *Treasury* was entered by the excavators on 17th February 1923, not long after that the pectoral was put on display in the Egyptian Museum in Cairo under JdE61884 inventory number.⁵ In 1998 gemmological analyses were carried out on the curved surface of the scarab measuring 18x28 mm. According to the refractive index of the mineral, the stone was confirmed to be of LDG.⁶

LDG originates exclusively from the so-called Libyan Desert Glass Area (LDGA, Figures 2 & 4) about 800 km west of the Nile, near the Libyan border. The elliptical source area is approximately 130 km (north-south) by 53 km (east-west) large in size. Its surface is distinctively covered with sand dunes situated in north-southern orientation. Scraps of LDG – varying from a few grams up to 25 kgs – are scattered on the ground of the sand-free corridors (*saifs*) and can be handpicked.⁷ Their colour alters from translucent yellow up to dark green (Figure 5). Like in Antiquity, the area is completely waterless. The nearest water sources in the east are Abu Minqar about 270 km away, in the area of the Farafra Oasis; and Dakhla Oasis about 330 km away; and in the west Kufra Oasis about 300 km away in Libya (Figures 2 & 4).⁸

1 Tutankhamun possibly ruled between 1334-1324 BC. HORNING ET ALII 2006, 493. In the following all dates are based on this publication.

2 REEVES 2007, 70-71.

3 REEVES 2007, 86-88, 154; ALDRED 1971, fig. 106; JAMES 2000, 196, 230.

4 REEVES 2007, 87, 190. The bedchamber may have been the innermost gilded shrine with a barrel-shaped top over the sarcophagus where the transformations of the deceased pharaoh must primarily have taken place. WILKINSON 1984, 336, 341.

5 CARTER 1972, 66.

6 DI MICHELE 1998, 107-109.

7 SPENCER 1939, 434; SAUL 2018, 7.

8 Based on RIEMER 2009, 121.



Figure 1. Tutankhamun's gold pectoral with the LDG scarab. Photo: © CULTNAT, Dist. RMN-GP / Art Resource, NY (www.archaeology.org)

The composition of the mineral is unique.⁹ LDG belongs to the petrographic group of impactites, which are surface rocks affected by high impact upon their forming. Since LDG is amorphous natural glass, it also forms part of the subgroup of impact tektites.¹⁰ It has unusually high silica content (98%),¹¹ which makes it very hard and unparalleled Among the natural glass types.

9 Since the main purpose of this paper is to expand Egyptological perspectives, I cannot summarize the multitude of studies investigating the formation of LDG. I consider it necessary to present only the most significant scientific results.

10 HARGITAI ET ALII 2005, 13-16.

11 FRÖHLICH ET ALII 2013, 2528. CLAYTON – SPENCER 1933, 507. BARAKAT 1998, 173.

Its formation has been a matter of question for a long time. In 2019 Aaron J. Cavoise and Christian Koeberl found traces of reidite in the micron-sized zircon particles of LDG.¹² Reidite can only develop as a result of a meteorite impact. Since the reidite content is laborious to find in LDG, it was assumed

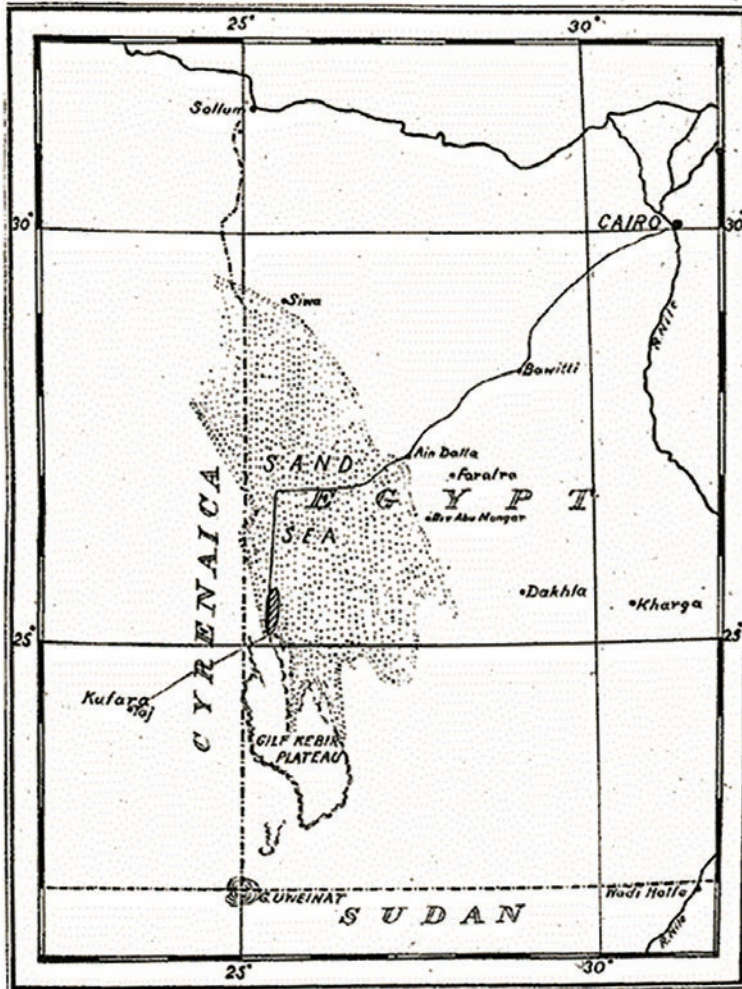


Figure 2. The first, non-scale sketch map of LDGA by the Clayton expedition. The solid line marks the route of the expedition from Cairo. LDGA is indicated by an oval with diagonal stripes at the south-western edge of the Great Sand Sea. Source: CLAYTON – SPENCER 1933, 503.

12 CAVOISE – KOEBERL 2019, 610.

that the immense heat (above 1600 °C) causing the melting metamorphosis of the mineral had been generated by a large atmospheric airburst – for the whereabouts of the impact crater still remain a matter of scientific debate.¹³ A most recent study, however, argues that out of the currently competing two leading formation theories, the airburst-induced melting is less likely, as direct evidence of high-pressure conditions seems to confirm the hypervelocity impact origin of LDG.¹⁴ In the immediate aftermath of the explosion, the intense heat must have swealed the Nubian sandstone bedrock that finally hardened producing a layer no more than one metre deep of translucent natural glass in the affected surface area. At that time, the surface bedrock must have been covered by wetter living habitats. The aridification of the area took place much later, together with the complex desertification of the Sahara.¹⁵ The decreasingly moisturous climate still could have provided some carrying capacity for human life in the area up until 3500 BC.¹⁶

The first scientific mention of LDGA was made by Fulgence M. Fresnel. When writing about the Wadai Empire (1635–1912) – which used to be situated in the territories of present-day eastern Chad and western Sudan – he recorded that the sultan wished to start a new caravan route to the Mediterranean Sea that would have run parallel to the much frequented Darb el-Arbain. The caravans on the new route would have moved north by touching upon the Dakhla Oasis in western Egypt for trade purposes.¹⁷ In order to reach Dakhla, however, the leader (*hajj*) of the first launched caravan had to explore an out of use, ancient looking road to the east of Kufra Oasis in Libya. After taking the route for two or three days, he found a large quantity of glasslike fragments scattered everywhere on the ground. The caravan finally reached the Mediterranean Sea by Benghazi in eastern Libya by 1846.¹⁸ Even though LDGA seems to have been well reachable from Kufra,¹⁹ the first scientists arrived from Egypt. The Clayton expedition of the Egyptian Desert Survey Department rediscovered

13 Tariq Aboud identified the impact structure with the Kebira crater. ABOUD 2009, 1429-1430. According to Christian Koeberl and Ludovic Ferrière, the crater must completely have been eroded since its formation. KOEBERL – FERRIÈRE 2019, 2398. In connection with the two nearby impact structures – the BP and Oasis craters in the Libyan side of the border –, it has been proven that their age does not match that of the LDG and further isotope studies also declined their relation to LDG. BARGHATHI 2024, 3.

14 KOVALEVA ET ALII 2023, 1906.

15 ZHANG ET ALII 2014.

16 KUPER 2006, 415.

17 FRESNEL 1850a, 45.

18 FRESNEL 1850b, 82-83.

19 SAUL 2018, 1.

the area in 1932, which has been visited on numerous occasions since then.²⁰ Due to the lack of space and the main focus of the paper, I cannot give here a detailed account of the recent expeditions to LDGA. In the following, I can only list a few major examples for such undertakings together with a short introduction into the standard deviation of prehistoric LDG worked artefacts and raw scraps found at different sites of the Western Desert in Egypt.²¹

1. PREHISTORIC IMPLEMENTS FASHIONED FROM LDG AND THEIR STANDARD DEVIATION IN EGYPT

Already upon the rediscovery of LDGA, Palaeolithic artefacts made of LDG were collected from the surface (Figure 3). They were worked flakes, scrapers and a perforated stone tool through which a rod could be fittingly inserted. According to Patrick A. Clayton, about 10% of the collected pieces showed signs of intentional blows or worked surfaces.²² One of the later visitors to LDGA was Kenneth P. Oakley who found miniature Aterian foliate hand axes as well as bifaced foliate points. He also noted the occurrence of two Palaeolithic pieces about 225 and 240 km southeast of the main source area.²³ In 1975 William P. McHugh reported on eight flakes of LDG at Wadi Bakht – possibly brought in by prehistoric nomads at the Gilf Kebir region –, as well as some further fragments in two rock shelters with paintings at Karkur Tahl in Gebel Uweinat.²⁴ Derek A. Roe and his team visited LDGA in 1979 and found at another Palaeolithic station a small pointed hand axe with the dimensions of 121x60x39 mm.²⁵ In 2002 Klaus Bokelmann published some more prehistoric LDG artefacts found scattered in the core area.²⁶ In 2007 further LDG finds were recounted by Heiko Riemer at Abu Minqar a few kilometres southwest of Farafra Oasis as well as at Eastpans and Mudpans situated east of the Abu Ballas scarp land (Figure 4).²⁷ In 2013 Frank Förster reported on a tiny scrap of LDG at Meri 00/16 along the Abu Ballas Trail about 30 km southwest of Dakhla Oasis. The way station is known of other prehistoric artefacts.²⁸ Some more worked and raw pieces were discovered at the Water Mountain of Djedefre (Chufu 01/01) about 60 km southwest of Dakhla and at the Regenfeld Region

20 BARGHATHI 2024.

21 Since Libya is a rather unexplored territory from the point of Egyptology, there has been no data from there about the spread of LDG.

22 CLAYTON – SPENCER 1933,504.

23 OAKLEY 1952, 447-449.

24 McHUGH 1975, 49, 58.

25 ROE ET ALII 1982, 88-92.

26 BOKELMANN 2002, 67-72.

27 RIEMER 2007, 33.

28 FÖRSTER 2013, 326.

about 150 km east of LDGA.²⁹ During one of his trips, András Zboray reported on discovering a few microlith blades made of LDG about “*some 80 km to the east of the Gifl Kebir*”.³⁰ At the site, in the Neolithic there was a lake with natural habitat and remains of some circular hut stone features are still visible atop a hill nearby. The huts were most likely discovered in 1938 by the expedition of Ralph Bagnold. In 1996 Rudolph Kuper and his team excavated the hut circles and found numerous Clayton Rings³¹.

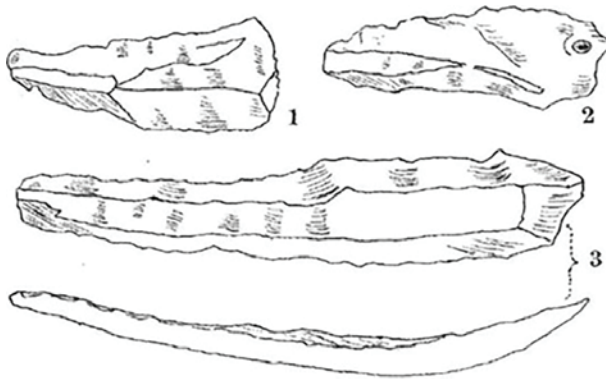


Figure 3. Prehistoric worked artefacts made of LDG.
Source: CLAYTON – SPENCER 1933, 504, Figure 2.

In 2009 Heiko Riemer prepared a chart about the standard deviation of the discovered Palaeolithic artefacts and raw scraps of LDG showing the distance from the core area and the proportion of the artefacts per site. According to his chart, direct access to LDG for prehistoric people in about 200 km distance from LDGA seems to have been possible. Single pieces of LDG found up to 370 km away from the core area most probably point at some sort of simple modes of exchange. In 400 km distance LDG pieces can only exceptionally be found. Even farther away from LDGA, the likelihood of finding any LDG is limited.³² Yet, the LDG scarab of Tutankhamun was discovered about 800 km east of LDGA.

29 FÖRSTER 2015, 296-298.

30 See ZBORAY's homepage, under the subtitle “*Hill with Stone Circles on Top*”

31 Clayton Rings are truncated cone-shaped hand-made pottery that are often covered with a disk-shaped lid with a hole in the middle (see for instance British Museum, EA76813). These special shaped ceramics can often be found in the caches of Western Desert shelters or in shady resting locations and have particularly been associated with the Late Neolithic Sheikh Muftah cultural unit of the Dakhla Oasis. McDONALD 2002, 113; RIEMER – KUPER 2000; RIEMER 2004; GATTO 2012, 62.

32 RIEMER 2009, 141.

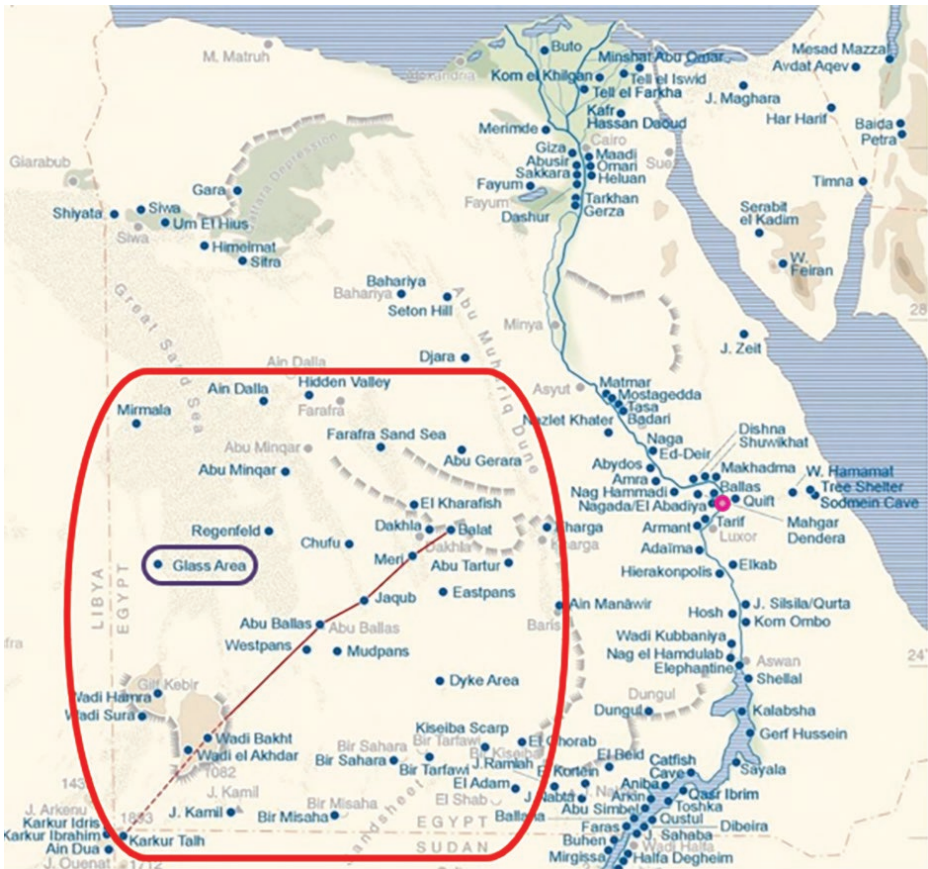


Figure 4. LDGA, the prehistoric distribution area and the location of KV62 marked. Source: the author's own editing based on the listed references (Map by FÖRSTER 2015, 625).

For better geographical visibility of the spread of the archaeological sites – in accordance with the chart of Heiko Riemer –, I marked the distribution area of the known LDG worked objects and raw scraps as well as LDGA on the map (Figure 4). For comparison, the location of the tomb of Tutankhamun is also indicated. Because of the great distance from the central LDGA – not taking the time difference between the prehistoric and the pharaonic usage into account, since travel conditions did not change that much by the New Kingdom, only the organisation of the pharaonic state became far more developed than any previous cultures' of the Western Desert, which made long-distance travel more achievable for the Egyptians –, it is probable that the LDG gemstone of Tutankhamun did not reach the Nile Valley by accident. Its presence in the tomb of a ruler of Egypt must have been due to conscious human activity that

carried the stone into such a great distance. In complete lack of evidence for the transportation of the gemstone, an analysis of some possible ways should be carried out next.

2. HOW AND WHEN MAY THE LDG STONE OF TUTANKHAMUN'S SCARAB HAVE TRAVELLED TO THE NILE VALLEY?

Excluding the possibility of accidentality,³³ there are more scenarios

³³ I would exclude Frank Förster's idea suggesting that the LDG scrap for Tutankhamun's pectoral might have been an accidental find of a misplaced fragment dropped previously by prehistoric nomadic people somewhere southwest of Dakhla Oasis. FÖRSTER 2015, 298.

As it will be detailed, the LDG gemstone in the funerary pectoral would have had to guarantee magical regenerative effects and complex transformational power for Tutankhamun's afterlife. According to ancient written sources provided by Sydney AUFRÈRE (1991/2, 520-537), the LDG scrap for Tutankhamun might have belonged to the sparkling and luminous *ḥnt*, and according to John A. HARRIS (1961, 135-138, 233), to the category that the ancient Egyptians called *ḥnt mꜣ* (true *ḥnt*). *Ḥnt* – and especially *ḥnt mꜣ* – must have been perceived as something unearthly and from the divine. As a consequence, sparkling gemstones would have been handled with care by means of the laws of sympathetic magic “for it was very deeply believed that the most precious metals [and gemstones] should not be the subject of trade, in order to preserve their purity. In this way metals and precious stones might have sprung from the bowels of the temple” (AUFRÈRE 2001, 160) or of such sacred places as the tomb chambers where the gods also appeared (AUFRÈRE 1991/2, 530; DAUMAS 1960, 78). (For the mummy and the tomb as sources of minerals see AUFRÈRE 1991/1, 345). In the temple of Dendera “there were rooms for the storage of raw materials and jewellery used in the rituals, and on their walls were indicated the mining regions controlled by the pharaoh” (AUFRÈRE 2001, 160). A description from the temple of Edfu “provides rules for the use of each of the metals and precious stones. At the end the text summarizes: ‘The precious minerals of the two cliffs, complete, they were destined for the treasure, very pure; all the products of the desert have entered the treasure of Gold, Lady of Dendera’” (AUFRÈRE 2001, 160).

From the era of the 18th Dynasty, we know of several expeditions sent to the Eastern Desert to obtain raw materials either for the pharaoh or for the temple of one of the gods in the Nile Valley. For instance, in Wadi Hammamat a text by May, the High Priest of Amun, was preserved. The aim of his mission was to obtain greywacke for a statue of the pharaoh. “The term for the royal order was expressed as *rdj.t m ḥr*, a formula that was first introduced to expedition inscriptions in the New Kingdom. The sending out of officials is then described with the verbs *ḥꜣb* and *mꜣꜣ*; after the royal order (*wꜣ.t-nswt*) we read *wꜣ ḥmꜣ-f* (‘His Majesty commands ...’). The phrase *rdj.t m ḥr* (‘to order someone’) was used with infinitives as well as *sꜣm.n-f*-forms. Since this phrase was used from the time of Thutmose III down to the reign of Ramesses IV, in Sinai as well as in the Wadi Hammamat and at Gebel es-Silsileh, it can be considered typical of the expedition inscriptions of the New Kingdom” (HIKADE 2006, 154-155).

As yet, it is not possible to obtain evidence of any similar expedition to the Western Desert

to consider. To begin with, the feasibility of trade between the oases of the Western Desert nearest to LDGA and the Nile Valley should be looked into. Archaeological findings from the oases and various documents of the Nile Valley suggest the presence of temples and perhaps their productive estates

during the 18th Dynasty (HIKADE 2001, 67); although, from the time of the Middle Kingdom some rock inscriptions have been reported from the area of the ironstone ore mining site at El-Harra, Bahariya Oasis. The head of the expedition(s) there was most likely Hebi the *ḥꜣty-ꜥ* (CASTEL – TALLET 2001, 105-106; VEPRASKIENĖ 2024, 380). According to Georges Castel and Pierre Tallet, the *ḥꜣty-ꜥ*-s were then often part of large expeditions organized by the crown towards mining sites, which is still observable during the 18th Dynasty (CASTEL – TALLET 2001, 105; HIKADE 2001, 67). According to Ian Shaw, “it seems likely that mining and quarrying expeditions, like military campaigns, were exploited to reinforce centralised political control. On a symbolic level, they could demonstrate the king’s control over the most far-flung regions” (SHAW 2002, 244; SHAW 1998).

In the region of Dakhla Oasis, research revealed ceramic evidence relating to the resuscitation of the Abu Ballas Trail during the second half of the 18th Dynasty. The trail could be travelled then once again along its entire length (FÖRSTER 2015, 138-141, 174, 444). Yet, there is no evidence whatsoever for any expeditionary activity northwest of the Abu Ballas Trail in the same period. Interestingly enough, parallel to the re-establishment of the trail, we can find the first mentions of *šḥt-(i)ꜣm* as part of the Nine Bows (*psdt pdt*) during the reign of Amenhotep II (UPHILL 1965-1966, 397). A much later text in the temple at Edfu located *šḥt-(i)ꜣm* west of the territory of the Farafra Oasis (EDFU VI 197: 11-198: 13; AUFRÈRE 2000, 99). Although the geography recorded by the temple contains oddities — which in the case of the gushing waters of natural spring mounds as a later interpretation for the waters of the Nile bubbling up in the desert might be explained (KAPER 2001, 72-78; SIMON 2024, 50-51, 60) —, the text locates the territory of *šḥt-(i)ꜣm* not far from LDGA. Two further mentions of *šḥt-(i)ꜣm* – outside of the Nile Valley – occurred in Bahariya Oasis during the 26th Dynasty, in the First and Third Chapels of Ain el-Muftella (FAKHRY 1942/1, 165-168; FAKHRY 1950/2, 21-23). Ain el Muftella is located on the western edge of Bahariya, near the junction of desert roads coming from Farafra Oasis in the southwest and from Siwa Oasis in the northwest. A statue found in the courtyard of the First Chapel depicts Bastet of *šḥt-(i)ꜣm*, also named the Lady of the Lands of the Two Souls (*nb.(t) kꜣ.wy tꜣ.w*) (JANSEN-WINKELN 2014/2, 1130). The goddess and her worship must have arrived in Bahariya from the western direction by one of the desert roads (AUFRÈRE 2000, 100). In the broadly contemporary Third Chapel, which probably belonged to Djedkhonsuiufankh or his brother who were both governors of the oasis, six of the Nine Bows were inscribed. The name of *šḥt-(i)ꜣm* was mentioned fourth, between the *šḥmw* (the Libyans possibly in the northern coastal area of the Western Desert) and *iwntyw-si* (the inhabitants of Nubia from the area of the Second Cataract of the Nile to the south; though in the Late Period the expression “was probably once again applied to the peoples who lived in the area of immediately to the south of Egypt itself”.) (UPHILL 1965-1966, 402, 406-408; BRADBURY 1992, 54-56). The list thus positioned *šḥt-(i)ꜣm* somewhere in the midwestern region of the Western Desert at a time when the location of the seat of Bastet of *šḥt-(i)ꜣm* would have been known to the inhabitants of the oasis.

in the oases during the 18th Dynasty (1539-1292 BC), especially from the reign of Thutmose III on.³⁴ For this reason, the role of temples in obtaining raw materials or mineral sources – one attestable way of which was to carry out expeditions to the deserts – also deserves some examination. Gemstones were acquired for cultic reasons from faraway segments of the then-known world. The procurement of high value raw materials for the temples was often intertwined with state actions. The impact of empire-expanding imperialist activities of the era can clearly be observed in all cardinal directions; therefore state-initiated explorations would also have been reasonable in the western direction. Based on the analogy of the contemporaneous revival of the Abu Ballas Trail, the probability of a long-distance expedition to the western outer reaches of the Western Desert, even towards LDGA, cannot be ignored without reasoning. Concerning such an undertaking, the possible participation of the population of the area of the oases should also be reflected on. During the 18th Dynasty administrative and economic ties between the oases and the central Egyptian administration seem to be tightening. Although no detailed descriptions survived about the oasisitic as well as Libyan *tribute (inw)*,³⁵ the depictions of the oasisitic tributaries on the walls of the Theban noble tombs (TT81, TT127(?))³⁶, TT155, TT39, TT131, TT86, TT100, TT A 24) and some other various sources preserved references.³⁷ The *inw* specially incorporated luxurious commodities, rare precious minerals and metals sent to the pharaoh by those who lived on the peripheries.³⁸ The likelihood of the LDG gemstone's arrival as a valuable and exceptional constituent of such payment cannot be omitted from under consideration.

Upon closer examination, trade between the oases of the Western Desert and the Nile Valley may not appear to be a suitable means of delivery for the LDG stone of Tutankhamun. On the one hand, local private traders of the western oases might not have carried such luxuriously rare items as LDG. They would have been more specialized for pettier merchandise. For instance,

34 HOPE – KAPER 2010, 138, 141; COLIN 2011; LONG 2012; LONG 2019.

35 The most accurate way to translate *inw* would be *gifts of respect* that were granted as gestures of foreign acknowledgement and means of diplomatic exchange to the pharaoh. However, it is shorter to refer to it as *tribute*.

36 In this tomb the expression *gꜣwt* is used in connection with the “*dues*” of the Southern and Northern Oases of Egypt. It is as if Senemiah did not deal with the *tribute* of the oases, but instead he may have operated within the organisation of the temple economy of Amun. GIDDY 1987, 70.

37 The tombs are listed here in the order of their presumed preparation. HALLMANN 2006, 144-154, 168-188. PORTER – MOSS 1960, 159-163, 241-243, 263-265, 71-75, 245-247, 175-178, 206-214.

38 WANG 2022, 41; DAVIES – GARDINER 1926, 21-28, pl. 23-24, 27-29; COMELLI ET ALII 2016, 1302-1303; BORSCHAT ET ALII 2022, 24.

the protagonist of the *Eloquent Peasant* is described to have loaded his donkey with “*rushes, rdmt-grass, natron, salt, sticks [...], staves from Farafra Oasis, leopard skins, wolf skins, ns3-plants, ʿnw-stones*³⁹, *tnm-plants, hprwr-plants, szhwt, szskwt, miswt-plants, snt-stones*⁴⁰, *ʿb3w-stones*⁴¹, *ibsz-plants, inbi-plants, pigeons, nʿrw-birds, wgs-birds, wbn-plants, thsw-plants, gngnt, earth-hair and inst*,⁴² *in sum, all the good products of Salt-Field*”⁴³. According to John R. Harris,⁴⁴ these above listed stone types do not seem to have had such outstanding value. Identically, the quality of the depicted products of the oasisitic *tribute* on the walls of the Theban noble tombs seem to be generally plain – with the exception of wine in amphorae.⁴⁵

In ancient Egypt, trading, as well as market exchange were most likely considered as a lowly profession and markets for the commoners would mainly have been accountable for the circulation of everyday perishable commodities, such as foodstuff, and average utility items. The elite would possibly have avoided direct involvement in such petty exchanges at the markets.⁴⁶ Comparably, the pharaoh’s procurement agents would have had access to more exclusive sources of precious items and raw materials, for which they needed to develop extensive networks of domestic or foreign connections, often by diplomatic relations or long-distance expeditions.⁴⁷ The procurement of specialised and valued goods, thus, would have meant almost exclusively upper-class involvement with high social obligation towards the ruler, the state management or the temples.⁴⁸ Nevertheless, it also should be taken into consideration that the area that the traders would have passed en route to

39 This type of stone seems to be pebbles or sling stones. HARRIS 1961, 26.

40 It was a type of ochreous earth, probably not commonly used. Apart from the knowledge that it was found in the Wadi Natrun, and was apparently of some commercial value, no more precise identification is possible. HARRIS 1961, 86 and 181.

41 The nature of this mineral cannot be established. It may be connected with ʿb ‘*be pure*’, ʿb3 ‘*offering table*’ or ‘*glitter*’. Some translations thus suggested ‘*clear*’ or ‘*shining*’ stone. HARRIS 1961, 84-85.

42 GYÖRY – HÉTHELYI 2020.

43 LICHTHEIM 1975, 170.

44 HARRIS 1961, 84-85.

45 Wine from the western oases counted to be a high-end commodity in Egypt. Almost exclusively the royal family and the members of the elite could have afforded it. Wine was either consumed upon the burial of the dead or it was placed inside the tomb. It was also used as an offering to the gods by the pharaohs and priests. POO 2009, 19-20, 71-87 and 147-169; GUASH-JANÉ 2008, 25-26; BUDKA 2015, 299.

46 WONG 2017, 41.

47 WARBURTON 1997; BARD – FATTOVICH 2018, 1-14.

48 WONG 2017, 42; HIKADE 2006; BARD – FATTOVICH 2018, 98.

reach LDGA was completely dried out at the time due to desertification. There is no evidence whatsoever that presently could confirm the existence of any long-distance trade or expedition route operational during the 18th Dynasty, leading west from Dakhla or Farafra Oases into the heart of the Great Sand Sea or even farther to the west.⁴⁹ At the time travelling hundreds of kilometres on foot into the entirely waterless desert and coming back alive would certainly have required the cohesive strength and teamwork of a well-manned and equipped expedition. Lone ventures and actions of single traders feasibly cannot have had much chance to cope with the harshness of the desert in such a long distance. The knowledge of the directions, the possible periodic water sources and the barren terrain would have been crucial to make the journey. The guidance of indigenous scouts or of sand-dwellers in all likelihood would have meant indispensable support for such a hazardous undertaking. Long-distance desert expeditions would have been unimaginable without the intermediary role of the oases.⁵⁰

Apart from the Libyans, little is known about the peoples of the Western Desert.⁵¹ From the New Kingdom (1539-1077 BC) only from under the 19th Dynasty texts mentioning probably indigenous groups of the area of the western oases survived.⁵² In the reign of Sety II (1202-1198 BC), Papyrus Anastasi IV (10.8-11.8) mentions the *Tkt:nz*,⁵³ who were said to have been rambling the lands of the oasis hunting and scouting for the Egyptians. Their case is special because in an official letter they seem to have been given privileges by the

49 FÖRSTER 2015, 298. Yet, an ancient looking road starting off from Kufra Oasis was mentioned in the first account about LDGA. FRESNEL 1850b, 82-83.

50 In Klaus P. Kuhlmann's view, the scrap of Tutankhamun's sparkling LDG must have been taken to Dakhla Oasis by some locals (*wht:tjw*) after travelling the Abu Ballas Trail "*sometime between the Old and New Kingdom, probably in the hope of enticing Egyptians to exchange it for something more useful than just a piece of shiny stone littering the desert*" KUHLMANN 2002, 128, 158. While it has been proved that prehistoric nomads took with them raw and worked pieces of LDG into the vicinity of the Abu Ballas Trail, it seems to be unlikely that a similar piece was traded to the Egyptians in Dakhla Oasis, who then possibly stored it for a longer period of time in the royal treasury at the Nile Valley, until it was finally worked and used for a short-lived, insignificant pharaoh occupying the throne during the second half of the 18th Dynasty.

51 According to Caroline Hubschmann, the archaeological profile of Dakhla Oasis "*displays nothing that is identifiable as non-Egyptian*" which is generally applicable for the time of the 18th Dynasty either. Moreover, the archaeological material culture of the other oases also seems to be homogeneous with that of the Nile Valley. As a result, desert nomads or sand dwellers in the region of the western oases are archaeologically invisible, although, in principle, their invisibility does not rule out their existence. HUBSCHMANN 2010, 51, 63.

52 GIDDY 1987, 91-92, 96.

53 CAMINOS 1954, 176-181; GARDINER 1937, 46-47.

Egyptian bureaucracy. In the letter a certain Egyptian official – who previously removed a *Ḥktꜣnꜣ* from his hunting – was scolded by his superior, who was most likely operating in the Nile Valley and had been informed about the case by the local mayor. The superior warned the vicious official that as a consequence of his action, he would be taken away by the *Ḥktꜣnꜣ* and put under his conviction, “*he will descend upon your head like a mound of sand*”. If it happened, the official could not expect help from the Nile Valley. Other overseers of the treasury who involved into the affairs of the *Ḥktꜣnꜣ* may likewise have brought trouble upon themselves. Therefore, the superior suggested to the vicious official that when the rescription of the pharaoh reached him, he should immediately write to his scribe who had already been sent forth to the fields of the oasis warning him “*beware of meddling with the Ḥktꜣnꜣ (even) to remove just only one of them, or else it will be reckoned against you as a capital offence*”⁵⁴. The *Ḥktꜣnꜣ* must have enjoyed some kind of royal or central permission to hunt or move around freely and to be left alone by the Egyptian officials governing the area. In return, they provided some irreplaceable services for the pharaoh or for the central administration that may have been important enough for the safety of the area or for the implementation of possible Egyptian operations – such as expeditions. The *Ḥktꜣnꜣ* are likewise mentioned in the Israel Stela (lines 23-24) together with another probably indigenous ethnic group, the *Nꜣw*, who were also great hunters and possibly provided some kind of guarding services over the area.⁵⁵ The likelihood of local ethnic groups’ serving the interests of the central government in the Western Desert cannot be excluded even before the 19th Dynasty.⁵⁶

As it can be judged by recent discoveries, the western oases developed clear administrative, economic and religious ties with the Nile Valley by the 18th Dynasty.⁵⁷ Based upon evidence from the Dakhla and Bahariya Oases, by the reign of Thutmose III (1479-1425 BC), the Temple of Amun at Thebes may have had local branches within the oases.⁵⁸ The same is likely for the Temple of Osiris.⁵⁹ The growing number of preserved wine amphorae docketts and

54 CAMINOS 1954, 176-177.

55 GIDDY 1987, 91-92, 126; KRI IV, 18.9–10; KRITA IV, 15.

56 During the 4th Dynasty (2543-2436 BC) Egyptian expeditions to the Water Mountain of Djedefre (Figure 4: Chufu) may also have been aided by the indigenous Sheikh Muftah people. RIEMER 2004, 982.

57 LONG 2019.

58 LONG 2012; LONG 2019, 228; HOPE – KAPER 2010; COLIN 2011; DARNELL ET ALII 2013; DARNELL 2002.

59 On his funerary cone, Min – who probably lived under the reigns of Thutmose III and Amenhotep II – held the titles of *Mayor of the Oasis* (*ḥꜣty-ꜣ n wḥꜣt*) and *Overseer of the Priests of Osiris* (*imy-ꜣ ḥmw ntr n Wsir*). GIDDY 1987, 71, 74; LONG 2012, 106-107. Excavations at Umm

seals from the reign of Amenhotep III (1390-1353 BC) and his son accumulate evidence for the existence of vineyards in all of the western oases.⁶⁰ As possible production units of the temple economy, these oasisic vineyards may have belonged to the main temples of the Nile Valley,⁶¹ as well as the crown undoubtedly might have had its own agricultural units.⁶² From Tell el-Amarna numerous amphorae came to light with names of oasisic wine producing estates that belonged to Aton.⁶³ In the tomb of Tutankhamun a record attached to an amphora named the Southern Oasis (*whst rsyf*) (possibly Kharga and Dakhla together) as source of origin.⁶⁴ The existence of outsourced temple and royal estates underpins the fact that the central Egyptian temples were in economic contact with the oases that supplied them with commodities needed for everyday functioning.⁶⁵ The transactions of the temple economies would have extended throughout the whole country and their participants were not only those who bore priestly or temple related titles,⁶⁶ but they also could be individual traders (*hry šwtw*) hired to work for the temples.⁶⁷ These traders

El Qaab found a great amount of oasis amphora shreds at the presumed tomb of Osiris from the late 18th and early 19th Dynasties. The shreds testify that the consumption of wine from the oases significantly increased at the site by the 19th Dynasty. BUDKA 2015, 299.

60 DARNELL ET ALII 2013, 6-7; ROSSI – IKRAM 2018, 11, 23-24; WAHLBERG 2012, 60-61, 97; COLIN 2011.

61 CASTLE 1992, 241; WAHLBERG 2012, 53.

62 DARNELL ET ALII 2013, 7. It was mentioned on more occasions in the Theban noble tombs that the *tribute* of the oases was due to the pharaoh, but he donated it to the Temple of Amun. DAVIES 1922, 89, pl. 30. Even though in some of the international tribute representations Thutmose III seems to be present (TT39, TT131, TT86), his presence may rather have been a consequence of the propagandistic view that the ruler's task was the universal maintenance of *maat*, which strengthened the position of the tomb owners both in life and in the afterlife. The depictions of the Nine Bows in some of the noble tombs at Thebes possibly had a similar ideological background. PEIRCE 2021, 44. As one of the most influential priests of Amenhotep III, Simut was depicted in his tomb (TT A 24) receiving wine of the oases as *imw* presumably on behalf of the pharaoh for his second heb-sed festival. ALDRED 1959, 114-115.

63 WAHLBERG 2012, 20, 60-61, 97, 99, 105, 108; MARCHAND – TALLET 2000; LONG 2012, 111; DARNELL ET ALII 2013.

64 TALLET 1996; LONG 2012, 111. However, there are different views on this, see WAHLBERG 2012, 61.

65 CASTLE 1992, 240.

66 In the tomb of Menkheperreseneb (TT86), above the register of the oasisic tributaries there is a very badly damaged caption referring to a certain *hm-ntr* priest "*whom the sovereign loves*" (*pꜣ hm-ntr nrj [n] ity*). DAVIES 1933, 5. It vaguely implies the possibility that the priests of the Temple of Amun may have played a role in the collection or transfer of the *tribute* of the oases to Thebes.

67 CASTLE 1992, 251.

could be of Egyptian or foreign origin and were charged with selling and buying stuff – both domestically and abroad – as expected by the temples.⁶⁸ Their transactions may have been more related to bulk purchases and sales than individual or small quantity exchange.⁶⁹

Yet, the procurement of the temples had other sources as well. One of which was implementing long-distance expeditions to the desert to collect raw materials first-hand. In the Eastern Desert rock inscriptions attest to the fact that from time to time even members of the highest management of the Temple of Amun embarked on long-distance expeditions to procure raw materials.⁷⁰ During the reign of Thutmose III, Senneferi (TT99) – who Among others was the *Overseer of the Seal* (*imy-rꜥ ḥtm*), the *Overseer of the Fields of Amun* (*imy-rꜥ šḥwt n Ḳmn*) and the *Overseer of the Gold Lands of Amun* (*imy-rꜥ ḥꜣswt nbw n Ḳmn*)⁷¹ – took part in more expeditions as far as the Sinai Peninsula to procure precious raw materials for the Temple of Amun and the pharaoh.⁷² During the reign of Amenhotep IV / Akhenaton (1353-1336 BC) the High Priest of Amun (*ḥm-nꜥr tpj n Ḳmn*), May was sent in person to obtain greywacke for a statue of the pharaoh to the Wadi Hammamat. Several participants of May's expedition left graffiti behind, therefore the structure of the manning of the expedition is quite-well known.⁷³ Priestly personnel generally occurred among the members of the expeditions to the Eastern Desert.⁷⁴ Therefore, the rightful question arises as to whether the temples of the oases could ever have participated in or contributed to any expedition in the Western Desert? The Temple of Amun and temples of other gods were constantly in need of raw materials that were procured in any feasible way. It cannot be ruled out that the leading dignitaries of the Temple of Amun did not seek to search for precious raw materials in any potentially reachable areas from the Nile Valley, including not only the Eastern,⁷⁵ but also the Western Desert. Along with this model, it would be an

68 CASTLE 1992, 250, 259.

69 Like in the Story of Wenamun who was sent to fetch timber for the Temple of Amun from Byblos. LICHTHEIM 1978, 224-233.

70 HIKADE 2001, 10-17. A block with titles of an official of the Treasury of the Temple of Amun was found in Wadi Barramiya in the Eastern Desert. LÄ II 749.

71 STRUDWICK 2016, 9-17.

72 HIKADE 2001, 10-17, 57-63; STRUDWICK 2016, 16-17. In a fragment of an inscription at Serabit el Khadem, Thutmose III was praised to launch a mining expedition so that the extracted minerals could be given to the Temple of Amun in Thebes, where he erected magnificent buildings in honour of the god. GARDINER ET ALII 1955, 162, No. 200.

73 HIKADE 2006, 154.

74 HIKADE 2001, 267-272.

75 In Wadi Mia, in the main enclosure of the temple of Sethy I, a block bearing the cartouches of Tutankhamun might indicate interest in the area under his reign. In the vicinity of the temple an

interesting hypothesis to suppose that the Temple of Amun in the oases would similarly have been at least partially involved in supporting expeditions into the Western Desert with the help of locally installed Egyptian authorities that belonged to the crown.

The cults of the gods needed gemstones.⁷⁶ One of the best attestations of this is Spell 594 of the Coffin Texts stating that "... *Osiris [...] to whom are brought gold of the deserts, myrrh of the God's Land, costly stones of the isles by Horus the Elder, faience of Libya (*ḥntw nt Ḥntw*), lapis lazuli of the Blue Land, haematite(?) of Hbks, turquoise of the Sinai, (costly stones?) of R3-*ḏyt*, carnelian of Š3yt⁷⁷*". Among the various semi-precious stones that were brought in to Egypt from the fringes of the then-known world, the reference to the faience of Libya is rather interesting.⁷⁸ In John R. Harris' view, the textual evidence for *ḥnt* is extensive, but by no means conclusive as regards the definition of the concept denoted by the word. In the majority of the cases the designation of *ḥnt* appears to be referring to artificial greenish, bluish or yellowish faience, glass and glaze.⁷⁹ The most apparent evidence for this is an inscribed faience vessel found at Tell el-Yahudiya stating its material as *ḥnt*.⁸⁰ In a similar manner, *ḥnt* was used to describe glass or glaze that was applied on the surface of a statue (Papyrus Salt 825: 18, 3) or of shabtis.⁸¹ The *overseers of glass making workshops* were also called *imy-r^c ḥnt* at Tell el-Amarna and elsewhere.⁸²

inscription carrying the name of one of the sons of Amenhotep III together with the cartouche of his father was preserved. GARNETT 2016, 229.

76 As it was recorded on a figurine of Sokar, it received everything that was needed for the maintenance of divine cults: fruit, plants, perfumes and minerals. AUFRÈRE 1991/1, 329, 340.

77 FAULKNER 1977, 192; CT VI, 212-213.

78 According to Sydney Aufrère, in the ancient references *ḥnt* was cited to come to Egypt altogether from three sources: in the Famine Stela and statues of Djehutyhotep from Dibeira East from Nubia, in the Mammisi of Dendera from Punt and in Spell 594 of the Coffin Texts from Libya. AUFRÈRE 1991/2, 521. For *ḥnt* being associated with the Libyans or the land of Libya see NEWBERRY 1920, 160; HARRIS 1961, 137-138; AUFRÈRE 1991/2, 533; KUHLMANN 2002, 128-129. However, it cannot be proved that the reference to the faience of Libya in Spell 594 was made exactly to LDG. Since, for example, cobaltiferous alum was extracted on more locations either in Kharga or in Dakhla Oases during the 18th Dynasty, which was used to make blue ceramic paint, glaze and glass in the Nile Valley. SHORTLAND ET ALII 2006; ABE ET ALII 2012.

79 HARRIS 1961, 135-138.

80 HARRIS 1961, 136.

81 See the *Spell for causing that the shabtis of faience descend into the Duat* (*r n dūt h3 wšbtjw n ḥnt r Dwt*) in MOGENSEN 1918, pl. 26, No. 3548 and in SCHNEIDER 1977/1, 126-127. The sparkling light of *ḥnt* was thought to resuscitate the dead into an imperishable body. DAUMAS 1960, 80.

82 HARRIS 1961, 136. Based on glass samples found at Tell el-Amarna, it was determined that the

The colour of *ḥnt* was often implied as green or greenish-yellow, for the colour of the fields and of the leaves of trees. The colour of green barley or golden wheat was frequently associated with the power of the life-renewing light of *ḥnt* as these crops could renew themselves from seeds hidden in the corn mummies of Osiris.⁸³ *Ḥnt* not only emanated light, but also supplied energy for the afterlife regeneration in the darkness of the Duat. On that account, Osiris became a being of exceptional regenerative brilliance.⁸⁴ The *Wdꜣt* Eye was likewise characterised as *ḥnt* in the Book of the Dead. Consequently, the lunar god, Thot, as the completer of the *Wdꜣt* Eye,⁸⁵ was equally provided with the attribute of being of the colour of *ḥnt*.⁸⁶ The beams of the lunar light were thought to nourish crops germinating in the nocturnal darkness of the soil.⁸⁷ Because of its luminous aspect and manifestation as sparkling magical light, *ḥnt* even played a purifying role in the process of mummification that promoted the blossoming of the bud of the revived human life.⁸⁸ Furthermore, *ḥnt* was intended as food for divine beings, the gods or the resurrected Osirian mummies.⁸⁹ At the same time, *ḥn* was described either as the faint glitter of the moon or the shimmering yellowish and transparent whitish light of the scorching sun and that of the sun god.⁹⁰ *Ḥn(t)* was not only connected to the golden radiance of the solar god *Hpr*, but also it contributed to the solar aspect of Osiris who was equated to the moon by the time of the 18th Dynasty.⁹¹ *Ḥn(t)* was associated with the pharaohs,⁹² who – as the earthly representative of the gods – assumed the power of divine minerals and reflected their characteristics to all of the peoples of the world. For instance, in Abu Simbel, Ramses II was called “*the mountain of electrum*”, which epithet attributed the metallic characteristics of the sun god to him.⁹³ With the rarely appearing shiny *ḥn-hpr* scarab the notion of brightly shining transformations was also present for those

blue colour of the glasses was achieved by using and mixing in various portions cobalt ore from the Dakhla and Kharga Oases. HODGKINSON ET ALII 2024, 7-8.

83 AUFRÈRE 1991/2, 526.

84 AUFRÈRE 1991/2, 523, 527, 530; DAUMAS 1960, 78.

85 AUFRÈRE 1991/1, 200, 216.

86 Spell 175 of the Book of the Dead. AUFRÈRE 1991/2, 529; HARRIS 1961, 136.

87 AUFRÈRE 1991/2, 527.

88 AUFRÈRE 1991/2, 527.

89 AUFRÈRE 1991/2, 530.

90 HARRIS 1960, 138; GRIMAL 1986, 274; HAAS DANTES 2023, 45; AUFRÈRE 1991/2, 524-525, 528, 530-531.

91 DAUMAS 1960, 75, 77. AUFRÈRE 1991/1, 168; RITNER 1985, 150-152.

92 GRIMAL 1986, 274-276; BECKERATH 1984, 85-87.

93 AUFRÈRE 1991/1, 313.

pharaohs of the New Kingdom who indicated the symbol of *ṯhn-hpr* in their titularies.⁹⁴ The epithet *ṯhn šnbt* “*sparkling chest*” may express connection with the fact that the chest, face and hair were interpreted as prominent places of luminosity.⁹⁵ References to *ṯhnt* are often from lists of precious, semi-precious stones or crystal-like minerals (*ṯhnt mꜣꜥ*) that likewise could cast reflections and were implied to have been used for amulets, scarabs, seals, collars and many other objects.⁹⁶ In the texts the glittering quality of *ṯhn(t)* was primarily alluded to.⁹⁷ As a result, it should be sensible to suppose that the commonly used meaning of *ṯhn(t)* would have referred to the brilliance of artificial self-glazed frits or their natural counterparts.



Figure 5. Greenish-yellow scraps of LDG in different hues and sizes.



Photo: <https://www.mindat.org/gm/39796>.

94 AUFRÈRE 1991/2, 532; GRIMAL 1986, 274-276; BECKERATH 1984, 85-87. KRI I, 80. 7-8.

95 The burning red sun disk carrying a scarab in the middle of the torso of the reclining Osiris depicted in the tomb of Ramses IX (KV 6) may likewise have emphasized the effect of gleaming light and reviving energy on the Osirian resurrection. GUILMANT 1907, pl. 63,77. The composite god Re-Harakhty-*Hpr* was also sometimes depicted with a sun disk on the head containing a scarab. CALVERLEY – GARDINER 1935, pl. 14.

96 HARRIS 1961, 136-137.

97 HARRIS 1961, 137.

Consequently, in John R. Harris' view, the identification of *ṯhnt* with LDG is feasible,⁹⁸ because its appearance as a greenish-yellow crystal-like natural glass would be consistent with other transparent and sparkling natural or artificial materials referred to as *ṯhn(t)* (Figure 5). All such sparkling stones or artificial materials might conceivably have been given a unified name in ancient Egyptian.⁹⁹ In the *Wörterbuch der ägyptischen Sprache*, *ṯhn(t)* has a lot of meanings.¹⁰⁰ In addition to its greenish, bluish or yellowish hue, *ṯhn(t)* was surely of dazzlingly white colour as well, as the stem of the word basically refers to “gleaming, shining”,¹⁰¹ but it can mean “to brighten, to beautify someone's shape”, or “the rays of the sun illuminating Egypt”.¹⁰² The stem written with a scarab (*ṯhn-hprw*) was applied in a Golden Horus Name variant  of Amenhotep III (1390-1353 BC) in the Temple of Luxor. It was transcribed by Jürgen von Beckerath as *nbw Hr ṯhn-hprw wr-bi3wt* and to be translated as “The Golden Horus: Dazzling of Manifestations, Great of Wonders”.¹⁰³ Amenhotep III had more epithets in the Temple of Luxor written with *ṯhn-hprw*. One of them, for instance, reads as  (*nswt ṯhn-hpr r twwt*) “the king rejuvenated by transformations”.¹⁰⁴ Consequently, there seems to have been some kind of intimate connection between the uses of *ṯhn-hprw* in the inscriptions of Amenhotep III and the greenish-yellow LDG scarab in the funerary pectoral of Tutankhamun. It is as if a slight allusion was made back to the royal attributes of the time before the Amarna reform on behalf of Tutankhamun. Some of the subsequent rulers likewise valued the expression. Ay (1323-1320 BC) continued the implication of *ṯhn-hprw* “dazzling of manifestations” in a variant of his Horus Name that substituted for *ṯhn-hꜥw* “the glittering crowns”.¹⁰⁵ In the beginning of the 19th Dynasty, Sethy I (1290-1279 BC) was referred to with the epithet of *ṯhn-hprw* in a text at Gebel Silsileh that translates as “(he is) the perfect god like Re in the sky, with sparkling manifestations (*ṯhn-hprw*) when he appears as Amun (*hꜥwy.f mi ʿImn*) and illuminates (*shꜥd*) the two lands with his splendour like Akhty who dispenses his light at dawn”.¹⁰⁶

98 HARRIS1961, 137.

99 HARRIS 1961, 137-138.

100 WB V 390-393.

101 WB V 392.

102 WB V 393.

103 BECKERATH 1984, 85-86.

104 GAYET 1894, 28.

105 GRIMAL 1986, 275; BECKERATH 1984, 87.

106 The translation is by GRIMAL 1986, 275 based on KRI I, 80, 7-8.

Although there is no evidence for any expedition westward from the outer western oases to LDGA, its possibility would still be worth an investigation.¹⁰⁷ It is enhanced by the fact that along the Abu Ballas Trail clear attempts seem to have been made to reinstall its ancient supply chain in its entire length of about 350 km. According to Frank Förster, eight depot sites were discovered with a total of at least 108 large clay storage vessels.¹⁰⁸ Based on some similar finds in Dakhla Oasis, these were dated to from the middle up to late 18th Dynasty, a period extending from the reign of Amenhotep II to that of Horemheb (1425-1292 BC).¹⁰⁹ As yet, no other similarly established supply chain for provisioning long-distance expeditions has become known from the Western Desert. That being so, the lack of a supply chain does not necessarily mean that there were no other expedition(s), only that they were provisioned differently leaving no archaeological visibility behind and cannot have occurred on a regular basis. The success of the revival of the Abu Ballas Trail does not seem to be long-lived either. Due to intense desertification, the areas — with which the trail used to be in touch — must have become abandoned.¹¹⁰ During the 19th and 20th Dynasties (1292-1077 BC) further attempts to travel the Abu Ballas Trail are archaeologically discernible; however, by that time there seems to have been no chance of walking along the entire length of the trail.

The case of *sh̄t-(i)ꜣm* should be brought up as a territory that more sources set in the outer midwestern region of the Western Desert, that is, near the LDGA.¹¹¹ From the reign of Amenhotep II, the Nine Bows lists usually referred to *sh̄t-(i)ꜣm* at the fourth place locating it in between the lands of

107 The tomb of Tutankhamun contained 19 pieces of iron objects. REEVES 2007, 112, 194. In 2016 his iron dagger blade — found in the wrappings of his mummy — was proved to be of meteoritic origin. COMELLI ET ALII 2016. The dagger was most likely manufactured in the Near East and was possibly mentioned in the diplomatic correspondence of the Amarna Letters (EA 22 I, 32-35) as a gift sent to his grandfather, Amenhotep III, by Tusratta, the king of Mitanni. MATSUI ET ALII 2022, 749. According to a recent comprehensive study of the iron objects of the tomb, all of them — a 16 pieces set of small chisels fixed into wooden handles (from Box No. 316 in the *Treasury*), an iron Eye of Horus amulet from among the mummy wrappings and an iron miniature headrest from the golden funerary mask of the pharaoh — show signs of meteoritic origin. They have different mineral components from the dagger blade's; therefore, their source of origin must be different. BORSCHAT ET ALII 2022, 31-34. In 1991 some small pieces of iron were handpicked in the northern area of LDGA (Great Sand Sea 003), the chemical analysis of which shows meteorite contains. BARAKAT 1998, 173-175. As yet, I do not have any information about a comparative analysis of the finds and the iron objects from the tomb of Tutankhamun.

108 FÖRSTER 2015, 126, 138-140.

109 FÖRSTER 2015, 141.

110 FÖRSTER 2013, 327-330; FÖRSTER 2015, 444; HOELZMANN ET ALII 2001; JESSE 2006, 77-78.

111 See footnote 33.

Lower (*t3-mḥw*) and Upper Egypt (*t3-šmꜥw*) in the west.¹¹² The appearance of *šḥt-(i)ꜣm* may suggest some kind of long-term contact established with the outer midwestern premises of the Western Desert. The temporal overlap between the reintroduction of the Abu Ballas Trail, the appearance of *šḥt-(i)ꜣm* and the application of the LDG gemstone for Tutankhamun may point to expeditionary activities in the Western Desert in the second part of the 18th Dynasty, though the simultaneous gradual emergence of Libya can also be traced in the area.¹¹³ The exploration of the Western Desert might have served or supplemented the overall imperialist ambitions of New Kingdom pharaohs towards the lesser-known or more out of reach western cardinal direction, just as the other cardinal directions seem to have been broadened by then either through military campaigns or expeditions for various purposes. The expansion of the Egyptian worldview can be perceived in many of the sources of the 18th Dynasty. In accordance with this, the role of the oasisitic tributaries as representatives of the west in the Theban noble tombs (Figure 6), was fully taken over in the Amarna period by the Libyans arriving from more distant sections of the Western Desert (Figure 7).¹¹⁴ The increasing desertification of the Sahara may have influenced the rapid emergence of the Libyans.¹¹⁵

During the 18th Dynasty the western oases administratively belonged to Egypt Proper, which can be supported by the official titles of the Theban nobles who had the oasisitic *tribute* bringers represented on the walls of their tombs. They usually bore not only Amun Temple related high-ranking titles, but also held high administrative positions in the central government of the Nile Valley or of the oases.¹¹⁶ In all of the surviving representations of the oasisitic tributaries,

112 UPHILL 1965-1966, 395-405. Though it could occur in other places of the list too or in topographical lists, see KITCHEN 1965, 6-8. For the consideration of *šḥt-(i)ꜣm* as a general designation for the entirety of the western oases see SETHE 1920, 47, 52-53. Kurt Sethe also took Ain el Wadi, northwest of Farafra, under consideration as a possible location. *Šḥt-(i)ꜣm* is often associated with the Oasis of Siwa; however, the only surviving name of the oasis was *t3(j) n ḏrw* in the Late Period inscriptions of the Temple of the Oracle on the Aghurmi Hill. WB IV 230, 11-12; KUHLMANN 1998, 160.

113 NIELSEN 2024; MARTIN 1989, 78-84, 94-98; SNAPE 2003.

114 A reference for the Libyans as symbols of the edge of the pharaoh's power in the west already occurred in the reign of Amenhotep III. At the end of a cosmograph stela found in his mortuary temple at Thebes "Amun describes the subjugation of all lands to the pharaoh, moving from the south (Kush) to the north (the Levant), then on to the west (the Tjehenu Libyans), and finally to the east (Punt), thus covering the known span of the world". O'CONNOR 1998, 167.

115 RITNER 2009, 47.

116 HALLMANN 2006, 144-188. For example, Intef (TT155) bore the leading titles of the Overseer of the Two Granaries (*imy-rꜥ šnwtj*), the Overseer of the Entire Oasis Region (*ḥry-tp n whꜣt*

the leaders of the delegations look Egyptian.¹¹⁷ It was as if it had mattered to be at least Egyptian-like to be permitted to manage relations west of the Nile. That being the case, the western oases were still viewed as external territories, because the *inw* usually arrived from foreign peoples living on the fringes, outside of Egypt Proper. Even so, it was not clearly indicative of political domination, for not all the foreigners in the *tribute* scenes lived under Egyptian rule. From the Egyptian ideological point of view, however, the pharaoh was the ultimate ruler over the whole world to the starry edges of the cosmos, and his almightiness deserved to be presented with luxurious products from the lands of all cardinal directions. In return, the foreign peoples were granted the chance to lead their lives on *his* lands.

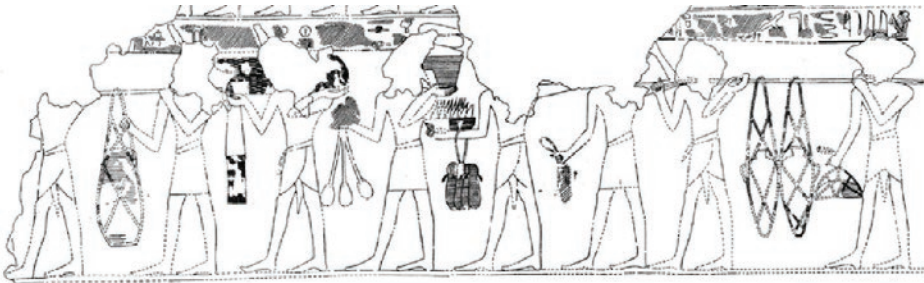


Figure 6. Tributaries of the western oases in the tomb of Menkheperreseneb (TT 86).
Source: DAVIES 1933, pl. 7.

An inscription from the 18th Dynasty tomb of Amenemheb-Mahu (TT85) well exemplifies this Egyptian way of thinking. Upon his accession to the throne, Amenhotep II (1425-1400 BC) claimed to seize “... *the Genuntiu (Gwntyw) and the Kenemtiu (Knmtyw) and every land (that are) in (the state of) bowing down to his powers with their tribute (inw) on their backs so that breaths of life could*

mi kdw.s), Mayor of Thisis (*imy-rꜥ n Tnj*) and the Great Herald of the King (*wḥm tpy n nswt*). URK IV 963-964, 969-973. The combinations of oasis related titles can also be confirmed by funerary cones. For instance, scribe S — whose 18th Dynasty funerary cone was discovered in the Theban area where he was probably buried (GIDDY 1987, 71) — was Mayor of the Northern Oasis (possibly Bahariya and Farafra Oases together) (*ḥꜣty-ꜥ n wḥꜣt mḥtt*), the Overseer of the Temple of Amun in the Oasis (*imy-rꜥ pr n Ḳmn ḥr wḥꜣt*) and the Overseer of the Two Granaries of Amun (*imy-rꜥ šnwj n Ḳmn*) (ZENIHIRO 2009, 49). In one person he did not only run the administration of the oasis in general, but at the same time, held important offices related to the management of the local Temple of Amun. Although it is questionable to what extent these offices were held simultaneously or in succession of one another.

117 DZIOBEK 1992, pl. 60/B; SÄVE-SÖDERBERGH 1957, pl. 13; DAVIES 1922, pl. 31.

*be given to them*¹¹⁸. In such manner, the new king proclaimed how far his newly gained power reached and how far he was meant to rule the lands, because from the Egyptian ideological point of the view, there counted to be no borders for his power.¹¹⁹ The designations of *Genuntiu* and *Kenemtiu* were applied to indicate the easternmost and westernmost edges of the Egyptian Empire. The *Genuntiu* possibly referred to the so-called *Genebtu* (*Gnbtyw*) who lived in the greater Red Sea region in the extreme east, probably in Arabia.¹²⁰ At the same time, due to the erroneous and confusing spelling, the *Genuntiu* may have referred to the *Puntiu* (*Pwntyw*), the people of the land of Punt, who likewise lived in the far-off marginal region of the Red Sea, southeast to Egypt.¹²¹ In turn, the *Kenemtiu* certainly allude to the people of *Kenemet*, the land of the Southern Oasis, on the westernmost frontier of the empire. As a result of this testimony, it can be assumed that from the ideological point of view the western oases were considered to belong under the rule of the pharaoh. Owing to the archaeological finds in Dakhla Oasis and at the way stations by the Abu Ballas Trail, the claim of Amenhotep II about his ruling over the people of *Kenemet* does not seem to be that propagandistically idle. Concerning the lands of the *Genuntiu* or *Puntiu*, the depth and frequency of the interactions between them and the Nile Valley must have been much scarcer.¹²² However, for Egyptian ideology, there seemed to be not much disagreement about the inferiority of the peoples living outside Egypt Proper.¹²³ For all these reasons, the *tribute* of the foreign lands would primarily have belonged to the person of the pharaoh, but it was accounted for and could have been donated to the Temple of Amun.¹²⁴ In accordance with this, the oasisitic *tribute* — received by the Theban nobles on the behalf of the pharaoh (*šsp inw*)¹²⁵— always appear to have been given to the Temple of Amun. It was never reported to form part of *the royal tribute presenting ceremonies* (*ms inw*), where the pharaoh personally received the *tribute* in the form of a parade at the royal residence.¹²⁶

118 URK IV 896, 7-17. The translation is mine.

119 GALAN 1999.

120 COOPER 2020, 78-82.

121 BARD– FATTOVICH 2018, 156-176.

122 SALEH 1972; LÄ IV 1198-1201; COOPER 2020, 78-82.

123 GALAN 1999.

124 BLEIBERG 1996, 90-114.

125 BLEIBERG 1996, 108-111.

126 WANG 2022, 45; BLEIBERG 1996, 103-106. After the royal reception of the *inw*, the goods by direct means were used up or consumed by the members of the royal family in the palace. The goods were not regarded as part of their ration of ordinary supplies, but they were provided as extra. BLEIBERG 1996, 100.

In absence of any evidence, it is impossible to know if a pharaoh ever received first hand any goods of *tribute* from the Oasites. Likewise, no detailed description survived about the items of any oasitic *tribute*. All that can be known is depicted in the Theban tombs.¹²⁷ Amphorae and baskets were the most common oasitic products. At first look, neither of them seems to be luxurious enough for the generally high-end standards of the *tribute* goods. According to the numerous wine docketts and seals discovered in the Nile Valley,¹²⁸ oasitic amphorae contained good or very good quality wine, sometimes even *šdh* wine.¹²⁹ Wine was rare enough in ancient Egypt to become of high value. Unlike the amphorae, would the baskets of the Oasites have been completely empty upon handover? Or might they have contained some valuable small objects, like rare minerals of the farthest Western Desert? These questions are impossible to answer without any exact piece of evidence.



Figure 7. Libyan tributaries in the Amarnan tomb of Meryre II (AT2).

Source: DAVIES 1905a, pl. 37.

Considering the *inw*, it should be looked into from when and for how long references to oasitic *tribute* occurred and what can be known about the development of the diplomatic relations with the Libyans during the course of the 18th Dynasty. The Theban noble tombs were mainly carved during the coregency of Hatshepsut and Thutmose III or during his consequent sole reign. Only the tomb of Rekhmire (TT100) was finished later, in the reign of Amenhotep II. From under the reign of Amenhotep III only a faint copy of an inscription from the long-lost Theban tomb of Simut (TT A 24) reports about “the *inw* of the oasis and (other) offerings to the Temple of Amun”¹³⁰. In parallel, the emergence of the Libyans can be witnessed.

Diplomatic relations between Egypt and Libya evolved since the first half of the 18th Dynasty. One of the first mentions of Libyan *inw* was made by Hatshepsut, when the female pharaoh accepted such *tribute* items of Libya as

127 GIDDY 1980.

128 Oasis amphorae were found in many localities along the Nile from under the 18th Dynasty: Memphis, Saqqara, Abydos, Deir el-Medina, Theban noble tombs (TT253), Malkata. HOPE 2002.

129 WAHLBERG 2012, 97; GYÖRY ET ALII 2020, 120, 123-125, 130, 134, 136, 140-141.

130 ALDRED 1959, 114-115; PORTER – MOSS 1960, 454.

ivory and panther skins.¹³¹ Yet, minerals seem to be missing from her list. In the broadly contemporary tomb of Puimre (TT39) a presumed Libyan envoy as the last member of the “*four ambassadors bringing a gift of gold for the god Amun*” was pictured separately from the international *tribute* bringing scene.¹³² From the reign of Amenhotep III hostile relations began to develop with the Libyans, yet trade can nevertheless be traced with them.¹³³ Some of the *talatat* blocks connected to the *Rwd-Mnw* of the early reign of Amenhotep IV / Akhenaten testify that a Libyan emissary arrived at the court at Thebes. The fragmentary adoration scene may have been connected to the transfer of *inw*.¹³⁴ In Tell el-Amarna two *royal tribute presenting ceremony* scenes were exclusively depicted in the tombs of Huya (AT1) and Meryre II (AT2), likely about the same event. Although the peoples of all cardinal directions were represented at the ceremony, the Oasites were left out. Instead of them, presumably as the representatives of the west, some Libyan chiefs bringing their typical products – ostrich eggs and feathers – are discernible in the tomb of Meryre II in the left lower corner of the whole scene, amidst of the representations of peoples that lived geographically farther away from Egypt Proper (Figure 7).¹³⁵ From under the reign of Tutankhamun, three instances can be brought up for *tribute* scenes and only one of them can be linked to Libyans.¹³⁶ The Memphite tomb of Horemheb contained written references to *inw* (Zizinia Block), which – through the attached fragmentary depictions – might be connected to a number of Libyan transported war captives brought before Tutankhamun.¹³⁷ In another scene of the same tomb, Horemheb with his

131 The African nature of the gifts is remarkable. The introductory sentence began with a narrative compound *iw sdm.n.f* formula (GARDINER 1957, §68, §464) by which Hatshepsut claimed that *she* brought the tributes of Libya (*iw in.n.i inw nw thnw*) to Egypt. URK IV 373, 6-10. Translation is after NIESEN 2024, 59. The name of Libya was written with sign N18, which may locate the territory in a greater distance from the Nile Valley. WB V 394: 5-7. While the names of the Western Oases were then usually written with sign N25. URK IV. 963: 14; GIDDY 1987, 70.

132 DAVIES 1922, pl. 1,36; PORTER – MOSS 1960, 72 (Scenes 11-12); PANAGIOTOPOULOS 2006, 381

133 They appear to have transported live animals or animal products for the crown. NIESEN 2024, 59.

134 REDFORD 1988, 13-14, pl. 7; NIESEN 2024, 60.

135 DAVIES 1905a, 38-43, pl.37-40; DAVIES 1905b, 9-12, pl. 14-15.

136 The Theban tomb of Amenhotep-Huy (TT40) was decorated with scenes of Nubian *tribute* as well as a Nubian *tribute* scene can be found at Karnak, albeit it was later inscribed for Horemheb. BÁCS 2018, 361, 367; DAVIES – GARDINER 1926, pl. 22-31.

137 In the Memphite tomb of Horemheb, the foreign *tribute* sent to Tutankhamun was most likely the result of Horemheb's military campaigns. WANG 2022, 43, 47, 52; MARTIN 1989, 80-81 (Scene 69), pl. 78-95.

interpreter appeared as intermediaries between Tutankhamun and two Libyan envoys who – among many Asiatics – were brought before the pharaoh.¹³⁸ Tutankhamun ruled under the final “waning period” of the “golden age” of the international *tribute* representations, when the tributaries of the oases were not reproduced any more. Their last depiction in the tomb of Rekhmire occurred in a very casual manner by the magazines of the Temple of Amun where they unloaded and stocked up their products.¹³⁹ Their appearance formed part of a domestic scene of inland transportation. As a consequence, they were even omitted from the international *tribute* bringing scene of the tomb.

Taking all this into consideration, it does not seem to be likely that Tutankhamun was ever personally presented with the *tribute* of the western oases. Since no documented *royal tribute presenting ceremony* with the participation of the Oasites can be known from the earlier 18th Dynasty, it is not possible to prove either if any of the former pharaohs would have been given the *inw* of the western oases. It is questionable if minerals constituted the oasitic *tribute* at all. It likewise cannot be determined whether Tutankhamun could have received the LDG scrap as a constituent of any *inw* arriving from Libya. During the course of the 18th Dynasty the records generally mention animal products provided by the Libyans and they are silent on any minerals.¹⁴⁰ Nevertheless, in view of the archaeological finds from the oases indicating temple building and agricultural production, and the restoration of the way stations of the Abu Ballas Trail as well as the first appearance of *sh-t-(i)zm* in the Nine Bows lists in the Nile Valley, Egyptian imperial activity in the west seems to be intensifying especially during by the second half of the 18th Dynasty. As a response to the growing Libyan threat, the reconnaissance of the western horizon might not have been an unwarranted reaction from the part of the central administration. All these factors may have resulted in the arrival of the LDG gemstone to the Nile Valley.

138 MARTIN 1989, 94-95 (Scene 76), Pl. 112-114.

139 DAVIES 1943/2, pl. 50.

140 In the verso (7.8, 9.10) of Papyrus Chester Beatty IV (British Museum, EA10684), probably written during the 20th Dynasty, in the section that lists taxes (*b3k(w)*), not only were “countless products” arriving from the western oases mentioned, but also a type of minerals (*tk*) brought in by Libyans. In a geographical papyrus from Tanis, the mineral was associated with Horus and may have referred to magnetite. Though all the dues listed were received by scribes, due to the fragmentary nature of the text, it cannot be verified if they belonged to the royal palace. GARDINER 1935, 44; GIDDY 1987, 86-88; AUFRÈRE 1991/2, 434. The verso of the manuscript with translation and comments is available on the net see TLA 2026.

3. LDG AS THE REVITALIZING FORCE OF TUTANKHAMUN'S PECTORAL?

The funerary pectoral of Tutankhamun containing the LDG scarab was constructed of three levels (Figure 1).¹⁴¹ Its lowest level contains flowers decorated with inlaid semi-precious stones in various colours. The socket was made of gold everywhere. Four types of flowers can be recognized, all of which were believed to have stimulating effects on afterlife. At both outer ends of the lowest level of the pectoral, the carnelian red poppies promoted resurrection. Red poppies naturally grew together with other crops on the fields. Cutting the poppies and harvesting the fields – from the ancient Egyptians' standpoint – would symbolically have been seen as the death of Osiris, the god of the underworld, who was cut into pieces. After harvest, however, red poppies could faster and easier regrow than the rest of the cultivated crops, so they became the symbol of rebirth and regeneration. Their resilience against death – after their complete disappearance from the fields – energised the revival of the deceased.¹⁴² In the pectoral, next to the red poppies, the budding flowers of lapis lazuli and turquoise blue lotuses would also have alluded to rebirth. At nightfall the blue lotuses close and slightly retreat beneath the water. At dawn they climb up again above the water and reopen to sunlight. According to a version of the Egyptian creation myth, during creation time a giant lotus flower similarly grew out of the water and from it the sun rose to the sky. Because of this ever-changing night and day behaviour, the lotus emerging from the water and unfolding its petals every morning symbolized the sun perpetually breaking forth at dawn.¹⁴³ Therefore, the flower was honoured as the image of daily rebirth and continuous rejuvenation.¹⁴⁴ In between the lotuses there are two papyrus buds. These are made of carnelian, green turquoise and lapis lazuli inlays. The papyrus plant was the symbol of life growing out of the marshland. Symbolizing maintenance and the protection of life on earth, sky-high papyrus shaped columns held the roofs of the Egyptian temples. The floral garland collars – used for the burial of Tutankhamun by some of the participants and discovered by Theodor Davies in the embalming cache of the pharaoh (KV54) in 1907 – also contained woven papyrus reed parts.¹⁴⁵ The symbolic significance of these garlands must have been to aid the longevity, the endurance, the growth of afterlife and to protect the pharaoh buried in a delicate shape – not yet reborn – into his tomb, where numerous magical afterlife transformations awaited him. In the pectoral, at the stems of the

141 Its measurements are 14,9x14,5 cm. JAMES 2000, 230-231.

142 WILSON 2015; HEPPER 1990, 16.

143 OSSIEN 1999, 50.

144 Howard Carter found garlands of cornflowers with blue lotus petals on the coffins of Tutankhamun, which must have been aided his reanimation. KANDELER – ULLRICH 2009, 3298.

145 THOMASHEVSKA 2019, 9.

flowers and papyrus buds small, circle, lapis lazuli cornflowers were attached in a row. The cornflower – like the red poppy – was a companion of other cereal plants in the fields. Because of its quick regrowing ability and similar colour to the blue lotus, it also became a symbol of resurrection and regeneration in the ancient Egyptian tombs.¹⁴⁶ All the flower patterning of the lowest level seems to have been transmitting its fully aggregated force upwards for the reanimation of the pharaoh taking place at the next levels of the jewellery.

The middle level of the pectoral is dominated by the LDG scarab. Below the scarab, there is a decorative line of alternating carnelian and lapis lazuli circular pieces in a turquoise background. It is as if this decorative line was applied to represent the eastern horizon at the twilight of dawn, which formed the boundary line between the underworld and this world for the ancient Egyptians. In its avian talons or hindlegs, the scarab is holding two *šn* hieroglyphs – the symbol of eternal protection – together with a bunch of blue lotus buds in its right talon and an open blue papyrus umbel in its left talon. They were the symbols of Upper and Lower Egypt and together they allude to the unification of the two lands, both of which were ruled by Tutankhamun. The background to the springs of buds and papyrus is reddish-orange, maybe to imitate the flush of dawn. Two rearing cobras are flanking them, represented from a side view with carnelian sun disks on the heads. Their golden bodies are encrusted with pieces of lapis lazuli, carnelian and turquoise. Their disks are of palish reddish-orange colour, which may likewise reflect the flush of dawn, but not the shimmering radiance of the sun on its zenith.

In the focus of the middle level of the pectoral, the LDG scarab with colourful avian wings and a tail – made of numerous pieces of semi-precious inlaid stones types – was intended to embody the sun god *Hpr*. In his beetle form, the primary role of *Hpr* was to raise the sun from under the horizon high up into the sky by tossing it forward with its insectile upper legs just as scarab beetles push balls of dung along the fields at dawn. This way, the sun – having travelled through the darkness of the underworld – was reborn every dawn on the eastern horizon. As a result, *Hpr* was immensely associated with the concept of the resurrection of Osiris, the king of the underworld. Due to the natural qualities of LDG stone, the *Hpr* of the pectoral is of unusually brilliant greenish-yellow hues, both of which were highly characteristic of *thn(t)*. Its yellowish shining glory must have represented the radiant power of the reborn sun god, while the slightly greenish shade visualized the life-renewing vitality needed for the regenerative shape shifting Osirian transformation of the deceased pharaoh.

The LDG scarab was not the only object that would have facilitated the solar-Osirian metamorphoses of Tutankhamun. Further explicit references to

146 KANDELER – ULLRICH 2009, 3298.

the solar quality of Osiris to be united with Re are well known from the tomb. *The Book of the Solar-Osirian Unity* – first attested on the second gilded shrine of Tutankhamun – among others contains an image of a giant unified Re-Osiris or solar Osiris.¹⁴⁷ In the course of his afterlife transformations, Tutankhamun must have assumed this transient form of Re-Osiris.¹⁴⁸



Figure 8. The disk in the pectoral of Tutankhamun. Photo: © Alain Guilleux.

In Alix Wilkinson's view, in accordance with the motives of the middle and upper sections of the pectoral – which illustrates the words of Spell 366 of the Pyramid Texts¹⁴⁹ – after his death Tutankhamun became “a falcon with a scarab body flying up from the earth”. Upon entering the heights, he reached the sun bark, the golden Eye of Re, “which was inlaid with turquoise like the ‘Green Boat’ of Spell 1933 of the Pyramid Texts”.¹⁵⁰ There, during his metamorphoses, the pharaoh assumed his lunar deified form in order to become united with

147 The giant looks like Osiris in appearance, but labelled as Re. DARNELL 2004, 380, pl. 6 A&B. The scenes and texts of the bipartite tableau of the Awakening of Osiris and the Transit of the Solar Barques of Sety I (1290-1279 BC) in his Cenotaph at Abydos recall later particulars of solar-Osirian transformations, at least some of which might have originated from under the 18th Dynasty. ROBERSON 2013, 124-128, pl. 1.

148 The peculiarities of the mummification of the pharaoh and the Opening of the mouth ceremony on the wall of the burial chamber also seem to imply that Tutankhamun was personified as Osiris above average. IKRAM 2013, 297-301.

149 “I fly up as a bird, I alight as a beetle on the empty throne which is in your bark, O Re”. Translation is after WILKINSON 1984, 339.

150 WILKINSON 1984, 339.

Osiris, who also grew to be equated with the full moon disk, the Eye of Horus. The disk of Osiris finally transfigured into a manifestation of the Eye of Re, the sun disk, so as to unite with the sun god.¹⁵¹ By this metamorphosis the Osirian Tutankhamun's final transition to shine up like the resurrected sun on the eastern horizon reached its goal.

Because of its transition promoting properties – fuelling the processes of the solar-Osirian transformations – the LDG scarab must have been a perfect choice for the pectoral.¹⁵² Its predominately sparkling yellow colour may allude to the *ḥn-ḥpr* scarab applied for describing the dazzling manifestations and rejuvenating transformations of Amenhotep III which also characterized the Horus Name of Ay.¹⁵³ Its greenish hue brings it into mind that such shimmering gemstones might have been brought for the cult of Osiris as mentioned in Spell 594 of the Coffin Texts.

Each side of the middle and upper levels of the pectoral was flanked by altogether two pairs of cobras each with a sun disk on the head. The ones at the middle level – positioned right next to the symbols of Upper and Lower Egypt – most likely referred to Wadjet and Nekhbet. While the cobras at the upper level were situated inside the golden bark. Therefore, there must be a difference between the qualities of the two sets of cobras. Wadjet, the “*mistress of fear*”, was a protective deity in the form of the royal uraeus and spat flames in defence of the pharaoh. When Wadjet was juxtaposed with Nekhbet, both of them could be represented as serpents.¹⁵⁴ The upper-level cobras are of the same semi-precious stone types inlaid in gold as the cobras at the middle level, but their disks are different, more glorious in radiance, which should hint at the hidden essence of the transformations represented by the pectoral.¹⁵⁵ They are reminiscent of the two uroboroi labelled as *mḥn* encircling the legs and the head of the giant Re-Osiris on the wall of the second gilded shrine of Tutankhamun. The caption to the scene revealed that “*the circling one is Re*

151 According to Plutarch, when Osiris entered the moon, the reflection of the sun's light was united with that of the moon as “*touching eclipses*”. BOYLAN 1922, 63-66, 69, 81-82. In the recto of Papyrus Chester Beatty IV, probably written during the 19th Dynasty, the sun god was for instance mentioned on more occasions to take the shape of the moon. GARDINER 1935, 36.

152 In the much later tomb of Petosiris, the high priest of Thot, the reincarnated priest was helped by the colours of green and gold to take shape in his imperishable body. The green colour was created through the intervention of plants, mainly grain, and the golden yellow was emitted by the *Ḥpr* scarab. DAUMAS 1960, 75-80.

153 For the Horus Name of Ay with *ḥn-ḥprw* on the top of the head of his royal *ka* see LD III/5, 113a.

154 WILKINSON 2003, 214.

155 ALDRED 1971, 223; BARTOS 1999, 45-49.

/ *the sun disk*".¹⁵⁶ The solar uroboroi facilitated the Osirian resurrection, albeit Mehen's most important task was to protect Re on his nocturnal journey.¹⁵⁷ Mehen was accordingly often depicted coiled around the shrine-like cabin of the bark of Re. The solarized reclining Osiris with the *rs-wd3* epithet was likewise represented within a serpent, the best images of which can be found in the tomb of Ramses IX and in the 21st Dynasty funerary papyrus of Herweben.¹⁵⁸ The *Solar-Osirian Unity* took place in the sixth hour of the Amduat, after which Osiris was labelled as "*who is in the mhn serpent*". The *b3* ram form of Re-Osiris was also pictured in the protective Mehen serpent.¹⁵⁹

The upper level of the pectoral consists of a bark which is most likely the sun bark. It was represented instead of the sun disk that the scarab should be holding. The golden colour of the hull makes it undoubtful that it is the solar bark. In the golden bark the lapis lazuli inlaid golden eye is visible ensuring the protection of the moon depicted right atop in the shape of a silver disk with a golden sickle in such a way that it would be crowning the eye.¹⁶⁰

In the silver moon disk three standing golden figures are represented (Figures 8-9).¹⁶¹ In the left Thot can be seen lifting one of his arms up adoring Tutankhamun. Thot was portrayed in his human form with an ibis head wearing the moon disk in a crescent over his head. Tutankhamun is standing in the middle of the moon disk in a leaping position with face towards Re-Harakhty and with his back to Thot. He is wearing the usual royal regalia and the blue

156 DARNELL 2004, 78-80.

157 In the recto (6.5 - 7.1) of Papyrus Chester Beatty IV, Mehen was described as the consumer of enemies and "*stretcher of bows and drawer of arrows, destroying masses of the ill-disposed, a burning one, great of flame, a fire*", who "*at her shining forth, was made prominent as dwelling upon the head of Re ... appearing (as) Buto, the female figure which illuminates the regions with her beauty*". The lords of Heliopolis were also said to make up her body. Mehen was thus assimilated to the uraeus upon the forehead of Re. GARDINER 1935, 30-31.

158 KLOTZ 2006, 33, footnote 149. Both images of the reclining Osiris contained the representation of *Hpr* with the sun disk. See footnote 95.

159 In the Temple of Hibis, the Fifth Ba of the Invocation Hymn to Amun-Re was addressed as "*The b3 ram who is in his mhn serpent, who illuminates by means of his brilliant eyes, whose torch-flame encircles him in the earth, in his name of Res-Wedja, god who creates the morning light*". KLOTZ 2006, 32-34.

160 Since the eye is made of gold it might allude to the Eye of Re, but otherwise it would make perfect sense to consider it as the Eye of Horus. The disk above the eye is clearly pictured under transformation; therefore, the difference in the colours of the disk and of the eye may have served to emphasize the fact of solar-lunar transitions. Comparably, in Cyril Aldred's view, the forelegs of the scarab support "*an elaborate symbol representing both the sun and the moon*". ALDRED 1971, 223.

161 For the characterisation of the metallic materials used in the pectoral see SCHORSCH 2001, 66.

crown (*hprš*) on the head with an uraeus on his forehead.¹⁶² He has the moon disk in a crescent over his crown similarly to Thot. Although it is tiny and difficult to see, around his ear Tutankhamun is most likely wearing a curved ram horn reaching all the way below to the middle of the cheek (Figures 9-10).¹⁶³ In the right the standing human-formed, hawk-headed figure is Re-Harakhty wearing the sun disk with an uraeus on the head and is also lifting one of his arms up in adoration of Tutankhamun. The orientation of the royal body indicates that Tutankhamun just began his journey from having been the moon to becoming the sun.¹⁶⁴ The scene is distinctive and it is not easy to find a parallel to it.

During the New Kingdom curved ram horns worn around the ears were represented when the pharaohs were portrayed in the form of their royal *ka*-s.¹⁶⁵ On the stela of Huy, viceroy of Nubia, from the Karnak Cachet (Cairo, JE37463), the royal *ka* of Tutankhamun was textually equated to that of Amun, but the accompanying pictorial representation was unfortunately mostly broken off.¹⁶⁶ On the reverse side of the stela the pharaoh was perceived as a source of illuminating light that could shine (*shd*) upon the viceroy.¹⁶⁷ Additionally, an inscription on one of the *ka* statues of Tutankhamun (JE60708) states that it was meant to represent “*the royal ka of Re-Harakhty, Osiris and the king (who is) the lord of the two lands, the deceased Nebkheperure*” (*k3 nsw n Hr-šhty Wsir nsw nb t3wy Nb-hprw-Rc m3c-hrw*).¹⁶⁸ The royal *ka* thus incorporated the qualities of both the nocturnal and the diurnal sun, while the pharaoh himself retained his own deified form as the third divine aspect of his *ka*. A similar message was most probably conveyed in the pectoral, where the non-visible presence of Osiris only prevails amidst the transformations, in the greenish hue of the scarab or in the moon disk atop.¹⁶⁹

162 CORCORAN 2023, 39-40. Tutankhamun does not have a ribbon attached to the back of the crown. For parallel see his shabti (JdE60830).

163 For close parallels with the blue crown see WILDUNG 1977, fig. 7; BELL 1985b, 267.

164 According to Nicholas Reeves, the practice of cryptography is well recognizable on the jewellery of Tutankhamun. The lunar disk with the golden sickle can be applied for the meaning of the solar disk (*Ra*). For further explanation about his cryptographic reading of the pharaoh's prenomen see REEVES 2007, 154. Accordingly, Cyril Aldred is of the opinion that the whole pectoral is “*an elaborate rebus on the prenomen of the king*”. *Nebkheperure* would consist of the calyxes of the lotus flowers at the lowest level as *Neb*, of the scarab with the thirteen roundels below as *Kheperu* at the middle level and of the moon disk in the sun bark at the top as *Re*. ALDRED 1971, 223.

165 BELL 1985b, 269.

166 ROWE 1940, 48; HAAS DANTES 2023, 55.

167 See also BELL 1985a, 51, footnote 123.

168 BELL 1985b, 256; DUFFY 2020, 16. Translation is mine.

169 In a scene on the northern wall of his burial chamber, Tutankhamun was uniting with the



Figure 9. Tutankhamun with the curved ram horn around his royal ear in the middle of the triad. Photo: © Alain Guilleux.



Figure 10. For better visibility the curved ram horn shaded. The author's own drawing on tracing-paper placed over the photo in the previous figure.

green Osiris in an embrace, in which his royal *ka* standing behind him was equally taking part. All the walls of the burial chamber were coloured yellow possibly to show the shiny character of the transformations. REEVES 2007, 72-73.

In the 18th and 19th Dynasties a number of pharaohs had depictions with curved ram horns around the ears.¹⁷⁰ Firstly, Thutmose III was represented with such ram horns attached to a *nemes* headdress, on the top of which he had an elaborate *atef* crown with a set of horizontally wavy ram horns in the Theban tomb of Useramun (TT131). The depiction was later copied for Amenhotep II in TT93. Thutmose IV on his chariot, Amenhotep III in the temples of Luxor and Soleb, Sethy I in his mortuary temple at Abydos and Ramses II at Luxor and in his temples at Abydos and Abu Simbel wore the curved ram horns over their *nemes* headdresses, *atef* or blue crowns. Although the depictions of Sethy I as Osiris with curved ram horns in the Osiris Chapel of his mortuary temple at Abydos are notable,¹⁷¹ of all these depictions, the Soleb moon god form of Amenhotep III is the most similar to Tutankhamun's. None of the rest of the monarchs wore the curved ram horns along with the moon disk on the head.



Figure 11. Amenhotep III in the blue crown adoring his own lunar deified form, *Nebmaatre Lord of Nubia* in the Temple of Soleb. Source: LD III/5, 85a.



Figure 12. A ring with Thot motifs in a double cartouche from the tomb of Tutankhamun. Photo: JAMES 2000, 250.

In the dual solar-lunar temple at Soleb, the lunar deified form of Amenhotep III – *Nebmaatre Lord of Nubia* – would have represented the left Eye of Horus and was mostly depicted in a humanoid form with the moon disk in a sickle and the uraeus on the head and with the curved ram horn of

170 WILDUNG 1977, 1-30; BELL 1985b, 267; PAMMINGER 1992.

171 The deified deceased Sethy I was simultaneously provided with the attributes of Amun-Re as well as those of Osiris. MARIETTE 1869/1, pl. 22-23.

Amun around the ear (Figure 11).¹⁷² Therefore, the appearance of the lunar disk over the head of Tutankhamun together with the curved ram horn might make an allusion to the religious royal ideology of Amenhotep III creating his self-deified version in the form of a new lunar deity.¹⁷³ *Nebmaatre Lord of Nubia* is often suggested forming a pair with the solar Eye of Re visiting Soleb from the Temple of Luxor, where Amenhotep III enjoyed further solar cult.¹⁷⁴ Both solar and lunar divine aspects must identically have been achievable for Tutankhamun involving his royal *ka*.¹⁷⁵ Therefore, in the pectoral, his nocturnal and diurnal transformations – as mutual components of his divine nature – were united in only one bark.¹⁷⁶

In his lunar divine appearance as *Nebkheperure*, Tutankhamun displayed the mixed iconographic characteristics of the lunar god *Nebmaatre Lord of Nubia* and his own royal appearance with the blue crown.¹⁷⁷ Therefore, the depiction of *Nebkheperure* is unique, not quite like that of *Nebmaatre Lord of Nubia*. Based on different pieces of jewellery found in his tomb, Tutankhamun's identification with the moon already occurred during his lifetime (Figure 12).¹⁷⁸

172 O'CONNOR 1998, 147-148; KOZLOFF – BRYAN 1992, 108-110; LD III/5, 84c, 85a, 87b-c; BICKEL 2013, 62-64.

173 The theological background to the lunar aspect of Tutankhamun's transformations would have been created under the reign of Amenhotep III. JACKSON 2021.

174 The deified Amenhotep III “was venerated as a living manifestation of all of Egypt's great gods with a marked emphasis on his role as the Sun God Re and his radiant disk, the Aten”. He was referred to as *ʾtn ʾhn*, the Dazzling Aten. JOHNSON 1996, 3. In a Viennese statue of Amenhotep III (Kunsthistorisches Museum, No. 5782), and in another statue in Berlin (ÄM 9942), the pharaoh was adorned by a standing baboon as if he had been the sun disk himself. Baboons not only constituted a form of Thot, but they also had a solar character as they greeted the sun at dawn with their raised paws.

175 See for example other pieces of jewellery from KV62 or the cult of Tutankhamun as the local aspects of Amun in Kawa and Faras. JAMES 2000, 197, 198-200, 212-218, 228-239, 250-252; BELL 1985a, 32, pl. 1; BELL 1985b, 261; HAAS DANTES 2023, 61.

176 The sole composite form of the solar-lunar barks may refer to the *complete sun* – described by Richard Wilkinson – that may have corresponded to the qualities of Atum in some of the ancient sources. WILKINSON 2003, 100.

177 BICKEL 2013, 62-63; JAMES 2000, 212-213.

178 Besides his other pieces of jewellery making references to the moon, in the antechamber of the tomb a ring with Thot motifs in a double cartouche was found. The ring contains the fusion of the royal name of Tutankhamun with the manifestations of Thot both in a baboon and in an ibis' form. The representations of the ring can be understood as parts of a cryptographic spelling. The figures of Thot are situated on the *nb* hieroglyph, the lunar disks with the sickles on their heads might be grouped together as *Ra* and the two manifestations of Thot can be interpreted as *hprw*, which makes altogether *Nebkheperure*. The ring obviously signals the identification of

However, the presence of *Nebkheperure* in the disk of the pectoral and his pairing with Thot strongly characterises his chthonian nature.¹⁷⁹

Thot was considered as the guardian of the moon disk. On the one hand, he completed the moon disk by filling of the *Wdꜣt* Eye,¹⁸⁰ and on the other hand, in Spell 182 of the Book of the Dead he was the magical protector of the rebirth of Osiris. Thot was responsible for warding off the enemies of Osiris, for protecting and sheltering him, and for guarding the necropolis for him so that the light of the sun could rest upon his body every day.¹⁸¹ Thot protected not only Osiris, but all the forms of other gods into whom Osiris was supposed to manifest during the series of his transformations. This way Thot was able to bring Osiris, and his further manifestations, Re and other forms of Re in contact with each other.¹⁸² He guaranteed the resurrection of Osiris into Re-Harakhty.

In the Book of the Dead, after protected by Thot, the dead were awakened in the form of Osiris by Horus.¹⁸³ However, it was not exclusively Horus who awakened the dead. In the Osiris Chapel of the Temple of Hibis, as a variant to Horus, Thot was alone represented as the awakener of the reviving Osiris.¹⁸⁴ In the awakening scene of the *Book of Awakening of Osiris and the Transit of the Solar Barques* for Nectanebo I (380-362 BC) – on his naos at Saft

Tutankhamun with Thot as a lunar deity. HAAS DANTES 2023, 60-62; CORCORAN 2023, 34, 37; JAMES 2000, 250.

179 A faience scarab of Thutmose III (Louvre, E3408) similarly testifies to the death of the pharaoh as “*Menkheperre is in the sky like the moon*”. Translation is based on DRIOTON 1933, 40.

180 AUFRÈRE 1991/2, 527, 529. In the ritual of the filling of the *Wdꜣt* Eye the waning moon was mineralized all over again with its mineral constituents, after which it was able to be reborn and shone. According to David Klotz, “*the solar god, also a source of precious stones and metals, was empowered only when his body was fully mineralized*”. KLOTZ 2006, 73; AUFRÈRE 1991/1, 197-303.

181 The light of the sun was explicitly linked with the transfigured Osiris-pharaoh in a cryptic text belonging to the awakened Osiris in the *Awakening of Osiris and the Transit of the Solar Barques*, who watched the pharaoh leaving as “*one who is in the disk*” of Re and also affirmed that he was protected so that he might become exalted in the disk eternally as well as might shine on the behalf of Re. ROBERSON 2013, 125-126. The heat of the sun was likewise linked with the body of the transfigured Osiris. For example, Spell 162 of the Book of the Dead — in use from the 21st Dynasty — ensured that the deceased would be reborn by heat (*ḥꜣḥꜣs*, *ḥꜣs*) provided under the head. The heat would have made it possible for the deceased to pass from a lethargic into an eternally revived state. The spell additionally assimilated the fate of the resurrected to that of the solar god. WÜTRICH 2023, 436.

182 DARNELL 2004, 27, 362-363; QUACK 2005, 36.

183 Spells 146 and 171 of the Book of the Dead, ROBERSON 2013, 12; Spell 532 of the Pyramid Texts, KLOTZ 2023, 195.

184 KLOTZ 2023, 190. For a similar concept for Sethy I at Abydos see MARIETTE 1869/1, pl. 22.

el-Henna – Thot and Horus were depicted together entering the pharaoh's wooden sarcophagus shrine from both sides upon his awakening as Osiris (Figure 13).¹⁸⁵ The bipartite tableau of the *Book of Awakening of Osiris and the Transit of the Solar Barques* – in use from the 19th Dynasty onwards¹⁸⁶ – may also share similarities with the stages of royal afterlife transformations represented in the pectoral. Through the explicit pairing of the solar and Osirian myths, the *Book of Awakening of Osiris and the Transit of the Solar Barques* could be viewed as an affirmation of the related concepts of the *Solar-Osirian Unity*,¹⁸⁷ which may help to explore the hidden ways of Tutankhamun's afterlife transformations embedded in the pectoral.

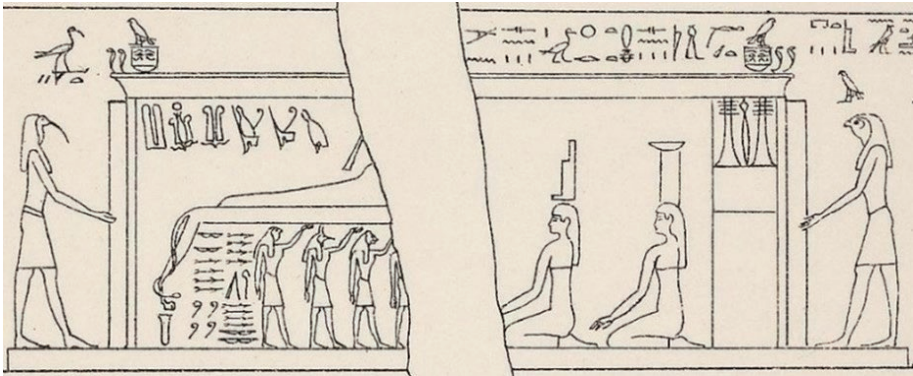


Figure 13. The awakening of Osiris in the Naos of Nectanebo I at Saft el-Henna (Cairo, CG70001-70050). Source: NAVILLE 1887, pl. 7.

Since the moon god *Nebmaatre Lord of Nubia* assumed not only a human, but also an Osirian mummified form (Figure 14)¹⁸⁸, the afterlife revival

185 KLOTZ 2023, 191.

186 ROBERSON 2013, 1.

187 ROBERSON 2013, 131-136.

188 The mummified form of *Nebmaatre Lord of Nubia* appeared together with Amun-Re in at least two of the ram-headed sphinx statues flanking the processional avenue of the Temple of Soleb (Berlin, ÄM 7262; Tornio, Cat. 836). According to the bandeau-text of the sphinx in Berlin "... the good god *Nebmaatre, the son of Re, Amenhotep ... made it as his monument for his image Nebmaatre Lord of Nubia for his father (Amun) ...*". URK IV 1750, 3-15. Translation is after KOZLOFF – BRYAN 1992, 221-222. It is certain that the bandeau-text was dedicated to the solar and lunar gods of the temple, both of which appeared in the statue, in the forms of a mummy and a ram. Although the god *Nebmaatre Lord of Nubia* also manifested as a lion or as a criosphinx. (BICKEL 2013, 66, fig. 12; for comparison see BELL 1985a, pl. 1). According to Susanne Bickel, *Nebmaatre Lord of Nubia* was a lunar aspect to Amun, for by the time of Amenhotep III the lunar

of Tutankhamun might likewise have included a special individual form of Osiris-Tutankhamun. As Osiris became equated with the lunar disk from the 18th Dynasty,¹⁸⁹ it would be reasonable to consider that the silver lunar disk of Tutankhamun's pectoral might have alluded to the lunar body of the transfigured Osiris-pharaoh that would turn into the sun disk during the course of the transformations. Not only funerary texts of the period reflect the equation of the moon with the rebirth of the dead, as they wished for "*repeating the births like the moon*" and to be "*rejuvenated like the moon*",¹⁹⁰ but also in the temple of Deir el Bahari in a depiction in the lower register of the norther wall of the middle colonnade, Anubis was represented bending over the moon disk in his embalming position.¹⁹¹ The lunar disk was clearly identified with the body of Osiris. Rejuvenated monthly after a period of waning, the moon became the symbol of rebirth in its complete form.¹⁹²

The pectoral captures the manifestations of Tutankhamun's transitions not only from his fashioning into the shape of the unique lunar god *Nebkheperure* and his resurrection as the lunar Osiris, energized by plants and the illumination of *Hpr*, but also up to his uniting with Re-Harakhty. Since all of the elements of the pectoral – the plants causing or contributing to rejuvenation, the greenish-yellow *Hpr*, the sun, the *Wdꜣt* Eye, the moon, Thot, Osiris, Re-Harakhty – can be related to *thn(t)* and even the royal *ka* was alluded to as a source of exceptional illumination,¹⁹³ most likely the LDG gemstone should also belong to the *thnt* category. The pectoral was to be worn on the chest that likewise had connotations of being *thnt* and might have been considered as an ideal spot where magic could have been created.

aspect constituted an integral part of the cosmic character of Amun. The god *Nebmaatre Lord of Nubia* was more than a simple deified form of the king, he was a subtle theological creation constructed from the prenomen of the pharaoh and designated as his representative in Nubia. BICKEL 2013, 69-70. Like his grandfather, Tutankhamun had two temples built for Amun in Nubia. The special name of Amun in his temple at Kawa was *Mꜣi ḥr Ḥnty*, the "*Lion over the Southern Country*", which must have referred to the pharaoh himself, for he was worshipped as a form of Amun in his temples already during his lifetime. His portable bark must have carried his divine cult image represented in the form of the royal *ka*. BELL 1985a, 31-32 and pl. 1. Both of his temples in Nubia are sadly destroyed now.

189 RITNER 1985, 150-151.

190 RITNER 1985, 152.

191 NAVILLE 1896/2, 18, pl. 55; RITNER 1985, 151-152; WILKINSON 2003, 241.

192 GRIFFITH 1980, 239-240.

193 RÖWE 1940, 48.



Figure 14. A ram-headed sphinx of Amenhotep III from Soleb with the mummified moon god *Nebmaatre Lord of Nubia* between its forelegs (Berlin, No. 7262). Source: LD III/5: 90c.

The illuminating power engine of Tutankhamun's transformations seems to have been the LDG scarab in the centre of the pectoral. The stone magically would have facilitated the Osirian resurrection of Tutankhamun with its greenish pale light. While its yellowish glow would have been imagined to be the solar light emitted by *Hpr*. The lights facilitated the metamorphosis of the deceased pharaoh from being associated with the moon god of silver twilight during the hours of the night to taking shape of the luminously vital sun god above the horizon. The representation of the pharaoh's transition from the moon disk into the morning sun is unique and must have been connected to the royal theology concerning the lunar and solar eyes developed under the reign of Amenhotep III.¹⁹⁴ The LDG scrap must have been trusted to be a gemstone of true magical power for the new royal theology.

To supplement what has been described so far about the solar-

194 BICKEL 2013, 68.

lunar transfigurations of Tutankhamun, two further – and somewhat later – illustrations of the divine triad of Thot, Re-Harakhty and the pharaoh should be brought up with the aim of comparison. In the upper register of the 19th Dynasty stela of Huy from Abu Simbel,¹⁹⁵ the erector of the stela is depicted in priestly adoration (*ir.n wꜥb*) of Ramses II.¹⁹⁶ The pharaoh took shape of the falcon-headed Re-Harakhty wearing the sun disk upon the head. Behind him, the ibis-headed Thot is seated with the moon disk in a crescent on the head. In the captions the nomen of the pharaoh (*Rꜥ-ms-sw mri ꜥmn*) was written without a cartouche, which informs us of the fact that Ramses II was represented in his deified form as the perfect embodiment of the solar divinity of the rising sun. In Soleb in more of the cases (58%) the name of *Nebmaatre Lord of Nubia* was not included in a cartouche either.¹⁹⁷ In what has remained of the Amun temple at Faras, Tutankhamun's prenomen likewise appeared on more occasions without a cartouche,¹⁹⁸ which clearly indicates that *Nebkheperure* was worshipped there in his divine form associated with Amun.¹⁹⁹ Since both Amenhotep III and Tutankhamun were venerated in Nubia during their lifetimes,²⁰⁰ the lack of the cartouche in the stela of Huy does not indicate that Ramses II was posthumously represented as the reborn Re-Harakhty, only that his solar deified aspect was emphasized.²⁰¹ Thot's proximity to the deified Ramses II suggests that the pharaoh equally had a close connection to the moon as the auxiliary confederate of the sun. The depiction of the two gods next to each other virtually insinuates that Ramses II might have been able to take shapes of both gods or transfigure from one to the other.

195 MASPERO 1911/1, 160, fig. 14.

196 NUZZOLO 2022, 217.

197 BICKEL 2013, 65.

198 KARKOWSKI 1981, 28-29, 131.

199 See also the representations of Amun at Kawa in BELL 1985a, pl. 1.

200 Due to the destruction of his temples, it is very difficult to say whether Tutankhamun was worshipped in the form of a moon god in Nubia. According to Fabienne Haas Dantes, Tutankhamun was associated with the lunar cycle in a badly damaged statue from Faras that depicted the pharaoh as part of the Theban triad (Khartoum Museum, No. 3766). In Thebes Tutankhamun was equated with Khonsu as the royal son of Amun. However, his moon aspect associated with Khonsu occurs only outside his tomb "as *this deity was important in the function and role of the living king as part of the Theban triad*". HAAS DANTES 2023, 61-62.

201 A depiction from the Great Temple of Abu Simbel showed Ramses II with the sun disk flanked by the double uraei over his head presenting an offering to his own solar deified form. The deified form wore the curved ram horn on a *nemes* and the sun disk above the head. The pharaoh's prenomen and nomen were carved in cartouches above the representation, which apprises us of his being the living royal *ka*. According to Labib Habachi, the deified pharaoh must have been pictured there as the son of Re-Harakhty. HABACHI 1969, 6, 44, pl. 2a.

A representation from the southern exterior wall of the North Chapel at Abu Simbel might further strengthen this assumption (Figure 15).²⁰² The composition of the reliefs is quite similar to the arrangement of the representation of the divine triad in the disk of Tutankhamun's pectoral. In the left side, the ibis-headed Thot with the lunar disk on the head is seen to be holding one of his arms up in the pose of adoration of the pharaoh. Due to the fragmentary state of the depiction, it is difficult to determine exactly what longish objects or sticks he held in the other hand.²⁰³ In front of Thot, in the focal point of the relief, the royal *ka* of Ramses II was portrayed in a leaping position wearing his usual royal regalia and an elaborate *atef* crown on a *nemes* with the two different pairs of the ram horns of Amun.²⁰⁴ An appended short inscription above identifies the pharaoh with his prenomen and nomen written in cartouches. The royal *ka* of Ramses II was captured with his face to the right where the hawk-headed Re-Harakhty is sitting on a dais in his shrine. Re-Harakhty is holding one of his arms up in adoration towards the pharaoh and in his other hand there is an *ꜥnh* sign. He is wearing the sun disk with an uraeus on his head. Above the representation of Thot, the remnants of the speech of the god annotate that the pharaoh was "*his beloved son*" (*sꜣ.f mr*), as a result of which he shall "*receive for himself the power*" (*šsp n.k ḥkꜣ*), "*the forms of which are brightly shining*" (*im.sn ꜣḥ*). The pharaoh was also called "*the lord of the two lands*" (*nb tꜣwy*), whose "*excellence*" (*mn[ḥw].k*) was "*eternally*" (*ḏt*) glorified with "*the double disks of the lord of appearances*" (*itn.ty [n] nb-ḥꜣw*). After a damaged section, the text finishes with the nomen of the pharaoh "*Ramses Meri Amun*" (*Rꜥ-ms-sw mri 'Imn*). The accompanying speech of Re-Harakhty is unfortunately almost entirely lost.²⁰⁵

In the appended texts all the surviving names of the pharaoh are in cartouches, which made him be presented as the living royal *ka*.²⁰⁶ The position of his royal *ka* between the two gods suggests that Ramses II was in a mediating role between them. In the relief he is proportionally taller than the two gods – which is also true for Tutankhamun in his representation with the two gods in the disk of the pectoral. Consequently, the pharaoh must have counted to be more than an equivalent to them. He would have received the

202 PORTER – MOSS 1975, 96, 99.

203 Probably a *ꜥnpt* stick with an *wꜣs* sceptre.

204 MASPERO 1911/1, 150; HABACHI 1969, 40-52.

205 MASPERO 1911/1, 149.

206 In a relief in the smaller temple at Abu Simbel, Ramses II wore the same elaborate *atef* crown with both types of ram horns worshipping Re-Harakhty. The pharaoh was depicted with the curved ram horns around the ear on more occasions in the main temple as well. DESROCHES-NOBLECOURT 1968/2, pl. 55; WILDUNG 1977, 8.

characteristics of both disks that he amalgamated in his royal body thereby forming a *complete and supreme sole being*. The luminous power of the disks would have flown through his royal body endowing him with everlasting and outstanding regal qualities so that his own power could become uninterrupted in the *perfect unity* of day and night. This continuous flow of power assured the pharaoh absolute control over the Egyptian cosmos horizontally as well as vertically.



Figure 15. The royal ka of Ramses II with Thot and Re-Harakhty in the North Chapel at Abu Simbel. Source: MASPERO 1911/2, pl. 158.

As the representation of the triad was situated right next to the entrance of the chapel, it must have reflected upon what took place inside. The North Chapel once contained two altars, two obelisks, four baboon statues and a naos.²⁰⁷ The first altar was situated in the middle of the chapel with one baboon statue on each of its four corners looking in pairs of two towards west and east. The obelisks flanked the first altar on two sides. Both of the altar bases were

207 MASPERO 1911/1, 146-157;1911/2, pl. 160-162. MINAS-NERPEL 2006, 355, fig. 137.

inscribed with the double cartouches of the pharaoh containing his nomen and prenomen. Above each cartouche a disk was depicted under the overarching sign of the sky (N1).²⁰⁸ The cartouches were placed on the *nbw* signs of gold (S12).²⁰⁹



Figure 16. The solar-lunar baboon from the naos of the North Chapel in Abu Simbel, presently in the Nubian Museum of Aswan. Photo: © András Szabó.

The second altar base with the naos on the top stood by the norther interior wall of the chapel. In three sides of the base, the double cartouches, each with a disk at the top, were encompassed with *rnpt* sticks stemming out of *šn* rings. On each ring a *hfn* tadpole was situated. The tadpole was the hieroglyphic sign for 100,000 and was also associated with Heqet, the goddess of childbirth. The sign group of *šn*, *hfn* and *rnpt* was a generally applied symbol to grant the pharaoh hundreds of thousands of eternities.²¹⁰ The whole sign group together with the disks above the cartouches referred to the perpetual and endless solar-lunar rebirths of Ramses II that are not necessarily understood in an afterlife context, but primarily as a means of his daily maintenance of cosmic balance.

The naos atop the second altar base was decorated on the eastern and western outer sides. On the eastern side, the pharaoh with the sun disk and two uraei over his head performed offerings to the ibis form of Thot; while on the western side he did the same to Re-Harakhty. An inscription on the eastern doorjamb of the naos, adjacent to the representation of Thot, designated Ramses II as “*the beloved of Re-Harakhty*” (*R^c-ms-sw mri-Imn R^c-hr-šhty mri*); on the western doorjamb, alongside the representation of Re-Harakhty, he was called “*the*

208 The representations on a cosmetic box (JdE 61496) are rather similar above each of the double cartouches of Tutankhamun. JAMES 2000, 198-199.

209 MASPERO 1911/1, 150-152.

210 A mirror case of Tutankhamun (JdE 62348) was fashioned in the same shape. JAMES 2000, 197.

beloved of Atum" (*Wsr-m3̄t-R̄c stp-n-R̄c 'Itm mri*).²¹¹ All the names of Ramses II were written in cartouches. That's connection to the eastern direction emphasized the solar aspect of the god, confirmed by the parallel mention of Re-Harakhty. Though Atum was a primeval creator god, in the solar cycle he primarily symbolized the setting sun and its journey through the underworld.²¹² His pairing with Re-Harakhty referred to the daily journey of the sun god. The gods of the naos illustrated the fluidity and interconnectedness of solar-lunar concepts.²¹³ Inside the naos, to the west, an enormous scarab statue of *Hpr* was found with the sun disk and an uraeus on its top. In consequence, the full reading of the name of the composite god of the western half of the naos would perhaps be Re-Harakhty-Atum-*Hpr*.²¹⁴ Next to the scarab, a crouching baboon statue of Thot was situated with the moon disk in the crescent over the head and a winged scarab in the middle of its chest (Figure 16). Due to his pairing with Re-Harakhty, the composite god of the eastern half of the naos would have represented Thot-Re-Harakhty-*Hpr*. Altogether the gods may have merged so as to vivify Thot-Re-Harakhty-Atum-*Hpr*, who as a *complete* and *supreme* deity enabled the constant recreation of the daily solar-lunar cycle.²¹⁵

211 MASPERO 1911/1, 152-153, fig. 10.

212 On a lion statue secondarily engraved by Tutankhamun in front of the Temple of Soleb (British Museum, EA2), the pharaoh specified that the temple of his grandfather was dedicated to Amun, Atum and Jah, the moon god. In its present fragmentary state of preservation, however, the temple cannot reproduce any prominent feature of the dogmatic theology of Atum. BICKEL 2013, 68; URK IV 1746, 7-8. It seems to be possible that the solar-lunar transformations of Tutankhamun in the pectoral were also connected to Atum.

213 For Amun-Re-Harakhty-Atum or Re-Harakhty-Atum as *in wr* see ROBERSON 2013, 98. In the recto (7.5) of Papyrus Chester Beatty IV, Amun-Re-Atum-Harakhty were fused into one deity bringing every living creature into being. GARDINER 1935, 32, 35.

214 According to Richard Wilkinson, it is notably stated in the Coffin Texts that Atum did not only rest in the western horizon, but he was also able to rise up in the east, thus he was considered to become the *complete sun*. He likewise took on the manifestation of a *self-developing scarab*. WILKINSON 2003, 99-100. Ramses II as well as possibly Tutankhamun had statues with *Hpr* on the head. KASSEM 2014, 181-183. In Martina Minas-Nerpel's view, Atum-*Hpr* was responsible for the renewal of the royal power and represented the constant regeneration that the pharaoh needed. In the main temple of Abu Simbel, Re-Harakhty-Atum-*Hpr* was represented with a hawkhead and a sun disk on the head. MINAS-NERPEL 2006, 354, 387, 421, 427. Probably as a precursor, the syncretic deity of Horemakhet-*Hpr*-(Re)-Atum was mentioned in the Dream Stela of Thutmose IV (line 9) as the father of the pharaoh promising him his kingdom. HASSAN 1953, 93-95.

215 A depiction of two baboons with moon disks on the heads adoring a solar scarab can be found in a pectoral of Tutankhamun (JdE 61885). JAMES 2000, 216-217.

The interwoven references to the composite god Thot-Re-Harakhty-Atum-*Hpr* make the naos function as a place where the continuous operation of the entire solar-lunar cycle was modelled and connected to Ramses II.²¹⁶ The pharaoh through his royal *ka* – as a being in whom the luminous power of the disks was united – must have identified himself with the processes represented in the naos and on its base.²¹⁷ He would have merged himself with the amalgam of the solar-lunar gods in order to be reborn daily and play a vital part as a recreator in the functioning of the cosmos.²¹⁸ In his daily cycles of regeneration, he might even have recreated himself as the *perfect, self-developing* divinity of the *complete disk*.

This implication is interesting when we consider that through their royal *ka*-s Tutankhamun and Ramses II were quite similarly depicted and associated with the deities of the nocturnal and diurnal disks. Although in the pectoral Tutankhamun was pictured in his chthonic divine aspect, and in the North Chapel Ramses II was represented in his living royal *ka* aspect, both of the rulers most probably intended to become *complete, self-regenerating* gods by the power of the double disks, either in afterlife or in life. Tutankhamun's cyclical rebirth was aided by the luminous mineral power engine of the LDG scarab that may also carry the hallmarks of more than one god.

CONCLUSION

In this paper after presenting particulars about the formation, nature and discovery of LDG, one aim of mine was to analyse how and when the LDG scrap for the funerary pectoral of Tutankhamun might have travelled as far as the Nile Valley. Mainly due to the great distance and the increasing desertification, I excluded the possibilities of accidentality and of small-scale trading ventures.

Next, the nature of the LDG scrap was taken into consideration. Although the ancient Egyptian name of LDG is not known, the scrap may have been considered as a shiny gemstone, resembling in colour, texture and shine the artificial glass types or glassy natural minerals and crystals varying from white through yellow up to blue and green in colour, which collectively might have been called *ḥnt* or *ḥnt mꜣꜥ*. As it has rare properties; its acquisition

216 In the South Chapel at Abu Simbel, Ramses II together with his royal *ka* made offerings in the presence of Re-Harakhty for Thot. In a dual scene at the western wall, Re-Harakhty and Atum-*Hpr* granted the pharaoh courage and victories over every country. ABD EL HAMIED 2025, 196; PORTER – Moss 1975, 96-99.

217 A statue of Ramses II (Cairo, CG42145) – with a scarab on the head – associated the pharaoh with Atum, *Hpr*, Re-Harakhty and Geb. It also contains references to the royal *ka*. KASSEM 2014, 182, fig. 2; KRI II 498.

218 KASSEM 2014, 183.

and storage may have required special conditions that might only have been provided by an exclusive large-scale undertaking. Because of its lone occurrence in Antiquity as far as the Nile Valley, regular mining expeditions or trading caravans to LDGA can be ruled out. In a similar fashion, the stone's arrival as part of oasisitic or Libyan *tribute* cannot be proved, since from the time of the 18th Dynasty there is no surviving mention or representation of any gemstone as a *tribute* item from the west.

Expeditionary inscriptions in the Eastern Desert dating back to the 18th Dynasty documented the procurement of stones or minerals required by the pharaoh and / or the temples. These expeditions set off on demand and were sometimes remembered by graffiti or other inscriptions. Although no expeditionary inscriptions from the New Kingdom are known up until now in the Western Desert, it may seem to be conceivable that infrequent ventures might likewise have taken place there. At least from the point of the imperialist aspirations experienced in the other cardinal directions, such expeditionary undertakings to the deeper Western Desert would have been advantageous. The fact that the Abu Ballas Trail was renovated, clearly indicates the contemporary intention to bring the Western Desert under imperial control.

In line with the imperial ambitions, the Egyptian worldview considerably expanded at the time. With regard to the Western Desert, one supporting argument is the fact that the oasisitic tributaries in the Theban noble tombs were completely replaced by the Libyans during the Amarna Period. In a cosmographical stela from his mortuary temple at Thebes, Amenhotep III already identified the western horizon with the Libyans; while earlier, for Amenhotep II – upon his ascending to the throne – the *Kenemtiu* had been the westernmost people. The appearance of *sh̄t-(i)ꜣm* among the Nine Bows from his reign may provide an additional argument for the expanding worldview on the west, as the territory of *sh̄t-(i)ꜣm* might have been contacted then.

By the 18th Dynasty, the western oases developed tight administrative, economic and religious ties with the Nile Valley. Although, the participation of the personnel of the temples of Amun or maybe of Osiris in a long-distance expedition would be reasonable based on Eastern Desert examples, it cannot be demonstrated due to absence of evidence.

A second goal of mine was to analyse how the ancient Egyptians might have perceived the LDG scarab, what they saw in the form and the material, what might have been their reason for using LDG up to make the pharaoh's funerary pectoral as well as how the symbolism of the scarab can be interpreted regarding the underlying theological concept of the pectoral.

Tutankhamun's LDG scarab would have been regarded as a magical revitalizing power generator for the eternal afterlife transformations of the pharaoh. Its underlying religious content is complex. Direct links could be made in connection with the solar-lunar concepts associated with the royal *ka*; the royal theologies related to the awakening and resurrection of Osiris;

the concepts of the *Solar-Osirian Unity*; the luminous nature of the afterlife revival; the identification of Osiris with the moon and its monthly repetitive renewal; the underlying theology of the lunar god *Nebmaatre Lord of Nubia* and the theologies regarding the complete solar-lunar cycle and the related royal perpetual regeneration.

On the whole, it can be said that the mineral of LDG seems to be perfectly fitting the religious iconography of Tutankhamun's pectoral. Its application must have been a conscious choice on the part of the jewellery maker(s) and the designer(s). That being the case, it is conceivable that – similarly to the Eastern Desert instances – the LDG scrap may have been collected by a state-initiated expedition deliberately sent to the outer central or midwestern region of the Western Desert for any reason that cannot be proved. In such an undertaking the participation of some local inhabitants or sand-dwellers might be assumed as scouts of the desert.

The tomb of Tutankhamun provided us with many high-end, luxurious objects that we cannot stop wondering about. One of them is his funerary pectoral with the LDG scarab. The remarkable discovery of which presents us with the opportunity to experience what previously was unimaginable and still needs to be properly understood: how and when his magical LDG gemstone could have travelled to the Nile Valley.

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