

GOLD AMULETS FROM THE EGYPTIAN COLLECTION IN THE ARCHAEOLOGICAL MUSEUM IN ZAGREB

Porin Ščukanec Reznicek

Archaeological Museum in Zagreb

Trg Nikole Šubića Zrinskog 19

HR – 10000 Zagreb

pscukanec@amz.hr

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The Egyptian collection in the Archaeological Museum in Zagreb consists of roughly 2200 objects. The majority of the collection was bought in 1868, from the family of a private collector, Franz Koller. Among the standard objects commonly found in collections around the world, such as stelae, Canopic jars, ushabti figures, scarabs and such, the collection also houses some curious, uncommon artefacts. Thus, it can boast a group of 25 gold-foil amulets of various shapes and representations. These amulets are analysed within the paper in detail, providing

measurements, their representations and a general interpretation of them individually and altogether, along with a research background for similar objects that have been found so far. The aim, other than publication, is to offer a possible interpretation on where some of these amulets might have been and why, i.e. their purpose and a possible site of origin.

Key words:

Ancient Egypt, gold, amulets, mummies, wrapping, mummification

Introduction

Ancient Egyptians had an extremely diverse belief system. Numerous artefacts and written records testify to this practice, from stelae, papyri, shabti figures, Canopic jars etc. One of the core beliefs was the preservation of the body, i.e. the mummification process. Also vital to this process was wrapping, as well as placing objects for protection, rejuvenation, resurrection and similar purposes. These amulets came in a variety of forms and materials during Pharaonic Egypt, and the practice of placement has been written down on several documents preserved in modern times. Furthermore, guidelines have also been provided regarding the type of material used for certain amulets, and where exactly these should be placed on the mummy itself. This article will attempt to ascertain such premises on the 25 Ancient Egyptian gold-foil amulets from the Egyptian collection in the Archaeological Museum in Zagreb.

The Amulets in the Egyptian Collection

Amulets were an integral part of ancient Egyptian life from as early as the Predynastic Period, widely available in many forms, for both the living world and the Afterlife. Their purpose was to prevent various ailments or distress, each possessing magical properties which the user, either dead or living, benefits

from. This could be due to its shape, the material from which it was made, various decorations or inscriptions, or the ritual surrounding it, and it could represent animals, deities, symbols or various objects. It would have been strung/worn or placed among bandages on a certain part of the body, in order to grant influence directly on the wearer or the deceased. A direct acknowledgment of this can be found in the Bonn papyrus, for example.¹ Its function and meaning was not always one-sided, serving not only as a substitute for a real object, but also as a source of magical protection or a representation of a deity's diverse abilities and powers. Although most were made for all social structures, more expensive pieces, such as those of gold or silver, were retained by wealthier people.²

The majority of the Egyptian collection currently in the Archaeological Museum in Zagreb originates from an acquisition in 1868. The then National Museum purchased a collection assem-

¹ Munro 2003, 34–35, column 7, Z.3.

² Andrews 1994, 6, 8, 10; Stünkel 2019. Munro (2003, 60) suggest a list of amulets on papyrus might also have presented a cheaper replacement, interpreting a BOTD chapter.

bled by an Austrian field marshal, Franz Koller of Prague. Unfortunately, a clearer picture of where these objects originated from is missing. The collection, nowadays numbering around 2200 objects, was subsequently enriched with further purchases and gifts, with a majority dating to the Late and Ptolemaic periods from a funerary context.³

The amulets of the collection in Zagreb were initially recorded in the first issue of VAMZ 1870,⁴ and subsequently as a list of all collections by Šime Ljubić, in volume 1.⁵ He states that “Records of pure gold found on mummies, affixed to a wooden board covered with blue paper, measuring 0.25 high and 0.16 wide” (“Zapisi od čista zlata našasti na mumijah, priliepljeni na modrim papirom pokritoj drvenoj ploči, koja je vis. 0,25 a šir. 0,16”) were placed in cabinet no. 1, under number 114.

Subsequent records, with more detail and description, were written down in the inventory of the Museum, supposedly by Ana Krstić Legović.⁶ Besides the detailed description of each amulet, it also included the object's dimensions, material, technique and dating. A complete catalogue of the Egyptian collection was written in 1970 by Janine Monnet Saleh as a PhD thesis. Here, the amulets are recorded with only a short description

and their dimensions.⁷ The most recent catalogue was published by the Museum and penned by the collection's curator, Igor Uranić.⁸

Over the years there have been many different classifications of such amulets. For instance, the Zagreb amulets can be distributed into three categories, based on Étienne's research: representation of deities for protecting, conserving or regenerating the body; hieroglyphic signs symbolizing deities (such as the *djed* pillar or *tyet* knot); and symbolic hieroglyphic signs chosen for their meaning (e.g. *wedjat* eye to 'be healthy').⁹ The idea was to confer the power of the object itself, similar to practices of placing food or beds in tombs.¹⁰

All of the amulets have visible traces of being wrapped in mummification bandages. Some are wrinkled, others have traces of bitumen on them, some are broken off.¹¹ The images given here are those with the most details visible, i.e. they can be obverse or reverse. The complete list of all gold-foil amulets from the Egyptian collection in Zagreb with a short description of their meaning and symbolism,¹² based on the author's research, is given here:

1. Inv. no. E-786 – *Usekh/Wesekh* necklace

Dim: 2 × 2 cm

Description: A finely-crafted gold miniature of an *usekh/wesekh* ('breadth, width') necklace. It was one of the most iconic broad collars, usually composed of faience, gemstones or precious-metal cylinders. A sign of prestige, power and status, it was usually wrapped around a person's shoulders, often with falcon-head endings. Previously attested as a *menat* necklace.¹³



2. Inv. no. E-787 – Solar barque *henu*

Dim: 2 × 2 cm

Description: *Henu* solar barque made of gold leaf associated with the god Seker/Sokar, sailing towards dusk or dawn. A bull's head faces forwards and an antelope head faces backwards on a crescent-shaped boat, with a shrine to the cult statue of the god in the middle, on top of which is a hawk representation of the deity. Oars can be seen underneath, with smaller ones at the stern of the boat. It stands on a frame and rests on a sledge, with visible restraining ropes. The suspension ring is placed on the hawk's head.



3 More information about the collection's origin in: Monnet Saleh 1970; Mirnik, Uranić 1998; Uranić 2002; Tomorad 2003; Uranić 2007.

4 Ljubić 1870, 32.

5 Ljubić (ed.) 1889, 4.

6 Personal communication with Dr. Ivan Mirnik (7 March 2024).

7 Monnet Saleh 1970, 184–186.

8 Uranić 2007.

9 Étienne 2009, 143; Stünkel 2019. Three Egyptian words which represent amulets come from the verbs 'to protect' or 'to guard' (*melet*, *nht*, *sa*) and another meaning 'wellbeing' (*wedja*), Andrews 1994, 6.

10 Stünkel 2019.

11 For amulets both comparable in style and found among wrappings, see Williams 1924, Pl. 26–28.

12 Descriptions of various gods and amulet meanings can be found in: Andrews 1994, 6, 86; Gahlin 2005; Wilkinson 1998; Allen 2000; Uranić 2005; Gardiner 1957; Munro 2003. All photographs taken by Igor Krajcar, AMZ.

13 Monnet Saleh 1970, 184.

3. Inv. no. E-788 – Goddess Mut

Dim: 2 × 1 cm

Description: A finely-crafted gold miniature of the mother and protector goddess Mut (literally ‘mother’), represented as a vulture. She was a primal deity, often associated with kingly power, wife of Amun and mother of the moon god Khonsu, forming the Theban triad, and occasionally a creator goddess. Sometimes she is represented with a vulture’s head, with connections to royalty, and was considered a protector and legitimator of the pharaoh.



4. Inv. no. E-789 – Goddess Isis

Dim: 2 × 1 cm

Description: A finely-crafted gold miniature of the goddess Isis suckling Harpocrates (Horus-the-Child). She wears a throne crown, broken off in the upper part. The god Harpocrates is sitting on Isis’ lap wearing a skullcap. The scene was often portrayed in various techniques in the Late Period, representing nursing a king to full rebirth with the goddess’s milk. Suspension ring behind Isis’ head.



5. Inv. no. E-820 – Bird amulet

Dim: 1.9 × 1.7 cm

Description: A finely-crafted falcon-body amulet with both wings spread, holding *shen* signs in both spread talons, with a tail between them. The beak and part of the head is missing, which makes identifying the complete amulet difficult. Similar examples, e.g. Tutankhamun’s pectorals, have duck heads on falcon bodies.¹⁴ Although it cannot be confirmed in this instance, the visible shape of the head and neck would suggest such a case to be possible. The *shen* sign (Sn ‘encircling’), represented eternity and protection, through its encircling form. A later, elongated version of this symbol became the cartouche. Suspension ring placed behind the bird’s neck.



6. Inv. no. E-820-1 – Goddess Nekhbet

Dim: 1.9 × 1.7 cm

Description: The vulture goddess Nekhbet *en face*, with spread wings, whose talons enclose the *shen* (Sn ‘encircling’) sign, representing eternity and protection, through its encircling form. A later, an elongated version of this symbol became the cartouche. The vulture itself is most likely the griffon vulture, one of the most common types in Egyptian art. The goddess Nekhbet originated from the city of Nekheb; a patron of Upper Egypt, she was often depicted hovering above the pharaoh or with her Lower Egypt counterpart, Wadjet. Suspension ring placed behind the bird’s neck.



7. Inv. no. E-820-2 – Falcon

Dim: 0.7 × 2.1 cm

Description: A finely-crafted falcon bird in profile, with a complete double crown (*sxm.ti* ‘sekhmeti’: ‘Two Powerful Ones’) on its head, wings swept back. The double crown symbolized the union of Lower and Upper Egypt, and it legitimized a new ruler’s right to rule, as the falcon god Horus. Ring for suspension behind the bird’s head and crown.



8. Inv. no. E-820-3 – *Ba* soul

Dim: 0.1 × 2 cm

Description: The *ba* soul in the form of a bird with a human head, with a false beard and a solar disc on its head, wings swept back, resting on a stand. The *ba* represented a higher part of the soul, a person's personality. It was more mobile than other soul parts (*ka*, *akh*) and could move in the Afterlife, but would need to return to the mummy, as well. Described as "vultures with human faces" in Egyptian texts. The suspension ring is behind the head.



9. Inv. no. E-820-4 – God Khnum

Dim: 1.4 × 1.6 cm

Description: The god Khnum in the form of a ram, with a broken-off Atef crown with horns. Although at first it might seem the crown does not belong to the ram, on the basis of the breakage, it does belong to it associatively.¹⁵ The identification differs from Amon's ram, due to a difference in species: Amon's ram's horns curved inward, whereas here they spiral, curving horizontally on the head. Khnum was associated with Upper Egypt (Elephantine), from where this amulet might hail. He was a creator god and a patron of potters. A suspension ring is placed on the animal's rump, and another two on either side of the crown. Previously attested as the god Banebdjedet of the city of Mendes;¹⁶ this does not seem likely, as it was usually represented with four rams' heads.



10. Inv. no. E-820-5 – Two-baboon amulet

Dim: 1.5 × 1.1 cm

Description: Amulet composed of two baboons standing one on either side of an anepigraphic cartouche. The representation is of somewhat poor quality, the baboons being simply executed, with parts missing and damaged (for example the tails), including a suspension ring. The scene of adorning baboons is quite common on Egyptian jewellery and amulets, meant to protect and adore the centrepiece. They represented the god Thoth, deity of wisdom, the moon, writing and other traits.



11. Inv. no. E-820-6 – Serpent

Dim: 2 cm

Description: A snake with a suspension ring attached to its back. The serpent is nicely executed, with visible jewel-like scales on the body. Slightly damaged/corroded, especially around the head. It most closely resembles the cobra in repose or the D (d) phonogram of the Egyptian hieroglyphs. It represented a form of protection, ensuring the deceased would join the gods in the Afterlife, and guided the deceased's spirit.



¹⁵ Personal communication with restorer Damir Doračić. Perhaps both pieces have suffered further damage since, as well, which might seem to be why the two pieces do not connect immediately.

¹⁶ Monnet Saleh 1970, 185.

12. Inv. no. E-820-7 – *Uraeus* with snake head

Dim: 1.5 × 1.7 cm

Description: *Uraeus* (rearing cobra) with an extended wing to which a suspension ring is attached. The second wing is missing. Nicely executed with visible details such as scales and feathers. Usually a symbol of royalty (as a diadem on the forehead), in the Late Period this might have served just as a protection amulet, intended to spit fire at enemies, as described in the Book of Amduat. It could also represent the goddess Wadjet ('the green one'), symbol of Lower Egypt, from Buto, who was often depicted as a winged cobra.

13. Inv. no. E-820-8 – *Uraeus* with human head

Dim: 1.5 × 1.4 cm

Description: *Uraeus* with a human head and a pair of extended wings, the left wing mostly broken. It could represent the goddess Weret-Hekau (*wr.t-HKA.w*), meaning 'Great of Magics', who was sometimes represented as a *uraeus* with a human head. She was a god of protection magic and a personification of supernatural powers, often appearing on funerary objects for protection, and was sometimes an epithet of Isis, Sekhmet, Mut and others. A suspension ring is attached to the intact wing.



14. Inv. no. E-820-9 – Goddess Neith

Dim: 1.5 × 0.6 cm

Description: An amulet representing the goddess Neith with a red crown of Lower Egypt, as she is often portrayed. Broken off at the knees. An ancient goddess, whose centre was in Sais in the Delta. She gained particular prominence during the Late Period, due to the influence of the ruling family from Sais (26th Dynasty). Sometimes she was referred to as the 'Great Cow', as a mother goddess, but also a creator and a protector of Duamutef, one of the 'Four Sons of Horus' who protected the stomach in Canopic jars. The suspension ring is behind the goddess's neck.



15. Inv. no. E-820-10 – God Khonsu

Dim: 1.8 × 0.9 cm

Description: Amulet representing a crouching Khonsu (*xnsw*), wearing a false beard, mummified and carrying a lunar disk on his head. A was sceptre is placed on his knees. He was a son of Amun and Mut, his name meaning 'wanderer/traveller', most likely referring to the moon's passage on the sky. He assisted the god Thoth in overseeing the passage of time and in breathing new life into both humans and animals. During the Late Period, Khonsu also became revered as a healing deity, with his cult centre in Thebes, located near the temple of Amun. The suspension ring is behind the god's head.

16. Inv. no. E-820-11 – *Wedjat* eye

Dim: 0.8 × 1.2 cm

Description: *Wedjat* (*wdAt*) eye amulet. The 'sound one' was the eye of the god Horus and was considered one of the most potent protection amulets in Ancient Egypt. It was a combination of a human eye and a lanner falcon. Usually it was believed to represent the left or lunar eye, which was taken out by Seth and healed by Thoth, i.e. representing the waxing and waning of the



moon. Additionally, it played a key role in rejuvenating Osiris, as Horus offered it to him as a sacred meal to restore and regenerate his life.

17. Inv. no. E-820-12 – Temple *naos* amulet

Dim: 1.6 × 0.6 cm

Description: An amulet representing the façade of the *naos*, on top of which is a suspension ring. These were small shrines that housed statues of divinities, usually in the core section of the god's temple. Customarily only priests had access to such shrines, performing daily rites, such as purifying the *naos* with incense.



18. Inv. no. E-820-13 – (*a*)*pr* hieroglyph

Dim: 1.65 × 0.6 cm

Description: Amulet depicting a hieroglyphic phonogram sign (*a*)*pr* ((a)per), used for example in words such as *apr* 'equip' or 'provide'.¹⁷ It is usually considered an unclassified sign, meaning there are no clear indications what it represents. However, it is also thought possibly to represent a small leather bag that might contain jewellery, as it is used in such nouns, or a bag of clothes.



19. Inv. no. E-820-14 – Isis knot *tyet* amulet

Dim: 1.15 × 0.7 cm

Description: A well-executed amulet depicting the knot of Isis *tyet* (*tiet*, *tit*), topped with a suspension ring. Even though the amulet's exact origins are not entirely clear, it was one of the most popular in Ancient Egypt. Its meaning is similar to the *ankh* symbol, *i.e.* meaning life or welfare. It was associated with and called the Isis knot, representing the knot securing various garments worn by gods. The amulet developed various mythological narratives about its significance and symbolism, revolving around the ideas of resurrection and eternal life.



20. Inv. no. E-820-15 – *Djed* pillar amulet

Dim: 1.6 × 0.5 cm

Description: Finely-crafted amulet representing the *djed* pillar, broken into two parts. A suspension ring is attached to the top of the amulet. One of the more popular amulets in Egypt, it either represents a bundle of grain stalks tied together around a pole or was an iteration of the human backbone. Perhaps for that reason its meaning signifies 'stability' or 'endurance'. Originally associated with the god Ptah (named 'Noble Djed'), in the New Kingdom it started to designate Osiris's backbone.



21. Inv. no. E-820-16 – Amulet

Dim: 1.1 × 0.8 cm

Description: A rectangular amulet with rounded corners, decorated with a net and overhanging, on one shorter side (top?) a suspension ring. Although unclear, it could represent a seed bag or basket, as can be found on some *shabti* figures (e.g. Taharqa)



¹⁷ Some dictionaries state it as *pr* while others state it as *apr*, but both have the same meaning.

or in amuletic form. It is also possible that it represents a bead net made of faience cylinders, which was often used to wrap mummies. Finally, its shape resembles a writing-tablet amulet, unique to the 26th Dynasty and afterwards. Rectangular with a suspension tube at the top, usually made of stone such as feldspar. Often placed on the torso of the mummy, referring to Chapter 94 of the Book of the Dead. In it, the deceased is instructed to bring the writing tools of Thoth, which granted them the ability to wield the magical spells necessary for the Afterlife.

22. Inv. no. E-820-17 – Sandal(?) amulet

Dim: 1.08 × 0.75 cm

Description: An amulet with one end rounded and the other vaguely rectangular. Decorated with a trellis, and at the top of the rounded end a hole is pierced for hanging. If compared to other familiar objects, it closely resembles a part of an ancient Egyptian sandal. If that was the case, it would represent an act of purity, i.e. coming before Osiris free of dust or dirt.



23. Inv. no. E-820-18 – Vulture or Falcon amulet

Dim: 1.35 × 3.5 cm

Description: An amulet depicting a clumsily-crafted silhouette of a vulture or falcon with outstretched wings. Very creased gold plate, without discernible characteristics, with barely visible *shen* signs in its outstretched talons on the obverse. One possibility is that it represents the vulture goddess Nekhbet, patroness of Upper Egypt, from the city of Nekheb. Another possibility is that it represents a falcon, symbolizing the god Horus, who was not only the earthly embodiment of the king and the sky god, but also a protector of the dead in funerary contexts.



24. Inv. no. E-820-19 – Vulture amulet

Dim: 1.1 × 3.5 cm

Description: An amulet depicting a clumsily-crafted silhouette of a vulture or falcon with outstretched wings. Very creased gold plate, without discernible characteristics. One possibility is that it represents the vulture goddess Nekhbet, patroness of Upper Egypt, from the city of Nekheb. Another possibility is that it represents a falcon, symbolizing the god Horus, who was not only the earthly embodiment of the king and the sky god, but also a protector of the dead in funerary contexts. Finally, the figure could also interpret a *ba* bird with its head down and outstretched wings, emphasizing the ability to move between realms.



25. Inv. E-820-20 – *ib* heart amulet

Dim: 1.2 × 1.1 cm

Description: A gold plate resembling the silhouette of the heart *ib* hieroglyph, roughly made, with parts missing. Ancient Egyptians believed the heart to be the most important organ, the origin of thoughts, personality, memory, being etc., as we today perceive the brain. It was for that reason weighed against the feather of truth in the Afterlife. The shape had projections of veinal and arterial lobes connected to the heart, and as an amulet it could replace a damaged heart of the deceased, which was not removed during the mummification process.



Material and Methodology

Gold was considered to be the flesh of the gods, the colour of divinity in Ancient Egypt.¹⁸ The god Re's flesh was made of gold, as was the divine snake's body from the Story of the Shipwrecked Sailor.¹⁹ Re was also revered as 'Gold of Stars', Horus the 'Child/Falcon of Gold' and his earthly component, the king, 'Mountain of Gold'.²⁰ When comparing the beauty of gods, or feminine beauty, it was often used as an example of what Egyptians considered extremely beautiful, such as gold, lapis-lazuli, lotus flower etc.²¹ The colour also illustrated the sun and its radiance.²²

Gold came from numerous sources, either from trade or as tribute, or mining operations: mines in the Eastern Desert (east of Coptos – 'Gold of Koptos', east of Elkab), the most profitable from Nubia, north-east of Wadi Halfa ('Gold of Kush') and 'Gold of Wawat'. Stretching from around the modern town of Quft to Northern Sudan, a region spanning more than 800 kilometres, the mines were used intermittently throughout Egyptian history.²³ Gold was mined from alluvial deposits and quartz rock, but also common was the practice of 'salvaging' or stripping, for example of decorative elements, along with tomb-robbing.²⁴

There were a number of different techniques used in Ancient Egypt for gold processing. It was first transported as gold rings, ingots, nuggets or bags of dust to artisans, as exemplified by a delivery scene from Kush (Temple of Mut in Luxor).²⁵ Examples of openwork gold sheet have been found from as early as the First Intermediate Period. In order to get metal sheets for usage, liquid gold was poured into moulds. Before being allowed to cool completely, it was hammered out on an anvil to the required thinness and shape (plate, bar, strip, wire etc.). Titles such as 'chief of the makers of thin gold', held by Neferonpet around 1300 BC, would emphasize the importance of such products.²⁶ The process itself can actually be seen on a number of examples: for instance, on the walls of Wepemnefret's offering chapel, in Giza, of the Old Kingdom. The four registers show melting, pouring, hammering and stringing necklaces as a complete process, with a division of labour among accountants, smelters, shapers and other artisans in the production line.²⁷

Gold often varied in colour and purity percentage, with a distinctive, but possibly incidental, red hue.²⁸

Already employing techniques for beaten gold from the first dynasties, the skill of ancient Egyptian goldsmiths was evident early on.²⁹ As such, the status of goldsmiths only increased throughout Egyptian history, crafting a range of objects for daily use or as funerary equipment.³⁰ Due to this, some could even afford statues or rock-hewn tombs, such as those in Thebes, bearing titles 'Chief of the Gold-Workers of the Estate of Amon', 'He who knows the secrets of the goldsmiths' and 'Great wielder of the hammer'. Their importance was also evident in that regard, working in the 'House of Gold', a treasury and workshop, in the temple of Amon, the chief deity. Regardless, that might not always have been the case for each individual. Most likely, a hereditary status, travelling from temple to temple offering one's work, was also an option.³¹

In any such case, it was perhaps not an 'easy' profession. A good example reinforcing this perspective is the story of a father explaining to his son that being an official is much less strenuous than working in a manual job. In it, a goldsmith's hands are wrinkled "like crocodile skin" and he stinks "worse than scraps of fish".³² Nevertheless, goldsmiths were well supplied for their work, receiving provisions such as grain, meat, sandals, clothing and other essentials. Beer, however, was most frequently asked of Sokar, one of their patron deities, likely due to the intense heat and demanding conditions of their work.³³

Most of the Zagreb amulets were crafted using the repoussé technique, a method in which a design is shaped by hammering the metal sheet from the reverse side, creating raised relief details on the front. In this case the sheet rested against a malleable surface, such as mud, plaster, wax or resin, and the work was done freehand, as exhibited by the differences in specific details.³⁴

18 Andrews 1994, 105; James 1972, 38; Scheel 1989, 17.

19 Redford (ed.) 2002, 60.

20 Scheel 1989, 16.

21 Montet 2000, 215.

22 Étienne 2009, 143.

23 Andrews 1994, 105; Ogden 2000, 161; James 1972, 38; Williams 1924, 15; Klemm, Klemm 2013, 12, 611. An ancient Egyptian sketch or map of the mines, paths, quarters and washing stations in the Eastern desert has survived from the New Kingdom: see Scheel 1989, 11–12; Notton 1974, 51.

24 James 1972, 38, 42; Scheel 1989, 11.

25 James 1972, 40; Scheel 1989, 14, 32; Notton 1974, 54; Klemm, Klemm 2013, 611.

26 For the complete process see James 1972, 40–42; Scheel 1989, 13–14, 32.

27 Quirke 2023, 60, fig. 2.15. Other examples have been found throughout ancient Egypt's history: tomb of Mereruka in Saqqara, tombs of Menkheperansonb, Amenose and another, Tomb of Rekhmire, Tomb of Sobkhotpe. See James 1972, 39; Scheel 1989, 22, 32; Williams 1924, 5, n. 31; Notton 1974, 54.

28 James 1972, 40; Frantz, Schorsch 1990, 133, 149; Williams 1924, 31; Klemm, Klemm 2013, 46.

29 For example, funerary equipment found in the tomb of Hetepheres of the Old Kingdom. James 1972, 38, 40; Scheel 1989, 11.

30 James 1972, 38; Scheel 1989, 16, 20.

31 Williams 1924, 3, 5; Notton 1974, 50.

32 Scheel 1989, 59–60. For a different view, Klemm and Klemm (2013, 611) suggest the lack of cemeteries near mining sites would be due to relatively high safety standards. This might be corroborated by inscriptions from Seti I and Ramesses II, which describe workers assigned the task of digging wells to provide water for miners en route to the goldmines.

33 Scheel 1989, 60. The god Ptah and his priesthood were also associated, bearing the title 'Master of the gold smelters and goldsmiths'; Notton 1974, 50.

34 Andrews 1994, 105.

35 Andrews 1994, 6; Uranić 2012, 24.

36 Montet 1951; The Global Egyptian Museum 2008; Munro 2003, 59.

Gold Amulets: Comparison

During the mummification process, each mummy was finalized with linen wrappings. Often several dozen metres of linen were required. The process would also include placing amulets of gold, faience, lapis lazuli or other precious materials in between the wrappings, depending on the deceased's (or their family's) wealth status, as well. The intention here was not only to revive certain parts of the body so the deceased could use them in the Afterlife,³⁵ but also to protect, rejuvenate or conserve.

Gold-sheet amulets were not very common as such pieces of funerary equipment. Mostly royal and elite burials had such artefacts. Some of the most notable include Tutankhamun, or the royal tombs of Tanis, excavated and published by Montet (1929–1939).³⁶ In the Late Period, crafting stone or faience objects of the same type was more common.³⁷

Amulets strikingly similar to the Zagreb pieces can be found in the Metropolitan Museum of Art. One example of these is the *wedjat*-eye amulet, dated to the Late Period, Dynasty 26–29, about 664–380 B.C. The exact location, as with a number of objects throughout the global Egyptian collection, is not entirely known, but it is presumed to be from the Memphite or Saqqara region. Like E-820-11, its dimensions are roughly 1.1 × 1 cm.³⁸ The same is true for E-820-6 and a piece in Freiburg, a gold-foil snake, about 1 cm long with a knob at the back, from the 26th Dynasty.³⁹ Another similar example includes a rearing-cobra (*uraeus*) amulet that was buried with the priestess of Amun Djedmutesankh and tied to the mummy's forehead. This amulet would fall into the safeguard category, as the purpose of the *uraeus* was to protect the wearer by spitting fire at enemies. With similar dimensions (2 × 1.3 cm), it seems to be of better quality than the previous examples, perhaps reflecting the deceased's status as a daughter or wife of a High Priest of Amun of the 21st Dynasty.⁴⁰ The same mummy also had four gold amulets representing hieroglyphics at her throat, which, according to some suggestions, mirrored an intentional combination to form a pun on her name when translated: Djedmutesankh – “Mut says, ‘may she live’”.⁴¹

Other examples include similar traits, but with subtle differences which might suggest a variation in chronology, style, workshop, social stratification etc. Thus, from the aforementioned Tanis, Montet excavated silhouettes of Anubis and Thoth, carrying a sceptre and an *ankh* symbol. The chiselled interior has been completed with four small rings at the top and bottom, so it can be sewn onto the strips.⁴² Such objects have been found directly on the body of the deceased (Cairo CG 53464–53540).⁴³

Others include gold wrappings for both the fingers and the toes, belonging to officials in graves surrounding the royal tombs of Shoshenq and Psusennes.⁴⁴

Additional parallels to somewhat similar objects can be drawn to Tutankhamun's funerary equipment, such as a counterpoise on a pectoral, part of the king's coronation regalia.⁴⁵ The King had around 150 objects in his wrappings, designed specifically as funerary equipment, as they appear to be too delicate for everyday use.⁴⁶ Another would be Queen Aahotep's bracelet, from the cemetery of Dra' Abu el-Naga' (18th Dynasty). However, these objects seem to be of much better quality, gold pieces instead of sheets, and of a different typology, and they belong to a much earlier time.

Closer examples are numerous. One was found in the tomb of Padineith of the Saite period, which included a number of strung gold-foil amulets, such as a *djed* pillar, Hathor, collars, vultures, a *wedjat* eye, flail, crook, and others of very good quality, now in the Cairo Museum (CG 53541–53558 and 53607–53638).⁴⁷ The tombs of Wahibremer of the 26th Dynasty near the Userkaf pyramid, Harudja in Hawara,⁴⁸ Harchebi (Ptolemaic, Saqqara) and Gemenefhorbak (Abusir) also followed the tradition of the Gold Amulet Text with a large number of gold-foil amulets, particularly in the chest area (see the later ‘Gold Amulets: Discussion’ chapter – MacGregor amulet list). Other individuals might have ‘poorer’ funerary equipment, such as Tjainahebu, on whose collar there were ‘only’ a few amulets attached.⁴⁹ Some later examples stem from the Ptolemaic period, from tomb G 7652 (Giza), parts of which are in Cairo (JE 54049) and in Boston (29.1860).⁵⁰ Shaft A in the tomb was a Ptolemaic intrusion into an earlier tomb which contained a communal or family burial.⁵¹ Room VII in the shaft contained around 40 impressed gold-sheet amulets, along with stone amulets typical of the era.⁵² Unfortunately, it was found not in the vicinity of a coffin or mummy, but in a separate room among other remains. The tomb itself appears to have been frequently disturbed in the past.⁵³

Finally, there are examples from Leiden, where several long strips of gold-foil pendants conform to the same idea of amulet representation, but were derived differently.⁵⁴

37 Quack 2022, 289.

38 Williams 1924, Pl. 26–28; The Metropolitan Museum of Art 2024, 23.10.19.

39 Müller-Winkler 1987, 424.

40 The Metropolitan Museum of Art 2024, 25.3.167; Aston 2009, 199; Winlock 1926, 24, fig. 27.

41 Winlock 1926, 24; The Metropolitan Museum of Art 2024, 25.3.168a–d.

42 Montet 1951; 2000, 51, Pl. 36.

43 Quack 2022, 286–287.

44 Montet 2000, 52; Müller-Winkler 1987, 80–81.

45 Andrews 1990, 62–63, Fig. 47.

46 Hawass 2005, 278; 2018, 250.

47 Vernier 1927, Pl. 94 (mentioned as Peteneith); Wilkinson 1971, 64–65, n. 23–24; Quack 2022, 287.

48 Harudja's exact dating is controversial.

49 Quack 2022, 288–289. Quack proposes that specific parts of the Book of the Dead might have been referenced with the amulet choices, such as in Gemenefhorbak's case Spell 162.

50 Porter, Moss 1974.

51 Reisner 1942.

52 Digital Giza 2024, EMC_JE_54049; Digital Giza 2024, EMC_JE_53986.

53 Digital Giza 2024, EMC_JE_54049; Digital Giza 2024, EMC_JE_53986.

54 Quack 2022, 290; Williams 1924, 191.

There are more examples from outside Egypt, such as the kingdom of Kush and its capital, Meroe. Examples found there also conform to the general idea, but are devised differently. Examples include parts of jewellery pieces, such as chains, collars and bracelets, but they differ in technology: an Amun figure consists of two embossed gold-sheet halves to form a mummy.⁵⁵

Gold Amulets: Discussion

Compared to previously-mentioned examples, the closest parallels for the Zagreb amulets would be Late Period / 26th Dynasty / Saite-period gold-foil amulets. This peak period for such objects introduced a number of novel funerary amulets, while previously-known types were sometimes crafted in more unconventional forms.⁵⁶ The technique of production, types of amulet, dimensions and aesthetics all closely resemble examples from the Metropolitan Museum,⁵⁷ Padineith (Cairo Museum),⁵⁸ Freiburg,⁵⁹ Wahibreman (near Userkaf), Gemenefhorbak (Abusir) and Tjainahebu (Saqqara).⁶⁰ Taking into account such analogies, the analysis would not conform to a common premise stated by Ogden: “Amongst archaeologists it is the practice to assign any non-ferrous metal object not found under known and convincing circumstances or not bearing marks by which they may be dated...to the Saitic period, generally the 26th Dynasty”.⁶¹ Furthermore, some artefacts appear to more closely resemble those from the Memphite-Saqqara region, rather than Hawara or Abusir, but there are also pieces closely related to Upper Egypt (e.g. E-820-4 Khnum from Elephantine). As such, with the small sample size and the lack of particularly distinctive object types, pinpointing the exact origin of the Zagreb pieces remains strenuous.

Through comparison to earlier examples, a more pronounced difference begins to emerge. The royal tombs of Tanis, Queen Aahotep, Tutankhamun and others of the New Kingdom not only pose greater quality of production but also differ stylistically, such as four holes for stringing instead of one. According to Muller Winkler and James, such objects were purely royal (princely) until the 21st Dynasty and purely private from the 26th, but have obviously followed the tradition and ideas set by royalty, as was common practice in Ancient Egypt.⁶² A similar situation comes out of comparison with the Djedmutesankh uraeus (21st Dynasty), whereas the style and dimensions are much closer in the Late Period.⁶³ Objects from the Ptolemaic period, Harchebi (Saqqara) or G 7652 (Giza), look particularly simi-

lar, but a dip in quality is fairly evident. The style and execution seem to be lacking when compared to earlier instances. For example, these have much more ‘empty space’ surface surrounding the image itself, as though the artisan would not or could not remove ‘unnecessary’ bits.⁶⁴ This would also encompass Leiden examples, which were made entirely on strips of gold as engravings, as well as the aforementioned Kush pieces.⁶⁵ According to Quack, the strips were a natural evolution, where the same amulets as before stopped being individual objects, in the later part of the Late Period towards the Ptolemaic period (e.g. BM EA 14380).⁶⁶

Another novel variation of these types of object appears in the Ptolemaic and Roman periods. Amulets are now also depicted on linen and bandages, maintaining the same types and underlying beliefs associated with their protective and symbolic functions.⁶⁷ For instance, a demotic papyrus from Thebes (3rd century AD) suggests that one recite “Thou art this eye of heaven (*n-te-k py byl n pt*)” while drawing amulets.⁶⁸ Also, the Embalming ritual,⁶⁹ similar to the BOTD tradition, explains how to properly wrap and anoint the body or specific parts, assigning fabrics to specific deities (e.g. bandage/fabric of Hapi to be placed on the deceased’s hands).⁷⁰

On the basis of observation of the material, its frailty, wear and tear and possible usage, it would seem the Zagreb gold-foil amulets were not used during life, but were specifically made for the mummification process. Additionally, some amulets exhibit wrinkle marks (e.g. E-820-18 and 19), likely resulting from being wrapped in linen bandages. This would make Vernier’s premise, that private mummy decorations were of mediocre quality, quite plausible.⁷¹

What was the belief behind these objects? The general consensus among Egyptologists corresponds to AMZ amulets as well. As presented by Price, these would influence divinities in both worlds – the living and the Afterlife – bestowing not only protection but also a means of integration among the gods.⁷² The actual process of placing the amulets on a mummy was followed by a specifically-created ritual for gold amulets, which was used throughout Egyptian history. Various excerpts from the Book of the Dead might be recited, along with other religious spells. This could also be amplified with the amulets’ being attached to an actual amulet papyrus part of the Book, pertaining to the ritual for gold amulets.⁷³ The amulets provided a sort of safe-

55 Prieze 1993, 22.

56 Stünkel 2019; Munro 2003, 59.

57 The Metropolitan Museum of Art 2024.

58 Quack 2022, 287; Vernier 1927, 469.

59 Müller-Winkler 1987, 424–425.

60 Quack 2022, 287.

61 Ogden 2000, 148.

62 Müller-Winkler 1987, 286–287, 425; Quack 2022, 290; Andrews 1994, 20; British Museum 2024, EA54386; James 1972, 42.

63 The Metropolitan Museum of Art 2024, 25.3.167.

64 Quack 2022, 288; Porter, Moss 1974, 201. Digital Giza 2024, EMC_JE_53986.

65 Prieze 1993, 22.

66 Quack 2022, 290.

67 For a potential middle-ground option, refer to Munro 2003, 60.

68 Quack 2022, 317; Griffith, Thompson 1904, 193, Col. 20.7. See also papyrus from Bonn: Munro 2003, 49, 60.

69 Papyri of 1st c. AD, Roman Period, detailing the mummification process, copied from older instructions. Quack 2022, 316.

70 Quack 2022, 316–317.

71 Vernier 1927, 469. On the other hand, it might point to a purer gold percentage, as it was more malleable in such a case: see Klemm, Klemm 2013, 46.

72 Jarus 2022; Petrie 1914, 5.

73 For example: The Metropolitan Museum of Art 2024, 24.2.19. <https://www.metmuseum.org/art/collection/search/550944>; Andrews 1994, 7.

guard in case something went awry. For example, *ba* amulets, usually placed on the chest of the mummy, might replace that soul part in case it decides not to return.⁷⁴

All of these follow specific traditions set up by ancient Egyptians, some of which are known to us, albeit with variations, deriving from Coffin or Pyramid Texts, even.⁷⁵ The example most commonly referred to is the MacGregor list (BM EA 10479), a Ptolemaic Book of the Dead from Akhmim.⁷⁶ The list is arranged in a table, with drawings and material designation of various amulets, their Egyptian names and the necessary quantity. The list highlights that the objects should be made of gold, even those which would be useless as such (e.g. makeup bags). Thus, their function here focuses more on its magical use, rather than practical.⁷⁷ As a reference point I present the complete list below as brought by Quack:

3 Meqeret (Menqet) serpent heads made of gold
 6 wide collars made of gold with falcon heads
 3 royal headdresses made of gold
 3 Nemes headdresses
 6 serpents in Djed posture made of gold
 3 uraeus serpents – without material designation
 3 Serqet serpents – without material designation
 3 *anx-nTr* serpents – without material designation
 3 *sSm.t-rmT.w* serpents – without material designation
 3 *wr.t-HkA.w* serpents – without material designation
 1 *ib(A)*-sistrum made of gold
 3 *nri.t* vultures made of gold
 3 *ômT.t* vultures made of gold
 3 *imn.t* vultures made of gold
 3 *TmA-pT.t* vultures made of gold
 3 *sSS.t* sistra made of gold – the drawings depict a peculiar object
 3 *hôr.t* bracelets – without material designation
 3 golden objects, possibly understood as *kAp.t* ‘incense burner’
 1 golden bucket
 1 golden beard
 3 golden daggers (*b(A)gs(w)*)
 3 additional golden daggers with slightly different names
 1 golden dagger with the symbol of the striking arm placed above it
 3 golden *sA.t* birds
 3 bags of green and 3 bags of black eye makeup, the former explicitly stated as made of gold
 Club, pear club, and Ames sceptre, with the numbers 3 and 4, whose attribution is not entirely certain
 1 Was sceptre made of gold
 3 *wr.t-HkA.w* vultures made of gold
 1 *Uräus* pair made of gold
 1 golden collar with two heads as ends

1 golden collar with hinges as ends
 1 golden collar apparently in the form of the *Ba* bird
 3 golden vulture collars
 3 golden collars in the form of a snake with spread wings
 1 pair of collars consisting of a vulture and a snake with spread wings
 4 *manx.t* counterweights made of gold
 1 golden *Ba* bird with spread wings
 1 golden heart
 1 golden phallus with testicles
 1 golden vessel, possibly for the *Anch-imi* plant
 1 golden *sSp.t* object, apparently two intersecting lines
 3 golden Djed pillars
 1 golden squatting god with sun disk and uraeus
 1 golden vulture
 1 golden tit amulet
 1 golden vulture, described as a pectoral
 3 golden birds with spread wings and human faces, described as vultures
 2 golden *Ba* birds with human faces and folded wings
 1 golden papyrus amulet
 2 large golden pearls
 2 golden *Wedjat* eyes
 2 golden depictions of the *Ahet* cow
 2 golden sceptres and flails
 3 golden falcons
 1 golden double bull – or double lion?
 1 golden bow and 3 golden arrows
 1 golden finger and 1 golden toe (*Tba n Tr.t Tba (n) rô*)
 2 and 3 golden sandals
 1 depiction of *Isis* in beaten gold, showing *Isis* nursing the *Horus* child
 1 golden scarab
 1 golden *Nefer* sign
 1 golden bird with ram’s head
 1 golden mummy with human face
 1 golden *Henu* barque, that of *Sokar*
 1 golden vulture
 1 golden mirror
 1 golden pectoral, apparently containing at least one Djed pillar.⁷⁸

A hieratic papyrus scroll examined in Bonn, dating to the Late Period, similarly mentions gold amulets with their specific locations on the body: counterpoise, *djed* pillar, *imenet* (neck), *ba* bird amulet (chest) etc.⁷⁹ However, there are many other instances where ‘substitute’ objects of the same type are used, such as gilded wooden amulets (Wiesbaden or Turin) or a combination of wax, wood and stone (Vienna).⁸⁰ Other lists differ, for example on the temple of Denderah, sometimes referring to gold, sometimes to stone materials for amulets.⁸¹

74 Andrews 1994, 68.

75 Munro 2003, IX.

76 Quack 2022, 275, Fig. 103.

77 Quack 2022, 275.

78 Quack 2022, 275–276.

79 Munro 2003, 33–45, col. 6–12.

80 Quack 2022, 289–290; Munro 2003, 58.

81 Petrie 1914, 6; Mariette 1873, Pl. 87; Andrews 1994, 7.

Thus, a logical pattern would be followed for the correct arrangement of symbolism from top to bottom: around the throat a frog (rebirth), Re (sun); Maat, Serqet and Isis (mistresses of breath); pectoral *wedjat* eye (integrity), *teti* knot (revivification); seven *wedjat* eyes (to protect the head and cavities: eyes, ears, nostrils and mouth); below Nekhbet and Wadjet (Upper and Lower Egypt, protection); then *djed* pillar, funeral boat, *ankh* (life); seven scarabs (solar, transformation); *ba* bird with human head (to be able to leave the body); papyri (youth) and feathers (air); *djed* pillar (spine, stability); Isis and Nephtys with child Horus; twelve *djed* pillars (twelve hours of day and night).⁸²

Conclusion

All of the amulets from Zagreb can be found on the list, but not all from the list are present here. Also, the quantities do not correspond, indicating again what was said before: the list points to an ideal convention, but was not blindly followed in all cases. Even for Tutankhamun's burial it was not adhered to completely.⁸³ As the collection came without context it could also be possible that the amulets were paired with other pieces, such as carnelian or faience beads and amulets, but that would be impossible to reconstruct.⁸⁴ Moreover, the Zagreb group would not conform to aforementioned reconstructions of amulet placement on mummies, as in Andrews, Ikram and Dodson, Petrie or Uranić.⁸⁵ Perhaps they were meant to complement the usual sets from the Late Period made of stone, faience or precious stones,⁸⁶ instead of supplanting it. Nevertheless, their function is clear: to protect the wearer, imbue with magical safeguards, imitate 'real-life' objects in gold, all in a funerary context of the Late Period belief system.

Some objects were chosen for their mythological background. For example, the name of the *wd3.t* (*wedjat*) eye literally translates as 'the sound one'. According to myth, Horus, whose right eye was the sun and whose left was the moon, lost the moon eye fighting Set, but was later healed by Thoth. Some interpretations suggest that this amulet represents the Sun Eye, the uninjured and sound one, while others see it as essential to the healing process, symbolized by the moon's monthly cycle of waxing and waning. The belief in its power is also evident in other instances. It was placed on the incision made by the embalmers and in the Osiris myth, where, upon offering his eye to his deceased father, Horus was able to revive him with such powerful magic. Thus, it has not only protection properties of stopping evil entering the body, but also healing ones. It was the most commonly-used amulet on mummies, from the Old Kingdom through to Roman times.⁸⁷

Thus, the Zagreb gold-foil amulets exemplify high-quality craftsmanship while adhering to standard funerary practices and equipment, rooted in the Late Period belief system. The intention was to get as close to the gods as possible, where such gold pieces come in particularly handy. Unfortunately, it is not possible at this time to provide a more specific site of origin, perhaps even a workshop, as there are not many pieces published or accessible. A future analysis of the pieces, such as percentage of copper, might further indicate dating, as pure gold over 85% was rare before the Late Period, or whether the pieces were refined gold or not.⁸⁸ Other possibilities would perhaps involve creating a database for such objects, where a network of workshops or artisans might become clearer.

82 Étienne 2009, 143.

83 Hawass 2018, 254.

84 Quack 2022, 289.

85 Andrews 1994, 7; Ikram, Dodson 1998; Petrie 1914, Pl.50–52; Uranić 2012, 44.

86 Quack 2022, 289.

87 Andrews 1994, 43; Hayes 1978, 313; Montet 2000, 103. One of the most famous examples would be Ramesses III: Hawass *et al.* 2012.

88 Ogden 2000, 163. Variable ratios of impurities even within a single object can make this difficult; for possible analysis see Troalen *et al.* 2009, 113–116; Guerra 2008, 317–325; Guerra, Calligaro 2003, 1535.

SAŽETAK

ZLATNI AMULETI IZ EGIPATSKE ZBIRKE AMZ

Egipatska zbirka u Arheološkom muzeju u Zagrebu sastoji se od otprilike 2200 predmeta. Većina zbirke otkupljena je 1868. godine od obitelji privatnog kolekcionara Franza Kollera.

Osim uobičajenih predmeta koji se često nalaze u zbirkama diljem svijeta, poput stela, kanopskih posuda, ušabti figura, skarabeja i sličnog, zbirka sadrži i neke zanimljive, neuobičajene

artefakte. Tako se može pohvaliti skupinom od 25 amuleta od zlatnih pločica raznih oblika i prikaza. Rad detaljno analizira amulete, pružajući njihove dimenzije, prikaze i interpretacije, kako pojedinačno, tako i čitavu cjelinu, te donosi povijest istraživanja sličnih predmeta pronađenih do sada.

Cilj, osim same publikacije, jest ponuditi moguću interpretaciju o tome gdje su neki od ovih amuleta mogli biti pronađeni i zašto, tj. njihovu svrhu i moguće mjesto podrijetla.

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