

AN EGYPTIAN AEGIS FROM THE COLLECTIONS OF THE NÁPRSTEK MUSEUM

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ABSTRACT: The study summarizes the history of previous interpretations of an ancient Egyptian *aegis* from the collections of the Náprstek Museum. It examines its iconography and workmanship, which closely correspond to authentic examples from the Late Period (ca. 747–332 BCE). The core of the study is a newly conducted material analysis using a handheld XRF spectrometer. The examination revealed that the object is made of an alloy inconsistent with ancient Egyptian metallurgical practices. Additional technological features further indicate a recent manufacture. The study concludes that the *aegis* is a modern cast replica.

KEYWORDS: *aegis* – Egyptian antiquities – forgeries – replicas – XRF analysis

Introduction

In Egyptology, the term *aegis* (*aegides* in plural), derived from the designation of Athena's breast shield, describes representations of heads of certain Egyptian deities – e.g., Amun, Mut, Khonsu, Hathor, Isis, Sekhmet, Bastet, Anukis, Sobek and others – set into a wide collar, termed *wesech* (*wsh*) in ancient Egyptian. The *wesech* collars appear in ritual, as well as funerary contexts, in which they symbolised protection and regeneration. The *aegides* first appeared during the New Kingdom (ca. 1543–1069 BCE) and continued in their popularity during the Third Intermediate and Late Periods (1069–747 BCE and 747–332 BCE, respectively).²



Fig. 1. *Aegis* Inv. No. P 117. (Photo: Jiří Vaněk).

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² For *aegides* see e.g., Dunham 1931, Ivanov 2000.

The National Museum – Náprstek Museum of Asian, African and American Cultures in Prague holds three Egyptian *aegides* in its collections. The first one bears the head of a goddess, whose identity remains uncertain (Inv. No. P 117) [Fig. 1]; the second one bears the head of the goddess Bastet (Inv. No. P 5692) [Fig. 2], and the third one bears the ram head of the god Amun (Inv. No. P 5929). Whilst the second and the third specimen have yet to be published, the first one has been published and publicised repeatedly.

Aegis Inv. No. P 117

The first *aegis*, which constitutes the subject matter of this study, is amongst the most frequently cited objects in the Museum's Egyptian collection. In 1974, Eugen Strouhal (1931–2016) selected the piece for the cover of the museum's monthly bulletin dedicated to the ancient Egyptian pantheon. At that time, the female head was interpreted as a representation of the goddess Hathor, and the object was assigned to the Greco-Roman Period.³ In 1980, a picture of the *aegis* was reproduced on the inside front cover of the catalogue authored by Eugen Strouhal which accompanied the exhibition *Umění starého Egypta* (Arts of Ancient Egypt), that toured through Cheb, Olomouc and Prague between the years 1980–1982. The object was listed in the catalogue under Cat. No. 121. This time, the goddess was however identified as Isis.⁴ In 1997, Sylva Pavlasová selected the piece for the rear cover of the catalogue for her exhibition *Země pyramid a faraonů* (Land of the Pyramids and Pharaohs), which premiered in Prague in 1997. The object was listed under Cat. No. 70. Pavlasová dated the object to the Greco-Roman Period and identified the goddess as Isis.⁵ In 2011, the object formed part of the exhibition *Egypt a Nubie. Poklady starověkých civilizací* (Egypt and Nubia. Treasures of Ancient Civilisations) organised in Uherské Hradiště. The catalogue authored by one of the present writers provided a more detailed entry which redated the piece to the Late Period and maintained the identity of the goddess – out of habit – as Isis.⁶ The object has only recently come under closer scrutiny in the context of provenance research on the so-called Old Collection of the Náprstek Museum, to which it belongs. Unfortunately, the *aegis* is amongst the few objects whose origin could not be established through provenance research.

Description of the object

The half crescent-like object (w. 10.6 cm, h. 10.3 cm, d. 3.0 cm) consists of a broad collar and the head of a female goddess. The broad collar is decorated with concentric bands engraved with stylised and geometricised plant motifs. A separate horizontal decorative border band consisting of alternating narrow and wide rectangles runs along the upper edge of the collar. The wide rectangles have dots in their middles. On each side of the head is a pair of Horus-headed terminals. Facial details of the falcons, as well as strands of their wigs are marked in relief.

The broad necklace consists of six concentric strands, whilst narrow strands alternate with wide ones. The narrow strands are filled with small dots likely representing pearls (possibly of floral character; their size, however, makes their precise nature difficult to determine). The two outer wide bands are filled with elongated stylised petals. The central band is decorated with

³ Strouhal 1974, p. 1.

⁴ Strouhal 1982, Cat. No. 121.

⁵ Pavlasová 1997, *back cover*.

⁶ Onderka 2011, p. 35, Cat. No. 52.

stylised pearls. On the one hand, their motive can be read as funnel-shaped blossoms resembling lotuses, on the other hand, the spaces between these funnels are filled with small triangles attached to the inner border of the strand. The combination of the shapes formed between the funnels together with the small triangles resembles the beads of actual necklaces, which are interpreted as date fruits.⁷ Nevertheless, the design undoubtedly employs floral motifs.

A head rises over the collar wearing a tripartite wig, its individual strands rendered in relief. The two front lappets and the back of the wig terminate in horizontal bands, whilst finely carved ears project above the front lappets.

Set upon the wig is a cylindrical element of the Hathoric crown, commonly designated a *modius*. Its sides are decorated with twelve *uraei*, i.e., the rearing cobras that embody royal authority and divine protection. A larger central *uraeus*, which rises directly above the goddess's forehead, is surmounted by a diminutive Hathoric crown consisting of a sundisk flanked by cow horns. The serpent's tail continues onto the reverse of the *modius*. The hood of the cobra's body is finely articulated in relief.

The *modius* was only the base of the Hathoric crown, worn by both Hathor and Isis. Unfortunately, the sun-disc between the pair of cow horns has not been preserved. Based on the surviving iconography, the goddess whose face is incorporated into the *aegis* may not be identified. It is likely that a distinction between Isis and Hathor could not be made even if the *aegis* had been preserved in its entirety. Some hope would exist only if the *aegis* had survived together with a respective *menat* (counterpoise) depicting the goddess with her attributes, or if her image were accompanied by a hieroglyphic inscription explicitly naming her.

Between the neck and the collar is a depiction of the protective symbol of the *udjat* eye (oriented towards the right). In its place, other *aegides* have a winged scarab, a winged goddess or a pectoral, many of which were highly elaborate. The *udjat* eye appears rather rarely.



Fig. 2. *Aegis* Inv. No. P 5692 (Photo: Jiří Vaněk).

⁷ For example, The Metropolitan Museum of Art, New York City, Object No. 40.2.5.

One can find a number of parallels to the Prague *aegis* in collections across the globe, including The Metropolitan Museum of Art, New York City (Reg. Nos. 48.73), The British Museum, London (Object No. EA 60857), Walters Art Museum, Baltimore (Acc. No. 54.2137) and last but not least Le Louvre, Paris (Inv. No. E 3761), which is closest to the Prague piece.⁸ In terms of iconography and craftsmanship, the Prague *aegis* does not fall short of the above-mentioned examples. However, a problem arises when its material composition is examined using newly available methods.

The rear part of the *aegis* is also of special importance. At the bottom of the *aegis*, there are the two usual lugs which serve for the attachment of the *menat* to the *aegis* by means of a hinge system [see Fig. 1; for the sake of comparison see also Fig. 2]. One would also expect two similar lugs in the area just under the wig, where the *menat* itself would be hinged to the *aegis*. Surprisingly, the lugs are filled with material and lack the openings for a tubular pin inserted through the aligned holes of the three lugs. This fact, together with the additional pin on the underside of the *aegis*, which clearly resembles a modern screw [Fig. 3], clearly indicates from a technological and manufacturing point of view that the object is a modern forgery.



Fig. 3. Detail of the back side of the *aegis* Inv. No. P 117.
(Photo: Jiří Vaněk).

Material examination

In 2025, a material survey was carried out on the three *aegidae* in the collections of the Náprstek Museum. For their material examination, a handheld VANTA XRF spectrometer was used, equipped with a silver-anode X-ray tube (up to 40 kV, 200 μ A, 4 W) and an SDD detector with ≤ 137 eV resolution, enabling rapid and accurate analysis across various calibrated modes for metals, light matrices, and precious alloys, including detection of surface gilding.

For the analysis of the *aegis*, the 'AlloyPlus' mode, calibrated for metals and their alloys, was applied. The measurements produced quantitative data on elemental concentrations expressed in weight percentage.

Each analysis was conducted over approximately 60 and 120 seconds under laboratory temperature conditions, with the measured areas documented by means of the instrument's integrated camera. The purpose of the analyses was not only to determine the alloy composition but also to assess the authenticity of the object.

A total of twenty-one measurements were carried out on seven different areas of the object [see Fig. 4], three on the front and four on the back side of the *aegis* [Tab. 1].

⁸ Personal study of objects.

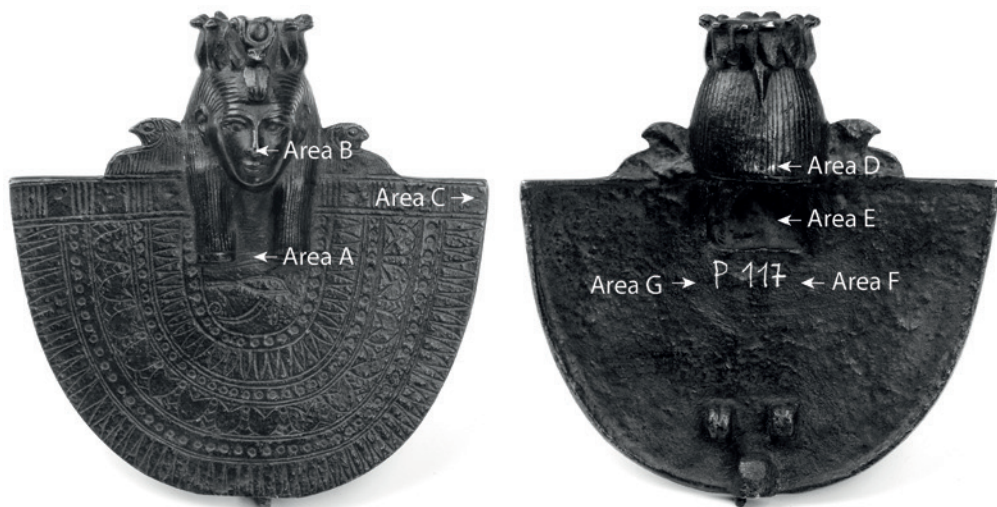


Fig. 4. Areas of measurement on the aegis Inv. No. P 117. (Photo: Jiří Vaněk).

Tab. 1. Results of the material measurements.

FRONT	Area A			Area B			Area C		
	60 s	60 s	120 s	60 s	60 s	120 s	60 s	60 s	120 s
Al	1.733	1.598	1.672	1.731	1.247	1.144	1.682	1.872	1.808
Si	2.744	2.703	2.576	5.583	3.192	2.243	2.903	2.785	3.349
P	0.095	0.132	0.135	0.198	0.154	0.091	0.145	0.134	0.165
S	-	-	-	-	-	-	-	-	-
Ti	-	-	-	0.093	0.093	0.107	-	-	-
Cr	0.244	0.274	0.254	0.159	0.150	0.207	0.063	0.088	0.072
Mn	-	-	0.016	0.010	0.017	0.017	0.028	0.015	0.015
Fe	0.317	0.300	0.304	0.319	0.313	0.336	0.281	0.269	0.265
Ni	0.141	0.151	0.142	0.148	0.147	0.162	0.147	0.146	0.143
Cu	60.400	60.232	60.312	63.308	65.335	65.314	65.251	65.428	64.941
Zn	21.880	22.086	21.871	21.123	21.823	21.914	24.202	24.204	24.025
Ag	0.024	0.029	0.043	-	-	-	-	-	-
Sn	0.233	0.247	0.261	0.144	0.160	0.162	0.218	0.213	0.216
Hg	-	-	-	1.326	1.367	1.444	1.813	1.779	1.730
Pb	12.188	12.249	12.414	5.858	6.003	6.858	3.266	3.065	3.270

BACK	Area D			Area E			Area F			Area G		
	Time	60 s	60 s	120 s	60 s	60 s	120 s	60 s	60 s	120 s	60 s	60 s
Al	1.694	1.714	1.522	1.326	1.279	1.133	1.675	1.662	1.649	1.372	1.289	1.350
Si	2.896	2.916	2.681	7.824	7.893	7.397	3.599	3.810	3.705	2.767	2.737	2.747
P	0.144	0.138	0.127	0.111	0.081	0.084	0.152	0.159	0.146	0.122	0.118	0.114
S	-	-	-	-	7.928	7.966	-	-	-	8.477	8.414	8.468
Ti	-	-	-	0.168	0.105	0.121	0.221	0.113	0.207	1.049	0.984	0.975
Cr	0.065	0.063	0.048	-	-	-	0.038	0.034	0.046	0.033	0.032	0.036
Mn	0.008	0.011	0.008	0.021	0.019	0.021	0.013	0.015	0.014	0.012	0.014	0.012
Fe	0.246	0.246	0.244	0.261	0.268	0.261	0.234	0.236	0.232	0.264	0.255	0.256
Ni	0.162	0.154	0.153	0.148	0.142	0.148	0.150	0.147	0.148	0.146	0.141	0.143
Cu	68.355	68.296	68.831	66.333	60.697	61.179	67.020	66.889	66.728	62.274	62.506	62.471
Zn	23.057	23.047	23.115	21.399	19.912	20.036	24.399	24.430	24.604	21.799	21.809	21.737
Ag	-	0.022	0.015	0.021	-	-	0.028	0.032	-	0.016	0.030	0.019
Sn	0.186	0.192	0.180	0.196	0.169	0.166	0.210	0.219	0.205	0.171	0.185	0.191
Hg	-	-	-	1.075	0.896	0.946	1.072	1.017	0.980	0.829	0.792	0.805
Pb	3.188	3.200	3.046	1.098	0.611	0.543	1.188	1.234	1.334	0.688	0.694	0.677

The XRF analyses of the *aegis* consistently show that the object is made of a copper-zinc alloy (brass) with small additions of lead. The content of copper ranges between ca. 60–69 %, while zinc accounts for 20–24 %. Lead appears in concentrations between ca. 3–12 % on the front part and 0.5–3 % on the back part, which improved the alloy's castability. Good castability is evident from the level of detail in the object's relief decoration, which was clearly produced by casting rather than subsequent engraving. Minor amounts of nickel, iron, chromium, and titanium were detected, most likely reflecting natural impurities present in the raw materials. Mercury was detected in five out of seven areas (ranging around 1 %).⁹

Brass has been identified in an object from the collections of the Museum August Kestner that was long considered genuine and securely dated to the Twenty-first Dynasty (ca. 1069–945 BCE).¹⁰ However, recent provenance research and iconographic analysis have cast doubt on its authenticity.

On the basis of the measured elemental composition, it is plausible to suggest that the object is a modern cast. As the piece does not display any iconographic or technological features that would unequivocally indicate forgery, and in view of the numerous parallels preserved in collections worldwide, the *aegis* may be regarded as a cast taken from an existing original, produced by a professional founder.

During the optical examination, it was observed that the surface on the back of the object was finished only roughly, and a screw protrudes beyond the edge on the underside. Compared with other preserved examples of *aegides*, the eyes on this piece are cast solid rather than decoratively inlaid. In the neck area, a vaguely executed decoration is visible, probably the result of a less precise casting.

⁹ Cf. Ogden 2000, p. 171.

¹⁰ Cf. Fitzenreiter et al. 2014, pp. 152, 328, Kat. No. III.10.

Further comments

Although the alloy composition gives the object the appearance of bronze, it was evidently produced by mould casting, during which the suspension holes were likely filled, rendering them non-functional in practical use. This circumstance further supports the likelihood that the object is of modern manufacture.

Another point for discussion is the fact that neither the provenance nor the provenience of the object is known. The inventory card contains no information regarding an original owner, nor has the object been identified in the accession books. The absence of accession records and relevant documentation may suggest that the object did not enter the museum's collections as a genuine artefact, but rather with the understanding that it was merely the cast of an object from another collection. This, however, cannot be regarded as the only possible explanation.

Summary

Aegis Inv. No. P 117 is amongst the most frequently cited objects in the Náprstek Museum's Egyptian collection. In terms of iconography and craftsmanship, it closely parallels authentic examples preserved in collections worldwide. However, recent XRF analyses revealed that the object is composed of a modern copper-zinc alloy (brass), that has been limited to recent centuries, which indicates that the piece is not a genuine ancient Egyptian object and joins the ranks of recently identified forgeries, copies and imitations identified in the Náprstek Museum's Egyptian collection.

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