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From Surface to Subsurface: Mapping the Chalcolithic Cucuteni Settlement of Muntenii de Jos (Eastern Romania) Using Remote Sensing Techniques

Radu-Alexandru BRUNCHI¹, Andrei ASĂNDULESEI², Casandra BRAȘOVEANU¹

Abstract. While the site of Muntenii de Jos - La Biserică (Vaslui County) was first documented in 1910 based on surface finds, archaeological investigations were limited to a single field walk in 1976 that vaguely dated the settlement. In 2025, our team initiated a comprehensive non-invasive research project to map the planimetry, function, and chronology of this archaeological site. The investigation integrated guided drone flights for obtaining an orthomosaic, and a Digital Surface Model (DSM), while also conducting a detailed magnetometer survey using a 5-sensor gradiometer. Fieldwalking confirmed the site's relative chronology to the Cucuteni A-B phase (4050-3800 BC). The combination of aerial and geophysical data within a GIS environment provided us with a high-resolution subsurface map of the settlement's organization, which will prove vital for its future research and preservation.

Rezumat. Deși situl de la Muntenii de Jos - La Biserică (județul Vaslui) a fost documentat pentru prima dată în 1910 pe baza descoperirilor de suprafață, investigațiile arheologice s-au limitat la o singură cercetare de teren în 1976. În 2025, echipa noastră a inițiat un proiect amplu de cercetare non-invazivă a obiectivului arheologic pentru a stabili planimetria, funcționalitatea și cronologia acestui sit. Investigația a integrat efectuarea de zboruri ghidate în vederea obținerii unui ortofotoplan și a unui model numeric al suprafeței, alături de prospectarea magnetometrică detaliată folosind un gradiometru cu 5 senzori. Cercetarea de suprafață a confirmat cronologia relativă a sitului, databil în faza Cucuteni A-B (4050-3800 BC). Combinarea datelor aeriene și geofizice într-un mediu GIS oferă o hartă de înaltă rezoluție a organizării așezării, care se va dovedi esențială pentru cercetările viitoare și pentru conservarea sitului arheologic în cauză.

Keywords: Cucuteni culture, A-B phase, UAV, magnetometer survey.

Archaeological background

The Cucuteni-Trypillia cultural complex (Figure 1), flourished in a large part of southeastern Europe during the Chalcolithic period (ca. 5000-3000 BC)³, intriguing archaeologists and art historians for over a century. While its exquisitely painted ceramics, showcasing remarkable artistic skill and sophistication, are widely recognized as iconic artifacts of the era, the architectural remains of this culture offer an equally compelling (albeit often dramatically fragmented) glimpse into their lives. These remains often exhibit vitrification, a process where the clay of the walls and floors has been transformed into a glassy material due to extreme heat. Within these fire-ravaged structures, archaeologists have unearthed invaluable evidence not only of daily life, but also tantalizing hints of the Cucuteni-Trypillia people's spiritual beliefs and practices.

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³ LAZAROVICI/LAZAROVICI/ȚURCANU 2009, 17; URSULESCU 2022, 19.



Figure 1. The Chalcolithic archaeological cultures of Southeastern Europe, and the main archaeological sites investigated (©Ștefan Caliniuc).

The first mention of the archaeological site from Muntenii de Jos (Vaslui county) was made in 1910, belonging to C. Moisil⁴. Subsequently, the information was confirmed by a field investigation conducted by Ghenuță Coman and Ion Baum. Their findings indicated that on the promontory of the interfluvial hill—specifically located on the northeastern edge of the village of Muntenii de Jos, approximately 200 m north of the church—archaeological remains were uncovered. These included flint blades and a significant quantity of ceramic fragments featuring a distinctive three-color (tricrom) painting style, all definitively associated with the renowned Cucuteni Culture⁵.

So far, the archaeological research conducted at the Cucuteni site known as Muntenii de Jos – *La biserică* (Figure 2-3), was limited to a single fieldwalk conducted in 1976 that vaguely dated the site. In 2025, our team decided to further investigate the site using modern non-invasive methods, in order to better understand the planimetry and functionality of the site. Besides fieldwalks, we also performed a magnetometer survey, along with guided drone flights, the purpose of the latter being to obtain an orthomosaic and a digital surface model of the site.

⁴ MOISIL 1910, 173.

⁵ COMAN 1980, 183.

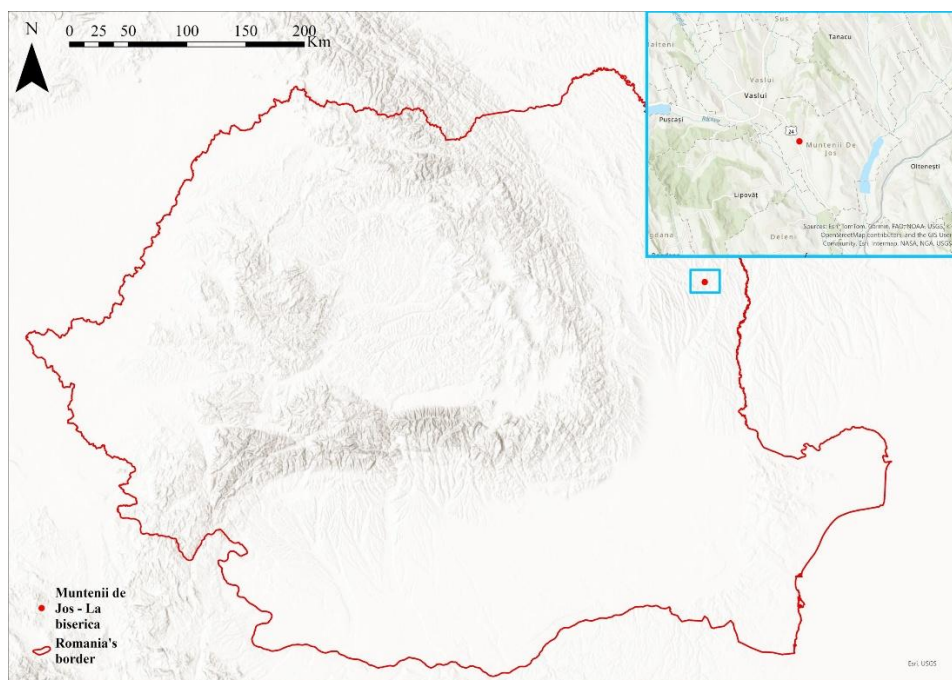


Figure 2. Localization of the archaeological site of Muntenii de Jos – La biserică.



Figure 3. Muntenii de Jos – La biserică archaeological site. The aerial image of the site, view from the south.

The non-invasive research (2025)

The first stage of our non-invasive research approach consisted of taking oblique and vertical aerial photographs using a DJI Air 2S drone (Figure 4), with the aim of obtaining an overall characterization of the researched area, highlighting its landscape features. Guided flights were also performed, in order to obtain a detailed DSM (Digital Surface Model), as well as a high-resolution orthomosaic (Figure 5). The flight covered an area of 11 hectares, at an altitude of 50m maintaining a 75% overlap between photographs. A number of 8 ground points were recorded using a Leica RTK system in order to better georeference the results.

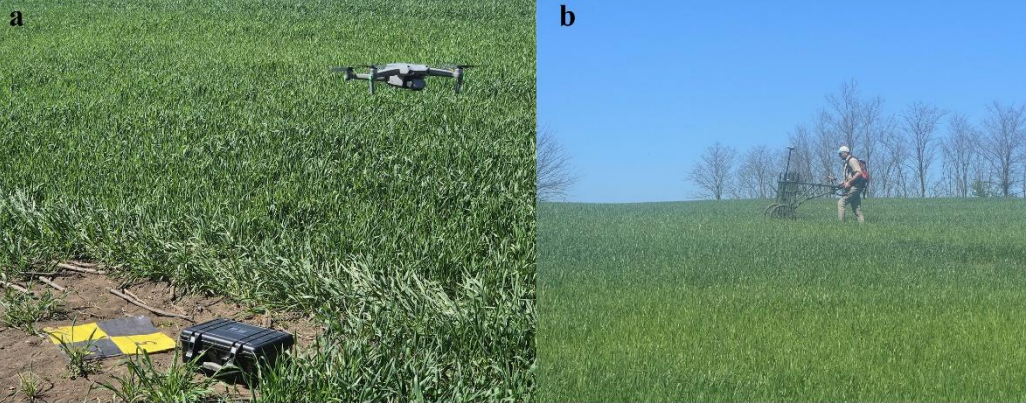


Figure 4. **a-** DJI Air 2S drone, and ground point; **b-** Five probe Sensys MXPDA magnetometer system.

The location of the settlement is clearly strategic: the inhabitants selected this area due to its topographic position, namely a promontory that offers excellent visibility and is naturally protected by steep slopes. This choice indicates a clear emphasis on defense and advantageous sightlines.

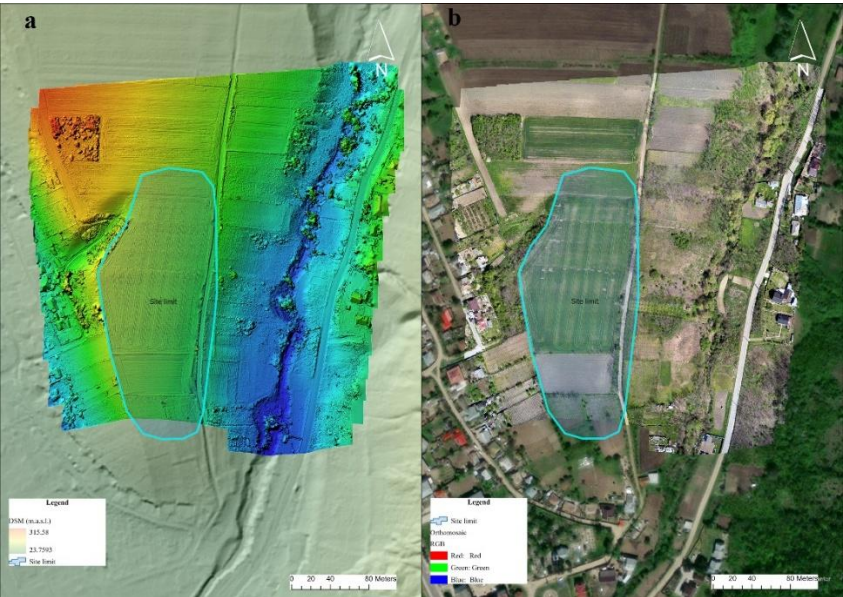


Figure 5. The results obtained by performing the guided flight. **a-** Digital Surface Model; **b-** Orthomosaic.

The following step in our workflow involved performing magnetometer measurements, which were carried out using a 5-sensor gradiometer, produced by the Sensys company. The sample interval was set at 0.5 m, and data acquisition was performed using a GNSS device, mounted on the instrument cart and linked via a radio connection to a fixed base station. This configuration offers the possibility of covering large areas, as gridding of the zones is not necessary. The data were processed using the software provided by the manufacturer (DLMGPS, Magneto-Arch), as well as other specific programs (QGIS Archaeological Geophysical Toolbox), all the results being integrated into a GIS project. The fundamental principle on which the method is based is related to the presence of weakly magnetized iron oxides in the soil. The degree of soil magnetization is known as magnetic susceptibility and is determined by the quantity of oxides present in the soil, especially hematite and magnetite⁶. Since the instrument responds very well to changes that occur when a material is burned at a high enough temperature to modify its magnetic properties, it is primarily used for identifying well-burnt structures in the soil, but it can also be used in detecting anomalies, such as ditches and pits, which we often find in archaeological sites. It has proven to be very effective in investigating the Cucuteni settlements due to the fact that almost all of the dwellings in a Cucuteni settlement are burned to the point of vitrification⁷.

Despite this constraint, our team successfully investigated a substantial portion of the site, which was sufficient to clearly delineate the northern boundary of the settlement (Figure 6).

Overall, the archaeological site is heavily impacted by ongoing agricultural work, which likely complicates the interpretation of some shallow anomalies. Nevertheless, the resulting magnetic map successfully revealed a lot of subsurface features. These include evidence of various distinct dwellings, along with various pits and magnetic *markers* indicative of possible pottery kilns. However, it should be mentioned that we do not benefit from a clear contrast as in many other cases, possibly due to the disturbance of the archaeological context, which makes it difficult to specify an exact number of dwellings. Also, the anomalies are not compact, which may suggest the absence of platforms or incomplete burning.

The site's micro-topography, as well as the surrounding environment provide natural and anthropic boundaries, as follows:

- Western Boundary: This side is clearly and naturally delineated by a steep slope.
- Eastern Boundary: The extent here is compromised by a modern road, where residual fragments of dwellings could only be identified within the road's embankment (Figure 7).
- Southern Boundary: This area suffers from significant modern interference, being directly affected by modern constructions, including houses and assorted annexes.

During our fieldwalk, we managed to gather a lot of pottery sherds, some of which preserved the original painting, fragments from loom weights and flint blades (Figure 8). The ceramics seem to chronologically pinpoint the settlement in the A-B phase (4050-3800 BC⁸) of the Cucuteni culture. This chronological stage marks an important transition: while the pottery from the earlier Cucuteni A phase is often characterized by bichrome (two-color) painted decoration, the Cucuteni A-B phase marks the appearance or increased popularity of trichrome (three-color) painted ceramics, often using white, black/brown, and red, combined in complex

⁶ GAFFNEY/GATER 2003, 37.

⁷ ASĂNDULESEI *et alii* 2024; ASĂNDULESEI 2017.

⁸ URSULESCU 2022.

spiral and meander patterns. The decorative style of the A-B phase often refines the intricate geometric patterns seen in the preceding phase.

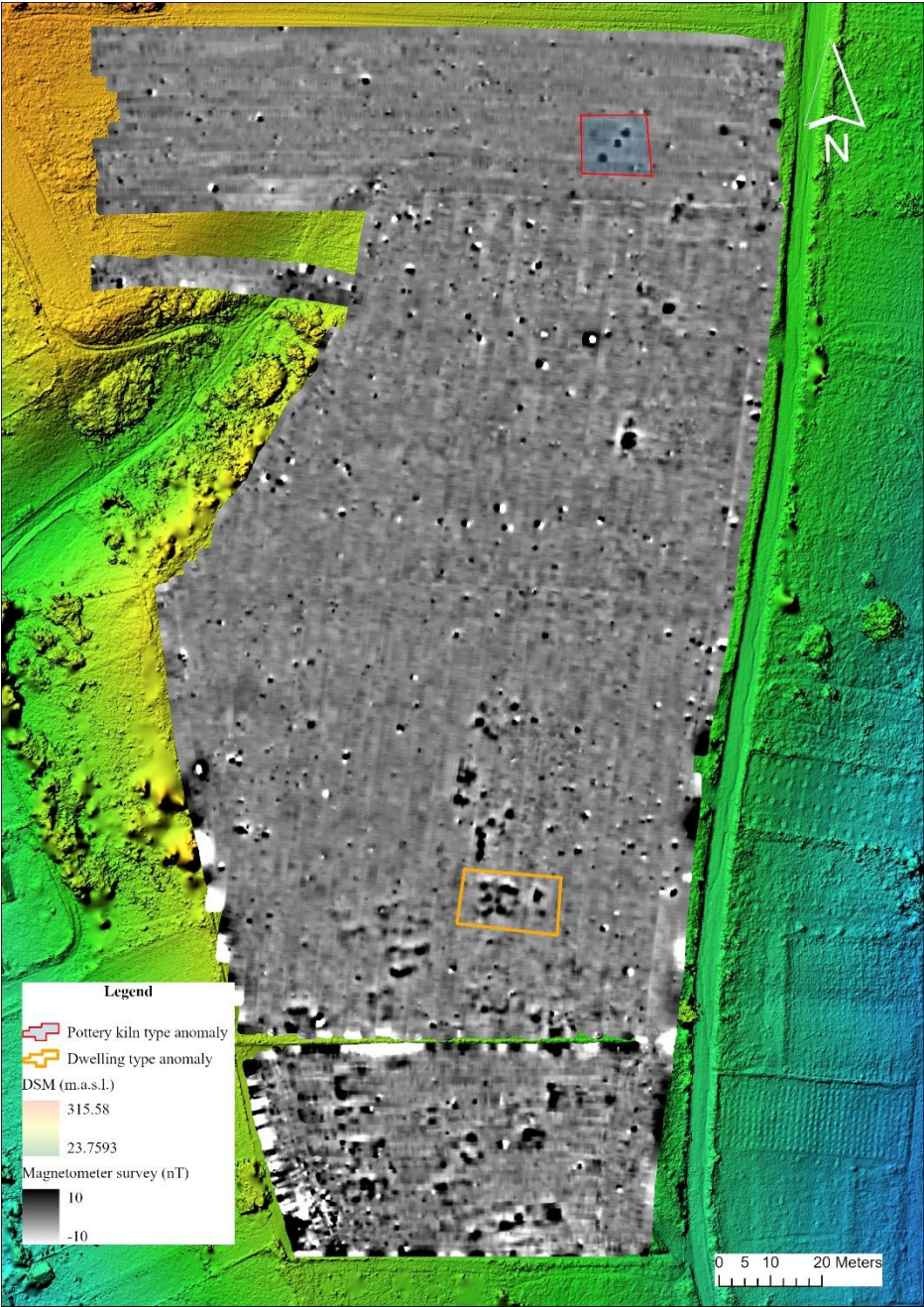


Figure 6. The magnetic map of the settlement from Muntenii de Jos – *La biserică*.

While the setup was ideal for large-scale coverage, the survey faced practical limitations on the ground. A complete magnetic map of the entire archaeological area was unfortunately not possible due to the presence of various modern constructions that obstructed access.



Figure 7. The remains of a dwelling visible in the embankment of the road (the eastern limit of the settlement).

Preliminary conclusions

The 2025 non-invasive research at the site of Muntenii de Jos – *La biserică* successfully transcended the limitations of the previous, minimal archaeological work. By employing a strategic combination of drone-guided aerial imaging (orthomosaics and DSMs), fieldwalking, and a large-scale magnetometry survey, the investigation has fundamentally redefined the understanding of this settlement.

The strategic location of the settlement, on a promontory naturally protected by steep slopes, was reaffirmed, emphasizing the inhabitants' focus on defense and excellent visibility. Furthermore, the ceramic materials identified, particularly the characteristic trichrome painted sherds, has allowed for a more precise chronological attribution of the settlement, within the Cucuteni A-B phase (4050-3800 BC).

Most significantly, the magnetometry survey, despite being hampered by modern constructions, proved highly effective due to the burnt nature of the Cucuteni dwellings. The survey successfully delineated the northern boundary and revealed a rich array of subsurface features, including the magnetic anomalies belonging to multiple structures, along with various pits and potential pottery kilns. These findings offer the first comprehensive planimetry of the site.

In spite of the ongoing challenges posed by modern constructions and agricultural impacts affecting the eastern and southern boundaries, the 2025 research has provided crucial data that lays the groundwork for all future research. The non-invasive methods not only confirmed the long-known presence of a Cucuteni settlement but also provided a detailed map of its extent and internal structure, transforming a vaguely dated reference into a tangible archaeological resource.

All of the data presented in this article was also included in our online database ArchaeoPortal and can be viewed in a GIS environment for free⁹.

⁹ <https://arcg.is/vP4vq> (accessed 28.10.2025).



Figure 8. The archaeological material discovered during fieldwalk.

Acknowledgements

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References

ASĂNDULESEI A. 2017. *Inside a Cucuteni Settlement: Remote Sensing Techniques for Documenting an Unexplored Eneolithic Site from North-Eastern Romania*. Remote Sensing, Special Issue: Archaeological Prospecting and Remote Sensing, 9/41.

ASĂNDULESEI A., TENCARIU F.A., MIREA D.A., PÎRNĂU R.G., BALAU R.Ș. 2024. Back to the roots. Ablest prospection techniques for rediscovering the Chalcolithic settlement of Cucuteni – Cetățuie, Romania: a short retrospective, novel recent data, prospects for the future. In: C. Cuenca-Garcia, A. Asăndulesei, K. Lowe (eds.) 2024. *World Archaeo-Geophysics. Integrated minimally invasive approaches using country-based examples*. One World Archaeology Series, Springer, Cham.

BOGHIAN, D. 2006. Unele considerații asupra fazei A-B în contextul civilizației cucuteniene. In: N. Ursulescu, C.-M. Lazarovici (eds.), *Cucuteni 120 - valori universale. Lucrările Simpozionului Național, Iași, 30 septembrie 2004*, 163-180. Iași.

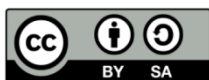
COMAN, G. 1980. *Statornicie, continuitate. Repertoriul arheologic al Județului Vaslui*, București.

GAFFNEY, C., GATER, J. 2003. *Revealing the Buried Past. Geophysics for Archaeologists*, Gloucestershire.

LAZAROVICI, C.-M., LAZAROVICI, G.-C., ȚURCANU, S. 2009. *Cucuteni. A Great Civilization of the Prehistoric World*, Iași.

MOISIL, C. 1910. Privire asupra antichităților preistorice din România, *Buletinul Comisiunii Monumentelor Istorice* III, 115-117.

URSULESCU, N. 2022. *Civilizația Cucuteni și ariile culturale învecinate. O retrospectivă bibliografică*, Editura Universității „Alexandru Ioan Cuza” din Iași, Iași.



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Dwelling No. 2 from the Settlement of Cucuteni-Dâmbul Morii, Iași County, Romania.

Radu-Ștefan BALAUR¹

Abstract. *The archaeological research carried out in the settlement of Dâmbul Morii led to the discovery of 16 dwellings dated to the Cucuteni A-B phase. The present study centers on dwelling no. 2 not only due to its position within the settlement but also due to the complexity of the discoveries. According to the general plan of the settlement, we distinguish the central position of this dwelling in a group of structures arranged in the southwest area of the promontory. The archaeological research clearly revealed the presence of rituals that can be associated with those of the foundation of the dwelling and at the hearth level, but also the existence of cult complexes with related paraphernalia (altars, hearth-altars, cult tables, etc.). Moreover, the successive restorations of the hearth, as well as the two deposits of vessels in the central hearth area, support the continuity of this dwelling over a longer period and its attribution to the category of domestic sanctuaries, which refer to the religious, private life of a family, in which both elements with domestic functionality and those specific to the performance of rituals are present.*

Rezumat. *Cercetările arheologice în așezarea de față A-B de la Dâmbul Morii au dus la identificarea a cel puțin 16 locuințe atribuite fazei A-B. Studiul de față pune accentul pe locuința nr. 2, nu numai prin poziția acesteia în cadrul așezării, cât și prin complexitatea descoperirilor asociate cu aceasta. Conform planului general al așezării constatăm poziția centrală a acesteia într-un grup de locuințe dispuse în zona de sud-vest a promontoriului. Cercetarea ei a surprins clar prezența unor ritualuri ce pot fi asociate cu cele de fundare ale locuinței, cât și la nivelul vetrei, dar și existența unor complexe de cult cu paraphernalia aferente (altare, vetre-jertfelnic, măsuțe cult etc). Mai mult, refacerile succesive ale vetrei, precum și cele două depuneri de vase în zona vetrei centrale susțin continuitatea acestei locuințe pe o perioadă mai îndelungată, și atribuirea ei categoriei sanctuarelor casnice, ce fac referire la viața religioasă, privată a unei familii, în care sunt prezente, atât elemente cu funcționalitate casnică, cât și cele specifice desfășurării unor ritualuri.*

Keywords: Dâmbul Morii, Cucuteni A-B phase, ritual deposits, cult table, sanctuary.

Introduction

The Cucuteni culture, one of the great European civilizations of the Copper Age, offered numerous objects and masterpieces related to religious life for the prehistoric spirituality of Europe. From the researchers' point of view, studying temples and sanctuaries, their content, and their historical, cultural, and religious context, but especially the role, location, and functionality of the sanctuary or parts of a sanctuary, is a current necessity. They were distinguished from the rest of the residential structures within a settlement by both construction and inventory. These magical-religious manifestations include a whole range of formulas that sometimes concern the entire community or only a certain group: cult complexes, foundation pits of a settlement or a dwelling, ritual or cult-like pits, and ritual deposits (ceramic vessels, stone objects, bone tools, horn, and statuettes). It is assumed that the sanctuaries, but especially the altars identified in the settlements of the Precucuteni-Cucuteni

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cultural complex, suggest religious practices that are much less magical than commonly believed².

In a simple definition, temples represent cult buildings dedicated to divinities that include several altars or sanctuaries dedicated to the performance of ritual and spiritual activities, such as prayer, rite, or sacrifice, equipped with special furniture, dedicated vessels, and a cult officiant³. Instead, sanctuaries are defined as special parts of a settlement, also associated with the conduct of religious community activities, distinguished from temples by their smaller size, sometimes equipped with columns, hearths, stella, bull heads or bucrania, benches, platforms and ovens. The sanctuary can be both a smaller segment of a temple or a separate building⁴.

The inventory indicates that there are two types of sanctuaries in the Precucuteni-Cucuteni area, based on their location within the site or the structures they contain: large constructions, roomy for religious ceremonies and rituals, with hearths, which are considered domestic sanctuaries, and community sanctuaries featuring monumental constructions such as altars, columns, or anthropomorphized slabs, which are regarded as temples⁵. Domestic sanctuaries are often a dwelling in which the officiant lives with his family but needs a room with a social character, in which he carries out ritual activities, such as dwelling no. 61 from Trușești. Among the ritual activities carried out are mentioned libation, initiation, cultic grinding, birth and baptism, oblatio, etc.⁶.

Such structures interpreted as sanctuaries appear as early as the Precucuteni phase. We recall here the constructions with hearths and various complexes, such as dwelling no. 36 from Poduri-Dealul Ghindaru, Bacău county⁷, or dwelling no. 1 at Isaiia-Balta Popii, Iași county⁸, or altars, such as the one in dwelling no. 11 at Târgu Frumos⁹. The first two settlements, although located at a great distance from each other, are notable for two similar cult complexes, called the "Council of the Goddesses," consisting of 21 statuettes and 13 burnt clay thrones, the difference being made by the number of burnt clay pieces; at Poduri only 2 were discovered, compared to the 42 clay pearls discovered at Isaiia¹⁰.

Regarding the Cucuteni culture, most of the identified sanctuaries are associated with phase A. The settlement at Trușești is noteworthy for its several sanctuaries, of various sizes, which appear to be concentrated in a small square located in the central area of the settlement, with combustion installations and monumental structures¹¹. From the initial phase of habitation, dwelling no. 61, which features two worship tables and an altar, regarded as a community house, draws attention. In the second phase of habitation, the sanctuary dwellings (no. 24, 38, 40, and 60) were characterized by monumental pieces, representing oranta-type

² LAZAROVICI, LAZAROVICI 2008, 9-10; MANTU LAZAROVICI 2002, 47; DIACONESCU 2012, 14-15; BALAUR 2023b, 46.

³ KOVÁCS 2016, 16; LAZAROVICI, LAZAROVICI 2006b, 65.

⁴ KOVÁCS 2016, 18-19.

⁵ LAZAROVICI, LAZAROVICI 2006a, 561-562; LAZAROVICI, LAZAROVICI 2007, 219; KOVÁCS 2016, 18-19; LAZAROVICI *et alii*, 2019, 39.

⁶ LAZAROVICI *et alii*, 2019, 39-40.

⁷ MONAH *et alii* 1983, 15; MONAH *et alii* 2003, 34; LAZAROVICI, LAZAROVICI 2006a, 561; LAZAROVICI, LAZAROVICI 2008, 17.

⁸ URSULECU, TENCARIU 2006, 39-56; LAZAROVICI, LAZAROVICI 2008, 14-15; LAZAROVICI, LAZAROVICI 2006a, 561.

⁹ URSULESCU *et alii* 2002, 37-38; URSULESCU *et alii* 2001-2002, 62-64; LAZAROVICI, LAZAROVICI 2006a, 562-563; LAZAROVICI, LAZAROVICI 2008, 16-17.

¹⁰ LAZAROVICI, LAZAROVICI 2006a, 561-562; LAZAROVICI, LAZAROVICI 2008, 15-17; MANTU LAZAROVICI 2002, 49.

¹¹ MANTU LAZAROVICI 2002, 51-52; PETRESCU-DÎMBOVIȚA *et alii* 1999, 67, 85-89, 117, 160.

idols, sometimes with a cup-shaped head¹². Among other sanctuaries, we mention those at Scânteia (dwelling no. 1), with 75 anthropomorphic female and male idols and 30 zoomorphic idols, as well as fragments from altar-type tables¹³, Târpești (dwelling no. 5), with 34 anthropomorphic statuettes, miniature chairs¹⁴, or Mărgineni-Cetățuia, with a large fragmentary idol¹⁵.

For Cucuteni A-B phase, there is a lack of information about the existence of sanctuaries. This scarcity may be attributed to either the small number of studies conducted or the likelihood that cult activities were performed outside of sanctuary-type structures. This situation is particularly evident in the Tripolian settlements located along the Middle Bug¹⁶. The discoveries from the site of Iablona (Cucuteni A-B2/Tripolie BII) are significant, featuring 711 whole or fragmentary anthropomorphic statuettes. Researchers have concluded that this indicates the presence of a powerful cult center. It is notable in hut no. 36, which contains 54 statuettes, believed by the researchers to be associated with the existence of a person responsible for cult activities¹⁷.

Also, for the Cucuteni B phase, information is scarce. The discoveries at Ghelăiești-Nedeia¹⁸ and Buznea-Târgu Frumos¹⁹ are mentioned, where in constructions without a platform, cult complexes were discovered consisting of four statuettes arranged in a cardinal direction, with six containers around them, associated with the hearth or altar, with two models of open sanctuaries, which contained several statuettes, as well as others in a fragmentary state. In both cases, the existence of protective large vessel is noted²⁰.

Using the information we have acquired thus far, we intend to present discoveries and circumstances associated with dwelling no. 2 that may indicate the existence of a presumed sanctuary within this settlement.

The site of Dâmbul Morii: history of research

Dâmbul Morii settlement is situated in the southeastern region of the village of Băiceni, in the Cucuteni commune of Iași county, between Pârâul Morii stream to the west and Recea stream to the east (Figure 1/A-B). To the south, it has visibility towards the major riverbed of the Recea/Valea Oii stream. The site is located on a promontory with a maximum height of about 10 m, oriented NW-SE, with gentle slopes, somewhat steeper towards the southwest (Fig. 1/C). The prospect of a marshy area around the promontory is not excluded²¹. When it is included in the physical-geographical units of the region, the Cucuteni-Băiceni microzone is situated on the border between the Moldavian Plain and the Suceava Plateau. Based on

¹² MANTU LAZAROVICI 2002, 51-52.

¹³ MANTU, ȚURCANU 1999, 13; MANTU LAZAROVICI 2002, 49-50; LAZAROVICI, LAZAROVICI 2008, 13-14; LAZAROVICI, LAZAROVICI 2006a, 220.

¹⁴ MARINESCU-BÎLCU 1981, 73-74; MANTU LAZAROVICI 2002, 51; LAZAROVICI, LAZAROVICI 2007, 222.

¹⁵ MONAH 1978, 36-40; LAZAROVICI, LAZAROVICI 2008, 13; MONAH 1991, 298; MONAH 1997, 36, 39; LAZAROVICI *et alii* 2009, 130.

¹⁶ LAZAROVICI, LAZAROVICI 2008, 9; MANTU LAZAROVICI 2002, 51; LAZAROVICI, LAZAROVICI 2007, 222; TSVEK 2001, 27.

¹⁷ SOROCIN, BORZIAC 2001, 167-202; MANTU LAZAROVICI 2002, 52; LAZAROVICI, LAZAROVICI 2007, 222-223.

¹⁸ CUCOȘ 1973, fig. 5-7; CUCOȘ 1993, 59-65; CUCOȘ 1999, 48-50; MONAH 1997, 41; LAZAROVICI, LAZAROVICI 2007, 224-225.

¹⁹ MIHAI, BOGHIAN 1977-1979, 429-431; BOGHIAN, MIHAI 1987, fig. 2-8; MONAH 1997, 42.

²⁰ MANTU LAZAROVICI 2002, 53-54; LAZAROVICI, LAZAROVICI 2007, 224-225.

²¹ DINU 2006, 33; DINU 2009, 106; NICU 2013, 113.

hydrographic criteria, it is a part of the Valea Oii Basin, which is a tributary of the Bahlui River, located centrally west of the Bahlui River basin²².

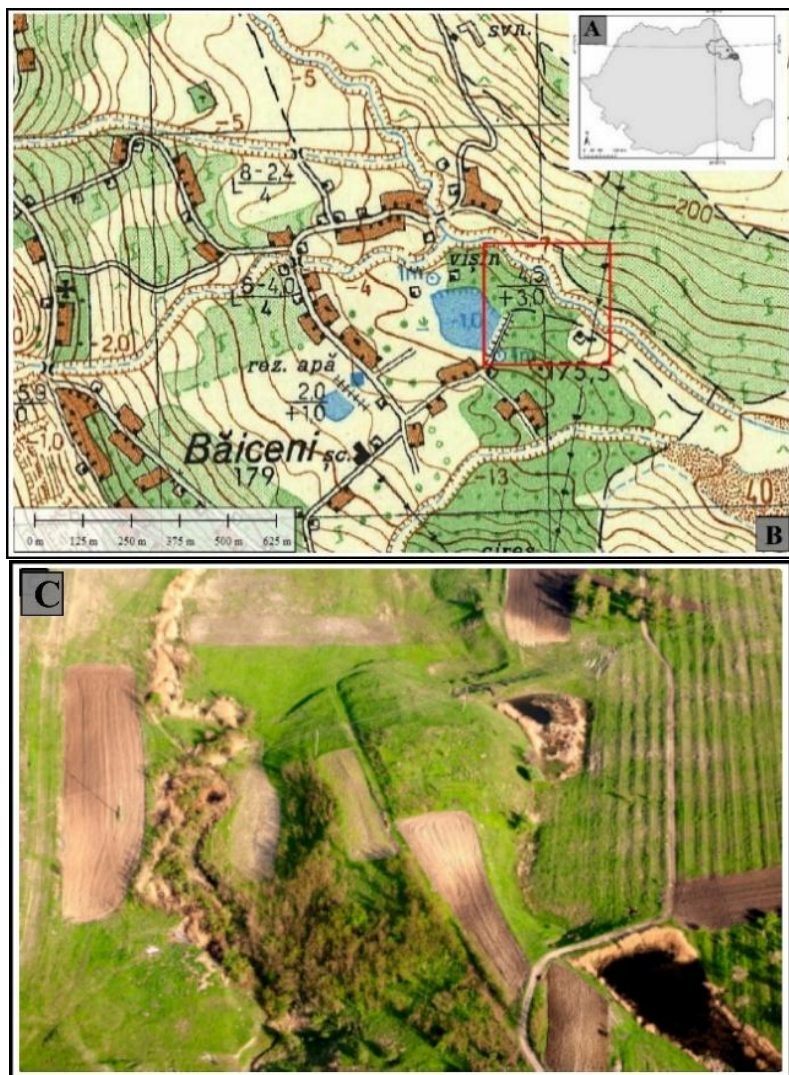


Figure 1. Location of the Cucuteni-Dâmbul Morii settlement in Romania, Iași County (A) and topographic map, scale 1: 25000 (B); oblique aerial photo (C) (after Asăndulesei *et alii* 2020, fig. 7).

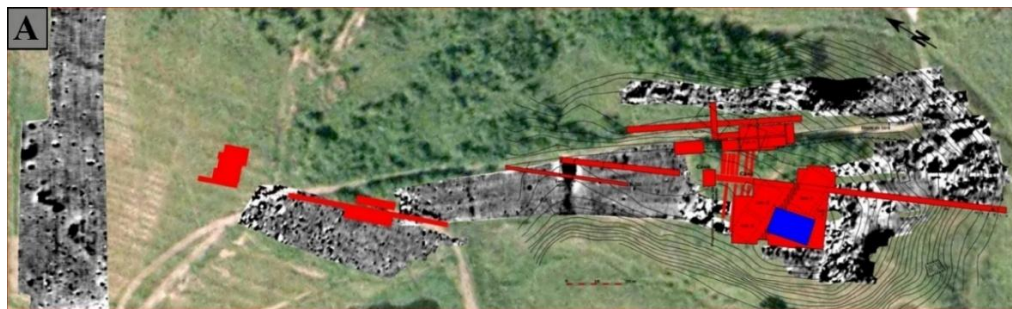
The first mention, under the name "*Talsiedlung* – The settlement in the Valley", was made by H. Schmidt, who also carried out the first archaeological research on this site. Afterwards eight archaeological campaigns were carried out between 1961–1964, 1966, 1977–1978, and 1989 for the research at *Dâmbul Morii*, under the leadership of Professor Mircea Petrescu-Dîmbovița, with assistance from Professor Marin Dinu, who would eventually take charge of the

²² PETRESCU-DÎMBOVIȚA, VĂLEANU 2004, 40; NICU 2013, 7.

excavations²³. M. Dinu presented the excavations until 1966 and mentioned 10 dwellings that were investigated from the Cucuteni A-B phase, as well as the defensive system of the settlement²⁴. New dwellings were identified and researched during the resumption of excavations in 1977 and 1978, with a final campaign in 1989. After careful consultation of excavation plans and the site notebooks, a total of 16 Cucuteni dwellings were investigated in two sectors, separated by a defensive ditch²⁵. Recently, to obtain detailed underground data for the site, we used geophysical surveying. Thus, we identified a series of anomalies associated with dwellings and three ditches with similar trajectories linked to the settlement's defensive system. These were found in the SE sector, where we can see a cluster of archaeological structures (Fig. 2/A), probably overlapping levels of occupation that make it difficult to determine an organizational model. Most of these structures also display thermoremanent magnetism, showing that they were subjected to intense fire. Small circular anomalies that can be assigned to pits were identified as we moved towards the NW beyond the settlement's defensive system. Further in the same direction, a series of large anomalies characterized by thermoremanent magnetism was identified. These anomalies can be attributed to burnt or partially burnt dwellings, as well as a few circular anomalies associated with pits. The rather confined area surveyed in the NW sector precludes any hypotheses regarding the organization of the dwellings²⁶. The general plan together with the magnetic map allowed us to get a first idea of the settlement's layout. We can see that there are two circular groups of dwellings arranged around a central dwelling, specifically dwellings no. 2 and 11 (Figure 2/B).

Dwelling no. 2: archaeological description

Although there are findings that can be associated with the presence of sanctuaries or dwellings with arranged spaces for religious activities, this study will focus exclusively on dwelling no. 2 (marked in blue in Figure 2), studied during the campaigns of 1962 and 1963²⁷. I chose this structure due to various reasons, including the specific stratigraphic situation, the central location within a group of dwellings, and the detection of complexes or artefacts linked to cult activities.



²³ BALAUR 2020, 172; 2023a, 62; DINU 2006, 33; SCHMIDT 1932, 3, 12-13.

²⁴ DINU 2006, 33-34; 2009, 106-107; ASĂNDULESEI *et alii* 2020, 324.

²⁵ BALAUR 2020, 172-176; 2023a, 64-69.

²⁶ ASĂNDULESEI *et alii* 2020, 328-330.

²⁷ BALAUR 2020, 172-173.

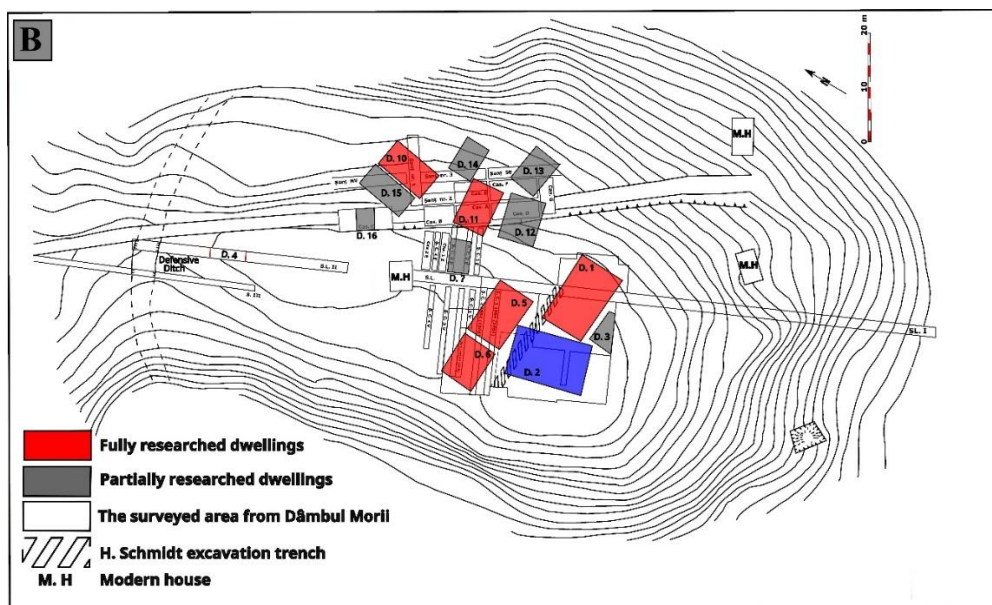


Figure 2. Magnetometric map (after Asăndulesei 2015, fig. 121C), with the areas investigated according to the excavation plans (A); Excavation plan (B) (adapted after Dinu 2006, 43, with additions).

Dwelling no. 2 (Figure 3) was characterized by a compact mass of daub at a depth of 10-20 cm from the ground surface. The exact size is not known, as it is affected towards the ESE corner and in the VSW corner, where only very few traces of the platform were preserved. Also, H. Schmidt's investigation caused disturbance towards the northern limit. We only know that the southern part was captured between meters 0 and 10, and had the same orientation as dwelling 1, namely E-W²⁸.

The platform appears to be made of a split wood structure with a N-S orientation interrupted right next to the central hearth. An interesting stratigraphic situation was documented right next to the central hearth, where, under the unitary remains of the platform, there was a layer of earth, about 3-5 cm below which there seems to be a second platform, attributed to a second level of habitation. We don't have a documented profile to support this situation, nor do we have any concrete information to enable dating on this new platform. What we do know is that a pit with Cucuteni A₃ materials was discovered underneath it. The author of the excavations believes that this dwelling was abandoned at the time of the arrival of the new occupants, the land being prepared for the construction of the new one²⁹.

²⁸ BALAUR 2024, 48-52.

²⁹ PETRESCU-DÎMBOVIȚA 1966, 33; BALAUR 2020, 180; 2024, 48-52.

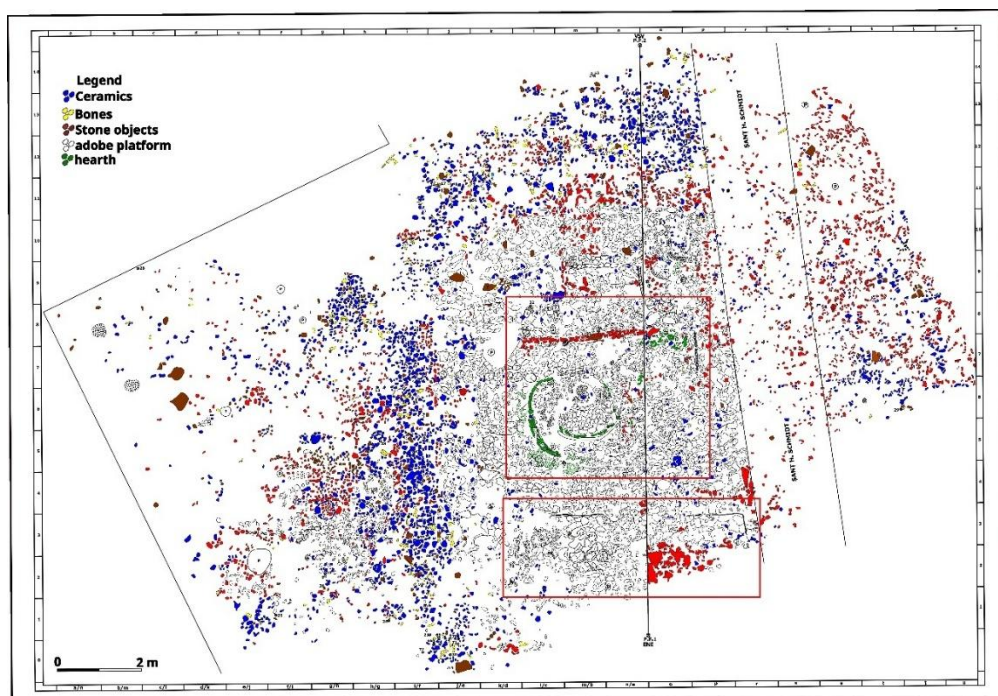


Figure 3. Dwelling no. 2. Excavation plan
(adapted after the plans from the manuscript *Băiceni-Dâmbul Morii* – Nootbook no. 1, The 1962 Excavation Campaign).

Inside the dwelling, the excavation notebook recorded the presence of three hearths, which varied in size, all equipped with U-shaped raised chime. These were constructed either directly on the ground (hearths 1 and 2) or atop a layer of ceramic shards (hearth 3)³⁰. On the excavation plan of dwelling no. 2, the existence of a possible fourth hearth is also observed, west of the central one. Two of these hearths are noteworthy, to which we will return later.

As for the interior arrangements, we have no information other than the existence of a storage area, to the WSW of the central hearth, suggested by the presence of fragments from a large vessel, which seems to have been included in the platform. Such vessels are also found in other settlements of the Cucuteni A-B phase, such as at Traian-Dealul Fântânilor. A little further to the NW of this vessel, a possible grinding area was also reported, attested by the presence of stones of different sizes³¹.

The inventory consists mainly of ceramic fragments present along the walls of the dwelling, a relatively large number of animal bones as well as some plastic representations. Another possible area where certain domestic activities could have been carried out was identified at the southern limit of the dwelling, where a large stone was discovered, and many osteological fragments, especially large deer antlers. In this area it seems that the platform was damaged³².

³⁰ BALAUR 2024, 48-52; *Băiceni-Dâmbul Morii* – Nootbook no. 1, The 1962 and 1963 Excavation Campaigns.

³¹ BALAUR 2024, 48-52.

³² BALAUR 2024, 48-52.

Depending on the location and position of archaeological objects or complexes, some situations can be interpreted as foundation rituals of the dwelling, or even for the combustion facility. The same rituals are also found in the case of restoring hearths. Usually, they are located in the center of the dwelling, within the foundation, or even beneath it³³.

Ritual depositions

Discoveries such as ritual depositions, sacrifices, offerings, and others complement the aspects of ritual character in the Cucuteni culture area. In addition to the founding and abandonment rituals, other rituals involves celebrating certain periodic events or deities whose goodwill had a positive impact on the community's well-being³⁴.

In the Cucuteni culture one such category refers to foundation rituals, renovation or even the abandonment rituals of dwellings, or hearths within these structures. The first scenario discussed refers to the placement of items such as anthropomorphic or zoomorphic figurines, vessels, altars, stone or flint tools, animal bones, etc., as part of such rituals. These deposits were identified in more or less complex formulas, either simple deposits or in pits, under the platform of the dwellings or inside the floors, or in the structure of the hearths. The place and meaning of these objects are also important³⁵.

Such situations are documented at Drăgușeni-Ostrov³⁶, Preutești-Cetate³⁷, Dumești-Între Pâraie³⁸, Traian-Dealul Fântânilor³⁹, Vorniceni-Pod Ibăneasa⁴⁰, Ghelăiești-Nedeia⁴¹, Poduri-Dealul Ghindaru⁴², Fetești-La Schit⁴³, Cucuteni-Cetățuia⁴⁴.

At Dâmbul Morii, deposits of objects related to foundation rituals were observed within dwelling no. 2. Thus, under the platform, we have documented situations in which deposited vessels were discovered. In the initial investigation, a vessel that was preserved *in situ* with its mouth down was found on the southern side, in the southeast corner, shielding a bovine bone from the wrist (Figure 4, a). Based on similar discoveries, researchers argue that we can identify a ritual involving offerings or the consumption of meat in particular magical-religious manifestations. This hypothesis is further corroborated by the presence of many bone fragments from domesticated animals and mature deer antlers, which were sourced from hunting, all found on the same side⁴⁵.

Such deposits are also documented near the central hearth. To the east, at an equal distance between the central hearth and the one with holes, a broken vessel was discovered, which in the opinion of the excavation author, was probably buried ritually under the platform (Figure 4/b), in a possible pit⁴⁶, on which we will return to later. Another deposition is attested

³³ LAZAROVICI 2009, 224.

³⁴ LAZAROVICI 2009, 223.

³⁵ LAZAROVICI, LAZAROVICI 2007, 172; SZTÁNCSEJ 2015, 250.

³⁶ MARINESCU-BÎLCU, BOLOMEY 2000, 25, 32-35, 37-38; LAZAROVICI 2009, 226.

³⁷ URSULESCU, IGNĂTESCU 2003, 29; LAZAROVICI 2009, 225.

³⁸ ALAIBA 2007, 23; LAZAROVICI 2009, 225.

³⁹ BEM 2007, 132-150; LAZAROVICI 2009, 227-228.

⁴⁰ DIACONESCU 2012, 17-18; LAZAROVICI 2009, 226.

⁴¹ NIȚU *et alii* 1971, 59; CUCOȘ 1999, 48; LAZAROVICI 2009, 227-228.

⁴² MONAH *et alii* 2003, 37-40, 99; LAZAROVICI 2009, 227; LAZAROVICI, LAZAROVICI 2007, 173.

⁴³ BOGHIAN, IGNĂTESCU 2009, 1-20; BOGHIAN *et alii* 2004, 229; BOGHIAN *et alii* 2005, 335, 337, 341, fig. 7/3, 10.

⁴⁴ PETRESCU-DÎMBOVIȚA, VĂLEANU 2004, 78-79, 83; LAZAROVICI 2009, 228.

⁴⁵ BALAUR 2023b, 47; DIACONESCU 2012, 15.

⁴⁶ Băiceni-Dâmbul Morii – Nootebook no. 1, The 1962 Excavation Campaign.

in the western edge of the central hearth, under the platform of the dwelling. It appears that a complete Cucuteni C-type vessel has been laid down here, and it would have broken after the hearth collapsed (Figure 4/c). Remnants of the same vessel were also discovered among the external rubble of the same hearth. A little further west of the central hearth, in an area with remnants of a possible fourth hearth, the rest of another vessel were discovered beneath; according to the excavation author, it appears that this vessel was also intentionally deposited⁴⁷.

At the end of the 1962 campaign, the authors of the research raised the issue of the existence of a possible ritual pit, as I mentioned above. On the northern side of the dwelling, to the east of the central hearth, a shallow pit was identified (unfortunately, it was not included on the plan). Under the platform, a partially burned vessel was discovered to the point of slag formation, which seems to have been ritually buried under a layer of ash (Figure 4/b). It is also important that in the immediate vicinity there was a hearth with perforations (one central, four aligned with the cardinal points). We should mention that in the same area, after the removal of the second platform, a pit with ceramic materials belonging to the Cucuteni A₃ phase was also discovered⁴⁸.

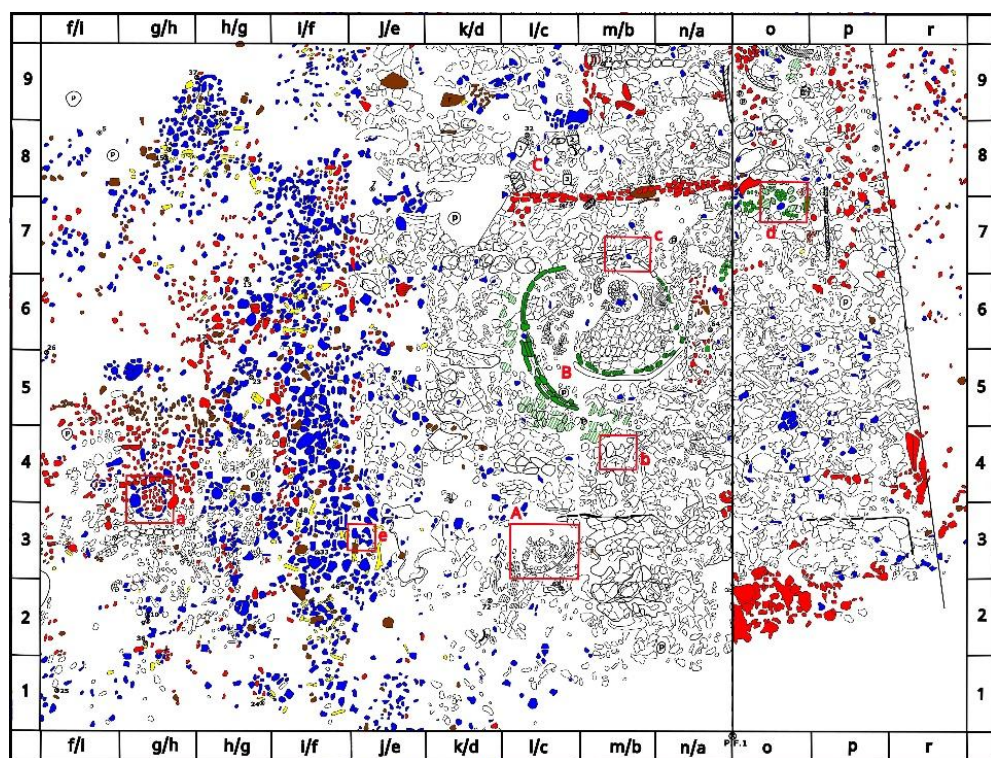


Figure 4. Detail from dwelling no. 2 plan, with the layout of the cult complexes:
a-e) deposits of objects or vessels; A-C) constructions of a cult character
(adapted after the plans from the manuscript *Băiceni-Dâmbul Morii* – Nootbook no. 1,
The 1962 Excavation Campaign).

⁴⁷ Băiceni-Dâmbul Morii – Nootbook no. 1, The 1962 Excavation Campaign.

⁴⁸ Băiceni-Dâmbul Morii – Nootbook no. 1, The 1962 Excavation Campaign.

Cult facilities

The discovery of cult facilities, which may have been used in specific ceremonies or rituals, is also noteworthy at *Dâmbul Morii*. On the northern side of this dwelling, there was a hearth that was preserved in fragments and had a raised kerb, rounded corners, and an opening to the west (Figures 4/A and 5/a-c). This hearth is distinct from the others discovered at *Dâmbul Morii* because it features four holes ("indents") on its surface. Three of these holes are arranged in a straight line oriented north-south, while the fourth hole is located to the east and forms a diagonal line with the central one (Figure 5/a-c). If we follow the principle of symmetry, we should not exclude the possibility that this hearth had five indents, arranged somewhat rhomboidally, four at the corners and one in the middle. In this area, the author of the excavations speaks of the existence of two rows of platform that appear to form a corridor leading from the dwelling to the hearth⁴⁹ (Figure 4; 5/a). We were unable to provide any additional information about this situation, but we do not rule out the possibility that it could be a case of systematic platform reconstruction.

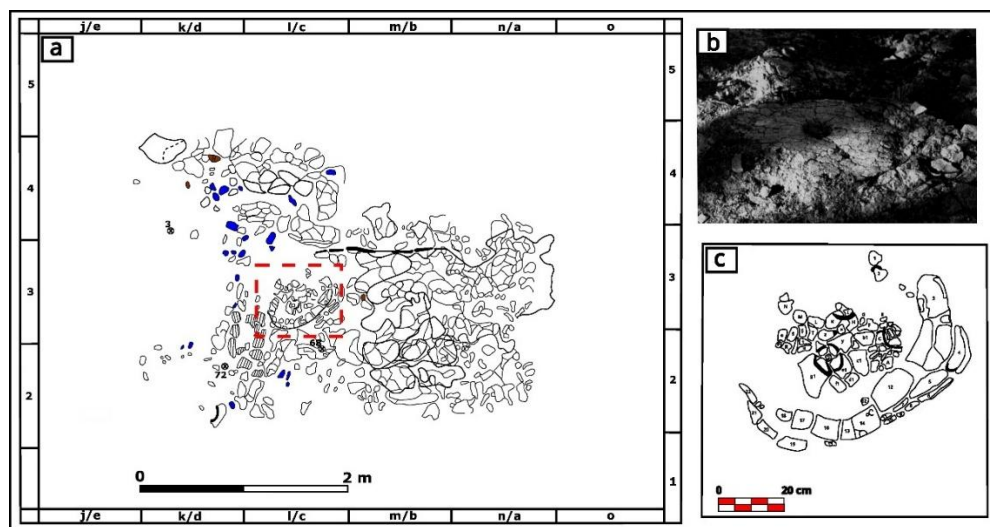


Figure 5. Hearth with perforations from dwelling no. 2. a) detail from the excavation plan; b) photo of the hearth (after Petrescu-Dîmbovița 1966, fig. 32); c) plan of the hearth.

The large central hearth also attracts attention, with clear traces of restorations and enlargements. Initially, the hearth was restored on the same surface, after which it was enlarged (Figure 4/B). Two rows of strongly burned sandy plastering were observed, one of which is older, reddish, and has larger mosaic cracks, which were restored. Later, the hearth was enlarged, suggested by the upper level of yellowish clay, with very small mosaic cracks. It looks like the original hearth appears to have had a kerb, built on a row of clay, which it was not known whether were part of the platform. At the time of the expansion, this kerb was covered. This chime has four rows of clay plaster⁵⁰. As mentioned earlier, this fireplace is connected to

⁴⁹ BALAUR 2023b, 48; Băiceni-Dâmbul Morii – Nootebook no. 1, The 1962 Excavation Campaign.

⁵⁰ Băiceni-Dâmbul Morii – Nootebook no. 1, The 1962 Excavation Campaign.

two deposits (Figure 4/b-c) located to the east and west, which are considered ritual. A similar situation is documented for dwelling no. 2 at Poduri, where hearth no. 2 displays complete vessels or fragments of vessels that can be restored, all within the immediate vicinity and showing three levels of restoration⁵¹.

From the same dwelling also come two parallelepipedal structures (Figure 4/C; 6), made of clay mixed with chaff, with approximately equal dimensions at the base, about 14.5 x 14 cm, considered by the author of the excavations to be altars⁵². It's possible that these are among the five pieces marked on the excavation plan (pieces 2 and 3 in the group marked 1-5) close to the central hearth.



Figure 6. Parts of some cult structures (photos by the author).

Cult objects

Artifacts connected to cult practices were also found during the excavations at *Dâmbul Morii*. The first category of objects under discussion refers to **cult tables**. Presented in the specialized literature under various terms, such as 'altars', 'miniature altars', 'cult tables', 'offering platforms' or 'altar-tables', the role and functionality of these objects are widely discussed. The most discussed assumptions are related to their use for lighting, ritual lighting, for storing fire, for use during rituals for burning offerings at different events or celebrations, during ceremonies, or for protection against natural disasters or disease, for illuminating a space, etc.⁵³. The association of terms such as 'cult' and 'spiritual' in discussions suggests a religious function; however, their presence in normal dwellings suggests a domestic use, or they are seen as miniaturized replicas of real religious structures, used to create a cult space within the domestic sphere⁵⁴. Usually, they consist of a quality paste that has been fired to brick-red or brick-brown, or coarse, and contains various inclusions. Rarely, it features a central circular opening, which has an outwardly turned lip. The most likely role of this opening was to support a miniature vessel, as shown by analogies within the Criș or Vinča cultures⁵⁵.

⁵¹ KOVÁCS 2016, 250; PREOTEASA 2013, 102-103.

⁵² BALAUR 2023b, 48.

⁵³ MIREA 2011, 42; MAXIM 2000, 121-122.

⁵⁴ MIREA 2011, 42; SCHWARZBERG 2003, 79, 128; CHAPMAN 2000, 82.

⁵⁵ BALAUR 2023b, 49; BOGHIAN 2004, 157; LAZAROVICI, LAZAROVICI 2012, 337; COMȘA 1980, 34-36.

From dwelling no. 2, a complete cult table (Figure 7/a) was discovered under the platform, along with fragments of two others (Figure 7/b-c). These fragments include only partially preserved legs and parts of the top. The precise context of their discovery is not specified. The first table, broken in two and later restored, appears to be made of a paste mixed with fine sand, well-smoothed, and modeled in two parts (table and goblet). In the center, the table features a perforation. The rectangular table had slightly arched sides and four cylindrical legs connected through small, slightly asymmetrical triangles. The upper part (goblet), missing in this case, probably had a truncated vessel. The surfaces are well smoothened (they show traces of painting), oxidant burning, with a brick-red-yellowish colour. A similar piece was discovered in the inventory of dwelling no. 16 from Păuleni Ciuc-Ciomortan/Vârdomb-Dâmbul Cetății⁵⁶ (Figure 7/e). The second table, which has only one leg and a small portion of its top, appears to have been made in a similar manner (Figure 7/b). Compared to the previous pieces, the third table, also fragmentary (Figure 7/c), had triangular-shaped legs joined at right angles at the corners. We are unable to determine the precise context of discovery for these last two pieces, but we do know they came from dwelling no. 2.



Figure 7. Cult tables: a-d) Cucuteni-Dâmbul Morii; e) Păuleni Ciuc-Ciomortan/Vârdomb-Dâmbul Cetății (without scale, after Buzea, Lazarovici 2005, Pl. XX/4).

⁵⁶SZTÁNCsUJ 2015, 250; BUZEA, LAZAROVICI 2005, 43, Pl. XX/4; BUZEA 2006, 135, Pl. VIII/1; Plate IX/1.

The most widely recognized category of artifacts that are associated with spirituality is anthropomorphic art. Although we have recorded some figurines from this dwelling, they were discovered in a fragmentary state, from unclear contexts. Among the small pieces from archaeological discoveries that suggest a certain role in cult practices, **conical idols** have also been indicated. While some researchers consider them stylized cult pieces that represent masculinity, others have included them directly among the so-called phallic and phalloid representations. Other hypotheses suggest that these small artifacts may represent game pieces, chips, accounting instruments, tattoo stamps, etc.⁵⁷.

Only one such piece comes from dwelling no. 2 at *Dâmbul Morii*. It was modeled from a light brown paste, about 2.1 cm high, a circular base with a diameter of about 1.3 cm. Its upper part is rendered as a conical column and features small punctures⁵⁸. This idol was found in the same location as the cult table discussed earlier (Figure 4/e). It's possible that they were deposited together.

Discussions

Within the chalcolithic communities, magico-religious practices are defined by well-individualized complexes. The complexity of spiritual structures can be expressed through their manifestations, whether they appear in simple or sophisticated forms. The deliberate placement of various objects at the foundation of a building, whether domestic or communal, was intended to gain the goodwill of the absolute divinity, for protection against natural or anthropogenic calamities⁵⁹.

From those discussed above, it is evident that the spiritual practices of the Cucuteni A-B community at *Dâmbul Morii* are well-documented through a diverse array of artifacts, such as figurines, cult tables, conical idols, and more, along with various cult complexes and evidence of rituals observed within both dwellings and the settlement itself. We chose to discuss dwelling no. 2 for various reasons, its central position within a group of dwellings in the southwestern part of the promontory and the number of complexes or objects associated with different cult practices.

Within this dwelling space, we can clearly identify rituals associated with the foundational practices of both the household and the hearth, alongside the existence of cult complexes equipped with related paraphernalia such as altars, hearth-altars, and cult tables. Furthermore, the repeated restorations of the hearth, involving multiple layers of plastering, along with the two pottery deposits associated with the central hearth, indicate that this dwelling has been continuously occupied for an extended period. This suggests that the hearth was intentionally placed in a location that was sought after and maintained over time, serving as a "family center". Additionally, their sacralization, which links to the consecration of the entire space they heat, explains the deposits below the hearth⁶⁰. The association of terms like 'cult' and 'spiritual' in discussions about ceramic tables suggests that their presence in ordinary homes indicates a domestic use, or they may be viewed as miniaturized replicas of actual religious structures designed to create a cult space within the household⁶¹. Additionally, it is noteworthy

⁵⁷ BALAUR 2023b, 50; BOGHIAN 2004, 158.

⁵⁸ BALAUR 2023b, 51.

⁵⁹ DIACONESCU 2012, 21; LAZAROVICI, LAZAROVICI 2006a, 192; KOVÁCS 2016, 198.

⁶⁰ KOVÁCS 2016, 333; URSULESCU *et alii* 2002, 36; PREOTEASA 2013, 105.

⁶¹ MIREA 2011, 42; SCHWARZBERG 2003, 79.

that the entire cult table, along with the conical idol, was found placed beneath the platform close to the hearth, aligned in a straight line with it.

In conclusion, the archaeological evidence from *Dâmbul Morii* allows us to go beyond the label of a 'possible' sanctuary. Dwelling no. 2 represents a paradigmatic example of a domestic sanctuary, where the boundaries between the utilitarian and the sacred were fluid. Unlike communal temples, which served the broader group, this structure reflects the micro-ritualism of the family unit. The deliberate foundation deposits, the ritualized maintenance of the central hearth through successive plastering, and the presence of specific paraphernalia (cult tables, conical idols) confirm that the inhabitants actively managed their spiritual protection. Thus, Dwelling no. 2 was not merely a shelter, but a spiritually charged space, maintained through a continuous cycle of rituals spanning from its foundation to its abandonment. The family leader is responsible for administering domestic religious activities that aim to achieve fertility and prosperity, which are two important elements for survival⁶².

References

- ALAIBA, R.E. 2007. *Complexul cultural Cucuteni-Tripolie. Meșteșugul olăritului*, Iași: Junimea.
- ASĂNDULESEI, A. 2015. *GIS (Geographic Information System), Fotogrametrie și geofizică în arheologie. Investigații non-invasive în așezări Cucuteni din România*, Iași: Editura Universității „Al. I. Cuza” din Iași.
- ASĂNDULESEI, A., COTIUGĂ, V., BALAUR R.Ș., TENCARIU, F.A. 2020. Revisiting “the settlement in the valley”. New insights from Cucuteni-Dâmbul Morii, Iași County. In: A., Melniciuc, B. P., Niculică, S., Ignătescu, S.C., Enea (eds.), *Eternitatea arheologiei. Studii în onoarea profesorului Dumitru Boghian la a 65-a aniversare*, Cluj Napoca: Mega, 319-331.
- BALAUR, R.Ș. 2020. The Cucuteni A-B Settlement of Băiceni-Dâmbul Morii. History of Research. *Studia Antiqua et Archaeologica*, XXVI/2: 169-183.
- BALAUR, R.Ș. 2023a. Noi date despre cercetările din așezarea Cucuteni A-B de la Dâmbul Morii. Campaniile de săpături din 1977 și 1978. *Carpica*, LII: 61-81.
- BALAUR, R.Ș. 2023b. Așezarea Cucuteni A-B de la Dâmbul Morii. Practici rituale, complexe și obiecte de cult. *Cercetări Istorice (S.N.)*, XLII: 45-60.
- BALAUR, R.Ș. 2024. *Așezarea cucuteniană de la Cucuteni-Dîmbul Morii*, Teza de doctorat, Academia Română, Școala de Studii Avansate a Academiei Române Institutul de Arheologie, Iași.
- BEM, C. 2007. *Traian-Dealul Fântânilor. Fenomenul Cucuteni A-B*, București-Târgoviște: Cetatea de Scaun.
- BOGHIAN, D. 2004. *Comunitățile cucuteniene din Bazinul Bahluiului*, Suceava: Editura Bucovina Istorică - Editura Universității „Ștefan Cel Mare” Suceava.
- BOGHIAN, D., IGNĂTESCU, S. 2009. Rites and rituals of founding the Cucuteni dwellings and domestic installations in Fetești-La Schit site (Adâncata commune, Suceava county). In: G. Bodi (ed.), *In media res praeistoriae. Miscellanea in honorem annos LXV peragentis Professoris Dan Monah oblata*, Iași: Editura Universității „Alexandru Ioan Cuza” din Iasi, 1-20.
- BOGHIAN, D., IGNĂTESCU, S., MAREȘ, I., NICULICĂ, B. 2004. O locuință Cucuteni B de la Fetești-La Schit, jud. Suceava. *Memoria Antiquitatis*, XXIII: 223-239.

⁶² KOVÁCS 2016, 19.

BOGHIAN, D., IGNĂTESCU, S., MAREȘ, I., NICULICĂ, B. 2005. Les découvertes de Fetești–La Schit parmi les stations cucuteniennes du nord de la Moldavie. In: Gh. Dumitroaia, J. Chapman, O. Weller, C. Preoteasa, R. Munteanu, D. Nicola, D. Monah (eds.), *Cucuteni. 120 ans de recherches. Le temps du bilan / Cucuteni. 120 Years of Research. Time to sum up*, Bibliotheca Memoriae Antiquitatis XVI, Piatra-Neamț: Editura „Constantin Matasă”, 333-352.

BOGHIAN, D., MIHAI, C. 1987. Le complexe de culte et le vase à décor ornithomorphe peint découverts à Buznea (dép. de Iasi). In: M. Petrescu-Dîmbovița (ed.), *La Civilisation de Cucuteni en contexte européen. Session scientifique dédiée au centenaire des premières découvertes de Cucuteni (Iași-Piatra Neamț, 24-28 septembre 1984)*, Bibliotheca Archaeologica Iassensis I, Iași: Université „Al. I. Cuza”, 313-324.

BUZEA, D. 2006. Models of Altars and Miniature Tables belonging to the Cucuteni–Ariuşd Culture, discovered at Păuleni Ciuc-Ciomortan „Dâmbul Cetății”, Harghita County, *Acta Terrae Septemcastrensis*, V: 127-158.

BUZEA, D.L., LAZAROVICI, Gh. 2005. Descoperirile Cucuteni-Ariuşd de la Păuleni Ciuc-Ciomortan „Dâmbul Cetății”. Campaniile 2003-2005. Raport preliminar. *Angustia, Arheologie-Etnografie*, 9: 25-88.

CHAPMAN, J. 2000. *Fragmentation in archaeology: peoples, places and broken objects in the prehistory of south-eastern Europe*. London: Routledge.

COMȘA, E. 1980. Despre obiecte de mobilier din epoca neolitică de pe teritoriul României. *Pontica*, XIII: 32-56.

CUCOȘ, Ș. 1973. Un complex ritual cucutenian descoperit la Ghelăiești (județul Neamț). *Studii și Cercetări de Istorie Veche*, 24(2): 207-215.

CUCOȘ, Ș. 1993. Complexe rituale cucuteniene de la Ghelăiești, județul Neamț. *Studii și Cercetări de Istorie Veche și Arheologie*, 44(1): 59-80.

CUCOȘ, Ș. 1999. *Faza Cucuteni B în zona subcarpatică a Moldovei*, Bibliotheca Memoriae Antiquitatis VI, Piatra Neamț: Editura „Constantin Matasă”.

DIACONESCU, M. 2012. Aspecte ale unei practici magico-religioase în așezarea cucuteniană de la Vorniceni, Pod Ibăneasa, jud. Botoșani. *Acta Moldaviae Septentrionalis, Secțiunea 1: Istorie veche și arheologie*, XI: 14-25.

DINU, M. 2006. Principalele rezultate ale cercetărilor de la Băiceni-Dâmbul Morii, com. Cucuteni (1961-1966). In: N. Ursulescu, C.-M. Lazarovici (eds.), *Cucuteni 120-Valori universale. Lucrările simpozionului național, Iași, 30 Septembrie 2004*, Iași: Sedcom Libris, 31-56.

DINU, M. 2009. *Cucuteni – Dâmbul Morii*. In: C.-M. Lazarovici, Gh. Lazarovici, S. Țurcanu (eds.), *Cucuteni: a great civilization of the prehistoric world*, Iași: Editura Palatul Culturii, 106-108.

KOVÁCS, A. 2016. *Temple, sanctuare, altare în Neoliticul și Epoca Cuprului din sud-estul Europei*, Suceava: Editura Karl A. Romstorfer.

LAZAROVICI, C.-M. 2009. Ritualuri de fundare, ritualuri de abandonare din cultura Cucuteni. In: G. Bodi (ed.), *In media res praeistoriae. Miscellanea in honorem annos LXV peragentis Professoris Dan Monah oblata*, Iași: Editura Universității „Alexandru Ioan Cuza” din Iași, 223-238.

LAZAROVICI, C.-M., LAZAROVICI, Gh. 2006a. *Arhitectura neoliticului și epocii cuprului din România. Vol. I – Neoliticul*, Iași: Editura Trinitas.

LAZAROVICI, C.-M., LAZAROVICI, Gh. 2007. *Arhitectura neoliticului și epocii cuprului din România. Vol. II – Epoca Cuprului*, Iași: Editura Trinitas.

- LAZAROVICI, C.-M., LAZAROVICI, Gh. 2012. *Ruginoasa-Dealul Drăghici. Monografie arheologică*, Suceava: Editura Karl A. Romstorfer.
- LAZAROVICI, C.-M., LAZAROVICI, Gh., ȚURCANU, S. 2009. *Cucuteni. A Great Civilisation of the Prehistoric World*, Iași: Editura Palatul Culturii.
- LAZAROVICI, Gh., LAZAROVICI, C.-M. 2006b. Despre construcții neo-eneolitice de cult din sud-estul Europei: tehnici de construire, organizare spațială, scurte interpretări. Partea I-a. In: N. Ursulescu (ed.), *Dimensiunea europeană a civilizației eneolitice est carpatice*, Iași: Editura Universității „Alexandru Ioan Cuza” din Iași, 65-104.
- LAZAROVICI, Gh., LAZAROVICI, C.-M. 2008. Sanctuarele culturii Precucuteni-Cucuteni. *Angustia*, XII: 9-40.
- LAZAROVICI, Gh., LAZAROVICI, C.-M., MISCHKA, D., MISCHKA, C., ȚURCANU, S., OANCĂ, M., KOVACS, A., HONCU, Ș., BERZOVAN, A. 2019. Un sanctuar casnic sau comunitar la Scânteia. Studiu de etnoreligie, etnoarheologie, arheologie. *Acta Musei Tutovens. Istorie Veche și Arheologie*, XV: 35-76.
- MANTU, C.M., ȚURCANU, S. 1999. *Scânteia. Cercetare arheologică și restaurare*, Iași: Helios.
- MANTU LAZAROVICI, C.-M., 2002. Sanctuarele Precucuteni-Cucuteni. *Arheologia Moldovei*, XXV: 47-67.
- MARINESCU-BÎLCU, S. 1981. *Tîrpești. From Prehistory to History in Eastern Romania*, British Archaeological Reports, International Series 107, Oxford: Archaeopress.
- MARINESCU-BÎLCU, S., BOLOMEY, A. 2000. *Drăgușeni. A Cucutenian Community*, București: Editura Enciclopedică.
- MAXIM, Z. 2000. Altars from the Starčevo-Criș and Vinča cultures. *Studia Antiqua et Archaeologica*, VII: 121-130.
- MIHAI, C., BOGHIAN, D. 1977-1979. Complexul cucutenian de cult descoperit la Buznea (orașul Târgu Frumos), județul Iași. *Memoria Antiquitatis*, IX-XI: 429-452.
- MIREA, P. 2011. Between Everyday and Ritual Use-‘Small Altars’ or ‘Cult Tables’ from Măgura ‘Buduiasca’. *Buletinul Muzeului Județean Teleorman. Seria Arheologie*, 3: 41-57.
- MONAH, D. 1978. Datarea prin C¹⁴ a etapei Cucuteni A₂. *Studii și Cercetări de Istorie Veche și Arheologie*, 29(1): 33-41.
- MONAH, D. 1991. Influences on traditions Vinča dans la plastique anthropomorphe de Cucuteni – Tripolie. *Banatica*, 11: 297-304.
- MONAH, D. 1997. *Plastica antropomorfă a culturii Cucuteni-Tripolie*, Bibliotheca Memoriae Antiquitatis III, Piatra Neamț: Editura „Constantin Matasă”.
- MONAH, D., CUCOȘ, Ș., POPOVICI, D., ANTONESCU, S., DUMITROAIA, Gh. 1983. Cercetările arheologice de la Poduri-Dealul Ghindaru. *Cercetări Arheologice*, VI: 3-22.
- MONAH, D., DUMITROAIA, Gh., MONAH, F., PREOTEASA, C., MUNTEANU, R., NICOLA, C.D. 2003. *Poduri-Dealul Ghindaru. O troie în Subcarpații Moldovei*, Piatra-Neamț: Editura „Constantin Matasă”.
- NICU, I.C. 2013. *Analiza riscurilor geomorfologice care afectează siturile arheologice eneolitice din bazinul hidrografic Valea Oii (Bahlui). Studiu de caz. Teză de Doctorat*, Universitatea Alexandru Ioan Cuza din Iași.
- NIȚU, A., CUCOȘ, Ș., MONAH, D. 1971. Ghelăiești (Piatra Neamț) I. Săpăturile din 1969 în așezarea cucuteniană „Nedeia”. *Memoriae Antiquitatis*, III: 11-64.
- PETRESCU-DÎMBOVIȚA, M. 1966. *Cucuteni*, București: Editura Meridiane.
- PETRESCU-DÎMBOVIȚA, M., FLORESCU, M., FLORESCU, A.C. 1999. *Trușești, monografie arheologică*, București-Iași: Editura Academiei Române.

PETRESCU-DÎMBOVIȚA, M., VĂLEANU, M.C. 2004. *Cucuteni-Cetățuie. Monografie arheologică*. Bibliotheca Memoriae Antiquitatis XIV, Piatra Neamț: Editura „Constantin Matasă”.

PREOTREASA, C. 2013. Rituri de fundare cucuteniene legate de sanctuarul cu etaj de la Poduri (județul Bacău). In: A. Stavilă, D. Micle, A. Cîntar, C. Floca, S. Forțiu (eds.), *ArheoVest, Nr. 1, In Memoriam Liviu Măruia. Interdisciplinaritate în Arheologie și Istorie*, Vol. I, Szeged: JATEPress Kiadó, 91-114.

SCHMIDT, H. 1932. *Cucuteni in der oberen Moldau, Rumänien. Die befestigte Siedlung mit bemalter Keramik von der Steinkupferzeit in bis die vollentwickelte Bronzezeit*, Berlin u. Leipzig: Verlag Walter de Gruyter.

SCHWARZBERG, H. 2003. On problem in identifying ritual pottery: the example of the so-called “cult tables”. In: L. Nikolova (ed.), *Early symbolic system for communication in southeast Europe*, British Archaeological Reports, International Series 1139, Oxford: Archaeopress, 79-84.

SOROCHIN, V., BORZIAC, I. 2001. Plastica antropomorfă a așezării cucuteniene Iablona I, jud. Bălți. *Memoria Antiquitatis*, XXII: 115-136.

SZTÁNCSUJ, S.J., 2015. *Grupul cultural Ariușd pe teritoriul Transilvaniei*, Cluj-Napoca: Mega.

TSVEK, E.V. 2001. Certain aspects of world view of the tribes of the East Tripolian culture. *Interacademica*, II-III: 24-38.

URSULESCU, N., BOGHIAN, D., COTIUGĂ, V., MERLAN, V. 2001-2002. Noi date privind complexele de cult din cultura Precucuteni. *Sargeția. Acta Musei Devensis*, XXX: 61-78.

URSULESCU, N., BOGHIAN, D., HAIMOVICI, S., COTIUGĂ, V., COROLIUC, A. 2002. Cercetări interdisciplinare în așezarea precucuteniană de la Tg. Frumos (jud. Iași). Aportul arheozoologiei. *Acta Terrae Septemcastrensis*, I: 29-54.

URSULESCU, N., IGNĂTESCU, S. 2003 *Preutești-Haltă. O așezare cucuteniană pe Valea Șomuzului Mare*, Iași: Casa Editorială Demiurg.

URSULESCU, N., TENCARIU, F.A. 2006. *Religie și magie la est de Carpați acum 7000 de ani. Tezaurul cu obiecte de cult de la Isaiia*, Iași: Casa Editorială Demiurg.

Manuscripts

Băiceni-Dâmbul Morii – Nootebook no. 1, The 1962 and 1963 Excavation Campaigns.



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A Microhistory of a Prehistoric Copper Artefact at the Foothills of the Eastern Carpathians

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Abstract. *In which mention is made of an earlier investigation conducted along the Nechit stream valley, in the commune of Borlești, Neamț County, a contemporary field survey, and the necessity of providing a coherent narrative. The research team developed a theoretical and methodological framework, formulated a set of objectives, and adopted a cumulative approach—evaluating sources, understanding the working area, descriptive elements, typology and functionality, and the comparative method. All of this serves to reconstruct the varied history of a Pickelhacke, the principal actor in the reconsideration of terminology and in the inquiries concerning the function of an artefact discovered at the foothills of the Eastern Carpathians.*

Rezumat. *În care se vorbește despre o cercetare mai veche pe valea pârâului Nechit, în comuna Borlești, județul Neamț, o investigație de teren actuală și despre necesitatea unei narațiuni. Echipa de cercetare a realizat un cadru teoretic și metodologic, a stabilit o serie de obiective și a adoptat o abordare cumulativă – evaluarea surselor, cunoașterea spațiului de lucru, descrierea elementelor, analiza tipologică și funcțională, precum și metoda comparativă. Toate acestea pentru a construi istoria diversă a unui Pickelhacke, actorul principal al recompunerii unei terminologii și al întrebărilor privind destinația unui artefact descoperit la poalele Carpaților răsăriteni.*

Keywords: Eastern Carpathians, Nechit watershed, Cucuteni settlement, Pickelhacke.

The history of Eneolithic research east of the Carpathians is known by a long and gradual evolution, characterised by the accumulation of significant certainties concerning the nature of the inhabited landscape and the communication networks employed by prehistoric communities. Over more than a century, this research has generated a substantial body of data on the archaeological materiality of the region, alongside bold attempts to decipher intangible aspects such as social structure and the spiritual practices of the period's inhabitants.

Despite the progress achieved over time, minor or incidental archaeological discoveries continue to play an essential role in refining and complementing both the quantitative and qualitative dimensions of the area's ancient history. Such contributions, at times seemingly modest, can nonetheless provide important clarifications or open new avenues of interpretation regarding the development of Eneolithic communities.

The present endeavour focuses on bringing to light an area that has been comparatively less explored from an archaeological perspective, namely the western extremity of the Cracău–Bistrița depression. Research has concentrated on an important connecting route that begins in the Nechit–Borlești saddle and leads towards the Tazlău River valley, Borlești commune, Neamț County (Fig. 1). This hydrographic basin serves as a link southward to the Tazlău–Cașin/Onești depression, as well as westward and northwestward towards the Trotuș River basin and, beyond it, to eastern Transylvania. Through this approach, the aim is not only to update the archaeological map of the area but also to integrate the newly acquired data into

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the broader context of communication networks and mobility patterns of Eneolithic populations in the eastern Carpathian region.

Research Objectives

The primary aim of this study is to enhance our understanding of the Cracău–Bistrița Depression from the perspective of prehistoric periods. This overarching goal reflects the need to integrate new data and interpretations in order to better comprehend the dynamics of habitation and communication within this region, located at the western fringe of the East Carpathian area.

From this central objective derives a secondary one, prompted by the chance discovery of a metal object during a surface survey. This circumstance necessitated a series of analytical steps, defined as the specific objectives of the research endeavour:

- **Presentation of the theoretical and methodological framework:** This involves outlining the foundations that facilitate an understanding of the object's history, its discovery location, and the prehistoric communication networks of the region.

- **Identification and definition of the sources used:** This step provides the basis for evaluating existing knowledge concerning local archaeological research, grounding the analysis in relevant works and resources.

- **Definition of the study area:** The thorough delineation of the geographical setting has enabled the identification of environmental and topographical features that would have favoured human settlement within this territory, thereby furnishing a comprehensive contextual framework essential for the informed interpretation of the archaeological findings.

- **Description of the artefact and typological and functional analysis:** These stages aim to enhance chronological precision by contextualising the artefact with regard to its morphological characteristics, functional attributes, and the cultural-historical period to which it can be securely assigned.

- **Multidisciplinary analysis:** By approaching the artefact from multiple perspectives, this objective aims to enrich and distinguish its physical, functional, and compositional characteristics.

- **Cumulative analysis:** This synthesis supports the reconstruction of the artefact's history, thereby enabling a more nuanced reconstruction of the life of Eneolithic communities “in the shadow of the mountains”, within the broader framework of supra-regional interactions.

The research objectives, as outlined in this study, reflect an integrated approach that seeks both to broaden knowledge of archaeologically underexplored areas and to deepen the analysis of chance discoveries made in the field. Emphasis is placed on correlating archaeological information with prehistoric communication networks, thereby providing a broader interpretive framework for understanding the mobility and interactions of Eneolithic communities in the East Carpathian region.

By addressing these objectives, the study aims to contribute significantly to our understanding of how archaeological discoveries, even fortuitous ones, can enrich and refine the narrative of prehistoric life in the western sector of the Cracău–Bistrița Depression.

Methodology

The theoretical approach to a singular discovery, such as the one examined in this study, falls within the cultural-historical paradigm. The primary aim of this perspective is to construct an understanding of the artefact as a representative element of a specific Eneolithic community, based on the material and contextual characteristics of the piece.

The methodological framework is grounded in the integration of data concerning both the local and regional context. Relevant information about the landscape in which the object was found is therefore considered, alongside descriptive data that enable its individualisation in relation to the discovery site. Technological details, together with established typological and functional interpretations, are essential for the proper classification of the artefact.

From an analytical standpoint, the investigation involves a sequence of complementary methods: macroscopic analysis, microscopic examination, and chemical analysis. Each of these stages contributes to the scientific rigour of the study, supporting the conclusions and reinforcing the narrative constructed around the discovery.

The presence of copper artefacts of this category is recorded in relatively small numbers east of the Carpathians³, most discoveries being serendipitous. This situation highlights the particularity of the region, where such objects are not frequently encountered and their recovery often depends on chance rather than on systematic archaeological investigations.

The publication of archaeological objects discovered accidentally offers several significant benefits for the advancement of research in this field. On the one hand, it contributes substantially to clarifying the morphology and functionality of the artefacts, thereby enabling a deeper understanding of the typology of copper items recovered in the region. On the other hand, publishing such artefacts enriches the archaeological database for the area under study, providing additional reference points for the interpretation, contextualisation, and integration of these finds within the broader framework of Eneolithic communities east of the Carpathians.

The study commenced with a critical appraisal of the current body of published archaeological discoveries. For this purpose, both synthesis works and primary sources addressing individual artefacts were consulted. The progressive approach initially involved the examination of available archaeological data for the Cracău-Bistriţa Depression, subsequently extending the investigation to neighbouring areas, both at the national level and within Central and Southeastern Europe. The results of these efforts were synthesised through the creation of a map illustrating the spatial distribution of the discoveries.

The presentation of the discovery context aims to situate the object within an already investigated archaeological framework. Although the artefact was discovered by chance, during a field survey, efforts were made to establish a possible direct connection between the artefact and its findspot, as well as to associate it with other Eneolithic artefact remains reported in the area. Thus, the object was analysed from both spatial and temporal perspectives in order to achieve the most precise contextualisation possible.

For the description of the artefact, terminology and criteria established in the literature were employed, including the *Prähistorische Bronzefunde* series, considering the most recent typological classifications and subdivisions. Based on existing typological analyses, the research process involved refining the characteristics of the artefact and details regarding its use, with the objective of integrating the piece into established typological classifications and the relative chronology of the period.

Sources and digital resources consulted

To facilitate dialogue and to enhance the readability of the working area, various cartographic sources were employed, including Google Earth and *Moldawischen Districten* (1788–

³ MONAH 1969, 299–300.

1790) – First Military Survey⁴. In addition, the QGIS application was used for the visualisation and analysis of spatial data, alongside aerial photographs capturing different categories of current topographic markers. These resources proved useful for accurately situating the discovery and for correlating it with similar finds. Such tools also aid in linking the narrative elements that remain otherwise unresolved. These data were complemented by a summary presentation of an archaeological investigation conducted at the findspot, concise information regarding the archaeological material, and our observations concerning the discovered artefact.

The Nechit River basin, a tributary of the Bistrița River, provided favourable conditions for settlement in ancient periods (water sources, woodland, and accessible terrain with moderate slopes), as evidenced by the evaluation of the relevant literature⁵ and our own field observations (Fig. 2).

The archaeological site at *Capul Dealului/La Verdeș*⁶ was identified and preliminarily investigated by Ștefan Cucoș⁷. In 1976 an intrusive archaeological investigation was conducted, consisting of the excavation of a 20×2 m trench and a 4.75×2 m test pit, both orientated transversely to the settlement⁸. Following these preliminary investigations, the remains of a dwelling constructed directly on the ground were uncovered (Fig. 3). The archaeological research revealed the existence of a single occupation level, attributed to the Cucuteni B1 phase, featuring pottery of the ε style and possibly ρ, as well as “isolated” ceramic fragments assigned to the Cucuteni A phase⁹. Additionally, on the high terrace of *Dealul Mare*, to the south, fragments of Dacian pottery were also identified¹⁰.

From the field survey, we were able to identify materials that can be attributed to the aforementioned Eneolithic culture (Fig. 3). The archaeological material present on the surface is sporadic and fragmentary, having been displaced by agricultural machinery. Most of the recovered objects consist of ceramic fragments and daub remains; however, in smaller quantities, a few stone tools were also identified, including a grinder.

Study area

This discovery brings renewed attention to an area already acknowledged in the archaeological literature¹¹, albeit addressed only tangentially. Geographically, the analysed area is located in the western part of the Cracău-Bistrița Depression, within the central sector of the Nechit River (Fig. 4). Significant areas for the Eneolithic period are typically identified on the high terrace of watercourses. In the classification proposed by Gh. Lupașcu, these surfaces fall

⁴ <https://maps.arcanum.com/en/map/firstsurvey-moldva/?layers=148&bbox=2984493.616265169%2C5923861.129775487%2C3016277.808467614%2C5937289.335008303>

⁵ MATASĂ 1938, 115-116, 125-127; CUCOȘ 1992, 13-14.

⁶ These toponyms are not known to the local inhabitants. This information was verified on 15 November 2025 through interviews with the C.N. and C.E. family from Borlești, who own agricultural property on Dealul Mare and reported that, since the land has been in their possession “from grandmother, from mother, and now us,” it has been referred to as Dealul Mare. This information was further confirmed on 9 December 2025 by the Department of Urbanism, Territorial Planning and Environmental Protection, Heritage Administration of Borlești Commune, Neamț County. Consequently, the toponym *Dealul Mare*, which is recognised by the inhabitants of Borlești Commune, has been adopted for use in this study.

⁷ CUCOȘ 1992, no. 10.1.b, 13.

⁸ DUMITROAIA 1981, 341-342.

⁹ CUCOȘ 1999, 28, 176.

¹⁰ CUCOȘ 1999, 28, 176.

¹¹ MATASĂ 1938; VULPE 1964, 129-130; CUCOȘ 1969, 417; FLORESCU 1970; CUCOȘ 1999, 28, 176; MUNTEANU 2010, 42-43, 45; POPESCU 2024.

within the category of 35–40 m terraces. Formed during the Upper Pleistocene, these terraces cover extensive areas and are characteristic of the fluvial relief specific to the Bistriţa Valley¹². Referring to the pedology of the area, the terraces are predominantly covered by brown argilluviated soils and brown luvisols, underlain by a gravel horizon¹³.

The microzone investigated on *Dealul Mare* extends across the high terrace on the right bank of the Nechit River, at an elevation of approximately 360 m (Fig. 5/left). To the south and east, the high terrace is bounded by the Podului stream, which has acted as the main agent of erosion on the upper terrace, a process particularly evident on the eastern side. The total area of this terrace is approximately 50 ha, taking the shape of a peninsula that separates from the rest of the right terrace, with a point of connection, a 200 m-wide neck, located in the western part (Fig. 5/left).

The average slope of the terrace is approximately 0.3% along the N–S axis (approximately 200 m), with an elevation decrease of 0.33 m, and 10.4% along the W–E axis (approximately 300 m), with an elevation decrease of 6.7 m (Fig. 5/a–c). To the north and northwest, the terrace is crossed by the county road DJ 156A. At present, the land is predominantly used for agriculture. The terrace edge is covered by tall spontaneous vegetation and black locust woodland.

The archaeological site is located at the northeastern end of the terrace, on a spur known as *Dealul Mare*, in the area where the Podului stream converges with the Nechit River. This location, 340 m above sea level, offers good micro-regional visibility and natural protection, owing to the steep slopes and the natural enclosure of the area.

The area of this terrace ridge is approximately 0.35 ha, orientated along the ENE–WSW axis. The site is bounded on three sides by steep slopes, with an average gradient of 30–35% to the north and east and an elevation difference of 20 m relative to the lower terrace. These steep slopes constituted a natural barrier, providing the site with both protection against easy access from the outside and the advantage of extended visibility to the west, north, and east, which could have facilitated surveillance of the area and defence against potential threats. The only access to this zone is along the southwestern side of the terrace, emphasising the secluded and strategic character of the site, limiting entry and exit points and thereby enhancing control over the occupied space. An analysis of these topographic elements reveals not only the insularity of the terrace and settlement but also their strategic significance for observation and oversight of movements across the Bistriţa and Tazlău basins.

Furthermore, the positioning of the site between two major river basins, the Bistriţa and the Tazlău, may have contributed to its historical role as a link or control point for access routes between the riparian areas, facilitating both exchanges and the monitoring of movements within the region. The terrace could have served not only as a habitation area but also as a strategic point of the area, factors that help explain the preference for such locations in prehistoric times, when security and visibility were essential for local communities. Thus, the geographical characteristics of the site are directly reflected in its utilisation and its significance for past inhabitants.

Discovery context

The analysed object is a copper artefact belonging to the Eneolithic period, identified by chance during non-intrusive field investigations conducted in the Tazlău–Borleşti area. The primary aim of these investigations was the systematic positioning and recording of prehistoric sites previously reported in the literature.

¹² LUPAŞCU 1996, 34.

¹³ LUPAŞCU 1996, 35.

Field research undertaken in the Cracău-Bistrița Depression is part of a wider initiative aimed at a comprehensive scientific analysis of the area. This methodology sought to identify archaeological materials relevant to the Eneolithic culture, as well as to delineate areas with high archaeological potential, thereby contributing to a deeper understanding of the presence and development of prehistoric communities in the region.

Within Borleşti Commune, several prehistoric archaeological sites have been documented, including *La Stânci*, *Gropile Cățânului*, *Mastacăn*, *Dealul Cucului*, *Dealul Mare*, and *Ursești*¹⁴. To enhance knowledge of these archaeological objectives, our efforts focused on providing precise topographic data regarding the location and dimensions of the sites, producing accurate photographic documentation, and protecting these locations by recording and updating information about them in the National Archaeological Record (RAN).

One of the points of interest, known as *Dealul Mare*, has been cited in the literature as an Eneolithic archaeological site, specifically attributed to phase B of the Cucuteni culture. Its location on a terrace ridge detached from the Nechit River right bank (Fig. 4) facilitated its identification, owing to the privileged geographical position that aligns with the criteria for Cucuteni settlements in this region.

As a result of agricultural activity, sporadic archaeological materials were observed on the surface, including a green-patinated metal axe made of copper, typical of Cucuteni phase B (Fig. 6/a-b, Fig. 7). This artefact was discovered directly within the ploughed layer and recovered from the topsoil. Its discovery reinforces both the presence of Cucuteni communities on *Dealul Mare* and the importance of such artefacts for understanding metallurgical technology and social dynamics of the period.

Such accidental discoveries underscore the value of field surveys and non-intrusive investigations in areas with archaeological potential, particularly where the land is subject to frequent agricultural interventions. These methods allow for the identification and protection of archaeological heritage without disturbing the stratigraphic context, enabling rapid documentation of artefacts and contributing to the completion of regional archaeological maps. The benefits of non-intrusive approaches are further demonstrated by other similar studies, which have led to the identification of significant sites and the preservation of valuable artefacts before their accidental destruction.

Artefact description

The analysed piece has a maximum length of 15.2 cm, a maximum width at the through-hole of 4.0 cm, and weighs 416 gr. Its structure is divided into three morphometrically distinct segments (Fig. 8). Considering its current shape, with visible traces of use or post-depositional modification, this artefact can be classified within the morpho-technical group of double-headed axes/pick-axes, with one horizontal cutting edge and one pointed tip (*Pickelhacke*¹⁵, *Hackepickel*¹⁶). Objects of this type, at least within the local context¹⁷, were known from only a

¹⁴ CUCOȘ 1992, 10, 13-15.

¹⁵ VULPE 1975, 48, note 47; MAREȘ 2002, 112, 158, notes 320, 322.

¹⁶ SCHUBERT, 1965, fig. 1.

¹⁷ Considering the relatively small dimensions of the axe from Borleşti-*Dealul Mare*, it is argued that the designation of 'adze-pick' would be more appropriate for defining the functional characteristics of this object. The artefact under study displays a morphology closely comparable to that of a modern mattock. Within the same analytical framework, the identification of the artefact as a TT-10 adze-axe type is also supported (CHERNYCH 1978, 96, Fig. 5/1; pers. comm. Neculai Bolohan).

single published artefact¹⁸. Another example illustrating this category is the specimen from Bojnice, Slovakia¹⁹.

The axe segment bearing the horizontal cutting edge, commonly designated as the 'adze arm', is shorter and typically exhibits its active component on the right side, whereas the longer segment terminating in a pointed tip is referred to as the 'pick arm'. The overall profile of these axes is straight, with a curvature of the longitudinal axis in the upper portion; the degree of curvature of the axe arm itself may vary according to the specific specimen.

For the analysed piece (Fig. 9), the 'adze-arm' has a maximum length of 5.5 cm (measured from the through-hole) and a maximum width of 2.6 cm. The active part, slightly curved and flared, shows visible traces of use, more pronounced at one of the corners. On the upper surface, a visible incision is present, which is interpreted as accidental, resulting from casting or post-depositional marks. The 'pick-arm', or cutting-edge arm, has a maximum length of 7.5 cm and a maximum width yet to be specified. The active part is heavily worn, with only a partial preservation of its original shape. The cross-sections of both arms are rectangular, with a rounded upper edge.

The through-hole, circular in shape and carefully crafted, is located in the median part of the artefact, with an internal diameter of 2.2 cm, a rim thickness of 0.9-1.0 cm, and a depth of approximately 2.8 cm. At the upper end, the through-hole terminates in a circular rim of 0.01 cm, while at the lower end, it forms an interrupted rim of approximately 0.8 cm, which, according to comparable examples, cannot be considered a through-hole²⁰. These extensions, on either side of the through-hole, exhibiting slight asymmetry, are described as "tangs"²¹ and serve to stabilise the attachment area for the wooden haft of the artefact (Fig. 10/a-b, e-f).

The artefact under analysis displays relatively small dimensions. It is presumed that the substantial wear traces have modified its initial morphology, particularly in the region of the 'adze arm'²². The structure is slender and graceful, with well-finished, sharply defined edges. The implement exhibits unequal proportions between its two components, the 'adze arm' with the horizontal cutting edge being distinctly shorter than the 'pick arm'. Moreover, the curvature of the profile is more accentuated along the pick-bearing side.

On the upper surface of the 'adze arm', a distinct, interrupted ridge is visible, resulting from the casting process. This ridge was flattened either by hammering or by breaking off excess material. Casting defects, such as wrinkles or rough areas, are also noted. Overall, the artefact exhibits a uniform green-bronze patina.

Typological analysis

Based on our own observations and on sources presenting this category of objects, we analysed their spatial distribution and the characteristics that allow the identification of technical and typological details, both within the study area in the western part of the Cracău-Bistriţa Depression and at the broader Central and Southeastern European level.

Within the morpho-technological group of *two-armed pick axes, with a horizontal and sharp edge*, a single variant has been defined based on the discovery of the axe from Crizbav/Krizba/Krebsbach-Braşov, which has been assigned to the *Pickelhacke* category²³. The

¹⁸ MAREŞ 2002, 112 and notes 307 and 322, which refer to the various typologies of cooper axes.

¹⁹ NOVOTNÁ 1970, 25, pl. 7, no. 121.

²⁰ MONAH 1969, 301.

²¹ ROSKA 1942, 143, fig. 166, map no. XIV, point no. 55; MAREŞ 2002, 107 with note 243a, 150, 185.

²² See the following observations result from the macroscopic and microscopic analyses.

²³ MARȚIAN 1920, 16, no. 212; ROSKA 1942, 143; MAREŞ 2002, 112; 215, pl. 48/7.

shape of this axe closely resembles that of the axe found at Borleşti-Dealul Mare, with the exception of the through-hole, which in the former case is conically shaped and well-defined, whereas in the latter it is almost imperceptible. A similar situation is observed for the specimen from Lizanovka, Cherkasy Oblast, Ukraine, from the northeastern extremity of the Tripolye area²⁴. Another technical feature specific to the 'adze-pick' is the lateral tangs at the base of the through-hole, which are quite similar to those observed on the Ariuşd-type axe from Muscel-Berevoieşti²⁵, the Jászladány type, and the *special form* variant from Moeciu-Cetăţuie²⁶. This technical detail is present in many artefacts of the *Streitaxte* category of the Şiria type from the Intra-Carpathian Region, noting that typologically these are defined by a body with a round cross-section and a hammer arm that maintains the same diameter along most of its length²⁷. We do not exclude the hypothesis that some specimens of the *Nógrádmárcal* type from Slovakia, such as that from Malé Leváre, Malacky District, Bratislava Region²⁸, may have belonged to the same category. Two exceptional specimens, also belonging to the *Pickelhacke* artefact category, originate from a cenotaph in the Varna necropolis and are considered symbols of power²⁹, though they share no features with the Borleşti axe. Based on the known types and variants, certain similarities, particularly regarding the general aspect of the pick arm, have been identified in the following artefacts: Hinova³⁰, Mehedinţi County, classified as Jászladány type, Târnăviţa variant; Crizbav³¹, Braşov County; and Bojnice³², Trenčín Region (Slovakia), classified as Târgu Ocna-Nógrádmárcal type.

The dating of this artefact can be inferred from the observations made by Ştefan Cucuş, from our own field observations, and from its association with other discoveries. The first two sets of data suggest that this specimen may be associated with a Cucuteni B habitation level at the foothills of the Eastern Carpathians, which aligns with the discoveries mentioned above, as well as with a broader category of metal finds, including Târgu Ocna-type and *Nógrádmárcal*-type axes, as well as those from the Intra-Carpathian Region. This association corresponds to the period of maximum development of the Copper Age, represented by the transition from the Tiszapolgár culture to the Bodroghkeresztúr culture, which coincides with the Cucuteni A-B and B phases.

Casting method

The technologies employed in the production of these artefacts reflect the existence of specialised metallurgists, complemented by assistants responsible for procuring raw materials, a task that required communication skills and the ability to interact with diverse individuals and communities. Current knowledge indicates that the manufacturing process involved the acquisition and transport of raw materials, the preparation of primary processing installations, the sourcing of fuel, the controlled heating of copper, and the casting of molten metal into clay or stone moulds, which could be either open (monovalve) or closed (bivalve). The through-hole

²⁴ DERGAČEV 2002, 193 and note 43, pl. 58/A 22.

²⁵ MÂRȚU 1962, 101, fig.1; VULPE 1975, 36, no. 88, pl. 11/88; MAREŞ 2002, no. 103, 185, pl. 25/2.

²⁶ COSTEA, COŞULEŢ 1989, 5-6, fig. 3; MAREŞ 2012, 107, 259.

²⁷ PATAY 1984, 63-66, Taf. 25/284, 286, 293, 294; 26/309, 310.

²⁸ NOVOTNA 1970, 25, Taf.7/125. The graphical depictions did not permit firm conclusions to be drawn concerning the working hypothesis.

²⁹ TODOROVA 1981, 50-51, Taf. 18/100-200.

³⁰ BĂRCĂCILĂ 1924, 295, no. 2, fig. 264; VULPE 1975, 38, no. 102, pl. 13/102; MAREŞ 2002, 244, no. 1180, pl. 26/5.

³¹ MĂRȚIAN 1920, 16, no. 212; BERCIU 1939-1942, 54, no. 3, fig. 1/8; VULPE 1975, 50, no. 233, pl. 30/23; MAREŞ, COJOCARU 1995-1996, 213, no. 74, fig. 9/4; MAXIM 1999, 155, no. 337; MAREŞ 2002, no. 541, 215, pl. 48/7.

³² NOVOTNÁ 1970, no. 121, 25, pl. 7.

was preserved by placing a core within the mould³³. The copper axe from Borleşti-Dealul Mare was produced using a bivalve mould, as evidenced by the fragmentarily preserved metal crest on the convex surface and by exhibiting a concave hollow of triangular shape at the lower bottom of the 'pick-arm' (Fig. 13/2). Subsequently, the artefact underwent additional finishing operations, such as hammering, grinding, sharpening, or bending, carried out through forging³⁴.

Macroscopic Analysis

Upon initial examination, the axe was found to be covered, in addition to dusty corrosion products, by a substantial layer of soil over its entire surface, with the hafting hole completely filled by the same type of deposits. After a preliminary cleaning using a soft-bristled brush, which did not compromise the artefact's state of preservation, it was observed that the noble patina is predominantly concentrated in the concave triangular indentation (Fig. 13/2). Several areas exhibiting the same patina were also identified on both sides, as well as on the outer surface of the axe (Fig. 8). Additionally, minor active corrosion areas were noted, appearing as small, pale greenish spots with a powdery texture; their limited extent, however, indicates they do not pose an immediate threat to the artefact's integrity.

Microscopic Analysis

Following the preliminary assessment of the artefact and the evaluation of its state of preservation, a series of microscopic observations were conducted, both optical and digital. These microscopic investigations enable the detailed characterisation of specific features of the analysed object, providing valuable information regarding its structure and microstructure, the distribution of corrosion products, and the identification of any traces of use or deterioration.

Digital microscopy was performed using a Bresser Wifi1080P, capturing images at a 1:1 scale. The surfaces of the axe were thus examined to identify potential wear traces, manufacturing defects, or post-depositional alterations. Optical microscopy was carried out using a Zeiss Imager.a1M microscope, equipped with an integrated AXIOCAM camera and operated via AxioVision Release 4.7.1 software.

At this stage³⁵, the areas exhibiting the primary patina on the surface of the axe were more clearly observed (Fig. 10/a-f), as well as the regions where active corrosion was visible. The latter were predominantly located in close proximity to the areas with noble patina (Fig. 10/b, c, e, f).

Wear traces on the axe are predominantly located on the tip, the through-hole, and the adze-blade, all exhibiting smooth edges consistent with the period of use of the artefact. In addition, casting marks are present on the artefact body, appearing as a ridge or crest, which is occasionally interrupted. The 'adze-blade' also shows evidence of intensive use, with the edge appearing more rounded and worn on the left side, suggesting that the artefact was primarily used by a right-handed individual (Fig. 11/a-c). Another significant aspect relates to the use mode. The pronounced wear on the left side may result from either extended use over time or working with hard materials, and it is also plausible that both factors contributed simultaneously. These

³³ Some deformations within the through-hole were produced mechanically, likely during the removal of the core (HEEB 2014, 71).

³⁴ HEEB 2014, 74; RENFREW 1970, 31-33.

³⁵ ROBBIOIA *et alii* 1998.

observations suggest that this type of axe was not merely symbolic but served a practical function and was employed extensively.

As a post-depositional alteration, a large and deep indentation was observed on the outer surface of the 'adze-blade'. This damage, which most likely occurred after the artefact was discarded, may be linked to agricultural activities and is probably the result of contact with a substantial sharp object, such as a ploughshare (Fig. 10/c; Fig. 11/b).

Through optical microscopy, two of the most common copper corrosion products³⁶ were identified: malachite and cuprite (Fig. 12/a-d). Malachite, a basic copper carbonate with an intense green colour, occurs as a stable secondary phase. Cuprite, with a reddish hue, represents the cuprous oxide formed during the initial stages of the corrosion process. The simultaneous presence of both phases indicates a typical progression of copper corrosion, in which internal cuprite gradually transforms into malachite.

Compositional Analysis

Elemental characterisation was carried out using a VEGA II LSH (Tescan) scanning electron microscope (SEM), equipped with a QUANTAX QX2 (Bruker/Roentec) energy-dispersive X-ray (EDX) detector. The results are expressed as percentages, and all samples were analysed without any metallic or graphite coating.

Sampling and Analysis

To obtain elemental data, samples were collected from three distinct areas of the axe to identify corrosion products (Fig. 13/1), the noble patina (Fig. 13/2), and the underlying metal (Fig. 13/3).

Analyses of the areas covered by corrosion products and patina confirmed the presence of compounds characteristic of copper degradation, notably malachite³⁷ ($\text{Cu}_2[(\text{OH})_2|\text{CO}_3]$) and cuprite (Cu_2O) (Table 1/1, 2). In addition, elements indicative of soil contamination were detected, including phosphorus (P), aluminium (Al), silicon (Si), potassium (K), and iron (Fe)³⁸. SEM micrographs and elemental mapping reveal a uniform distribution of the mineralised structures and the elements associated with corrosion processes and patina formation (Fig. 14).

The analysed axe was manufactured from copper, with no trace elements originating from the ores used in metal production being detected (Table 1/3). Moreover, SEM micrographs of the metal revealed no features or structures suggestive of impurities³⁹ (Fig. 15).

Discussion

Within the context of the Eneolithic period, refining copper to a high degree of purity is considered unlikely. The presence of trace elements at concentrations below the detection limit remains a possibility, providing a plausible explanation for the data obtained. Nevertheless, the occurrence and processing of copper artefacts attributed to the Eneolithic period, free of detectable impurities, has been documented at the settlement of Tăcuta-Dealul Miclea (Vaslui County)⁴⁰. Archaeological literature also mentions a *Pickelhacke*-type axe discovered at Crizbav, which contains approximately 2.5% arsenic. These data suggest a typological similarity in this case, but not a compositional one⁴¹. Although this evidence does

³⁶ SCOTT 2002.

³⁷ KOWALSKI *et alii* 2019, 53.

³⁸ MIRCEA *et alii* 2012, 1472; SANDU *et alii* 2012, 1646-1652.

³⁹ KOWALSKI *et alii* 2019, 53.

⁴⁰ LAZANU *et alii* 2025, 155-181.

⁴¹ POPESCU *et alii* 2013, 136.

not provide concrete insights regarding typology or raw materials, given that objects from other functional categories were studied rather than those examined here, it represents the most recent contribution addressing copper artefacts within the Cucuteni area⁴².

Ascertaining the raw material's provenance calls for further analytical investigation and rigorous geochemical comparison, which would enable the composition of the analysed metal to be correlated with existing databases and prior research on known ore sources⁴³. Within the chronological framework of the axe discovered at Borleşti, several copper artefacts are documented as originating primarily from Slovakia⁴⁴, although no direct analogies between individual items have been identified. In the absence of more comprehensive analytical data, current interpretations must rely on archaeological evidence, drawing on typological, technological, and contextual analogies to formulate coherent hypotheses regarding the sourcing of copper.

Conclusions

The Nechit stream basin, in the area of Borleşti commune, is recognised for several metal finds dating to the Eneolithic period⁴⁵ and the Bronze Age⁴⁶. It is possible that the proximity of eastern Transylvania facilitated communication through hubs such as Poduri, Borleşti, Vermeşti, and Păuleni-Ciuc. While this route was *sprinkled* with salt, it is unlikely that salt alone determined mobility. It must also be acknowledged that other factors, neighbouring communities, kinship relations, exchanges of goods and gifts, alliances, and shared celebrations, played a significant role in fostering awareness and the desire for communication. These social stresses were further conditioned by everyday life necessities, including shelter, food, and the perpetuation of the community.

For the study area, there is a limited number of sources resulting from multiple investigations or invasive archaeological approaches that have been adequately integrated into a continuous narrative of the site. Unintended finds frequently initiate the development of targeted case analyses, as occurred at Borleşti-*Dealul Mare*. Repeated familiarity with a location at the foothills of the Eastern Carpathians ensures the necessary perspective for understanding the configuration of the current landscape and allows accommodation of the probable prehistoric landscape. Soil traces, vegetation patterns, older cartographic sources, and current topographic applications all contribute to a closer engagement with a workspace that, in ancient times, combined most of the natural conditions favourable for settlement and communication.

The artefact identified prompted a careful immersion in the diversity of approaches, typologies, and functional interpretations, all structured according to criteria that also reflected the subjectivity of the specialist. In the specialised literature, such artefacts are uniformly classified within the developed ("classic") Eneolithic, dated to the late 5th and early 4th millennia BCE. Most examples originate from Transylvania, Banat, Hungary, and Slovakia, although they occur far less frequently in Moldova and the eastern and southeastern Carpathian regions (Fig. 16).

⁴² HANSEN 2021, 43–45.

⁴³ MARCOUX *et alii* 2002; BARON *et alii* 2020; KMOSEK *et alii* 2020

⁴⁴ SIKLÓSI *et alii* 2022.

⁴⁵ CUCOŞ 1992; 1999.

⁴⁶ See recently POPESCU 2024, 148–156, an update history of the metallurgical finds located approximately 2.4 km south-west of the Borleşti-*Dealul Mare* site.

The current interpretive approach began with the details of the findspot, identification and description of the artefact's elements, and comparative regional and supraregional analysis, leading to a proposal of functionality aligned with the needs of an Eneolithic individual. This emphasises the dynamic role of these artefacts within the cultural and economic context of the Eneolithic⁴⁷. The procurement of raw material or acquisition of a copper object, its production technology, and its utility both as a functional and symbolic item are all aspects that must be considered. Our interpretation, recognising the object as a potential "Swiss multi-tool" for household activities, woodworking, and stoneworking, or possibly an identity symbol, offers broader perspectives on its significance.

The multidisciplinary analysis, supported by a specific methodology, enhanced the objectives through scientific insights into composition, technology, and hypotheses concerning the source of raw material. Moreover, use-wear analysis on the working area of the adze provides data on how he/she used this tool more often with their right hand.

Overall, the study offers a comprehensive body of knowledge derived from a robust theoretical and methodological framework, paving the way for extended investigations at the foothills of the Eastern Carpathians. This contributes to a more complete understanding of a landscape with diverse cultural representations from prehistoric periods, exemplified in this case study by the life history of a single artefact.

References

- BARON, J., MACIEJEWSKI, M., MIAZGA, B., NOWAK, K., SYCH, D. 2020. More Bronze Age less bronze: copper axes in the late Bronze Age hoard from Karmin, Poland, *Antiquity* 94/377: e29. <https://doi.org/10.15184/aqy.2020.139>.
- BERCIU, D. 1939-1942. Topoarele de cupru cu două brațe opuse (tipologie și origine). *Apulum* I: 39-71.
- BERCIU, D. 1953. Catalogul Muzeului Arheologic din Turnu-Severin. *Materiale și Cercetări Arheologice* I: 589-649.
- CHERNYCH, E.N. 1978. *Gornoe delo i metallurgiya v drevneyshey bolgarii*. Bulgarian Academy of Science, Sofia.
- COSTEA, F., COȘULEȚ, S. 1989. Un topor de aramă cu brațele „în cruce” descoperit la Drumul Carului (com. Moeciu, jud. Brașov), *Cumidava* XIV: 5-7.
- CUCOȘ, Ș. 1969. Săpăturile arheologice din județul Neamț. *Memoria Antiquitatis* 1: 415-422.
- CUCOȘ, Ș. 1992. Contribuții la repertoriul arheologic al județului Neamț. *Memoria Antiquitatis* XVIII: 5-61.
- CUCOȘ, Ș. 1999. *Faza Cucuteni B în zona subcarpatică a Moldovei*. Piatra Neamț: Editura „Constantin Matasă”.
- DERGAČEV, V.A. 2002. *Die äneolithischen und bronzezeitlichen Metallfunde aus Moldawien*, PBF, XX/9, Franz Steiner Verlag, Stuttgart.
- DUMITROAIA, G. 1981. Săpăturile arheologice din județul Neamț. *Memoria Antiquitatis* VI-VIII (1974-1976): 341-346.
- FLORESCU, M. 1970. Problèmes de la civilisation de Costișa à la lumière du sondage de Borlești. *Dacia N.S.* XIV: 51-81.

⁴⁷ RENFREW 1970, 17; RADIVOIEVIĆ, ROBERTS 2021, 207, 235.

GOŠIĆ, M. 2008. Chalcolithic Metallurgy of the Southern Levant: Production Centers and Social Context. *Journal of Serbian Archaeological Society* 24: 67-80.

HANSEN, S. 2021. Axes and Metal Deposits in the Caucasus from the 5th to the 2nd Millennium BCE. In: H. von Liane Giemisch, S. Hansen (Eds.), *The Caucasus/Der Kaukasus. Bridge between the urban centres in Mesopotamia and the Pontic steppes in the 4th and 3rd millennium BC. The transfer of knowledge and technologies between East and West in the Bronze Age/Brücke zwischen den urbanen Zentren Mesopotamiens und der pontischen Steppe im 4. und 3. Jahrtausend v. Chr Der Transfer von Wissen und Technologien zwischen Ost und West in der Bronzezeit*, Proceedings of the Caucasus conference/Ergebnisse der Kaukasus-Konferenz, Frankfurt am Main, November 28 – December 1, 2018, 31-86. Verlag Schnell & Steiner.

HEEB, J. 2014. *Copper Shaft-Hole Axes and Early Metallurgy in South-Eastern Europe: An Integrated Approach*. Archaeopress.

KIENLIN, T. L., PERNICKA, E. 2009. Aspects of the Production of Copper Age Jászladány Type Axes. In: L. Kienlin, B. Roberts (eds.), *Metals and Societies Studies in honour of Barbara S. Ottaway*, 258-276. Verlag Dr. Rudolf Habelt GMBH.

KMOSEK, J., ERBAN KOCHERGINA, Y. V., CHVOJKA, O., FIKRLE, M. 2020. Tracking Alpine copper—analysis of Late Bronze Age copper ingot hoard from South Bohemia, *Archaeological and Anthropological Sciences* 12/234: 1-21. <https://doi.org/10.1007/s12520-020-01186-z>.

KOWALSKI, Ł., ADAMCZAK, K., GARBACZ-KLEMPKA, A. 2016. Wyniki badań archeometalurgicznych tzw. Siekiery z dawnej miejscowości Antoniny, pow. Chodzieski. *Fontes Archaeologici Posnanienses* 62: 175-205.

KOWALSKI, Ł., GARBACZ-KLEMPKA, A., GACKOWSKI, J., ŚCIBIOR, D., PEREK-NOWAK, M., ADAMCZAK, K., DŁUGOSZ, P. 2019. Towards direct casting: Archaeometallurgical insight into a bronze mould from Elgiszewo, Poland, 900–700 BC, *Archeologické rozhledy* 71(1): 45-66. <https://doi.org/10.35686/AR.2019.3>.

LAKÓ, É. 1979. Repertoriul topoarelor de aramă din județul Sălaj. *Acta Musei Porrolisensis* III: 41-49.

LAZANU, C.-C., ENEA, S.-C., VASILACHE, V. 2025. About copper metalworking at Tăcuta-Dealul Mică, Vaslui County, Romania/Despre metalurgia cuprului la Tăcuta-Dealul Mică, județul Vaslui, România. In: S.-C. Enea, F.-A. Tencariu, A. Asăndulesei, C.-C. Lazanu (eds.), *O Inimă dedicată Timpurilor Străvechi. Profesorul Dumitru Boghian la 70 de ani*, Editura Cetatea de Scaun, Târgoviște, 155-181.

LAZAROVICI, Gh. 1983. Principalele probleme ale culturii Tiszapolgár în România. *Acta Musei Napocensis* XX: 3-21.

MARCOUX, E., GRANCEA, L., LUPULESCU, M., MILÉSI, J. 2002. Lead isotope signatures of epithermal and porphyry-type ore deposits from the Romanian Carpathian Mountains, *Mineralium Deposita* 37: 173-184. <https://doi.org/10.1007/s00126-001-0223-x>.

MAREȘ, I. 2002. *Metalurgia aramei în neo-eneoliticul României*. Suceava: Editura „Bucovina Istorică”.

MAREȘ, I., COJOCARU, I. 1995. Prelucrarea cuprului în cultura Cucuteni—Tripolie (topoarele ciocan și topoarele cu două brațe dispuse în cruce). *Suceava* 22-23: 187-235.

MARȚIAN, I. 1920. *Repertoriu arheologic pentru Ardeal*. Bistrița, Tipografia Națională.

MAXIM, Z. 1999. *Neo-eneoliticul din Transilvania. Date arheologice și matematico-statistice*. Bibliotheca Musei Napocensis XIX, Cluj-Napoca.

MIRCEA, O., SANDU, I., VASILACHE, V., SANDU, A.V. 2012. Study of the Atypical Formations in the Corrosion Bulks of an Ancient Bronze Shield, by Optical and Electron Microscopy, *Microscopy Research Technique* 75/11: 1467-1474. <https://doi.org/10.1002/jemt.22090>.

- MÎRȚU. 1962. Un topor de luptă din cupru, descoperit la Berevoiești – Muscel. *Studii și Cercetări de Istorie Veche* 13/1: 101-103.
- MONAH, D. 1969. Un topor de tip Jászladány descoperit la Bistrița județul Neamț. *Memoria Antiquitatis* I: 299-304.
- MONAH, D. 1986. Topoare de aramă și bronz din județele Neamț și Bacău. *Memoria Antiquitatis* XII-XIV (1980-1982): 31-35.
- MONAH, D., CUCOȘ, Ș. 1985. *Așezările culturii Cucuteni din România*. Iași, Junimea.
- MUNTEANU, R. 2010. *Începutul bronzului mijlociu în depresiunile marginale ale Carpaților Orientali*. Bibliotheca Memoria Antiquitatis. Piatra-Neamț; Editura „Constantin Matasă”.
- MYRES, J. L. 1898. Copper and Bronze in Cyprus and South-East Europe. *The Journal of the Anthropological Institute of Great Britain and Ireland* 27: 171-177.
- NOVOTNÁ, M. 1970. *Die Äxte und Beile in der Slowakei*, C.H. Beck'sche Verlagsbuchhandlung.
- PATAY, P. 1984. *Kupferzeitliche Meissel, Beile und Äxte in Ungarn*. PBF IX/15, C.H. Beck'sche Verlagsbuchhandlung.
- POPESCU, A.-D., IOSIFARU, M., TUȚULESCU, I., CONSTANTINESCU, B. 2013. Câteva comentarii pe baza analizei compoziționale a pumnalului de la Ocnița. *Studii și Cercetări de Istorie Veche și Arheologie* 64/1-2: 133-147.
- POPESCU, A.-D. 2024. Poveste din trecut despre depozitul de topoare de la Borlești. In: V. Sava, F. Gogâltan (eds.), *Epoca bronzului de-o parte și de alta a Carpaților: studii în onoarea lui Tudor Soroceanu la 80 de ani/The Bronze Age on both sides of the Charpatians: Studies in honor of Tudor Soroceanu at 80 years*. Cluj-Napoca: Editura Mega, 147-156.
- RADIOJEVIĆ, M., ROBERTS, B. W. 2021. Early Balkan Metallurgy: Origins, Evolution and Society, 6200–3700 BC. *Journal of World Prehistory* 35: 195-278.
- RENFREW, C. 1970. The Autonomy of the South-East European Copper Age. *The Prehistoric Society* 352: 12-47.
- ROBBIOLA, L., BLENGINO, J. M., FIAUD, C. 1998. Morphology and mechanisms of formation of natural patinas on archaeological Cu-Sn alloys, *Corrosion Science* 40/12: 2083-2111. [https://doi.org/10.1016/S0010-938X\(98\)00096-1](https://doi.org/10.1016/S0010-938X(98)00096-1).
- ROSKA, M. 1942. *Erdély régészeti repertórium. I. Óskor*, Thesaurus Antiquitatum Transsilvanicarum, I, Prehistorica, Kolozsvár, Nagy Jenő és Fia Könyvnyomdája.
- RYNDINA, N. 2009. Copper production from polymetallic ores in the Northeastern Balkan Eneolithic Culture. *Journal of Archaeological Sciences* 26: 1059-1068.
- SANDU, I. G., MIRCEA, O., VASILACHE, V., SANDU, I. 2012. Influence of archaeological environment factors in alteration processes of copper alloy artefact, *Microscopy Research and Technique* 75/12: 1646-1652. <https://doi.org/10.1002/jemt.22110>.
- SCHUBERT, F. 1965. Zu den südosteuropäischen Kupferäxten. *Germania* 43: 274-295.
- SCOTT, D. A. 2002. *Copper and bronze in art: corrosion, colorants, conservation*. Los Angeles.
- SIKLÓSI, Z., HORVÁTH, E., VILLA, I. M., NISI, S., MOZGAI, V., BAJNÓCZI, B., CSIPPÁN, P., HORNOK, P., KISS, P. 2002. The provenance of the raw material and the manufacturing technology of copper artefacts from the Copper Age hoard from Magyaregres, Hungary, *PLoS ONE* 17/11: e0278116. <https://doi.org/10.1371/journal.pone.0278116>
- SZÉKELY, Z. 1970. Contribuție la cunoașterea prelucrării metalelor la începutul epocii bronzului în sud-estul Transilvaniei. *Studii și Cercetări de Istorie Veche* 21/ 2: 201-208.
- TODOROVA, H. 1981. *Die Kupferzeitlichen Äxte und Beile in Bulgarien*. PBF IX/14. C.H. Beck'sche Verlagsbuchhandlung.

VULPE, A. 1964. Cu privire la unele topoare de aramă şi bronz din Moldova. *Arheologia Moldovei* 2-3: 127-141.

VULPE, A. 1974. Probleme actuale privind metalurgia aramei şi a bronzului în epoca bronzului în România. *Revista Istorică* 27/2: 243-255.

VULPE, A. 1975. *Die Äxte und Beile in Rumänien II.* PBF IX/5, C.H. Beck'sche Verlagsbuchhandlung.

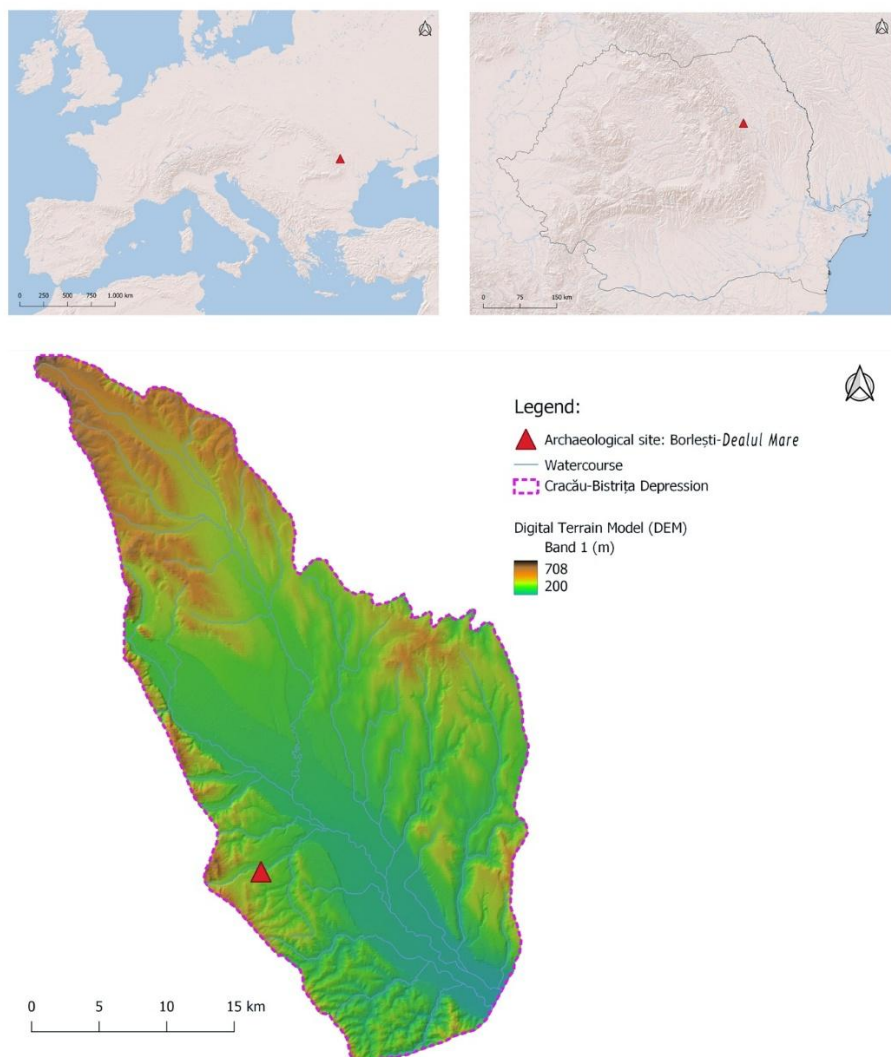


Fig. 1. Borleşti-Dealul Mare archaeological site, Borleşti commune, Neamţ County:
a. Map of Europe; **b.** Map of Romania; **c.** Placement of the site within the Cracău-Bistrița watershed (QGIS 3.28.13).



Fig. 2. Borlești-Dealul Mare archaeological site, oriented northeast-southwest (photograph taken with DJI mini SE 2).



Fig. 3. Borlești-Dealul Mare archaeological site: view from the south-west toward Bistrița Valley (photograph taken with DJI mini SE 2).

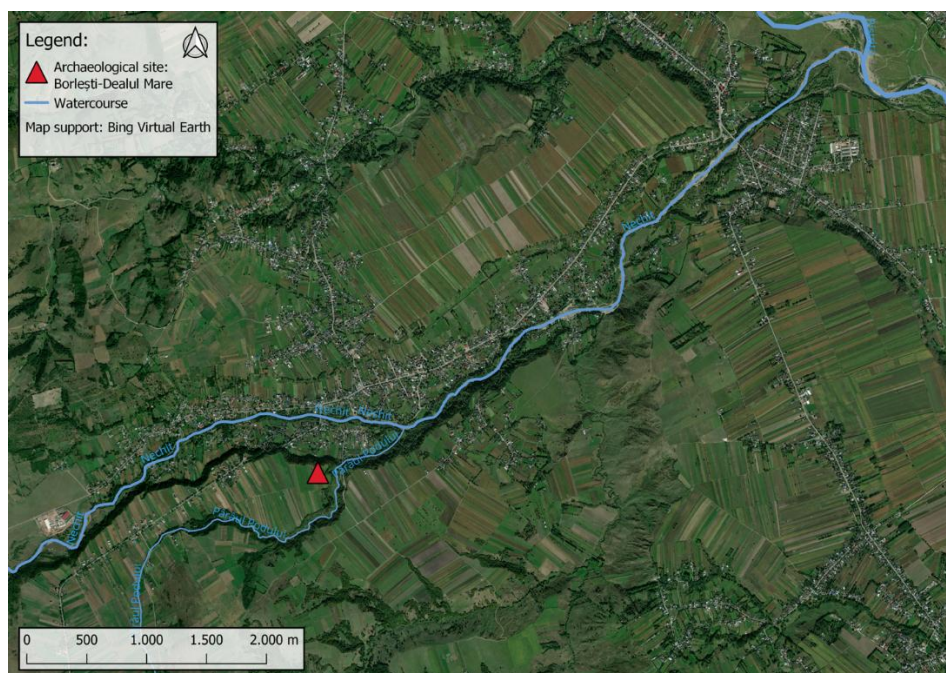


Fig. 4. Borleşti-Dealul Mare archaeological site: red triangle – watershed of Nechit River.

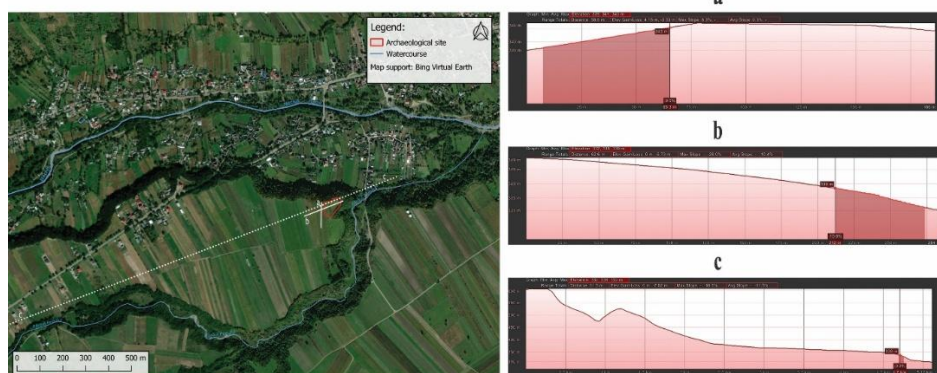


Fig. 5. Borleşti-Dealul Mare archaeological site (marked with a red outline) within the Nechit micro-basin (QGIS 3.28.13) and assessment of the terrace surface slope: **a.** Topographic profile along the north-south axis; **b.** Topographic profile along the east-west axis; **c.** Topographic profile along the southwest-northeast axis, spanning the entire length of the upper terrace (Google Earth Pro).

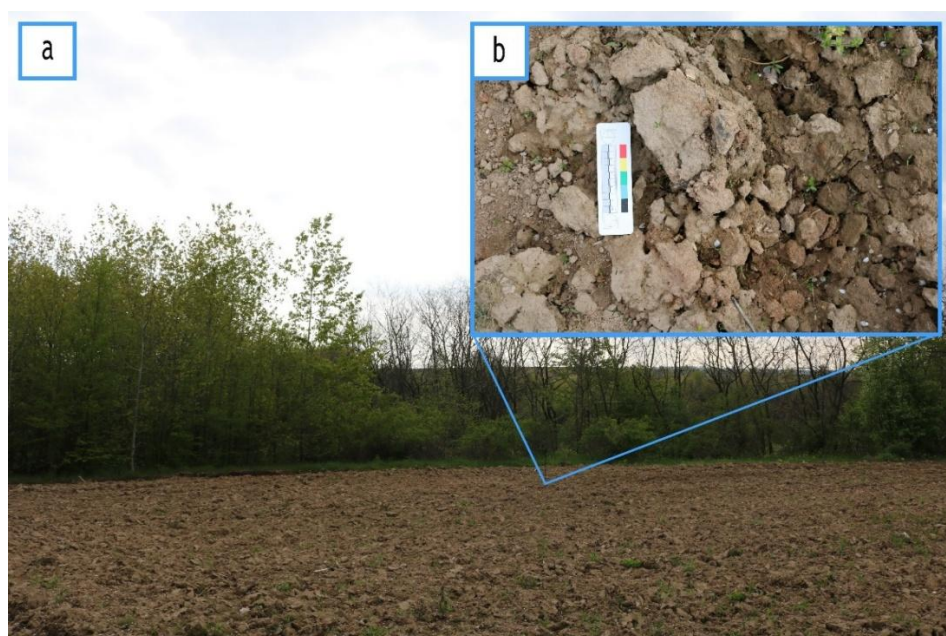


Fig. 6. Borlești-Dealul Mare archaeological site:
a. Perspective towards the north-eastern terrace edge; b. Archaeological material present at the topsoil.



Fig. 7. Borlești-Dealul Mare archaeological site: Eneolithic pot sherds.



Fig. 8. Borlești-Dealul Mare. *Hackepickel*.

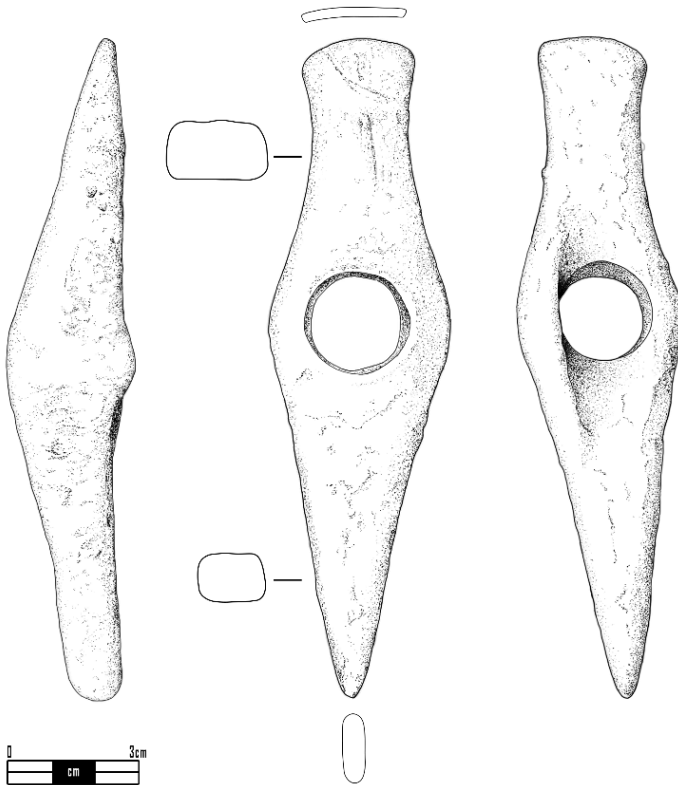


Fig. 9. Borlești-Dealul Mare. The scaled archaeological drawing of the *Hackepickel*.

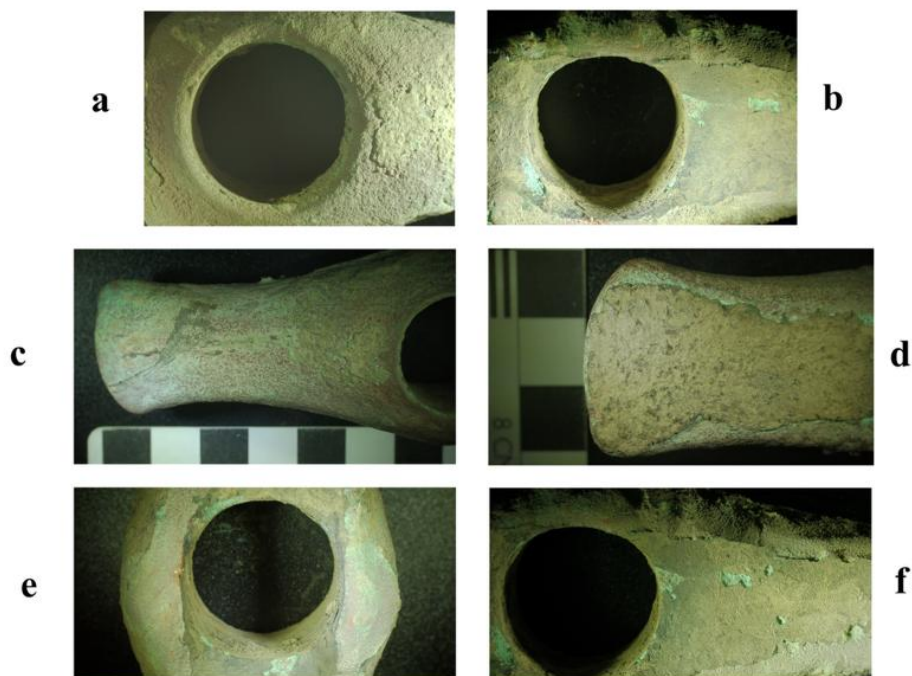


Fig. 10. Borlești-Dealul Mare. Digital microscopy images (1:1 scale) of the analysed *Hackepickel*.

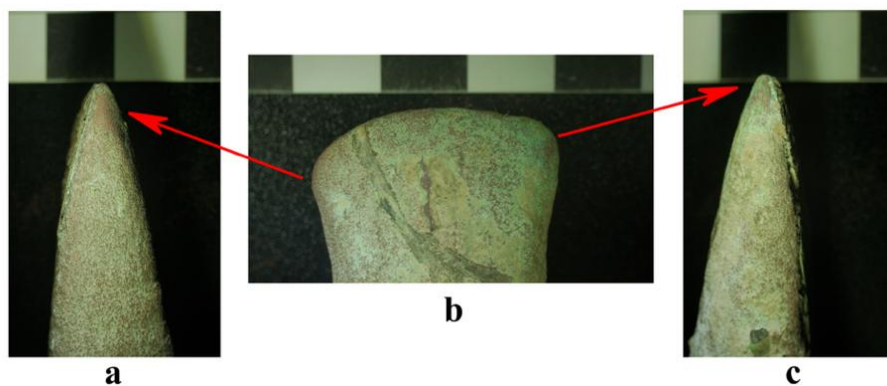


Fig. 11. Borlești-Dealul Mare. Digital microscopy images of wear traces on the 'adze-arm' at a 1:1 scale: **a.** left edge 'adze-arm'; **b.** outer surface of the 'adze-arm'; **c.** right edge of the 'adze-arm').

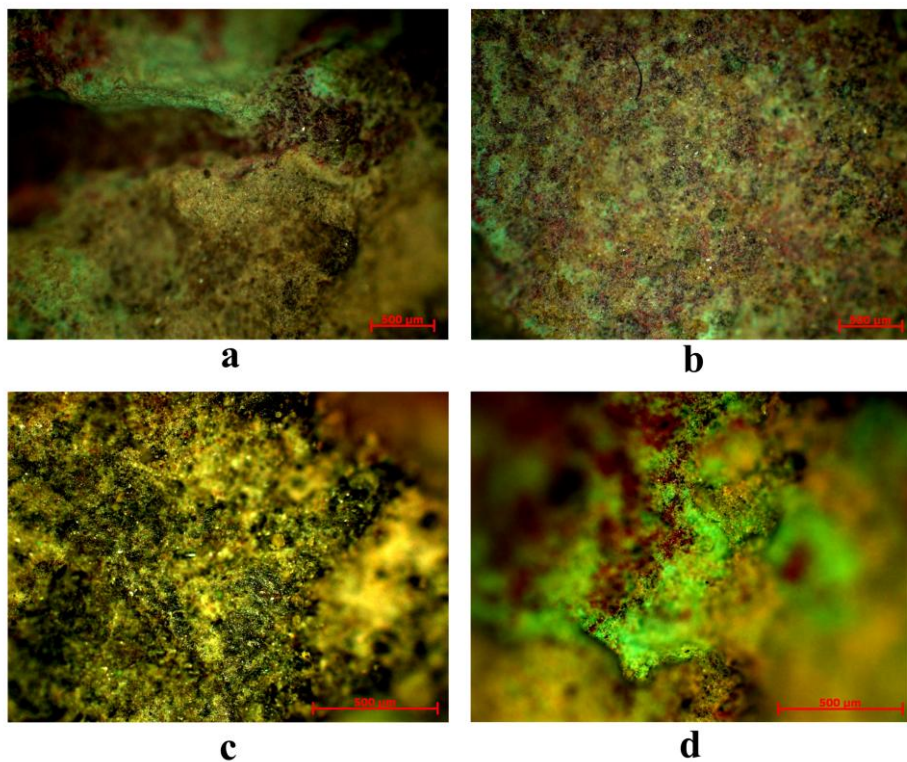


Fig. 12. Borleşti-Dealul Mare. Optical microscopy images of the corrosion products identified on the analysed *Hackepickel* at 50× (a, b) and 100× (c, d) magnification.

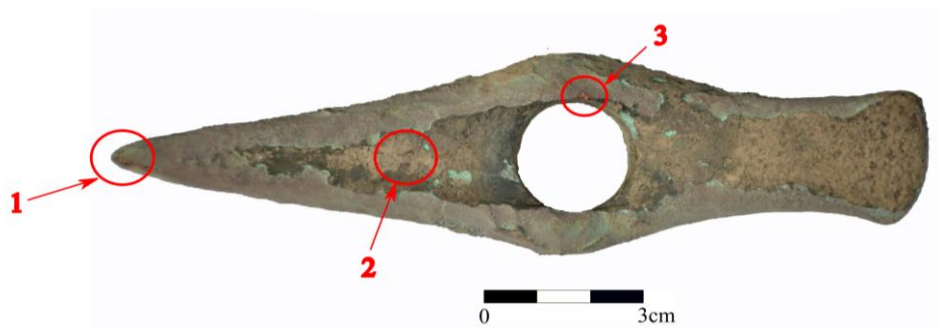


Fig. 13. Borleşti-Dealul Mare. Sampling areas for compositional analysis of the *Hackepickel*.

Table 1. Borlești-Dealul Mare. Elemental composition of the three analysed areas

	Cu	Fe	Si	Al	K	P	O	C
Composition of area 1	53.18	1.43	8.97	3.98	0.62	1.00	29.25	1.55
Composition of area 2	50.06	1.96	10.66	3.67	0.97	1.48	29.97	1.22
Composition of area 3	98.37	-	-	-	-	-	1.63	-

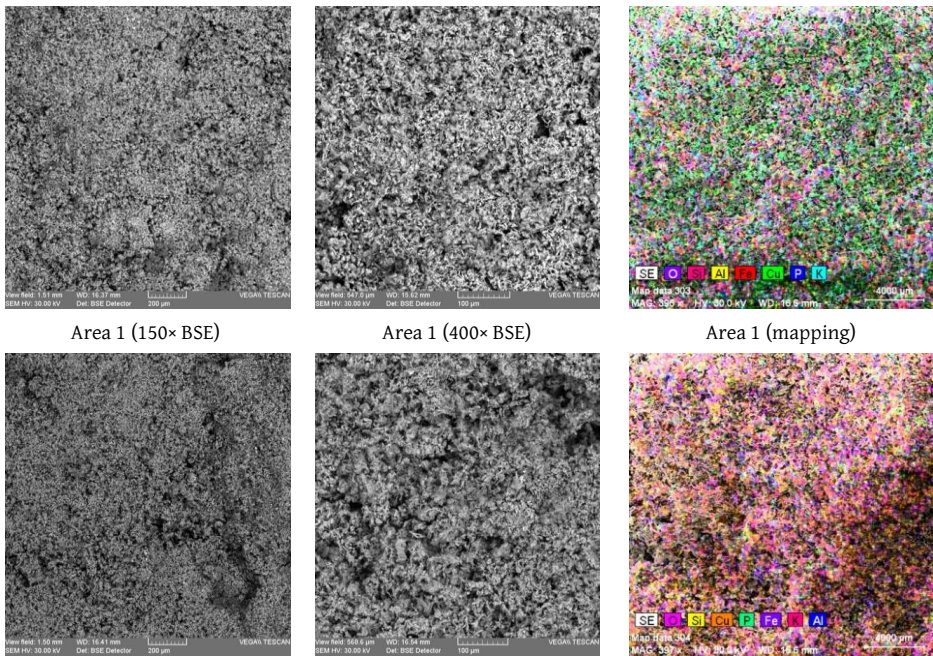


Fig. 14. Borlești-Dealul Mare. SEM micrographs and elemental mapping of the axe tip (area 1) and the central inner region (area 2) at different magnifications

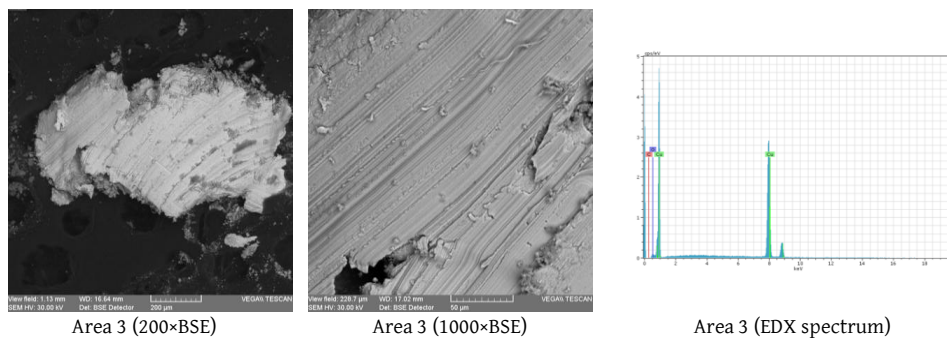


Fig. 15. Borleşti-Dealul Mare. SEM micrographs and EDX spectrum of the *Hackepickel*



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From Sippar to Sznak: The Urartian Bronze Lion of Syunik as Another Element of the Assyrian-Urartian Legacy

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Abstract. *This study examines the bronze lion from Sznak within the context of Assyrian-Urartian artistic interactions. Through an analysis of its morphology, stylistic elements, and function, the research explores its likely role as a candelabrum support and its ceremonial significance in Urartian elite spaces. A comparison with Assyrian and Urartian lion imagery highlights notable iconographic parallels, particularly with the limestone lion head from Sippar, suggesting Assyrian influence on Urartian visual traditions. Rather than direct imitation, Urartian artisans selectively reinterpreted Assyrian motifs, integrating them into their distinct artistic and ideological framework. This study contributes to the understanding of cross-cultural artistic exchanges in the ancient Near East.*

Rezumat. *Acest studiu examinează leul de bronz de la Sznak în contextul interacțiunilor artistice asiro-urartiene. Printr-o analiză a morfologiei, elementelor stilistice și funcției sale, cercetarea explorează rolul său probabil ca suport de candelabru și semnificația sa ceremonială în spațiile elitelor urartiene. O comparație cu reprezentările de lei asiriene și urartiene evidențiază paralele iconografice notabile, în special cu capul de leu din calcar de la Sippar, sugerând o influență asiriană asupra tradițiilor vizuale urartiene. Mai degrabă decât o imitație directă, meșterii urartieni au reinterpretat selectiv motivele asiriene, integrându-le în propriul lor cadru artistic și ideologic distinct. Acest studiu contribuie la înțelegerea schimburilor artistice interculturale în Orientul Apropiat antic.*

Keywords: Lion, Urartian-Assyrian legacy, Metallurgy, Candelabrum, Syunik Region.

Introduction

The Urartian kingdom, which reached its peak between the second half of the 9th century and the second half of the 7th century BCE, developed a sophisticated artistic tradition deeply connected to its political and religious institutions in the highlands surrounding Lake Van. Among the most iconic images found in Urartian art is that of the lion, an animal imbued with profound symbolic meaning throughout the ancient Near East. The bronze lion from Sznak represents a significant artifact within this tradition, displaying an exceptional degree of craftsmanship and stylistic refinement. Unfortunately, the Sznak lion lacks a clear archaeological context, and there is no evidence to determine whether it was associated with other objects. However, it may have originated from a burial or a hoard of objects, which are not uncommon in the Urartian period, even in this region. A relevant comparison can be made with the Yeghegnadzor Hoard, which similarly reflects the practice of depositing valuable items in caches or ritual contexts. It remains to be understood how objects of this type, belonging to a royal sphere, ended up in this location. From this perspective, the possibility that the Sznak lion was part of a hoard rather than a burial appears more plausible. This study provides a detailed analysis of the Sznak lion's morphology and decorative elements, comparing it to similar representations from both Urartian and Neo-Assyrian contexts. Special attention is given to its probable function as a support for a candelabrum, a hypothesis strongly supported by comparative evidence. Furthermore, the broader historical and artistic processes at play,

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particularly the Assyrian influence on Urartian artistic production, are examined in order to contextualize this artifact within a framework of cultural interactions that shaped Iron Age Near Eastern art.

History of Studies

The bronze lion figurine was discovered in 1951 during earthworks near the village of Sznak (nowdays Syunik), in the Kapan Municipality, Syunik Region, Republic of Armenia, and is currently preserved in the Goris Museum of Local Lore and History. The lion has received relatively little scholarly attention in academic literature. The first publication mentioning it was signed by S.A. Yesayan and A.N. Shahinyan in 1962, approximately ten years after its discovery. This work also includes the first published image of the object. The lion is described as follows: *“The preserved figurine represents a lion with extended front legs (the right one is broken) and folded hind legs. Its massive head is slightly raised, and its mouth is open. The eyelids of the predator are slightly lowered, while the wrinkled nostrils are drawn upward, creating the impression of an enraged yet composed beast. The lion is depicted in a calm but tense posture, further emphasized by its nervously curled tail resting along its back and its ears pressed against its head. The entire figure embodies strength and power, a quality accentuated by its clearly defined musculature. The sculpture is massive, measuring 20 cm in length and 13 cm in height, with a weight of 5.175 kg (considering that one front leg is broken). Since a hole was drilled in the lower part during analysis to determine the metal composition, it can be assumed that the original weight of the figurine was approximately 5.5 kg. In the lower part of the sculpture, there are three triangular recesses, suggesting that the lion was mounted on a stand or was part of a decorative feature of furniture or architectural structures. The figure is solid on the inside, cast as a single seamless piece, and subsequently refined. The well-preserved metal is covered with a noble pale-green patina.”* After an extensive series of comparisons with Urartian and Near Eastern materials, the authors concluded their analysis by proposing a dating between the 7th and 6th centuries BCE. Additionally, they provided an intriguing discussion on the Urartian presence in the Syunik region and the origin of the lion figurine: *“However, an especially interesting aspect is the fact that, as is well known, Zangezur (the geographical name of the region, which includes Goris, Kapan, and several neighboring districts of the Armenian SSR) was not part of the Urartian kingdom. The presence of Urartian cultural artifacts in this region highlights the connections between Urartu and the local tribes inhabiting these territories. The lion sculpture under study, in our opinion, is a locally produced artifact, as Urartian monumental artworks were typically cast as hollow objects, a technique that held little importance in Zangezur, despite its rich copper resources. However, the sculpture exhibits a strong influence of Urartian art and culture on the tribes of the Armenian Highlands. These tribes, following the collapse of the Urartian kingdom, together with other groups (including the Urartians themselves), formed a new political entity led by Armenian tribes”*³. Subsequently, in 1972, Yesayan published new considerations on the lion figurine, providing its dimensions and a brief description of the object, but without including any images: *“Measuring 20 cm in length and 13 cm in height, the lion is depicted in a seated position, with its front legs extended and hind legs folded beneath its body. The sculptor has successfully captured a tense yet controlled energy, portraying a ferocious but still composed predator, evident in the slight muscular tension and the curved tail resting along its back. This lion sculpture embodies power and strength, features that strongly align with Urartian royal iconography, where lions were symbols of divine protection and sovereign authority. Notably, the Sgnakh lion finds close parallels in another seated lion statue discovered by Barnett in 1964 near Mush at the*

³ ESAYAN, SHAHINYAN 1962, 205-207/ fig. 4. Translation from Russian into English by the Authors.

*Kayalidere fortress, which, although smaller in size, shares similar stylistic characteristics. Both sculptures are directly associated with high Urartian craftsmanship and are dated to the late period of the Kingdom of Van, approximately the 7th–6th centuries BCE*⁴. Subsequently, the lion figurine received renewed attention in the work of Xnkikyan, which included the first illustration of the object in the form of a drawing⁵. The first photograph of the lion was published in 2007 in the catalogue of an exhibition on Armenian archaeology held in Arles, France. The object is described as: “*Figurine volumineuse de lion assis. Il a les pattes antérieures tendues en avant et les pattes postérieures pliées. Il a une grande tête, une crinière épaisse, la gueule grande ouverte et une dentition forte précisée. Les yeux et les oreilles sont marqués par des reliefs. La queue est longue, enroulée à la patte. Les muscles mis en relief soulignent la force et la puissance de l’animal. À la base, se trouvent des saillies en triangle pour le fixer sur un socle. La figurine servait probablement de décor pour un siège, pour du mobilier ou pour un objet quelconque*”⁶. In a recent study on Urartian lions, the Sznak lion figurine has once again been the subject of comparative analysis alongside a recently discovered limestone lion head from Ayanis and other Urartian-produced lion representations⁷.

The Lion as a Symbol in Ancient Near Eastern and Urartian Art

Before delving into the specifics of the Sznak lion figurine and its contextualization within Urartian cultural production, it is essential to first provide a brief introduction to the symbolic and material role of the lion in the art of Western Asia. The lion has long been one of the most potent and universally recognized symbols in the artistic and ideological landscape of the ancient world⁸. In Mesopotamia, Anatolia, and the Iranian plateau, lions were associated with strength, divine favor, and the protection of the ruler and his domain. However, beyond their function as apotropaic guardians, they also served as a metaphor for kingship itself. This is most vividly illustrated in the royal lion hunt scenes of the Neo-Assyrian king Aššurbanipal, where the monarch is depicted engaging in staged lion hunts, demonstrating his dominance over nature and chaos⁹. These highly ritualized acts were political statements, reinforcing the idea that the Assyrian ruler, as the representative of divine order on earth, was uniquely capable of conquering the wild forces of the world. In Urartu, lion imagery carried similar connotations but was adapted to reflect the kingdom’s specific ideological and artistic framework. Rather than emphasizing the act of hunting and subjugating lions, Urartian iconography often depicts lions as symbols of divine protection and royal might, frequently integrated into ceremonial and royal objects. Urartian representations of lions are far more static and less dynamic than their Assyrian counterparts, often characterized by rigid, repetitive, and hieratic compositions. This stylistic choice, which emphasizes symmetry and formalized expressions of power, contrasts sharply with the fluidity and narrative dynamism found in Neo-Assyrian reliefs, particularly those depicting royal lion hunts. However, this distinctive Urartian approach to lion imagery would later find unexpected continuity and development in the imperial iconographic programs of the Achaemenid world, where similar formalized and repetitive

⁴ ESAYAN 1972, 70.

⁵ XNKIKYAN 2002, 145/ illustration 1.

⁶ *Au pied du Mont Ararat* 2007, 132, object entry no. 78.

⁷ IŞIKLI, ARAS 2016, 433-434/ fig. 4.

⁸ On these topics, see, among others, CORNELIUS 1989; WATANABE 2000; WATANABE 2002; COLLINS 2002; STRAWN 2005; ULANOWSKI 2015.

⁹ On Assyrian royal hunts, not only from the time of Aššurbanipal, see ALBENDA 1972; 1974; DICK 2006; READE 2013.

compositions became integral to royal art and propaganda¹⁰. One of the most striking examples of this is the presence of lion heads depicted on bronze royal bowls from Karmir-Blur, which suggests a direct association between Urartian kingship, feasting rituals, and divine authority. These elaborately decorated vessels, likely used in elite and religious ceremonies, highlight how the lion was incorporated into the courtly and ritualized aspects of Urartian rule¹¹. The bronze lion from Sznak should be understood within this broader Urartian ideological system. While its function as a candelabrum support, as explored in this text, situates it within elite ritual spaces, its form and expressive features indicate that it also bore a symbolic dimension, evoking themes of protection, power, and divine favor. The carefully sculpted open mouth, visible teeth, and intense gaze enhance the impression of latent strength, aligning this lion with the broader visual tradition of Near Eastern royal iconography.

Morphological and Decorative Analysis of the Lion from Sznak

The bronze lion from Sznak is a small yet finely executed sculpture that stands as an outstanding example of Urartian metalwork, exhibiting both technical mastery and artistic refinement (Figures 1-4). The authors of this study had the opportunity to photograph and measure the object, housed in the Goris Museum of Local Lore and History, on multiple occasions in February 2023 and October 2025. This three-dimensional sculpture, representing a recumbent lion, was created using the lost-wax casting technique, a method that allowed Urartian artisans to achieve remarkable precision in their bronze works. Over time, oxidation has left a greenish patina on the surface. Measurements indicate that the sculpture is approximately 20.3 cm in length, 12.8 cm in height, and about 8 cm in width¹², with a weight of 7.5 kg¹³, dimensions that suggest it was not an independent figurine but rather a structural component of a larger ceremonial object. Comparative analysis with other Urartian lions used as candelabrum supports, particularly those bearing the inscription of King Minua, housed in the Israel Museum in Jerusalem, provides compelling evidence that this lion originally served a ritual or ceremonial function¹⁴. Several elements strongly support this interpretation, notably the presence of three triangular recesses in the lower part of the sculpture, which were evidently used to mount the lion onto a piece of furniture or a bronze shaft, as well as the stylistic similarities with other known Urartian bronze lions. These parallels extend to pose, facial features, and decorative motifs, reinforcing the idea that the Sznak lion was part of a candelabrum or similar ritual furnishing, most likely displayed in an elite or religious setting.

Posture and Anatomical Features

The lion is depicted in a recumbent position (Figure 1), with its front legs (one missing) extended forward and its hind legs folded beneath the body, a posture that exudes both composure and latent strength (Figure 4A). This positioning aligns with other Urartian bronze

¹⁰ On these aspects, see DAN 2023, 207-211/ figs. 116, 119.

¹¹ On these bowls, see DAN *et alii* 2024.

¹² As reported also in *Au pied du Mont Ararat* 2007, 132.

¹³ The weight recorded during the 2023 examination (7.5 kg) differs from the earlier figure reported by Yesayan and Shahinyan (1962), who indicated approximately 5.5 kg.

¹⁴ MERHAV 1991, 270/ fig. 11a; SEIDL 2004, 222/ pl. 3a-c. These types of candelabra could also feature figures other than lions, as evidenced by a candelabrum excavated at Toprakkale bearing the inscription of a King Rusa, which depicts a winged chimera with an anthropomorphic head (HOFFMANN 1960, 896; MERHAV 1991, 263/figs. 10a-d). In some cases, the lions decorating these bronze candelabra could also be made of different materials, as seen in a candelabrum from Altintepe, which had a bronze structure but featured lions carved in ivory (ÖZGÜÇ 1969, 45/ fig. 43; MERHAV 1991, 263/ fig. 10).

lions used as support elements for ritual furniture or lighting structures. The anatomical rendering reveals a careful balance between stylization and volumetric precision. The body is solid and compact, with softly rounded transitions between the shoulders, torso, and haunches. The dorsal line is slightly convex, and the tail, curved along the right flank, merges smoothly with the back, forming a continuous and harmonious silhouette (Figure 4D). The surface of the torso is intentionally plain, without incised fur details, a feature consistent with Urartian bronze fittings and supports rather than freestanding sculpture. The contours of the shoulders and haunches are gracefully defined, while the symmetry of the limbs and the proportional relationship between head and body emphasize stability and controlled tension, an aesthetic hallmark of Urartian royal iconography. The paws are rendered with notable realism: each toe is separated by deep grooves that define rounded pads, visible especially in the underside view (Figure 4F). This detailed modeling contrasts with the more abstract treatment of the torso, suggesting that the sculptor intended to emphasize the lion's grounded stability and strength. The missing right front paw (Figure 4C) exposes small perforations and a compact metal texture, revealing internal casting channels or the remains of an attachment pin, confirming both the solidity of the bronze and its functional role within a composite structure. The underside of the sculpture (Figure 4E) also shows traces of filing and recesses for the fixing system. Viewed as a whole, the Sznak lion conveys a restrained vitality, less aggressive and more introspective than its Assyrian prototypes, aligning with the Urartian aesthetic of controlled power and divine guardianship. The smooth transitions, compact geometry, and frontal equilibrium place this piece stylistically close to the candelabrum lions from Van and Jerusalem, though its modeling appears slightly more plastic and rounded, perhaps reflecting a later or regionally specific workshop tradition.

Facial Features: Expression and Symbolism

The head of the Sznak lion is particularly expressive, embodying a combination of naturalistic and stylized elements that typify Urartian approaches to feline iconography (Figure 3). The head, proportionally large in relation to the body, exhibits powerful modeling and highly distinctive features. The muzzle is broad and truncated, with strongly bulging cheeks that project forward in a rounded mass. The nostrils are deeply drilled and separated by a sharply incised naso-labial groove forming a trident-like pattern, while the upper surface of the snout slopes gently upward toward the brow. The eyes, almond-shaped and slightly protruding, are symmetrically positioned and framed by thick eyelids. Although no traces of inlay survive, the regular circular sockets suggest that the eyes were originally inlaid, possibly with glass, shell, or stone, to enhance their luminosity and realism. The resulting gaze is intense and commanding, reinforcing the symbolic role of the lion as a vigilant guardian. The mouth is sculpted in a wide, partially open position, revealing meticulously carved teeth and prominent upper canines. The lower jaw is slightly recessed, an artistic technique that accentuates the open-mouth effect without disrupting the overall harmony of the composition. The tongue is visible and gently curled, adhering to the lower plane, an expressive device common in Near Eastern depictions of roaring lions, symbolizing latent energy and divine power. The cheeks and jowls are swollen, defined by curved incisions that create subtle shadow effects and highlight the lion's muscular vitality. The ears, small and rounded, are set far back on the head, pressed against the skull in a pose of alertness. Unlike later Mesopotamian or Anatolian depictions, which emphasize voluminous manes, the Sznak lion shows a smooth transition from forehead to neck. This simplification may indicate a stylized interpretation of a youthful lion

or a deliberate choice to preserve the clarity of the silhouette. A slight dorsal protuberance on the upper rear of the head could represent a schematic mane or an anatomical junction, providing a transition between head and neck. Taken together, these features express a sophisticated interplay between realism and abstraction: the artist avoided excessive naturalism, preferring to convey the spiritual and symbolic qualities associated with leonine imagery in Urartian iconography, strength, divine protection, and royal legitimacy. The Sznak lion's expression, at once restrained and vigilant, captures the Urartian conception of controlled might, distinct from the dynamic and aggressive realism of the Assyrian lion hunts.

Casting Technique and Assembly System

The detailed examination of the underside of the sculpture (Figure 4E) and of the broken front right paw (Figure 4C) provides valuable evidence regarding the production method and the original attachment system of the Sznak lion. The sculpture was cast as a single, solid piece using the lost-wax (*cire perdue*) technique, with no visible seams or joining lines, confirming a unified wax model. After casting, the underside was carefully reworked: three triangular recesses and a central circular perforation were created to secure the lion onto a separate base or structural element, most likely a candelabrum shaft or a wooden plinth reinforced with bronze fittings. The broken front paw clearly shows the internal metallic core cavity and three small perforations, which appear to have been part of the fixing system or correspond to air vents from the casting process. The fracture surface is clean and reveals the compact and homogeneous grain of the bronze alloy, indicating a well-controlled cooling process. The paw break also exposes traces of ancient metallic residue, possibly from a dowel or pin used to stabilize the figurine, demonstrating that the lion was securely anchored through both mechanical insertion and surface adhesion. The central perforation on the base retains remnants of a circular metallic fragment, suggesting the use of an iron or copper-alloy rod fixed into a mortise or socket of the support structure. The adjacent triangular cavities, with sharp, tool-marked edges, show signs of secondary adjustment by filing and abrasion, confirming that artisans refined the fit after casting. The combination of recesses and a central pin ensured both vertical stability and resistance to rotation, crucial for a heavy object (7.5 kg) intended as a candelabrum support. The metallographic features visible in the exposed sections indicate a dense, low-porosity bronze typical of Urartian workshops of the 8th–7th centuries BCE. The absence of casting bubbles or flaws points to a sophisticated control of the molten alloy. The technical precision and functional complexity of this attachment system suggest that the Sznak lion originated from the same category of elite metalworking ateliers responsible for monumental bronze furnishings from Van and Toprakkale.

State of Preservation and Surface Condition

The bronze lion is exceptionally well preserved, with all major anatomical features intact except for the missing front right paw, broken in antiquity or during recovery. The surface displays a homogeneous green to dark-brown patina, formed through long-term oxidation and burial conditions. Microscopic examination reveals localized encrustations of malachite and cuprite, especially in recessed areas such as the mouth and the underside cavities. The upper portions exhibit light polishing and minor abrasions, probably resulting from ancient handling or modern cleaning. The structural integrity of the bronze remains excellent, with no visible cracks or deformation, confirming the high quality of the original alloy. Overall, the artifact's preservation allows for a detailed assessment of both its aesthetic and technological aspects.

Interpretation and Context

The stylistic and technical features of the bronze lion from Sznak strongly support the hypothesis that it was not an isolated figurine but rather a structural component of a candelabrum or similar ritual furnishing. This interpretation is further reinforced by comparative examples, such as the bronze lions from Van and Toprakkale, which share nearly identical proportions, posture, and facial articulation. In addition to its functional role, the Sznak lion also carried symbolic weight. In Urartian art, lions were more than just decorative motifs, they were emblems of royal power and divine favor. The Urartian kings, much like their Assyrian counterparts, frequently incorporated lion imagery into elite objects, ceremonial vessels, and monumental architecture, underscoring the lion's role as a protector and symbol of sovereignty. The presence of similar lion representations on Urartian bronze bowls from Karmir-Blur, which were used in courtly feasting and religious rituals, suggests that these objects were closely associated with elite ceremonial practices. Considering this broader context, the bronze lion from Sznak can be understood as part of a larger artistic and ideological framework, in which lion imagery played a central role in affirming the divine legitimacy and military strength of Urartian rulers. Its finely executed details and dynamic expression suggest that it was not merely functional but also intended to convey an aura of power and sacred protection.

Comparative Analysis: the Sznak Lion and Other Urartian Lion Representations

The bronze lion from Sznak fits into a broader Urartian sculptural tradition in which lions played a key role in elite and ritual objects, serving as candelabrum supports, shield decorations, and furniture fittings. While sharing a distinct Urartian stylistic language, the Sznak lion exhibits notable variations and similarities with other Urartian lion depictions from major sites such as Van, Jerusalem, Ayanis, Toprakkale, Patnos, Kayalidere, and Altintepe. A detailed comparative analysis highlights both regional artistic conventions and the specific features that distinguish the Sznak lion from its counterparts.

The bronze lion from Kayalidere

The Kayalidere¹⁵ lion, found as part of a military or ceremonial assemblage, was discovered during the 1965 excavations (Figure 5). Cast using the lost-wax technique, it measures 9.30 cm in length and 6.40 cm in height. The sculpture, made of solid bronze, was found north of the temple stele base, lying in burnt and brickly debris above a stone pavement. The base of the lion displays file marks and a dowel hole filled with black adhesive, suggesting that it was originally affixed to another object, possibly a larger ceremonial or decorative piece. Stylistically, the Kayalidere lion closely follows the Urartian artistic tradition, sharing strong similarities with bronze throne elements from Toprakkale. Its defining features include a bulging palmette-shaped muzzle, sharp-angled wrinkles on the nose, triangular eyes framed by raised eyebrows, and ear-laps decorated with circular warts. The mane exhibits a stylized flame pattern, while a beveled ridge runs along the back of its head, reinforcing the characteristic symmetry and rigid design found in Urartian metalwork. When compared to the bronze lion from Sznak, both sculptures share fundamental iconographic conventions typical of Urartian art, including a compact and symmetrical structure, a broad snout, an open mouth with exposed canines, and a slightly flattened head. However, the Sznak lion appears more three-dimensional, likely due

¹⁵ BURNEY 1966, 75-77/ figs. 8-9, pl. 9a, 10.

to its function as a candelabrum support, whereas the Kayalidere lion's attachment mechanism suggests a different structural purpose. Additionally, the Kayalidere lion features more pronounced surface detailing, particularly in the rendering of the mane and facial wrinkles, indicating a refined approach in line with high-quality Urartian bronze objects.

Bronze Candelabra Lions Allegedly from Patnos Housed in Van and the Israel Museum, Jerusalem

Among the closest parallels to the Sznak lion are the candelabrum-support lions from Van¹⁶ and Jerusalem¹⁷, both possibly originating from the site of Aznavurtepe (Figures 6-7)¹⁸. These lions share an almost identical recumbent stance, with extended front paws and tucked hind legs, and size. They are characterized by a broad, symmetrical snout, an open mouth with visible canines, and a compact yet dynamic form. The Jerusalem candelabrum, bearing the inscription of King Minua (CTU B 5-8), provides valuable chronological and contextual insights into the function of such artefacts, much like the Sznak lion. The chronology of these specimens, which are remarkably similar to the Sznak lion, should therefore be placed between the late 9th and the early 8th century BCE.

The Bronze Lion Shield Protome and the Limestone Lion Head from Ayanis

A distinct yet comparable example is the lion protome from Ayanis, built by Rusa (II), son of Argišti (685–645 BCE, which was affixed to a bronze shield (Figure 8)¹⁹. Despite its different function, the Ayanis lion shares notable similarities with the Sznak lion, particularly in its facial features and expression. Both exhibit a broad snout with carefully incised nostrils, an open mouth with prominent upper canines, and slightly bulging, symmetrically positioned eyes. The articulation of the jowls and cheeks in both lions enhances the impression of muscular strength and vitality, characteristics that are fundamental to Urartian feline representations. However, due to its military function, the Ayanis lion is somewhat more stylized, with flatter relief work and sharper contours, allowing it to be integrated onto the curved surface of a shield. In contrast, the Sznak lion, designed as a freestanding sculptural element, presents a more three-dimensional form, particularly in the articulation of the shoulders, haunches, and paws. These differences suggest that while the same iconographic model was employed across various artistic and functional contexts, the adaptation of the lion motif varied depending on its intended use and artistic conventions. More recently, a limestone lion head was discovered in the Temple Area of Ayanis Fortress (Figure 9). Measuring 22 cm in height, 20 cm in width, and 18.5 cm in depth, the sculpture was found in three fragments and is unique in Urartian art, being the only known limestone lion head of this type. It was originally affixed to a larger structure, likely part of a wooden or stone-bodied statue, emphasizing its ritual or symbolic role within the temple²⁰. This lion head shares significant stylistic parallels with the Sippar lion, a Neo-Assyrian limestone sculpture²¹, which will be described later in this text. Both lion heads display deeply carved eyes, nostrils, and fangs, with an expression that conveys a blend of ferocity and authority. However, while the Sippar lion was an architectural fixture, the Ayanis

¹⁶ BOYSAL 1961, 204-209 Abb. 1-3; MUSLUBAŞ 1983, Nr. A 817; SEIDL 2004, 222/ pl. 3c.

¹⁷ MERHAV, RUDER 1991; MERHAV 1991, 264, N° 11a; SALVINI 1991; SEIDL 2004, 15, 25, 60/ pl. 3a-b (C.11);

¹⁸ On the site, see DAN 2022.

¹⁹ DERIN, ÇILINGIROĞLU 2001, 162-163/ figs. 12, 21-22; BATMAZ 2013, 244-246/ figs. 8-15.

²⁰ ISIKLI, ARAS 2016, 436-437.

²¹ ISIKLI, ARAS 2016, 439/ fig. 10.

lion was likely a mounted decorative or ritual element, reflecting Urartian adaptations of Assyrian artistic traditions. In contrast, the Sznak lion, though significantly smaller and cast in bronze, shares similar iconographic conventions, such as a broad snout, open mouth, and intense gaze. The key element for the chronological attribution of the shield and the lion protome is the lengthy inscription of Rusa (II), son of Argišti, which adorned the shield (CTU IV B 12-1). This inscription allows for a precise dating to the first half of the 7th century BCE.

The Bronze Lion Head Protome from Karmir-Blur

The bronze protome from Karmir-Blur²² is a striking example of Urartian metalworking, showcasing the refined craftsmanship and symbolic iconography typical of the kingdom's elite material culture (Figure 10A). This artefact is a *lebes* attachment, features a fierce lion's head with an open mouth, exposed teeth, and a dynamic expression, emphasizing themes of power and dominance. The curved, hollow form suggests it was originally mounted onto a separate structure, possibly a cauldron, rhyton, or ceremonial standard. The lion's facial features are meticulously rendered, with deeply incised nostrils, bulging eyes, and a stylized mane, which closely aligns with other Urartian bronze lion representations, such as those found at Toprakkale, Altintepe, and Kayalidere. The body of the protome is decorated with intricate linear and dot patterns, resembling textile or scale motifs, a characteristic often seen in Urartian metal art. The most significant feature of this object is the presence of a short dedicatory inscription (CTU IV B 9-24), which attributes the work to Sarduri (II), son of Argišti (756–ca. 730 BCE). This inscription provides a secure chronological framework, dating the protome to the mid-8th century BCE. This firmly situates the artefact within the height of Urartian royal production, emphasizing its role as an elite ceremonial object, likely used in ritual banquets and royal feasting practices. Compared to the bronze lion from Sznak, this protome is more elongated and stylized, likely due to its function as an ornamental attachment rather than a freestanding sculpture. However, both share the same iconographic conventions, including the fierce expression and prominent snout, reflecting the continuity of Urartian artistic traditions. The protome's placement at Karmir-Blur, one of the most significant Urartian fortresses, further underscores its high-status ceremonial use, possibly linked to royal or temple rituals.

The Bronze Lion from Toprakkale

The throne from Toprakkale, one of the most significant Urartian metal artifacts, features bronze lion figures as part of its decorative and structural elements (Figure 10B)²³. These lion representations were likely positioned as supporting figures or as symbolic protectors, reinforcing the association between Urartian royalty and divine strength. The bronze lions from Toprakkale, similar to other Urartian lion depictions, exhibit a rigid, frontal composition, with powerfully modeled musculature and stylized facial features. A comparison with the Sznak lion highlights both similarities and differences in Urartian bronze craftsmanship. While both share a compact form, a broad snout, and an open-mouthed expression, the lions from Toprakkale appear more integrated into a larger artistic program, serving as throne supports or symbolic royal guardians. In contrast, the Sznak lion, possibly a candelabrum support, was

²² HMA N° 2783-79; PIOTROVSKY 1959, 178/ fig. 41; 1960a, 119; 1960b, 109/ Nr. 57-225; 1962, 65/ fig. 37; 1967, 44/ fig. 19; 1970, 96/ fig. 64; 1987, 46/ fig. 45; AZARPAY 1968, 38/ fig. 9; *Armenien* 1995, 104/ Nr. 116; SEIDL 2004, 37, 100/ fig. 72 (F.110); *Urartu* 2018, 170-171.

²³ BARNETT 1950, 31/ fig. 22, pls. II-VIII, XI; SEIDL 1994; SEIDL 2004, 44/ fig. 25, pls. 4-5.

designed as a freestanding decorative element, emphasizing ritual and elite ceremonial use. Despite these differences, both sets of lion figures reflect the Urartian tendency toward hierarchical and standardized representations of power. Although it is not always necessary to correlate an object directly to the foundation of the site where it was discovered, establishing a precise chronology for the so-called Throne of Toprakkale remains challenging. This difficulty is further compounded by the uncertainty surrounding the dating of Toprakkale's foundation, which fluctuates between the 8th and 7th centuries BCE. A recent chronological proposal has suggested dating the Throne of Toprakkale to the 7th century BCE, based on certain characteristic elements of Phrygian artistic repertoire²⁴.

The Ivory Lions from Altintepe

Additional Urartian lion representations provide further insight into regional stylistic variations. At Altintepe, a unique variation appears in the form of an ivory lions, likely used as part of furniture inlay or ceremonial decoration (Figure 11). One of the two lions is depicted in a seated posture, while the other is recumbent. The first lion²⁵, an intricately carved ivory sculpture, was likely a decorative element in elite furniture or ritual objects. Its refined detailing and carefully rendered features suggest a high level of craftsmanship, aligning with other Urartian luxury artefacts. Unlike monumental stone guardian lions, this piece showcases refined craftsmanship and a highly stylized aesthetic, emphasizing geometric patterning and intricate detailing. The lion features a rigid frontal stance, an exaggerated facial expression with wide eyes, a snarling mouth, and prominent fangs, all contributing to an aura of power and intimidation. The mane is decorated with a stylized diamond-shaped pattern, a motif reminiscent of both Neo-Assyrian and Syro-Hittite artistic traditions, illustrating Urartu's engagement in cross-cultural artistic exchanges. Additional details include a U-shaped wrinkle motif below the nose, distinct from the step-like wrinkles found in Toprakkale examples. The brow and eye region are sharply modelled, extending into a triangular forehead, while the cheekbones project outward prominently, enhancing the lion's three-dimensional form. A rare palm-leaf motif beneath the cheekbones further distinguishes this piece. Compared to the bronze lion from Sznak, the Altintepe lion appears more geometric and ornamental, reflecting Urartian sculptural traditions favouring hieratic symmetry over naturalism. While both share symbolic associations with power and protection, the Altintepe example, being in ivory, likely adorned luxury items rather than serving as a structural support like the Sznak lion. This distinction highlights the diverse applications of lion imagery in Urartian art, spanning from monumental architecture to elite furnishings. The second ivory lion²⁶ shares the same recumbent posture and exhibits similar features to the specimens from Sznak, Van, and Jerusalem, yet it presents a more dynamic and naturalistic rendering. This stylistic shift suggests a possible influence from Syro-Anatolian iconographic traditions, which often favoured a greater sense of movement and anatomical realism compared to the more rigid and hieratic Urartian representations. Despite being carved in ivory rather than cast in bronze, the Altintepe lions shares the same intense expression and stylized features seen in other Urartian feline depictions, reinforcing the consistent iconographic role of lions in Urartian royal and

²⁴ BONFANTI, DAN 2021, 24-26/ fig. 11B.

²⁵ ÖZGÜÇ 1969, 45-47/ figs. 43-44, pls. A1, XXXVII-XLII; SEVIN 1993, 42/ fig. 39; MERHAV 1991, 263/ fig. 10.

²⁶ ÖZGÜÇ 1969, 42-45/ figs. 29-42, pls. XXXIV-XXXV.

ritual settings. It is not possible to establish a chronological proposal for this specimen, although a dating to the 8th century BCE could be plausible²⁷.

The Stone Lion Relief from Hişet

One of the most significant discoveries at the Hişet site²⁸ is a fragmentary basalt lion sculpture (Figure 12)²⁹, identified in 1974 during the construction of a water canal on the southern slope of the fortress, near the 14th-century Celme Hatun Cemetery. Measuring 2.45 m in height, 1 m in length, and 0.75 m in width, the sculpture is carved from a single block of stone and is considered only the second lion stone sculpture attributed to Urartu, alongside the fragmentary and unfinished lions from Garibin Tepe. Despite the absence of the head, which was already missing at the time of discovery, the torso remains well-preserved. The most striking feature of the sculpture is its stylized mane, which closely resembles bronze Urartian examples. The mane extends broadly between the ears, narrows towards the chin, and is divided by a central line, with symmetrical, carved curls of hair. The chest is not prominently defined, and the front legs are represented as simplified vertical projections, appearing unfinished. Scholarly comparisons have linked the Hişet lion to North Syrian and Assyrian sculptures of the 9th century BCE, particularly late Hittite productions from Carchemish, with similarities in the shoulder articulation. The mane has been compared to reliefs from Boğazköy and Malatya, further situating the sculpture within Syro-Anatolian iconographic traditions³⁰. While its function as an apotropaic guardian figure is likely, probably positioned at the entrance jamb of a palatial structure, its exact chronology remains uncertain. Given the rarity of stone reliefs in Urartu³¹, and considering the dated rock reliefs (CTU A 12-10) from the reign of Rusa (II), son of Argišti, such as those at Kef Kalesi, a 7th-century BCE attribution appears the most plausible.

The Stone Lions from Garibin Tepe/Alaköy

The lion sculptures from Garibin Tepe, also referred to as Alaköy Fortress, represents one of the few known Urartian stone representations of lions³². Discovered through illegal excavations and later transported in the Van Museum, these three-andesite sculptures were originally part of a larger architectural or monumental setting (Figure 13A). The fragmentary remains of two lions heavily damaged, exhibits stylistic features linking it to Neo-Hittite and Neo-Assyrian sculptural traditions. The most defining characteristics of the Garibin Tepe lions include a pronounced brow ridge, deeply set eyes, and a powerful jaw with an open mouth. These features bear similarities to other Urartian lion depictions, such as those from Ayanis, Toprakkale, Altintepe, and Kayalidere. When compared to the Sznak lion, the Garibin Tepe sculpture shares the characteristic broad snout, expressive facial modeling, and muscular emphasis typical of Urartian lion representations. However, while the Sznak lion was cast in bronze and likely served as a candelabrum support, the Garibin Tepe lion was carved in stone, with a more rigid and imposing structure that suggests a role as an apotropaic guardian figure. The stone material also allowed for a more geometric and monumental aesthetic, contrasting

²⁷ On the chronology of the site of Altintepe see the discussion in DAN 2022, 57-59.

²⁸ On the site and the lion relief, see DAN 2025.

²⁹ SEVIN 1993, 565-567.

³⁰ SEVIN 1993, 565-567.

³¹ On the few Urartian sculptures, see SEIDL 1993.

³² On the site and the stone sculptures, see DERIN, SAĞLAMTEMİR 1998; DAN 2019, 6, 10-11/ figs. 10-12.

with the more detailed and fluid modeling of the Sznak lion. Additionally, the Garibin Tepe lion bears resemblance to the limestone lion from Ayanis, particularly in its frontal posture and stylized features. Like the limestone lion head specimen from Ayanis, the Garibin Tepe sculpture may have functioned as part of an entrance installation or a larger decorative ensemble within a Urartian administrative or religious center. Recently, in 2023, a new unfinished lion sculpture was discovered at the site during regular excavations (Figure 13B). This piece appears to be an unfinished monumental lion in a recumbent position, as indicated by the preserved attachment points of the front paws and the more finely worked rear section. Carved from a single block of andesitic stone, the sculpture exhibits a rough-hewn surface indicative of an incomplete state, but the positioning of its elements strongly aligns with other known recumbent lion figures in Urartian art. The back of the lion, which appears to be the most carefully shaped section, suggests that artisans began working on the overall form before refining the details. The remnants of the front limbs, positioned close together, support the hypothesis that this lion was meant to be depicted resting on its paws, a common iconographic feature seen in both Urartian and Neo-Assyrian monumental art. Comparisons with other Urartian lion sculptures, such as those from Ayanis, Toprakkale, and Altintepe, reveal notable similarities in scale and form. If confirmed as a lion, this piece would align with the tradition of apotropaic guardian figures placed at palace or temple entrances, where pairs of lions often flanked doorways to symbolize protection and royal power. The presence of multiple such sculptures at Garibin Tepe suggests the possibility that this was part of a larger program of monumental decoration, possibly linked to Ayanis Fortress. The unfinished state of the sculpture raises intriguing questions about the production processes in Urartian stoneworking. Its incomplete nature may indicate a halted project, or it could reflect an *in-situ* carving that was abandoned before completion³³. The discovery of the Garibin Tepe lion highlights the broader artistic connections between Urartu and its neighbouring regions, particularly the Neo-Hittite and Neo-Assyrian cultural spheres. While clearly influenced by these traditions, the sculpture retains distinct Urartian features, reinforcing the idea that Urartian art, despite borrowing external elements, developed its own unique visual and symbolic language. The dating of the statues from Garibin Tepe remains a subject of discussion. Their unusual proportions and unfinished state suggest a later date, likely around the mid to second half of the 7th century BCE. These sculptures represent yet another testament to the shifts in material culture, iconography, and architecture introduced by Rusa (II), son of Argišti, during the 7th century BCE. They reflect new expressions of Urartian kingship that, for various reasons, remained incomplete or were never fully developed. This perspective also helps explain the scarcity of fully three-dimensional stone sculptures from Urartian sites. Rather than an established tradition, such works may represent an innovative artistic development that emerged only in the final phases of Urartian political dominance in the region.

The Stone Lion Relief from Erzincan

Among the rare examples of Urartian monumental stone sculpture, the lion relief from Erzincan occupies a unique position, both for its iconographic features and its stylistic peculiarities (Figure 14). Carved in high relief on a rectangular basalt slab, the figure depicts a lion striding to the right, characterized by a static and rigid posture. The body is unusually thin and elongated, with short, firmly planted legs, a straight back, and a tail hanging almost

³³ For the chronology and the possible role of Garibin Tepe as a sculpture workshop, see DAN 2019.

vertically downward, ending in a stylized curl. The head is disproportionately large compared to the body and is turned outward, displaying an open mouth, prominent fangs, and a partially visible tongue, conveying a contained yet explicit sense of alertness. The mane is rendered through a series of flame-like incised motifs that cover the neck and part of the chest in a highly stylized and decorative manner. The shoulder area features two superimposed loop-shaped outlines, a distinctive element that enhances the formalized and ornamental character of the composition. The mane culminates at the top in a volute- or spiral-shaped motif stylizing the ear, a feature consistent with other Urartian lion representations. On the lion's rump, three parallel horizontal grooves are carved, flanked by an "M"- or "N"-shaped motif on the haunches, details that directly recall the decoration of the bronze lions adorning the shields of King Rusa (III), son of Erimena, from Toprakkale. This "M"-shaped stylization of the haunch muscles, and more broadly the occurrence of "M"- or "W"-shaped schematizations, find close parallels in certain elements of Late Hittite art and particularly in Assyrian reliefs of the 9th century BCE, where the "W"-shaped treatment predominates³⁴. As noted by Akurgal³⁵, the stonecutter at Erzincan deviated slightly from traditional anatomical stylizations, inverting the conventional treatment of the haunch muscles into an "M" shape and adopting slenderer and horizontally stretched proportions for the body and neck, likely to adapt the figure to the shape and dimensions of the basalt slab. The slab itself, characterized by its considerable thickness, was almost certainly carved on-site. This peculiar rendering results in a composition that, while preserving key Urartian stylistic markers, conveys a more provincial and lifeless impression compared to the more dynamic bronze lions from the royal centres. As Van Loon has emphasized, the Erzincan relief, despite its formal rigidity, shares a close stylistic relationship with the bronze lions from Toprakkale and, more distantly, with the silver horse frontlet from Ziwiyeh, all of which are datable to around 600 BCE. This connection thus supports the idea of a cohesive Urartian artistic style during the 7th century BCE, albeit with regional variations and differing levels of craftsmanship³⁶. The Erzincan relief, therefore, offers valuable insight into the diffusion and local adaptation of royal iconographic models within the peripheral areas of the Urartian kingdom, where formal conventions were preserved even as technical execution became increasingly schematic and stylized.

Other Representations of Lions in Urartian Iconography

In addition to three-dimensional sculptures and ceremonial bronzes, lion imagery was a prominent and recurrent motif across a wide variety of Urartian artistic supports, including bronze belts, wall paintings, and monumental stone reliefs. Each of these supports offers a different perspective on the role of the lion within Urartian ideological and visual culture, reflecting both the adaptability and the standardization of this symbol throughout the kingdom's history. On Urartian bronze belts, lions are among the most frequently depicted animals, either in walking or rampant positions. The compositions are generally repetitive, arranged in friezes framed by floral or geometric borders, often associated with other powerful animals such as bulls or mythical creatures. In the vast majority of cases, the lions are rendered with rigid postures, schematized musculature, and standardized profiles, emphasizing symmetry and ornamental regularity over narrative dynamism. This static mode of representation reflects a broader tendency in Urartian art to favour hierarchical and

³⁴ AKURGAL 1961, 31-32.

³⁵ AKURGAL 1959, 32.

³⁶ VAN LOON 1966, 77, 118.

formalized imagery, particularly in royal contexts. However, some exceptional belts, such as those from Kayalıdere, Burmageçit, Nor Aresh, and Yerevan, break this pattern by incorporating more dynamic scenes of lion hunting, clearly inspired by the Assyrian models of Aššurnasirpal II. In these rare instances, lions are depicted mid-attack, with curved bodies, raised tails, and contorted limbs, attempting to replicate the fluid movement and drama typical of Neo-Assyrian royal iconography (Figure 15). These belts, although few in number, suggest that a more narrative and lively artistic tradition was still accessible within Urartu, particularly in its earlier phases³⁷. Further evidence of the use of lion imagery in portable artefacts comes from the bronze lion-shaped plaques from Karmir-blur³⁸ and the plaques from Oshakan³⁹. The metal plaques from Karmir-blur show lions in a rigid walking stance, with highly stylized manes rendered through repeated flame-like curls, strong emphasis on the paw joints, and incised decorative patterns along the body (Figure 16A). In contrast, the clay plaques from Oshakan, display more schematic lions framed within dotted borders, combining a strong stylization of details with a simplified, almost heraldic conception of the animal figure (Figure 16B)⁴⁰. Although differing in execution, both groups of plaques reflect a similar approach to lion imagery: emphasizing formal symmetry, symbolic presence, and decorative integration rather than naturalistic depiction. Their stylistic features further underscore the dissemination of royal iconographic models into more popular or provincial contexts. A related but distinct treatment of lion imagery is found in the wall paintings of the Erebuni fortress. Here, lions are depicted in symmetrical compositions, facing one another across the concave sides of a square panel. The influence of Assyrian architectural decoration is unmistakable in the organization of space, yet the rendering of the lions remains distinctively Urartian. Their bodies are highly stylized, with exaggeratedly curled tails, flame-like manes, and flattened, schematic anatomies that suppress any sense of naturalistic movement. The juxtaposition of opposing lions within a geometric frame emphasizes balance and formal order rather than action or aggression, aligning perfectly with the ideological need to present the ruler's power as eternal and unshakeable. In monumental stone reliefs, the use of lion imagery reaches another level of symbolic and architectural importance. At Kef Kalesi, the lions are presented as mounts for winged genii in a ritual context, directly confronting the walls of a fortified city (Figure 17)⁴¹. Although they preserve some dynamism, these lions are characterized by a notable stylization of form, particularly in the rendering of their manes, which are reduced to schematic flame-like curls, and in the rigid arrangement of their limbs. The associated inscriptions of Rusa, son of Arğišti, securely date these reliefs to the final phases of the Urartian kingdom, around the late 7th century BCE. The visual vocabulary employed at Kef Kalesi reflects an advanced stage of the process of artistic schematization, where iconographic meaning takes precedence over any attempt at realism. The progressive evolution from dynamic to static lion imagery in Urartian art is not merely a stylistic phenomenon but must be understood in light

³⁷ On the Urartian belts and these iconographical aspects, see DAN, BONFANTI 2022b.

³⁸ HMA N° 2783-192; 2783-193; *Urartu* 2018, 38-39.

³⁹ HMA N° 2747-117/1, 2; ESAYAN, KALANTARYAN 1988, 136/ fig. 4.

⁴⁰ The two plaques with lions from Oshakan were found among the grave goods of Tomb No. 59 in the necropolis, excavated during the archaeological campaigns carried out between 1971 and 1983 under the direction of S. A. Esayan and A. A. Kalantaryan. They consist of small square plaques made of well-fired clay, carefully modelled and decorated in the centre with the figure of a lion within a dotted frame. Both plaques were covered with a thin gold foil, traces of which were still clearly visible at the time of discovery (ESAYAN, KALANTARYAN 1988, 77-80, Colour plate 4).

⁴¹ On these pillars, see BILGİÇ, ÖĞÜN 1964; SEIDL 1993, 559-569/ fig. 3, pl. 98.2; DAN 2015, 31-32, 93.

of changing political and ideological imperatives. The earliest surviving representations, such as those on the Anzaf shield, present lions in active poses, participating in complex narrative scenes of battle and divine hierarchy. In contrast, from the reign of Arğiști, son of Minua, onwards, a deliberate trend toward static, hieratic representations emerges, with lions serving less as actors in dynamic narratives and more as timeless emblems of power and divine favour⁴². This transition reflects a profound shift in the conception of kingship and authority within Urartian ideology, where the emphasis moved away from heroic action toward the visual affirmation of eternal, immutable sovereignty. Thus, across belts, wall paintings, monumental reliefs, and portable furnishings such as the plaques from Karmir-blur and Oshakan, the lion stands as a constant yet evolving symbol in Urartian visual culture, a figure whose changing depiction mirrors the broader transformations in the kingdom's artistic language, political messaging, and cultural identity during the course of the 9th to 7th centuries BCE.

The Alabaster Podium of the Temple at Ayanis

Within the main cella of the temple at Ayanis, a monumental alabaster podium was discovered, positioned against the east wall and serving as the central cultic element of the chamber. The structure, measuring approximately 1.75 × 0.75 m, was constructed above the mudbrick floor and supported by wooden beams and rectangular mudbrick blocks oriented north-south. Its surfaces were originally covered with alabaster slabs, 0.18 m thick on the top and sides, forming a continuous decorative casing. Although many panels were found fragmented, particularly those covering the lateral faces, several remain in situ, preserving extraordinary examples of Urartian relief and incised imagery. The podium was adorned with rows of mythological and divine figures, incised on the alabaster surfaces and organized into a highly regular ornamental composition. As Çilingiroğlu describes⁴³, the decoration was structured by spiral branches of sacred trees bearing cones and pomegranates, which created a grid-like pattern of “windows” framing the figures of winged lions, eagle-headed lions, and hybrid deities. Each figure occupied a discrete panel, emphasizing symmetry and repetition, a hallmark of Urartian monumental design. The preserved slabs (Figure 18) show seven horizontal lines of figures, with five vertical columns forming a coherent narrative register around the podium. Particularly striking are the winged lions, among the finest examples of Urartian glyptic and sculptural vocabulary translated into stone. They are shown in profile, mouths open and tongues extended, with visible teeth and carefully delineated wrinkles around the muzzle and nose, features closely paralleling those of the bronze lion protomes from Ayanis and Karmir-Blur. Their bodies are compact and muscular, the front legs marked by an engraved double contour and the chest defined by an upside-down tulip motif, while the hindquarters combine triangular and ellipsoidal patterns suggesting stylized musculature. The lions' short, upright necks differ from the elongated proportions of other Urartian lions, imparting an impression of tension and energy. The feathered wings rise from the waist area, spreading upward in fan-shaped sections accentuated by incised linear hatching. These iconographic and stylistic features firmly root the Ayanis lions within the canonical Urartian artistic repertoire while simultaneously reflecting local workshop variations. The iconographic context of the podium is equally significant. Alongside the lions, the alabaster slabs depict

⁴² On these aspects, see DAN 2023, 207-212.

⁴³ ÇILINGIROĞLU 2001, 42-44.

eagle-headed lions, winged genii, and divine hybrids, arranged antithetically on either side of sacred trees. This composition, combining vegetal and animal motifs, expresses the Urartian conception of divine order and cosmic protection, a theme also evident in wall paintings from Erebuni and bronze belts from Kayalidere. The lions, in particular, act as guardians of the sacred space, mediating between the earthly and the divine spheres through their placement around the altar. Their formal parallels with the bronze lion head protome from the Ayanis shield reinforce their symbolic role as emblems of royal power and divine favour. Traces of gilded elements, bronze nails, and inlaid rosettes, originally attached to the front face of the podium, indicate that parts of the decoration combined polychrome and metallic components, possibly featuring gold-plated appliqués of lions and bulls. Although most of these attachments were lost to looting and the later destruction of the temple, the surviving holes and residues confirm a richly embellished surface. The presence of such mixed-media adornment places the Ayanis podium within the broader Urartian tradition of ritual furniture and sacred thrones, such as those from Toprakkale and Van, but adapted here to a stationary altar used for cultic offerings. The overall design thus reflects a fusion of architectural, religious, and artistic functions: the podium not only served as a sacrificial table but also as a symbolic microcosm of the divine world, where lions, genii, and sacred trees coexisted in perfect order. The exceptional craftsmanship of the alabaster carving, together with the iconographic sophistication of the winged lions, makes this podium one of the most significant expressions of Urartian religious art in the 7th century BCE.

Chronological Overview of the Sznak Lion

The bronze lion from Sznak has been tentatively dated to the 8th century BCE based on stylistic comparisons with other Urartian bronze lions, particularly those from Van and Jerusalem, which bear inscriptions of King Minua (r. late 9th–early 8th century BCE). The presence of similar candelabrum-support lions associated with Minua strongly supports this dating. Additionally, the Tanahat stele, attributed to Argišti (II), son of Rusa (late 8th century BCE), provides further evidence of Urartian activities in the Syunik region during this period. However, the dating of the Sznak lion has been debated. Yesayan and Shahinyan (1962) originally proposed a later chronology, placing it between the 7th and 6th centuries BCE, likely due to its stylistic similarities with later Urartian and post-Urartian lion representations. Furthermore, some morphological features of the Sznak lion align with later Urartian productions from the 7th century BCE, particularly the lions from Ayanis and Toprakkale, linked to the reign of Rusa II (r. ca. 685–645 BCE). These later pieces often exhibit a more rigid and standardized composition, a characteristic that may also be observed in the Sznak lion. Considering these elements, the most plausible dating for the Sznak lion remains the 8th century BCE, possibly in the reign of Minua or one of the other rulers of the 8th century, but with some stylistic traits hinting at a continuity of artistic traditions that persisted into the 7th century BCE. The alternative hypothesis proposed by Yesayan and Shahinyan, suggesting a later date in the 7th–6th centuries BCE, cannot be entirely ruled out, though it remains less supported by comparative evidence. Further metallurgical analysis and contextual archaeological data could help refine this chronological attribution.

The Limestone Lion Head from Sippar: a Comparison with Urartian Lion Representations

The limestone lion head from Sippar/Abu Happa, housed in the British Museum, is an outstanding example of Neo-Assyrian monumental sculpture, originally part of the Shamash Temple at Sippar (Figure 19)⁴⁴. This lion head, carved from limestone, was likely affixed to an architectural element and served as a guardian figure within the temple complex. It was designed to embody divine protection, royal authority, and the power of the Assyrian ruler, a role commonly attributed to lions in Mesopotamian and Near Eastern art. This sculpture is distinguished by several notable features, including its deeply recessed eye sockets, which originally contained inlays, possibly made of semi-precious stones or colored glass, to enhance its piercing gaze. The nose is wrinkled, the nostrils are flared, and the whiskers are carefully incised, elements that contribute to its vivid expression of dominance and watchfulness. The mouth is slightly open, revealing finely sculpted teeth and fangs, details that reinforce its protective role. The head bears a cuneiform inscription mentioning King Esarhaddon (680–669 BC) and his father Sennacherib, which firmly links the artifact to Assyrian royal patronage. A crucial aspect of this inscription suggests that the Sippar lion head may not have been originally carved for the Shamash Temple but was instead probably transported to Sippar from Nineveh⁴⁵. The text states that the artifact was presented by Sennacherib to his son Esarhaddon, as crown-prince, in the later 680, raising the possibility that it was originally created for an Assyrian royal or religious context in Nineveh and later relocated to Sippar, likely as part of Esarhaddon's restoration efforts following the destruction of Babylon in 689 BCE made by Sennacherib. This relocation aligns with Assyrian practices of repurposing royal or sacred objects as part of their imperial ideology, demonstrating the political significance of lion imagery beyond its religious function. Despite the differences in material and scale, the Sippar lion shares striking similarities with Urartian bronze lions, included the bronze lion from Sznak. Both sculptures emphasize a broad, powerful snout, an intense gaze, and an open-mouthed expression, conveying strength and vigilance. However, the Sippar lion's facial articulation is deeper and more detailed, with an emphasis on incised whiskers and nasal ridges, whereas the Sznak lion exhibits a smoother, more stylized execution. This distinction reflects the differences in artistic conventions between the Neo-Assyrian and Urartian sculptural traditions, while Assyrian iconography sought to achieve expressive realism, Urartian artisans balanced geometric stylization with naturalistic details. The most significant distinction between the two lions is their function. The Sippar lion was an architectural element, likely positioned at the entrance of the Ebabbar Temple as a guardian and protector, reinforcing both religious and royal authority in a static, monumental setting. By contrast, the Sznak lion was part of a functional object, integrated into a mobile, elite ceremonial setting, possibly illuminating royal feasts or temple rituals. This contrast highlights a fundamental difference in how Assyrians and Urartians deployed lion imagery, the Assyrians favored monumental, propagandistic displays, while Urartians incorporated these symbols into portable, high-status objects used in aristocratic or ritual contexts. Despite these differences, the similarities between the Sippar lion and Urartian bronze lions suggest a shared artistic vocabulary, likely influenced by Assyria's cultural and artistic dominance in the Iron Age Near East. The broad, muscular snout, the flared nostrils, and the aggressive expression found in both sculptures

⁴⁴ *Babylonian and Assyrian Antiquities* 1922, 188; HALL 1928, 177/ pl. LIX; BARNETT, WISEMAN 1960, 56-57/ no. 26; LEICHTY 1986, 299; COLLON 1995, 167/ fig. 134.

⁴⁵ SEARIGHT *et alii* 2008, 104/ n° 650.

point to a common iconographic tradition, which Urartian artisans may have adapted to their own artistic sensibilities. Ultimately, the comparison between the Sippar lion and the Sznak lion underscores both the universal significance of lion imagery in ancient royal and religious iconography and the distinct ways in which different civilizations, Assyria and Urartu, adapted this motif to their artistic and political contexts. While the Sippar lion stood as a stationary guardian within a major Mesopotamian temple, the Sznak lion functioned in a more intimate, mobile ceremonial environment, reinforcing its role as both a protective symbol and an elite object within Urartian aristocratic spaces. This analysis highlights how the Assyrian and Urartian artistic traditions, though shaped by different cultural priorities, remained deeply interconnected, sharing and reinterpreting visual symbols of power and divine favor across their respective artistic landscapes.

A Scythian Echo of Assyrian-Urartian Iconography?

Among the various comparative elements discussed in this study, two gold lion-headed fittings from Kelermes, attributed to a Scythian context and dated by Galanina to shortly after the third quarter of the 7th century BCE, deserve special mention. (Figure 20)⁴⁶. Despite originating in a mobile, steppe-based cultural *milieu* and emerging in a different artistic environment, the pieces display striking formal affinities with Urartian bronze lion heads and, indirectly, with Neo-Assyrian prototypes. The fittings (Catalogue Nos. 35 and 36), discovered in Kurgan 3/S, consist of elongated gold tubes decorated in repoussé with a powerful composition of lion muzzles, ram heads, and globular vegetal motifs, enriched with inlays of red amber. The lion's broad snout, open mouth, and emphasized canines closely recall the bronze lion from Sznak, the protomes from Toprakkale, and the shield lions of Ayanis. Another two objects, corresponding to No. 91 and 92 in Galanina's catalogue and therefore distinct from the two lion-headed fittings discussed above, represent of decorative terminals in the form of chased lion heads mounted on the crossbars of stools or chairs of Assyro-Babylonian type, serving as golden finials for prestigious furniture elements. Comparable pieces, such as the silver bull's head from a burial near Krivoroj Rog, also belong to this category of luxury fittings, while the ivory lion head from Kurgan 4 at Nartan may represent a later development of the same tradition within the Early Scythian period. These parallels strongly suggest that the Kelermes gold fittings, too, once adorned high-status ceremonial furniture, thus continuing a well-established Near Eastern tradition of emphasizing royal and divine authority through animal-headed terminals⁴⁷. Although the rendering of the lion's face does not strictly follow Assyrian or Urartian sculptural canons, the overall iconographic scheme is unmistakably indebted to Near Eastern royal bestiary traditions. Scholars have proposed various interpretations of the object's function, including that of a belt clasp. However, the most persuasive hypothesis identifies it as part of a ceremonial Assyrian-Urartian-style throne ensemble, adapted into Scythian elite material culture. This interpretation is reinforced by clear formal and decorative parallels with objects from Ziwiye, and particularly Karmir-Blur, where similar pomegranate terminals, rosettes, and vegetal motifs appear in both royal and ritual contexts⁴⁸. It is also worth noting that the globular elements traditionally identified as pomegranates might alternatively be interpreted as opium poppy capsules, another potent symbol within ancient Eurasian ritual

⁴⁶ GALANINA 1997, 179.

⁴⁷ GALANINA 1997, 155/ pl. 4, 27.

⁴⁸ GALANINA 1997, 155/ figs. 31,20; 32,16.17.33; Catalogue 35-36.

iconography⁴⁹. The ram heads, which terminate the fitting, find close analogies in a quiver clasp from the same site, further suggesting an integrated symbolic program rooted in a shared iconographic vocabulary. Thus, while the Kelermes lion fitting displays some local adaptations, such as a more naturalistic and dynamic rendering, its conceptual framework is fully aligned with the symbolic language of royal power and divine protection as articulated in the Assyrian-Urartian world. In this sense, these fittings may be seen as tangible evidence of the transfer and reinterpretation of royal iconography from the urban palatial contexts of the Near East to the mobile aristocratic milieu of the steppe, demonstrating how the visual language of power was appropriated, transformed, and perpetuated in new sociopolitical environments. This hypothesis aligns with broader patterns of cross-cultural interaction linking the Iranian plateau, the South Caucasus, and the Eurasian steppes during the Middle Iron Age. It also underscores Urartu's role not only as a recipient of Assyrian models but as an active agent in their transformation and transmission. Notably, some of the iconographic and stylistic features observed in this Kelermes object, such as formal symmetry, compact dynamism, and hieratic stylization, would later find powerful expression in the imperial art of the Achaemenid world, further attesting to the long-lasting legacy of these visual traditions.

Beyond Imitation: the Urartian Adaptation of Assyrian Royal Iconography

The bronze lion from Sznak and its broader artistic context offer a remarkable lens through which to examine the complex cultural interactions between Assyria and Urartu. These two great Iron Age states, often portrayed solely as military rivals, were in fact deeply interconnected through shared visual traditions, ideological borrowings, and artistic exchanges. While the political tensions between the Neo-Assyrian Empire and the Kingdom of Urartu resulted in centuries of conflict, their artistic and cultural spheres were far from isolated from one another. Instead, Assyrian visual and ideological motifs found their way into Urartian court culture, where they were selectively adapted and transformed to suit local needs. The process of Assyrianization in Urartu was neither passive nor uniform. Rather than directly replicating Assyrian artistic models, Urartian artisans engaged in a deliberate process of reinterpretation, filtering Assyrian forms through their own artistic sensibilities and integrating them into a distinctive Urartian framework. This is particularly evident in the treatment of lion imagery, which played a prominent role in both Assyrian and Urartian royal ideology but was adapted in distinct ways within each tradition.

In Assyria, lions were primarily depicted in monumental contexts, particularly in the famous lion hunt reliefs of Aššurbanipal, where the king was shown slaying lions as a symbolic act of dominion over nature and chaos. This visual language reinforced the absolute power of the Assyrian king, positioning him as the sole force capable of subduing the wild and imposing divine order on the world. Additionally, Assyrian temple and palace architecture prominently featured lion sculptures, such as the limestone lion head from Sippar, which functioned as guardian figures at the entrances of sacred and royal spaces. In Urartu, however, lions were not depicted as hunted beasts but rather as symbols of protection, divine strength, and royal legitimacy⁵⁰. Unlike in Assyria, where lion imagery was monumental and static, Urartian artisans incorporated lions into portable, functional objects, such as bronze candelabrum

⁴⁹ DAN, BONFANTI 2022a.

⁵⁰ At least regarding royal iconography, there are examples of Urartian bronze belts from non-royal or popular production that depict lion hunts following iconographic models clearly derived from the lion hunts of Ashurbanipal. On this, see DAN, BONFANTI 2022b, 97-99/ fig. 15.

supports, shield decorations, and furniture fittings, used in elite and religious ceremonies. This fundamental difference reflects the broader divergence in how Assyrian and Urartian rulers conceptualized their authority, while the Assyrian king demonstrated his power through the conquest and destruction of nature, the Urartian king embodied strength by integrating protective and divine symbols into courtly and sacred spaces.

The bronze lion from Sznak exemplifies this uniquely Urartian approach. Functioning as a candelabrum support, it was likely used in palatial or temple settings, where it both illuminated elite spaces and symbolically reinforced the power of the Urartian ruler and the divine protection of the gods. Yet, despite its clearly Urartian function and execution, the Sznak lion shares notable stylistic features with Assyrian lion representations, particularly with the Sippar lion. Both sculptures exhibit a broad snout, an intense gaze, an open mouth with exposed canines, and carefully articulated musculature, indicating that Urartian artisans were familiar with and influenced by Assyrian sculptural traditions. This cross-cultural influence is not limited to Sznak alone. The candelabrum-support lions from Van and Jerusalem, the shield-mounted lion protome from Ayanis, and the bronze lions from Toprakkale all suggest a shared artistic vocabulary with Assyria. However, despite the clear similarities, Urartian lion sculptures retain distinct features that set them apart from their Assyrian counterparts. Compared to the more naturalistic and expressively aggressive Assyrian lions, Urartian lions tend to be more compact, geometric, and rhythmically stylized, with smoother facial transitions and less exaggerated musculature. The evidence that the Sippar lion may have been relocated from Nineveh to Sippar raises further questions about the mobility of artistic traditions and the ways in which visual symbols were repurposed across the Assyrian Empire. If this relocation did indeed take place, it would highlight how monumental art was not always fixed in place but could be recontextualized to serve new ideological functions, much like how Urartu reinterpreted Assyrian lion imagery within its own artistic tradition. Ultimately, the bronze lion from Sznak, and Urartian lion representations more broadly, provide an invaluable case study for understanding how artistic exchange between Assyria and Urartu functioned in practice. Rather than a one-directional imposition of Assyrian motifs onto Urartian art, the evidence suggests a more fluid and dynamic process of artistic adaptation, in which Urartian rulers and artisans selected, modified, and integrated Assyrian forms to align with their own aesthetic, functional, and ideological priorities. The Urartians, despite being politically and militarily overshadowed by the Assyrians, did not merely imitate imperial visual traditions but actively reshaped them. They adapted Assyrian iconographic models into portable, high-status objects used in courtly and religious settings, allowing them to retain a distinct Urartian artistic identity while simultaneously engaging with the dominant visual language of their time. Thus, the bronze lion from Sznak stands as evidence to the complexity of cultural interactions in the ancient Near East, where symbols of power and divinity were not static but could be reinterpreted, repurposed, and transformed across different political and artistic traditions. It embodies both Urartu's ability to absorb and modify Assyrian artistic elements and the kingdom's unique approach to expressing royal authority through visual culture. Far from being a mere peripheral adaptation of Assyrian art, Urartian lion representations reflect a sophisticated and independent artistic tradition, demonstrating how the kingdom of Urartu asserted its identity while engaging with the broader cultural currents of the Near Eastern world. To conclude this contribution, it is possible to propose, based on the comparisons presented in this text, a dating for the Sznak lion cub to an undetermined moment in the 8th century BCE. This is primarily supported by comparisons with the lion cubs probably

originating from Aznavurtepe, three of which are associated with an object bearing an inscription of Minua. Another aspect that could help reinforce this dating is that the only other epigraphic document from the area attributable to Urartu is the stele of Tanahat, which bears an inscription of Argišti (II), son of Rusa (CTU A 11-3). This inscription attests to Urartian activities in the region and dates to the late 8th century BCE. Moreover, the later productions of the 7th century BCE, often accompanied by inscriptions or characterized by specific morphological and iconographic features, seem to belong to the time of Rusa (II), son of Argišti, or later. This period witnessed significant transformations within the Urartian state, of which only the earliest signs are visible, marking what could be considered the emergence of a distinctly Urartian style. This style progressively distanced itself from its original Urartian model, developing new forms of expression in architecture, iconography, and material culture, although these remained largely undeveloped.

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References

- Armenien. *Wiederentdeckung einer alten Kulturlandschaft*. 1995. Exhibition catalogue, 14 January – 17 April 1995, Bochum: Museum Bochum.
- Au pied du Mont Ararat. *Splendeurs de l'Arménie antique*. 2007. Catalogue of the Exhibition, Arles: Éditions du musée de l'Arles et de la Provence antiques.
- Guide to the Babylonian and Assyrian Antiquities in the British Museum*. 1922. London.
- Urartu. *The Kingdom of Van*. 2018. Exhibition catalogue, Yerevan.
- AKURGAL, E. 1959. Urartäische Kunst, *Anatolia* 4: 77-114.
- AKURGAL, E. 1961. *Die Kunst Anatoliens von Homer bis Alexander*, Berlin: Walter De Gruyter.
- ALBENDA, P. 1972. Ashurnasirpal II Lion Hunt Relief BM 124534, *Journal of Near Eastern Studies* 31: 167-178.
- ALBENDA, P. 1974. Lions on Assyrian Wall Reliefs, *The Journal of the Ancient Near Eastern Society* 6: 1-27.
- AZARPAY, G. 1968. *Urartian Arts and Artifacts. A Chronological Study*, Berkeley and Los Angeles: University of California Press.

BARNETT, R.D. 1950. The Excavations of the British Museum at Toprak Kale, near Van, Iraq 12: 1-42.

BARNETT, R. 1976. *Sculptures from the North Palace of Ashurbanipal at Nineveh (668-627 B.C.)*, London: British Museum Publications.

BARNETT, R. D., WISEMAN, D.J. 1960. *Fifty Masterpieces of Ancient Near Eastern Art*, London: British Museum Press.

BATMAZ, A. 2013. A Lion-Headed Shield from Ayanis: An Identifier of the Urartian Culture?. In: L. Bombardieri, A. D'Agostino, G. Guarducci, V. Orsi, S. Valentini (eds.), *SOMA 2012. Identity and Connectivity: Proceedings of the 16th Symposium on Mediterranean Archaeology, Florence, Italy, 1-3 March 2012*, Volume I, British Archaeological Reports International Series 2581 (I), Oxford: Archaeopress, 243-252.

BILGIÇ, E., ÖĞÜN, B. 1964. Excavations at Kef Kalesi of Adilcevaz, 1964, *Anadolu/Anatolia* 8: 93-127.

BONFANTI, A.S., DAN, R. 2021. From Phrygia to Urartu. The Phrygian Belts Discovered in Toprakkale/Rusaḫinili Qilbani=kai and the Relations between Urartu and Phrygia, *East & West* n.s. 2(61) No. 1: 7-30.

BOYSAL, Y. 1961. Anzavur'da definelerinin meydana çıkardığı Urartu eserleri, *Belleten* 25: 199-212.

BURNEY, C.A. 1966. A First Season of Excavations at the Urartian Citadel of Kayalidere, *Anatolian Studies* 16: 55-111.

ÇILINGIROĞLU, A. 2001 Temple Area. In: A. Çilingiroğlu, M. Salvini (eds.), *Ayanis I. Ten Years' Excavations at Rusaḫinili Eiduruku-kai 1989-1998*, Documenta Asiana VI, Roma: CNR Istituto per gli Studi Micenei ed Egeo-Anatolici, 37-65.

COLLINS, B.J. 2002. *A history of the animal world in the ancient Near East*, Leiden: Brill.

COLLINS, P. 2008. *Assyrian Palace Sculptures*, London: British Museum Press.

COLLON, D. 1995. *Ancient Near Eastern Art*, Berkeley: University of California Press.

CORNELIUS, I. 1989. The Lion in the Art of Ancient Near East. A Study of Selected Motifs, *Journal of Northwest Semitic Languages* 15: 53-85.

DAN, R. 2015. *From the Armenian Highland to Iran. A Study on the Relations between the Kingdom of Urartu and the Achaemenid Empire*, Serie Orientale Roma n.s. 4, Roma: Scienze e Lettere.

DAN, R. 2019. The Urartian Site of Garibin Tepe/Alaköy, Van, Turkey, *Iran and the Caucasus* 23: 1-16.

DAN, R. 2022. Aznavurtepe/Kot Tepe: a 9th-8th Century BCE Urartian Fortress in the Patnos Plain, Turkey. In: R. Dan, R. Francia, M.C. Trémouille (eds.), *Studia Hethitica, Hurritica et Urartaica 1*, Serie Orientale Roma n.s. 33, Roma: ISMEO, 37-73.

DAN, R. 2023. *Studies on the Architecture and Archaeology of the Achaemenid Empire. Dynamics of interaction and transmission between centre and periphery*, Serie Orientale Roma n.s. 35, Roma: ISMEO.

DAN, R., 2025. The Hişet fortress in (V)ostan/Gevaş: An Urartian, Arsacid and Medieval site on the southern shore of Lake Van, *Ancient West & East* 24, 23-42.

DAN, R., BONFANTI, A. 2022a. Opium for the Urartian kings? Some considerations on an inscribed object from Karmir-blur (CTU B 8-28) and on the aṣiḫusi building in Urartian architecture, *Ancient Near Eastern Studies* 59: 19-37.

DAN, R., BONFANTI, A.S. 2022b. Between Local Traditions and Assyria. New Perspectives on the So-called "Urartian" Belts. In: R. Dan, R. Francia, M.C. Trémouille (eds.), *Studia Hethitica, Hurritica et Urartaica 1*, Serie Orientale Roma n.s. 33, Roma: ISMEO, 75-108.

DAN, R., YERANYAN, N., BONFANTI, A.S., POGHOSYAN, A. 2024. *The Urartian Royal Bowls*, Yerevan: History Museum of Armenia.

DERIN, Z., ÇILINGIROĞLU, A. 2001. Armour and Weapons. In: A. Çilingiroğlu, M. Salvini (eds.), *Ayanis I. Ten Years' Excavations at Rusahinili Eiduruku-kai 1989-1998*, Documenta Asiana VI, Roma: CNR Instituto per gli Studi Micenei ed Egeo-Anatolici, 155-187.

DERIN, Z., SAĞLAMTEMİR, H. 1998. Alaköy Kalesi ve Kale'de Bulunan Urartu Heykelleri, *Belleten* LXII/233: 15-24.

DICK, M.B. 2006. The Neo-Assyrian royal lion hunt and Yahweh's answer to job, *Journal of Biblical Literature*, 125(2): 243-270.

ESAYAN, S. 1972. On the Issue of the Archaeological Study of Zangezur, *Traber Hasarakakan Gitutyunneri*, 4: 64-73 (in Armenian).

ESAYAN, S.A., KALANTARYAN, A.A. (eds.) 1988. *Oşakan I. Osnovni Resultati Raskopok 1971-1983*, Akademii Nauk Armanskoi SSR, Archeologičeskie raskopki v Armenii 18, Erevan.

ESAYAN, S., SHAHINYAN, A. 1962, Arkheologicheskiye nakhodki v Zangezure [Archaeological Finds in Zangezur], *Sovetskaya arkheologiya*, 3: 199-208.

GALANINA, L.K. 1997. *Die Kurgane von Kelermes. »Königsgräber« der frühskythischen Zeit*, Steppenvölker Eurasien, Band I, Moskau: Institut für allgemeine Geschichte der Russischen Akademie der Wissenschaften, Zentrum für erforschung Studien der alten Zivilisationen.

HALL, H.R. 1928, *Babylonian and Assyrian Sculpture in the British Museum*, London: British Museum Press.

HOFFMANN, H. 1960. The Rusa Candelabrum, *The Illustrated London News* 19 Nov. 1960, 896.

İŞIKLI, M., ARAS, O. 2016. Ayanis Aslanı. In: E. DüNDAR, Ş. AKTAŞ, M. KOÇAK, M., S. ERKOÇ (eds.), *Havva İşkan'a Armağan LYKIARKHISSA Festschrift für Havva İşkan*, İstanbul: Ege Yayınları, 431-444.

LEICHTY, E. 1986, *Catalogue of the Babylonian Tablets in the British Museum: Volume VI: Tablets from Sippar, I*, London: British Museum Press.

MERHAV, R. 1991. Secular and Cultic Furniture, Thrones, Footrests, and Tables candelabra. In: R. Merhav (ed.), *Urartu. A Metalworking Center in the First Millennium B.C.E.*, Jerusalem: Israel Museum.

MERHAV, R., RUDER, A. 1991. The Construction and Production of a Monumental Bronze Candelabrum of King Menua of Urartu. In: A. Çilingiroğlu, D.H. French (eds.), *Anatolian Iron Ages. The Proceedings of the Second Anatolian Iron Ages Colloquium held at İzmir, 4-8 May 1987*, British Institute of Archaeology at Ankara Monograph 13, Oxford: Oxbow Monograph, 75-96.

MUSLUBAŞ, İ. 1983. İlk demir gag uygarlıkları, *Anadolu Medeniyetleri* I: 259-303.

ÖZGÜÇ, T. 1969. *Altintepe II, Tombs, Storehouse and Ivories*, Ankara: Türk Tarih Kurumu Basımevi.

PIOTROVSKY, B.B. 1959. *Vanskoje carstvo (Urartu)*, Moskva: Izdatel'stvo Oriental Literature.

PIOTROVSKY, B.B. 1960a. Bronzovye izdelija s nadpisjami Sarduri II iz raskopok na Karmir-blure, In: V.V. Struve (ed.), *Issledovanija po istorii kul'tury narodov Vostoka. Sbornik v cest' Akademika I.A. Orbeli*, Moskva-Leningrad: Gosudarstvennoye izdatel'stvo vostochnoy literatury, 119-122.

PIOTROVSKY, B.B. 1960b. Urartskie nadpisi iz raskopok Karmir-Blura 1939-1958, *Epigrafika Vostoka*, 13: 105-109.

PIOTROVSKY, B.B. 1962. *Iskusstvo Urartu VIII-VI vv do n.e.*, Leningrad: Izd-vo Gos. Ėrmitazha.

PIOTROVSKY, B.B. 1967. *Urartu: The Kingdom of Van and its Art*, London: Evelyn Adams and Mackay.

PIOTROVSKY, B.B. 1970. *Karmir-blur. Al'bom*, Leningrad: Avrova.

- PIOTROVSKY, B.B. 1987. *Tesori d'Eurasia. 2000 anni di Storia in 70 anni di Archeologia Sovietica*, Milano: Mondadori.
- READE, J. 2013. *Assyrian sculpture*, London: The British Museum Press.
- SALVINI, M. 1991. Una nuova iscrizione urartea, *Orientalia*, 60: 344-346.
- SALVINI, M. 2012. *Corpus dei Testi Urartei IV. Iscrizioni su bronzi, argilla e altri supporti; nuove iscrizioni su pietra; paleografia generale*, Documenta Asiana 8, Roma (= CTU IV).
- SALVINI, M. 2018. *Corpus dei Testi Urartei*, Vol. V, *Revisione delle epigrafi e nuovi testi su pietra e roccia (CTU A)*, *Dizionario urarteo, Schizzo grammaticale della lingua Urartea*, Paris (= CTU).
- SEARIGHT, A., READE, J., FINKEL, I. 2008, *Assyrian Stone Vessels and Related Material in the British Museum*, London: British Museum Press.
- SEIDL, U. 1993. Urartäische Bauskulpturen. In: M.J. Mellink, E. Porada, T. Özgüç (eds.), *Aspects of Art and Iconography: Anatolia and its Neighbors. Studies in Honor of Nimet Özgüç*, Ankara: Türk Tarih Kurumu Basımevi, 557-564.
- SEIDL, U. 1994. Der Thron von Toprakkale. Ein neuer Rekonstruktionsversuch, *Archäologische Mitteilungen aus Iran*, 27: 67-84.
- SEIDL, U. 2004. *Bronzekunst Urartus*, Mainz am Rhein: Von Zabern.
- SEVIN, V. 1993. An Urartian Lion from Gevaş, Van. In: M.J. Mellink, E. Porada, T. Özgüç (eds.), *Aspects of Art and Iconography: Anatolia and its Neighbors. Studies in Honor of Nimet Özgüç*, Ankara: Türk Tarih Kurumu Basımevi, 565-567.
- STRAWN, B.A. 2005. *What Is Stronger than a Lion? Leonine Image and Metaphor in the Hebrew Bible and the Ancient Near East*, *Orbis Biblicus et Orientalis* 212, Fribourg: Academic Press.
- ULANOWSKI, K. 2015. The Metaphor of the Lion in Mesopotamian and Greek Civilization. In: R. Rollinger, E. van Dongen (eds.), *Mesopotamia in the Ancient World. Impact, Continuities, Parallels, Melammu Symposia* 7, Münster: Ugarit-Verlag, 255-284.
- VAN LOON, M.N. 1966. *Urartian Art. Its Distinctive Traits in the Light of New Excavations*, Istanbul: Nederlands Historisch-Archaeologisch Instituut.
- WATANABE, C.E. 2000. The lion metaphor in the Mesopotamian Royal context, *Topoi. Orient-Occident. Les animaux et les hommes dans le monde syro-mésopotamien aux époques historiques*, Supplément 2: 399-409.
- WATANABE, C.E. 2002. *Animal symbolism in Mesopotamia: a contextual approach*, Wien: Institut für Orientalistik der Universität Wien.
- XNKIKYAN, O.S. 2002. *Syunik During the Bronze and the Iron Ages*, Barrington: Mayreni Publishing.
- YESAYAN S.A., SHAHINYAN A.N. 1962. Archaeological Finds in Zangezur, *Sovetskaya Arkheologiya*, 3: 199-208 (in Russian).
- YILDIRIM, R. 1991. Urartian Belt Fragments from Burmageçit, Now on Display in Elazığ Museum. In: A. Çilingiroğlu, D.H. French (eds.), *Anatolian Iron Ages. The Proceedings of the Second Anatolian Iron Ages Colloquium held at İzmir, 4-8 May 1987*, British Institute of Archaeology at Ankara Monograph 13, Oxford: Oxbow Monograph, 131-148.

Figures

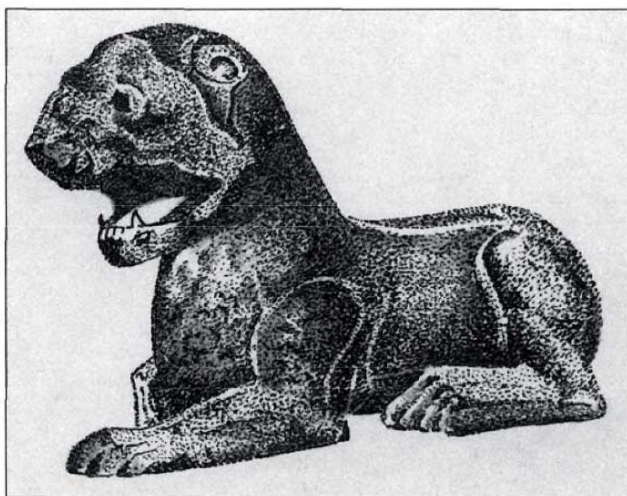


Figure 1. Bronze lion protome, probably from a throne or furniture fitting. Urartian, 8th–7th century BCE.
Found at Sznak (Syunik, Armenia). Goris Museum of History and Ethnography
(The image below is taken from Xnkikyan 2002: pl. 1).



Figure 2. Bronze lion from Sznak. General views showing left and right profiles, front and rear perspectives, upper and lower surfaces.



Figure 3. Bronze lion from Sznak. Details of the head from multiple angles showing the expressive modeling and anatomical features: the broad snout with deeply drilled nostrils, open mouth with visible tongue and canines, and small rounded ears pressed backward. The eyes, originally likely inlaid, are framed by thick eyelids, and the cheeks are swollen with lightly incised lines suggesting fur texture.



Figure 4. Bronze lion from Sznak, Goris Museum (Republic of Armenia). Technical and anatomical details. (A) Left flank with the smooth, undecorated surface typical of Urartian bronze fittings. (B) Rear view showing the rounded haunches and the beginning of the tail curl. (C) Broken right front paw exposing small perforations and compact metal texture, evidence of internal casting channels or fixing points. (D) Underside of the torso showing the longitudinal ridge and file marks from post-casting refinement. (E) Central underside recess with triangular cavities and circular perforation used for attachment to a base, still preserving metallic residue of the fixing pin. (F) Detail of the left paw underside showing the carefully modeled pads and deep grooves between the toes.

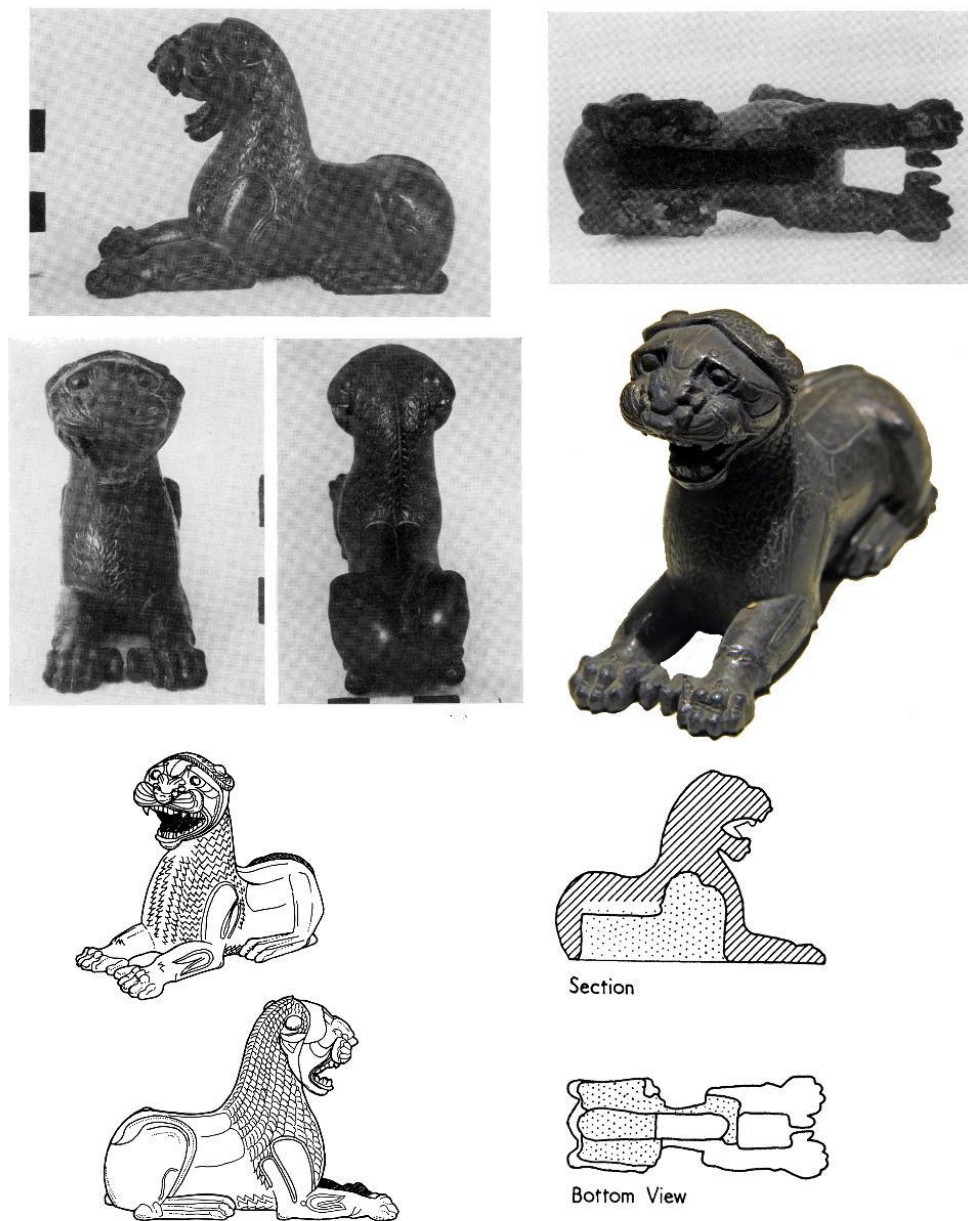


Figure 5. Bronze lion from Kayalidere
(adapted after Burney 1966: figs. 8-9. pl. IXa, X and
Van Museum. Online image resource, posted 2 June 2020, accessed 4 November 2025).



Figure 6. Bronze candelabrum-support lions from Jerusalem Israel Museum) (A) and Van (B-D)
(A-B: Adapted after Seidl 2004: pl. 3; C: Source: Wikimedia Commons;
D: Van Museum (sanattarihiplatformu) Online image resource).



Figure 7. Comparative group of Urartian bronze lions. (A) Kayalidere (Online image resource, posted 2 June 2020, accessed 4 November 2025); (B) Patnos (Aznavurtepe?; Van Museum. Online image resource, posted 2 June 2020, accessed 4 November 2025); (C) Sznak.

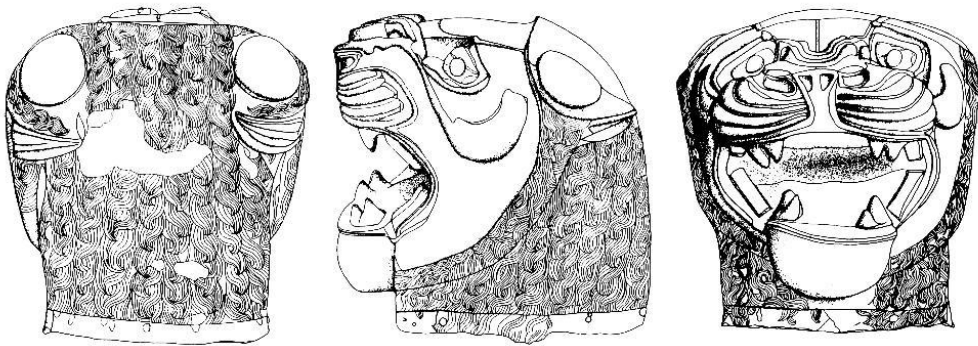


Figure 8. Bronze lion-head protome from the shield of King Rusa (II), Ayanis Fortress (adapted after Derin - Çilingiroğlu 2001: 180, fig. 12; and photo courtesy of Altan Çilingiroğlu).



Figure 9. Limestone lion head from the temple area of Ayanis Fortress. Views and drawings of the unique limestone lion head discovered in fragments, reconstructed to its original form (adapted after Işıklı, Aras 2016: figs. 8).



A



B

Figure 10. (A) Bronze lion-head protomes from Karmir-Blur (HMA 2783-79), originally attached to royal bronze vessels (lebetes) (Courtesy of History Museum of Armenia). (B) Bronze lion figures from the throne of Toprakkale (Reproduced courtesy of the Trustees of the British Museum).



Figure 11. Ivory lions from Altintepe
(adapted after Dosseman, Urartian Art, PBase online gallery, available at:
<https://pbase.com/dosseman/urartian>).

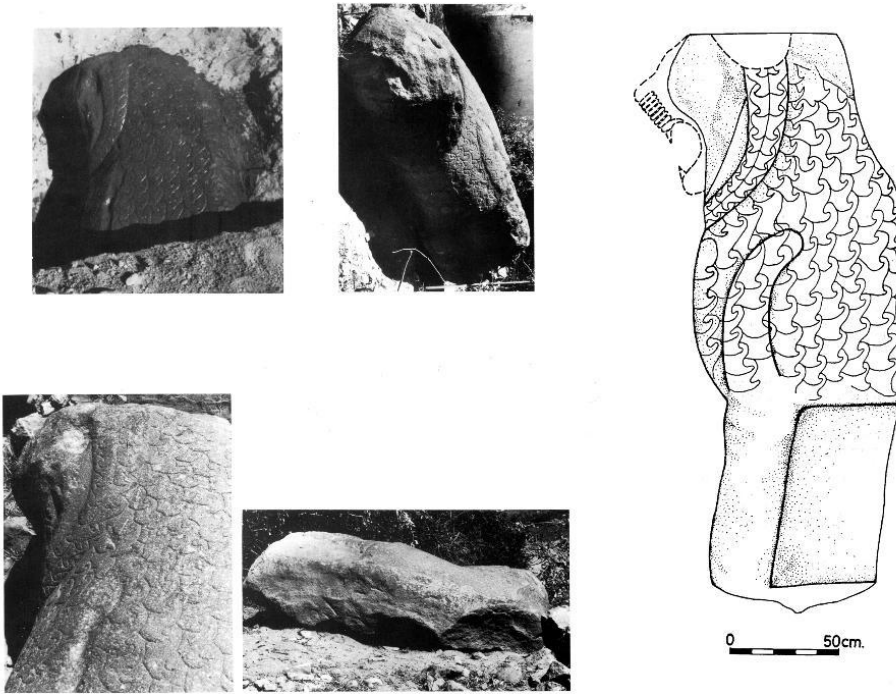


Figure 12. Fragmentary stone lion from Hişet (Van region) (adapted after Sevin 1993: fig. 1, pl. 101).



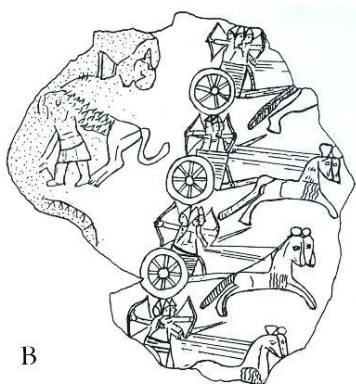
Figure 13. Fragmentary stone lions from Garibin Tepe (Alaköy Fortress, Van region). (A) Drawings and photographs of the sculpted andesite blocks representing lion bodies and heads, discovered through excavation and later recovered from illicit digs (Derin, Sağlamtemir 1998: drawings 1-3 and Dan 2019: figs. 10-11). (B) Newly unearthed unfinished lion sculpture found in situ during the 2023 excavation season, showing a recumbent posture in coarse preliminary carving (A photo of the sculpture was published by Arkeoloji Haber on X on 2 November 2025 (<https://x.com/arkeolojihaber/status/1851940201557377500>, accessed 4 November 2025)).



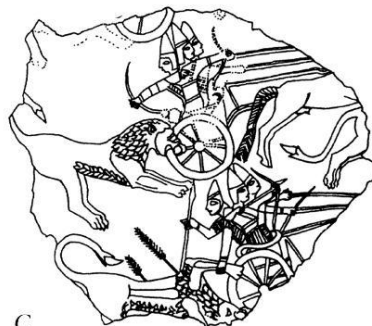
Figure 14. Basalt lion relief from Erzincan.



A



B



C



D

Figure 15. Comparison between Assyrian and Urartian period hunting scenes (not to scale).
 (A) Orthostat from the North-West Palace of Aššurnasirpal II at Nimrud (after Collins 2008: 35).
 (B) Fragment of the Burmageçit-4 bronze belt (after Yıldırım 1991: 10.8–9).
 (C) Fragment of the Kayalidere-1 bronze belt (after Burney 1966: 78, fig. 10; pl. IX.b; pl. XI.b).
 (D) Orthostat from the North Palace of Aššurbanipal at Nineveh (after Barnett 1976: pl. XI).



Figure 16. (A) Bronze lion appliqué from Karmir-Blur (HMA 2783/193), likely furniture or chariot fittings, decorated in repoussé with engraved mane and facial details. (B) Clay plaques from Oshakan (HMA 2747/117.1; 2747/117.2) impressed with the same striding-lion motif, reflecting terracotta imitations of bronze prototypes in late Urartian production (Photo Courtesy of the History Museum of Armenia).

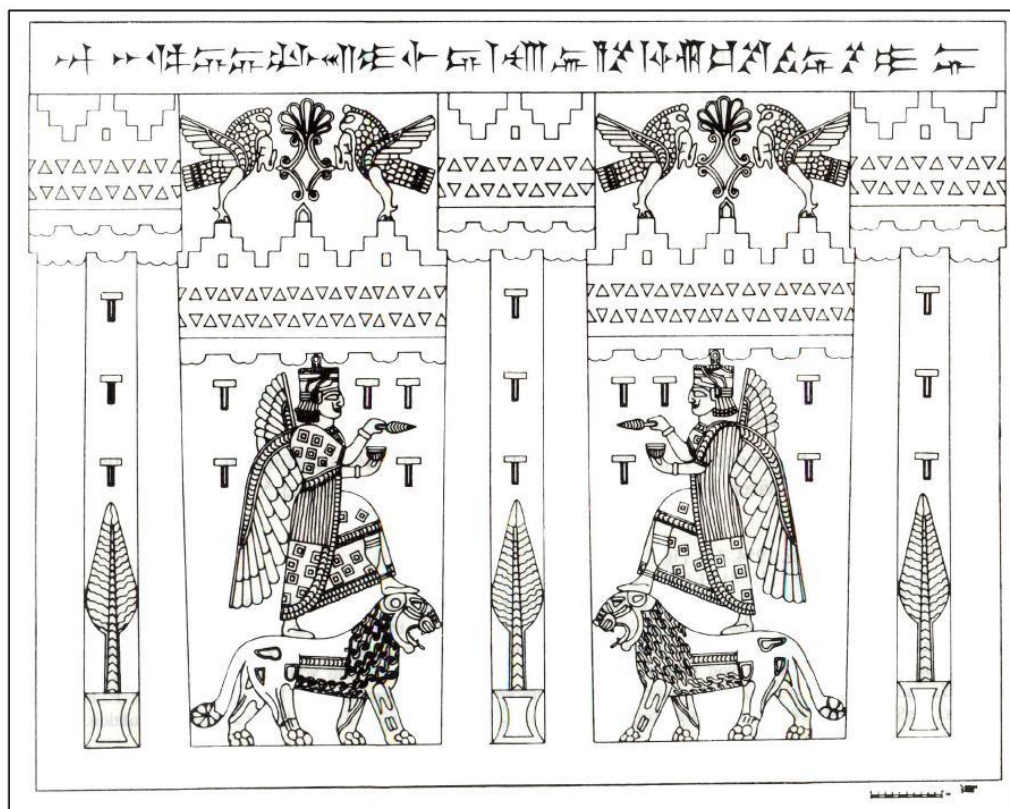


Figure 17. Orthostat reliefs from the pillars of Kef Kalesi (adapted after Seidl 1993: fig. 2).

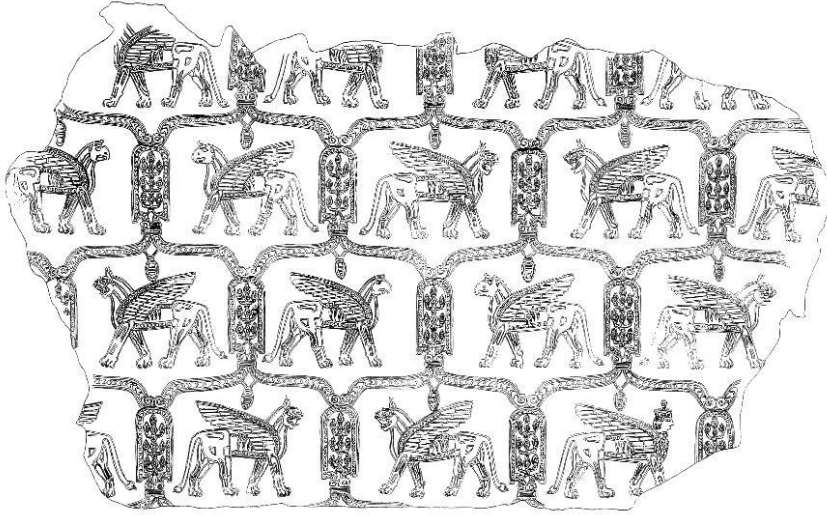


Fig. 18. The alabaster podium (altar) from the temple at Ayanis (adapted after Çilingiroğlu 2001: fig. 23 and photo courtesy of A. Çilingiroğlu).



Figure 19. Alabaster lion head from Sippar
(British Museum, inv. no. 91678; Reproduced courtesy of the Trustees of the British Museum).



Figure 20. Gold lion-headed tubular ornament from the Kelermes kurgan, Kuban region (adapted after Galanina 1997: pl. 4).



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When Humans Saw Themselves: Ancient Greeks' Perceptions of Non-Human Primates

Sebastián URIBE RODRÍGUEZ¹

Abstract: *This paper examines the role of non-human primates in shaping emotional experiences in ancient Greek culture. Moving beyond descriptive accounts, it explores how the relationship between humans and non-human primates reflected and challenged contemporary notions of anthropocentrism and anthropomorphism. By analyzing literary and visual sources, the study reveals how emotions structured the perception and representation of these animals, while also redefining the boundaries between humanity and the natural world. Non-human primates thus emerge as a powerful lens through which to interrogate ancient conceptions of self, otherness, and nature. In doing so, this research contributes to a deeper understanding of the emotional, philosophical, and cultural significance of human-animal relations in antiquity.*

Rezumat: *Acest articol examinează rolul primatelor non-umane în modelarea experiențelor emoționale în cultura Greciei antice. Depășind relatările pur descriptive, el explorează modul în care relația dintre oameni și primatele non-umane reflecta și contesta concepțiile contemporane despre antropocentrism și antropomorfism. Prin analizarea surselor literare și vizuale, studiul dezvăluie modul în care emoțiile structurau percepția și reprezentarea acestor animale, redefinind totodată granițele dintre umanitate și lumea naturală. Primatele non-umane apar astfel ca o lentilă puternică prin care pot fi investigate concepțiile antice despre sine, alteritate și natură. Procedând astfel, această cercetare contribuie la o înțelegere mai profundă a semnificației emoționale, filosofice și culturale a relațiilor dintre oameni și animale în Antichitate.*

Keywords: Non-human primates; emotions; boundaries; anthropomorphism; anthropocentrism;

The study of non-human animals² presents the challenge of classification from the perspective of human cognitive structures. Historical descriptions related to non-human animals are often formulated as positive or negative reflections of human nature that entails both detachment and closeness in terms of affective, moral, cognitive, and physical dimensions³. Hence, in the examination of both non-human primates and their respective descriptions, researchers delve into the exploration of the human beings with whom these animals share genetics, ecological dependence, and a natural environment.

Despite these challenges, significant contributions to the study of non-human primates in Ancient Greece have emerged. Keller⁴, McDermott⁵, and Montagu⁶ analyzed non-human primates within the context of interconnectivity among various cultures in the ancient world. Their contributions were crucial in establishing the classification of non-human primates with modern taxonomy, and in delineating these animals in the context of imitation. In contrast, a

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² To avoid anachronisms, this article will consistently employ the term "non-human primates" to denote the entire order of mammals recognized by the ancient Greeks. However, whenever written sources appear as examples, the original terminology in ancient Greek will be addressed.

³ STADEN 2013, 111-144.

⁴ KELLER 1909.

⁵ MCDERMOTT 1935; 1938.

⁶ MONTAGU 1940.

sociocultural approach has been developed: Lazenby's research⁷ suggests that primates were included in the category of household pets, while Lilja's perspective⁸ shows how ancient Greeks viewed these animals as repugnant and aggressive beings. Furthermore, Connors⁹ states that non-human primates symbolize the complex interplay between authenticity and falsehood in civic and political interactions, especially in Athens.

In an iconographical account, Greenlaw¹⁰ and Wolfson¹¹ delve into how the representation of these animals in ancient Greece suggests they were often perceived as foolish and disagreeable beings. Vespa¹² has made substantial contemporary contributions to the study of non-human primate behavior and communication. Through his work, it becomes evident that the utilization of mimicry as a communicative medium was not an exclusively human conceptual trait but rather a consciously and willingly embraced characteristic among non-human primates in their interactions with ancient Greeks. Particularly, this is evident in his most relevant research on the topic to date whose central concept, the *geloion mimēma*¹³ or comic imitation, captures the unsettling resemblance between humans and non-human primates, whose mimetic behavior provokes both amusement and unease.

Among the scientific literature cited above, it has not been yet explored the emotional dimension between the relationship of humans and non-human primates. While Vespa interprets laughter, repulsion, and unease as cultural effects of mimesis, this study extends his approach by treating emotions as analytical categories that reveal the moral and cognitive dimensions of human-animal relations, as laughter, repulsion, and shame were not mere byproducts of imitation, but culturally shaped emotions through which the Greeks negotiated their understanding of humanity. Therefore, the novelty of the present study is showing that the ancient Greeks' perceptions of non-human primates were defining the boundaries of human existence. This phenomenon arises from the fact that ancient Greek's attitude toward non-human primates tells us more about the Greeks than it does about the primates.

Non-human animals

Ancient Greeks expressed their relationships with animals in a dualistic characterization. On the one hand, some creatures were viewed as the embodiments of nature's magnificence, therefore they evoke admiration and awe. On the other hand, others were perceived as adversaries, threats, or even enemies that had to be conquered¹⁴. In ancient Greece, the relationships between humans and non-human animals were multifaceted and went beyond a simple dynamic of superiority or submission¹⁵ and non-human animals played varied roles. They represented a source of symbolic prestige and entertainment in hunting expeditions and spectacles and were even perceived as the mediations between humans and gods, as they were believed to integrate a third significant entity, making them indispensable mediums for communicating with the divine. The entanglement of gods, humans, and animals even shows

⁷ LAZENBY 1949.

⁸ LILJA 1980.

⁹ CONNORS 2004.

¹⁰ GREENLAW 2001.

¹¹ WOLFSON 2018.

¹² VESPA 2017; 2019; VESPA, ZUCKER 2020.

¹³ VESPA 2022.

¹⁴ THOMMEN 2012, 45.

¹⁵ LONSDALE 1979, 155; NEWMYER 2011; KALOF 2007.

the profound understanding and meaning of the ancient Greek religion¹⁶, that went beyond omens and sacrificial instruments.

The ancient Greeks, additionally, assigned animals specific regional identities, which were determined by various attributes, including local geography and historical contexts. Consequently, they held the belief that animals exhibited similarities with the human inhabitants of the same territory and place of origin. That is how they adjusted the idea of “Hellenic animals” to those creatures related to Greek culture in opposition to “barbaric animals” for those who belonged and came from foreign cultures and territories¹⁷. Therefore, the discourse regarding nature, specifically directed at animals, delineated a characterization of the humans that perceived them. Among all animals, non-human primates for ancient Greeks reveal, overall, a compelling intersection of historical inquiry, cultural examination, and philosophical analysis. Therefore, the relationship with non-human primates was entangled with an integral way of culture and life.

Taking this into consideration, it is imperative to acknowledge two concepts that disentangled the way we approach the ancient sources about nature. On the one hand, the concept of anthropocentrism delineates the distinctive boundary humans establish between themselves and the rest of nature¹⁸. Anthropocentrism takes on multifaceted forms: it serves as a mindset enabling the exploitation of nature, an intentionally adopted ethical standpoint, and a tendency to emphasize human uniqueness¹⁹. On the other hand, the concept of anthropomorphism delves into the human tendency to interpret non-human phenomena, through a human lens, imbuing them with human-like qualities, and emphasizing the need for careful consideration when analyzing the behaviors and traits of non-human beings²⁰. By taking into consideration the concepts of anthropocentrism and anthropomorphism, we underscore the tendency of human beings to assert themselves as the focal point of the natural world, as stated by Protagoras, the human is the measure of all things²¹. Consequently, through this analytical framework, it is possible to navigate the intricate dynamics of human and non-human animal interactions, thereby enriching our scholarly endeavors and fostering a deeper comprehension of the complexities inherent in the study of non-human phenomena in ancient Greece.

Terminology

Systematic catalogue of Greek and Roman materials demonstrates, references to non-human primates are extremely limited compared to other species. Greenlaw records few literary and archaeological attestations of non-human primates across the ancient Mediterranean world and fewer in the Greco-Roman context²². This scarcity contrasts sharply with the hundreds of references to animals such as lions, horses, or dogs, whose presence dominates both literature and iconography. Nonetheless, the rarity of references to primates does not imply insignificance; rather, their exceptionalism rendered them potent symbols of alterity, imitation, and moral distortion in Greek thought.

¹⁶ KINDT 2021, 1-9.

¹⁷ KOSTUCH 2017, 69;77.

¹⁸ RENEHAN 1981, 246-247.

¹⁹ KORHONEN, RUONAKOSKI 2017, 35.

²⁰ KORHONEN, RUONAKOSKI 2017, 36.

²¹ DK 80b1. For animals and presocratic philosophers, see: ZATTA 2019, 9-10.

²² GREENLAW 2001, 58-59.

In Antiquity, non-human primates appeared in the fourth millennium BCE through the Mesopotamian and Elam art²³ or millenniums after in Egypt, India²⁴, and even Crete²⁵. Nonetheless, the species familiar to the ancient Greeks were native to the regions of Mauritania, Libya, and Ethiopia²⁶. In understanding nature beyond their immediate surroundings, Greek geographers and historians knew, in fact, the foreign origin of the non-human primates. Therefore, all representations in art and literature refer to imported animals and, to some extent, exotic ones²⁷.

Since non-human primates were considered foreign animals, there is no evidence to suggest that the ancient Greeks utilized the adjective "exotic" in their nomenclature when naming them. To denote non-native species, the Greeks typically employed designations based on their place of origin; that is how, for example, to name the peacock, they used "ὄρνις Ἰνδικός", which means the bird from India²⁸. When it comes to non-human primates, it should be established that neither the word for exotic nor the designation of the origin were formulas used to call the distinct species. Nevertheless, they possessed a multitude of words to describe non-human primates²⁹.

The term "Πίθηκος" was used in ancient Greek to designate the *Macaca sylvanus*, the Barbary macaque, which was the most common species found around the Mediterranean basin. This species held a privileged position in Greek zoological vocabulary due to its frequent appearance in early ethnographic and naturalistic accounts of Africa and Iberia³⁰. The diffusion of the species into the Mediterranean world was likely facilitated by Phoenician trade networks that connected North Africa to the western enclaves of the Greek world³¹. Hence, the πίθηκος encapsulates both the zoological familiarity and the exotic distance through which Greeks conceptualized non-human primates. This is also evident in the compound term "κερκοπίθηκος", that combines "κέρκος", meaning "tail", and "πίθηκος", meaning "monkey", denoting an animal characterized by its long tail³². While philological and zoological efforts have attempted to identify the exact species referenced by this term, the evidence remains inconclusive. Pliny the Elder describes these animals as having black heads, donkey-like hair, and shrill voices, and locates their origin in Ethiopia³³.

Ancient Greeks also employ the term "Σάτυρος", that primarily denotes the mythological creature characterized by a human torso and the legs of a goat or horse, yet several classical sources also applied it to certain non-human primates³⁴. Scholarly opinions diverge regarding which species the term describes: some interpret the reference as an allusion to chimpanzees³⁵ while others suggest orangutans³⁶ or gibbons³⁷. This multiplicity of interpretations reflects the

²³ DUNHAM 1985, 234.

²⁴ LUTGENDORF 2007, 344-348

²⁵ PAREJA *et alii* 2019, 159-168.

²⁶ MCDERMOTT 1938, 3.

²⁷ GREENLAW 2001.

²⁸ BODSON 1998, 64-66; 75.

²⁹ URIBE 2023, 15.

³⁰ KITCHELL 2014, 171.

³¹ GREENLAW 2001, 65.

³² CONNORS 2004, 181; LIDDELL, SCOTT 1996, 943.

³³ Plin. *HN* 8.72.

³⁴ KITCHELL 2014. 165.

³⁵ JENNISON 1937, 121.

³⁶ RACKHAM, JONES 1967, 150-151.

³⁷ MCDERMOTT 1938, 77.

fluid intersection between myth and zoology in Greco-Roman thought, as a boundary figure of moral disorder and as an anthropomorphic primate that mirrored human excesses and desires. This also happens with the name “Σφίγξ”. Though commonly associated with the mythological sphinx, it was also applied in antiquity to a long-tailed primate believed to originate from Ethiopia³⁸. Some tentatively identified it as a species of *Cercopithecus*, though he acknowledged the difficulty of precise classification³⁹, while others have proposed its identification with *Papio sphinx*⁴⁰ or *Cercopithecus diana*⁴¹.

It was also common the word “Κυνοκέφαλος”, literally “dog-headed”, that derives from the combination of “κύων” (dog) and “κεφαλή” (head)⁴². Scholars have proposed that this term may refer to the *Papio hamadryas* species, a baboon widely venerated in Egyptian religion⁴³. Archaeological excavations in the northern Saqqara necropolis of Memphis have confirmed the presence of large numbers of *Papio hamadryas* specimens in the Baboon Catacombs, which functioned as cultic deposits linked to Thoth between 400 and 30 BCE⁴⁴. This illustrates how Greek authors inherited and reinterpreted Egyptian representations of sacred animals.

The term “κῆβος”, meaning “garden” in standard ancient Greek and “plot of land” in the Cypriot dialect, was also used metaphorically to refer to hairdressing⁴⁵. In zoological contexts, both variants —“κῆβος” and “κῆπος”— designated a long-tailed species of monkey, possibly to *Cercopithecus pyrrhonotus*⁴⁶. The semantic evolution of κῆβος, oscillating between meanings of cultivation, adornment, and animality reflects both linguistic creativity and the broader anthropocentric tendency to integrate animals into a human-centered semantic field.

Biological perspective

Despite the efforts of Aristotle, Pliny the Elder, or Galen, to describe and classify these animals, species of non-human primates, as we know them today, are different from the ones known by ancient Greeks, even if they refer to the same creatures. If one were to employ simile, the descriptions and relationships toward primates are such as trees in a diverse forest, given that the semantic realm surrounding non-human primates was manifold and diverse.

Aristotle, for example, noted that non-human primates exhibit a nature or constitution that lies intermediary between humans and quadrupeds. Specifically, he mentions monkeys (πίθηκοι), cebus (κῆβοι), and cynocephalus (κυνοκέφαλοι) as examples of this intermediary classification. The compelling evidence of an uncanny resemblance between humans and non-human primates is listed based on their shared physical characteristics and traits. These include the structure of their faces, with similar nostrils and ears, teeth that resemble those of humans, and hands with fingers and nails. Furthermore, the presence of certain behaviors and traits made non-human primates the boundary between humans and nature⁴⁷.

³⁸ KITCHELL 2014, 176.

³⁹ MCDERMOTT 1938, 68.

⁴⁰ PARREU 2001, 471; GARCÍA *et alii.* 2015, 376.

⁴¹ DÍAZ-REGAÑÓN 1984, 25.

⁴² LIDDELL, SCOTT 1996, 1011.

⁴³ MCDERMOTT 1938, 104.

⁴⁴ GOUDSMIT, BRANDON-JONES 2000, 111-112.

⁴⁵ CHANTRAINE 1999, 526-527.

⁴⁶ LIDDELL, SCOTT 1996, 946.

⁴⁷ He notes resemblances with humans in nostrils, ears, front teeth, molars, eyelashes, mammary nipples, hands, fingers, and even nails resembling humans, but he highlights a bestial nature in non-human primates. Pithecus (πίθηκοι), according to Aristotle, is characterized by hairiness on their upper bodies like quadrupeds, and a human-like lower body. In the case of cebus (κῆβος), Aristotle describes them as a primate (πίθηκος) with tails. Cynocephalus

This resemblance is portrayed with more specificity by Megasthenes. In the fourth century BCE, he stated that in the region of Praxike, which belongs to the native lands of the Indians, the non-human primates were the size of large dogs and had tails that measured five pekons in length. They had hair growing on their foreheads and beards hanging from their chests. While their faces were white, the rest of their bodies were black. They were benevolent by nature and lacked the malice (κακότης). This last characteristic, as he stated, was found in other non-human primates from elsewhere⁴⁸. In his account, Strabo quotes Megasthenes and mentions that the non-human primates (κερκοπιθήκους) living in Prasis, a region in India, were larger than big dogs, have white faces, and black bodies, which was the opposite of any non-human primate elsewhere. Their tails were two pekons long. They were gentle and not inclined to be malicious⁴⁹. Agatharchides of Cnidus, who lived in the second century BCE., pointed out that the cynocephalus (κυνοκέφαλος) had the deformed body of a man and the face of a dog. He also notes that this creature produced, through murmurs⁵⁰, a similar sound to humans. Concerning the cebus (κῆβος)⁵¹, he writes that it had the face of a lion; the body of a panther; the size of a deer; and it is named according to its appearance⁵².

The striking resemblance to humans extends beyond external characteristics. Authors, such as Galen, have noted that if an individual lacks the chance to observe human remains or examine cadavers but desires to acquire knowledge of anatomy, they should consider dissecting non-human primates. Galen asserts that among all animals, the one bearing the closest similarity to humans is the πίθηκος, not only in terms of its external features but also in its internal components, including its muscles, arteries, veins, and nerves, as well as the shape of its bones⁵³.

On addition to the striking similarities in external appearance and internal organ structure between non-human primates and humans, it was also reported by ancient authors that this resemblance encompassed behavioral aspects. As Lissarrague stated for the ancient Greeks, the most remarkable trait of the non-human primates is its mimetic character⁵⁴. In the context of broader animal descriptions and acknowledgments within Greek literature, it is noteworthy that some authors accorded a distinctive significance to creatures possessing the capacity for imitation. It is worth noticing that among viviparous animals (ζωοτοκούντων), non-human primates bear the closest resemblance to humans⁵⁵. This unique regard was not limited solely to non-human primates; rather, certain avian species were also portrayed as having the ability

(κυνοκέφαλοι), on the other hand, share a human-like form, but were larger and stronger, and notably, possessed canine faces. Additionally, they exhibit wild behavior and canine-like teeth, which are stronger than typical teeth (see Arist. *Hist. an.*, 502a.16- 502b.29).

⁴⁸ FHG. 11.1-9.

⁴⁹ Strab. 15.1.37. 15-19.

⁵⁰ Some other works have studied the perception of non-human primates (πίθηκος) and their low-pitching voice. Overall, these animals were described as creatures with weak voices and lacking vigor and strength. Therefore, some ancient writers associate non-human primates to weakness, quality associated with women and children (see VESPA 2017, 172).

⁵¹ When referring to appearance, the word "ποικιλίαν" is used, which means "a variety of colors". It should be remembered that κῆβος translates to "garden".

⁵² Strab. 15.1.37. 15-19.

⁵³ Gal. *De anat. adm.* 2.219.8-15.

⁵⁴ LISSARRAGUE 1988, 459.

⁵⁵ Arist. *Hist. an.*, 502b.29.

to mimic human voices⁵⁶. It is worth noticing that some ancient authors, were intrigued by the abilities of animals like parrots, crows, mynahs or hyenas to imitate human behaviors.

Among the mimetic animals, non-human primates were special for ancient authors. While being criticized for their mimetic behaviors, they were also portrayed as remarkably proficient in activities such as dancing, faithfully replicating human gestures and movements, and displaying skill in playing table games⁵⁷. The existence of numerous diminutive figurines portraying non-human primates, some of which depict these animals engaging in anthropomorphic activities like horse-riding, serves as substantial evidence that the imitative capacities of primates were perceived as enjoyable by observers⁵⁸. In contrast, they noted the mimicry of human behavior in non-human primates, which occasionally elicited feelings of unease and vulnerability among certain ancient Greeks, rather than a universal aversion. This reflection is not just a recognition of a shared biological ancestry with other creatures but also a recognition of the emotional, psychological, and behavioral dimensions.

Unveiling Emotions

Those who described non-human primates did so by comparing them to other animals⁵⁹, regardless of their species. Among all these animals, the human being emerges as the central focus of the comparison that encompasses not only physical distinctions but also behavioral aspects. This uncanny resemblance generated a diverse array of emotions in ancient authors. Reactions such as repulsion, laughter, amusement, joy, and outright were common answers to the imitative behaviors exhibited by non-human primates. However, it is important to acknowledge, even if it might seem obvious, that non-human primates are not by nature comical, repulsive, or deceived, even if in ancient Greek lenses they appear to be so. Likewise, it is worth noting that these descriptions correspond to a historical configuration ascribed in a determined time and chronology⁶⁰.

Consequently, to understand the emotions involved between humans and non-human primates, it is important to notice that even if there exists an individual dimension of emotion, it is subject to cultural shaping⁶¹. The social aspect of emotion determines that emotions are indeed among the interaction between people in every aspect of their life⁶². On this account, emotions are subject of changes during time and subject of historical enquiry⁶³. I will pursue this definition even further, as emotions also compel the interactions between humans and non-human animals in Antiquity.

Consequently, this section examines emotional responses as constitutive elements of ancient Greek thought, showing how laughter, shame, and repulsion functioned as cultural

⁵⁶ KORHONEN, RUONAKOSKI 2017, 57.

⁵⁷ VESPA 2017, 162.

⁵⁸ For further reading, iconographic matters have been extensively addressed see VESPA 2022; GREENLAW 2001.

⁵⁹ Furthermore, it is important to notice that a relationship existed among non-human primates, satyrs, and gods. The satyr is closely related to the image of non-human primates. The similarity between the satyrs and humans is not only physical but also extends to their behavior and postures. In fact, the satyr was often depicted as a citizen, even a bourgeois satyr. It is also important to note the hyper-sexualization that was associated with satyrs, a characteristic absent in representations of non-human primates (see LISSARRAGUE 1988, 456; 468).

⁶⁰ This phenomenon could be traced in a *longue durée*. It is not exclusive to Greece, as for the Ancient Mesopotamians, one of the most important traits of the monkey was its resemblance to humans (see DUNHAM 1985, 264). It also lingers up to ancient Rome's perspective (see BEARD 2014, 160-171).

⁶¹ REDDY 2001.

⁶² CHANIOTIS 2012, 12-13.

⁶³ BODDICE 2018, 2.

mechanisms for defining the human condition. Emotions serve as a powerful force that shapes the dynamics of these inter-species relationships, highlighting the intricate connection between sentient beings across different cultures and societies. Therefore, it must be stated that the relationship between humans and non-human animals is influenced by the cultural environment of the society in question⁶⁴. In doing so, humans often defined non-human animals through self-comparison, using them as mirrors of their own emotional and moral landscape.

Through this path, one should address to broaden its purview by positing that, among these emotions, non-human animals serve as vehicles for the expression of "otherness" within humans. At the heart of this argument lies the recognition that emotions, complex and multifaceted as they are, often find expression through avenues that extend beyond human interactions alone. When considering the intricate landscape of emotions, it becomes apparent that non-human animals play a profound role in expanding our understanding beyond the boundaries of societal constructs. As Thumiger has shown, "otherness", within non-human animal context, encompasses a spectrum of emotions, instincts, or experiences that individuals perceive as beyond their volitional grasp⁶⁵. Therefore, non-human animals gave ancient Greeks one way, through which they recognize an otherness, to constitute their understanding of humanity⁶⁶.

Entanglements

Plutarch conceived non-human primates in a singular purpose: entertain. According to this author, non-human primates (πίθηκοι) were not able to guard the house as a dog, carry loads as a horse, or even plow the land as an ox, and the only practical utility of these animals was as instruments of laughter⁶⁷. This idea could be understood as a normal consequence of the Greeks' perception of non-human primates as the funny distorted version of themselves. Simianesque creatures were depicted humorously, emphasizing mimicry of human behavior, and their hybrid appearance⁶⁸. This concept persisted into the Roman Empire, as evidenced by authors like Aelian, who underscored the capacity of non-human primates (πίθηκοι) to acquire skills such as playing the flute and dancing. Aelian further attests that he personally witnessed a non-human primate (πίθηκος) proficiently handling the reins, skillfully wielding the whip and managing the chariot as a human being⁶⁹.

In general terms, artists portrayed the non-human primates imitating activities often associated with high-class individuals, particularly those related to symposia. It should be taken into consideration that entertaining is related with how some non-human primates, mostly Barbary apes and Ethiopian monkeys, were kept by some individuals of higher status as companion animals⁷⁰. Due to its simian physique, the non-human primates inevitably distort these practices and fall short of adequately reflecting the aristocratic idea⁷¹.

⁶⁴ BODSON 1998, 312.

⁶⁵ THUMIGER 2014, 91.

⁶⁶ KINDT 2017, 218.

⁶⁷ Plut. *Mor.* 64.E.7-10.

⁶⁸ WOLFSON 2018, 175.

⁶⁹ Ael. *NA*, 5, 26, 1-9.

⁷⁰ LAZENBY 1949; MCDERMOTT 1938, 109; 131-135; 247.

⁷¹ STEINER 2016, 126; KITCHELL 2014, 119.

The laughter provoked by non-human primates in ancient Greece is a fascinating subject of historical study, as it shed light on the social lives of the ancient Greeks⁷². Laughter, which governs key aspects of human linguistic behavior, is profoundly rooted in culture and history⁷³, being at once a natural and a cultural phenomenon⁷⁴. It constitutes a cultural phenomenon with inherent variability manifesting across distinct societies and historical epochs. Attitudes towards laughter, the practices associated with it, the subjects that provoke laughter, and the diverse manifestations of this expression are not uniform across diverse societies and temporal contexts. Instead, these aspects exhibit fluidity following prevailing cultural norms. Moreover, laughter is intrinsically intertwined with the social fabric, governed by established codes, rituals, and actors⁷⁵. It is also important to notice how laughter exhibits a complex structure and web of associations with principles of friendships-enmity, honor-shame, and freedom-subservience. These principles lay in the prevailing modes of expression within the Greek culture⁷⁶. As pointed out by Halliwell, the phenomenon of laughter and the underlying forces it represented or conveyed constituted a recurring motif in Greek moral philosophy⁷⁷.

Non-human primates provide valuable insights into the cultural and emotional fabric of ancient Greece⁷⁸. Laughter, in the ancient Greek context, was not merely a superficial expression of amusement but held a deeper meaning. It symbolized the release of pent-up emotions, a momentary escape from the rigors of daily life, and a celebration of the lighter aspects of existence. Non-human primates highlight the cultural significance of laughter and with it the deep, intricate connections with life itself. This paper aligns with Borowski's assertion that humor stems from the recognition of actions deemed amusing, such as appearances, behaviors, events, and so forth, and arising from the perception of words, phrases, and language that are amusing, including jokes or witty expressions⁷⁹. On that account, the laughter produced among the relationship with non-human primates was mixed with other feelings that allow us to understand the boundaries with the natural world.

The earliest documented mentions of non-human primates in ancient Greek texts occur within comedic literary texts, specifically those authored by Semonides⁸⁰. It is indeed noteworthy that these first references found within comedic literary sources express a complex blend of emotions that join laughter with repulsiveness. Semonides of Amorgos, in the so-called Fragment 7, expounds ten distinct categories of women, differentiated by their origin or lineage through diverse animals, and accompanied by corresponding moral

⁷² Bakhtin, in his examination of the Middle Ages, posits that the realm of comedy lies its intrinsic significance in the context of temporal shifts and the evolving social and historical landscape, that lies in the significant presence of the popular element, enabling us to comprehend and elucidate not just the perspectives of certain educated writers from ancient Greece but also those of other societal segments concerning these animals (see BAKHTIN 2003, 66). Regarding the applicability of Bakhtin's ideas to laughter in Greece, see HALLIWELL 2008, 20.

⁷³ ALEXIOU, CAIRNS 2017, 4.

⁷⁴ BEARD 2014, 42-48.

⁷⁵ LE GOFF 1989, 2.

⁷⁶ HALLIWELL 2008, 6.

⁷⁷ HALLIWELL 1991, 280.

⁷⁸ Despite acknowledging the emotional impact that non-human primates evoke in humans, it is noteworthy to highlight that historical documentation from Antiquity attests to the recognition of animals experiencing emotions (see KALOF 2007, 166-170).

⁷⁹ BOROWSKI 2015, 88.

⁸⁰ Archilochus too mentions to non-human primates in Fragments 185 through 187. Unfortunately, due to the absence of complete works and a larger written context, the interpretation of these two fragments' perceptions of non-human primates remains challenging.

evaluations. Of particular significance, is the text's classification of the least desirable woman, according to its own criteria, as one originating from non-human primates. Semonides asserts that Zeus bestowed upon humanity the non-human primate as the utmost malevolent creation, deeming their countenances as abhorrent. Such a woman, in the eyes of the populace, becomes an object of ridicule to all men. Characterized by a truncated neck, cumbersome mobility fraught with discomfort, a deficiency of well-defined buttocks, and an emaciated physique, the man who embraces such an affliction is deemed wretched⁸¹.

Through Comedy, whether Old, Middle, or New, the non-human primates frequently appear as a subject of jest or satire⁸². It is worth noting, however, that references to non-human primates are more abundant in what is termed Old Comedy⁸³. The initial source under consideration is located within the context of the "Assemblywomen", when men find themselves subject to a peculiar rule under women's governance: they must prioritize sleeping with an elderly woman before a younger one. The comical environment is generated through the description of the elderly woman as bearing resemblance to a non-human primate (πίθηκος) that serves to underscore her unappealing appearance in a sexual encounter⁸⁴. A similar physical appearance motif is portrayed throughout the play "Acharnians" when Aristophanes in the voice of Dikaiopolis mocks Cleisthenes for feigning eunuch status. To portray this comical gesture, he compares him with a non-human primate (πίθηκος and πίθακος)⁸⁵.

In addition, we encounter not just the physical mockery of the uncanny resemblance between humans and non-human primates, but also the satire of their behavior. In "The Birds", Pisthetaerus is warned not to make a deal like a πίθηκος, a term that encompasses both ugliness and behavior. He is depicted as undersized and unattractive, and his refusal to adhere to an agreement resonates with the concept of deception, as an unfavorable pact can lead to duplicity⁸⁶. In "The Knights", the focus shifts to authenticity in politics, with Cleon accusing a meat seller of eating like a non-human primate (κυνοκέφαλος) or a savage dog⁸⁷. In the same play, once again Cleon accused the same meat seller of deceiving, by using non-human primates' tricks (πιθηκισμός). Therefore, the non-human primates symbolize the vices of imitation and deceit prevalent in communal living⁸⁸. The same motif is present also in "Peace". Along this play, it is depicted that Hierocles invokes the unfortunate mortals who without bearing the gods in mind, being humans, form agreements like fierce non-human primates (πίθηκοι), posing these animals as a synonym of imitation and deceit, rendering them untrustworthy⁸⁹, idea also present in "The Wasps"⁹⁰, where Cleon was accused of acting like a non-human primate (πιθηκίζω)⁹¹.

⁸¹ Semon. 7.71-79.

⁸² MCDERMOTT 1935, 170.

⁸³ LILJA 1980, 31.

⁸⁴ Ar. Eccl. 1071-1075.

⁸⁵ Ar. Ach. 118-122; 906-7.

⁸⁶ Ar. Av. 438-443.

⁸⁷ Ar. Eq. 415-420.

⁸⁸ Ar. Eq. 887.

⁸⁹ Ar. Pea. 1062-1066.

⁹⁰ Ar. Vesp. 1286-1290.

⁹¹ To grasp this reference, it is crucial to consider Aristophanes' use of the verb πιθηκίζω, which can be translated as "affen spielen" in German (see FRISK 1960, 534). It could also be translated as "faire le singe" in French (see CHANTRAINE 1999, 900). However, this act of imitating a monkey gains clarity within the context of the proverb "the trellis deceived the vine" (ἐξηπάτησεν ἡ χάραξ τὴν ἄμπελον). In this proverb, the deception is reversed, signifying that the deceiver, in

Likewise, we encounter a political satire of authenticity expressed through non-human primates in the comedy "The Frogs"⁹². Throughout the plot, Dionysus and Xanthias switch roles to avoid being associated with Heracles. As Aeacus failed to corroborate the authenticity of Dionysus or Xanthias, the political situation of Athens at that time was referred by the chorus, that states that Cleigenes was a non-human primate (πίθηκος), a troublemaker, the most useless bather who rules through deceit⁹³. It not only serves as a commentary on Cleigenes' cunning demeanor and his physical attributes, but it is also depicting him as a counterfeiter. Subsequently, the other reference is given within the dialogues involving Euripides and Aeschylus. Aeschylus accuses Euripides of presenting people differently than they are. He then points out that their polis -Athens-, was in a terrible situation due to the influence of bad poets like Euripides, and that had become infested with demagogic non-human primates (δημοπιθήκων) who deceived the people⁹⁴. In this context, the allusion to non-human primates serves as a metaphor for the political vice of imitation, encompassing deception and cunning tactics.

Within the realm of Middle Comedy, intriguing references to non-human primates emerge conveying the cultural and social nuances of ancient Greek society in relationship with beauty. The first reference, attributed to Crobilus and documented by Athenaeus, revolves around the notion of using dried fruit, specifically chickpeas, as a symbol of a non-human primates' (πίθηκος) fortune⁹⁵. In a parallel thread, the second reference, preserved in the *Comicorum Atticorum fragmenta*, is attributed to the poet Eubulus, who in the third century BCE introduced a thought-provoking perspective on beauty. The comical scene becomes present when he asserts that true beauty lies humans behaving like humans, not in resembling unattractive and duplicitous creatures like a goose engaged in futile wing-flapping, yawning, or worst of all resembling a non-human primate (πίθηκος)⁹⁶. Furthermore, Menander in "The Necklace" compares the appearance of Crobila to that of a non-human primate (πίθηκος), where he underscores the concept of ugliness among those already deemed unattractive in a high-class woman⁹⁷. In this context, the reference to a non-human primate serves as a poignant metaphor for physical appearance, deepening our understanding of how ancient Greeks perceived beauty and social standing⁹⁸.

On the other hand, primates also prompt an inquiry into the other aspect of laughter: those who do not laugh, as the culture of laughter is necessarily entangled with those who do not laugh⁹⁹. In the 2nd century AD, the Athenian scholar Athenaeus recounted a tale about a 6th-century BC Syrian, named Anacharsis, who was noted for his lack of laughter. Athenaeus narrates that during a symposium, Anacharsis, the Scythian, remained unamused despite the presence of jesters. However, upon the introduction of a monkey (πίθηκος), he finally laughed.

this case, the vine, ends up deceived. Concerning the animal in question, acting like a non-human primate mimics an entity that already imitates, ultimately leading to deception.

⁹² The Frogs deserve to be described as a political comedy (see MACÍA 2007, 209).

⁹³ Ar. *Ran.* 706-715.

⁹⁴ Ar. *Ran.* 1083-1085.

⁹⁵ Ath. 2, 44. 1-4. Chickpeas, a staple in Greek cuisine, were not only consumed as part of meals but were also served post-meal. Nevertheless, the exact meaning of this fragment remains without a solid conclusion (see MASTELLARI 2018, 152-153).

⁹⁶ MEINEKE, *FCG Cha.* 1.1.

⁹⁷ CAF 402.7-9.

⁹⁸ "ὄνος ἐν πιθήκοις" may indeed be nothing more than a witty expression coined by Menandre. This expression pertains to the notion of ugliness among those who are already unattractive (see TRINQUIER 2017, 5).

⁹⁹ BEARD 2014, 174.

At that moment, he remarked that the monkey is inherently amusing by nature, whereas humans laugh out of habit¹⁰⁰.

Some authors pointed out that non-human primates were funny for ancient Greeks because their imitation of humans was not perfect and it gave a sense of superiority¹⁰¹, and others defend the idea that the resemblance of the non-human primates to humans is not a true resemblance, but a facsimile tainted with ridicule¹⁰². In addition to these studies, there arises the idea that non-human primates, delineated as an enigmatic and imperfect mirror of humanity, have elicited profound reflections among the ancient Greeks. In Greek sources, the μίμησις¹⁰³ attributed to non-human primates is a matter of authenticity. The challenge at hand pertains to the distinction between one's authentic identity and the external perception of it being highlighted as its boundary.

However, is important to acknowledge that the recurring mimicry among non-human primates toward humans encompassed social conduct standards and the borderline of good behavior. In Aesop's fables this motif serves as a powerful portrayal of undesirable behavior. This mimicry¹⁰⁴, often driven by envy or thoughtlessness, is consistently depicted as a detrimental attribute. Aesop used in his fables portray these animals as being gullible, deceitful, ugly, and skilled in dance. In "The Fox and the Monkey (πίθηκος)", the fox's cunning contrasts with the non-human primate's (πίθηκος) gullibility, serving as a cautionary tale about impulsive actions and their consequences. This narrative teaches us that thoughtless behavior, incarnated as a non-human primate, often leads to misfortune and ridicule¹⁰⁵. In "A Fox and a Monkey Dispute About Good Lineage", the non-human primate (πίθηκος) emerges as a liar proud of their falsehood¹⁰⁶, and in "A Monkey and Some Sailors" Aesop illustrates the consequences of thoughtless imitation, as the non-human primate's (πίθηκος) mimicry leads to entrapment¹⁰⁷. The non-human primate (πίθηκος) in "The Monkey's Offspring" the πίθηκος becomes a symbol of poor decision-making, exploring the influence of destiny¹⁰⁸. "A Monkey and a Camel" displays the πίθηκος unique ability to captivate through dance. Here, envy leads the camel to imitate, with disastrous results¹⁰⁹.

5.2 Boundaries

As it was exposed earlier, the entanglement of laughter, amusement, and rejection were emotions that could not be separated from one another in the relationship between humans and non-human primates. However, we should, additionally, consider the consequences of those feelings in establishment of boundaries between humans and the rest of nature. Within

¹⁰⁰ Athen. *Deip.* 14.2.5-8.

¹⁰¹ MCDERMOTT 1938, 109.

¹⁰² TRINQUIER 2017, 4; MASTELLARI, 2018, 153.

¹⁰³ In the context of comedy, Aristotle specifically viewed it as μίμησις, or imitation, of the wretched. It should be noted that this imitation does not encompass all forms of negativity but rather focusses on a particular aspect: the propensity to evoke shame. For Aristotle, humor arises from benign flaws and non-harmful instances of shame or ugliness, as opposed to those with a detrimental impact (see Arist. *Poet.* 1449a.32-37).

¹⁰⁴ In the second century BCE, Hermogenes of Tarsus, the Greek rhetorician, asserted the importance of exemplifying animal characteristics as faithfully as possible in fables, and pointed that to make a credible the imitation human actions, non-human primates (πίθηκοι) should be used (see Hermog. *Prog.* 1.11-18).

¹⁰⁵ Aes., Fab. 38.

¹⁰⁶ Aes., Fab. 39.

¹⁰⁷ Aes., Fab. 304.

¹⁰⁸ Aes., Fab. 307.

¹⁰⁹ Aes., Fab. 306.

the context of ancient times non-human primates were consistently employed as metaphors to discuss others and it always had a negative connotation¹¹⁰ and any comparison with them was avoided. Nonetheless, there exists a noteworthy instance in which one individual autonomously chooses not only to be recognized as one but also to be reborn as a non-human primate (πίθηκος). This narrative is conveyed to us by Plato in his renowned work *The Republic* (Πολιτεία). Plato portrayed a group of mythological characters from the *Iliad* who, after death, had the privilege of selecting a mortal body in which they would experience a new life. Through this intricate process, they were able to ascertain the model their soul would ultimately embody. Among these mythological characters was Thersites, a figure known for his buffoonery, who chose to take on the form of a non-human primate (πίθηκος)¹¹¹.

It is crucial to juxtapose this reference to Plato with the depiction presented in the *Iliad* by Homer, for it was indeed Homer who offered the first documented portrayal of the mythological character of Thersites. While Plato was familiar with Homer's texts, what is important to note is how Homer described Thersites, as it allows us to visualize the connection once again between physical appearance and behavior. Homer in the *Iliad* portrays Thersites as the most despicable figure to arrive in Troy and describes him as physically afflicted, with a lame leg, hunched and hunched shoulders, a pointed and sparse head. Is portrayed as a figure who was engaged in unbridled and futile verbal combat, delivering disparaging and disorderly tirades against the basileus to elicit amusement from the Argives¹¹². In this sense, Thersites embodied not only physical ugliness but also repulsive behavior.

In the realm of Greek thought, ugliness is a form of “shame(fulness)” that can paradoxically become both a target for mockery and a badge of bizarre and ludicrous behavior¹¹³. Thersites, regarding his choice of becoming a non-human primate amidst the possibility of assuming any animal form, is subsequently characterized as laughable. This serves to highlight the convergence of physical appearance and behavior, as laughter and ugliness often dance in harmony. This case is distinctive due to the human's desire to emulate a non-human primate, rendering it a subject of amusement. The act of assuming the characteristics of this particular animal inherently raises inquiries regarding the virtue of the individual making such a choice. This anthropomorphic projection, however, is not neutral — it is value-laden, shaped by the ideals of *καλοκαγαθία* and by the moral hierarchies that define Greek civic life. The non-human primate's imperfect imitation of the human exposes the fragility of these hierarchies, turning animal behavior into a commentary on human virtue and corruption.

This motif is interconnected with the broader context of the corruption of the city-state, as expounded upon in Plato's *Republic* where citizens are entrapped in the imitation of reality and fail to perceive it in its authentic form. According to Plato's conception in this work, all forms of imitation are detrimental to the city-state, including that of poets, who never approach the truth or virtue, and lead people to believe in a distorted image of reality¹¹⁴. The association between poetry and the soul is predicated on the idea that, through imitations

¹¹⁰ For Ancient Greeks, characterizing an individual as a non-human primate functioned, to a certain degree, as a derogatory expression, as it metaphorically underscored specific unfavorable attributes. It evolved into a metaphor signifying fraudulent, inauthentic, and imitative conduct, thereby establishing an association with deceit (see GARCÍA 1972, 453).

¹¹¹ *Pl. Resp.* 10,620 c.2-3.

¹¹² *Hom. Il.* 2.212-19.

¹¹³ Halliwell 2008, 72.

¹¹⁴ *Pl. Resp.* 2, 377d-e.

aimed at pleasing the audience, poetry conveys a misleading representation of reality, not solely in terms of physical appearance but also in the choice to adopt habits.

Throughout the narrative of the Republic, the quest is the pursuit of justice or virtue to lead a virtuous life within the polis. Thersites, who choose to assume the role of a non-human primate, is a metaphor that resonates with the famous passage of the Allegory of the Cave, which elucidates the text's epistemological stance. Here, the idea is posited that knowledge, or even a distorted perception of reality, can generate a false version of reality itself. The notion of mimesis plays a pivotal role in this motif, as the inhabitants of the cave can only perceive reality through the shadows of objects. They lack awareness that what they are experiencing and the entirety of the reality they have constructed and apprehended are confined to these imitations. This demarcation between the sensible world, that is, what is perceived through the senses, and the intelligible world, which represents authentic reality, carries significant implications not only in ontological terms but also in ethical and epistemological dimensions.

It is crucial to recognize the diverse and multifaceted nature of perceptions regarding non-human animals¹¹⁵. However, when it comes to non-human primates, ethical and aesthetic considerations are intricately intertwined, even though it is worth mentioning that this combination of ethical and aesthetic elements is not exclusive to the relationship with non-human primates¹¹⁶. Within the framework of perceiving these creatures, it is worth contemplating the idea that when humans emulate non-human primates or face accusations of exhibiting non-human primate-like behavior, they find themselves subject not only to censure regarding their physical appearance and conduct but also to the attribution of moral corruption.

A concept that encapsulates these intricate interconnections is *καλοκαγαθία*. This term is comprised of three constituent words: "*καλός*", -signifying beautiful-, "*καί*", -which translates to "and"-, and the adjective "*ἀγαθός*", -denoting good-. However, surpassing its mere linguistic composition, this concept conveys more than just physical aesthetics; it inherently carries profound ethical connotations. In addition to aesthetics, *καλοκαγαθία* encompasses a dimension of virtue and perfection. Even if the historical origins of this concept trace back to the fifth century BCE, employed in reverence of Zeus, in a broader context, it is intricately linked with male representatives of the aristocracy, subsequently extending its association to the citizenry¹¹⁷. Furthermore, the *καλοκαγαθία* amalgamates the notion of excellence, particularly about the quality of one's actions. Ultimately, this term alludes to an individual who embodies perfection in both moral and physical dimensions.

We can take this idea of boundaries even further to encompass another dimension: the relationship with the deities. Heraclitus that exposes another example of how non-human primates defined the boundaries of what could be considered as human. Heraclitus mentions that the wisest of humans looks like a non-human primate (*πίθηκος*) to the gods, both in wisdom and beauty¹¹⁸. As from the human perspective, non-human primates represent a rather rudimentary approximation -a poorly executed emulation, and an ineffectual imitation of humanity-, for the gods, the human beings represent the same characteristics. The perspective

¹¹⁵ NEWMYER 2011.

¹¹⁶ Plat. *Ti*.

¹¹⁷ WEILER 2002, 11.

¹¹⁸ DK 83.

worth addressing is the relationship between non-human primates and humans as an analogy between human beings and gods¹¹⁹.

On anthropomorphism and the projection of human attributes onto divine and animal realms, see Xenophanes of Colophon, who, in the sixth century BCE, argued that if animals possessed hands and could create artworks as humans do, they would fashion their gods in their own image—oxen resembling oxen, turtles resembling turtles, and so on¹²⁰. Considering Xenophanes' insight into the anthropomorphism inherent in religious thought, one may extend the same logic to animals: if gods reflect humans, might humans define themselves in response to animals? Within this continuum, both gods and non-human primates operate as mirrors of human existence—each embodying, in different registers, the anthropomorphic tendencies of those who imagine them.

In this context, human beings found themselves positioned between two distinct thresholds: one occupied by non-human primates and the other by gods. Remarkably, these entities are not viewed as opposing forces, but rather as defining parameters that shape the essence of the human condition¹²¹. We should take into consideration another passage from Heraclitus. He stated that the most beautiful of non-human primates (πίθηκος) is ugly in the eyes of humanity¹²². The motif of human imitation of the divinity has its equivalence in the imitation of non-human primates to humans. This proposition implies that, in comparison to the virtue of gods, humans are inferior, and in comparison, to humans, non-human primates ultimately represent one of the most fitting images of non-virtue. This dynamic framework accentuates the nuanced interplay between humans, gods, and non-human primates, delineating the complex boundaries of human existence.

In the context of this ethical discourse, it is imperative to underscore that likening an individual to a non-human primate was regarded as a severe insult. It was employed to convey the edge of unattractiveness or even intellectual deficiency and extended to categorizing individuals within broader social strata, including those identified as deceivers, flatterers, and sycophants¹²³. Ancient Greek culture employed animals as powerful metaphors for insult¹²⁴, with the term "dog" being particularly noteworthy due to its potential Indo-European origins and prevalent usage. This usage persisted even in esteemed literary works such as Homeric poems, where the dog symbolized shamelessness and audacity¹²⁵. On a non-human primate account, the term "κυνοκέφαλος", referring to an individual as a dog-headed creature, carried negative connotations related to those associated with dogs. Additionally, the insult of labelling someone a "κέρκωψ" was laden with accusations of theft and dishonesty, vividly depicted through the imagery of a non-human primate.

It is worth remembering the Cercopes (Κέρκωπες) were two siblings known for ambushing strangers. On one occasion, they pilfered weapons from Heracles while he slumbered. Upon

¹¹⁹ CONNORS 2004, 184.

¹²⁰ Diehl, *Anth. Lyr. Graec.* 13.1–4.

¹²¹ Various civilizations, including the Indian and Egyptian cultures held these creatures in reverence as divine figures. This perspective resonates with Mackowiak's notion of the divine connection between non-human primates and the Greeks, intertwined with bygone religious beliefs (see MACKOWIAK 2013a, 217; 220).

¹²² DK 82.

¹²³ MASTELLARI 2018, 153.

¹²⁴ Although the association with the dog encompassed a wide range of behaviors, the vocative "κύων" was used to address individuals accused of cowardice, treachery, or vulgarity, thus marking the term as a pejorative expression (see FRANCO 2014, 7–16).

¹²⁵ GARCÍA 1972, 453.

discovering the theft, Heracles bound them to a staff which he then hoisted upon his shoulder. Over time, they managed to ingratiate themselves with Heracles through their jests. It should be noted that variations exist within the myth; at times, it is recounted that there were not two but four siblings, with Heracles purportedly dispatching the additional two prior to their release¹²⁶. However, irrespective of these narrative discrepancies, it is pivotal to underscore that, according to the myth, the Cercopes, after their liberation by Heracles, persisted in their antics, prompting Zeus, weary of their behavior, to transmute them into monkeys and dispatch them to the Pithecusae¹²⁷ Islands, now recognized as Ischia and Procida. Their transformation into primates reflects the moral and emotional boundaries that the Greeks projected onto these animals: trickery and ridicule became narrative tools through which human vice was externalized and displaced into the animal realm. They literally embody the fragile line separating the human from the animal, shaped by the interplay of humor, transgression, and punishment.

Certainly, this intricate web of insults not only exemplifies the richness of ancient linguistic expressions but also highlights the nuanced societal perceptions of deceit, shamelessness, and primitiveness. Given these considerations, when individuals engage in a non-human primate demeanor or find themselves compared to them, the implications extend beyond surface-level notions of physical unattractiveness and inappropriate behavior. Such associations also carry connotations that cast a shadow on the realm of moral character, depicting those humans as flawed individuals, a stark departure from the cherished ideal of *καλοκαγαθία*. This perspective underscores the implications and potential ramifications inherent in such comparisons. Non-human primates, by embodying qualities contrary to both moral and physical excellence, serve as a contrasting archetype to the holistic aspiration epitomized in the Greek worldview, one that intricately interweaves philosophy, ethics, and emotional dimensions.

This multifaceted interaction between humans and non-human animals also manifests itself in the symbolic language used to name—or not to name—them. As Cristina Franco has shown, ancient Greek sources attest to dogs bearing individual names—a sign of familiarity and emotional attachment—but no such evidence exists for non-human primates. Although the absence of evidence does not necessarily entail evidence of absence, this silence is nonetheless significant. The lack of proper names for primates may suggest that, within Greek culture, these animals occupied a space of emotional distance, being perceived as simultaneously close in form yet foreign in essence. Unlike dogs, whose naming reflected companionship and loyalty, non-human primates embodied a troubling likeness that precluded intimacy. Their namelessness thus becomes a cultural marker of affective

¹²⁶ CONNORS 2004, 186–187.

¹²⁷ The etymology of Pithekoussai remains somewhat obscure; it may connote an association with monkeys (πίθηκος) or represent a Hellenic adaptation of a local appellation. Additionally, as posited by Pliny the Elder, it could be linked to an etymological relation with the term “πίθοι”, equivalent to the Latin “figlinis doliorum”, denoting ceramic jars (see Plin. *NH*, 3.82.4–5). The myth may be intertwined with the pursuit of wealth, particularly through metal exchange (see CONNORS 2004, 185–187). It is pertinent to recall that Greeks label profit-seekers as Cercopes universally. Within this realm of geography, it is also mentioned that Athens housed the Cercopes market, where stolen goods were traded. A good example of this is the clothes-stealer (λωποδύτης) that sold the stolen goods in the Cercopes market in Athens (see HUNTER 2007, 8). Hence, individuals behaving like Cercopes were viewed not only as inauthentic but also reprehensible. Branding someone a Cercope implies labeling them a thief and a liar, alongside evoking the image of a monkey (see MUÑOZ 2008, 43). Furthermore, there is a connotation to the term Cercope (Κέρκωψ), signifying “arse-faced” (see LUCAS DE DIOS 2002, 325).

separation: the Greeks could laugh at them, fear them, or be fascinated by them, but they did not belong within the sphere of familiar affection.

Conclusions

Within this reasoning, non-human primates, while sharing certain physical and behavioral attributes with humans, were not merely perceived as distant, exotic animals but rather as living reflections of human beings. When non-human primates question the boundaries of identity and exemplify the enduring fascination with the blurred lines between humans and the natural world, they generated repulsion as they were portrayed as treacherous, ugly, and even morally reprehensible beings. Thus, emotions act as interpretive bridges between cultural imagination and textual representation: they encode how the Greeks felt their humanity threatened, reflected, or caricatured in the figure of the non-human primates. These portrayals capture a sense of deceit felt by ancient authors when confronted with the unsettling notion of perceiving their own identity as a mere shadow in an external entity. This experience of deception evoked profound discomfort among these individuals, highlighting their unease in recognizing their own existence being mirrored.

In both modern and ancient frameworks, a critical approach to sources is indispensable as it is crucial to acknowledge that we are dealing with the perspectives of human beings in comprehending and delineating an “otherness”. While this point might seem self-evident to some, reflections sometimes provide greater insight into the individual articulating them rather than the subject matter they elucidate. The dual inclinations towards anthropocentrism and anthropomorphism significantly influence our conceptualizations of the relationships with non-human animals. This phenomenon manifests when human characteristics are indiscriminately attributed to non-human species. Both tendencies can coexist concurrently. Anthropocentrism delineates the human-animal boundary and employs accusations of anthropomorphism for its enforcement, constituting more of a moral rather than a scientific construct¹²⁸.

In Greek thought it was key the question of defining human in relationship with nature¹²⁹. Notably, the involvement of nature facilitates an exploration of the confluence around the complex relationship between non-human primates and ancient Greek culture, as the mimetic attributes ascribed to non-human primates elucidate the ancient Greeks' reaction to the phenomenon of feeling imitated by non-human animals. Consequently, non-human primates brought to ancient Greeks a tapestry of emotions that entangles rejection, laughter, shame, and amusement.

Emotions remain, to a certain extent, a social construct, straddling the realms of culture and nature. Consequently, as a dynamic reality subject to transformations and it could be understood from a historical perspective¹³⁰. On a general account, non-human primates were perceived as distorted shadows of humanity, raising questions about imitation, authenticity, and the nature of human beings, but, on the other hand, they caused laughter, joy, and amusement.

In this sense, the study demonstrates that emotions were not secondary to imitation but central to the ancient Greek process of defining humanity. Descriptions of non-human animal act as a mirror of the human beings that portrayed them. Therefore, the discourse toward non-

¹²⁸ RUSSELL 2011, 1-5.

¹²⁹ BODSON 1998, 313.

¹³⁰ ARBELOA *et alii* 2023, 4.

human animals reflects the observer's background. They reveal to us our own attitudes, biases, and values through reflection, allowing us to gain insight into ourselves¹³¹. Non-human primates exhibit a remarkable capacity for delineating a comparative framework between human and animal essences. They can potentially trigger for ancient Greeks various degrees of emotional responses, ranging from comical laughter to repulsiveness¹³². The ethical attributes conveyed through the portrayal of non-human primates serve as a significant lens through which to comprehend the ancient Greeks' reaction to the phenomenon of being imitated by animals lacking human traits. These representations symbolize the sense of deception experienced among ancient authors when confronted with the idea of being mimicked. In the context presented, it becomes evident that mimesis did not inherently bear a negative connotation. However, it became laden with negativity, as ancient Greeks reflected their apprehension about encountering mirrors of their own image and behavior.

References

- ALEXIOU, M., CAIRNS, D. 2017. *Greek Laughter and Tears. Antiquity and After*, Edinburgh. DOI: <https://doi.org/10.3366/edinburgh/9781474403795.001.0001>.
- ARBELOA, B.P., DOMÉNECH, C.F., GORDÓN, Z.A., MESEGUER, G.D., SERRANO, A.C. (eds.). 2023. *Ab imo pectore. Estudios sobre las emociones en la Antigüedad*, Oxford. DOI: <https://doi.org/10.32028/9781803276823>.
- BAKHTIN, M. 2003. *Cultura popular en la Edad Media y en el Renacimiento: el contexto de François Rabelais*, Madrid.
- BEARD, M. 2014. *Laughter in Ancient Rome. On Joking, Tickling and Cracking up*, Berkeley, Los Angeles and London.
- BODDICE, R. 2018. *The History of Emotions*, Manchester.
- BODSON, L. 1998. Ancient Greek Views on the Exotic Animal, *Arctos: Acta Philologica Fennica* 32, 61-85. DOI: <https://doi.org/10.71390/arctos.86027>.
- BOROWSKI, Y. 2015. *Laughter in Ancient Greek Drama of the Classical Period. Tragedy and Satyr Play*, Ph.D. thesis, University of Lodz.
- CHANOTIS, A. 2012. *Unveiling Emotions in the Greek World*, Stuttgart. DOI: <https://doi.org/10.25162/9783515104999>.
- CHANTRAINE, P. 1999. *Dictionnaire Étymologique de la Langue Grecque. Histoire des Mots*, Paris.
- CONNORS, C. 2004. Monkey Business: Imitation, Authenticity, and Identity from Pithekoussai to Plautus, *Classical Antiquity* 23(2), 179-207. DOI: <https://doi.org/10.1525/ca.2004.23.2.179>.
- DÍAZ-REGAÑÓN, J. M. (ed.). 1984. *Claudio Eliano. Historia de los Animales. Libros IX-XVII*, Madrid.
- DUNHAM, S. 1985. The monkey in the Middle, *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 75(2), 234-264, DOI: <https://doi.org/10.1515/zava.1985.75.2.234>.
- FRANCO, C. 2014. *Shameless. The Canine and the Feminine in Ancient Greece*, Oakland. DOI: <https://doi.org/10.1525/9780520957428>.
- FRISK, H.V. 1960. *Griechisches Etymologisches Wörterbuch*, Heidelberg.
- GARCÍA, C. '1972. Sobre 'πιθηκίζω: hacer el mono', *Emerita* 40(2), 453-460.

¹³¹ KITCHELL 2020, 471.

¹³² MACKOWIAK 2013, 27.

- GARCÍA, J.L., GARCÍA-BELLIDO, M., TORALLAS TOVAR, S. (eds.). 2015. *Estrabón. Geografía. Libros XV-XVII*, Madrid.
- GREENLAW, C. 2001. *The Representation of Monkeys in the Art and Through of Mediterranean Cultures*, Oxford.
- GOUDSMIT, J., BRANDON-JONES, D. 2000. Evidence from the Baboon Catacomb in North Saqqara for a West Mediterranean Monkey Trade Route to Ptolemaic Alexandria, *The Journal of Egyptian Archaeology* 86(1), 111-119, DOI: <https://doi.org/10.1177/030751330008600115>.
- HALLIWELL, S. 1991. The uses of laughter in Greek culture, *The Classical Quarterly* 41(2), 279-296, DOI: <http://dx.doi.org/10.1017/S0009838800004468>.
- HALLIWELL, S. 2008. *Greek laughter: A Study of Cultural Psychology from Homer to Early Christianity*, Cambridge.
- HUNTER, V. 2007. Did the Athenians have a word for crime?, *Dike* 10, 5-18.
- JENNISON, G. 1937. *Animals for Show and Pleasure in Ancient Rome*, Manchester.
- KALOF, L. (ed.). 2007. *A Cultural History of Animals in Antiquity: Vol. I*, Oxford.
- KELLER, O. 1909. *Die Antike Tierwelt*, Hildesheim.
- KINDT, J. 2017. Review Article Capturing the Ancient Animal: Human/Animal Studies and the Classics, *The Journal of Hellenistic Studies* 137, 213 – 225.
DOI: <https://doi.org/10.1017/S0075426917000167>.
- KINDT, J. 2021. *Animals in Ancient Greek Religion*, London and New York.
- KITCHELL, K.F. 2014. *Animals in the Ancient World from A to Z*, London and New York.
- KITCHELL, K.F. 2020. Talking Birds and Sobbing Hyenas: Imitative Human Speech in Ancient Animals. In: H. Schmalzgruber (ed.), *Speaking Animals in Ancient Literature*, 447-476. Heidelberg.
- KORHONEN, T., RUONAKOSKI, E. 2017. *Human and Animal in Ancient Greece: Empathy and Encounter in Classical Literature*, London and New York.
- KOSTUCH, L. 2017. Do animals have a homeland? Ancient Greeks on the cultural identity of animals, *Humanimalia* 9(1), 69-87.
- LAZENBY, F.D. 1949. Greek and Roman Household Pets, *The Classical Journal* 44(4), 245-252.
- LE GOFF, J. 1989. Rire au Moyen Age, *Les Cahiers du Centre de Recherches Historiques* 3, 1-10, DOI: <https://doi.org/10.4000/ccrh.2918>.
- LIDDELL, H.G., SCOTT, R. 1996. *A Greek-English Lexicon*, Oxford.
- LILJA, S. 1980. The ape in ancient comedy, *Arctos: Acta Philologica Fennica* 14, 31-38.
- LISSARRAGUE, F. 1988. L'homme, le singe et le satyre. In: B. Cassin, J.L. Labarrière (eds.) *L'animal dans l'antiquité*, 455-472. Paris.
- LONSDALE, S. 1979. Attitude towards Animals in Ancient Greece, *Grece & Rome* 26(2), 146-159.
- LUCAS DE DIOS, J. M. (ed.). 2002. *Esquines. Discursos, testimonios y cartas*, Madrid.
- LUTGENDORF, P. 2007. *Hanuman's Tale: the Messages of a Divine Monkey*, Oxford.
- MACÍA, L. (ed.). 2007. *Aristófanes. Comedias III: Lisístrata, Las Tesmoforias, Las Ranas, La Asamblea de las Mujeres, Pluto*, Madrid.
- MACKOWIAK, K. 2013a. Des usages du singe en Béotie: l'animalité entre discours et fonction, *Ktéma* 38, 217-240. DOI: <https://doi.org/10.3406/ktema.2013.1410>.
- MACKOWIAK, K. 2013b. Le singe miroir de l'homme? Enjeux d'une confrontation en Grèce ancienne, *Revue de l'histoire de religions* 1, 5-36, DOI: <https://doi.org/10.4000/rhr.8058>.
- MASTELLARI, V. 2018. *Commento a cinque poeti comici di IV sec. a.C.*, Freiburg.
- MCDERMOTT, W. C. 1935. The ape in Greek literature, *TAPA*, 66, 165-176.
- MCDERMOTT, W. C. 1938. *Ape in Antiquity*, Oxford.
- MONTAGU, A. 1940. Knowledge of the Ape in Antiquity, *Isis* 32(1), 87-102.

- MUÑOZ, V. 2008. Insultos e Invectiva entre Demóstenes y Esquines, *Minerva* 21, 33-49.
- NEWMYER, S. 2011. *Animals in Greek and Roman Thought. A Sourcebook*, New York.
- PAREJA, M.N., MCKINNEY, T., MAYHIEW, J.A., SETCHELL, J.M., NASH, S.D., HEATON, R. 2019. A new Identification of the Monkeys depicted in a Bronze Age Wall Painting from Akrotiri, Thera, *Primates* 61, 159-168. DOI: <https://doi.org/10.1007/s10329-019-00778-1>.
- PARREU, F. (ed.). 2001. *Diodoro de Sicilia. Biblioteca Histórica. Libros I-III*, Madrid.
- RACKHAM, H., JONES, W. (eds.). 1967. *Pliny, Natural History*, vol. III, Boston and London.
- REDDY, W. 2001. *Navigation of Feeling. A Framework for the History of Emotions*, Cambridge. DOI: <https://doi.org/10.1017/cbo9780511512001>.
- RENEHAN, R. 1981. The Greek Anthropocentric View of Man, *Harvard Studies in Classical Philology* 85, 239-259. DOI: <https://doi.org/10.2307/311176>.
- RUSSELL, N. 2011. *Social Zooarchaeology: Humans and Animals in Prehistory*, Cambridge. DOI: <https://doi.org/10.1017/cbo9781139019712>.
- STADEN, H.V. 2013. Writing the Animal: Aristotle, Pliny the Elder Galen. In: A. Markus (ed.) *Medical and Mathematical Authorship in Ancient Greece*, 111-144. Berlin and Boston.
- STEINER, D. 2016. Making Monkeys: Archilochus fr. 185-187 w. In: V. Cazzato, A. Lardinois (eds.) *The Look of Lyric: Greek Song and the Visual Book Subtitle: Studies in Archaic and Classical Greek Song*, 108-145. Leiden and Boston.
- THOMMEN, L. 2012. *An Environmental History of Ancient Greece and Rome*, Cambridge. DOI: <https://doi.org/10.1017/cbo9780511843761>.
- THUMIGER, C. 2014. Animals in tragedy. In: G.L. Campbell (ed.), *The Oxford Handbook of Animals in Classical Thought and Life*, 84-98. Oxford.
- TRINQUIER, J. 2017. Les animaux, caricatures de l'homme?: Le cas exemplaire du singe. *Archive ouverte en Sciences de l'Homme et de la Société*. <https://halshs.archives-ouvertes.fr/halshs-01629641>.
- URIBE, S. 2023. *Simia quam similis turpissima bestia nobis: interacciones entre los romanos y los primates (s. III a. C. - V d.C.)*, Madrid.
- VESPA, M. 2017. A Voice without a Muse. Primates and the Ancient Phonosphere in Greek and Roman Cultures, *Greek and Roman Musical Studies* 5, 159-177. DOI: <https://doi.org/10.1163/22129758-12341298>.
- VESPA, M. 2019. Le 'Tête-de-chien' (κυνοκέφαλος) des Grecs L'Égypte au prisme des animaux. In: S. Porcier, S. Ikram, S. Pasquali (eds.) *Creatures of Earth, Water and Sky. Essays on Animals in Ancient Egypt and Nubia*, 331-339. Leiden.
- VESPA, M. 2022. *Geloion Mimēma: studi sulla rappresentazione culturale della scimmia nei testi greci e greco-romani*, Turnhout.
- VESPA, M., ZUCKER, A. 2020. Imiter ou communiquer. L'intention du singe dans la littérature gréco-romaine, *Mètis* 18, 233-250. DOI: <https://doi.org/10.4000/books.editionsehess.29569>.
- WEILER, I. 2002. Inverted Kalokagathia, *Slavery & Abolition: A Journal of Slave and PostSlave Studies* 23(2), 9-28. DOI: <https://doi.org/10.1080/714005237>.
- WOLFSON, E.G. 2018. *Pictorial Representations of Monkeys and Simianesque Creatures in Greek Art*, Columbia. DOI: <https://doi.org/10.32469/10355/66131>.
- ZATTA, C. 2019. *Interconnectedness. The Living World of the Early Greek Philosopher*, Sankt Augustin. DOI: <https://doi.org/10.5771/9783896657978>.



Glyptic Depictions of Tyche in Asia Minor

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Abstract. *This paper is devoted to depictions of Tyche on engraved gems in Asia Minor, mostly dating from the Roman period. The aim is to create an iconographic typology for Tyche as represented in Roman glyptic art in Turkey, to reveal the development of the iconography of the goddess in the East and to distinguish more individualised images from the products of mass production. The study material is located in local museums, from west to east, in Izmir, Ephesus, Akhisar, Aydın, Marmaris, İznik, Burdur, Ankara, Konya, Amasya and Gaziantep in different parts of modern-day Turkey. 40 engraved gems, a glass medallion and a terracotta bulla with Tyche iconographies are here divided into twelve types which are presented with their compositions and chronologies. As a result of this study, a deepened iconographical analysis of these gems was constructed which indicates that many types depicting Tyche are of local significance.*

Rezumat. *Această lucrare este dedicată reprezentărilor zeiței Tyche pe pietre prețioase gravate din Asia Mică, datând în mare parte din perioada romană. Scopul este de a crea o tipologie iconografică pentru Tyche, așa cum este reprezentată în arta gliptică romană din Turcia, de a dezvălui dezvoltarea iconografiei zeiței în Orient și de a distinge imaginile mai individualizate de produsele producției de masă. Materialul de studiu se află în muzeele locale, de la vest la est, în Izmir, Efes, Akhisar, Aydın, Marmaris, İznik, Burdur, Ankara, Konya, Amasya și Gaziantep, în diferite părți ale Turciei moderne. 40 de pietre prețioase gravate, un medalion de sticlă și o bulă de teracotă cu iconografii ale zeiței Tyche sunt împărțite aici în douăsprezece tipuri, prezentate împreună cu compozițiile și cronologiile lor. Ca urmare a acestui studiu, a fost realizată o analiză iconografică aprofundată a acestor pietre prețioase, care indică faptul că multe tipuri care o înfățișează pe Tyche au o semnificație locală.*

Keywords. Intaglio, cameo, engraved gems, finger-rings, Tyche, Fortuna, Asia Minor, Turkey, Syria, Roman period, glyptics, iconography, Roman archaeology.

*In memoriam Erika Zwierlein-Diehl
(* 28.III.1936 – † 24.V.2025)*

Introduction: Tyche in Asia Minor

Tyche was one of the most popular deities depicted in glyptics during the Roman Empire. The images of the goddess portrayed on Roman intaglios evolved from Hellenistic concepts that gained popularity and took on new forms in the Roman period. Tyche and her symbols frequently appeared as amuletic motifs, offering protection to the wearer in various ways.

During the Hellenistic period Tyche is frequently featured on coins in Anatolia and the Near East, and there were cults dedicated to Tyche throughout the rest of the Mediterranean littoral and beyond. According to Susan B. Matheson, the goddess Tyche was often worshipped as the actual personification of a city and its fortune.³ Further, Tyche came to represent not

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³ MATHESON 1994, 19.

only personal fate, but the fate of entire communities. Cities venerated their own Tychai, specific iconic versions of the original Tyche, and this practice was continued in the iconography of Roman Asia Minor.⁴

Iconographically, Tyche appears on many coins struck during the Hellenistic and Roman periods, especially in the eastern part of the ancient world, generally wearing a mural crown and carrying a cornucopia, an emblematic *gubernaculum* (a ship's rudder), and sometimes accompanied by a wheel of fortune, or even standing on a wheel, presiding over the entire circle of fate (Pl. 1:1b and Pl. 1:5b for a seated version). The significance of the mural crown is that it identifies her as the goddess of a city (Pl. 1:2a). According to S. B. Matheson, the deity, being one of the Oceanids, was considered to be an ocean goddess.⁵ Citing the manner in which Pindar refers to her in his poems, he “implores her to keep watch around Himera, a port” (Pindar, *Olympian Ode* 12, 1–2), she is very frequently depicted holding a ship's rudder (Pl. 1:3b). In Late Roman times sets of figures, usually four, represented the Tychai of Rome, Constantinople, Alexandria and Antioch-on-the-Orontes.⁶ Thus, her iconographic construction experienced a slight change with the adaptation of innovations in figural art from the fourth cent. AD onwards; these changes in the artistic culture of Late Antiquity, however, have not yet received sufficient attention in the scientific world. In this regard the sixth cent. AD mosaic depicting a bust of Tyche from the “House of the Deer” at Apamea, Syria should be noted.⁷

Tyche, not only personified and guarded cities, as represented by official art and coinage, but protected buildings (especially bath-houses both because of fire risk and because bathers were naked and, thus, especially vulnerable there)⁸, as well as ships, which were ever liable to shipwreck. This ubiquity is apparent from her presence throughout the Roman Empire in personal as well as in public dedications and altars⁹, as well as in sculptured images, paintings

⁴ In the text, the geographical term “Asia Minor” has been employed, although the Roman province of Asia occupies only a small part of the Anatolian peninsula. Moreover, Antioch-on-the-Orontes lies in ancient Syria while Istanbul and its hinterland, “Turkey in Europe” was in Thrace. Anatolia is the usual geographic definition for the pre-Greek glyptic art in the Near East, but we used the employed term “Asia Minor” in our discussion of Roman gems in most of present-day Turkey. However, some gems treated in this paper come from the ancient territories of northern and north-western Syria.

⁵ MATHESON 1994, 20.

⁶ SHELTON 1981, 86–88, pls. 35–43.

⁷ BALTY 1995, 49–50, pl. 3, 2.

⁸ There were good reasons for Tyche to have been combined with river deities at thermae: The preponderance of evidence from the Syro-Palestinian and Arabian provincial urban centres which minted coins in the second and third cent. AD shows that cities featuring Tyche standing or seated in triumph above water deities had constructed significant water supply systems by the period at which the coins were struck. With the completion of canals and underground conduits that led from outlying springs and catchment basins, citizens could draw water from public wells that opened above these aqueducts, whose waters perpetually flowed on beneath the surface to debouch at a central terminus where perpetually flowing fountains supplied citizens with water to drink amongst architecturally lavish *Nymphaea* which created moist pleasant-sounding and numinous settings while the baths were designed to make provincial citizens or travelers feel that they were truly “Romans”. These fountains and baths were particularly striking in the arid environs of Syria-Palestine and Arabia. Civic leaders who included the image of Tyche standing or resting with her feet on water-deities claimed a superior status. They believed that their Tyche was to be worshipped, for providing plentiful water and they highlighted her power by having her depicted on their coins.

⁹ For a dedication to Tyche from Caesarea Germanicia, cf. LAFLI, BRU 2020, 372–373, no. 2 (with fig.). In the transcription of this dedication, however, the name of the dedicant here could perhaps be revised to read the two part name of a Roman citizen, e.g., Ἰουνία Ἀρονίη (rather than Μουνία Ἀ., although there is a Roman nomen Munius/Munia) with a Roman nomen and a Greek cognomen; otherwise, a sequence of two non-Roman names in the nominative (and one of them unattested) do not make much sense in its former transcription.

and, of course, in the gems which are discussed in this paper.¹⁰ Although this study is essentially concerned with material from Anatolia, we are very well aware of her significance in other provinces including those in the West of the Empire, for example in Gaul¹¹ and Britain¹² where she was known by the Latin name, *Fortuna*.¹³ Depicted in a wide range of media, for example sculpture, bronze figurines and coins as well as gems, she played a significant role in the lives of inhabitants throughout the Empire. An interesting case is provided by a find from a sailing barge wrecked in the river Thames at Blackfrairs, London, in which a bronze coin of the Emperor Domitian was selected for placement in the mast-step because, on its reverse side, it depicted *Tyche/Fortuna* who the sailors clearly believed, would protect the ship.¹⁴ In any case gems travelled across the Empire on the signet rings of their wearers: A carnelian from Villetelle, Hérault, Occitanie is an octagonal gem of second–third cent. AD date¹⁵, a shape that Andrew Goldman believes was the hallmark of a group of gems from workshops situated at Gordion in Anatolia.¹⁶ However, it is important to stress that in the Greek-speaking Eastern part of the Empire, even when iconographies are sometimes identical to those in the West (notably our Types 1–3 below), *Tyche* may have meant more to those for whom she was depicted. She was not simply a personification of good fortune, but the goddess who enshrined the very spirit of place, which is the reason there were specific *Tychai* of Antioch, Caesarea and many other places including Mount Argaeus in Cappadocia. In Egypt, she was equated with Isis and this aspect did feed back into depictions of *Fortuna* in the West; though in the first instance this identification was an aspect of the Eastern *Tychai*.

Although *Tychai* are being studied in several geographic areas, the cult of *Tyche* and her depictions in Anatolia are still not widely known nor published to any great extent.¹⁷

So far there are only a few specific studies of *Tyche* as she appears on Graeco-Roman glyptics: In 1973 Paule Roscam published a study of intaglios depicting the goddess based on the gems in the *Musées royaux d'art et d'histoire de Bruxelles* in Belgium; this was followed by Tamás Gesztelyi in 1975, writing with particular reference to an intaglio from Hungary. Radu Ciobanu's paper, published in 1989, is based on the typology and iconography of glyptic representations of the cult of *Nemesis* and *Fortuna* in Dacia.¹⁸ In the same year, an article by Jeffrey Spier listed a number of Hellenistic garnets which depict busts of *Tyche* (our Type 11 below), all but one of them the goddess wearing a mural crown.¹⁹ Marco Cavalieri based his 2008 paper on an intaglio showing *Tyche/Fortuna* found at Castelraimondo in the eastern Italian Alps and, finally, in 2025, Claudia Tozzi published a gem depicting *Tyche/Fortuna* excavated from a necropolis in Rome. All of these are cited in the bibliography.²⁰ Furthermore,

¹⁰ DOHRN 1960 (*Tyche* of Antioch); CHRISTOF 1993 (*Tyche* of Antioch); VILLARD 1997; RAUSA 1997; and LICHOCKA 1997 (iconography of *Fortuna*).

¹¹ GUIRAUD 1988, 2008.

¹² HENIG 2007.

¹³ ARYA 2002 in general.

¹⁴ MARSDEN 1966, 37, pl. 8.

¹⁵ GUIRAUD 2008, p. 110, no. 1162.

¹⁶ See GOLDMAN 2014, although he does not cite this example.

¹⁷ For *Tychai* in northern Italy, cf. CORALINI 1994; in Archaic and Republican Italy, cf. MIANO 2018; in Dacia (with *Nemesis*), cf. CIOBANU 1989; *Tyche* of Berytus, cf. KROPP 2011; and in Roman Palestine, cf. BELAYCHE 2003.

¹⁸ CIOBANU 1989, 280–281.

¹⁹ SPIER 1989, 24, nos. 27–33, 26–27, figs 19–22, 32, 33, fig. 42.

²⁰ Also cf. below, Type 1; for two other glyptic assessments of *Tyche/Fortuna* as depicted in Italy, cf. SENA CHIESA 1966, 235–236; and MAGNI 2009, 94–95.

there has been only a single study of Tyche syncretised with Isis in the glyptic arts of Roman Asia Minor, the results from which are presented in chapter 3 below.²¹ In 2022 Sébastien Aubry published a lengthy paper on the cults of Nemesis of Smyrna and the Tyche of Antioch and their syncretism, discussing them in relation to glyptic examples as well as images in other media.²² Finally, a recent contribution to the proceedings of a conference Martin Henig focuses on Ceres in the glyptic art of the western provinces where he also refers to Fortuna and her glyptic appearances in Britain and the West of the Empire.²³

The fact that iconographically Tyche was often syncretised with Demeter, Nemesis, Nike, Athena and Isis, and frequently associated with Zeus, Serapis and Hermes, often renders it difficult to distinguish her as a separate subject, and makes her typological evolution in glyptics much more difficult to assess than that of many other prominent deities. In any case even a standard image of Tyche/Fortuna in the mind of the person wearing her image may have been elided with a local deity as one of us has suggested in the case of Ceres in Britain.²⁴ The problem is fully apparent in the case of a rare chalcedony statuette, a goddess wearing chiton and himation, from the well-known tomb at Cologne/Köln-Weiden in Germany, which was published by Erika Zwierlein-Diehl as a figure of Fortuna, though no attributes survive such as cornucopia and rudder, and Elisabetta M. Galletti more plausibly considers it to have depicted Ceres.²⁵ In addition it should be noted that many gems portray a female figure holding a cornucopia and a patera, a type sometimes described as Fortuna, but also identified on the basis of coins as the Roman personification of Abundantia or Concordia.²⁶ These types are not included in this survey in detail, because we have none in our sample, but see Pls. 5:8 and 6:5²⁷ and at chapter 3, no. 1 below, i.e., an intaglio from Juliopolis in south-eastern Bithynia in central Turkey. They were surely regarded as a type of Tyche in the Eastern provinces.

Research question, aims and methodology

Recently we have begun producing a series of research papers, taking Anatolia as a base from which to deepen the iconographic representation of each mythological figure depicted on engraved gems from the Graeco-Roman East. So far we have produced four essays, one on Dionysus, one on Demeter, one on Hermes and the other on plants in Anatolian glyptics.²⁸ This paper is the fifth in this series taking the theme of Tyche as its subject. As this enigmatic Graeco-Roman deity, with her specific relationship to Asia Minor and the rest of the Near East, frequently appears on Anatolian gems, we have attempted to group her appearances into twelve iconographic types (cf. Pl. 8). Thus, we hope to achieve a base to broaden our knowledge of this goddess/personification, as well as to establish, in due course, a firm basis for future scientific research on glyptics in Turkey.

²¹ ARSLAN, YEĞİN 2022; generally, on the syncretisation of Tyche/Fortuna with Isis on gems, cf., e.g., VEYMIERS 2009, 221, nos. V.BBC 44–V.BBC 46, pls. 12–13, figs V.BBC 44–V.BBC 46; BEAURIN 2008; CLERC 1998; SFAMENI GASPARRO 1998.

²² AUBRY 2022, 90–104 (Nemesis of Smyrna), 104–113 (Tyche of Antioch).

²³ HENIG 2025, 260–261 and 263–265.

²⁴ See HENIG 2025 above.

²⁵ DEMETER; ZWIERLEIN-DIEHL 1985; GAGETTI 2006, 321–325, no. G9.

²⁶ ZWIERLEIN-DIEHL 1979, 215, nos. 1554–1558; HENIG 2007, 131–132, nos. 328–337; JOHNS 1997, 89–90, nos. 157–166.

²⁷ HENIG 1971.

²⁸ LAFLI, HENIG 2023, 2024a, 2025 and 2026.

Stylistic descriptions of gems treated here are given according to the studies of Marianne Maaskant-Kleibrink, Gemma Sena Chiesa and E. Zwierlein-Diehl.²⁹ Although we find Maaskant-Kleibrink's classification problematic, as so many styles were employed at the same time, we have, nevertheless, attempted to employ this classification to relate our material from the Roman East with the unprovenanced material in the Dutch Royal Collection³⁰ and from Nijmegen³¹ which she classified in this manner. Nevertheless, when she came to analyse 'the style and technique of the engraved gems' from the Snettisham Roman jeweller's hoard from Norfolk, UK³², she attributed the distinct styles of cutting employed there simply to two (or possibly three) contemporary engravers (presumably a master and apprentices) in a single mid-second cent. AD workshop rather than the work of different periods which they clearly were not. Similarly in the case of the rich material from Turkey, we need to isolate regional styles and identify specific workshops, as we already do in publishing sculpture.

In most works on Roman-period gems the Latin name of the Roman goddess Fortuna equated with Greek Tyche has often been employed for the commoner types, Tyche being reserved for depictions of amuletic characters, including syncretic deities combining elements of several goddesses like Ceres, Minerva, Isis etc., as well as for specific regional types, referencing specific cities as shown on depictions of Tychai on local coinages.³³ In this paper we employ the name "Tyche" rather than "Fortuna" throughout, as our material comes from Asia Minor which was mostly Greek speaking in Roman times, so the Greek name would have been employed almost universally.

The colours of each gem are described in a non-specific way by eye as there is currently no universally agreed colour chart employed for ancient engraved gems.

Previous publications of engraved gems depicting Tyche in Turkey

From published archaeological reports containing records of glyptic finds in Turkey we have located only three excavated gem finds which depict Tychai, as listed here³⁴:

1. Two finger-rings set with gemstones depicting Tyche were excavated in Juliopolis in south-eastern Bithynia:

a. A silver ring, recovered from grave no. 120 in the necropolis of Juliopolis in 2010, is exhibited today at the Museum of Anatolian Civilizations in Ankara (Pl. 2:1; acc. no. 12-62-11; ring 21.8 x 21.6mm, jasper 10 x 7mm).³⁵ It shows a figure of the Abundantia/Concordia type, but is thought to be a Tyche figure, and is engraved on an oval-cut red jasper.³⁶ The goddess stands with her body frontal, head turned to the right. Her hair is tied in a bun descending to the nape of her neck, and she wears a high-belted chiton and himation. She holds a cornucopia on her right arm from which the end of her himation hangs, and holds a patera in the palm of

²⁹ For a concordance, cf. ZWIERLEIN-DIEHL 1991, 8–12 which includes a long discussion of glyptic styles, techniques and typologies established over years of research.

³⁰ MAASKANT-KLEIBRINK 1978.

³¹ MAASKANT-KLEIBRINK 1986.

³² JOHNS 1997, 25–33.

³³ See MATHESON 1994, 23, 25.

³⁴ For an extensive survey of all former glyptic finds from Asia Minor, cf. LAFLI, HENIG 2024b, 148–156.

³⁵ ARSLAN, YEĞİN 2022, 84–85, cat. no. 2, 97, fig. 2.

³⁶ F1-profile for which see HENIG 2007, 9, fig. 1 and Pl. 5:8.

her outstretched left hand. A silver-plated figurine with similar iconography, holding a cornucopia and patera, is curated in the Museum of Çorum in eastern Galatia (figurine of Isis/Tyche, acc. no. Etd.323, H. 38mm)³⁷. A coin minted at Prusias ad Hypium from the reign of Antoninus Pius was excavated in the tomb where the ring was found, which suggests a date for the gem in the mid-second cent. AD.³⁸

b. A bronze ring, recovered from grave no. 349 in the necropolis of Juliopolis in 2011, is exhibited today in the same museum (Pl. 2:2a–b; acc. no. 52-3-12; ring 22 x 24.3mm, stone 11.5 x 9.4mm).³⁹ Tyche is depicted on an oval-cut chalcedony, also of F1-profile. The goddess stands, with her body frontal, and her head turned to the right. Her hair is tied with a ribbon forming a bun descending from her forehead to the nape of her neck. She sports a high polos on her head, wears a high-belted chiton and a himation which partly envelops her left arm, and holds a rudder and wheat ears in her right hand. A cornucopia rests on the column on her left side. This is the syncretic deity Tyche/Demeter.⁴⁰ There are transverse cracks at the bottom of the stone, so it is not clear whether there is a groundline or not. Since a coin depicting Julia Domna was found in the tomb where the ring was found, it is possible to date the ring to the reign of Septimius Severus.⁴¹

2. Further, a red agate ring-stone figuring Tyche and a rich assemblage of gold jewellery was excavated in the necropolis site of Karacahöyük near İncikli, 15 km north-west of Baklan (ancient Lunda or Lacerium) and 66 km north-east of Denizli.⁴² Unfortunately the ring-stone depicting Tyche from the site was not illustrated in its publication.

3. Three or four Early Roman intaglios depicting Tyche were reported in a recent publication on gems from Sardis⁴³; these figure Fortuna/Tyche, Nemesis and Tyche as well as standing figures of Tyche and Nike. Since photos were not included in the publication, we cannot include these gems in our iconographic typology.

Other previously recorded gems from Turkey in museums or private collections which depict Tyche are mainly unprovenanced, and are listed below with our revisions and comments:

4. The gem catalogue of the Erimtan Archaeology and Art Museum in Ankara by Koray Konuk and Melih Arslan offers us several examples of intaglios figuring Tyche.⁴⁴ Through this work and comparing these 12 pieces with our study material below we were able to create new typologies of Tychai for Asia Minor.⁴⁵

³⁷ İBİŞ 2021, 82, fig. 16; cf. Pl. 5:4 for a similar one curated in the Museum of Ephesus in Selçuk.

³⁸ ARSLAN, YEĞİN 2022, 84–85.

³⁹ ARSLAN, YEĞİN 2022, 85, cat. no. 3, 97, fig. 3, 98, fig. 3a.

⁴⁰ Our Type 2 below.

⁴¹ ARSLAN, YEĞİN 2022, 85.

⁴² YILMAZ et al. 2000, 202–203.

⁴³ EVANS 2020, 203, 206, 208, table 3.

⁴⁴ KONUK, ARSLAN 2000, nos. 77–86 all standing; 87 seated; and 88 standing, crowned by Nike.

⁴⁵ In a personal interview with Mr Yüksel Erimtan in 2015, who is the owner and founder of the Erimtan Museum in Ankara, he states that in the 1960s he begun with his glyptic collection through collecting gems which had been found on ancient sites, where they had been washed out from the soil after it had been raining, and which he had bought

5. In 2022 Melih Arslan and Yavuz Yeğin published an article about depictions of Tyche syncretised with Isis in Turkey, based on 13 intaglios, mostly set in finger-rings, from the collections in Ankara, i.e., eleven from the Museum of Anatolian Civilizations and two from the Erimtan Museum. Eleven finds are acquisitions and two of them are those excavated in Juliopolis, described immediately above. The authors evaluate iconographic features related to Isis and Tyche on these 13 specimens in which they attempted to examine the ways in which Isis was depicted as being integrated with Tyche. As expected, the Isis/Tyche type, corresponding with our Type 1, is the commonest among the compound types in the Ankara collections. On these intaglios the goddess is generally represented in a standard manner, wearing a modius, long chiton and himation, and holding a steering-oar and cornucopia. She may also hold an ear of grain and a poppy seed-head signifying prosperity, or a sistrum signifying Isis' sacred cultic rattle. Sometimes a flaming altar is shown beside her to indicate cultic worship. These ring-stones with depictions of Isis/Tyche were employed as personal seals in the Roman period.

Apart from our cat. nos. 5–8 and 24, presented below under our Types 1 and 2, two gems in Arslan and Yeğin 2022 deserve re-publication here.⁴⁶

a. In the Erimtan Museum, a red jasper intaglio set in a gold finger-ring, is inscribed Ἰσὺκλ|ἡ|πιόδο[τος] around the main figure of Tyche from right to left which reads negatively on the stone, but positively in impression (Pl. 2:3a–b; acc. no. 1108).⁴⁷ The octagonal jasper cut in F3-profile measures 10.5 x 8.5mm, and is wide at the bottom and narrow at the top. Tyche stands to the left, her body rendered from the front. The head of the goddess is shown facing left, and she sports a high calathus. Her hair is gathered back from the sides and terminates with a bun at the nape of her neck. She is dressed in a short-sleeved, high-belted chiton with a himation over it, whose ends hang down on her left side, and she holds a rudder in her right hand and a cornucopia crooked on her left arm. A snake is wrapped around her bare steering arm, while three snakes with their heads upturned, are wrapped around her dress from hip to calf. The presence of an inscription indicates that the ring-stone was used both as a seal and for purposes of protection. There is a groundline. Mid-second cent. AD.

b. An oval yellow jasper cut in F1-profile, figuring Tyche syncretised with Isis, Athena, Demeter and Nike is curated in the Erimtan Museum (Pl. 2:4a–b; acc. no. 1250, 12 x 9.3mm).⁴⁸ The goddess stands with her head turned to the right and body frontal. She wears an Attic helmet on her head identifying her with Athena, and the wings of Nike sprout from her back. She is clad in a high-belted chiton and himation, and holds a rudder and ears of wheat vertically in her right hand, symbolizing the fertility of the land, the province of the goddess Demeter. A

from a jeweller in Mersin, Mr Jozef (Anadol), a local Maronite. From these statements it is clear that at least a part of that Erimtan Collection originates from Cilicia in southern Turkey, cf. <<https://www.akasociety.org.tr/erimtan-muzesi,2,28>> (status as of Jan., 1st, 2025). Also note that many of the gems from Xanten, especially from the double legionary fortress on the Fürstenberg (Vetera I) in Germania Inferior, were likewise picked up on the ground after rain, (information from Dr Christoph B. Rüger, pers.com.; see PLATZ-HORSTER 1987, 3–57; ead. 1994, 71–144, and ead. 2009 for gems from the Fürstenberg).

⁴⁶ ARSLAN, YEĞİN 2022, 87, cat. no. 13, 100, fig. 13 is Heliosarapis and not Tyche.

⁴⁷ ARSLAN, YEĞİN 2022, 87, cat. no. 10, 99, fig. 10.

⁴⁸ ARSLAN, YEĞİN 2022, 87, cat. no. 10, 99, fig. 10.

lock of hair or ribbon extends from under her helmet to the nape of the neck. Late second–early third cent. AD.⁴⁹

6. In her Master's thesis on the gems from the Archaeological Museum of Gaziantep in south-eastern Turkey, Jülide S. Yinesor Demir presents 12 gems depicting Tyche, one of the largest published collections containing so many Tyche representations. This rich assemblage gathered mostly from sites in south-eastern Turkey, especially around Antioch-on-the-Orontes, offers us several typologies of Tyche-types which we present below (cf. cat. nos. 14–19, 25, 33–34, 36, 38 and 40).

In another Turkish Master's thesis on the gems from the Archaeological Museums of Konya (in ancient Lycaonia), Burdur (Pisidia) and Fethiye (Caria), Dolunay Kulbay has studied three gems depicting Tyche which we present and comment upon below (cf. cat. nos. 11–13).

7. In his museum report of 2021 Resul İbiş presents several important archaeological finds in the Museum of Çorum in eastern Galatia, where he notes that Tyche is the most usual depiction on engraved gems in Çorum.⁵⁰

8. There are several other examples of glyptic material figuring Tychai in Turkey which are summarised here (but only partially illustrated):

a. Museum of Troy, acc. no. 2650.⁵¹ Sardonyx. 11 x 10 x 3mm, Wg. 0,515 gr. Tyche faces right and holds a cornucopia in her right hand, i.e., our Tyche Type 1 described below.

b. Archaeological Museum of Kahramanmaraş in south-eastern Turkey, acc. no. 12.14.84 (Pl. 2:5a–b).⁵² Carnelian. Acquired from Mr Osman Aksoy on 15th of June 1984 for 1850 TL (\$US 12). 8 x 2mm. Tyche faces right and holds a cornucopia in her right hand as well as a rudder in her left hand, i.e., our Tyche Type 1.

c. There is an unpublished intaglio in the Museum of Lycian Civilizations, Demre, acc. no. 2011/297 (A) (Pl. 2:6). Sardonyx. Excavated in the höyük site of Hacımusalar (ancient Choma) in northern Lycia, in the church of the western area, in D3U3-4-2, and delivered to the museum on 18th of October 2011. 12 x 10 x 2mm. A standing female figure looks from a photograph like a representation of Abundantia with cornucopia and patera.

d. An example of our Tyche Type 5 is curated at the Archaeological Museum of Kahramanmaraş, acc. no. 11.23.78 (Pl. 2:7a–b).⁵³ Carnelian (?). Acquired from Mr Osman Aksoy from Göksun (ancient Cocussus) in Kahramanmaraş on 12th of July 1978 for 1700 TL (\$US 70.5). 13 x 9mm. Tyche seated on a rock; this is a local Tyche based on the Antiochea type.

⁴⁹ For comparanda, cf. HENIG, WHITING 1987, 15–16, nos. 109–117 (from Umm Qeis, Gadara); HOEY MIDDLETON 1991, 80–81, no. 118 (from Aenona, Nin, Dalmatia); DIMITROVA-MILCHEVA 1981, 51, no. 83 (from Bulgaria).

⁵⁰ İBİŞ 2021, 98.

⁵¹ FIRAT 2022, II, cat. no. 3, XVIII, pl. II, kat. no. 3.

⁵² AKBAŞ 2020, 60, cat. no. 20.

⁵³ AKBAŞ 2020, 59, cat. no. 19.

e. An example of Tyche Type 7 is kept at the Museum of Silifke in Cilicia, acc. no. 2632.⁵⁴ Carnelian. 13 x 11 x 3mm. The intaglio figures Tyche and Nemesis.

f. A sardonyx intaglio depicting Tyche and horse is in the collection of the Halûk Perk Research Museum in Avcılar, Istanbul.⁵⁵ Oval. 10 x 7 x 2mm. The horse faces left, with its right foreleg raised.

g. There is a second unpublished intaglio depicting Tyche with Serapis, Athena and Nike in the Museum of Lycian Civilizations, Demre, acc. no. 2010/621 (A), excavated in the northern part of the shop located in the western portico of the main street of Patara in Lycia, in 2010, and delivered to the museum on 6th of October 2010. Light grey chalcedony intaglio of ellipsoid shape. 16 x 26 x 5mm. Behind Serapis, on the left of the field is the figure of Tyche, wearing a turretted crown in the form of a city wall; she holds a spear in her right hand and possibly a key in her left hand. There is a groundline. Below this line ΠΑΘ (Πάτapa?) is engraved. The combination of Serapis with Athena is unusual. The scene resembles the intaglio from Gaziantep illustrated at our cat. no. 38 below, where Athena is perhaps a supporting goddess.

9. We should also note the clay bullae from Zeugma and Doliche in south-eastern Turkey depicting Tychai, especially the iconographic type of Tyche of Antioch, based on the statue designed and sculpted by Eutychides, i.e., our Type 5 below: with the ca. 100,000 seal impressions found in Zeugma in the 1990s and 2000s, the density reveals the importance of these cities in trade and communications. Many of these seal impressions bear images of deities related to trade, notably Tyche and Hermes.⁵⁶ These bullae are generally dated to the period spanning the first cent. BC and the first cent. AD. The most significant iconographic type in this Eastern collection is the intaglio which figures Tyche crowned with a wreath by Hermes, i.e., our Type 9 below.⁵⁷

10. In the Museum of Karaman in southern part of central Anatolia there is a collection of terracotta seal impressions which was published by Ertekin M. Doksanaltı and Suhal Sağlan.⁵⁸ It is very likely that most of these pieces which were acquired from dealers originate from south-eastern Turkey, more precisely from Doliche. Among them there are seven bullae depicting Tyche embracing four iconographic types corresponding to those in our corpus.⁵⁹

Amongst these bullae in the Karaman Museum, nos. 1–4 on our Pl. 3 represent Tyche as a draped woman, facing right, her legs crossed, seated on a rocky throne and holding in her right hand an ear of wheat which hangs below her knee, a type derived from the statue of Tyche created for the city of Antioch-on-the-Orontes, cf. our Type 5 below.

The bullae from Doliche in Karaman also include two other iconographic types of Tyche, described as “Fortuna” by the original researchers (Pl. 3:5–6): on fig. 5 “Fortuna” is standing,

⁵⁴ UYGUN 2016, 233–235, cat. no. 10, 239.

⁵⁵ GÜLBAY 2017, cat. no. 12 where Tyche is identified wrongly as Athena.

⁵⁶ For depictions of Tyche on the bullae from Zeugma and Doliche, cf. ÖNAL 2014; for the seal impressions from DOLICHE, cf. e.g., WEIß 1992 and 2000; from Zeugma, cf., e.g., ÖNAL 2018; cf. also chapter 5 below.

⁵⁷ ÖNAL 2007, 40, no. 73.

⁵⁸ DOKSANALTI, SAĞLAN 2008.

⁵⁹ DOKSANALTI, SAĞLAN 2008, 80–83, cat. nos. 1–4, 98, figs 1–4, 88, cat. nos. 23–24, 99, fig. 23–24, 89, cat. no. 25, 99, fig. 25; our Pl. 3.

facing right, in a pose similar to our iconographic Type 2 below, i.e., shown with corn ears, while on fig. 6 she is depicted frontally, in a seated position with a baby on her lap which also has parallels with our Type 5. The final Tyche on a Karaman bulla, illustrated on Pl. 3:7 figures a draped bust of Tyche, likewise frontal, depicted wearing a corona muralis. Thus, it resembles our Type 11.

Iconographically, these bullae are very similar to the impressions found in Doliche. Both researchers who published the bullae in Karaman believe that the artists who crafted the busts and mythological figures on the ring stones most probably also prepared coin dies in the same workshops.⁶⁰

11. Finally, other Tyche-related material from elsewhere not cited below includes a sardonyx intaglio from Dura-Europos, cf. Guiraud 1992, 69, cat. no. 7, figs 7a–b; and tesserae depicting Tyche from Palmyra, cf. Raja 2025. Also note palm branches and sheafs of wheat as attributes of Tyche, cf. Mussche 1955;

As stated above, Tyche is a familiar subject in the art of Anatolia, including gems, although those have not, to date, received systematic study. However, from a survey of this material, both excavated and curated in museums, it seems that Tyche is especially common as a subject for glyptics in particular regions notably Commagene and south-eastern Cappadocia, close to the Syrian area, and there are some local variations in Anatolia which make Tyche even more interesting as a study subject in Turkey.

Some of the published material presented above will not be discussed extensively here (though a few of these intaglios are illustrated on Pl. 2), although we will refer to them in our catalogue below, according to their individual types, as our study material is the main focus of this paper and repetition is superfluous.

Beside glyptics and terracotta seal impressions there are other media figuring depictions of Tyche from Turkey which provide comparanda to gems figuring Tyche with some exclusive types which do not seem to be represented on engraved gems: these figural groups comprise, among others, coins (Pl. 1), over life-size and life-size statues or busts in marble (though very few in numbers; Pl. 4:1–2)⁶¹, reliefs on various votive monuments, marble statuettes and small busts (Pl. 4:3–5) as well as bronze figurines or appliquéés (Pl. 5), most of which are dated to the second and third cent. AD.⁶² Iconographically and typologically bronze figurines figuring Tyche/Fortuna, found all over the Roman Mediterranean and beyond, wear very similar garments and headgear as well as most often hold a rudder in their right hand and a cornucopia crooked in their left arm.⁶³ Beside these, there is a very small group of terracotta figurines

⁶⁰ DOKSANALTI, SAĞLAN 2008, 89.

⁶¹ One of the best and widely known example of an over-life size marble statue of Tyche from Turkey is a personification of happiness holding in her arms Plutus as a child from Prusias ad Hypium in Bithynia, which is exhibited at the Archaeological Museums of Istanbul [acc. no. 4410 (T)] and dates from the second cent. AD, but is based on an original of the fourth cent. BC. Some well-known examples of life-size marble statues of Tyche are the three from Perge (one of them 174cm in height; today all are in the Archaeological Museum of Antalya) and one in Pergamum.

⁶² For a group of four marble statuettes from Afyonkarahisar in ancient Phrygia, cf. SÖNMEZ 2021; for a rock crystal image of the Tyche of Antioch carved in the round in the Thorvaldsens Museum, Copenhagen, acc. no. H1428, cf. GAGETTI 2006, 385, no. G158, pl. 51; for bronze figurines depicting Tyche of Antioch, cf. MEYER 2000, and LAFLI, FEUGÈRE 2006, 42, no. 52, 56, fig. 21, no. 52.

⁶³ Two examples are illustrated at LAFLI 2015/2016, 120–121, nos. 2–3, pl. 15, nos. 2–3. For example, among the all discussed gems in our corpus below, nos. 29, 40 and 43 wear a turreted crown exactly like the bronze figurines depicting Tyche; the rest, however, sport the polos of Isis, helmet of Athena or diadem of Aphrodite on their heads.

featuring Tyche⁶⁴, although there are some examples excavated in secured contexts (such as one from Gözlükule in Tarsus).⁶⁵ In Asia Minor an entirely neglected group of material consists of lead sealings of the Roman period employed for sealing packages some of which depict Tyche (Pl. 7:1a)⁶⁶. A last group of depictions is represented here by a Late Hellenistic bronze finger ring with engraved bezel featuring Tyche (here holding what looks like a garland in her right hand rather than a rudder but more probably she is resting her hand on a thymiaterion)⁶⁷, perhaps a cheaper alternative for a gold ring or a ring set with an engraved figural intaglio (Pl. 7:2a).

Our study material

In this paper we present 40 engraved gemstones, almost all of them of Roman date (except cat. nos. 9, 19 and 28–29); a glass medallion (from Ephesus, cat. no. 21) and a related clay bulla (from Izmir, cat. no. 42) are also included. All these finds are currently curated (from west to east) in the Museums of Izmir, Ephesus, Akhisar, Aydın, Marmaris, Fethiye, İznik, Burdur, Ankara, Konya, Amasya and Gaziantep in various parts of Turkey (Map 1). The medallion and bulla widen the material spectrum covered by depictions of Tychai in the minor arts. In addition, materials from three private collections in Istanbul (Halûk Perk Research Museum and Private Collection of Mr Doğan Güreş) and Izmir (Koray Selçik Collection) are considered. As stated immediately above, particularly noteworthy are the examples from various sites in south-eastern Turkey around Antioch, curated in the Archaeological Museum of Gaziantep, the museum most represented in this paper with 12 intaglios. Some of these gems are published for the first time.

It should be explicitly noted that the Graeco-Roman metropolis of Antioch and some other sites from which gems in the Archaeological Museum of Gaziantep were obtained, lay in the territory of ancient Syria or Mesopotamia etc; we still include these gems here, as they are related to the material culture of Asia Minor (cf. chapter 2 above).

The Tyche of Antioch and other Tychai in the East

One of the most important questions in Tyche research concerns whether the models for the glyptic Tyche types were taken from the local coinage in the East; with this in mind some brief attention should be given to the Tyche of Antioch and her variants on the coins of Asia Minor and nearby regions. Almost every city had its own Tyche as its protector, some like Antioch-on-the-Orontes a distinctive iconographic type, thus, on gems and local coins: in the Graeco-Roman East one of the most popular iconographic types of Tyche was the Tyche of Antioch which refers to a colossal bronze cultic statue commissioned near the close of the fourth cent. BC by Seleucus Nicator at the foundation of Antioch-on-the-Orontes that became his dynastic capital city. The commissioning of the statue and its date has recently been discussed by Marion Meyer who assumes that it was most likely commissioned by Antiochus I

⁶⁴ Pl. 6; also cf. LAFLI, BUORA 2024, 94, no. 21, 129, fig. 21, 121, nos. 81–82, 123, figs 81–82.

⁶⁵ GOLDMAN 1950, 314–315, cat. no. 42, 215, fig. 42 interpreted as “city goddess”.

⁶⁶ Similar sealings are well recorded in Gaul and Britain, see Still 1995. A selection of inscribed lead sealings, some with figural devices are published in 1990 in volume II, fascicule 1 of *The Roman inscriptions of Britain* (RIB), eds. S. S. FRERE, M. ROXAN, R. S. O. TOMLIN, 87–124, pls vi–viii, no. 2411. RIB 2411.19 on pp. 91–92 depicts Fortuna/Tyche with the inscription FOR(tuna) AVGG [Augustorum], probably the two emperors Septimius Severus and Caracalla, presumably in connection with the British campaign of AD 209.

⁶⁷ GERRING 2000, 143, no. IX/33, fig. 40.

around 270 BC.⁶⁸ Eutychides, who was the pupil of Lysippos, made the bronze statue of Tyche. In the statue Tyche is seated on a rock, i.e., Mount Sipylus where the ancient city had its acropolis, and holds the branch of a palm. In this composition the young river god Orontes is portrayed swimming at her feet. Owing to the movement of traders and pilgrims within the Roman Empire the statue became very famous, and thus, the Antiochean Tyche became the prototype for a number of the Tychai of other cities in the Syrian and Levantine region (Pl. 1:6–7 for depictions of seated Tyche from Edessa and Pl. 1:8–9 for busts of Tyche from the same city). The numismatic evidence of the Antiochean Tyche has been studied by Sarah L. Yost in her Master's thesis in 2013, which shows that the image as depicted on coins changed slightly through the time.⁶⁹ In any case, from the second cent. BC and all through the Roman period Tyche is a frequent motif on Antiochean coins.⁷⁰

From the end of the first cent. BC, other neighbouring cities also began to display the Tyche of Eutychides on their coins⁷¹: first in 43 BC Seleucia-on-Tigris and at the end of the first cent. BC Tarsus in Cilicia minted coins figuring this new Tyche type. It was dispersed in the first cent. AD more extensively among the cities in Cilicia Campestris, e.g., Augusta, Mallus and Anazarbus, in Commagene, e.g., Samosata, and in Syria⁷², e.g., Apamea and Caesarea Magna, and by the end of the second cent. AD, Nicaea, Nicomedia, Cyzicus, Midaesium (Phrygia), Side, Sillyon (both in Pamphylia), Tyana (Cappadocia), Germanicea Caesarea (Commagene), Ake-Ptolemais, Tyrus (both in Phoenicia) and Gerasa in Decapolis.⁷³ Furthermore, two Tychaions are known at Diocaesarea and Nephelis from Rough Cilicia dating from the first and second cent. AD.⁷⁴

The Tyche of Caesarea Maritima, for example, depicts the goddess wearing a short tunic, holding a vertical sceptre in one hand and a head of Serapis in the other; one of her feet rests on the prow of a galley, while beside her other leg a small male figure reclines, representing the harbour.⁷⁵ The connectivity of the Roman maritime world through its fleets is demonstrated by exactly the same type appearing on a gem excavated from the bath-house of the *Classis Britannica* fort at Dover (Dubris), Kent, UK.⁷⁶ A similar gem from excavations at the Temple Mount in Jerusalem depicts the identical martial figure, treading on a rock (?); it has been suggested that in this case she is the Tyche of Aelia Capitolina.⁷⁷ Another unusual version of Tyche, shows her similarly clad and, like Heracles, engaged in fighting a fierce lion: she is the Tyche of Cyrene, recalling the myth recounted in Pindar's (*Pythian Ode* 9).⁷⁸ The head of Tyche is sometimes shown in the East, accompanied by a ram or a star and a crescent.

⁶⁸ MEYER 2022, 27–28; and also ead. 2006.

⁶⁹ YOST 2013, 4.

⁷⁰ BUTCHER 2024; NEUMANN 2021, 63, fig. 2.4d, 65, fig. 2.5a, 103, fig. 3.1a, 109, fig. 3.2b, 113, fig. 3.3, 153, fig. 4.1, 158, figs 4.4a and 4d, 163, fig. 4.5, 167, fig. 4.7, 173, fig. 4.8, 180, fig. 4.14, 213, fig. 5.1, 230, figs 5.10a–c; STANSBURY-O'DONNELL 1994.

⁷¹ SAUER 2016, 198, note 189, 200, note 199; and NOLLÉ, NOLLÉ 1994, 77.

⁷² SMITH, LARSEN 2022.

⁷³ KLOSE 1984, 65.

⁷⁴ MAC SWEENEY 2025, 101–102, 106, table 1.

⁷⁵ AMORAI-STARK, HERSHKOVITZ 2016, 92–95, nos. 68–69; cf. Pl. 4:5 for a seated Tyche on a boat, something of a variant of the Antiochea type and similar to the standing Tyche of Caesarea, *ibid.* 92, no. 68 who stands with one foot on the prow of a galley.

⁷⁶ HENIG 2012, 124–126, fig. 68, no. 18.

⁷⁷ PELEG 2003, 55, fig. 1, no. 2; and PELEG-BARK 2011, 258, 260–261, cat. no. 1, fig. 15.1, intaglio no. 1.

⁷⁸ PHILLIPP 1986, 69–70, no. 84, pl. 20.

Depiction of other Tyche types on coins of Asia Minor

This subject was first discussed by Giuseppina Alessandra Cellini in a general sense⁷⁹ and recently by Anastasiya Yu. Baukova.⁸⁰ Coins with Tyche are numerous in Asia Minor symbolizing Anatolian cities, where the goddess is figured with a crowned head, combined on the reverse with Nike or other subsidiary elements. During the Hellenistic period the goddess symbolised luck, prosperity, providence and destiny; however, in Early Roman Asia Minor, she also became the guardian of cities and symbolized their prosperity. Some cities chose Tyche as their emblem, but they also frequently selected another divinity as their particular patron and protector. This evolution can be traced in the coinage of the cities of the province of Asia in the western part of the peninsula, which was a conglomeration of cities of the former kingdom of Pergamum. The image of Tyche as a personification of the variability of choice was widely figured in the provincial coinages of Asia Minor, struck in various denominations.

In Asian coinage in general the most popular Tychai were two types of reverse, either Tyche with a cornucopia and a rudder in her hands (i.e., our glyptic Tyche Type 1 below) or a bust of the goddess wearing a mural crown (our Type 11). However, in contrast to other territories, in Asia the bust of the goddess was almost never depicted on the obverse.⁸¹

The image of Tyche was especially often used by the magistrates of the cities of Lydia, Mysia, Troas and other regions included in the province of Asia in coinages minted in honour of Trajan, the Severan dynasty including Julia Domna, Caracalla and Elagabalus, and of Gordian III.⁸² The goddess Tyche was especially often depicted in urban coinage during the crisis of the third cent. AD, thereby emphasizing the peculiarities of economic relations and the lack of money supply at that.⁸³

In brief, the analysis of coins in Asia Minor depicting Tyche shows the evolution of the image of the goddess from being the stable patroness of cities to emphasising impermanence, the goddess coming to be seen as one, who distributes good and evil at random, despite the merits of people or cities. In the provincial coinage, her image additionally emphasized Tyche, in the guise of Fortuna or Nemesis, as the goddess of choice and of just retribution.⁸⁴ In the next two chapters we will examine if such an evolution is pertinent in the case of gems depicting Tyche in Roman Asia Minor.

Corpus of glyptic depictions of Tyche in Asia Minor

The aim of this corpus has been to commence the compilation of a glyptic repertory for a certain iconographic type in the Graeco-Roman East. We do not claim, however, that we have collected all the gems in Turkey depicting Tyche or themes and features related to her. We have, for example, no specimen of the seated Tyche type in the following selection, although it

⁷⁹ CELLINI 2007.

⁸⁰ BAUKOVA 2021.

⁸¹ BAUKOVA 2021, 23.

⁸² For Caracalla with Tyche, retrieved from <<https://rpc.ashmus.ox.ac.uk/type/84986>> or S2376 <<https://www.romancoinshop.com/en/caracalla-emperor-with-tyche-unpublished-s2376>> (status as of Jan. 1st, 2025).

⁸³ BAUKOVA 2021, 23.

⁸⁴ BAUKOVA 2021, 23.

is doubtless as common in Turkey⁸⁵, as it is elsewhere: e.g., a yellow jasper intaglio depicting a male votary half kneeling and making obeisance to Fortuna has recently be found in the excavation of the baths outside the fort at Stanwix, Carlisle, Cumbria, UK, where it should be dated to the end of the second or early third cent. AD. On this particular gem Fortuna, seated on a diphros, holds a cornucopia. Usually Fortuna is seated on the right and the votary kneels on the left side, here the figures seem to be reversed.⁸⁶

In the following section we include comparanda to a number of representations of Tyche from collections and museums around the world in order to gain an insight into the general popularity of Tyche/Fortuna during the Roman period. In compiling some references on the finds from the Western world we also have attempted to highlight a nostalgic aspect in the presence of the sacred image of Tyche in the sites and museums of the Roman West, seeing in this relative popularity an attempt to emulate the Archaic and Classical practices of introducing Eastern cults to Greece and Magna Graecia.

With this corpus we have created 12 main iconographic types with several variations, but one cannot expect exactly the same figure to be cut upon gem even by the same artist like it is the case of sculpture and other media. Therefore, it is no surprise that there are slight differences in individual gems featuring the same subject.

Small as our sample is, it makes available for a wider readership the wealth of glyptic material in Anatolia. As one of us⁸⁷, wrote twenty five years ago and remains true of this selection: “at last we have an important reference collection from Asia Minor to set alongside (the) various published catalogues...” which are predominantly from the West. It is not simply, because there has been a lack of interest in Turkey, but naturally material has been published in Turkish and so has been less available to international scholarship.

Iconographic types of Tyche in Asia Minor – Type 1: Standing Tyche without corn ear/poppy head (Pl. 8:1)

The subject is very common in the Roman Imperial coinage, in Rome and the West as Fortuna. In this type Tyche's attributes are the steering oar with attached rudder in her left hand, by which she controls events, while the cornucopia crooked in her right arm is a sign of plenty and, therefore, implies good fortune. She was widely evoked in dedications from throughout the Empire, and her ubiquity as a device on signet rings is a result of the wearer wishing to carry her image around as a personal talisman.

This type begins to be employed on gems in the Late Hellenistic period⁸⁸ and is also found on the engraved bezels of gold rings at this time.⁸⁹ It became the most popular iconographic type of Tyche in Anatolia, and was widespread all over Asia Minor, as can be seen by the locations of the various museums housing 20 gems and one glass medallion which display this type in their various collections. Many of these figures wear a polos, or sometimes a lotus flower head-dress or Hathor crown on their heads (see nos. 2, 3, 4, 5, 7, 8, and 14 as well as some

⁸⁵ See KONUK, ARSLAN 2000, 111, no. 87.

⁸⁶ For other examples note SENA CHIESA 1966, 245, no. 628, pl. 32; WALTERS 1926, 187 and pl. 23, no. 1750 (inscribed FORTV-; here the votary is female); BERRY 1965, 42–43, no. 62 (purchased in Istanbul; on this gem the votary is a nude youth); MAASKANT-KLEIBRINK 1978, 287, no. 811 (the male suppliant appears to be wearing a Phrygian cap and so he is presumably an oriental); and ZWIERLEIN-DIEHL 1979, 212, nos. 1531–1532. Sometimes Fortuna is standing as on HENIG 1975, 33, no. 109 (red jasper), inscribed on the reverse Βοηθεῖ (=help!)

⁸⁷ HENIG in his preface to KONUK, ARSLAN 2000, viii–ix.

⁸⁸ BOARDMAN, VOLLENWEIDER 1978, 88–89, no. 308.

⁸⁹ GERRING 2000, 172–173, nos. 17/8–9, figs 130–131.

representations of the goddess in Type 2 below) suggestive of identification with the goddess Isis. It should be noted that this conflation is not confined to the East as some representations of the goddess in the West also sport the polos.⁹⁰ To what degree these figures were simply regarded as Tyche or were consciously equated with Isis would have depended on the perception of the owner of the seal-ring in which the gem was set.

Most of the examples of this iconographic type are engraved on chalcedonies, especially carnelian and jasper.⁹¹

Comparanda. For glyptic comparanda more especially in Asia Minor, see especially Konuk, Arslan 2000, nos. 77–84; Walters 1926, 186, no. 1732 inscribed Φαρνάκου (=of Pharnaces) from Samsun, western Pontus; and Richter 1956, 84, no. 368 an amethyst inscribed κῶχη said to be from Antioch.

Examples of the type are ubiquitous in the Western provinces of the Roman Empire.⁹² Although there are examples of the late second or early first cent. BC, as noted above and also see Guiraud 1988, no. 208 described by her as engraved in the *style perlé gros*, and Deppert-Lippitz 1985, 28, nos. 106 and 187 both set in Augustan period rings, the majority of gems of this very common type were engraved between the early first cent. AD and the early third cent. AD. They were at the height of popularity between ca. AD 130 and ca. AD 180, and this goes for most of the examples from Turkey presented here.

There is a variant depicting Tyche seated,⁹³ although there is no such an example in our assemblage. They, however, surely exist, and in Konuk, Arslan 2000 there is a gem of this type whereas it holds an ear of wheat, as our Type 2.⁹⁴

No. 1. Tyche with standard iconographic features (Fig. 1).

Archaeological Museum of Izmir, acc. no. 013.586.

Oval carnelian intaglio, red-orange. F1-profile?

11 x 8 x 2mm, Wg. 0.3gr.

⁹⁰ GUIRAUD 1988, nos. 196 and 205 (from Gaul) and HENIG 2007, nos. 317, 325 and 326 (from Britain).

⁹¹ From the Levant, HAMBURGER 1968, 30, no. 73 and AMORAI-STARK, HERSHKOVITZ 2016, 96–98, nos. 70–73 (from Caesarea Maritima, Israel); HENIG, WHITING 1987, nos. 96–101 (from Gadara, mod. Umm Qeis, Jordan). Also note a carnelian intaglio from Pattanam, ancient Muzeris, in Kerala, India, HENIG 2017, 18, fig. 3a.

⁹² For example TOZZI 2025, 590–592, 595, fig. 1 (from Rome, Italy); PUPPO 2025, 516, cat. no. 4, 523, fig. 6a (from Florence); SENA CHIESA 1966, 235–240, nos. 574–601 (from Aquileia); MAGNI 2009, 96–98, nos. 393–411 (from Verona); PANNUTI 1983, 56–59, nos. 79–87 (from Pompeii and Herculaneum); HENIG 2007, 129–130, nos. 314–321, and JOHNS 1997, 89, nos. 154–156 (from Britain); MAASKANT-KLEIBRINK 1986, 61, no. 91 and 52–53, no. 106 (from Nijmegen, Netherlands); GUIRAUD 1988, 108–109, nos. 195–208 and 2008, 109–110, nos. 1158–1160 (from Gaul); CRAVINHO 2017, 192–193, no. 24 (from Portugal); CASAL GARCÍA 1990, 146–147, nos. 300–305 (probably mainly from Spain, but no. 302 is from Syracuse, Sicily); NARDELLI 2005, 237–239, figs 1–6 (from Dalmatia); HOEY MIDDLETON 1991, 78–80, nos. 114–117 (from Dalmatia); KAIĆ 2024, 172–175, nos. 190–191 (from Dalmatia); GESZTELYI 2000, 61, nos. 138–139 (from Hungary); DIMITROVA-MILCHEVA 1981, 48–50, nos. 80–89 (from Bulgaria); KLENINA, BIERNACKI 2025, 280, 282–283, acc. nos. 2329 and I-1441, 295–296, figs 8–9 (from Novae, Bulgaria, today in the Historical Museum in Svištov); LUNGU, COVACEF, CHERA 2012, 25, cat. no. 11, pl. 4, fig. 11, 94, cat. no. intaglio 1, pl. 43, fig. 1, 95–96, cat. no. intaglio 4, pl. 43, fig. 4, 104, cat. no. intaglio 26, pl. 50, fig. 26, 126, cat. no. 14, pl. 61, fig. 14 (from Romanian collections), though these are all hard stones. For other examples without provenance, PLANTZOS 1999, 123, no. 294 = FOSSING 1929, 32, no. 20 (an early example in garnet dating to the second cent. BC); *ibid.*, 112, nos. 658–667; RICHTER 1956, nos. 366–367; AGDS IV Hannover, no. 1510; AGDS I:3, no. 2607; SPIER 1992, 121, no. 315; HENIG, MACGREGOR 2004, no. 4.47.

⁹³ GUIRAUD 1988, 110, nos. 214–216 and GUIRAUD 2008, 110–111, no. 1164 (Gaul); HOEY MIDDLETON 1991, 82, no. 121 (Dalmatia); CASAL GARCÍA 1990, 147–148, nos. 306–308 (from Spain?); and HENIG 2007, 131, nos. 325–327 (Britain).

⁹⁴ KONUK, ARSLAN 2000, 111, no. 87)

A typical composition with Tyche, wearing a long chiton, holding the steering oar of a rudder in her left hand and cornucopia crooked in her right arm in classical contrapposto. No groundline. Yet her body is simply carved and subtly modelled. It is executed in Maaskant-Kleibrink's imperial small grooves style.

Comparanda. Henig, Whiting, 1987, no. 97; Konuk, Arslan 2000, no. 83.

Early second cent. AD.

No. 2. Tyche, type as last, but her body is rather schematically rendered with a pronounced curve (Figs 2a–b).

Archaeological Museum of Izmir, confiscation from the 12th Court of First Instance of Izmir, from the file numbered 2022/917 in 2023. It was transferred to the museum with numerous Hellenistic and Roman burial offerings, which were found most probably in Aiolis.

Oval carnelian intaglio, reddish brown, complete, set in a gold ring Henig's Type V.⁹⁵ Rings of this form with a broader hoop than the rings current in the later first and first part of the second cent. AD are typical of rings in the later Antonine age. The bezel is set proud of a fairly broad hoop, as Marshall 1907, no. 493. Maaskant-Kleibrink's plain grooves style.

14.1 x 8.2mm (intaglio), 34 x 28mm (ring), Wg. 9.1gr (ring).

She wears a short mantle over her chiton.

Second half of the second cent. AD.

No. 3. Tyche (Isis/Tyche) is depicted with an unusually prominent head, surmounted by a high Isiac crown, of distinctive form, equating her with that goddess (Figs 3a–b & Pl. 8:1).

Archaeological Museum of Izmir, acc. no. 013.522.

Oval glass intaglio, moulded in two layers, the upper in cobalt-blue glass, F1-profile.

14 x 10 x 3.5mm.

The figure is excellently detailed especially with regard to her garments, her chiton and mantle. There is a groundline beneath the figure or the line belongs to the rudder. This gem was moulded from a very well executed engraved gem.

Maaskant-Kleibrink's imperial classicising style.

She holds a cornucopia and the steering oar by which her rudder is controlled; she appears to stand on the blade of the rudder

First-early second cent. AD.

No. 4. Tyche holding a sceptre rather than a rudder, and her usual cornucopia (Figs 4a–b). Museum of Anatolian Civilizations, Ankara, acc. no. 18418.

Oval carnelian intaglio, dark red, cut in F1-profile. Both faces are flat with edges bevelled inwards, set in a gold ring (ring type II after Henig 2007, 9, fig. 1) with an oval collet around the gem. This is the typical ring of the late first and first half of the second cent. with a hoop of rounded section expanding towards the bezel.⁹⁶

13.3 x 11.2mm (intaglio), 32 x 26mm (ring), Wg. 8.8gr (ring).

This is an unusual image of Tyche in which she is standing frontally, head turned left (according to the stone right). She is dressed in chiton and himation; on her head she wears a lotus leaf crown identifying her with Isis. In the crook of her right arm she holds a cornucopia

⁹⁵ HENIG 2007, 12–13.

⁹⁶ HENIG 2007, 12.

from which bunches of grapes spill over the rim and, perhaps, above them a lotus bud. Her hair encircles her brows and descends at the back to the nape of her neck where they are bound in a chignon. Her face is long and thin and her nose, mouth and chin are prominent. The pleats of the chiton worn by the goddess are rendered in vertical lines, and the garment is fastened at the waist with a belt. The chiton is secured by a belt under her breasts. Her weight rests on her left foot; her right foot is raised and only her toes reach the ground. Her right leg is prominent under the tight folds of her chiton. In front of Tyche's left foot is a situla (a vessel for holy water). There appears to be a tall structure behind Tyche's back, perhaps a nilometer. Maaskant-Kleibrink's classicising style.

Although similar to standard examples of Type 1, the sceptre, crown and situla equate her with Isis/Tyche.

Early or mid-second cent. AD (intaglio and ring).

Ref. Bingöl 1999, 157, no. 172; Arslan, Yeğin 2021, 121–122, 129, pls. 1–1/a (interpreted as “Isis”).

No. 5. Tyche beside a cylindrical altar (Fig. 5).

Museum of Anatolian Civilizations, Ankara, acc. no. 125-1-85.

Oval, veined brown-yellow jasper intaglio, cut in F1-profile.

15.4 x 13.1 x 3.1mm.

Tyche stands frontally, head facing left, with a high modius (or cobra crown?) on her head, which again equates her with Isis/Tyche. She wears a high-belted long chiton and himation, holds a cornucopia in her right arm and a rudder in her left hand. Her chiton is bound at the front with an Isis knot. A lighted altar is depicted on the right next to the rudder, an unusual feature. Groundline. Maaskant-Kleibrink's imperial small grooves style.

Her cobra-crown, Isis-knotted dress and the altar are all iconographic features of this intaglio identifying her with Isis.

Mid-second cent. AD.

Ref. Arslan, Yeğin 2022, 85, cat. no. 5, 98, fig. 5.

No. 6. Tyche wearing a long chiton and holding a cornucopia at chest height and the steering oar of a short rudder (Fig. 6).

Museum of Anatolian Civilizations, Ankara, acc. no. 139-7-95.

Oval carnelian intaglio, dark red, cut in F2 or F4-profile.

11.6 x 8.6 x 3.9mm.

According to Hélène Guiraud this type of rudder is said to have a “parapluie”, i.e., umbrella, shape.

Groundline. Maaskant-Kleibrink's round-head style.

The head is large but her hair is not indicated.

Mid- or late second cent. AD.

Ref. Arslan, Yeğin 2022, 86, cat. no. 6, 98, fig. 6.

No. 7. Tyche holding the usual cornucopia and rudder (Fig. 7).

Museum of Anatolian Civilizations, Ankara, acc. no. 3481.

Oval carnelian intaglio, dark red, cut in F1-profile.

12.8 x 9.3 x 3.1mm.

The fruits and grain stalks in her cornucopia are rendered by a series of prominent, but random grooves; thus, it may be assigned to Maaskant-Kleibrink's small grooves style. Groundline.

Tyche has a high polos on her head and there is an Isis knot in the front of the dress.

Mid or late second cent. AD.

Ref. Arslan, Yeğin 2022, 86, cat. no. 7, 99, fig. 7.

No. 8. Tyche holding the usual cornucopia and steering oar, with short rudder attached (Fig. 8).

Museum of Anatolian Civilizations, Ankara, acc. no. 18865.

Oval carnelian intaglio, dark red. F1-profile.

11.5 x 8.9 x 2.8mm.

Maaskant-Kleibrink's round-head style.

The gem not only features the same iconography as cat. no. 7 above but the style is so similar that it may have been produced in the same workshop, if not by the same gem-cutter.

Mid or late second cent. AD,⁹⁷.

Ref. Arslan, Yeğin 2022, 86, cat. no. 8, 99, fig. 8.

No. 9. Tyche wearing a garment whose drapery folds create a decorative play of light and shadow, emphasizing her anatomy (Fig. 9).

Archaeological Museum of Izmir, acc. no. 013.480.

The circular intaglio is engraved on a creamy-coloured, leached carnelian, misty rose in colour. F1-profile.

20 x 3mm, Wg. 0.71gr.

Tyche faces right rather than left as in the other Type 1 intaglios presented here, otherwise similar. Maaskant-Kleibrink's flat bouterolle style.

The round gem shape is suggestive of a date at the end of the first cent. BC–beginning of the first cent. AD, and is consistent with the appearance of the transverse rudder.

No. 10. Tyche who is heavily draped with a himation over her chiton, has a solid, stocky well-modelled body (Fig. 10).

Halûk Perk Research Museum in Avcılar, Istanbul.

Oval carnelian intaglio, reddish brown. A large chip on the right edge missing. Slightly curved face. F1-profile.

16 x 15 x 3mm.

The style approximates to Maaskant-Kleibrink's small grooves style.

Again, she holds a cornucopia and a steering oar with rudder.

Mid or late second cent. AD.

Ref. Gülbay 2017, cat. no. 65.

No. 11. The same iconography as the piece above, but very coarsely cut with a very broad drill (Figs 11a–b).

Archaeological Museum of Konya, acc. no. 2011.11.31.

Elipsoid onyx intaglio with a flat surface, light red. F2-profile.

⁹⁷ MAASKANT-KLEIBRINK 1978, no. 814.

8 x 6 x 2mm.

Despite the lack of detail in the cutting of the intaglio, the workmanship employed for the figure is symmetrical and pleasing. Maaskant-Kleibrink's plain grooves style.

Early third cent. AD.

Ref. Kulbay 2019, 51, cat. no. 14.

No. 12. The same type as nos. 10–11 above (Figs 12a–b).

Archaeological Museum of Burdur, acc. no. K.67.26.78.

Elipsoid amethyst intaglio, purple. B-profile. The gem is chipped at the top.

10 x 7 x 4mm.

Tyche's garments are rendered with considerable plasticity, although the head and face are not finely detailed, probably because of the small size of the gem. Maaskant-Kleibrink's imperial classicising style.

First–second cent. AD.

Ref. Kulbay 2019, 52, cat. no. 15.

No. 13. Tyche rendered in a series of rounded forms (Figs 13a–b).

Museum of Fethiye, acc. no. 1-13-73-1019.

Carnelian intaglio with a flat bezel, dark red. F2-profile.

9 x 7 x 3mm.

Tyche is depicted with a pinched narrow waist. Her long chiton is carved simply, with few folds. The rudder has a short handle and blade. Groundline.

The cutting is close to Maaskant-Kleibrink's round head style, but the manner in which both the goddess and her cornucopia are rendered, may indicate the work of a formerly unknown gem-cutter active in Caria.

Second cent. AD.

Ref. Kulbay 2019, 53, cat. no. 16.

No. 14. Tyche standing in a modified contrapposto attitude (Figs 14a–c).

Archaeological Museum of Gaziantep, acc. no. 10.14.78.

Carnelian intaglio with a flat surface, dark brown, with an oval shape, F-profile. It is set in an iron ring probably of type III form⁹⁸, now broken. This is a typical form for the late first and first half of the second cent. AD, but the ring is corroded.

Acquired from Mr Mustafa Güneysi from Gaziantep on 1st of May 1975 for 250 TL (\$US 3.1).

9 x 6.5mm (intaglio), 3.5 x 16.5mm (ring).

Tyche has a large and prominent head which is out of scale with her body, although the rendition is generally assured and three-dimensional. Details of her garment are similarly lacking. There is a polos on her head. The rudder is small. The gem approximates to Maaskant-Kleibrink's round head style.

Comparandum. Maaskant-Kleibrink 1978, no. 875, a pantheistic figure.

Second cent. AD.

Ref. Yinesor Demir 2008, 124, cat. no. 26.

⁹⁸ HENIG 2007, 12 and 9, fig. 1.

No. 15. Tyche leaning slightly downward in a pose suggestive of movement and the cornucopia is less detailed than usual (Figs 15a–c).

Archaeological Museum of Gaziantep, acc. no. 44.3.73.

Jasper intaglio with a flat surface, sealing-wax red, set in a broken iron ring exactly like cat. no. 14 above, type III. For the ring form, which is of the same type as no. 14 above (Henig type III), cf. Avli 2020, 113, 267–269, cat. nos. 110–111 (from the necropolis of Neapolis, Caria, mod. Yazıkent near Bozdoğan in Aydın).

Acquired from Mr Tekin Özkanat from Şar (ancient Comana or Cataonia) in Tufanbeyli, Adana in south-western Cappadocia on 21st of April 1973 for 100 TL (\$US 1.2).

7.5 x 6 x 4.5mm.

Close to Maaskant-Kleibrink's small grooves style.

Comparandum. Same as cat. no. 14 above.

Early or mid-second cent. AD.

Ref. Yinesor Demir 2008, 125, cat. no. 27.

No. 16. A finely engraved representation of Tyche, naturalistically detailed and modelled (Figs 16a–c).

Archaeological Museum of Gaziantep, no acc. no.

Oval carnelian intaglio with a flat surface, F2-profile, dark red.

11.5 x 9 x 2mm.

There is possibly a letter C behind the cornucopia. Curved groundline.

Mid-second cent. AD or earlier.

Ref. Yinesor Demir 2008, 126, cat. no. 28.

No. 17. Simplified, but well-modelled figure of Tyche wearing detailed, heavy drapery (Figs 17a–c).

Archaeological Museum of Gaziantep, acc. no. 16.16.92.

Carnelian intaglio, light brown, complete, with an oval shape. F6-profile.

Acquired from Mr Mehmet Çınaroğlu from Antakya (ancient Antioch-on-the-Orontes) on 30th of June 1992 for 1.100.000 TL (\$US 15.9).

11 x 9 x 4mm.

Simplified rendering of cornucopia. Maaskant-Kleibrink's small grooves style.

Mid or late second cent. AD.

Ref. Yinesor Demir 2008, 129, cat. no. 31.

No. 18. Tyche rendered in a very simple manner holding a highly simplified cornucopia and rudder (Figs 18a–c).

Archaeological Museum of Gaziantep, acc. no. 2021.

Oval, convex carnelian intaglio, light brown in colour

Acquired from Mr Mehmet Ali Borağan from Adıyaman (ancient Commagene) in south-eastern Turkey on 2nd of July 1960.

12.5 x 10 x 4mm.

Close to Maaskant-Kleibrink's incoherent grooves style.

Late second cent. AD.

Ref. Yinesor Demir 2008, 130, cat. no. 32.

No. 19. Tyche (?) (Figs 19a–c).

Archaeological Museum of Gaziantep, acc. no. 4479.

Oval, convex royal dark blue (almost purple) glass intaglio imitative of blue sapphire⁹⁹.

13 x 9 x 2.5mm.

Acquired from Mr Haydar Elçi from İskenderun (ancient Alexandretta) in south-eastern Turkey on 17th of June 1968 for 5 TL (\$US 1.8).

The figure is female, with a stocky figure and prominent breasts. She holds a cornucopia. The figure is reminiscent of the Ptolemaic queens conflated with Tychai on Hellenistic oinochoai, cf. Thompson 1973, pls. 1–3.

Second cent. BC (?).

Ref. Yinesor Demir 2008, 128, cat. no. 30.

No. 20. Tyche with a roughly outlined figure (Fig. 20).

Museum of Ephesus in Selçuk.

Oval moulded intaglio in translucent glass, dark yellow. Truncated cone in F3-profile.

19 x 13 x 4mm, Wg. 2.9gr.

Tyche and her attributes are well proportioned.

Early third cent. AD.(?)

No. 21. Glass bulla or medallion depicting Tyche though her features are indistinct (Fig. 21).

Museum of Ephesus in Selçuk.

Almost circular dark coloured (dark brown) glass with moulded flange.

Diam. 16mm, Wg. 2.3gr.

Presumably taken from a gem, and impressed when the glass was in a viscous state. Tyche has somewhat the appearance of a Near Eastern deity, but the image is less detailed, perhaps due to its material. Two piercings on opposed edges of the medallion are preserved, possibly intended to hold the object in place in its setting.

Comparanda. Glass medallions, moulded from gems and coins, were perhaps intended to be set in a ring as in the case of cat. no. 18 above, or in a pendant. For glass medallions, though almost all of these depict heads rather than figures see Gesztelyi 2000, 82–83, nos. 271–277; Zwierlein-Diehl 1991, 225, nos. 2495–2496; Neverov 1988, 151–152, no. 403; and Henig 2007, 195, no. App.8 (from Silchester, Hampshire, UK, a representation of the nymph Arethusa taken from a Syracusan coin by Euaenetus). Note also Henig 2007, 174, no. 674 which is a casting in green glass with similar flange showing a raven, from Fishbourne, West Sussex, UK.

Early third cent. AD.

Type 2: Tyche with rudder and cornucopia as well as corn ears in hand (Pl. 8:2)

In all respects bar one, this is the same type as the Type 1; however, Tyche holds a poppy head and ear of wheat as well as steering oar and rudder, which distinguishes it from the last. Ears of cereal and the heads of seeding poppies were the traditional cereal crops of Rome, and are depicted as such on the Tellus relief on Ara Pacis (Fig. 22a), as well as on many gems.

⁹⁹ Recently gem quality sapphires have been reported from the region of Muğla, ancient Caria, in south-western Turkey, cf. HATİPOĞLU, ÇOBAN 2021, though even if this is true, it is of dubious relevance to the existence of glass gems and glass phalerae which are often of this colour.

Together with the cornucopia, they evoke abundance in the harvest, equating Tyche/Fortuna with Demeter/Ceres.¹⁰⁰ In any case this type is rather less common than Type 1.

Under Type 2 we have distinguished two iconographic subgroups: The first, earlier variant comprises gems on which Tyche/Fortuna stands supporting a cornucopia in one hand and holds the rudder in the other.¹⁰¹ In the second, later examples Tyche holds the rudder obliquely, in a manner that recalls an umbrella with occasional additions, i.e. with corn ears and poppy heads held in the same hand. Some representations, as with Type 1, wear an Isiac head-dress.

Comparanda. Gołyźniak 2017, no. 364 for a good example with references.

From Turkey note Hoey Middleton 2001, 41, no. 22 acquired near Sadak (ancient Satala) in the province of Gümüşhane in eastern Turkey and Konuk, Arslan 2000, 111, no. 87, but here Tyche is seated; from the Levant Henig, Whiting 1987, nos. 102–108 (Gadara); Hamburger 1968, 30, nos. 71–72 and 74 and Amorai-Stark, HersHKovitz 2016, 99–101, nos. 74–76 (Caesarea Maritima).

The type is also common in West, where Tyche (Fortuna) would have been seen as syncretised with Ceres, for example Sena Chiesa 1966, 240–242, nos. 602–609 (Aquileia, Italy); Pannuti 1983, 54–55, nos. 75–78 (Pompeii and Herculaneum); Dimitrova-Milcheva 1981, no. 88 (Bulgaria); Dembski 2005 nos. 328–334 (Carnuntum); Gesztelyi 2000, 61, no. 140 (Hungary); Henig 2007, 130–131, nos. 322–323 (Britain); Maaskant-Kleibrink 1986, 44–45, no. 90 (from Nijmegen, inscribed in Greek εὐτυ/[χ-] for εὐτυχίς); Guiraud 1988, 109–110, no. 209, Guiraud, Roulière-Lambert 1995, 380–381, nos. 17–19; Guiraud 2008, 110, no. 1162 (Gaul); Casal García 1990, 144–145, no. 294 (Spain?); Nardelli 2005, 239–241, figs 7–8; Hoey Middleton 1991, 81–82, no. 120; and Kaić 2024, 176–179, nos. 196–198 (Dalmatia).

The dating of this type is similar to Type 1, i.e., early second cent. AD to early third cent.

No. 22. Tyche is depicted in a realistic manner (Figs 22b–d).

Archaeological Museum of Aydin.

Oval carnelian intaglio, red, set in a gold finger-ring. The ring is comparable to Marshall 1907, no. 106 and Deppert-Lippitz 1985, 38, no. 105, of Augustan date, which have the same angular hoop on the outside and a raised bezel. Both intaglio and ring are very well preserved. 12 x 7 x 3mm (intaglio), 18 x 8 x 4mm (ring), metal quality 81% gold, Wg. 3.26gr (ring).

Tyche is depicted standing, her body frontal, head turned to the left. She wears a high-arched chiton with a two-feathered Isis crown on her head⁷, her cornucopia and the fall of her himation in her right hand, and the steering oar of the rudder, an ear of wheat and a poppy head in her left hand. Her body is slightly curved at the hips, the folds of her garments are well executed as are the poppy head and ear of wheat which she holds in the hand that clasps the steering oar, and the fruits in her cornucopia which she holds in her other hand.

Superb quality with detailed rendering; in particular Tyche's garments are richly detailed. Firm groundline. Maaskant-Kleibrink's classicising style.

Early first cent. AD.

No. 23. Tyche with no facial features remaining, because the surface of the stone is almost completely obliterated at that point (Fig. 23).

Museum of Marmaris, acc. no. 2015/1158 (A).

¹⁰⁰ ZANKER 1988, 172–179.

¹⁰¹ See WEIß 2025, 110–111, nos. 220–222.

Oval chrome-rich green chalcedony intaglio. The material probably comes from the region of Eskişehir in northern Phrygia in north-western central Anatolia, cf. Platz-Horster 2010; and Kılıç et al. 2021.

Confiscated from Mr Veli Dünder on 16th of September 2015.

10 x 7 x 4mm, Wg. 1.8gr.

The cornucopia has a wide rim at the top and the figure of Tyche is depicted as notably slender. Maaskant-Kleibrink's classicising style.

First or early second cent. AD.

No. 24. Tyche is depicted as a slender figure in an elegant contrapposto pose (Figs 24a–b & Pl. 8:2).

Museum of Anatolian Civilizations, Ankara, acc. no. 44-526.

Oval shape, mottled pale red jasper intaglio cut in F1-profile.

13.6 x 11 x 3.1mm.

The folds of her garments, and her attributes are very well rendered (cf. no. 22 above). She wears the horns of Hathor. Tyche's garments are enriched with horizontal grooving. Maaskant-Kleibrink's classicising style.

First–early second cent. AD.

Ref. Arslan, Yeğin 2022, 85, cat. no. 4, 98, fig. 4.

No. 25. Type as last but with less detailed features (Figs 25a–c).

Archaeological Museum of Gaziantep, acc. no. 31.1.75.

Oval banded chalcedony intaglio, grey, set in a large bronze ring, F5-profile. The gem is quite large in size, and upper and lower surfaces are flat.

Acquired from Mr İsmail Demirci from the village Mızar or Mizar (mod. Uluyatır) near Zeugma, 10 km south-east of Nizip and 40 km south-east of Gaziantep in south-eastern Turkey, on 16th of January 1975 for 750 TL (\$US 52.4). For the localisation of the region on the Peutinger Table, cf. Comfort and Ergeç 2001, 46. It is very probable that Uluyatır was a Roman necropolis site belonging to Zeugma.

16.5 x 10 x 3mm.

On her head a polos. The poppy seed-head is clearly distinguishable. Maaskant-Kleibrink's plain grooves style.

Comparandum. Konuk, Arslan 2000, no. 86.

Late second cent. AD.

Ref. Yinesor Demir 2008, 127, cat. no. 29.

No. 26. Tyche holding an unusually fleshy poppy head (Figs 26a–b).

Archaeological Museum of İzmit, acc. no. 2846.

Carnelian intaglio, dark red, set in a gold finger-ring, which is of elipsoid shape with a flat ribbon hoop expanding towards the raised, ovoid box bezel, form IVa. F1-profile. The ring is broken in one place due to crushing, but is otherwise intact and well-preserved with some incrustation. It is comparable to Deppert-Lippitz 1985, 33, no. 149 and Johns, Potter 1983, 91–92, no. 16 both of fourth cent. AD date, and like the latter ring the intaglio is mounted on its side strongly suggestive of secondary use.

Excavated on 1st of September 1989 in trench 53 of the theatre of Nicaea in Bithynia. The gem has received partial bleaching, certainly post engraving due to exposure to great heat, for

example through burning on a funeral pyre with the deceased owner. This bleaching suggests, therefore, that the gem may have been found in a later, disrupted, burial from the area of the theatre although not from trench 53 opened during the 1989 excavation.

12 x 7 x 9 x 2mm (ring), Wg. 2.15gr (ring).

The intaglio depicts Tyche with her cornucopia, standing to the left, holding the steering oar of a rudder and a poppy head and ear of wheat in one hand, thus, equating her with Demeter (cf. a bronze coin of Caracalla from Laodicea on the Lycus, illustrated at Pl. 1:4). On her head a polos.

The intaglio is executed in Maaskant-Kleibrink's cap-with-rim style, but here treated rather clumsily which points to a date as late as the early third cent. AD; however, the ring is of fourth-cent. AD form. With its degenerate craftsmanship of the third cent. AD, it is perhaps one of the latest finger-rings depicting Tyche from Asia Minor, thus, the latest find of our corpus.

Type 3: Pantheistic Tyche (Pl. 8:3)

In this type Tyche attracted to herself a range of other attributes or identities, including the wings of Nike, implying that she was ever victorious. The assimilation of Tyche with Nike began in Hellenistic times as evidenced by a glass gem in Oxford dating to the first half of the first cent. BC (Boardman, Vollenweider 1978, 89, no. 309). On later syncretic images she often sports the helmet of Athena, thus enhancing her power to protect the individual seal wearer from misfortune¹⁰².

A Minerva-type on a stone relief from Birrens in Scotland is depicted with turreted crown around her helmet and wings recalling our Type 3.¹⁰³ The inscription describes her as Dea Brigantia (a local goddess), but beside her is an omphalos stone which is certainly an Eastern element there, and reflects influences probably from Syria in the Severan period. Through *interpretatio Romana*, Brigantia was identified with the goddesses Minerva, Tyche and Victoria.

Comparanda. Gołyźniak 2017, nos. 371–374. Spier 1992, 109, no. 275. From the Levant Henig, Whiting 1987, nos. 108–117 (Gadara); and Hamburger 1968, 30, no. 70 (Caesarea Maritima). On examples from more Western parts of the Empire see Sena Chiesa 1966, 242–243, nos. 610–615 (Aquileia); Magni 2009, 98–99, nos. 417–419 (Verona); Tamma 1991, 54–55, nos. 47–48 (Bari); Dimitrova-Milcheva 1981, no. 91 (Ratiaria, Bulgaria); Henig 2007, no. App.79 and App.129 (Britain); Maaskant-Kleibrink 1986, 53, no. 107 (Nijmegen); Guiraud 1988, 110, no. 210, Guiraud 2008, 11, no. 1163 (Gaul); Cravinho 2017, 196–197, nos. 29–30 and Cravinho 2018, 155–156, no. 10 (Portugal); Casal García 1990, 146, no. 299 (Spain?); Nardelli 2005, 240–241, figs 9–10; Hoey Middleton 1991, 80–81, nos. 118–119 and Kaić 2024, 174–177, nos. 192–195 (Dalmatia); Gesztelyi 2000, 61, no. 141 (Hungary); Dembski 2005, nos. 341–353 (Carnuntum); and Maaskant-Kleibrink 1986, 53, no. 107 (Nijmegen).

Gems such as these were engraved both in the second and the third cent. AD.

No. 27. Pantheistic Tyche with hair and facial features treated in a summary fashion, but the rendering of the poppy head is detailed (Figs 27a–b & Pl. 8:3).

Private Collection of Mr Doğan Güreş, Istanbul, March 2023.

¹⁰² For pantheistic Athena/Tyche, see DIMITROVA-MILCHEVA 1981, nos. 90–92 and 94 to the right, but note no. 93 to the left; and HENIG, WHITING 1987, nos. 109–117, all to the right.

¹⁰³ JOLLIFFE 1941; KEEPIE, ARNOLD 1984, 7–8, no. 12.

Oval carnelian intaglio, Venetian red, set in an corroded iron ring type III after Henig 2007, 9, fig. 1. The surface of the intaglio is flat, F-profile.

8 x 6 x 3mm, Wg. 1.2gr.

Pantheistic Tyche with steering oar and small rudder, endowed with the wings of Nike, and wearing the Corinthian helmet of Athena, as well as holding an ear of wheat further equating her with Demeter. The rendering is detailed with crisp workmanship.

Early second cent. AD.

No. 28. The gem represents pantheistic Tyche, with the wings of Nike and corn ears of Ceres but lacking the helmet of Athena (Fig. 28).

Archaeological Museum of Aydın.

Circular carnelian intaglio, orange red, F1-profile.

12 x 2mm, Wg. 1.2gr.

Despite the lack of detail, the circular form of the gem, and the style, i.e., Maaskant-Kleibrink's flat bouterolle style, proclaims its early date.

First cent. BC–first cent. AD.

Type 4: The cornucopia as a symbol of Tyche (Pl. 8:4)

A cornucopia, i.e., a typically hollow vessel of precious metal in the form of the Cretan wild goat, the Agrimi, filled with various kinds of festive fruit and vegetables, sometimes comprises the major element in a glyptic composition. It was originally the horn of the Cretan goat which suckled the infant Zeus (see Henig 1981), but in the Hellenistic period a symbol of good fortune, i.e., of Tyche, and acquired its overflowing content of fruit.¹⁰⁴ The Hellenistic world and Rome often conveyed ideas through symbols, especially symbols of prosperity rather than through the image of deities themselves, as we see in the case of the deer and bees symbolizing Artemis Ephesia on gems and coins before Emperor Augustus.¹⁰⁵ Here not only does the cornucopia evoke Tyche, but the ears of wheat symbolise Demeter, while Hermes who protected commerce and was the protector of flocks is represented by his caduceus/kerykeion. These are all symbols of prosperity, which elegantly evoke the power of Tyche/Fortuna.

However, a cornucopia combined with other symbols merely signifies good luck/fate and of course abundance; such symbolic conflations were intended to be amuletic and conceptual, and did not necessarily possess figural meaning. Overall, the cornucopia as a symbol of abundance and prosperity was vastly popular on gems both alone and together with other objects.

For a cornucopia as a major element in the composition also see no. 39 (below) from Ankara where a cornucopia is shown with a bust of Tyche and below it, a goat, which can be interpreted as emblematic of pastoral prosperity.

Comparanda. Note three Hellenistic examples of gems showing cornucopiae, a carnelian and two garnets all dated to the second cent. BC, Plantzos 1999, 134, nos. 637–639. Also note from Anatolia, Konuk, Arslan 2000, 173–174, nos. 149–150 for cornucopiae, and 172 no. 148 for a caduceus. A selection of gems depicting cornucopiae as symbols of good fortune is published in Vollenweider 1979, 371–387, nos. 415–434. Cf. also Spier 1989, 29, no. 52, 28, fig. 35; and Cravinho 2017, 221–222, nos. 64–65 in the Museu Nacional de Arqueologia, Lisbon.

¹⁰⁴ PLANTZOS 1999, 77–78.

¹⁰⁵ LAFLI, HENIG, MASTROCINQUE 2024, 137, 140, nos. 1–2, 148–149, nos. 1–3.

This iconographic type takes its place in Anatolian glyptics mainly between the second cent. BC and the end of the first cent. BC.

No. 29. Detailed, centrally placed cornucopia composed of several elements together with other symbolic features, the kerykeion of Hermes, and corn ears and poppy heads for Demeter (Figs 29a–c & Pl. 8:4).

Museum of Akhisar (ancient Thyatira)

Oval carnelian intaglio, dark red, set in a gold ring composed of beaded wire. The ring is of fourth cent. AD form, as Marshall 1907, 97 and pl. 16, no. 571 = Henig 2007, pl. XLI, no. 362 and related to other contemporary forms, as Johns, Potter 1983, 86–89, nos. 10–12.

13 x 8 x 3mm.

Maaskant-Kleibrink's pellet style.

Gem first cent. BC, set in a fine fourth cent. AD openwork gold ring.

Type 5: Tyche of Antioch-on-the-Orontes (Pl. 8:5)

Here Tyche is depicted wearing a turreted crown, seated on a rock and resting her feet on the river Orontes, represented by a swimming half-figure. For a discussion of the Tyche of Antioch on engraved gems as reflective of the statue.¹⁰⁶ Gołyźniak 2017, 211, no. 429 identifies a variant in which the goddess is veiled and holds a corn ear and poppy as the Nike of Nicaea, on the basis of local coins (cf. also Pl. 1:6 from Edessa which is near Type 5 and was derived from Tyche of Antioch; and Aubry 2022, 104–113).

Gems showing local cults were for the most part locally produced and more or less confined to the region; thus, many of the gems depicting the Tyche of Antioch were probably cut in ancient Antioch in north-western Syria or further north in Asia Minor. Especially notable in this respect is the octagonal gem in the British Museum, one of a class which seems to have been manufactured in or near Gordion in central Anatolia (Goldman 2014, 187, no. G8). At least one other gem reflecting a regional cult, Mount Argaeus (Spier 1992, 143, no. 395 = Goldman 2014, 192, no. G120) is of the same shape, and presumably cut in the same workshop. None of the gems in this section, however, are of this distinctive form. For the subject see Type 6 below.

It is interesting that one of the two supporting figures shown on cat. no. 30 below is an example of our most familiar Tyche type, i.e., Type 1. The other who wears a sword is presumably the war god Ares, and, thus, also regarded as a protective deity.

Comparanda. For individual intaglios showing Antiochea see Richter 1956, 86–87, nos. 380–381; Henig 1975, nos. 128–129; Zazoff 1969, no. 40; Tondo and Vanni 1990, no. 49; Henig and MacGregor 2004, 62–63, no. 4.41 carnelian intaglio, 63, no. 4.42, and AGDS I:3, 77, no. 2598 (Antioch) depicting Tyche of Antioch-on-the-Orontes crowned by Nike, carnelian intaglio from Salona, Croatia, see Hoey Middleton 1991, 84–85, no. 129 (with list); Sena Chiesa 2009, 109, no. 485 = Magni 2025, 330 (a red jasper, Museo archeologico al Teatro romano in Verona, acc. no. 26456); and Magni 2009, 109, pl. 31, no. 485. Also Walters 1926, 188, no. 1757 = Goldman 2014, 180 and 187, no. G8, an octagonal onyx, probably produced in Gordion, Galatia and Walters 1926, 188, no. 1759 and AGDS I:3, 77, no. 2597 from Niğde in south-western Cappadocia, but purchased at Istanbul. Amongst many interesting gems depicting Antiochea note a carnelian

¹⁰⁶ See HORSTER 1970, 101–107 and pls. 22–23; and GESZTELYI 1975 with particular reference to a gem from Hungary.

depicting the Tyche between Apollo and Daphne who is in the process of being transformed into a tree, AGDS IV Hannover, 282, no. 1533.¹⁰⁷

Some gems showing the Tyche of Antioch reached the West in Late Antiquity and in the Middle Ages, for example a chalcedony intaglio set in a gold ring, late fourth cent. AD ring from the Thetford Treasure.¹⁰⁸ Also note a red jasper set in the crosier of Archbishop Hubert Walter (died in 1205, found in his tomb in Canterbury Cathedral, cf. Henig 1983, 58, no. 3, pl. 1c); and a carnelian which probably reached the West at a similar period which is set in the Shrine of the Three Kings (Dreikönigenschrein) in Cologne Cathedral, Germany.¹⁰⁹

These glyptic depictions are all datable between the late first cent. AD and the mid-third cent. AD.

No. 30. Multifigured scene of Tyche of Antioch-on-the-Orontes shown with three other smaller figures (Figs 30a–b & Pl. 8:5).

Archaeological Museum of Izmir, acc. no. 013.514.

Jasper intaglio, red, with sides expanding outwards, almost a truncated cone. F3-profile, but probably better classed as F2. It was clearly designed to stand proud of the bezel of a ring.

12 x 10 x 3mm, Wg. 0.7gr.

As noted above, the Tyche of Antioch-on-the-Orontes is depicted above the swimming river god representing the River Orontes. Flanked by two other figures one Ares who crowns her with a wreath; the other Tyche, syncretised with Isis, i.e., our Type 1.

The proportions of the figures are awkward, and the carving style naive and simplistic. Maaskant-Kleibrink's small grooves style.

This type may explicitly transfer a personal wish to a collective level.

Comparanda. For parallels to this gem see Henig 1975, 46, no. 128, a red jasper purchased in Smyrna in 1889; Walters 1926, 188, no. 1758; Zwierlein-Diehl 1979, 150–151, no. 1189 and AGDS I:3, 77–78, no. 2599 (bought on the art market at Istanbul), all showing Antiochea flanked by Ares crowning her with a wreath and by Tyche Type 1.

Late second–third cent. AD.

Type 6: Tyche and Athena confronting each other before Mount Argaeus; horse below (Pl. 8:6)

This composition normally contains three figures under Mount Argaeus: on the left, Tyche is depicted with a modius on her head, and her hair surrounded by a thick braid or a wide-edged diadem band around her head, wearing a high-belted chiton and himation, a cloak hanging with a horn of abundance in her right hand, and holding a rudder in her left hand. On the right, opposite Tyche, Hera or sometimes Athena, heavily draped, is dressed in peplos, her right hand is extended to Tyche, and in her left hand she holds a long sceptre with a knob at the apex. Her hair is rendered mostly similar to Tyche. In the middle a grazing horse and above, Mount Argaeus.

Cults centered on Mount Argaeus are specifically Anatolian. Not all specifically figure Tyche, though on gems which do not simply depict the mountain without human figures, Tyche is very frequently depicted and in all cases these gems are concerned with the Good

¹⁰⁷ Also SPIER 1989, 32.

¹⁰⁸ JOHNS, POTTER 1983, 82–83, no. 4.

¹⁰⁹ ZWIERLEIN-DIEHL 1988, 324–325, no. 229.

Fortune of a particular locality. That is reinforced by the ubiquity of the subject on the local coinage of Roman Cappadocia (SNG 1956, nos. 188, 238, 241, 265–276 and 277–282). The same scene is also figured on a haematite ring-stone of the Roman period found in Cappadocia.¹¹⁰ Thus, it is pertinent to speculate whether these gems of Type 6 were Cappadocian products, if not Caesarean, *mod. Kayseri*.

Comparanda. This type was recently discussed *in extenso* by Magni 2025, 334–336, note 77, 338, note 96, 341–342, B1–2 and C no. 41¹¹¹. Henig and Laflı 2024, 11–14 discuss also a gem depicting Mount Argaeus. For more complex iconography in which various goddesses are shown to left and right with the central field occupied by Mount Argaeus above and a horse below see Weiß 2025, no. 508 (Athena and Nemesis); Konuk, Arslan 2000, 62, no. 38 (Athena and Hera); Henig, Whiting 1987, 16, no. 120 and p. 38, no. 398 (Tyche and probably Hera); Zwierlein-Diehl 1979, 155–156, no. 1213 (Athena and Tyche); and Furtwängler 1896, no. 2560.

This type is especially popular during the mid-second and mid-third cent. AD, although there are few earlier examples as well.

No. 31. Multifigured composition with Tyche, Hera, Mount Argaeus and a horse (Figs 31a–b & Pl. 8:6).

Archaeological Museum of Izmir, acc. no. 013.579.

Oval jasper intaglio, dark red, F-profile.

12 x 14 x 3mm.

Tyche wearing a modius on her head to the left, Hera, holding a patera and a sceptre, to the right; between them Mount Argaeus above and a grazing horse below. Maaskant-Kleibrink's plain grooves style.

Late second cent. AD.

Ref. Quoted at Magni 2025, 341–342, B2 no. 28.

No. 32. Multifigured composition with the same characters, but with a highly linear design (Fig. 32).

Museum of Anatolian Civilizations, Ankara, acc. no. 18846.

Oval jasper intaglio, pigment red, cut in F1-profile.

13.2 x 17 x 3.1mm.

This is the same composition as no. 31 above. A more summary rendition of cat. no. 31 above. Maaskant-Kleibrink's plain grooves style.

Late second cent. AD.

Ref. Arslan and Yeğın 2022, 86–87, cat. no. 9, 99, fig. 9.

No. 33. Multifigured composition with the same characters, but with an accented Mount Argaeus (Figs 33a–c).

Archaeological Museum of Gaziantep, acc. no. 74.1.75.

Oval jasper intaglio, dark red, missing chips on the edges of jasper and corrosion on the surface. F1-profile.

¹¹⁰ CANCIANI 1984, 1098, no. 333.

¹¹¹ London, British Museum, acc. no. 1772-0315-492. Serpentine (or red jasper). Obv. Helios (?) driving a quadriga, rev. head of Tyche of Caesarea, wearing Mount Argaeus instead of a corona muraria. Its inscription reads Εὐτυχία (Good luck) / ΒΟΚΟΝΤΙ, cf. also WALTERS 1926, 179, 22, no. 1663. Retrieved from <https://www.britishmuseum.org/collection/object/G_1772-0315-492> (status as of Jan. 1st, 2025).

9 x 11 x 2mm.

Acquisition from Mr Mustafa Düş from Gaziantep on 1st of May 1975 for 750 TL (\$US 52.4).

Same composition as nos. 31–32 above but with Athena replacing Hera. Mount Argaeus is shown with a star on both sides of the mountain. Vertical parallel grooves pattern the garments of the two opposing figures. The horse's body is engraved with a round ball-shaped drill bit. Maaskant-Kleibrink's plain grooves style.

This gem and no. 34 below appear from stylistic similarities to have been cut in the same workshop, not surprising considered that this was a discrete localised cult.

Late second cent. AD.

Ref. Yinesor Demir 2008, 132, cat. no. 34.

No. 34. Multifigured composition with the same characters, but with an elongated Mount Argaeus (Figs 34a–c).

Archaeological Museum of Gaziantep, acc. no. 10.10.78.

Oval jasper intaglio, dark red, thin-sectioned, set in an iron ring. It is processed in a different style. A section of the gem, bottom left is missing. F1-profile.

9 x 15 x 2mm.

Acquisition from Mr Hasan Çalışçı from Gaziantep on 19th of June 1978 for 500 TL (\$US 20.7).

Tyche to the left, Athena to the right. The heads of both goddesses are round and prominent and can be assigned to Maaskant-Kleibrink's plain grooves style (see no. 33 above).

Late second cent. AD.

Ref. Yinesor Demir 2008, 133, cat. no. 35.

Type 7: Tyche and Nemesis (Pl. 8:7)

According to Charles M. Edwards, Nemesis and Tyche began to share their cults in the Roman period.¹¹² Thus, a common depiction of Tyche was a conflated Nemesis/Tyche, and they were often equated and even syncretised in Roman glyptics.¹¹³

Only a few such gems depicting Tyche and Nemesis are known so far, and our description is almost completely based on our cat. no. 35 below. On some depictions, but not cat. no. 35 below, Tyche is depicted with the wheel which properly belongs to Nemesis, but was often interpreted as belonging to Tyche, because human fortune was often compared to the turning of a wheel. On cat. no. 35 the two deities are depicted as slightly different aspects, Fortune and Fate affected both cities and as here an individual. Later, in the art and literature of the Medieval West, Fortuna was invariably associated with a wheel.

Comparanda. For representations of Nemesis see Henig, Whiting 1987, 22–23, nos. 202–207, no. 207 being the two Nemeseis of Smyrna (Gadara); Dimitrova-Milcheva 1981, 52–53, nos. 98–100 (Bulgaria). Also see Evans 2020, 208, table 3 (cf. above).

This type is especially popular between the early second and early third cent. AD.

No. 35. Two-figure composition of Tyche and Nemesis standing side by side (Figs 35a–b & Pl. 8:7).

Koray Selçik Collection, Izmir.

¹¹² EDWARDS 1990, 533, note 19.

¹¹³ PICARD 1947; AUBRY 2022, 90–104.

Carnelian intaglio of flat oval shape, light pale brown, F1-profile.

21 x 19 x 3mm, Wg. 1.3gr.

Tyche standing, draped and holding cornucopia and rudder, in profile to the right and facing Nemesis who is standing left. Nemesis raises her right arm as though about to spit on her breast and holds something in her other lowered hand, perhaps a girdle. The voluminous robes of both personifications are rendered with precision.

Essentially this gem may have had a similar resonance to the wearer as do intaglios in collections in Bern, New York and Vienna depicting the two confronted Nemeseis.¹¹⁴ Maaskant-Kleibrink's round head style.

The cult of Tyche with the Nemeseis in Smyrna and its numismatic representation is also discussed by G. A. Cellini (1994) and Murat Kılıç (2014).

Late second–early third cent. AD.

Type 8: Artemis Ephesia, Tyche and Triple Hecate

During the Graeco-Roman periods Artemis Ephesia was another specifically local deity, though a famous one, as Ephesus was a major centre for pilgrimage. She was very much the protector of her own sanctuary so, in herself, a sort of Tyche, but her power is reinforced on few engraved gems both by Tyche and by the mysterious triple Hecate invoked in magical spells.¹¹⁵ Ephesus had something of a reputation as a centre for occult practices.

For this type we have no example from Turkey, but there are two examples with varied depictions of Artemis Ephesia at the Antiken-Sammlung Berlin, the Dressel Collection which can probably have originated from Asia Minor (cf. Weiß 2007, 176, no. 179, carnelian figuring Artemis Ephesia dated to the second cent. AD; 320, no. 670 grey green jasper depicting Artemis Ephesia flanked by Tyche and Triple Hecate, dated to the late second cent.). No other published example is known to us.

Type 9: The crowning of Tyche (Pl. 8:8)

In these glyptic depictions where Nike crowns Tyche as an honorand, this might symbolize the victory of a city, as it certainly would in public art.¹¹⁶ Certainly, in Roman iconography Tyche as good fortune became a conspicuous element of imperial propaganda, and was often used as a type in visual panegyric celebrating an emperor's triumphant achievements and beneficent rule. However, the type depicted on a gem in a signet-ring worn by a private individual, far more likely represents the achievement or at least the hope of its owner. Often Hermes, as a god especially friendly to humans, takes the place of Nike, as the god of successful enterprises, and here again the likelihood is that the gem refers to individual hopes, as it would be if the subject was Tyche by herself or Hermes by himself.

Comparanda. A common subject throughout the Roman Empire: Magni 2009, 113–114, pl. 32, nos. 501–502; Furtwängler 1896, no. 2571; Richter 1956, no. 360; Önal 2007, 40, no. 73 (Zeugma); Henig, Whiting 1987, 14, nos. 93–95 (Gadara) and 21, no. 182; Hamburger 1968, 30, nos. 65–66 (Caesarea Maritima); Maaskant-Kleibrink 1978, nos. 832 and 878; Dimitrova-Milcheva 1981, 41, no. 61, in which Hermes crowns a statue of Tyche, 48, no. 82 (both from Novae, Bulgaria); also Magni 2009, 99–100, nos. 428–429 (with Hermes crowning Tyche from Verona); Casal García 1990, 148, no. 310 with Nike and no. 309 with Hermes; Gesztelyi 2000, 60–

¹¹⁴ AUBRY 2022, 96, fig. 26, 98, fig. 27, 99, fig. 29.

¹¹⁵ On glyptic depictions of Artemis Ephesia, LAFLI, HENIG, MASTROCINQUE 2024, 137–149.

¹¹⁶ RAUSA 1997, 134, no. 144.

61, no. 137; Maaskant-Kleibrink 1986, 55–56, no. 111; Zwierlein-Diehl 1979, 154–155, nos. 1208–1210, 156, nos. 1215–1216 on the second the inscription Κυρία Νέμεσις; Konuk, Arslan 2000, no. 88; Spier 1992, 135, no. 369; Henig and MacGregor 2004, no. 2.34; Nardelli 2005, 240–241, fig. 11 and Kaić 2024, 178–179, no. 199 (Dalmatia); Sena Chiesa 1966, 245–246, nos. 629–633 (Aquilaia); and Henig 2007, no. 305.

These gems mostly date from the mid-first to early third cent. AD.

No. 36. Nike crowning Tyche (Figs 36a–c).

Archaeological Museum of Gaziantep, acc. no. 35.2.76.

The intaglio, ovoid in shape, is translucent, very light yellow in colour. The upper surface of the stone is convex and the lower surface is flat. B-3 or B-4 profile. The lower side of the gem has broken away. There is dark brown incrustation on the surface, especially in the area of the figures.

19 x 14 x 5mm.

Acquired from Mr Mustafa Kaya from the village Kapcağız, 28.8 km north-east of Kilis in south-eastern Turkey (on Syrian border) on 20th of May 1975 for 1.350 TL (\$US 94.4).

Nike is shown crowning Tyche, symbolizing the victory of a city. Both figures are engraved in a schematized manner and relate to Maaskant-Kleibrink's plain grooves style, i.e., the parallel, smooth patterning on the chitons worn by the figures are grooved, but hands and feet are not detailed.

Late first–early second cent. AD.

Ref. Ynesor Demir 2008, 134, cat. no. 36. For an Early Roman depiction of standing Tyche and Nike, see Evans 2020, 208, table 3 (cf. above).

No. 37. Hermes crowning Tyche (Figs 37a–b & Pl. 8:8).

Halûk Perk Research Museum in Avcılar, Istanbul.

Ovoid, very pale chalcedony intaglio, the colour of a cantaloupe melon, translucent but leached, F1-profile. The white leaching on the surface was perhaps deliberately applied by the gem-cutter.

10 x 8 x 2mm.

Hermes, standing on a groundline, crowns Tyche with a wreath. This is a conventional representation of Tyche with rudder and cornucopia, i.e., our Type 1. Maaskant-Kleibrink's small grooves style.

Late second cent. AD.

Ref. Gülbay 2017, cat. no. 26.

Type 10: Tyche with Serapis (Pl. 8:9)

Tyche certainly has an affinity to the Egyptian deities; indeed she often wears the polos or a crown associated with Isis. Whether this should properly be a distinct type is debatable, but it is interesting that the cornucopia, a major emblem of Tyche, is a feature also associated with Harpocrates and Isis.¹¹⁷

Examples of such gems are dated between the late first cent. AD and the early third cent.

¹¹⁷ For this subject cf. ARSLAN, YEĞİN 2022, presented in chapter 3 above.

No. 38. Three-figure composition with Tyche, an enthroned Serapis and Isis (Figs 38a–c & Pl. 8:9).

Archaeological Museum of Gaziantep, acc. no. 3853.

Oval jasper intaglio, light brown, set in an iron ring, F1-profile. The ring is very corroded and the lower parts of the hoop has broken away, but it is almost certainly of Henig type III of the first half of the second cent. AD.¹¹⁸

7 x 12 x 3mm (intaglio), 11 x 15 x 7mm (ring).

Serapis enthroned between Tyche holding a sceptre and cornucopia on the left and Isis on the right with sceptre and sistrum. Groundline. Maaskant-Kleibrink's chin-mouth-nose style; cf. ead. 1978, no. 969 which is similar.

Comparanda. The same composition exists with the enthroned Zeus, cf. Richter 1956, no. 252 = Richter 1971, 28, no. 53 (Zeus between Tyche and Elpis). Also cf. Gołyźniak 2017, 216, no. 447, where all three are on a galley, alluding to the safe transport of goods between Egypt and Italy. For the typological parallels to this gem, see Furtwängler 1896, no. 963 and Hamburger 1968, 25, no. 5 (Caesarea Maritima).

Early second cent. AD.

Ref. Yinesor Demir 2008, 108, cat. no. 10.

Type 11: Busts of Tyche (Pl. 8:10)

As is common knowledge, coins with a tower-crowned Tyche were struck in Alexandria, Syria and Mesopotamia (Pl. 1:7–9) as well as Cilicia, Lycia, Lydia and elsewhere in Asia Minor (Pl. 1:2) and the rest of the Roman East abundantly in the second and third cent. AD. The subject is discussed by Vollenweider in assessing two gems in the Oxford collection (see Boardman, Vollenweider 1978, 88–89, nos. 308–309). Parallel to its numismatic predecessors, the major element of this type on glyptics is the bust of Tyche, identified by the polos on her head (see also cat. no. 29 above for a cornucopia which is also the major element in the composition). Heads of Tyche were already depicted wearing mural crowns on Hellenistic gems, mainly garnets, dating to the second cent. BC, perhaps in the first instance derived from the head of Tyche of Antioch; a number of such Hellenistic gems are especially recorded from the Levantine coast.¹¹⁹ In the earlier periods, on the busts of Tyche, there was only one symbol on her head. While there is a tower crown, in later editions – as in the ring-stone cat. no. 40 we examined from Gaziantep or the coins illustrated at Pl. 1:7–9 from Edessa – a headscarf is also visible under the crown which could be a Near Eastern Roman addition according to round plastic.

Comparanda. As mentioned above, J. Spier listed some busts of Tyche engraved on Hellenistic garnets (Spier 1989, 24, nos. 27–33, 26–27, figs 19–22, 32, 33, fig. 42). See also, e.g., Walters 1926, 188, no. 1755, a red jasper depicting bust of Tyche and cornucopia, and Zwierlein-Diehl 1979, 206, no. 1497 with two cornucopiae (Tyche wearing mural crown, described as Cybele). Also Zwierlein-Diehl 1979, 205–206, no. 1496 (also wearing mural crown and described as Cybele) and Maaskant-Kleibrink 1978, 263, no. 705, both depicting a panther below, as sometimes depicted on the provincial coinage (see Type 4 above as well).

¹¹⁸ HENIG 2007, 12 and 9, fig. 1.

¹¹⁹ PLANTZOS 1999, 124, nos. 321–323 from Tartus (mod. Antaradus-Arwad), no. 325 from Tanis (San el-Hagar), and no. 327 from Amrit (Marathus).

These Tyche-busts are customary on engraved gems between the late first cent. AD and the early third cent. AD, but most common in the entire second cent. AD. Hellenistic examples, fewer in numbers, are from the second–first cent. BC.

No. 39. Well-modelled bust of Tyche, shown in profile, with the idealized proportions of a young woman, approaching maturity (Fig. 39).

Museum of Anatolian Civilizations, Ankara, acc. no. 48-1-74.

Oval jasper intaglio, red, cut in F1-profile, complete. Superb quality.

10.9 x 8.2 x 3.1mm.

Draped bust of Tyche to the left, identified by a large cornucopia in front of her; beneath her is a seated quadruped, a goat or more probably a ram which may be indicative of pastoral prosperity. The features of the goddess are gathered around the neck with a thick braid. She wears a half-moon shaped diadem on the front of the head and a polos on the crown. The facial features of the goddess are very well rendered.

Note that like Type 6 above, such engraved red jasper gems were probably produced in a workshop located in Caesarea in Cappadocia during the second and third cent. AD, and the abundant presence of such finds in the museums in Kayseri, Ankara and Çorum in Central Anatolia strengthens the fact that such red gems are of Cappadocian origin.

Comparanda. With regard to composition note also Henig, Whiting 1987, 24, no. 218, a red jasper from Gadara depicts a bust of Harpocrates with a large cornucopia below, which parallels the composition of the Ankara intaglio. The Gadara gem is set in a late second cent. AD ring.

Our gem should, however, be dated rather earlier, to the early or mid-second cent. AD. Maaskant-Kleibrink's classicising style.

Ref. Arslan and Yeğin 2022, 88, cat. no. 12, 100, fig. 12.

No. 40. Simplified bust of Tyche, shown in profile, wearing a mural crown and a veil (Figs 40a–d & Pl. 8:10).

Archaeological Museum of Gaziantep, acc. no. 15.8.76.

Circular garnet intaglio, imperial red, cut in F1-profile, set in an iron ring.

8 x 7.2 x 3.5mm.

Acquired from Mr Ahmet Şerefoğlu from Gaziantep on 4th of June 1975 for 120 TL (\$US 8.3).

This gem figures a bust of Tyche, possibly intended for the Tyche of Antioch, as she is depicted on contemporary coins.

It is executed in Maaskant-Kleibrink's small grooves style, characterised by the parallel smooth grooves on the crown upon Tyche's head.

Comparanda. Richter 1956, 87, no. 382 = Horster 1970, pl. 22, no. 4; AGDS I:1, no. 379; AGDS IV Hannover, 292, no. 1592; also note the frontal bust; AGDS I:3 Munich, 78, no. 2600, bought at Smyrna, where the bust is being crowned with wreaths by two small figures of Nike.

First–second cent. AD.

Ref. Yinesor Demir 2008, 131, cat. no. 33.

No. 41. Female bust, shown in profile, with few distinctive attributes, but very similar to no. 39 above and like her, wearing a polos on her head, and, thus, most probably Tyche (Figs 41a–b).

Museum of Amasya.

Oval garnet intaglio, reddish brown, cut in F1-profile.

11 x 5mm (intaglio), 22mm (ring), metal quality 98% gold, Wg.1.4gr (ring).

The ring approximates to form Henig 2007, type II (see Henig 2007, 177, pl. 50, no. 711; Deppert-Lippitz 1985, 31–32, pl. 50, no. 140; Chadour 1994, 89, nos. 301).

A draped female bust is depicted in profile to the left. Her hair is tightly bound back in a chignon. A polos protrudes from her forehead suggesting an identification with Isis-Tyche. Maaskant-Kleibrink's classicising style.

Comparanda. Spier 1992, 84, no. 191.

Mid or late second cent. AD (intaglio and ring).

No. 42. Terracotta bulla depicting bust of Tyche with a long, straight nose, full lips, and a heavy lower jaw (Fig. 42).

Archaeological Museum of Izmir, acc. no. 013.588.

Almost circular terracotta bulla, brown fabric.

11 x 12 x 2–4mm, Wg. 0.6gr.

Provenanced most probably from the south-eastern part of Turkey, i.e., more precisely from Zeugma or Doliche.

Female bust right, probably a bust of Tyche. She has short hair falling in a fringe from her brows and over her temples, and seems to wear a diadem on her forehead and a tower-crown above, as related to the Hellenistic type derived from the Tyche of Antioch, as no. 40 above.

Comparanda. Konuk, Arslan 2000, no. 210; Önal 2014.

Late first–late second cent. AD.

Type 12: Tyche of Constantinople crowning Constantine the Great (Fig. 43 and Pl. 8:11)

The type of Nike or Tyche crowning a Roman Emperor was not new. It was anticipated in the Hellenistic period, and on a sardonyx cameo in a private collection in Sweden a half draped figure taken to represent Cleopatra wearing the crown of Hathor/Isis holds a large cornucopia, and may be taken to be the Tyche of her colleague, Mark Anthony (Henig 2017, 28–29, fig. 13). On the *Gemma Augustea* in Vienna, Tyche wearing a mural crown and perhaps representing the oikoumene crowns Augustus with a wreath (Smith 2021, 109–110, no. 11). Other examples of the crowning of an emperor on cameos include an example in Nancy, France where a small Nike on Nero's outstretched arm crowns Nero (Smith 2021, 126, no. 41) and another, of similar date, now set in the Shrine of the Three Kings at Cologne, depicts Tyche in the guise of Nero's mother, Agrippina Minor (r. AD 49–54), holding a cornucopia in her left hand, crowns Nero with a wreath which she holds out in her right hand.¹²⁰

There is no example of this type in any Turkish collection that we have examined, but one famous example exists in the Hermitage Museum, St Petersburg, acc. no. ж 146 an oval sardonyx cameo, creamy white on dark brown (18.5 x 12.2mm). Although the provenance of this reworked cameo is completely unknown, strictly we should not have included it as a type of Tyche from Turkey, we have decided to do so as this unique, state cameo, a very peculiar and individual work, not meant to be widely copied or made in series, offers a very distinctive iconographic type, most likely originally fashioned in Constantinople, i.e., the newly founded capital of Constantine's empire.

¹²⁰ SMITH 2021, 124, no. 39.

Here the Tyche of Constantinopolis crowns Constantine the Great; however, the gem was reworked in the early 19th cent. by Benedetto Pistrucci (1783–1855), an Italian gem-engraver, who is best known for his Saint George and the Dragon design for the British gold sovereign. It is very strongly classicising and, if genuine, might actually show a Tyche crowning an earlier Emperor such as Trajan.

Ref. Stefani 1856, str. 73; Maximowa 1927, 299; Delbrueck 1933, 130, fig. 32; Bruns 1948, 29, fig. 25; Neverov 1971, 95, no. 106; and Neverov 1988, 138–139, no. 354.

Miscellanea

There are few other iconographic types of Tyche which we have not yet detected among the Anatolian gems: AGDS III Kassel, 217, pl. 95, no. 82 [carnelian, second cent. AD, a pair of Tyche, clasped hands, busts of Helios and Selene].¹²¹

Conclusions

As it is seen, in Turkey the number of depictions of Tyche on other media, such as marble statues as well as figurines in marble, bronze and terracotta is fewer than on coins and gems depicting Tyche. However, our present study of the iconography related to Tyche on 40 selected gems from entire Turkey and distinguishing 12 types out of 40 objects is somewhat arbitrary and the fact that these gems are curated in local museums in Turkey is not a proof that they were all found in their close neighbourhood. Therefore, the Anatolian and other gems discussed in this paper are doubtless a very small proportion of an extensive corpus.

Although the number of Tyche types in our corpus is limited, it is very likely that some of the (very) local types which appear on coins will occur on local gems, and this is something we must bear very much in mind, as it is likely that some of the die-engravers at these mints also engraved gems, because they possessed many of the requisite skills. Moreover, as more gems are discovered, we may well recognise stylistic traits common to coins and gems assigning them to the same workshop. In any case, the local coins as objects of the same size as gems provide the best artistic comparisons in many cases. This is a practice which is applicable only to the Eastern provinces of the Empire as, by and large, the West only had the official imperial currency and local issues were not struck.

Some other generalisations can also be made: the commonest types are the Types 1–3 which were ubiquitous throughout the Roman world, from Britain to Syria and even beyond, because the subject-matter was universal, positive and could guarantee good luck and prosperity overall. For these ubiquitous types there is nothing exceptional to conclude about their presence in Asia Minor and they do not differ from those circulating in the western Mediterranean. The remainder of the Tyche types is of special significance for Asia Minor and northern as well as north-western parts of Syria, though their limited number stands in sharp contrast to the coinage, which figures far more local types than the gems so far recorded. We included some local city Tychai, and there were many others in Asia Minor, the Levant and North Africa with a far more restricted remit, although they were surely important to those who lived and worked in these regions, as is shown not only by gems, but especially by local

¹²¹ AIAX, cf. Retrieved from <<https://datenbank.museum-kassel.de/29234>> (status as of Jan. 1st, 2025)]; HENIG, WHITING 1987, 16, no. 119 (heliotrope; two Tychai, clasped hands, bust of Helios and Selene, XAPA, perhaps AIAX); HENIG, WHITING 1987, 38, no. 399 (blue glass, first cent. AD, Tyche, Nike, clasped hands, busts of Helios and Selene); AMORAI STARK 1993, 86, no. 104 (heliotrope, Tyche and Victoria, clasped hands, busts of Helios and Selene, inscription AIAX); ZWIERLEIN-DIEHL 1979, 156, pl. 106, no. 1214 (carnelian, a pair of Tyche, busts of Selene and Helios, griffin).

coins and by statues set up in prominent places in the cities. These rare types may indeed reflect local cults of Tyche in the Roman East. It is also interesting to note that these gems depicting local Tyche types mostly originate from southern and south-eastern Turkish areas, like Cilicia and Commagene that are close to Antioch-on-the-Orontes. Cultic evidence for Tyche, and concomitant depictions of the goddess are more numerous in southern Anatolian regions, such as Cilicia and Pamphylia than in other parts of present-day Turkey.

In general the appearance of Tyche on gems and other iconographic media, most notably sculpture but also on bronze figurines is quite standardized, and, in particular, most of her freestanding statues and statuettes assume basically the same static pose. Generally, there are few glyptic types and variants all of which are derived from a limited number of prototypes.

In Anatolia Tyche is often shown with other deities or syncretised with goddesses particularly Isis, especially on some gems among those of Type 1 (see above). However, although she adopts features of Isis, none of the gems in this study figure Tyche together with Isis. The number of gems in our corpus which signify a connection between Tyche and Isis possibly provides important evidence, when all representations of Fortuna/Fortuna Panthea in museum collections are compared, e.g., it may turn out that Tyche/Isis was more popular in the eastern Mediterranean and point to the likelihood that many, perhaps most, of these were produced in the workshops operating in ancient Anatolia and the Levant, in contrast, for instance, to the Tyche/Ceres type, which may have been more popular in the West. A few intaglios figuring Tyche may also be related to the large category of magical gems, all of which were Eastern productions.

Red jasper and red carnelian stand out as the most popular stone varieties for the ring-stones depicting Tyche and at least some of these products, especially in the collections in Ankara will have been produced in the workshops in Galatia and Cappadocia, located more precisely around Ancyra, Gordion and Caesarea. But the preponderance of carnelian is not Tyche-specific as far as the Roman period is concerned, as 50–60% of all gems were made of carnelian, which was, indeed, the most popular glyptic medium both in the eastern and western Mediterranean areas, because of its ubiquity and widespread availability.

It should be noted that the earliest depictions of Tyche on gems in Asia Minor date from the Middle Hellenistic period, and the last date to the mid or late third cent. AD. They are most frequent in the second cent. AD.

In general it is hoped that the engraved gems from Turkey depicting deities and mythological subjects will be examined with the help of scientific cutting-edge methods of analysis, i.e., innovative technical ones, focused, for example, on advanced mineralogical tests etc., in order to provide more precise results on gemstone sources and techniques, and to advance future research.

Acknowledgments

If not given on the photographs, images are not to scale.

The gems at the Museums of Izmir were studied with an authorisation granted to E. Laflı by the Turkish Ministry of Culture and Tourism, Directorate of the Cultural Monuments and Museums of the Republic of Turkey on 13 April 2010 and registered as B.16.0.KVM.0.13.04.00-155.01.(TA10.B81)-77614. The necessary documentation was assembled in June–July 2010 by E. Laflı.

The gems at the Museum of Anatolian Civilizations in Ankara were studied with an authorisation granted to E. Laflı by the General Directorate of Monuments and Museums of the Ministry of Culture and Tourism of the Republic of Turkey on 2 February 2004 and registered as 60364499-155.01-E.149289. The necessary documentation was assembled in December 2004 by E. Laflı.

Authorization to publish the marble bust of Tyche from Ayasoluk with its five images on Pl. 4:3 and Pl. 5:4 as well as Figs 20–21 was granted by the Museum Directorate of Ephesus on 15 February 2017 to Mr Kerim Özgür Özgen (Izmir) under permit 84400790-155.02/158 whose father, Mr Atilla Özgen (Izmir), took these images within the studies of his son's Master's thesis. We would like to thank both K. Ö. Özgen and A. Özgen for the documentation and for permission to use their photographs in this paper.

Permission to publish Fig. 23 conserved at the Museum of Marmaris was granted by the Directorate of Museum of Marmaris to Esat Onur Tuğay on 16 July 2023 under permit B.16.0.AMG.0.10.00.01/707.1/14 (030317). The photo of the gem was taken by E. O. Tuğay in August 2023 whom we would like to thank for allowing us to illustrate this image in the paper.

Permission to publish Fig. 26 in the Archaeological Museum of İznik was granted by the Directorate of the Museum of İznik to Dr Fatih Hakan Kaya (Dokuz Eylül University, Izmir) on 15 March 2023 under permit 62901608-155.01/E. 228521. Fig. 26 was taken by M. Albayrak and O. Yurteri in 2023 whom we would like to thank for permission to illustrate this image in the paper.

Permission to publish Fig. 35 in the Koray Selçik Collection, Izmir (formerly in the Ms Berna Oğuz Collection, Izmir) which is officially registered at the Directorate of the Museum of Izmir, was granted by B. Oğuz in 2021. The photograph was also taken by her and we would like to thank her for allowing us to use this image in this paper.

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Abbreviations and references

Ancient source

Pindar I. W. H. Race (ed. and trans.), *Olympian Odes. Pythian Odes* (Loeb Classical Library). Cambridge, MA, 1997.

Modern sources

AGDS I:1 = Brandt E. 1968. *Antike Gemmen in deutschen Sammlungen*, vol. 1, part 1: *Staatliche Münzsammlung München*, part 1. Munich.

AGDS I:3 = Brandt E., Gercke W., Krug A., Schmidt E. 1972. *Antike Gemmen in deutschen Sammlungen*, vol. 1: *Staatliche Münzsammlung München*, part 3: *Gemmen und Glaspasten der römischen Kaiserzeit sowie Nachträge*. Munich.

AGDS III Kassel = Zazoff P. 1970. *Staatliche Kunstsammlungen Kassel*. In: V. Scherf, P. Gercke, P. Zazoff (eds.), *Antike Gemmen in deutschen Sammlungen*, vol. 3: *Herzog Anton-Urich Museum Braunschweig, Sammlung in Arch. Inst. der Universität Göttingen, Staatliche Kunstsammlungen Kassel*, 167–270. Wiesbaden.

AGDS IV Hannover = Schlüter M., Platz-Horster G., Zazoff P. 1975. *Antike Gemmen in deutschen Sammlungen*, vol. 4: *Kestner-Museum Hannover, Museum für Kunst und Gewerbe Hamburg*. Wiesbaden.

AKBAŞ S. 2020. *Kahramanmaraş Müzesi Deposundaki Yüzük Taşları* [Ring-stones in the depot of the Museum of Kahramanmaraş]. Master's thesis, Gaziantep Üniversitesi, Gaziantep. Retrieved from https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=_qlT8O6De7_EIJKrxlmEwA&no=3i71hU5t5m-bExDQ0YSzHQ (status as of Jan., 1st, 2025).

AMORAI-STARK S. 1993. *Engraved gems and seals from two collections in Jerusalem: The Studium Biblicum Franciscanum Museum gem collection and the Pontifical Biblical Institute Museum gem collection* (Studium Biblicum Franciscanum Museum 11). Jerusalem.

AMORAI-STARK S., HERSHKOVITZ M. 2016. *Ancient gems, finger rings and seal boxes from Caesarea Maritima. The Hendler Collection*. Tel Aviv.

ARSLAN M., YEĞİN Y. 2021. Ankara'dan Isis ve Harpokrates Betimli Sihirli Yüzük Taşları ve Amuletler [Magical ring-stones and amulets with depictions of Isis and Harpocrates from Ankara], *Seleucia* 11: 113–136.

ARSLAN M., YEĞİN Y. 2022. Ankara'dan Isis-Tyche Betimli Sihirli bir Grup Yüzük Taşı [A group of magical ring-stones with depictions of Isis-Tyche from Ankara], *Anadolu Araştırmaları / Anatolian Research* 26: 81–100. DOI: 10.26650/anar.2022.1061883.

ARYA, D. A. 2002. *The goddess Fortuna in Imperial Rome: Cult, art, text*. Doctoral thesis, The University of Texas at Austin, Austin, TX. Retrieved from <https://repositories.lib.utexas.edu/items/6b104f84-85e6-4086-b2ce-9d0d28c621a8> (status as of Jan. 1st, 2025).

AUBRY S. 2022. Divinités poliades et tutélaires féminines, syncrétisme et inscriptions: les cas des Néméséis de Smyrne et de la Tyché d'Antioche. *Γλυπτός / Glyptós* 3 [= In: S.P. Yébenes (ed.), *Diosas, mujeres y símbolos femeninos en la glíptica antigua / Goddesses, women, and feminine symbols in ancient glyptic* (Thema Mundi 14)], 72–121. Madrid.

AVLI A. 2020. *Neapolis Nekropolü'nden İki Oda Mezar ve Buluntuları* [Two chamber burials and finds from the necropolis of Neapolis]. Master's thesis, Atatürk Üniversitesi, Erzurum.

BALTY J. 1995. *Mosaïques antiques du Proche-Orient: chronologie, iconographie, interprétation* (Centre de Recherches d'Histoire Ancienne 140; Annales littéraires de l'Université de Besançon 551. Besançon. DOI: 10.3406/ista.1995.2582.

BAUKOVA A. YU. 2021. Goddess Tyche in the coinage of the cities of the Roman province of Asia. In: *Preislamic Near East: history, religion, culture*, 9–26. Retrieved from <https://www.oriental-studies.org.ua/en/a-yu-baukova-goddess-tyche-in-the-coinage-of-the-cities-of-the-roman-province-of-asia-2/> (status as of Jan. 1st, 2025). DOI: 10.15407/preislamic2021.02.009.

- BEAURIN L. 2008. Isis-Fortuna à Pompéi. Le succès d'une déesse intégrée. *Oebalus* 3, 267–293.
- BELAYCHE N. 2003. Tychè et la Tychè dans les cités de la Palestine romaine. *Syria* 80: 111–138.
- BERRY B. Y. 1965. *A selection of ancient gems from the collection of Burton Y. Berry* (Indiana University, Museum of Art, Publication 5), Bloomington, IN.
- BİNGÖL İ. 1999. *Anadolu Medeniyetler Müzesi, Antik Takılar / Museum of Anatolian Civilizations, Ancient jewellery* (Kültür Bakanlığı Anıtlar ve Müzeler Genel Müdürlüğü Yayınları). Ankara.
- BOARDMAN J., VOLLENWEIDER M.-L. 1978. *Ashmolean Museum, Oxford. Catalogue of the engraved gems and finger rings vol. 1: Greek and Etruscan*. Oxford.
- BRUNS G. 1948. *Staatskameen des 4. Jahrhunderts nach Christi Geburt* (104. Winckelmannsprogramm der Archäologischen Gesellschaft zu Berlin). Berlin.
- BUTCHER K. 2024. The Antioch mint: from Seleucus to the Roman period. In: A. U. di Giorgi (ed.), *Antioch on the Orontes: history, society, ecology, and visual culture*, 57–77. Cambridge. DOI: 10.1017/9781108988988.
- CANCIANI F. 1984. Athena/Minerva. In: *LIMC*, vol. II/1, 1074–1109.
- CASAL GARCÍA, R. 1990. *Collección de glíptica del Museo Arqueológico Nacional (serie de entalles romanos)*. Bilbao.
- CAVALIERI M. 2008. La Tyche di Castelraimondo. Un'iconografia ellenistica rinvenuta sulle Alpi orientali italiane, *Res Antiquae* 5: 15–22.
- CELLINI G. A. 1994. Tyche e Nemesis nelle monete di Smirne. In: *Miscellanea greca e romana* 18 (Studi pubblicati dall'Istituto italiano per la storia antica 56), 89–103. Rome.
- CELLINI G. A. 2007. Aspetti iconografici ed ideologici di Tyche nel mondo ellenistico-romano, *Numismatica e antichità classiche - Quaderni Ticinesi* 36: 157–190.
- CHADOUR A. B. 1994. *Die Alice und Louis Koch Sammlung: Vierzig Jahrhunderte durch vier Generationen gesehen / The Alice and Louis Koch Collection: forty centuries seen by four generations*, vol. I: *Ringe / Rings*. Leeds.
- CHRISTOF E. 1993. *Das Glück der Stadt: die Tyche von Antiochia und andere Stadttychen* (Europäische Hochschulschriften, Reihe 38, Archäologie 74). Frankfurt am Main/Berlin/Bern/Brussels/New York/Oxford/Vienna.
- CIOBANU R. 1989. Le culte de Némésis et Fortuna en Dacie – typologie et iconographie des représentations figuratives, *Apulum* 25: 275–281.
- CLERC G. 1998. Une Isis-Fortuna en Alsace. In: W. Clarysse, A. Schoors, H. Willems (eds.), *Egyptian religion. The last thousand years. Studies dedicated to the memory of Jan Quaegebeur* (Orientalia Lovaniensia analecta 84–85), vol. 1, 81–90. Louvain.
- COMFORT A., ERGEÇ R. 2001. Following the Euphrates in Antiquity: north-south routes around Zeugma, *Anatolian Studies* 51: 19–49. DOI: 10.2307/3643026.
- CORALINI A. 1994. Immagini di Tyche-Fortuna in età romana. L'Italia settentrionale. In: F. Ferruti (ed.), *Le Fortune dell'età arcaica nel Lazio ed in Italia e loro posterità : atti del 3° Convegno di studi archeologici, Palestrina 15 - 16 ottobre 1994*, 219–300. Palestrina.
- CRAVINHO G. 2017. Roman engraved gems in the National Archaeological Museum in Lisbon, *Studies in Ancient Art and Civilization* 21: 173–245. DOI: 10.12797/SAAC.21.2017.21.09.
- CRAVINHO G. 2018. Roman gems in the National Soares Dos Reis Museum in Oporto, *Studies in Ancient Art and Civilization* 22: 141–189. DOI: 10.12797/SAAC.22.2018.22.07.

- DELBRUECK R. 1933. *Spätantike Kaiserporträts von Constantinus Magnus bis zum Ende des Westreichs* (Jahrbuch des Deutschen Archäologischen Instituts 48; Studien zur spätantiken Kunstgeschichte 8). Berlin.
- DEMBSKI G. 2005. *Die antiken Gemmen und Kameen aus Carnuntum*. Vienna.
- DEPPERT-LIPPITZ B. 1985. *Goldschmuck der Römerzeit im Römisch-Germanischen Zentralmuseum* (Römisch-Germanisches Zentralmuseum, Forschungsinstitut für Vor- und Frühgeschichte, Kataloge vor- und frühgeschichtlicher Altertümer 23). Mainz am Rhein. DOI: 10.11588/propylaeum.1387.
- DIMITROVA-MILCHEVA A. 1981. *Antique engraved gems and cameos in the National Archaeological Museum in Sofia*. Sofia.
- DOHRN T. 1960. *Die Tyche von Antiochia*. Berlin.
- DOKSANALTI E. M., SAĞLAN S. 2008. Karaman Müzesi'nde Bulunan Bir Grup Mühür Baskısı [A group of seal impressions in the Museum of Karaman], *Anadolu / Anatolia* 34: 77–100.
- EDWARDS C. M. 1990. Tyche at Corinth, *Hesperia* 59/3: 529–542. DOI: 10.2307/148301.
- EVANS J. D. 2020. Adorning and protecting. Glass intaglios and the changing character of being a Sardian in the Early Imperial period, *Near Eastern Archaeology* 83/4: 200–209. DOI: 10.1086/708651.
- FIRAT H. 2022. *Troya Müzesi Hellenistik ve Roma Dönemi İşlenmiş Yarı Değerli Taşları* [Hellenistic and Roman engraved gemstones of the Museum of Troy]. Master's thesis, Çanakkale Onsekiz Mart Üniversitesi, Çanakkale. Retrieved from <<https://hdl.handle.net/20.500.12428/5562>> (status as of Jan., 1st, 2025).
- FOSSING P. 1929. *The Thorvaldsen Museum catalogue of the antique engraved gems and cameos*. Copenhagen.
- FURTWÄNGLER A. 1896. *Königliche Museen zu Berlin. Beschreibung der geschnittenen Steine im Antiquarium*. Berlin. DOI: 10.11588/diglit.3974.
- GAGETTI E. 2006. *Preziose sculture di età ellenistica e romana* (Il Filarete. Pubblicazioni della Facoltà di Lettere e Filosofia dell'Università degli Studi di Milano 240). Milan.
- GERRING B. 2000. *Phragides. Die gravierten Fingerringe des Hellenismus* (British Archaeological Reports, International Series 848). Oxford.
- GESZTELYI T. 1975. Die Tyche von Antiochia auf einer Gemme von Debrecen, *Živa antika* 25: 274–284.
- GESZTELYI T. 2000. *Antike Gemmen im ungarischen Nationalmuseum* (Catalogi Musei Nationalis Hungarici, Seria archeologica 3). Budapest.
- GOLDMAN A. L. 2014. The octagonal gemstones from Gordion: observations and interpretations, *Anatolian Studies* 64: 163–197. DOI: 10.1017/S0066154614000088.
- GOLDMAN H. (ed.) 1950. *Excavations at Gözlü Kule, Tarsus*, vol. 1: *The Hellenistic and Roman periods*. Princeton, NJ.
- GOŁYŹNIAK P. 2017. *Ancient engraved gems in the National Museum in Krakow*. Wiesbaden.
- GUIRAUD H. 1988. *Intailles et camées de l'époque romaine en Gaule (territoire français)*, vol. 1, 48th supplement to Gallia, Paris.
- GUIRAUD H. 2008. *Intailles et camées de l'époque romaine en Gaule (territoire français)*, vol. 2, 48th supplement to Gallia, Paris.
- GUIRAUD H. 1992: Intaglios from Dura-Europos, *Yale University Art Gallery Bulletin*: 48–85.
- GUIRAUD H., ROULIÈRE-LAMBERT M.-J. 1995. Intailles de Lons-le-Saunier, Jura, *Gallia* 52: 359–406. DOI: 10.3406/galia.1995.3158.

GÜLBAY O. 2017. Haluk Perk Arşivi İntaglio ve Cameo (Yüzük Taşları) Koleksiyonu [The collection of the intaglio and cameo (ring-stones) in the Haluk Perk Archive], *Arkeoloji ve Sanat* [Archaeology and art] 156: 199–210.

HAMBURGER A. 1968. *Gems from Caesarea Maritima* ['Atiqot (English series) 8]. Jerusalem.

HATİPOĞLU M., ÇOBAN E. 2021. Gem-quality blue sapphires (Al₂O₃-corundum variety) from the Milas-Yatağan region, Muğla, Turkey, *Academia Letters*: article no. 4085. DOI: 10.20935/AL4085.

HENIG M. 1971. A bronze figurine possibly from Woodeaton in the Guildhall Museum, London, *Oxoniensia* 36: 106–107 and pl. 19
<<https://www.oxoniensia.org/volumes/1971/notes.pdf>> (status as of Jan. 1st, 2025).

HENIG M. 1975. *The Lewis Collection of engraved gemstones in Corpus Christi College, Cambridge* (British Archaeological Reports, International Series 1). Oxford.

HENIG M. 1981. Amaltheia. In: *LIMC*, vol. I/1, 582–584.

HENIG M. 1983. Archbishop Hubert Walter's gems, *Journal of the British Archaeological Association* 136: 56–61.

HENIG M. 2007. *A corpus of Roman engraved gemstones from British Sites* (British Archaeological Reports, British Series 8). Oxford (third edition).

HENIG M. 2012. The gemstones. In: B. Philip (ed.), *The discovery and excavation of the Roman Shore-Fort at Dover, Kent* (Kent Monograph Series 11), 124–130. Kent.

HENIG M. 2017. Roman gems in old collections and in modern archaeology. In: B. J. L. van den Bercken, V. C. P. Baan (eds.), *Engraved gems from Antiquity to the present*, 15–29. Leiden.

HENIG M. 2025. The invisibility of local gods in the glyptic art of the western provinces: the case of the goddess Ceres. In: E. M. Günther, S. Günther, E. Lafli, N. Serwint (eds.), *Glyptica. Current studies on ancient Greek, Roman and Early Byzantine engraved gems* (Alter Orient und Altes Testament. Veröffentlichungen zur Kultur und Geschichte des Alten Orients und des Alten Testaments 474), 255–275. Tecklenburg.

HENIG M., LAFLI E. 2024. Two Roman engraved gemstones with Anatolian iconography (a note). *Γλυπτός / Glyptós* 5 [= In: S. P. Yébenes (ed.), *Astrology and magic in ancient gems* (Thema Mundi 18)], 11–17. Madrid.

HENIG M., MACGREGOR A. 2004. *Catalogue of the engraved gems and finger-rings in the Ashmolean Museum*, vol. 2: *Roman* (Beazley Archive - Studies in Gems and Jewellery 3; British Archaeological Reports, International Series 1332). Oxford.

HENIG M., WHITING M. 1987. *Engraved gems from Gadara in Jordan. The Sa'd Collection of intaglios and cameos* (Oxford University Committee for Archaeology, Monograph 6). Oxford.

HOEY MIDDLETON S. E. 1991. *Engraved gems from Dalmatia from the collections of Sir John Gardner Wilkinson and Sir Arthur Evans in Harrow School, at Oxford and elsewhere* (Oxford University Committee for Archaeology, Monograph 31). Oxford.

HOEY MIDDLETON S. E. 2001. *Classical engraved gems from Turkey and elsewhere. The Wright Collection* (British Archaeological Reports, International Series 957). Oxford.

HORSTER G. 1970. *Statuen auf Gemmen* (Habelts Dissertationsdrucke. Reihe Klassische Archäologie, Heft 3). Bonn.

İBİŞ R. 2021. Çorum Müzesi'nden Bazı Pers, Hellenistik, Roma Dönemi Eserler ve Düşündürdükleri [Some Persian, Hellenistic and Roman artifacts from the Museum of Çorum and their implications]. In: E. Sökmen, A. Schachner (eds.), *Understanding transformations: exploring the Black Sea region and northern central Anatolia in Antiquity* (Byzas, Veröffentlichungen des Deutschen Archäologischen Instituts Istanbul 26), 69–106. Istanbul.

JOHNS C. 1997. *The Snettisham Roman jeweller's hoard*. London.

JOHNS C., POTTER T. 1983. *The Thetford Treasure, Roman jewellery and silver* (British Museum Publications). London.

JOLLIFFE N. 1941. Dea Brigantia, *Archaeological Journal* 98: 36–61. DOI: 10.1080/00665983.1941.10853737.

KAIĆ I. 2024. *Zbirka rimskih gema iz Arheološkog muzeja u Zagrebu / Collection of Roman engraved gems in the Archaeological Museum in Zagreb* (Musei Archaeologici Zagrabiensis, Catalogi et Monographie 18 / Catalogues and Monographs of the Archaeological Museum in Zagreb 18; Dissertationes et Monographiae, Arheološki zavod, Filozofskog fakulteta Sveučilišta u Zagrebu svezak 11 / Dissertations and Monographs, Department of Archaeology, Faculty of Humanities and Social Sciences, University of Zagreb 11). Zagreb.

KEPPIE L. J. F., ARNOLD B. J. 1984. *Corpus Signorum Imperii Romani. Great Britain, vol. I.4: Scotland*. Oxford.

KILIÇ E., KARAKAŞ Z. S., LÜLE Ç., SAYILI İ. S. 2021. Eskişehir-Sivrihisar Karaçam Köyü Kromlu Kalsedon Oluşumlarına ait Jeolojik, Kimyasal ve Gemolojik İlk Veriler [Preliminary geological, chemical and gemological data on chromian chalcedony occurrences at Karaçam village, Sivrihisar, Eskişehir, Turkey]. In: A. Günel Türkmenoğlu, Ş. Demirci (eds.), V. ODTÜ Arkeometri Çalıştayı. *Türkiye Arkeolojisinde Takı ve Boncuk: Arkeolojik ve Arkeometrik Çalışmalar*. Prof. Dr. Ay Melek Özer Onuruna, 14–16 Kasım 2019, Kültür Kongre Merkezi, D Salonu, Bildiriler Kitabı [Proceedings of the fifth METU archaeometry workshop. Jewellery and beads in Turkish archaeology: archaeological and archaeometric studies in honour of Professor Ay Melek Özer, 14–16 November 2019, Cultural congress centre, Hall D], 105–114. Ankara.

KILIÇ M. 2014. The cults of Nemeseis and Tyche at Smyrna, *Belleten* 78/283: 833–854. DOI: 10.37879/belleten.2014.833.

KLENINA E., BERNACKI A. B. 2025. Roman rings with engraved gems from Novae (Moesia Inferior) and its vicinity. In: E. M. Günther, S. Günther, E. Laflı, N. Serwint (eds.), *Glyptica. Current studies on ancient Greek, Roman and Early Byzantine engraved gems* (Alter Orient und Altes Testament. Veröffentlichungen zur Kultur und Geschichte des Alten Orients und des Alten Testaments 474), 277–300. Tecklenburg.

KLOSE D. O. A. 1984. Nikopolis und Doliche. *Jahrbuch für Numismatik und Geldgeschichte* 34, 62–75.

KONUK K., ARSLAN M. 2000. *Anadolu Antik Yüzük Taşları ve Yüzükleri. Yüksel Erimtan Koleksiyonu / Ancient gems and finger rings from Asia Minor. The Yüksel Erimtan Collection*. Ankara.

KROPP A. J. M. 2011. Anatomy of a Phoenician goddess: the Tyche of Berytus and her acolytes, *Journal of Roman Archaeology* 24/1: 389–407. DOI: 10.1017/S1047759400022091 (whole vol.).

KULBAY D. 2019. *Konya, Burdur ve Fethiye Müzelerinin Arşivinde Yer Alan Betimlemeli Yüzük Taşları* [Figured ring-stones in the archives of Konya, Burdur and Fethiye Museums]. Master's thesis, Selçuk Üniversitesi, Konya.

LAFLI E. 2015/2016. Roman bronze figurines in the Museum of Ödemiş, *Mediterranean Archaeology* 28/29: 117–124.

LAFLI E., BRU H. 2020. Inscriptions gréco-romaines d'Anatolie IX, *Dialogues d'histoire ancienne* 46/2: 370–382.

LAFLI E., BUORA M. 2024. Terracotta figurines from Cilicia (southern Turkey), *Numismatica e antichità classiche – Quaderni Ticinesi* 53: 79–142.

- LAFLI E., FEUGÈRE M. 2006. *Statues et statuettes en bronze de Cilicie avec deux annexes sur la main de Comana et les figurines en bronze du Musée de Hatay* (British Archaeological Reports, International Series 1584). Oxford.
- LAFLI E., HENIG M. 2023. Dionysus and his circle on Anatolian glyptics, *Memoria Antiquitatis. Acta Musei Petrodavensis* 39: 287–316.
- LAFLI E., HENIG M. 2024a. Plants on Anatolian glyptics, *Gemmae. An International Journal on Glyptic Studies* 6: 101–127. DOI: 10.19272/202414201009.
- LAFLI E., HENIG M. 2024b. Hellenistic and Roman gems and jewellery from south-western Turkey, *Materiale și Cercetări Arheologice* 20: 147–170. DOI: 10.3406/mcarh.2024.2328.
- LAFLI E., HENIG M. 2025. Hermes/Mercury depictions on Anatolian glyptics, *Acta Classica Universitatis Scientiarum Debreceniensis* 61: 187–231. DOI: 10.22315/ACD/2025/13.
- LAFLI E., HENIG M. 2026. Iconography of Demeter/Ceres on Anatolian glyptics. In: *Funerary archaeology in the Eastern Mediterranean and Danubian – Pontic area (7th century BC – 7th century AD), hosted by Pontica conference from 2023* (Pontica 56, Supplementum). Constanța.
- LAFLI E., HENIG M., MASTROCINQUE A. 2024. Some engraved gems and jewellery by acquisitions from western Turkey, *Quaderni friulani di archeologia* 34: 117–157.
- LICHOCKA B. 1997. *L'iconographie de Fortuna dans l'Empire romain (Ier siècle avant n. è. – IVe siècle de n. è.)*. Warsaw.
- LIMC 1981–2009. L. Kahil et al. (eds.), *Lexicon iconographicum mythologiae classicae*. Zurich/Munich/Düsseldorf.
- LUNGU V., COVACEF Z., CHERA C. 2012. *Bijuterii antice din aur din colecțiile Muzeului de Istorie Națională și Arheologie Constanța* [Ancient gold jewellery from the collections of the National Museum of History and Archaeology at Constanța] (Bibliotheca Tomitana 6). Constanța.
- Maaskant-Kleibrink M. 1978. *Catalogue of the engraved gems in the Royal Coin Cabinet, The Hague* (The Greek, Etruscan and Roman Collections). Hague/Wiesbaden.
- MAASKANT-KLEIBRINK M. 1986. *Description of the collections in the Rijksmuseum G. M. Kam at Nijmegen / Beschrijving van de verzamelingen in het Rijksmuseum G.M. Kam te Nijmegen*, vol. 10: *The engraved gems. Roman and non-Roman*. Nijmegen.
- MAC SWEENEY N. 2025. Survey and landscape: the surprising Roman temple at Arıkuyusu (Mersin Province, Türkiye) In: L. Diers, D. Hagmann, B. Hamarneh, J. Kopf, H. Schörner (eds.), *Cursus studiorum. Festschrift für Günther Schörner zum 65. Geburtstag*, 97–110. Heidelberg. DOI: 10.11588/propylaeum.1414.c20125.
- MAGNI A. 2009. Le gemme di età classica. In: G. Sena Chiesa (ed.), *Gemme dei Civici Musei d'Arte di Verona* (Collezioni e Musei Archeologici del Veneto 45), 15–142. Rome.
- MAGNI A. 2025. Eastern gems in a western collection: elements for their recognition and the case study of Mount Argaios. In: E. M. Günther, S. Günther, E. Laflı, N. Serwint (eds.), *Glyptica. Current studies on ancient Greek, Roman and Early Byzantine engraved gems* (Alter Orient und Altes Testament. Veröffentlichungen zur Kultur und Geschichte des Alten Orients und des Alten Testaments 474), 325–359. Tecklenburg.
- MARSDEN P. R. V. 1966. *A Roman ship from Blackfriars, London*. London.
- MARSHALL F. H. 1907. *Catalogue of the finger rings, Greek, Etruscan, and Roman, in the Departments of Antiquities, British Museum*. London.
- MATHESON S. B. 1994. The goddess Tyche, *Yale University Art Gallery Bulletin* (=An obsession with fortune: Tyche in Greek and Roman art), 18–33.
- MAXIMOWA M. 1927. *Der "Trajankameo" der Ermitage* (Jahrbuch des Deutschen Archäologischen Instituts 42). Berlin/Leipzig.

MEYER M. 2000. Bronzestatuetten im Typus der Tyche von Antiocheia, *Kölner Jahrbuch* 33: 185–195.

MEYER M. 2006. *Die Personifikation der Stadt Antiocheia. Ein neues Bild für eine neue Gottheit* (Jahrbuch des Deutschen Archäologischen Instituts, Ergänzungsheft 33). Berlin/New York.

MEYER M. 2022. Ein Bild fließenden Wassers. Der Orontes zu Füßen der Stadtpersonifikation von Antiocheia. In: K. Ehling, S. Kerschbaum (eds.), *Göttliche Größe und gezähmte Gewalt. Flüsse vom babylonischen Euphrat bis zum römischen Rhein. Flüsse in der Antike und ihre Bedeutung: Vom 3. Jahrtausend v. Chr. bis ins 21. Jahrhundert* (Sonderbände der Antiken Welt; Zaberns Bildbände zur Archäologie), 22–29. Darmstadt.

MIANO D. 2018. *Fortuna: deity and concept in Archaic and Republican Italy*. Oxford/New York. DOI: 10.1093/oso/9780198786566.001.0001.

MUSSCHE H. F. 1955. Le rameau de palmier et la gerbe d'épis, attributs de la Tychè gréco-romaine, *L'Antiquité classique* 24/2: 431–437. DOI: 10.3406/antiqu.1955.3271.

NARDELLI B. 2005. Religious testimonies found on Roman gems from Dalmatia kept in the Archaeological Museum in Venice. In: M. Sanader, A. Rendić-Miočević (eds.), *Religija i mit kao poticaj rimskoj provincijalnoj plastici : akti VIII. Međunarodnog kolokvija o problemima rimskog provincijalnog umjetničkog stvaralaštva*, Zagreb, 5.-8.V.2003 / *Religion und Mythos als Anregung für die provinzialrömische Plastik: Akten des VIII. Internationalen Kolloquiums über Probleme des provinzialrömischen Kunstschaffens / The proceedings of the 8th international colloquium on problems of Roman provincial art*, Zagreb 5.-8.5. 2003. *Religion and myth as an impetus for the Roman provincial sculpture*, 237–242. Zagreb.

NEUMANN K. 2021. *Antioch in Syria: a history from coins (300 BCE-450 CE)*. Cambridge/New York/Melbourne/New Delhi/Singapore. DOI: 10.1017/9781108938471.

NEVEROV O. YA. 1971. *Antique cameos in the Hermitage Collection*. Leningrad~St. Petersburg.

NEVEROV O. YA. 1988. Античные камеи в собрании Эрмитажа. Каталог [Ancient cameos in the Collection of the Hermitage]. Leningrad~St. Petersburg.

NOLLÉ M. K., NOLLÉ J. 1994. *Götter, Städte, Feste: kleinasiatische Münzen der römischen Kaiserzeit. Begleitheft zu einer Ausstellung von Münzen der Pfälzer Privatsammlungen vom 22. Juli bis 30. Oktober 1994 in der Staatlichen Münzsammlung München* (Begleithefte der Staatlichen Münzsammlung München). Munich.

ÖNAL M. 2007. *Clay seal impressions of Zeugma / Kil Mühür Baskıları*. Ankara.

ÖNAL M. 2014. Zeugma ve Doliche Mühür Baskılarında Tykhe Betimlemeleri [Depictions of Tyche on seal impressions from Zeugma and Doliche]. In: A. Özfirat, Ç. Uygün (eds.), *Uluslararası Çağlar Boyunca Hatay ve Çevresi Arkeolojisi Sempozyumu Bildirileri 21 -24 Mayıs 2013 Antakya / The proceedings of the international symposium on the archaeology of Hatay and its vicinity through the ages, 21-24 May 2013 Antakya* (Mustafa Kemal Üniversitesi Yayınları No. 52), 269–284. Hatay.

ÖNAL M. 2018. *Die Siegelabdrücke von Zeugma* (Asia Minor Studien 85; Dolichener und Kommagenische Forschungen 10). Bonn.

PANNUTI U. 1983. *Catalogo della collezione glittica del Museo archeologico nazionale di Napoli*, vol. 1 (Cataloghi dei musei e gallerie d'Italia, N.S. 8). Rome.

PELEG O., 2003. Roman intaglio gemstones from Aelia Capitolina, *Palestine Exploration Quarterly* 135/1: 54–69. DOI: 10.1179/peq.2003.135.1.54.

PELEG-BARK O., 2011. Chapter fifteen: The Roman intaglios from the Temple Mount excavations. In: E. Mazar (ed.), *The Temple Mount excavations in Jerusalem 1968-1978 directed by Benjamin Mazar: final report*, vol. 4: *The tenth legion in Aelia Capitolina* (Qedem 52), 255–304. Jerusalem.

PHILIPP H. 1986. *Mira et magica, Gemmen im Ägyptischen Museum der Staatlichen Museen. Preußischer Kulturbesitz Berlin-Charlottenberg*. Mainz am Rhein.

PICARD Chr. 1947. La Némésis-Tyché de Vienne (Isère), *Gallia* 5/2: 259–270. DOI: 10.3406/galia.1947.2041.

PLANTZOS, D. 1999. *Hellenistic engraved gems* (Oxford monographs on classical archaeology). Oxford.

PLATZ-HORSTER G. 1987. *Die antiken Gemmen aus Xanten I im Besitz des Niederrheinischen Altertumsvereins, des Rheinischen Landesmuseums Bonn, der Katholischen Kirchengemeinde St. Viktor und des Regionalmuseums Xanten* (Kunst und Altertum am Rhein. Führer des Rheinischen Landesmuseums Bonn und des Rheinischen Amtes für Bodendenkmalpflege 126). Cologne/Bonn.

PLATZ-HORSTER G. 1994. *Die antiken Gemmen aus Xanten II im Besitz des Archäologischen Parks/Regionalmuseums Xanten, der Katholischen Kirchengemeinde St. Mariae Himmelfahrt Marienbaum sowie in Privatbesitz* (Archäologischer Park Regionalmuseum Xanten, Führer und Schriften des Regionalmuseums Xanten 35). Cologne/Bonn.

PLATZ-HORSTER G. 2009. Die antiken Gemmen aus Xanten, *Xantener Berichte* 15: 129–181.

PLATZ-HORSTER G. 2010. Kleine Praser and Chromium-bearing Chalcedonies. About a small group of engraved gems, *Pallas. Revue d'études antiques* 83: 179–202. DOI: 10.4000/pallas.10993.

PUPPO P. 2025. A particular class of engraved gems: the gnostic-magical gems from Luni (La Spezia). In: E. M. Günther, S. Günther, E. Laflı, N. Serwint (eds.), *Glyptica. Current studies on ancient Greek, Roman and Early Byzantine engraved gems* (Alter Orient und Altes Testament. Veröffentlichungen zur Kultur und Geschichte des Alten Orients und des Alten Testaments 474), 509–525. Tecklenburg.

RAJA R. 2025. Palmyrene iconographic traditions and their Mediterranean connections. A note on some signet seal impressions on Palmyrene tesserae. In: R. Raja (ed.), *Palmyra. The Mediterranean and beyond* (Mediterranean Studies in Antiquity 2), 49–109. Cambridge. DOI: 10.1017/9781009532044.004.

RAUSA F. 1997. Tyche/Fortuna. In: *LIMC*, vol. VIII/1, 125–141.

RICHTER G. M. A. 1956. *The Metropolitan Museum of Art, New York. Catalogue of engraved gems, Greek, Etruscan and Roman*. Rome.

RICHTER G. M. A. 1971. *The engraved gems of the Greeks, Etruscans and Romans* vol. II. *Engraved gems of the Romans. A supplement to the history of Roman art*. London.

ROSCAM P. 1973. Intailles inédites des Musées royaux d'art et d'histoire de Bruxelles, au type de Tychè-Fortuna, *Bulletin de l'Institut historique belge de Rome* 43: 11–47.

SAUER V. 2016. Konventionelle Individualität. Zur Münzprägung nordanatolischer Städte in der römischen Kaiserzeit, *Anatolia antiqua* 24: 163–209. DOI: 10.4000/anatoliaantiqua.381.

SENA CHIESA G. (ed.) 1966. *Gemme del Museo Nazionale di Aquileia*. Padua (two vols).

SFAMENI GASPARGO G. 1998. Iside Fortuna: Fatalismo e divinità sovrane del destino nel mondo ellenistico-romano. In: *Le Fortune dell'età arcaica nel Lazio ed in Italia e la loro posterità. Atti del 3° Convegno di Studi archeologici sull'antica Preneste (Palestrina 15-16 ottobre 1994)*, 301–323. Palestrina.

SHELTON K. J. 1981. *The Esquiline Treasure*. London.

SMITH R. R. R. 2021. Maiestas Serena: Roman court cameos and early imperial poetry and panegyric, *Journal of Roman Studies* 111: 75–152. DOI: 10.1017/S0075435821000459.

SMITH R. W., LARSEN K. W. 2022. The significance of water-deities subjugated by Tyche on the city-coins of Syria-Palaestina and Arabia during the 2nd and 3rd century CE, *OZeAN - Online Zeitschrift zur Antiken Numismatik* 4: 53–66. DOI: ozean-2022-4569.

SNG 1956. O. Mørkholm, *Sylloge Nummorum Graecorum: Denmark. The Royal Collection of Coins and Medals, Danish National Museum, part 34: Cyprus-Cappadocia. Uncertain coins. Imperial cistophori*. Copenhagen.

SÖNMEZ B. E. 2021. Roma İmparatorluk Dönemi Afyon Müzesi'nde Bulunan Tykhe Grubu Adak Heykelcikleri [A group of votive figurines of Tyche from the Roman Imperial period in the Museum of Afyon], *Uluslararası Sosyal Araştırmalar Dergisi / The journal of international social research* 14/76: 149–155. DOI: 10.30783/nevsosbilen.870084.

SPIER J. 1989. A group of Ptolemaic engraved garnets, *The Journal of the Walters Art Gallery* 47: 21–38.

SPIER J. 1992. *Ancient gems and finger rings* (Catalogue of the collections of the J. Paul Getty Museum). Malibu, CA.

STANSBURY-O'DONNELL M. D. 1994. Reflections of the Tyche of Antioch in literary sources and on coins. *Yale University Art Gallery Bulletin* (=An obsession with fortune: Tyche in Greek and Roman art), 50–63.

STEFANI L. 1856. *Путеводитель по античному отделению Эрмитажа. Зал резных камней* [Guidebook to the Department of Antiquity of the Hermitage Museum. Hall of carved stones] (Пропилеи 5). Moscow.

STILL M. C. W. 1995. *Roman lead sealings*. Doctoral thesis, University College of London, London.

TAMMA G. 1991. *Le gemme del Museo Archeologico di Bari* (Adrias 3). Bari.

TASSINARI G. 2025. Gems in Greece, Egypt and the Near East, souvenirs of the grand tour: a manuscript of Sir Richard Worsley. In: E. M. Günther, S. Günther, E. Laflı, N. Serwint (eds.), *Glyptica. Current studies on ancient Greek, Roman and Early Byzantine engraved gems* (Alter Orient und Altes Testament. Veröffentlichungen zur Kultur und Geschichte des Alten Orients und des Alten Testaments 474), 549–588. Tecklenburg.

THOMPSON D. B. 1973 – *Ptolemaic oinochoai and portraits in faience. Aspects of the ruler-cult* (Oxford monographs on classical archaeology). Oxford.

TONDO L., VANNI F. M. 1990. *Le gemme dei Medici e dei Lorena nel Museo Archeologico di Firenze* (Ministero dei beni culturali e ambientali, Soprintendenza archeologica della Toscana). Florence.

TOZZI C. 2025. A gem engraved with Tyche/Fortuna from a necropolis in Rome. In: E. M. Günther, S. Günther, E. Laflı, N. Serwint (eds.), *Glyptica. Current studies on ancient Greek, Roman and Early Byzantine engraved gems* (Alter Orient und Altes Testament. Veröffentlichungen zur Kultur und Geschichte des Alten Orients und des Alten Testaments 474), 589–599. Tecklenburg.

UYGUN Ç. 2016. Silifke Müzesi'nden Mitolojik Figürlü Kameolar ve Gemmeler [Cameos and intaglios with mythological images from the Museum of Silifke]. *Cedrus, Akdeniz Uygurlikları Araştırma Dergisi* [Cedrus, Journal of research on Mediterranean civilizations] 4: 219–242. Retrieved from <<https://dergipark.org.tr/tr/pub/cedrus/issue/51824/674155>> (status as of Jan. 1st, 2025).

VEYMIERS R. 2009. Ἑλεως τῷ φοροῦντι. *Sérapis sur les gemmes et les bijoux antiques* (Publication de la Classe des Lettres, Collection in-4o, 3e série, tome I, no. 2061). Brussels.

VILLARD L. 1997. Tyche. In: *LIMC*, vol. VIII:I, 115–125.

VOLLENWEIDER M-L. 1979. *Musée d'art et d'histoire de Genève. Catalogue raisonné des sceaux, cylindres, intailles et camées*, vol. 2: *Les portraits, les masques de théâtre, les symboles politiques. Une contribution à l'histoire des civilisations hellénistique et romaine*. Mainz am Rhein.

WALTERS H. B. 1926. *Catalogue of the engraved gems and cameos, Greek, Etruscan, and Roman in the British Museum*. London (revised and enlarged edition).

WEIß C. 2007. *Die antiken Gemmen der Sammlung Heinrich Dressel in der Antikensammlung Berlin*. Berlin/Würzburg.

WEIß C. 2025. *Katalog der geschnittenen Steine: die antiken und nachantiken Gemmen und Kameen der Sammlung Helmut Hansmann, Staatliche Antikensammlungen und Glyptothek München*. Munich.

WEIß P. 1992. Neue Tonsiegel von 'Doliché', *Chiron* 22: 171–193. DOI: 10.34780/qmx6-0h62.

WEIß P. 2000. Tonsiegel aus Kommagene (Doliché). In: J. Wagner (ed.), *Gottkönige am Euphrat. Neue Ausgrabungen und Forschungen in Kommagene* (Sonderbände der Antiken Welt; Zaberns Bildbände zur Archäologie 5), 101–103. Mainz am Rhein.

YILMAZ S., SEVİNÇ C., KÖK Ş. 2000. Denizli, Baklan, İncikli Köyü, Karacahöyük Mevkii'nde Roma Nekropolü 1998 Yılı Kurtarma Kazısı [Rescue excavation in the Roman necropolis in Karacahöyük near İncikli Village in Baklan, province Denizli in 1998]. In: K. Olşen, F. Bayram, A. Özme, K. Ataş, Y. Kepenek, H. Dönmez, C. Süvari (eds.), 10. *Müze Kurtarma Kazıları Semineri*, 28–29 Nisan 1999, Kuşadası, T.C. Kültür Bakanlığı, Anıtlar ve Müzeler Genel Müdürlüğü [10th seminar on museum rescue excavations, April 28–29, 1999, Kuşadası, Republic of Turkey Ministry of Culture, General Directorate of Monuments and Museums] (T.C. Kültür Bakanlığı Yayınları, Yayın No. 2347, Anıtlar ve Müzeler Genel Müdürlüğü Yayınları, Yayın No. 70), 201–210. Ankara.

YİNESOR DEMİR J. S. 2008. *Gaziantep Arkeoloji Müzesinde Sergilenen Yüzükler ve Yüzük Taşları* [Finger-rings and ring-stones exhibited at the Archaeological Museum of Gaziantep]. Master's thesis, Anadolu Üniversitesi, Eskişehir.

YOST S. L. 2013. *Shared symbols and cultural identity: the goddess Tyche on coins from the Roman province of Syria*. Master's thesis, University of Illinois at Chicago.

ZANKER P. 1988. *The power of images in the age of Augustus* (Thomas Spencer Jerome Lectures). Ann Arbor, MI.

ZAZOFF P. 1969. *Antike Gemmen*. Eine Auswahl (Kataloge der Staatlichen Kunstsammlungen Kassel 2). Kassel.

ZWIERLEIN-DIEHL E. 1979. *Die antiken Gemmen des Kunsthistorischen Museums in Wien*, vol. 2: *Die Glasgemmen. Die Glaskameen*. Munich.

ZWIERLEIN-DIEHL E. 1985. Die Chalcedonstatuette aus der römischen Grabkammer in Köln-Weiden, *Jahrbuch der Berliner Museen* 27: 15–33.

ZWIERLEIN-DIEHL E. 1988. *Die Gemmen und Kameen des Dreikönigenschreines* (Studien zum Kölner Dom 5; Die großen Reliquienschreine des Mittelalters vol. 1, Der Dreikönigenschrein im Kölner Dom part 1). Cologne.

ZWIERLEIN-DIEHL E. 1991. *Die antiken Gemmen des Kunsthistorischen Museums in Wien*, vol. 3: *Die Gemmen der späteren römischen Kaiserzeit*, part 2: *Masken, Masken-Kombinationen, Phantasie- und Märchentiere, Gemmen mit Inschriften, christliche Gemmen, magische Gemmen, sasanidische Siegel, Rundplastik aus Edelstein und verwandtem Material, Kameen, Rundplastik, Gegenstände mit figürlichem Relief und Einlegearbeiten aus Glas, antike Glyptik in Wiederverwendung, nachantike Glyptik, Nachträge und Ergänzungen zu Band I und II*. Munich.



Plate 1 – Coins featuring various types and related variants of Tyche from Asia Minor and Roman province of Mesopotamia.

Nos. 1a–b – Bronze coin of Setae, Lydia, semi-autonomous issue, ca. AD 198–268. Obv. Draped bust of Serapis right, wearing modius (or polos), shoulders draped. Rev. CAITT-HNQN around, Tyche standing left, calathus on head, holding rudder in right hand and cornucopia in left. BMC 33; Lindgren III 506; Leypold I, 1147; GRPC Lydia 47 (photo. E. Laflı, 2025); no. 2 – Bronze coin depicting turreted, veiled and draped bust of Tyche on the obverse and seated, enthroned divinity on the reverse, confiscated with 79 other items and assigned to the Museum of Muğla by way of the Fourth Court of First Instance of Muğla (case file no. 2021/186) (photo. E. Laflı, 2021); nos. 3a–b – Antoninus Pius, AR denarius, AD 138–161. Obv. ANTONINVS AVG COS III P P around, Head of Antoninus Pius, laureate, right. Rev. FORTVNAE around, Fortuna standing front, head to left, holding rudder on globe with her right hand and cornucopiae with her left. It was confiscated with 5.694 other items in Izmir in 2016 and assigned to the Archaeological Museum of Izmir by way of the 43rd Court of First Instance of Izmir (case file no. 2016/861) (photo. E. Laflı, 2017); nos. 4a–b – Bronze coin of Caracalla, Laodicea on the Lycus, Phrygia, AD 198–217. Obv. AYT K M AYP ANTΩNEINOC around, laureate, draped and cuirassed bust right. Rev. ΛΑΟΔΙΚΕΩ-N ΝΕΩΚΟΡΩΝ around, winged Tyche Panthea (multi-deity) standing left, wearing calathus, crescent behind shoulders, holding corn-ears, ship's rudder and cornucopia, wheel at foot left. Mionnet IV, 780; SNG Munich 396; Waddington 6303. It was confiscated with 22 other items in 2022 and assigned to the Archaeological Museum of Izmir by way of the 26th Court of First Instance of Izmir (case file no. 2022/278) (photo. E. Laflı, 2022); nos. 5a–b – Severus Alexander, AR denarius, AD 223 (?). Obv. IMP ALEXANDER PIVS AVG around, laureate, draped bust right. Rev. P M TR P II COS II (?) P P around, Fortuna seated left, holding rudder and cornucopia. Same confiscation as no. 4 (photo. E. Laflı, 2022); nos. 6–9 – Four bronze coins from Mesopotamia with three Tyche types; Museum of Şanlıurfa, third cent. AD (photo. E. Laflı, 2025); no. 6 – Tyche seated left on an outcropping rock, between two stars, holding patera over altar before her, forepart of the river-god at her feet, swimming left below; no. 7 – Tyche seated left on pile of rocks, altar before her, stars before and behind; nos. 8–9 – Two turreted, veiled and draped bust of Tyche of Edessa to right.



1

2a–b



Plate 2 – Seven gems depicting depicting various types and related variants of Tyche in Turkish museums.

No. 1 – Silver ring, recovered from grave no. 120 in the necropolis of Juliopolis, Museum of Anatolian Civilizations in Ankara, acc. no. 12-62-11 (reproduced from Arslan and Yeğin 2022, 97, fig. 2); nos. 2a-b –Bronze ring, recovered from grave no. 349 in the necropolis of Juliopolis,

Museum of Anatolian Civilizations; acc. no. 52-3-12 (reproduced from Arslan and Yeğin 2022, 97, fig. 3, 98, fig. 3a); nos. 3a-b – Jasper intaglio set in a gold finger-ring figuring Tyche, Erimtan Museum in Ankara, acc. no. 1108 (reproduced from Arslan and Yeğin 2022, 99, fig. 10); nos. 4a-b – Jasper figuring Tyche syncretised with Isis, Athena, Demeter and Nike, Erimtan Museum, acc. no. 1250 (reproduced from Arslan and Yeğin 2022, 100, figs 11-11a). nos. 5a-b – Carnelian intaglio in the Archaeological Museum of Kahramanmaraş, acc. no. 12.14.84 (reproduced from Akbaş 2020, 60, cat. no. 20); no. 6 – Sardonyx intaglio excavated in Hacimusalar/Choma in the Museum of Lycian Civilizations, Demre, acc. no. 2011/297 (A) (photo. by Ü. Demirer, 2024); nos. 7a-b – Another carnelian intaglio in the Archaeological Museum of Kahramanmaraş, acc. no. 11.23.78 (reproduced from Akbaş 2020, 59, cat. no. 19).



Plate 3 – Seal impressions.

Nos. 1-7 – Seven terracotta seal impressions depicting various types of Tyche in the Museum of Karaman, most probably originated from Doliche in south-eastern Turkey (reproduced from Doksanaltı, Sağlan 2008, 98, figs 1-4, 99, figs 23-25).



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Plate 4 – Marble statues and statuettes depicting various types and related variants of Tyche in Turkish museums.

No. 1 – Fragment of a colossal statue of Tyche with a fruit-filled cornucopia from Dorylaeum in Eskişehir, Archaeological Museum of Bursa, acc. no. 55 (photo. A. Çetingöz Özkan, 2018); no. 2 – Roman copy of the Tyche of Antioch with an inscription, Archaeological Museum of Hatay, Antakya (photo. G. Geçimli, 2020); nos. 3a–e – Marble head from Ayasuluk near Ephesus, identified as a city Tyche by the mural crown on her head. Such a statue would most likely have been set up in a public place such as an agora or the baths. P.H. 195mm, H. (polos) 70mm, max. W. 131mm, W. (face) 100mm, max. D. 90mm. Confiscated with 33 other items in Selçuk in 2017 and assigned to the Museum of Ephesus, Selçuk by way of the Court of First Instance of Selçuk (case file no. 2017/339) (photo. A. Özgen, 2018); no. 4 – Votive statuette figuring Tyche carved from Phrygian marble, Museum of Anatolian Civilizations, Ankara (photo. E. Laflı, 2004); nos. 5a–c – Marble statuette figuring Tyche of Antioch, Archaeological Museum of Afyonkarahisar, acc. no. 7658 (photo. E. Laflı, 2004).



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6



Plate 5 – Bronze figurines and appliqués depicting various types and related variants of Tyche in Turkish museums.

No. 1 – Archaeological Museums of Istanbul (photo. E. Laflı, 2004); no. 2 – New archaeological museum in the Izmir Arts and Culture Factory, former Tekel Premises in Alsancak (photo. E. Laflı, 2024); no. 3 – Museum of Marmaris (photo. E. Laflı, 2018); no. 4 – Isis equated with Tyche/Fortuna, Museum of Ephesus, Selçuk (photo. A. Özgen, 2017); no. 5 – Museum of Kırşehir (photo. E. Laflı, 2017); no. 6 – Museum of Lycian Civilizations, Demre, acc. no. 2012/52 (A). H. 49mm, W. 15–28mm, Th. 10mm. Confiscation on 10th of May 2012 (photo. Ü. Demirer, 2024); no. 7 – Archaeological and Ethnographic Museum of Elazığ (photo. E. Laflı, 2013); no. 8 – Fortuna/Abundantia type holding patera rather than rudder, common on coins, gems and bronzes in the West; Archaeological Museum of Mersin, acc. no. 23.49.73 (photo. E. Laflı, 2006); no. 9 – Bronze appliqué of Tyche of Antioch, Archaeological Museum of Hatay, Antakya (photo. G. Geçimli, 2020).



Plate 6 – Terracotta figurines featuring various types and related variants of Tyche in Turkish museums.

No. 1 – Museum of Akhisar (photo. E. Laflı, 2016); no. 2 – New archaeological museum in the former Tekel Premises in Alsancak, İzmir (photo. E. Laflı, 2004); no. 3 – Museum of Sinop (photo. E. Laflı, 2016); no. 4 – Fortuna/Abundantia type; Archaeological Museum of Uşak (photo. E. Laflı, 2013).



Plate 7 – Other instrumenta featuring various types of Tyche in Turkish museums.

Nos. 1a–b – Roman lead seal from Izmir depicting Tyche, confiscated with 676 other items and assigned to the Archaeological Museum of Izmir by way of the 11th Criminal Court of Izmir (case file no. 2024/835) (photo. E. Laflı, 2024); nos. 2a–b – Bronze finger ring with engraved bezel featuring Tyche holding a garland in right hand rather than a rudder, confiscated with 39 other items in 2021 and assigned to the Museum of Milas by way of the Fourth Court of First Instance of Milas (case file no. 2022/546) (photo. E. Laflı, 2022).

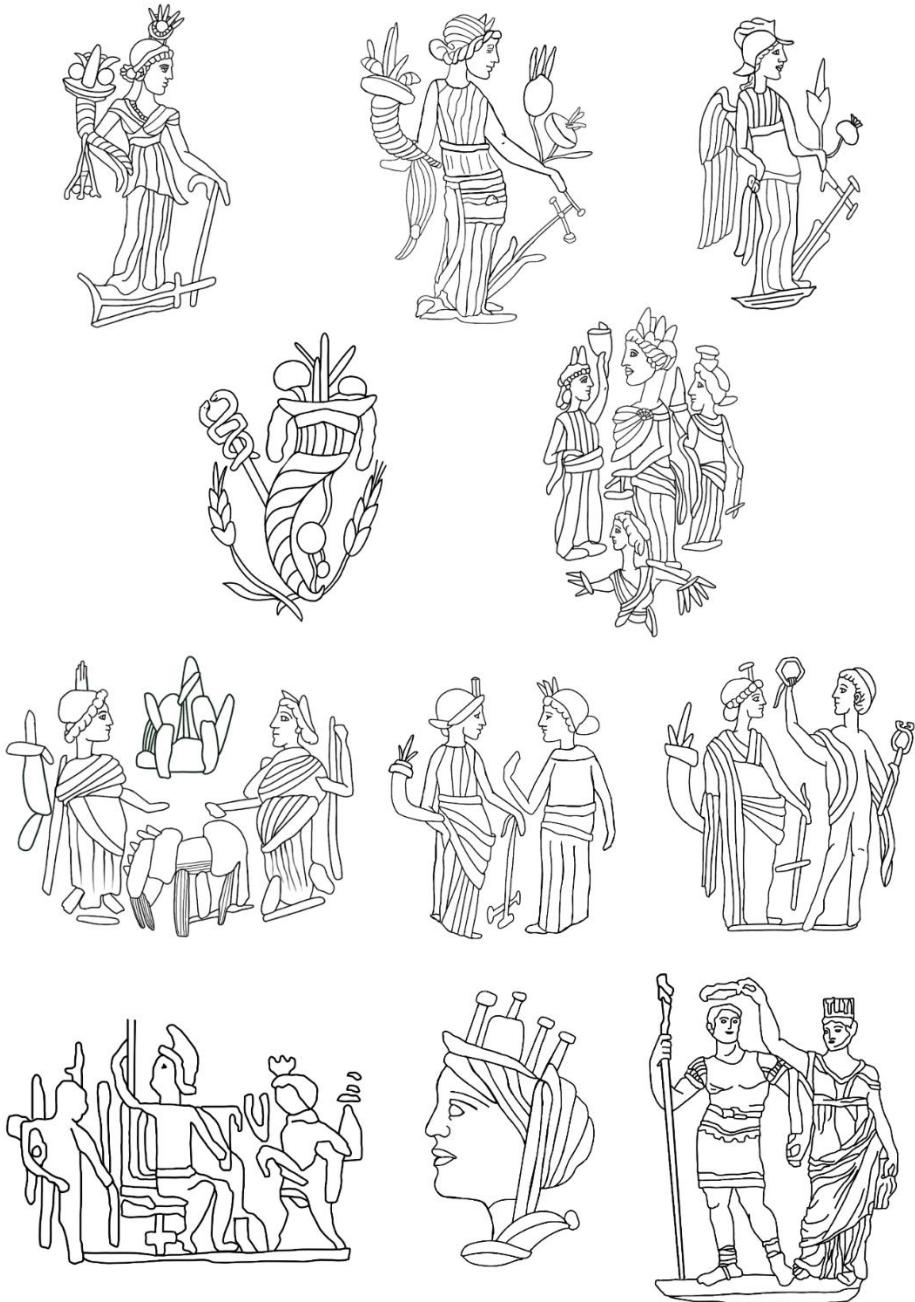


Plate 8, nos. 1-11 – Eleven main iconographic types of Tyche depictions on Anatolian glyptics (drawn by İ. Özelce, 2024, and L. Özlüoğlu, 2025, not to scale).



Fig. 1 – Intaglio figuring Tyche

Type 1, Archaeological Museum of Izmir, acc. no. 013.586 (photo. E. Laflı, 2010).



Fig. 2 – Intaglio figuring Tyche

Type 1, Archaeological Museum of Izmir (photo. E. Laflı, 2023).



Figs 3a-b – Intaglio figuring Tyche

Type 1, Archaeological Museum of Izmir, acc. no. 013.522 (photo. E. Laflı, 2010).



Figs 4a-b – Intaglio figuring Tyche

Type 1, Museum of Anatolian Civilizations, Ankara, acc. no. 18418
(reproduced from Arslan, Yeğin 2021, 129, pls. 1-1/a).



Fig. 5 – Intaglio figuring Tyche

Type 1, Museum of Anatolian Civilizations, Ankara, acc. no. 125-1-85
(reproduced from Arslan, Yeğin 2022, 98, fig. 5).



Fig. 6 – Intaglio figuring Tyche

Type 1, Museum of Anatolian Civilizations, Ankara, acc. no. 139-7-95
(reproduced from Arslan, Yeğin 2022, 98, fig. 6).



Fig. 7 – Intaglio figuring Tyche

Type 1, Museum of Anatolian Civilizations, Ankara, acc. no. 3481
(reproduced from Arslan and Yeğin 2022, 99, fig. 7).



Fig. 8 – Intaglio figuring Tyche

Type 1, Museum of Anatolian Civilizations, Ankara, no acc. no.
(reproduced from Arslan and Yeğin 2022, 99, fig. 8).



Fig. 9 – Intaglio figuring Tyche

Type 1, Archaeological Museum of Izmir, acc. no. 013.480 (photo. E. Laflı, 2010).



Fig. 10 – Intaglio figuring Tyche

Type 1, Halûk Perk Research Museum in Avcılar, Istanbul (reproduced from Gülbay 2017, cat. no. 65).



Figs 11a-b – Intaglio figuring Tyche

Type 1, Archaeological Museum of Konya, acc. no. 2011.11.31 (reproduced from Kulbay 2019, 51, cat. no. 14).



Figs 12a-b – Intaglio figuring Tyche

Type 1, Archaeological Museum of Burdur, acc. no. K.67.26.78 (reproduced from Kulbay 2019, 52, cat. no. 15).



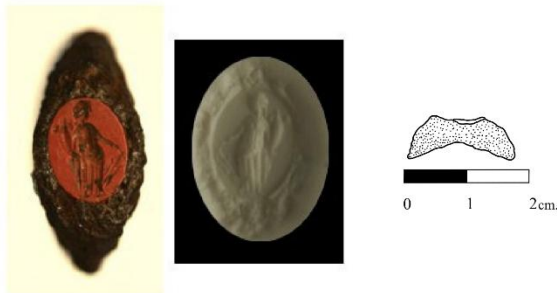
Figs 13a-b – Intaglio figuring Tyche

Type 1, Archaeological Museum of Fethiye, acc. no. 1-13-73-1019 (reproduced from Kulbay 2019, 53, cat. no. 16).



Figs 14a-c – Intaglio figuring Tyche

Type 1, Archaeological Museum of Gaziantep, acc. no. 10.14.78 (reproduced from Yinesor Demir 2008, 124, cat. no. 26).



Figs 15a-c – Intaglio figuring Tyche

Type 1, Archaeological Museum of Gaziantep, acc. no. 44.3.73

(reproduced from Yinesor Demir 2008, 125, cat. no. 27).



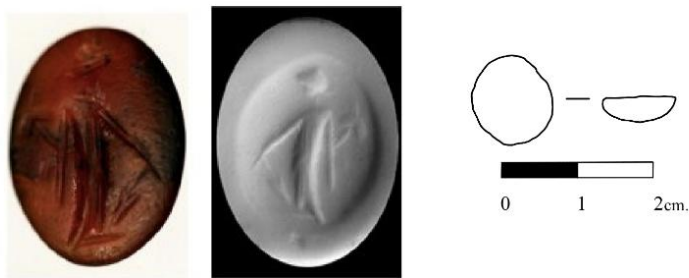
Figs 16a-c – Intaglio figuring Tyche

Type 1, Archaeological Museum of Gaziantep, no. acc. no.
(reproduced from Yinesor Demir 2008, 126, cat. no. 28).



Figs 17a-c – Intaglio figuring Tyche

Type 1, Archaeological Museum of Gaziantep, acc. no. 16.16.92
(reproduced from Yinesor Demir 2008, 129, cat. no. 31).



Figs 18a-c – Intaglio figuring Tyche

Type 1, Archaeological Museum of Gaziantep, acc. no. 2021
(reproduced from Yinesor Demir 2008, 130, cat. no. 32).



Figs 19a-c – Intaglio figuring Tyche

Type 1, Archaeological Museum of Gaziantep, acc. no. 4479
(reproduced from Yinesor Demir 2008, 128, cat. no. 30).



Fig. 20 – Intaglio figuring Tyche

Type 1, Museum of Ephesus, Selçuk (photo. A. Özgen, 2017).



Fig. 21 – Glass medallion figuring Tyche

Type 1, Museum of Ephesus, Selçuk (photo. A. Özgen, 2017).

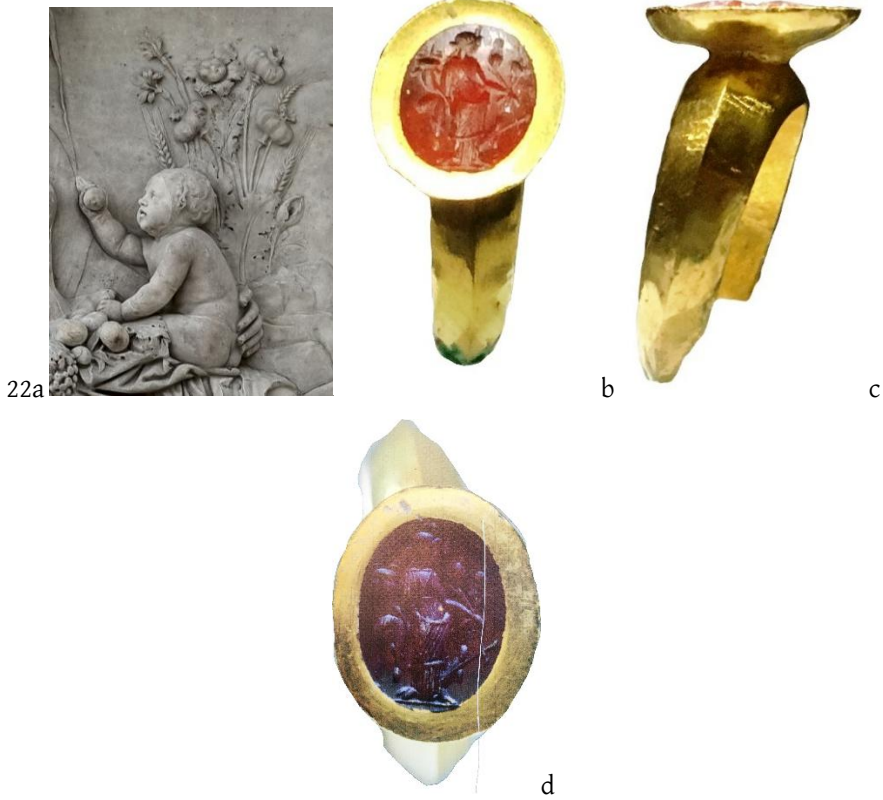


Fig. 22a – Ears of cereal and the heads of seeding poppies depicted on the marble panel of Tellus (upper panel), left section of the east facade of the Ara Pacis Augustae, Museo dell’Ara Pacis, Rome (photo. E. Lafli, 2002).

Figs 22a–d – Intaglio figuring Tyche Type 2, Archaeological Museum of Aydın (photo. E. Lafli, 2023).



Fig. 23 – Intaglio figuring Tyche
Type 2, Museum of Marmaris, acc. no. 2015/1158 (A) (photo. E. O. Tuğay, 2023).



Figs 24a-b – Intaglio figuring Tyche

Type 2, Museum of Anatolian Civilizations, Ankara, acc. no. 44-526
(reproduced from Arslan and Yeğin 2022, 98, fig. 4).



Figs 25a-c – Intaglio figuring Tyche

Type 2, Archaeological Museum of Gaziantep, acc. no. 31.1.75
(reproduced from Yinesor Demir 2008, 127, cat. no. 29).



Fig. 26 – Intaglio figuring Tyche

Type 2, Archaeological Museum of İznik, acc. no. 2846 (photo. M. Albayrak and O. Yurteri, 2023).



Figs 27a-b – Intaglio figuring Tyche

Type 3, Private Collection of Mr Doğan Güreş, Istanbul, (photo. D. Güreş, 2023).



Fig. 28 – Intaglio figuring Tyche

Type 3, Archaeological Museum of Aydın (photo. E. Laflı, 2023).



Figs 29a-c – Intaglio depicting the cornucopia of Tyche

Type 4, Museum of Akhisar (photo. E. Laflı, 2023).



Figs 30a-b – Intaglio figuring Tyche of Antioch-on-the-Orontes with Ares and Tyche,
Type 5, Archaeological Museum of Izmir, acc. no. 013.514 (photo. E. Laflı, 2010).



Fig. 32 – Intaglio figuring Tyche with Hera and Mount Argaeus,
Type 6, Museum of Anatolian Civilizations, Ankara, acc. no. 18846
(reproduced from Arslan and Yeğin 2022, 99, fig. 9).



Figs 33a-c – Intaglio figuring Tyche with Athena and Mount Argaeus,
Type 6, Archaeological Museum of Gaziantep, acc. no. 74.1.75
(reproduced from Yinesor Demir 2008, 132, cat. no. 34).



Figs 34a-c – Intaglio figuring Tyche with Athena and Mount Argaeus,
Type 6, Archaeological Museum of Gaziantep, acc. no. 10.10.78
(reproduced from Yinesor Demir 2008, 133, cat. no. 35).



Figs 35a-b – Intaglio figuring Tyche and Nemesis,
Type 7, Koray Selçik Collection, Izmir (photo. B. Oğuz, 2021).



Figs 36a-c – Intaglio figuring Tyche crowned by Nike,
Type 9, Archaeological Museum of Gaziantep, acc. no. 35.2.76
(reproduced from Yinesor Demir 2008, 134, cat. no. 36).



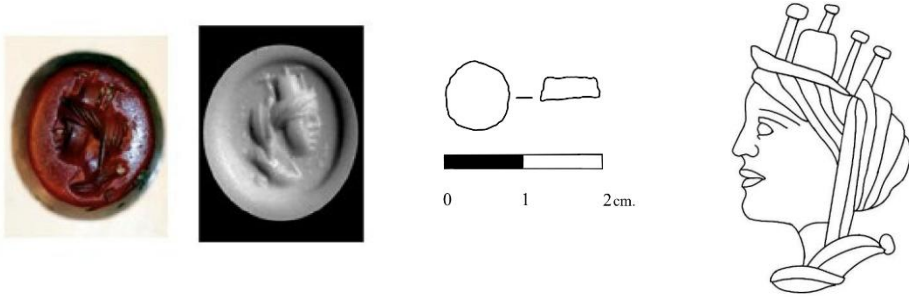
Figs 37a-b – Intaglio figuring Tyche crowned by Hermes,
Type 9, Halûk Perk Research Museum in Avcılar, Istanbul (reproduced from Gülbay 2017, cat.
no. 26).



Figs 38a-c – Intaglio figuring Tyche with Serapis and Isis,
Type 10, Archaeological Museum of Gaziantep, acc. no. 3853
(reproduced from Yinesor Demir 2008, 108, cat. no. 10).



Fig. 39 – Intaglio figuring a bust of Tyche,
Type 11, Museum of Anatolian Civilizations, Ankara, acc. no. 48-1-74
(reproduced from Arslan and Yeğin 2022, 100, fig. 12).



Figs 40a-d – Intaglio figuring a bust of Tyche,
Type 11, Archaeological Museum of Gaziantep, acc. no. 15.8.76
(reproduced from Yinesor Demir 2008, 131, cat. no. 33).



Fig. 41 – Intaglio figuring a bust of Tyche,
Type 11, Museum of Amasya (photo. E. Laflı, 2017).



Fig. 42 – Terracotta bulla figuring a bust of Tyche,
Type 11, Archaeological Museum of Izmir, acc. no. 013.588 (photo. E. Laflı, 2010).



Fig. 43 – Cameo figuring the Tyche of Constantinopolis crowning Constantine, Type 12, State Hermitage Museum, St Petersburg, acc. no. j 146 (reproduced from Neverov 1971, 95, no. 106).



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Roman Amphorae (re)Discovered on the Territory of Iași Municipality*

Ștefan HONCU¹, Sever-Petru BOȚAN²

Abstract. *Over time, the territory of the municipality of Iași has been inhabited by different populations who used various products imported from the Roman world. From the analysis of the amphorae catalogued in this area, we have been able to establish the existence of six types of amphorae that transported oil and wine from the Pontic and Aegean areas. The containers can be classified into types known in the Roman world and north of the Danube, types Shelov B, C, type Zeest 69, type Agora M 273, and those less known in the barbarian environment, types Late Roman Amphorae 2 and Kapitän 2. From a chronological point of view, they can be dated to the 2nd-3rd centuries AD and the 4th century AD.*

Rezumat. *De-a lungul timpului, teritoriul municipiului Iași a fost locuit de diferite populații care utilizau diverse produse importate din lumea romană. Din analiza materialului amforic catalogat în această zonă, am putut stabili existența a șase tipuri de amfore care transportau ulei și vin din zona pontică și egeană. Recipientele pot fi clasificate în tipuri cunoscute în lumea romană și la nord de Dunăre, tipurile Shelov B, C, tipul Zeest 69, tipul Agora M 273, și cele mai puțin cunoscute în mediul barbar, tipurile Late Roman Amphorae 2 și Kapitän 2. Din punct de vedere cronologic, acestea pot fi datate în secolele II-III p.Chr. și în secolul al IV-lea p.Chr.*

Keywords: Roman amphorae, 2nd–4th century AD, city of Iași, wine, olive oil, trade with the free Dacians, settlements of Sântana de Mureș Cerneahov.

Over time, archaeological rescue and preventive excavations in the municipality of Iași have uncovered a lot of artifacts, among them Roman and Roman-Byzantine amphorae. These were found either in Sarmatian graves or settlements belonging to the Sântana de Mureș Cerneahov culture, or have no clear archaeological context because the older layers were affected by subsequent interventions in the soil.

The following paper aims to compile a repertoire of all amphora discoveries in this area, to correctly classify each artifact chronologically and typologically, and, last but not least, to observe the fluctuations in trade with imported products depending on the events that took place during that period. Thus, six types of amphorae originating from the Aegean and Pontic regions were identified over the course of several centuries.

Pontic area Amphorae used to transport wine

Shelov 1986, Type B

This type of amphora has a narrow mouth, a rounded and slightly upturned rim, a long cylindrical neck, a conical body, and a cylindrical base.³ The handles are oval in cross-section,

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with one or two longitudinal grooves. The fabric is beige-white (10YR/6.6 bright brown, 10YR/8.6 yellow orange), with particles of limestone and pyroxene in its composition. To date, no such containers have been discovered in the county of Iași. However, they frequently appear in the non-Roman environment, in the Getic settlements on the Siret River at Poiana,⁴ Răcățâu⁵ and Brad⁶ as well as in Vaslui county, at Vetrișoia⁷. This type of amphorae were likely produced in Heraclea Pontica.⁸

In the municipality of Iași, such discoveries appeared following the construction of the foundation of the new building of the Vasile Alecsandri High School located on Costache Negri Street, at No. 50. The salvage excavations carried out in 2008 brought to light five such specimens. Unfortunately though, they had no clear archaeological context⁹, but were found together with other table amphorae and two bowls.¹⁰

Shelov 1986 Type C

The amphorae belonging to this type have a narrow mouth, rounded rim, truncated neck, conical body, tubular base, oval torques in section, with two or three longitudinal grooves. The body and neck are decorated with grooves. Chronologically, these vessels can be dated between 140 and 180 AD.¹¹ Such containers are found in the majority of the settlements dating between the 2nd-3rd centuries AD in the Eastern Carpathian region, such as Holboca¹², Oboroceni-Caracaș (La Poartă)¹³, Pruteni¹⁴, Căndești – Dealul Varnițelor¹⁵, Buda commune of Corbița, Vrancea county¹⁶, Bărboasa – Gălănești¹⁷, Moldoveni – Gabăra¹⁸, Tecuci¹⁹, Roșiori – Neamț²⁰, Buznea-Vatra Satului²¹, the municipality of Vaslui on Donici Street²² and in the Princely Court area²³, at Poienesti, in the Carpic settlement²⁴ and the necropolis²⁵ and also at Fedeleșeni.²⁶

In the municipality of Iași, amphorae belonging to this type were found on the Southeastern part of the city, at a site called Fabrica de Cărmidă (The Brick Factory), on an area located on the lower terrace of the Bahlui River, where settlement belonging to the Sântana de Mureș-Cerheahov culture was identified. Following rescue excavations carried out

³ OPAIȚ 2011b, 457, Fig. 16-17.

⁴ VULPE, TEODOR 2003, 94-95, Fig. 245/4, Fig. 246/1, 2, 4, 5, 12, 13.

⁵ CĂPITANU 1976, 60, Fig. 36/2-4.

⁶ URSACHE 1995, 209-210, Pl. 173/6, Pl. 178/7, Pl. 180/2-3, 7, Pl. 181/1-2, Pl. 184/2, 6.

⁷ SANIE 1968, 346, Fig. 1/1-3,

⁸ ARSEN'EVA *et alii* 1997, 187, 190.

⁹ HONCU, MINEA 2012, 223, cat. nr. 1-5, Pl. 4/1-5.

¹⁰ For the context of the discovery and discussions regarding the archaeological material, see HONCU, MINEA 2012.

¹¹ VNUKOV 2016: 44.

¹² SANIE 1968, p. 347-349, fig. 2.

¹³ HONCU, ENEA, BOGHIAN 2017, 260, type Shelov C, cat. nr. 1-3, Pl. 2/1-3.

¹⁴ VORNIC, TELNOV, BUBULICI, CIOBANU 2007, 111, fig. 44/1.

¹⁵ BICHIR 1973, 90-92, Type a/1, pl. CLVII/4-5.

¹⁶ HONCU, MUNTEANU, 2015, 319, type Shelov C, fig. 4/2,3.

¹⁷ BICHIR 1973, Type a/1, pl. CLVII/3.

¹⁸ BICHIR 1973, Type a/1, pl. CLVII/2

¹⁹ CIUBOTARU 2014, 75-76, pl. 2/5-7.

²⁰ HÂNCEANU 2010, 33, pl. XI/1-5; to be seen the map of discoveries in Neamț County, 40.

²¹ HONCU, ENEA, BOGHIAN 2017, 260, type Shelov C, cat. nr. 4-5, Pl. 2/4-5.

²² COMAN 1980, 255, LXVI.5, Fig. 133/5.

²³ ANDRONIC *et alii* 1962, 94.

²⁴ VULPE 1953, 290-291, Fig. 78, 290, Fig. 77/2.

²⁵ SPÂNU 2019, 126, Pl. 29/538.1

²⁶ GOSTAR 1954, 571, Fig. 64/7.

in the 1960s, a fragment of an amphora handle that can be ascribed to Shelov type C was discovered in Dwelling no. 2.²⁷ The amphora was found together with locally made wheel and hand-made pottery (pots, cups, bowls, jugs), a fibula, a Przeworsk-type flint striker, an iron bucket, a fragment of a bone *psalia*, two biconical spindle whorls, a whetstone, and several fragments of conical clay weights.²⁸

A complete amphora²⁹ and a fragmentary one³⁰ were found during construction work on apartment buildings in the Tătărași neighborhood in 1967.³¹ Another amphora fragment was found on the lower terrace of the Bahlui River, in the area of the Palace of Culture, where a settlement dating from the 3rd-4th centuries AD was identified.³² On Ciurchi Street at no. 134, on the flat surface of the terrace on the left bank of the Bahlui River, a multi-layered settlement was identified. Among these habitation levels, a settlement attributed to La Tène II, from the 2nd-3rd centuries AD, and a settlement from the 4th century AD were uncovered.³³ Six fragments of amphora rims and handles belonging to the Shelov type C were found here.³⁴

In the area of Ceairu lui Peretz Street, on the plateau of the Bahlui River terrace, on the northern edge of the former Jewish cemetery, within the radius of some ash-pits, numerous ceramic fragments dating from the early Neolithic (Criș Culture), Eneolithic (unspecified phase of the Cucuteni culture), from the end of the Bronze Age (Noua Culture), from Hallstatt, from La Tène II, and from the beginning of the Migration Period were discovered.³⁵ Here, following surface survey, a fragment of an amphora handle was found together with wheel-made and hand-made pottery specific to the 2nd-3rd centuries AD. On Moara Beldiman Street, from the surface of a settlement belonging to the Sântana de Mureș-Cerneahov culture (?), an amphora handle and locally both hand-made and wheel-made pottery, were discovered.³⁶

Lastly, a discovery of this type was made in the Socola neighborhood, on Bucium Street, where, following salvage excavations conducted by a team from the Institute of Archaeology in Iași, a waste pit was investigated, in which several fragments of animal bones, several fragments of handmade pottery, and an amulet, along with the upper part of a Shelov C amphora were discovered.³⁷

4. Zeest 69 Type

Amphorae belonging to this type have a wide mouth with a rounded-outward rim, a conical body with massive, slightly flattened handles, which could possibly suggest an amphora for transporting fish products. Amphorae of this type have been found at Tecuci-Malul-Alb³⁸ and Brad.³⁹ In the municipality of Iași, a fragment of a handle was found in the

²⁷ IONIȚĂ 1972, 291, Fig. 9/19.

²⁸ IONIȚĂ 1972, 268-270.

²⁹ Dimensions: H=62 cm, Dg. 5 cm, Db.=5 cm.

³⁰ Dimensions: H=61,5 cm, D.neck=5 cm, Db.=5 cm.

³¹ SANIE 1995, 57, Pl. I/2 și Pl. I/1.

³² Rep. Arh. Iași, 188, nr. XXXVIII.13.

³³ ZAHARIA, PETRESCU-DÎMBOVIȚA, ZAHARIA 1970, 206, nr. 49m.

³⁴ ZAHARIA, PETRESCU-DÎMBOVIȚA, ZAHARIA 1970, 206, nr. 49m, Pl. LXXXII/1-2, 12-15.

³⁵ ZAHARIA, PETRESCU-DÎMBOVIȚA, ZAHARIA 1970, 203, nr. 49g.

³⁶ CROITORU 2011, 139, cat. nr. 1914.

³⁷ Our gratitude goes to PhD. Cătălin Hriban, the scientific coordinator of the archaeological research, for allowing us to scientifically evaluate this amphora.

³⁸ OPAIȚ 1987, 247, Fig. 1/2a, 2b.

³⁹ URSACHI 1995, Pl. 183/3.

courtyard of the Vasile Alecsandri High School located on Costache Negri Street, no. 50, following the construction of a building's foundation.⁴⁰

The fragment of the handle is made of a brick-colored fabric on the outside (5YR/7/6 orange) and light beige on the inside (5YR/5/1 brownish gray) with particles of limestone and pyroxene in its composition, with its own engobe⁴¹.

Aegean area

Amphorae used to transport wine

3. Kapitän 2 Type

The origin of this type of amphora has not been established with certainty, but an Aegean provenance is generally accepted.⁴² Recently, Dr. Andrei Opaîţ advanced the island of Chios as the center of production.⁴³ Regardless of the production area proposed by the aforementioned researcher, it has been discovered that there are some morphological and clay differences between these containers, suggesting that the amphorae were certainly produced in several workshops.

The amphora is characterized by a neck and a truncated cone-shaped body, ending in a tall, tubular base. The handles are massive, ovoid in section and strongly arched - raised, with two ribs on the outside. The rim is either vertical, rectangular, or pointed. In all cases, however, the rim is separated from the neck by a strong groove.

The presence of this type of amphora in the Eastern Carpathian region is part of the wide distribution that these vessels enjoyed. As noted by Andrei Opaîţ, the peak of their distribution period was situated between 250 and 400 AD. This type is found from England all along to the Euphrates and from Northern Moldavia to Nubia⁴⁴. North of the Danube, the amphora appears in the tumular necropolis at Branişte (Neamt County), where two specimens were recently published⁴⁵, in the settlement belonging to the Sântana de Mureş Cerneahov culture Bobuleşti-Zamoca Veche, Botoşani County⁴⁶ and also in Muntenia.⁴⁷

Following the construction of a new building for the Vasile Alecsandri High School in Iaşi, located on Costache Negri Street no. 50, a fragment of a handle belonging to the Kapitän II type was discovered. The clay used to make the amphora is reddish-black on the outside (7.5Y/4/1 gray) and brick-red on the inside (7YR 7/8 yellow-orange). The clay used for the amphora is reddish-black on the outside (7.5Y/4/1 gray) and brick-red on the inside (7YR 7/8 yellow-orange) with pebbles, limestone, and silver mica in its composition. The handle is oval in section, with several ribs on the upper part.⁴⁸

5. Agora M 273 Type

The vessels included in this type belong to an amphora type with a long period of evolution from the 4th century AD to the 6th century AD, when they took on the shape of a wineskin or sack, with the maximum diameter decreasing towards the bottom. The amphorae

⁴⁰ HONCU, MINEA 2012, 224, cat. nr. 7, Pl. 5/1.

⁴¹ HONCU, MINEA 2012, 224, cat. nr. 7.

⁴² RILEY 1979, 192; PEACOCK, WILLIAMS 1986, 193; PANELLA 1986, 617.

⁴³ OPAÎŢ 2013.

⁴⁴ OPAÎŢ 2017, 212, BEZECZKY 2013, 149-151, Type 44, dated from the beginning of the 3rd century AD, Pl. 45./582-591, AURIEMMA, DEGRASSI, QUIRI 2015, 149, Fig. 4 - Brindisi, Fig. 3 - Trigeste.

⁴⁵ OPAÎŢ, 2017, 212, Pl./III-12-13.

⁴⁶ BERZOVAN *et al.* 2020, 212, fig. 5/4.

⁴⁷ BICIR 1984, 39, Pl. 25/11.

⁴⁸ HONCU, MINEA, 2012, 223-224, cat. nr. 6, Pl. 4/6.

have a thickened and rounded rim – invaded or flared; the neck is cylindrical, slightly swollen; the shoulders, quite steep, form a slightly prominent angle with the upper part of the body, which widens slightly towards the bottom, ending in a truncated cone base. The massive handles are attached below the rim and shoulders, in the area of maximum diameter. They are of oval shape and have a longitudinal median groove. The body and neck have grooves, which are slightly more pronounced on the neck.⁴⁹

The production area of this type of amphora has not yet been located with certainty, but, as suggested in the literature, they were manufactured in workshops situated in the Eastern Aegean Sea basin, possibly on the island of Samos.⁵⁰ They were classified by D. Pieri as LRA Type 8, based on discoveries made in Southern France⁵¹. The earliest example of this type of amphora comes from the Agora of Athens and dates to the middle of the 2nd century AD.⁵²

North of the Danube, in Muntenia, such an example was found at Cireșaru⁵³, and the amphora is chronologically dated to the first quarter of the 5th century AD⁵⁴. Similar amphorae have been reported at two sites in Prahova County, examples that can be dated to the 4th-5th centuries AD. These are found in the settlement of Cireșanu⁵⁵ and the necropolis of Boldești-Grădiște. ⁵⁶

In the Eastern Carpathian region, such vessels have been discovered in the necropolises and settlements belonging to the Sântana de Mureș Cerneahov culture at Erbiceni⁵⁷, Lunca⁵⁸, Mihălășeni⁵⁹, Bâlad – Valea Seacă⁶⁰, Cavadinești⁶¹ and Iași-Nicolina.⁶²

These were recently discussed by L. Ciobanu, who also compiled a repertoire for the discoveries made in the Republic of Moldova.⁶³ For the discoveries in the area between the Carpathians and the Prut River, see C. Croitoru.⁶⁴

On the territory of the municipality of Iasi, on the Southeastern part, at a location known as Fabrica de Căramidă (Brick Factory), on a plot of land situated on the lower terrace of the Bahlui River, a settlement belonging to the Sântana de Mureș-Cerneahov culture was identified. Here, following a salvage excavation, the base of an amphora, probably belonging to the Agora M 273 Type, was identified in Dwelling no. 2⁶⁵. Along with this, there were also wheel and hand-made ceramic fragments of local origin (pots, cups, bowls, jugs), various objects made of bone, iron, glass, stone, clay, and animal bones.⁶⁶ In the Southern part of Iași, a settlement located on the lower terrace of the Nicolina stream (Nicolina neighborhood) was

⁴⁹ OPAIȚ 2014, 443-444, Type Agora M 273.

⁵⁰ ARTHUR 1998, 167-168, fig. 7/1.

⁵¹ PIERI 2005, 132-137.

⁵² OPAIȚ 2011, 105.

⁵³ OPAIȚ 2011a, 105, fig. 3/a

⁵⁴ OPAIȚ 2011a, 106.

⁵⁵ TEODORESCU *et alii* 1993, 411-412, Fig. 19/3.

⁵⁶ TEODORESCU *et alii* 1993a, 430, Fig. 6/5.

⁵⁷ ZAHARIA, ZAHARIA 1961, 214, fig. 3/8, 5/2.

⁵⁸ DRAGOMIR 2001, 90, fig. 34/2; 36/1.2; 42/3; 43/1.

⁵⁹ PALADE 1981, 205-216.

⁶⁰ PALADE 2004, fig. 44/7; 166/7.

⁶¹ DRAGOMIR 1959, 466, fig. 9/6-8.

⁶² IONIȚĂ 1986, 78, fig. 25/1.

⁶³ CIOBANU 2010, 162-166.

⁶⁴ CROITORU 2009, 29-43.

⁶⁵ IONIȚĂ 1972, 291, Fig. 9/21.

⁶⁶ IONIȚĂ 1972, 289-269.

investigated, where two fragments of this type of amfora were found together with pottery specific to Sântana culture.⁶⁷

Egeean area

Amphorae used to transport olive oil

6. LRA 2 Type

The amphorae have funnel-shaped mouths, rounded rims, globular bodies with striations, and oval handles in cross-section. The base ends with a small knob. This type of vessel is most commonly found in Roman-Byzantine settlements in the province of Scythia Minor during the 4th–6th centuries AD⁶⁸. In Moldova, such amphorae have been discovered in Dodești, Vaslui County, in a settlement belonging to the Sântana de Mureș-Cerneahov culture.⁶⁹ At Războieni, at the Vatra Satului site belonging to a Sântana de Mureș-Cerneahov settlement, a rim of a Roman amphora was discovered, which was classified as Late Roman Amphorae 2.⁷⁰ Another discovery came from the settlement belonging to the Sântana de Mureș-Cerneahov culture Bobulești–Zamoca Veche in Botoșani County.⁷¹

In the Southeastern part of Iași, at a location known as Fabrica de cărămidă (Brick Factory), on a plot of land located on the lower terrace of the Bahlui River, a settlement belonging to the Sântana de Mureș-Cerneahov culture was identified. Inside Dwellings no. 2 and no. 4, 16 fragments of amphorae belonging to the LRA 2 (Late Roman Amphora 2) Type were discovered, along with a rich archaeological inventory that includes locally made pottery, both wheel and hand-made, common utensils such as pots, cups, bowls, and jugs.⁷² Associated with these fragments are a fibula, a Przeworsk-type flint striker, an iron bucket-type pendant, a fragment of a bone psalia, as well as two biconical spindle whorls, a whetstone, and several fragments of conical clay weights. Most likely, the 16 amphora fragments belong to only two specimens.

Unidentified amphorae

Fragments of amphorae have been discovered at various locations throughout the municipality of Iași, as a result of salvage excavations or surface research. However, some of the ceramic material could not be identified typologically, either because of its advanced state of fragmentation or because of the lack of adequate illustrations to allow for rigorous comparative analysis. The absence of defining morphological elements, such as the neck, handles, or other parts of the body, prevented these fragments from being classified into the known types of amphorae produced in the Roman world. Thus, the material currently remains classified in a generic category—undetermined amphorae—which was mentioned in this article. In the Curtea Domnească area of Iași, rescue excavations uncovered a Roman amphora handle alongside locally made wheel and hand-made pottery (pots, bowls, and dishes) dating from the 4th century AD.⁷³ Thanks to rescue excavations carried out on Aurel Vlaicu Street nos. 43 and 134⁷⁴ a settlement belonging to the Sântana de Mureș-Cerneahov culture was identified, in which two Roman amphorae were discovered alongside locally

⁶⁷ IONIȚĂ 1985, 34, fig. 8/1-2

⁶⁸ PARASCHIV 2006, 92-95, Type 43, OPAIȚ, IONESCU 2016, 73.

⁶⁹ TEODOR 2015, 19, Fig. 65.2,9; 21, Fig. 65.1,7.

⁷⁰ HONCU *et al* 2017, 261, cat nr. 8, Pl. 2/8.

⁷¹ BERZOVAN *et al*. 2020, 212, fig. 5/5-9.

⁷² IONIȚĂ 1972, 291, Fig. 9/5, 18, Fig. 26/2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, Fig. 22/1, 6, 291.

⁷³ ANDRONIC *et al* 1967, 192, Fig. 12/16.

⁷⁴ ZAHARIA *et al* 1956, 14-15.

made wheel and hand-made pottery⁷⁵. Finally, another amphora fragment was discovered on Ciurchi Street, no. 51, where a settlement belonging to the Sântana de Mureș-Cerneahov culture was identified.⁷⁶

The amphorae discoveries catalogued in the Iași municipality area come from settlements attributed to the free Dacians, from sites belonging to the Sântana de Mureș-Cerneahov culture, as well as from funerary contexts associated with Sarmatian necropolises, providing new data on the integration of this region into the commercial networks of Late Antiquity. It has been ascertained that most of these discoveries were made on sites dating from the 4th-5th centuries AD, which shows us that there were most likely three such settlements in the area of the present-day municipality of Iași.

The analysis of provenance indicates that the amphorae mainly come from two production areas: 1. The Pontic area, especially from the workshops of Heraclea Pontica and Sinope, centers dedicated to the distribution of wine products in the East Carpathian area in particular, and throughout the Roman Empire in general. 2. The Aegean region, especially the islands of Samos and Chios, known for their tradition of exporting wines and oils. The presence of these containers indicates the existence of solid and stable commercial contacts, either direct or through redistribution networks controlled by Greco-Roman urban centers on the Pontic coast or in the Danube area.

The original contents of the amphorae, wine and oil, highlight not only food preferences but also possible social and ritual functions. In conclusion, the discoveries of amphorae in the municipality of Iași confirm the role of this region as a consumer of Roman products from the Pontic and Aegean areas via the province of Moesia Inferior/Scythia Minor, illustrating a complex integration of local communities into the economic networks of late antiquity.

References

- ANDRONIC, A., NEAMȚU, E., BANU FL. 1962. Săpăturile de salvare de la Vaslui, *Materiale și Cercetări Arheologice* VIII: 795-804.
- ANDRONIC, A., NEAMȚU, E., DINU, M. 1967. Săpăturile arheologice de la Curtea domnească din Iași, *Arheologia Moldovei* V: 169-285.
- ARSEN'EVA, D., KASSAB, T., NAUMENKO S. 1997. Un dépôt d'atelier d'amphores à pâte claire. Commerce entre Héraclée du Pont et Tanaïs à l'époque romaine, *Anatolia Antiqua*, V: 187-198.
- ARTHUR, P. 1998. Eastern Mediterranean amphorae between 500 and 700: a view from Italy. In: L. Saguì (ed.), *Ceramica in Italia: VI-VII secolo. Atti del convegno in onore di John W. Hayes. Roma, 11-13 maggio 1995*, 157-184. Florence.
- AURIEMMA, R., DEGRASSI, V., QUIRI E. 2015. Eastern amphora imports in the Adriatic Sea: evidence from terrestrial and underwater contexts of the Roman Imperial age. In: S. Demesticha (ed.), *Per terram, per mare: seaborne trade and the distribution of Roman amphorae in the Mediterranean*, 139-160. Uppsala.
- BERZOVAN AL., Grumeza, L., Lie, M., Cordoș, C.-E., 2020. A Sântana de Mureș – Černjachov Settlement and an „Enigmatic” Fortress at Bobulești-Zamoca Veche, Ștefănești Commune, Botoșani

⁷⁵ ZAHARIA et al 1956, 14.

⁷⁶ ZAHARIA et al 1956, 19.

County. In: Al. Berzovan (ed.) *Studia Praehistorica et Antiqua Miscellanea in honorem Silvia Teodor*, 211-227. Iași.

BICHIR, Gh. 1973. *Cultura carpică*, București.

BICHIR, Gh. 1984. *Geto-dacii din Muntenia în epoca romană*, București.

BEZECZKY, T. 2013. *The amphorae of roman Ephesus*, contributors P. Scherrer, R. Sauer, Wien.

CĂPITANU, V. 1976. Principalele rezultate ale săpăturilor arheologice în așezarea geto-dacica de la Răcățoiu (Județul Bacău), *Carpica* VIII: 49-73.

CIOBANU, V. 2010. Două amfore romane inedite din colecțiile Muzeului Național de Arheologie și Istorie a Moldovei, *Revista Arheologică*, V, 1: 162-166.

CIUBOTARU, P. 2014. Amfore descoperite în tâmplător, aflate în colecția Muzeului de Istorie „Teodor Cincu” – Tecuci, *Danubius* XXXII: 71-87.

COMAN, G. 1980. *Statornicie, continuitate. Repertoriul arheologic al județului Vaslui*, București.

CROITRU, C. 2009. Amfore cu „corpul în formă de burduf” descoperite în mediul Sântana dintre Carpați și Prut, *Acta Musei Tutovensius*, IV: 29-43.

CROITORU, C. 2011 *Roman discoveries in the east Carpathian barbaricum (1st century B. C.-5 th century A.D.)*, Brăila.

Dragomir I.T. 1959. Săpăturile arheologice de la Cavadinești (r. Berești, reg. Galați), *Materiale și Cercetări Arheologice*, VI: 454-467.

HÂNCEANU, G. 2010. Obiecte romane în situl dacic de la Roșiori Neamț, *Carpica* XXXIX: 32-65.

HONCU, Șt., MINEA, B. 2012. Descoperiri de epocă romană pe teritoriul orașului Iași, *Arheologia Moldovei* 35: 221-231.

HONCU, Șt., MUNTEANU, L. 2015. Cercetări arheologice de suprafață la Buda (com. Corbița, jud. Vrancea). In: C. Croitoru, D. G. Hânceanu, (eds.), *Miscellanea Historica et Archaeologica in Honorem Vasile Ursachi Octogenarii*, 317-326. Brăila.

HONCU, Șt., ENEA, S., BOGHIAN D. 2017. Amfore romane aflate în colecția Muzeului Școlar al Liceului Teoretic „Ion Neculce” din Târgu Frumos (Jud. Iași), *Arheologia Moldovei* 40: 259 – 266.

IONIȚĂ, I. 1972. Așezarea de tip Sântana de Mureș - Cerneahov de la Iași - Fabrica de cărămizi, *Arheologia Moldovei* 7: 267-306.

IONIȚĂ, I. 1985. Importante descoperiri arheologice din perioada de formare a poporului român în așezarea de la Iași-Nicolina, *Arheologia Moldovei* 10: 30-49.

IONIȚĂ, I. 1986. Mărturii milenare în vatra Iașilor, *Fortus. Un deceniu în universul muncii și creației tehnice românești*, 63-84. Iași.

OPAIȚ, A. 1987. Amfore romane de mare capacitate. Considerații tipologice, *SCIVA* 38/3: 245-258.

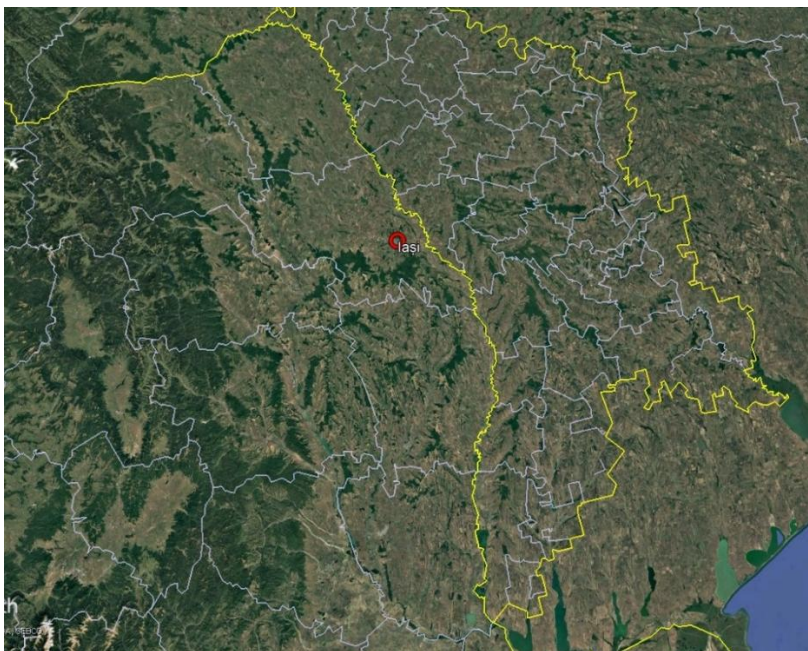
OPAIȚ, A. 2011a. Două amfore de la Budureasca și Cireșanu, *Arheologia mileniului I p. Chr. Interferențe culturale la Dunărea de Jos*, vol. II, 103-118. Ploiești.

OPAIȚ, A. 2011b. Amforele din spațiul est-carpatic. In: S., Sanie, T. Marin, (eds.) *Geto-dacii dintre Carpați și Nistru (secolele II a.Chr. - II p.Chr.)*, I, 445-472. Iași.

OPAIȚ, A. 2014. Defining more Roman amphora types from the Athenian Agora: too much history, too little typology (I), *Acta Rei Cretariae Romanae Fautorum* 43: 43-54.

OPAIȚ, A. 2017. Amforele descoperite în necropolele de la Braniște și Tîrzia, *Arheologia Moldovei* 40: 209-224.

- OPAIȚ, A. 2022. On the origin and evolution of the Kapitan II amphora type. In: A. Kaldeli, (ed.) *Amphorae from the Eastern Mediterranean and beyond: production and distribution from the Early to the late Roman period*, 191-222. Nicosia.
- OPAIȚ, A., IONESCU, M. 2016. Contributions to the economic life of the city of Callatis in light of new ceramic finds (2nd – 6th centuries AD), *Arheologia Moldovei* 39: 57-112.
- PALADE, V. 1981. Importuri romane rare în două morminte din necropola de la Bârlad-Valea Seacă, *SCIVA* 32, 2 : 205-216.
- PALADE, V. 2004. *Așezarea și necropola de la Bârlad-Valea Seacă (sfârșitul sec. al III-lea – a doua jumătate a sec. al V-lea)*, București.
- PANELLA, C. 1986. Oriente e Occidente: considerazioni su alcune anfore egee di eta imperiale a Ostia. In: J.-Y. Empereur, Y. Garlan. (eds.), *Recherches sur les amphores grecques*, Bulletin de Correspondance Hellénique Supplément 13, 609–636. Athens.
- PARASCHIV, D. 2006. *Amfore romane și romano-bizantine în zona Dunării de Jos (sec. I - VII p. Chr.)*, Iași.
- PEACOCK & WILLIAMS 1986 D.P. Peacock, D.F. Williams, *Amphorae and the Roman Economy*, Londra.
- PIÉRI, D. 2005. *Le commerce du vin oriental à l'époque byzantine*, Beirut.
- RILEY, J.A. 1979. The Coarse Pottery from Benghazi,. In: J.A. Lloyd, (ed.), *Excavations at Sidi Khrebish Benghazi (Berenice) II*, LibAnt, Supplement 5, 2, 91-467.
- Chirica, V., Tanasachi, M., 1984. *Repertoriul Arheologic al Județului Iași*. Iași.
- SANIE, S. 1968. Două mici depozite de amfore romane descoperite în Moldova, *SCIVA* 19/2: 345-350.
- SANIE, S. 1995. Însemnări arheologice, *Ioan Neculce* I: 57–62.
- SPÂNU, D., 2019 *Poienesti. Necropola din secolele II-III*. Cu contribuții de M. Babeș, N. Mirițoiu și M. Culea, Cluj-Napoca, Editura Mega.
- TEODOR, D. 2015. *Dodești-Vaslui. O așezare din epoca migrațiilor*, Iași.
- VORNIC, V., TELNOV, N., BUBULICI, V. CIOBANU, L. 2007. *Pruteni. Un centru de olărit dacic de epocă romană (cercetările arheologice din 2001 și 2003)*, Chișinău.
- TEODORESCU, V. LICHARDOPOL, D., PENEȘ, M., SANDU, V. 1993. Așezarea daco-romană de la Cireșaru, jud. Prahova, *Materiale și Cercetări Arheologice*, II: 389-416.
- TEODORESCU, V. LICHARDOPOL, D., PENEȘ, M., SANDU, V. 1993a. Necropola daco-romană de la Boldești-Grădiștea, jud. Prahova, *Materiale și Cercetări Arheologice* II: 419-434.
- URSACHE, V., 1995. *Zargidava. Cetatea dacică de la Brad*. București.
- VULPE, R. 1953. Săpăturile de la Poienesti din 1949, *Materiale și Cercetări Arheologice* I: 213-506.
- VULPE, R, TEODOR, S. 2003 *Piroboridava. Așezarea geto-dacică de la Poiana*. București.
- ZAHARIA, Em., ZAHARIA N. 1961. Un mormânt din epoca migrațiilor la Erbiceni (r. Iași, reg. Iași), *Arheologia Moldovei* I: 211-223.
- ZAHARIA, N., PETRESCU-DÎMBOVIȚA, M., ZAHARIA, Em. 1956. Cercetări arheologice în orașul Iași și împrejurimi, *SCȘI*, VII, fasc. 2: 1-56.
- ZAHARIA, N., PETRESCU-DÎMBOVIȚA, M., ZAHARIA Em. 1970 *Așezări din Moldova. De la paleolitic pînă în secolul al XVIII-lea*. București.







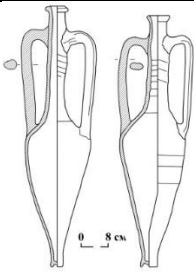
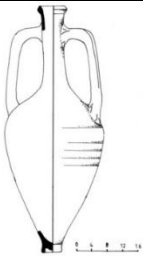
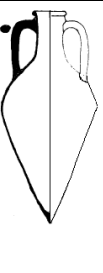
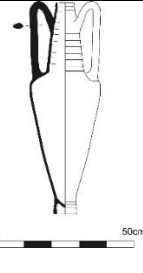




Pl. I. The City of Iași on a geographical map of the Eastern Carpathian area
©Ștefan Honcu



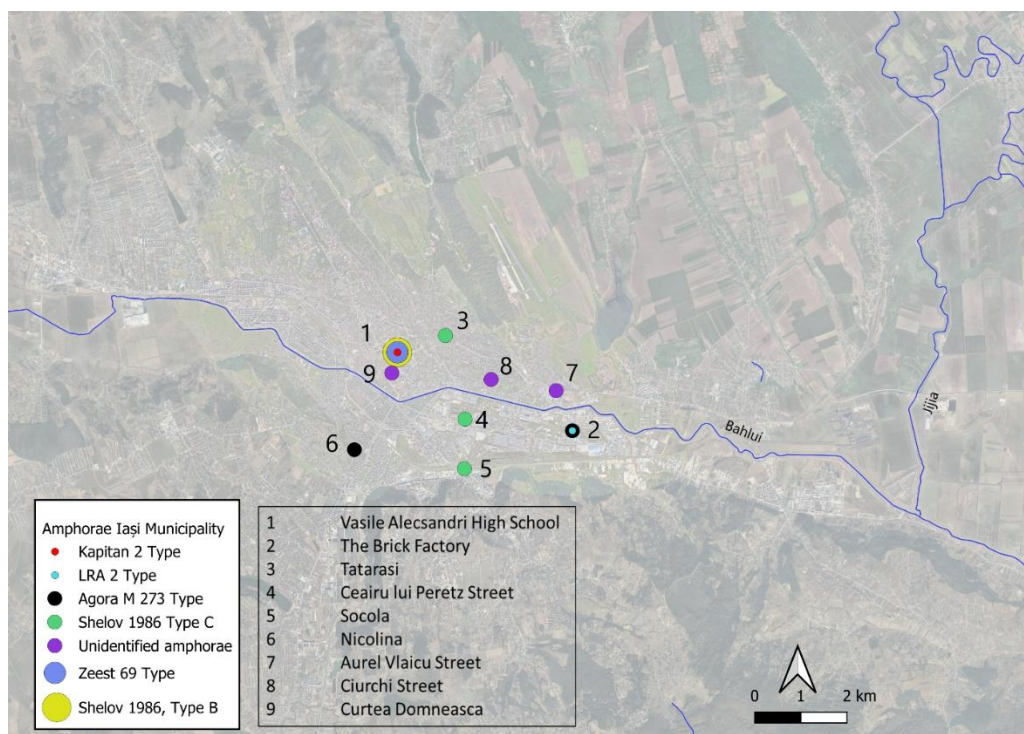
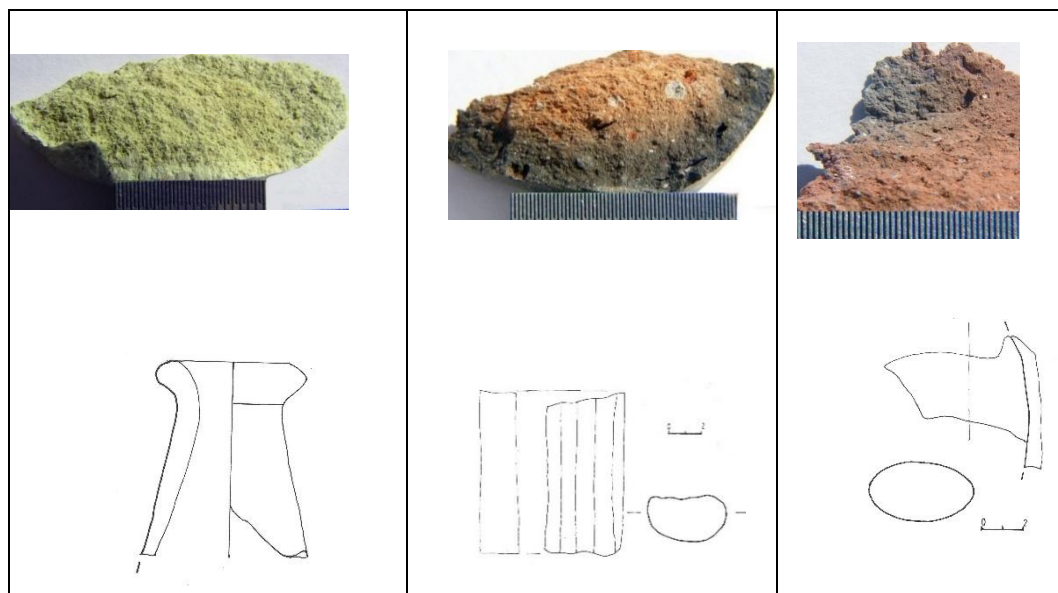
Pl. II. The main sites where Roman amphorae were discovered in the Municipality of Iași ©Ștefan Honcu

1. Str. Costache Negri, no. 52, 2. Iași-The Brick Factory, 3. Tătărași Neighborhood, 4. The area of the Princely Court, on the upper terrace of Bahlui river, 5. Str. Ciurchi no. 133, 6. Str. Ceairu lui Peretz, 7. Str. Bucium, 8. Nicolina Neighborhood, 9. The princely Court, 10. Str. Aurel Vlaicu no. 43, 11. Str. Aurel Vlaicu 135, 12. Str. Ciurchi no. 51.

Shelov B Type	Shelov C Type	Zeest 69 Type	Kapitän 2 Type	Agora M 273 Type	LRA 2 Type
					
					

Tabel 1. The main types of amphorae discovered in the municipality of Iași during the 2nd-4th centuries AD.

<p>Fragment of mouth and neck L.c.d. – V. Alecsandri High School, Iași, 2008. H.p. – 8.5 cm; D.g. – 6.4 cm. Description: light yellow-orange clay, with sand and pyroxene in its composition, own engobe. Date: 2nd century AD (Shelov B Type)</p>	<p>Fragment of handle L.c.d. – V. Alecsandri Theoretical High School, Iași, 2008. H.p. – 9.7 cm, l – 4.7 cm. Descr. - Oval handle in section with several ribs on the upper side. Clay color exterior 7.5Y/4/1 (gray) interior 7YR/7/8 (yellow-orange) reddish-black, with pebbles, limestone, and mica in composition. Date: 3rd century AD. (Kapitän 2 Type)</p>	<p>Fragment of neck and upper handle L.c.d. – V. Alecsandri High School, Iași, 2008. H.p. – 7.3 cm. Descr. - fabric color 5YR/7/6 exterior (orange) 5YR/5/1 (brownish gray) interior, light beige with limestone and pyroxene particles in composition, own engobe. Date: 2nd century AD (Zeest 69 Type)</p>
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Pl. III. Distribution of roman amphorae by type in the Municipality of Iași ©Ana Odochiciuc



Interview with Dr. Calliope Limneos-Papakosta,
Director of the Hellenic Research Institute of the Alexandrian Civilization (H.R.I.A.C.)

Dr. Daniela Orzață



Today I have the pleasure of speaking with a remarkable archaeologist, Dr. Calliope Limneos-Papakosta, whose dedication, patience, and scholarly vision have brought one of Alexandria's ancient stories back to light. After more than fourteen years of work at a single site, her sustained efforts were rewarded with the discovery of a remarkable Hellenistic - era statue - an extraordinary find that offers new insight into the cultural richness of ancient Alexandria during the Ptolemaic period. In this interview, we will discuss the story behind this discovery, the challenges of working in one of the world's most archaeologically dense cities, and what this statue may reveal about Alexandria's enduring legacy as a crossroads of civilizations.

- Good evening, Dr. Papakosta. Let us begin with your story. Could you tell us a bit about your background and how your archaeological project in Alexandria was initiated? Why did you determine that the Shallalat Gardens were the appropriate location for an excavation?

Dr. Papakosta: "Thank you for being here. My story is somewhat exceptional, given that I am Greek, and it is certainly not easy for a foreign archaeologist to begin an excavation project in Egypt without institutional connections to local universities or substantial financial support from Greece. I must begin by saying that coming to Alexandria was the dream of my life. I believe I chose to study archaeology because of Alexander's history and legacy, and for me Alexandria has always held profound significance. I first came here in 1996 to participate in a scholarly congress on Alexander the Great and Alexandria. After that congress, when I realized that there were genuine opportunities to undertake a project here, I never stopped returning.



Aerial photo of the Shallalat Gardens excavation.

So, in 1998 I organized together with a professor from the University of Alexandria, Dr. Fakharani, an excavation project in an area known as the Latin Cemetery, where an important monument - the so-called Alabaster Tomb - is located. This monument was not well known to European scholars, nor even to Greek archaeologists. When I first learned about it, I was fascinated, particularly because both professors Adriani and Fakharani had suggested that it might have formed part of the tomb of Alexander.

I was deeply struck by this possibility, and I was able to organize a project from Greece, in collaboration with the University of Alexandria, to conduct excavations in the area. Unfortunately, despite the fact that the Alabaster Tomb is a remarkable monument - entirely constructed of alabaster - my research over many years has led me to conclude that it is not *in situ*, contrary to what had long been assumed. I believe it was relocated to its current position, perhaps in the last centuries. In this sense, I consider it plausible that it originally belonged to the first tomb of Alexander - the tomb commissioned and possibly completed by Ptolemy I and Ptolemy II for the transfer of Alexander's body from Memphis to Alexandria. What is certain, in my view, is that the monument was not originally situated in the Latin Cemetery; it was moved there.

This project, however, did not progress as hoped. My collaboration with Dr. Fakharani was not particularly successful, so I decided to stop it and submitted an independent proposal to Cairo. My application was accepted, allowing me to conduct a geophysical survey in the old Jewish Cemetery of Alexandria. I am quite proud of this initiative, as I became the only archaeologist who managed to enter a Jewish cemetery for research purposes. Because of Jewish religious law, no one is permitted to enter or conduct any kind of intervention around the graves. With the agreement of the Jewish community of Alexandria, I carried out a geophysical survey, and the results were extremely significant. We identified two structures: one located in the middle of the cemetery, covering an area of approximately 1,000 square

meters, and another beginning inside, next to the cemetery wall, and extending outward into the street. To summarize the story, when I subsequently applied to the Jewish community for permission to excavate, my request was denied. I was very saddened and disappointed, as I remain convinced that something of great importance lies there. Precisely because Jewish religious tradition prohibits any disturbance within the cemetery, whatever is below the surface has remained untouched. No one has ever interfered with it. I hope that in the future I will be able to tell you more about it.”

- And what was its exact location?

“It was in Alexandria, in Midan Khartoum, the old Jewish Cemetery. It is the large cemetery opposite the major hospital and the University’s Faculty of Medical Sciences. The area is simply known as the Old Jewish Cemetery of Alexandria. Midan Khartoum is the specific location.

For four years I was unable to proceed. They did not grant permission. Therefore, I applied again to Cairo, requesting permission to excavate anywhere that would not present similar difficulties. I was exhausted. Cairo responded by saying: choose a site, and they would grant the permit, as they also wished to avoid any complications with the Jewish community. At that point, I thought of Shallalat. It was close to the Jewish cemetery, and both the cemetery and the Shallalat Gardens had once formed part of the royal quarter of Hellenistic Alexandria. It was also an open, undeveloped area where excavation seemed feasible. I applied for a small section of the garden, and Cairo replied: “Take it,” as this would also prevent potential conflict with other archaeological missions. In many ways, this was a blessing. I was fortunate: I found myself working in the center of the city, at the heart of the royal quarter, in an area without buildings or major obstacles. I began excavations there in 2007. Of course, the work was not as easy as I had anticipated. One major difficulty was the enormous volume of debris. When Muhammad Ali created the gardens, he transported vast quantities of soil and rubble from other parts of Alexandria in order to shape the landscape. This had accumulated over the entire area.

- Were there any significant delays due to environmental issues - like rising water tables, urban development, or modern infrastructure?

“Yes, the most challenging issue - the greatest problem I faced - was the water table, which appears at a depth of about 7.5 meters. My decision was not to stop, although, as you know, most projects are abandoned the moment water begins to rise. I refused to stop, and this perseverance is, I believe, the reason for my success. I worked with multiple pumps operating twenty-four hours a day, under extremely difficult conditions, to keep the trench dry enough for excavation. Eventually, I reached the Hellenistic layer at a depth of about 10 meters. For many years, I was essentially digging in water, with constant obstacles and complications.”

- In 2009, your excavations led to a remarkable discovery at this site. What exactly did you uncover, and in what ways did this finding shape the course of your professional journey?

“The year 2009 was particularly significant for our excavation. On the 4th of May 2009 - the final day of the season, and at a moment when I had already decided to end my work in Alexandria because there were 14 years of work without any significant result. So it was the

last day of the season and in the morning I announced to my team that I will finish and never come back. And in the final hour of that day, the soil collapsed along the side wall of the trench.

We were working in a small trench of about 15 square meters when the earth suddenly gave way, and a small white marble fragment emerged. The statue revealed itself. We did not discover it through deliberate excavation - it appeared on its own. He found us, and so we started. Of course, it was a shock - you can imagine. A miracle. We then began, slowly, to remove the soil and uncover the statue. It took us about six hours because the statue was standing vertically beneath eight meters of soil, so we had to extract it very carefully, as there was a real risk that the eight meters of debris could collapse on the workers. So we proceeded slowly, slowly to unearth the body. At first, we could see only a portion of the knee. As we continued, the rest of the leg emerged, then the second leg, and eventually the torso. At that moment, the statue was in exceptional condition - an athletic body without a single scratch. But after that, I became ambitious: I wanted the head. As you know, finding a statue with its head intact is extremely rare, since the neck is the most vulnerable point and easily breaks. We often find statue's heads without bodies and bodies without heads. Yet I was fortunate: this body still had its head. When we reached that level, I took the brush myself. I asked the workers to step back - it was my turn. I carefully brushed away the soil covering the face, and what emerged was unmistakable to me: Alexander. That was my immediate impression, and I continue to believe it. The statue represents Alexander in a unique position and posture. The face corresponds to portraits created during his lifetime or in the years immediately following his death, when people still remembered his actual features. The familiar image of Alexander with long hair and an Apollo-like face comes from Roman copies - later, idealized representations made after he had already been deified. Those portrayals show him perfected, imagined as a god or hero, rather than as he truly appeared. I believe that the portraits produced closer to Alexander's lifetime depict him with short hair and with several other features that I will not describe now. I studied the statue thoroughly and published my findings. There were some alternative opinions, but none of them were formally published - people spoke about it, yet no one wrote anything.

Three years ago, I organized an international conference. You were there... Yes, you visited for the first time at Shallalat. There were objections, of course, but about 90% of the participants agreed that the statue represents Alexander. Naturally, we cannot be absolutely certain without an inscription. Nevertheless, I believe the evidence strongly favors my interpretation."



- Where is the statue now?

“The statue is now exhibited in the Greco-Roman Museum. I consider it a masterpiece, and I am deeply grateful to have experienced such a discovery. Moments like this are once-in-a-lifetime events for an archaeologist.”

- Could you describe the moment when you first saw the statue - what went through your mind?

“At that time, I was in shock, truly. A video was taken without my knowledge, so my reaction was entirely spontaneous. I remember the moment vividly. I touched the marble - it felt almost soft - and I said, “I have been waiting for this moment all my life.” And that was true. I still feel the same today.

Even if my career had ended at that point, I would have felt fulfilled as an archaeologist. But paradoxically, this discovery made me feel even more responsible - so no, I could not stop afterwards. As you said, it felt like a sign: a discovery revealed on the last day, in the last hour, precisely when I had already decided to stop.

Regarding the condition of the statue when it was uncovered: it was in a remarkably good condition. The face in particular is almost perfect, aside from a small damage on the nose. That is why the nose now appears somewhat “French,” not Greek - just between us... It is simply due to the break in that area.”

What features or details helped identify it as Hellenistic? What makes Hellenistic art distinct from earlier or later Greek styles, and how is that reflected in this statue?

“It is precisely what you mentioned: the dating corresponds closely to Alexander’s lifetime, not several centuries later. I also believe that the statue reflects the typical artistic conventions of the school of Lysippos. Lysippos, the official sculptor of Alexander, established - through his students and his sons- an artistic tradition that continued in Alexandria. His pupils and descendants created a recognizable sculptural school in the city at that time. Naturally, the style of the work follows the principles set out by Lysippos. There are numerous features consistent with his canon. According to the canon of Lysippos, we can clearly identify all the characteristic traits. He worked in the same period as Alexander - he was his contemporary, as you noted. He accompanied Alexander on his campaigns and served as his official portrait sculptor.”

- Did he then live in Alexandria?

“No, he did not, but his sons and students continued his work. After his death, they came to Alexandria and founded a sculptural school. I believe that this statue was produced within that school. The marble is Parian, imported from the island of Paros, and all the stylistic

elements are purely Hellenistic. In my view, these features confirm that the statue is an authentic masterpiece. They also support the conclusion that it is definitively Hellenistic, not Roman. This is especially significant, given that most statues preserved today are Roman copies of Greek originals. In this case, we have an original Greek sculpture.”

- Do you think this statue was intended for public display, religious use, or a private collection?

“As I mentioned, the find spot lies within the Royal Quarter. I will later describe additional discoveries from the area, which include the foundations of a monumental public building. For this reason, I believe that the statue formed part of the decorative program of that public structure. There must originally have been more statues, but the building - and the entire area - was completely destroyed. We are fortunate that at least one of the statues that once adorned this public complex has survived. After several years of interruption - primarily due to the period of the Egyptian Revolution, during which excavations could not continue - we were able to resume work in 2015. We have also uncovered part of the foundation of a monumental Hellenistic public building. After ten years of continuous excavation in the same area, we have revealed the foundation platform of a structure measuring 45 by 35 meters. Although only the base survives, its construction is so substantial that the superstructure must have been very large and imposing. At present, we do not have sufficient evidence to identify the exact function or name of this building. Nevertheless, it was certainly one of the important monuments of the Royal Quarter described by Strabo. We should also remember that this area lies behind the Ptolemaic palaces that once stood along the seafront. I believe that, in antiquity, this zone formed the gardens of the royal palaces.

According to Strabo, this part of the Royal Quarter included the Museum, the Library, the Temple of Isis, and the Tomb of Alexander. The building we have uncovered must correspond to one of these famous structures. The Library, therefore, was not located where the modern Library of Alexandria stands today. Rather, Strabo explains that the Museum, the Library, and the Tomb of Alexander were within the Royal Quarter, whereas the palaces of the Ptolemies occupied the area along the coastline where the modern library is now situated. The distance between the two zones is considerable. Thus, this area must have contained the palaces of the Ptolemaic dynasty, while the remaining buildings stood behind them. The Royal Quarter extended from the sea southwards to Canopic Street, itself a principal thoroughfare.

Another important discovery from our excavations is a Roman road. We were fortunate to uncover a substantial section of the Roman road designated L2 on the map of Mahmoud Bey El-Falaki. L2 is the first street parallel to Canopic Street, and its identification is a significant find. This led me to the idea of following the line of L2 through excavation in order to locate its intersection with Alexandria’s main north - south artery, the Royal Road - R1 - which had never been found. According to ancient sources, Alexander planned the city on a grid with two broad avenues intersecting at right angles: the horizontal Canopic Street (east-west), still traceable today, and the vertical Royal Road, which ran from the palaces on the north coast toward Lake Mareotis. R1, however, had never been identified archaeologically. Therefore, I reasoned that by tracing the course of L2, we might reach its intersection with the Royal Road. Unfortunately, that intersection had been destroyed by the later Islamic fortification walls. Nonetheless, we continued the excavation, and eventually we uncovered a section of the Royal Road - R1 as

marked on El-Falaki's map. This discovery is extremely important. First, we have now identified the principal road of ancient Alexandria - the artery that began at the royal palaces, along which the kings would travel to reach the lake port. Second, we can finally confirm the intersection between the Royal Road (R1) and L1, the Canopic Street. Why is this significant? Because, according to the literary sources - especially the Greek author Achilles Tatius of the 3rd century AD - the Tomb of Alexander lay only a few stadia from this intersection. He writes that after walking a few stadia from the center of the city, they arrived at the tomb of Alexander. A *stadion* is a unit of length; in this context it means only a few hundred meters."

- So, in modern terms, around which streets would this intersection be located today?

"The intersection corresponds to the area occupied by the National Museum of Alexandria. You were asking whether this means that, if we were to demolish the museum, we would reach the tomb. No - not at all. The intersection was located there, not the tomb. Achilles Tatius states that they walked a short distance - a few hundred meters - beyond the intersection to reach Alexander's tomb. So the tomb must lie somewhere very close by, but not directly beneath the museum."

- Were there any inscriptions or artifacts found nearby the statue?

"In addition to the architectural remains, we have uncovered a large quantity of small finds: hundreds of pottery fragments, hundreds or even thousands of stamped amphora handles, coins, figurines, and a considerable amount of painted plaster. These were recovered throughout the course of the excavation."

- Were they discovered at the same time as the statue?

"No, the finds appeared during all phases of excavation. The trench where the statue was discovered was relatively small - only 3 by 5 meters. The current excavation area, however, covers 5,000 square meters, and from the area of the monumental building we have recovered numerous smaller artefacts, including mosaic fragments and many amphorae. Overall, the excavation has yielded a very rich assemblage.

I must also mention another very important discovery: a tunnel. It is a Hellenistic tunnel that cuts through the foundations of the building and extends both to the north and to the south.

We have followed this tunnel: our first hypothesis was that it served as a water conduit. However, there is no evidence of hydraulic construction - no plastering or water-resistant treatment - so its purpose remains uncertain. We have no clear indication whether it carried water or served another function. In any case, we have entered 32 meters into the tunnel so far. We proceed very slowly because continuous support is required; the tunnel lies 10 meters below the surface, and the structural stability must be secured as we advance. Step by step, with careful reinforcement, we continue.

Through this process we have been able to identify all the walls of the building, and we now possess its measurements and a ground plan, traced literally from within the substructure. This is extremely important. We have also recovered numerous noteworthy small finds inside

the tunnel. My hope - my dream - is that we may discover evidence inside the tunnel that reveals the identity of the building; perhaps an inscription or another identifying marker.”

- How large was the team involved in this excavation, and what roles did they play?

“When we began the excavation at Shallalat, our team consisted of about ten Greek archaeologists. Gradually, many of them left, as working conditions were challenging. It was difficult for them to remain in Alexandria for long periods, and they had other professional obligations in Greece. Life in Alexandria was not always easy. At present, I am the only Greek archaeologist permanently on site. I continue to collaborate with other Greek specialists - architects, topographers, and so on - who come to work with me for limited periods. They cannot stay for eight months a year, as I do. Nevertheless, I am content. I represent my country in Alexandria, and on many occasions I have had the honor of raising the Greek flag. I have had the honor of receiving two Presidents of the Hellenic Republic at the site. The Prime Minister visited to see the statue, as did the Greek Minister of Culture. I am pleased - one might say rewarded - by this recognition. But the work continues; it is still in progress, and I hope for further significant results.

At present, my team consists primarily of Egyptian archaeologists. I work with two Egyptian restorers, an Egyptian architect, and specialists in numismatics and ceramology. Our collaboration has been excellent, and I maintain very good relations with the local authorities.

- How one can join your team - what is required and how applicants are selected?

“If you mean bureaucratically, no, the process is not especially difficult. If you’re asking how I choose... I want people to appreciate how fortunate they are to participate in such a project. When I was a young archaeologist, I would have done anything to be part of an excavation like this. That is why I feel disappointed when I see young archaeologists asking me, first of all, how much they will be paid, and telling me they cannot stay more than fifteen or twenty days. For that reason, I do not accept such candidates. They must be motivated by passion. Yes - passion and devotion. That is the essence of archaeology. We are not lawyers, nor doctors, nor accountants. We do this out of love for culture and history. Archaeology is something different - it is not merely a profession or a career. It requires passion and dedication, yes. It demands a lifetime of dedication. And this is not easy to find. I see that many young archaeologists today do not share the same passion. They do not feel it in the same way. I made many sacrifices in my life. I am here, while my family is in Greece. Of course, now I am older, but when I first came I was young, and my children were still there. But I have been fortunate.”

- And now you feel it was deserved?

“Yes. Now I feel rewarded. But perhaps this recognition came precisely because I dedicated myself fully to this work. And I believe this is important for anyone - not only for archaeologists. One must follow one’s heart and follow one’s dreams.”

- Would you like to add anything you have not yet mentioned? Perhaps something about your institute?

“Yes, sure. The Hellenic Research Institute of Civilization was founded by me along with other scholars and members of the Greek community in Alexandria. We established it in Athens with a branch in Alexandria, because, in order to apply for an excavation permit, I needed to be affiliated with a recognized institution - an organization that I could represent. Through this institute we have continued our work. From time to time, we organize events; we maintain a library and assist students who wish to consult it; and we hold small conferences. We are not a large public institution, but we are pleased with what we have achieved. Most importantly, it has fulfilled its purpose, supporting archaeological projects over all these years. I serve as the director of the institute, and we continue our activities.

- Dr. Papakosta, thank you for this insightful interview. I hope you will discover many more remarkable findings in the Shallalat Gardens. I wish you all the best, because you have inspired all of us. Your work fills us with enthusiasm for Alexandria, for its history, and for Greek history.

“You are very welcome. Your words – and other people’s words – encourage me to continue. They also make me feel responsible toward those who believe in me, and that is very important.”



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Ioan Piso, *Dacia Porolissensis. Potaissa et vicinia (Inscriptions de la Dacie romaine IV/1)*, Mémoires de l'Académie des Inscriptions et Belles Lettres, tome 64, Paris 2024, 409 p., 503 figures

The volume IV of the *Inscriptiones Daciae Romanae* was expected to be published for a long time. Now, thanks to the generous effort of Professor Ioan Piso, the first fascicle of this volume, containing the inscriptions of Potaissa, has appeared. The majority of the epigraphic texts were already published (in the *Corpus Inscriptionum Latinarum*, *Inscriptiones Latinae Daciae* – edited by Constantin C. Petolescu, or in various publications). In the last decades, an important role in collecting and publishing the inscriptions had Mihai Bărbulescu, who led a long time the excavations at Potaissa. Ioan Piso has done the impressive work of collecting, describing, transcribing, translating and commenting the epigraphic file of one of the most important camps and civil habitation in Roman Dacia.

After a *Proemium* in which the author presents the actual research stage, expressing his gratitude towards his predecessors, a necessary *Prolegomena historica* follows. It is known that Potaissa was, starting with Marcomannic wars, the camp of the *legio V Macedonica* and then the civil settlement developed into a *municipium* and then a *colonia*, but Professor Piso succeeds to realize a coherent connection between the history and the inscriptions and the way in which history is possible through epigraphic texts. The editor emphasizes following in this direction (Mihai Bărbulescu), that an auxiliary camp which preceded the legionary one was situated most likely on Dealul Zânelor and not on the position of the future legionary camp. The *vicus militaris* situated next to the auxiliary camp was identified east of Dealul Zânelor, until to Arieș river and to a hill leading to Sând valley. Of course, the coming of the Vth Macedonica legion changed essentially the history of the settlement. The legion was dislocated from Moesia Inferior in 168/170, in order to defend the province during the Marcomannic wars. The camp was identified and excavated on Cetate plateau. The *canabae legionis* were supposed to be situated nearby, of course *intra leugam*. The epigraphic texts sustained the statement of Ulpian (*Dig.* 50, 15, 1), proving that Septimius Severus granted the status of *municipium* and then of *colonia* to the civil settlement. Ioan Piso demonstrates once again that the *Patavissensium vicus* mentioned by Ulpian was the *vicus canabiarum* and the settlement followed the status of *municipium* and then of *colonia*, rightfully denying the concomitant existence of a *municipium* and of a *colonia*. Due to the reason that the legion was alongside him in the combat against his rivals, Septimius Severus granted very likely to the *canabae* the municipal status, with a quattuorviral constitution (as the author indubitably shows). Then, to „equalize” the status of *colonia Aurelia Apulense*, the same emperor granted to the city the status of *colonia*. Professor Piso realizes the connection between the texts and the finding spots, identifying on field some settlements or monuments (the first *vicus*, a sanctuary connected to the *canabae*, a temple of Liber Pater, a necropolis, other sanctuaries next to the legionary camp etc). The offensive of the Goths in 262 has ruined Dacia. At the level of the archaeological information, the *porta decumana* of the camp was partially blocked and thereafter destroyed. The last inscriptions were dated 255/256 and 260.

Coming now to the *corpus*, it contains 504 inscriptions, organized in the classical way. The texts of Potaissa (inscriptions on stone and then on metal, the *graffiti*, the amphorae and the *sigillata*, the lamps and the stamps on the *tegulae*). The stone inscriptions are also in the classical

order (votives, construction, honorary and funerary inscriptions). I will draw the attention towards the most important texts, both from historical point of view and epigraphic and historical polemics).

The inscriptions nos 1 and 10 of the catalogue happen to be important in this respect. The first one is a dedication to Aesculapius and Hygia set by M. Publicianus Rhesus, *praefectus alae I Batavorum milliariae, agens vice praefecti legionis*. The first problem encountered by the editors if the text is linked to the emperor's name, which was erased. Mihai Bărbulescu has identified the emperor with Gallienus,¹ while Constantin C. Petolescu proposed the restitution *Regalianus* or *Ingenus*.² It is still visible on the stone that the first letter is an A, not a G or a R. The arguments of Professor Piso seems to me convincing: the name of Gallienus was never erased in Dacia, the epithete *Gallieniana* added to the unit is missing, the coins of Regalianus are missing in Dacia, and ingennus had a limited authority even in Pannonia. Thus, the restitution of the name *Aemilianus* is more probable, and Ioan Piso draws into attention a similar inscription found at Čačak (Dalmatia).³ The second problem related to this text (and implicitly to inscription no 10 of the catalogue) is the name of the *praefectus*. Mihai Bărbulescu has read *Rhenus*, connecting the name to the Batavian ethnicity of the unit. On the inscription no 1 the letter S, even if it is less visible, appears however clear to me, so I have to agree with Ioan Piso in reading the *praefectus*' name *Rhesus*. Besides, in the time of barracks emperors, a recruitment in a Dacian unit from the Rhine provinces seems less likely than an enlistment from the local population. A third issue that, in my opinion, the editor of this *corpus* argues convincingly, is the existence of a *praefectus* at a legion's command in 253 (when Aemilianus was emperor). In this period of trouble, each province was practically under the authority if a *procurator agens vice praesidis*. In fact, the subordination of the *legati legionis* to an equestrian *agens vice praesidis* was considered inappropriate and they were replaced by *praefecti legionis* (see also the inscription no 64). In this respect, it seems logical that, in our specific case, the *praefectus legionis* was replaced by an *agens vice praefecti*, i. e. M. Publicianus Rhesus, *praefectus* of *ala I Batavorum*. The second text (inscription no 10) is a dedication to Fortuna. The S of the name *Rhesus* is, in my opinion, still visible when looking at the photograph accompanying the text. In an article recently published, S. Nemeti, R. Varga, and D. Deac (2024) proposed other lectures concerning the emperor's name and the name of the *praefectus*. With all respect and sympathy due to the authors, I cannot agree with them and I will show why. They suggest that the emperor was Philippus Arabs, arguing that Aemilianus did not suffered *damnatio memoriae* and the only one at the middle pf the 3rd c. who took this blame was Philippus⁴. First of all, Aemilianus did suffer *damnatio memoriae*, as we can see in the inscriptions of Čačak⁵ or Cuicul.⁶ Secondly, on the vow to Aesculapius and Hygia the superior part of the letter A is still visible. On the second stone (the vow to Fortuna) the emperor's name is illisible on the photo provided by S. Nemeti, R. Varga and D. Deac.⁷ The second issue concerns the name of the *praefectus*. The cited authors read *Rhenus*. After comparing the photos from IDR IV/1 and the article of S. Nemeti and his collaborators,⁸ in the case of the vow to Aesculapius and Hygia, I can see an S at the end of line

¹ Bărbulescu 2012, 188-191.

² Petolescu 2013, 377-378

³ Dušanec 2003, 254-256.

⁴ Nemeti, Varga, Deac 2024, 434-435.

⁵ Dušanec 2003, 254-256. See also Varner 2004, 209.

⁶ AE 1911, 104. See also Varner 2004, 209; Hugenberg 2005, 1598.

⁷ Nemeti, Varga, Deac 2024, 437, fig. 6.

⁸ Nemeti, Varga, Deac 2024, 436, fig. 5.

4 (in both photos), a double VV at the begonnig of line 5 (more visible in the photo of IDR IV/1 and less in that of the article published in *Chiron*). In any case, the *S* appears clearly for my and the lecture *Rhes/u{u}s* is doubtless. In the second inscription, on both photos, only the letter *R* from the name of *praefectus* is visible. S. Nemeti, R. Varga and D. Deac underlined on their photo what that seems to be an *N*.⁹ It seems to me that it is a fragment where the stone is deteriorated and this deterioration has a form similar to an *N*. Another argument is that between the letter *R* (which is clear) and the supposed letter *N* there is no enough space to write to letters, specifically a *H* and an *E*. The third argument is, in my opinion, the lecture *Rhesus* on the first text, which is clear. It is true that Rhenus is more attractive, taking into account that he was prefect of the *ala I Batavorum*, but at the middle of the 3rd c., the ethnic recruitments (especially from a quite far region) are rare. Another controversy was linked to the supposed *gentilicium* of the prefect, *Publicianus*. M. Bărbulescu and more recently S. Nemeti, R. Varga and D. Deac considered that *Publicianus* is the *nomen*. The last authors think that the form is one that is popular in Celtic and Germanic provinces. However, the form of the *gentilicium* derived from a *cognomen* is popular in these provinces, but with the suffix *-ius* (for example, *Publicius*, *Secundius* etc.). In this respect, I believe that Ioan Piso's argumentation that the *gentilicium* is missing, being probably *Aurelius* (very often used in this time) is more plausible.

It is still to notice the inscription no 4, a vow of the centurion C. Caius Vitalis to Apollo Phoebus, who bears the ephete *Parthicus*. This can be related to the eastern expeditions of Septimius Severus, event which can contribute to the datation at the very end of the 3rd c. The text no 5 of the catalogue provides of vow of many veterans to a certain *Deus Fortis* (?) at the middle of the 3rd c. The list is important in order to see the origin of the former soldiers of the legion. Inscription no 19 provides the existence of a *conventus civium Romanorum*, very likely of the *canabae*, after the finding spot.

The dedicant at no 52, Cominius Celsus, belongs certainly to the *gens* Cominia, attested in many inscriptions at Ulpia Traiana Sarmizegetusa (IDR III/2, 19, 107-108, 371, 419, 484). The members of this *gens* were of Italic origin and represent the municipal elite of Sarmizegetusa; they were related to other *gens* of the local aristocracy, Varenia (IDR III/2, 108, 128-130, 322; III/3, 48; III/5, 596). Cominius Celsus could be related to the Cominii of Sarmizegetusa, too.

We should also mention the vows to Egyptian divinities (Apis – no 3, Tithoes, Re-Harmahis – no 25, Isis – nos 27-28, Serapis – no 28, together with Isis), which is not surprising, taking into account the popularity in Roman Dacia.¹⁰ The inscriptions vowed to Oriental and Semitic divinities (Aziz- Bonus Puer – no 6, Jupiter Balmacordus – no 69, Jupiter Dolichenus – nos 72-74, Jupiter Sabazius – no 77, Men the Invincible – no 92, Mithra – nos 96-103) are also present, proving the heterogenous religious and ethnic composition of the population at Potaissa.

The municipal status of Potaissa is attested through inscriptions nos 56 (an ancient *duumvir* of the *municipium Septimii Potaissensis*), 61 (an *ex-quattuorvir*), 71, 87 (*augustales*), 74 (un *duumvir*), 89 (dedicant with unknown status), 106 (a *flamen*), 113 (a *scriba*), 123 (*collegium fabrum*), 124 (a *decurio*). The mention of the *duumviri* was already explained by the author in the introductive chapter. Potaissa was administrated by *quattuorviri*, as in the *municipium Septimium Apulense*, and the term *duumviri* expressed a confusion of the population, who saw only their images as supreme magistrates in Potaissa (p. 18). The *colonia* is mentioned at no 131, 191, 496, possibly at

⁹ Nemeti, Varga, Deac 2024, 437, fig. 7.

¹⁰ Deac 2015, 2021; Bricault, Deac, Piso 2021.

no 132. I also notice the pertinent remarks on the dating of no 65 (the complete name of the *centurio*, the attribution of the epithets *pia constans*) under Commodus.

The inscription no 79 rises the question of the 7th legion surname's restitution. The lapicide is indeed inconstant, how Ioan Piso remarks. However, following the observations of Patrick Le Roux,¹¹ the lecture *VII C(laudiae)* seems more probable than *VII G(eminae)*.

I think that the information provided by inscription no 114 could be completed. Hermadio vows a shrine for Silvanus. The name is quite rare in Dacia. It appears three times and it belongs very likely to the same person. The first two times are those from Tibiscum (where Hermadio vows a shrine for the *conductor pascui et salinarum* P. Aelius Marius, as an *actor* of M. Turranius Dius)(IDR III/1, 145) and Ulpia Traiana Sarmizegetusa, where Hermadio consecrates a shrine to Mithra (IDR III/2, 283). Let us focus on the Potaissa inscription. Potaissa is next to the rock salt exploitation of Turda, the largest in Dacia. Silvanus was popular among miners, as other divinities of soil products (not only metals and stone, but also grains, wood, grass and wine).¹² In my opinion, Hermadio's presence in Potaissa was related to salt exploitation, which confirms his relationship to P. Aelius Marius. The same connection can be emphasized by the vow to Terra Mater accomplished by the *magistri* Satrianus and Decumus (no 120). S. Dušanić rightly states that Terra Mater assumed the role "of a goddess of the underworld, a mistress of the diggers".¹³ The association of Terra Mater with Dea Roma of provinces' personifications shows symbolically that the mines belong to the *fiscus* and the relation with the Roman state was unbreakable.¹⁴ It is true, as we can see below, that most of dedications are coming from the zone of metals' exploitation, but their mention in salt mining areas signifies, in my opinion, the cult was there in connection with mining activities. In Dacia, some dedications to Terra mater are related to salt exploitation. A first dedication to Terra Mater is set up by Atticus, *actor* of P. Aelius Marius, at Domnești (ILD 804).¹⁵ We have already discussed this text,¹⁶ taking into account that a *centurio regionarius* is attested in this place.¹⁷ It is important that the cult of Terra Mater is connected with mining activities for two reasons: the place where the shrine was erected is next to a salt spring and the text is consecrated by a clerk in salt administration. I have shown that in fact he acted on field, in order to survey better the salt exploitation. A second text comes from Ocna Mureș (Salinae): the dedication is towards Diana and Terra Mater (IDR III/4, 67). Moreover, the *beneficarii legati legionis* and *consularis* (nos 21, 67, 73, 126, 215), except their strategic duties, ensured also the security of salt exploitation in Potaissa.

The texts nos 144 and 145 provides a list of centurions honoring Iulia Domna and Caracalla. Their number (only 40) suggests that a part of the legion was detached, together with some vexillations of *legio XIII Gemina*, in the Parthic war of Caracalla. The ancient citizens and the people originating from Italy and western provinces prevailed in number.

The evidence of funerary texts provides important information about the population of Potaissa, especially the civilians. The data concern the soldiers' and civilians' families, their possible origin, and demographic information (age at death, size of families etc.). A little comment at no 179. The inscription is dating probably, taking into account the *nomen* Aelius,

¹¹ Le Roux 1981, 199-203.

¹² Dušanić 1999, 1301-31.

¹³ Dušanić 1999, 132.

¹⁴ Dušanić 1999, 133.

¹⁵ ILD 804. See also Dana, Zăgreanu 2013, 31.

¹⁶ Mihailescu-Bîrliba 2022, 74.

¹⁷ Piso, Cupcea 2014, 115-123.

the 2nd c. However, the name of the mother, Aelia Deccia, was very likely a peregrine, but at the moment of the epitaph's erection, she was not any more. We also remark the family of Palmyreans at no 180 (the father was a veteran of *numerus Palmyrenorum Porolissensium*). The ethnic composition is completed by Illyrians (nos 183, 190, 192, 198, 219, 238), Celts (nos 185, 213, 216, 239), Thracians (nos 186, 192, 201, 244), Greeks coming from Moesia Superior (no 197) or other Greeks (nos 219-220). At no 190, the Illyrian origin of a soldier active in a Batavian cohort represent an extra-argument for the enlistment of non-Batavian population in their ethnic units in the 3rd c.

Among the inscriptions on metal, it is worth noting the *pondera* of bronze, filled with lead and inscribed with silver letters (nos 276-280) (4 on 5 being controlled by the *optio* Valerius Sabinus).

The brick stamps represent an important category of inscriptions, taking into account that we are talking about a legion. The *signacula* were made from wood, and they were quickly replaced. The most ancient type is that of LEG V MAC (no 345 of the catalogue), similar to stamps found at Oescus and Troesmis. Ioan Piso admits he has published all he has found, with the mention that an exhaustive catalogue of the stamps is difficult to achieve. Nevertheless, the catalogue contains 147 brick stamps. The first one bears the text *Ex(ercitus) D(aciae) P(orolissensis)*, the other have the name of the *Legio V Macedonica* in various forms: LEG V Mac, LEG V M (nos 348-353, with a possible epithete – *A(notniniana)* at no 352), LE V M, L(e)G Q M. LEG V, LEGIO V, LEGIO M, L V M, L M V, (Legionis) V M, L V M *f(idelis)*, L V M *p(iae)*, *P(iae)* L V M P F, , L V M ANT, L V M A, L V M P F S(*everianae*), L V M P F M(*aximianae*), L V M G(*ordianae*). The *legio XIII Gemina* is also mentioned at Potaissa on brick stamps, in the period before the arriving of the *legio V Macedonica* at Potaissa (nos 483–488). Other stamp (no 490) attests *cohors I Hispanorum*, probably camped at Potaissa before the *legio V Macedonica*, being transferred at Orheiul Bistriței thereafter. The *cohors I Flavia Ulpia Hispanorum* is mentioned on a milestone at Aiton (next to Potaissa), building in 108 the road *a Potaissa Napocae*.

The *Indices* and the *Abbreviationes* close this beautiful volume. Professor Piso provides us a new important corpus of the *Inscriptiones Daciae romanae*, which will remain another milestone in the epigraphy of Roman Dacia. At the end, I would like to underline his deep respect for history and for his profession, citing some phrases of his presentation of the brick stamps: „Cette section contient 147 estampilles. On se demandera peut-être pourquoi je n'ai pas économisé mon temps et le papier en me limitant strictement à quelques types comme LEG V MAC, LEG V M, L V M, en positif et en négatif. La raison en est que la fabrication de chaque *signaculum* représente une activité humaine individuelle, à laquelle une bonne compréhension de l'histoire demande de rendre hommage”. Such respect for the human past belongs only to great spirits.

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References

- Bărbulescu, M. 2012. *Inscripțiile din castrul legionar de la Potaissa (The Inscriptions of the Legionary Fortress at Potaissa)*. Bucharest.
- Bricault, L., Deac, D., Piso, I. 2021. Les cultes isiaques à Sarmizegetusa. In: Ș. Cristea, C. Timoc, E. De Sena (eds.), *Africa, Egypt and the Danubian Provinces of the Roman Empire. Population, Military and Religious Interactions (2nd-3rd centuries AD)*, 45-63. Oxford.

Dana, D., Zăgreanu, R. 2013. Deux dédicaces latines inédites de Porolissum, *Tyche. Beiträge zur Alten Geschichte, papyrologie und Epigraphik* 28: 27-35.

Deac, D. 2015. Ancient Egyptian Artifacts from Romania. Their Research and Future Perspectives. In: M. Tomorad (ed.), *A History of Research into Ancient Egyptian Culture Conducted in Southeast Europe*, 117-120.

Dušanić, S. 1999. The Miners' Cults in Illyricum, *Pallas*: 129-139.

Dušanic, S. 2003. Asinius Maximus in AD 253, *Zeitschrift für Papyrologie und Epigraphik* 144: 254-260.

Hugenberg, R. 2005. Strassen und Meilensteine in den römischen Provinzen Africa Proconsularis, Numidia und Mauretania, Zürich. DOI: 10.36204/edcsj-024-202207.

Le Roux, P. 1981. Inscriptions militaires et déplacements de troupes dans l'Empire romain, *Zeitschrift für Papyrologie und Epigraphik* 43: 195-206.

Mihailescu-Bîrliba, L. 2022. Religious aspects of salt mining in Roman Dacia. In: I. Piso, P. Forisek (eds.), *Defending the polis- defending the Empire. The ancient Greek and Roman military strategy and inscriptions*, 73-88. Budapest.

Nemeti, S., Varga, R., Deac, D. 2024. A vignette from Dacia under Philippus Arabs. Revisiting the altars of Marcus Publicianus Rhenus, *Chiron* 54: 434-435.

Petolescu, C. C. 2013. Cronica epigrafică a României (XXXII, 2012), *SCIVA* 64, 3-4: 371-388.

Piso, I. Cupcea, G. 2014. Ein centurio regionarius der legio X Fretensis in Dakien, *Tyche. Beiträge zur Alten Geschichte, papyrologie und Epigraphik* 29: 115-123.

Varner, E. R. 2004. *Mutilation and Transformation. Damnatio memoriae and Roman Imperial Portraiture*. Leiden-Boston.



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