

E-ISSN: 2667-629X



ANADOLU ARAŐTIRMALARI

ANATOLIAN RESEARCH

JAHRBUCH FUR KLEINASIATISCHE FORSCHUNG

ISSUE

31

YEAR

2024



Anadolu Arařtırmaları
Anatolian Research



İSTANBUL
UNIVERSITY
PRESS

E-ISSN 2667-629X

Issue 31, 2024

Indexing and Abstracting

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E-posta: anadoluarastirmalari@istanbul.edu.tr
<https://iupress.istanbul.edu.tr/tr/journal/anar/home>

Publisher

İstanbul Üniversitesi Yayınevi / Istanbul University Press
İstanbul Üniversitesi Merkez Kampüsü, 34452 Beyazıt,
Fatih / İstanbul, Türkiye
Telefon / Phone: +90 (212) 440 00 00

Printed by

İlbey Printing Paper Advertising Org. Müc. San. Tic. Ltd. Şti.
2. Matbaacılar Sitesi 3NB 3 Topkapı / Zeytinburnu,
İstanbul, Türkiye
www.ilbeymatbaa.com.tr
Sertifika No: 17845

Authors bear responsibility for the content of their published.

The publication languages of the journal are English, German, French and Italian.

This is a scholarly, international, peer-reviewed and open-access journal published biannually in June and December.

Publication Type: Periodical



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Epipalaeolithic Ritual Practices at Gedikkaya Cave, Northwestern Türkiye

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Submitted: 09.10.2024

Accepted: 02.11.2024

Citation: Sarı, D. (2024). Epipalaeolithic ritual
practices at Gedikkaya Cave, Northwestern
Türkiye. *Anadolu Arařtırmaları-Anatolian
Research*, 31, 1–16.
<https://doi.org/10.26650/anar.2024.31.1563883>

ABSTRACT

This paper examines the Epipalaeolithic occupation of Gedikkaya Cave in northwestern Türkiye, which also served as a settlement during the Neolithic and Chalcolithic periods. The Epipalaeolithic marks a period of increased human mobility, likely influenced by climatic events following the Last Glacial Maximum. During this time, the cave functioned as a shelter or refuge for local hunter-gatherers and transient populations. Artifacts suggest connections between European Upper Paleolithic cultures and the Pre-Pottery Neolithic A cultures of Anatolia and the Levant.

The study focuses on the extraordinary symbolic and ritual manifestations found in a layer dated to 13,166–11,200 Cal BC, including artifacts, niches, and a special area featuring a stalagmite structure. These findings suggest the presence of well-developed and complex symbolic structures.

Keywords: Epipalaeolithic, Ritual, Anthropomorphic Sculpture, Zoomorphic Sculpture, Gedikkaya Cave



Introduction

Epipalaeolithic occupation sites in Türkiye are predominantly caves and rock shelters, with rare instances of open-air sites (Figure 1). Findings from northwestern Anatolia, often associated with the Epigravettian culture, are typically derived from surface surveys (Gatsov & Özdoğan, 1994). Systemic excavations at cave sites like Karain B, Öküzini, and Kızılın in the western Mediterranean region have revealed detailed insights into the stages of this period (Otte et al., 1995; Erbil, Kartal, & Ağırsoy, 2021; Kartal, 2009).

Epipalaeolithic culture is characterized by microlithic industries, including dense lunates and geometric microliths, which appear unique to Anatolia and are particularly prominent at Öküzini (Kartal, 2011). Several cave sites, such as Ballık (Aksan et al., 2023) and Girmeler (Erdoğan et al., 2021) in the Aegean and western Mediterranean Regions, Direkli (Erek M. C., 2012; Baysal, 2016) and Eşek Deresi (Altınbilek Algül, Kayci, & Balcı, 2022) in the eastern Mediterranean Region, Pınarbaşı B (Baird, 2012) in Central Anatolia, and Yarımburgaz and Gedikkaya in northwestern Anatolia, show evidence of first occupation between 14,000 and 12,000 BC. These settlements belong to the Late Epipalaeolithic Period and exhibit distinctive regional variations and toolkits.

By 10,000 BC, hunter-gatherer communities predominated in the Aegean and Mediterranean basins, while permanent villages, such as Boncuklu Tarla in the Upper Tigris Valley, began to emerge (Kodaş, 2021). By 9,500 BC, these settlements grew denser, with advanced architectural features, such as those seen at Çayönü and Körtiktepe in the Tigris Basin, and Göbeklitepe and Karahantepe in the Euphrates Basin. These sites feature monumental stelae, cult areas, and specialized structures, indicative of complex social organization and developed cultural practices (Kuniholm, Başgelen, & Özdoğan, 2011; Özdoğan, Başgelen, & Kuniholm, 2011; Karul 2022).

Gedikkaya Cave offers fresh perspectives on the transition from shelters to settlements with cult areas. Radiocarbon dating of Layer 3 at Gedikkaya places the Epipalaeolithic occupation between the 15th and the 16th millennium BC. The findings in this layer are unique and suggest ritual practices. This paper explores these vestiges in the context of Gedikkaya's Epipalaeolithic period, highlighting its role in bridging earlier European Paleolithic cultures within later Pre-Pottery Neolithic (PPN) cultures of the Near East.

Location and History of Research

Gedikkaya Cave is situated approximately one kilometer south-southeast of İnhisa, in Bilecik Province, northwestern Turkey. It lies at the intersection of the Marmara, Aegean, and Black Sea zones (Figure 1). Positioned about 350 m above sea level on the northern slope of İnkaya, a rocky hill dominating the Sakarya (Sangarius) River valley, the cave is

by Lütfi Nazik revisited the site as part of the Central Sakarya Basin Natural Caves project, again under the auspices of the MTA (Nazik, et al. 2001).

The archaeological significance of the cave was first reported during the 2017 season of the Bilecik Province Archaeological Survey on the “Documentation of Cultural Heritage in Bilecik Province and its Districts” (Sarı, 2019, 444–446). Evidence of significant destruction, including damage from illegal excavations, was observed. Salvage excavations commenced in 2019 under the direction of the Republic of Türkiye Ministry of Culture and Tourism, with support from the Bilecik Museum, Bilecik Şeyh Edebali University, and the İnhisar Municipality. Since then, five excavation campaigns have been conducted by a multidisciplinary team, and the archaeological material has been entrusted to various specialists for analysis.

Chronology and Cultural Layers in Gedikkaya Cave

Gedikkaya cave was occupied during at least four distinct periods, ranging from the Epipalaeolithic to the Chalcolithic. Evidence also suggests occasional visits during the Hellenistic period by residents of nearby settlements.

Calibrated radiocarbon dating places the most recent occupation in the Chalcolithic period. The deposit in the entrance corridor was reported to be at least 50 cm thicker in 1960 (Rupprecht, 1960, 5), suggesting the loss of Late Chalcolithic layers. Layer 1B, representing the end of the Early Chalcolithic Period, dates to 5316–5212 calBC and 5041–4879 calBC, with an average OxCal calibrated range of 5263–4960 calBC. Layer 1A, attributed to the Middle Chalcolithic Period, dates to 4729–4584 calBC and 4616–4456 calBC at 2σ probability. Architectural features in Layer 1B include hearths and oval-shaped silos made of small stones (Figure 3a, Squares E 8-11).

Layer 2 is associated with the Neolithic period, with radiocarbon dating for the earliest phase, Layer 2C, indicating occupation during the VIIIth millennium BC. However, intact deposits from this period have been found, and materials from this layer were intermixed with those from younger strata. Accordingly, only the upper layers 2B and 2A can be confidently identified. Layer 2B, corresponding to the early phase of the Neolithic Period, has been dated to 7187–7046 calBC, 6591–6542 calBC, and 6593–6451 calBC at a 2σ probability. The most abundant finds in the cave are attributed to the Late Neolithic, with dates corresponding to 5990–5831 calBC, 6246–6077 calBC, as well as an average date of 6150–5910 calBC according to the OxCal radiocarbon calibration program.

The oldest cultural layer discovered to date belongs to the Epipalaeolithic Layer 3, which spans the XVth, XIVth and XIIth millennia BC (14495–14121 calBC; 13309–13023 calBC; 11227–11131 calBC at 2σ probability) (Figure 4). This layer, composed of a yellow clay deposit extending throughout the entire entrance corridor, has not yet been fully excavated

to its base level. Directly above Layer 3, approximately 15 cm of ash deposits, devoid of any artifacts, have been identified in squares D 6-7 and E 6-7. This ash layer serves as the terminus ante quem of the Epipalaeolithic Layer 3 in this area.

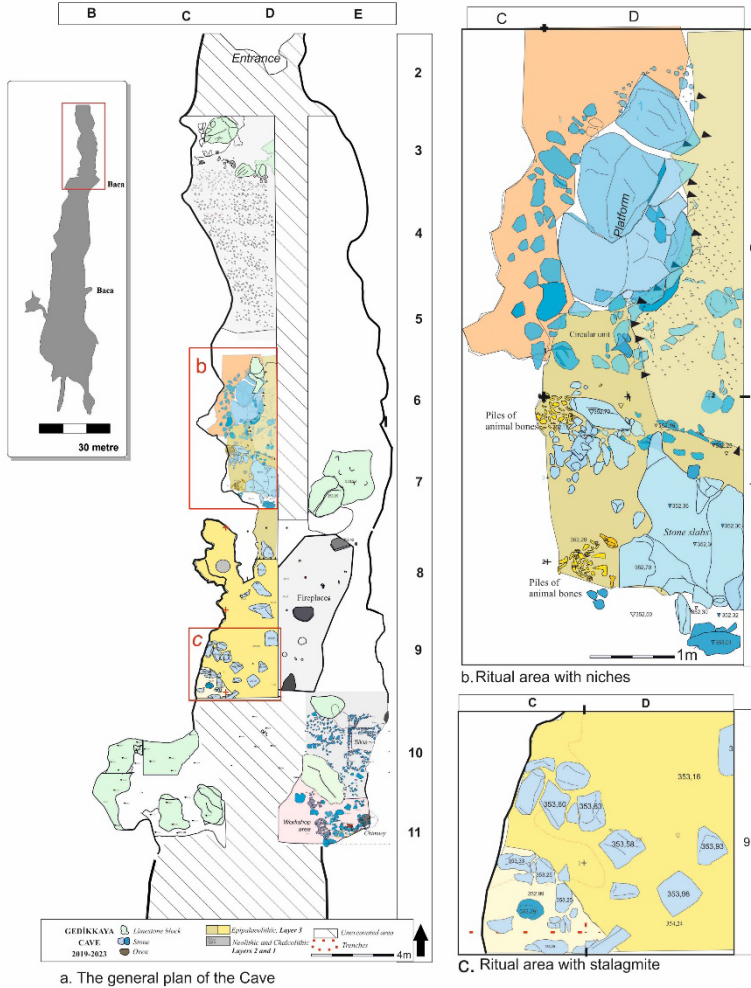


Figure 3: Plans of excavated areas in Gedikkaya Cave

Extraordinary Space Arrangements and Items

Layer 3 presents evidence of at least two distinct extraordinary spatial arrangements that suggest a special function for the. The first arrangement, in squares D6-7, dates to a mean of 13166 calBC, while the second, located in square D9, is younger, dating to a mean of 11177 calBC, both determined with a 2σ probability.

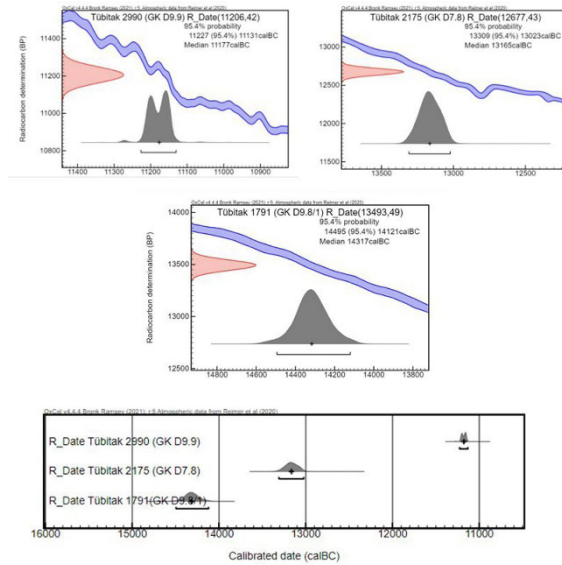


Figure 4: Calibrated samples from the Oxford Radiocarbon Accelerator Unit (ORAU)’s online OxCal calibration program (<https://c14.arch.ox.ac.uk/oxcal/OxCal.html>)

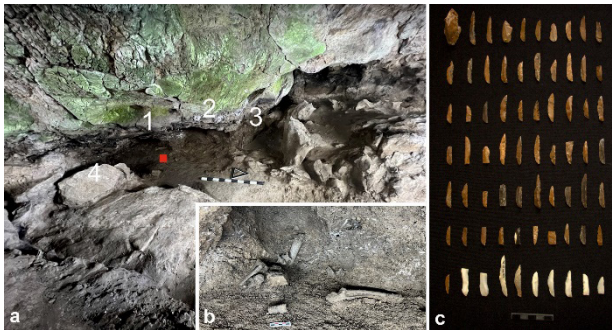


Figure 5: a. 1-2: the niches, a.3: silo-like unit, a.4: animal sculpture lying on its side; b: the niches; c: Epigravettian chipped stones



Figure 6: Animal bones, molluscs and chalcedony tools from the ritual Context in D6-7 Squares

The first arrangement, located approximately 20 m from the cave entrance along the west wall, features a limestone block that had fallen from the ceiling before the Epipalaeolithic period, forming a platform in front of the wall. Adjacent to this platform is a circular, silo-like unit of about 1 m² (Figures 3b; 5a3). This unit contained approximately 70 chipped stones, including backed blades, lunates, and microliths, which exhibit characteristics of the Epigravettian flint industry (Figure 5c). In front of the silo-like structure are two natural niches in the cave wall (Figure 3b; 5a1–2). Each niche contained stacks of animal bones and chalcedony tools (Figure 6), with a C14 analysis of a bone from the southern niche in square D7 dating to 13309–13023 calBC. The animal bones include vertebrae, pelvic bones, horns from wild goats and sheep, fallow deer antlers, an eagle claw, tortoise remains, and mollusk shells. Notably, a wild goat horn was found upright against the back wall of the southern niche (Figure 5b, Figure 6). One vertebra showed a possible embedded arrow mark, hinting at hunting activities (Figure 6).

The deliberate selection of such a wide variety of animal remains, including terrestrial avian, and marine species, suggests the area may have been used for rituals related to hunting and gathering. A stone slab, possibly a prepared surface, lay in front of the niches, alongside a stone shaped like a seated animal, about 45 m and 40 m wide, with indications of intentional carving, such as grooved “claws” on one “paw” (Figures 5a4; Figure 8). This “sculpture” reinforces the interpretation of the niches as a site of ritual activity. Additionally, a stone resembling a tortoise was found nearby, echoing the turtle bones placed within the niches (Figure 9).

Close to this sculpture was a pendant (Figure 12c) and an equid phalanx (Figure 12d), which, though unmodified, may have held symbolic significance. The equid phalanx, for instance, resembles anthropomorphic forms seen in PPN and Chalcolithic contexts in the northern Levant and Southeastern Anatolia (Christidou, Coqueugniot, & Gourichon, 2009; Campana & Crabtree, 2018).

Approximately 40 m from the cave entrance, in square D9, a semi-circular double row of carefully selected stones forms an arrangement about 1.2 m in diameter (Figure 3c, 7). At the center of the semicircle stands a large stalagmite, approximately 1 m high and 40 cm wide, left in its natural position. Its shape closely resembles a phallus (Figure 7a–c). The stones forming the inner row of the semicircle are flat and appear to have been carefully selected (Figure 7a–b). A C14 analysis of a bone sample from this zone, specifically in D9 square, yielded data of 11227–11131 calBC at a 2 σ probability (Figure 4, Figure 7b).



Figure 7: The ‘ritual area’; a-b: The stalagmite with flattened top and the stone rows arranged around it; c: the detail of the phallus-shaped stalagmite. The red point is the location of the C14 sample

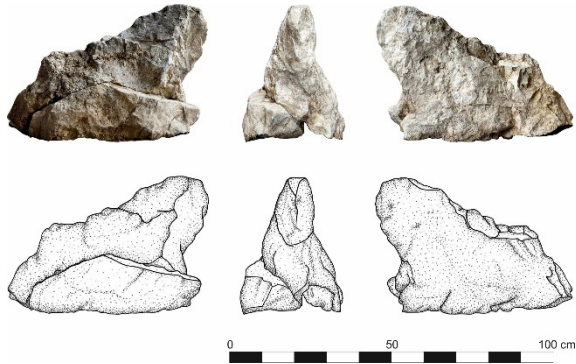


Figure 8: Seated animal sculpture

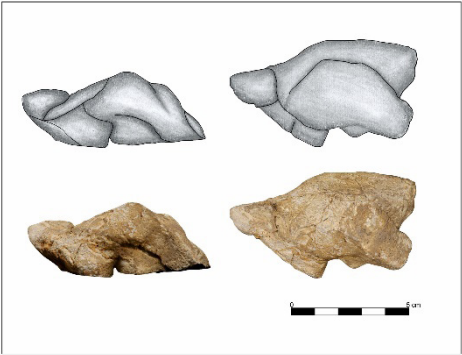


Figure 9: Tortoise sculpture

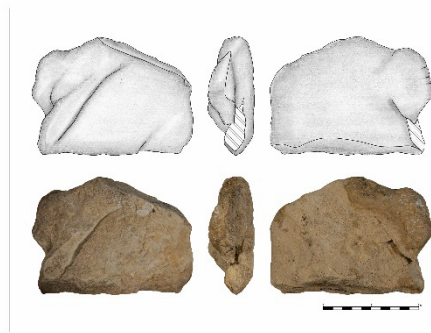


Figure 10: Animal sculpture

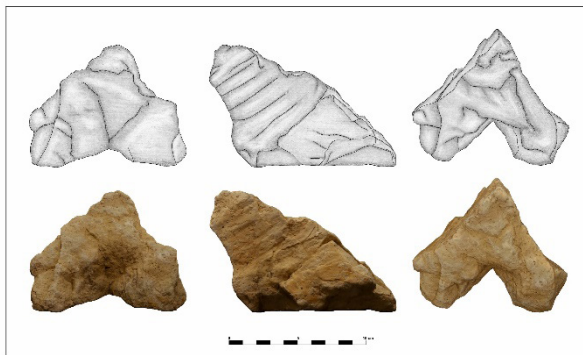


Figure 11: Stylized anthropomorphic sculpture

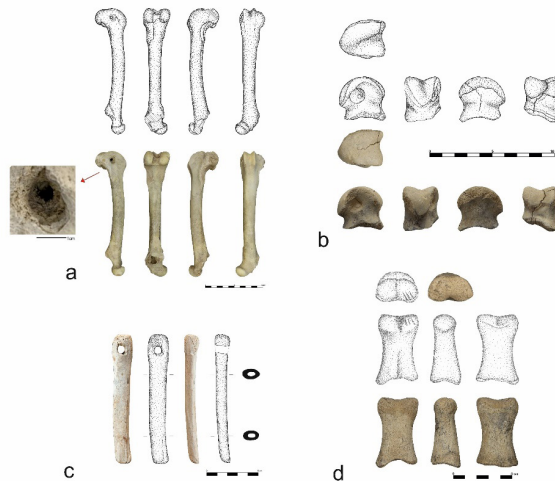


Figure 12: Bone objects from Gedikkaya Cave



Figure 13: Comparison with Magdalenian Culture

The function of this area can be explored through the discovery of bone and stone objects within it (Figures 10–12). Natural bones have been superficially modified to create objects that resemble human or raptor profiles (Figure 12a–b). One such object features a pierced “eye,” suggesting a two-dimensional artistic approach. Comparable artifacts have been identified at European Upper Paleolithic sites, particularly pierced objects known as *bâton percé* (perforated baton) or *bâton de commandement* (baton of command), whose functions remain uncertain (Rigaud, 2021). The Gedikkaya examples are reminiscent of a piece found at Roc de Marcamps in the Dordogne, France, which has been variously interpreted as representing a human, eagle, or owl (Roussot & Ferrier, 1970, 299; fig. 5). Similar representations appear in the PPNA of Mesopotamia (e.g., at Nemrik, Hallan Çemi, and Körtek Tepe) as stone pestles or bird-headed characters (Kozłowski, 1989, fig. 8; Özkaya & Çoşkun, 2011, figs. 24, 36, 37.1; Rosenberg, 1999, fig. 4.1–7, b 15).

The ritual area also contained limestone objects and coarse sculptures depicting animals or humans. As with the bone artifacts, these sculptures were worked only on one side. One limestone object, interpreted as the profile of an elephant or a mammoth, features a humped back and a carved line suggesting the animal’s front leg (Figure 10). The base of the sculpture is completely flattened, allowing it to stand freely. This piece is reminiscent

of ivory mammoth figurines and European cave art, such as those from Vogelherd Cave in Germany (Conard, 2009, 262).

Another stylized anthropomorphic sculpture found in the area represents the lower torso and upper legs of a seated or kneeling human figure, likely female, as indicated by the distinct V-shaped pubis, and pronounced belly represented with shallow grooves (Figure 11). Minimal attention appears to have been paid to the back. This juxtaposition of masculine and feminine entities, symbolized by the stalagmite and the sculpture¹, underscores the duality of gender representation in the ritual space.

Stylized human figurines have also been discovered elsewhere in Türkiye, including Epipalaeolithic examples from Kızılin Cave (Demirel et al., 2019, Figs. 7-8, 10-11) and Direkli Cave (Erek, 2014, Fig. 3-4), in the Mediterranean region, As well as Upper Paleolithic examples from the Beykoz district in the Marmara Region (Güldoğan, 2020). Limestone sculpture appears to be a cultural hallmark of the Epipalaeolithic in Türkiye, with varying styles. The closest parallel to the Gedikkaya sculpture is a piece from Dolní Věstonice (Czech Republic) found in a Gravettian context. Smaller than the Gedikkaya sculpture and crafted from mammoth ivory rather than limestone, this artifact has been described as a “Venus figurine” or a “pearl in the shape of a woman” (Lázničková-Galetová, 2019; Svoboda, 2008, Fig 46). The Gedikkaya example, characterized by its impression of steatopygia, evokes the “Venus” figurines of Upper Paleolithic European cultures and established a cultural link to PPN artifacts from the Levant (for instance, Netiv Ha’Gdud, Dja’de, Çayönü and Gürcütepe (Ayobi, 2014, Fig.3.6;4.1; Bar-Joseph, 1998, Fig.13.4; Broman-Morales, 1990, Pl. 22.d); Şanlıurfa Museum, 2017), and subsequently, the “Mother Goddess” figurines of the Neolithic period.

In the niche where the stalagmite forms part of the sculpture, natural shapes have been subtly arranged to highlight perceived motifs. This sophisticated level of symbolism occasionally persists into the Neolithic period, reflecting the enduring cultural memory of these practices.

Understanding Ritual Activities at Gedikkaya

It is impossible to fully comprehend the practices and objectives of the rituals² performed by those who lived in the distant past or to arrive at a conclusion that reflects their reality,

1 I would like to thank Jan Ritch Frel for providing insight regarding juxtaposition of masculine and feminine entities, which contributed to this work.

2 In “Dictionary of Concepts in Cultural Anthropology,” Robert H. Winthrop examines the nature and significance of rituals across various contexts. Winthrop defines ritual as a formalized, socially prescribed symbolic behavior that is meaningful and structured, rather than arbitrary or utilitarian. Examples such as a handshake, a Mass, or a royal coronation illustrate how rituals consist of relatively invariant sequences of actions that convey sentiments or ideas within a societal framework (Winthrop, 1991, 245). This is among numerous references addressing the concept of rituals.

given the fragmentary nature of the archaeological evidence they left behind. However, when archaeological findings cannot readily be linked to craft or daily activities, it is reasonable to infer that they may not have been associated with the mundane. This invites an exploration of how these artifacts might pertain to other dimensions of the human condition and how past populations approached aspects of their world that seemed beyond rational explanation.

Human beings have always sought to understand the chains of causation behind natural threats—thunder and lightning, earthquakes, floods, volcanic eruptions, predator attacks, and more. These phenomena are often regarded as part of the “supernatural,” lying “beyond” the realm of ordinary experience. In response, humans have sought to mitigate these threats through supernatural means. Across cultures, people have developed ways to confront the unknown and defend against perceived existential threats using media such as cave paintings, statuettes, cultic monuments, burial rituals, or treated bones of humans and animals. Each of these can be seen as an interface between the known and the unknowable—a means of engaging with and attempting to comprehend what lies beyond human understanding.

Early societies may also have observed the behaviors of their surroundings—plants, animals, rivers—and incorporated these observations into ritual practices as symbolic items, allowing them to exert a perceived level of control over certain events, such as death and birth. The natural world’s motions and cycles—a seed becoming a sapling and later a tree, the slow growth of stalactites, eagles catching prey and vanishing into the sky, the long lives of tortoises, and the rhythms of diurnal and seasonal changes—could have served as metaphors for the cycles of human existence. These metaphors, drawn from nature, likely formed a significant part of the ritual and spiritual lives of the inhabitants of Gedikkaya.

Symbolism of Birth, Death and Transformation: Ritual Items Inspired by Natural Structures

When a human or animal died and its remains were left unattended, scavengers such as raptors would consume the flesh, and any remnants would decompose over time, disappearing from the visible world and perhaps symbolically transitioning into whatever lay “beyond.” However, the skeletal system often remained, representing a tangible and fundamental link between the mundane and the supernatural. The inhabitants of Gedikkaya Cave, or their cultural predecessors, may have observed that certain bones—such as vertebrae from sheep, goats, or fallow deer—resembled the shapes of other creatures. For example, phalanges from these animals might evoke the human (female) body, while the distal epiphysis of a femur could resemble a raptor or a human profile. These natural forms may have inspired their adoption as symbolic items, meaningful patterns (Figure 12a–b, d). Such processed objects have been recognized as significant symbolic items in Eurasian Upper Paleolithic cultures (Caldwell, 2009).

The profile of a bovine phalanx (Figure 12a–b), such as those found at Gedikkaya, naturally resembles a raptor or a human figure. This inherent similarity may have inspired their use as ritual objects without requiring modification. Placing such objects in specific areas within the Epipalaeolithic layers highlights the ceremonial or symbolic importance of these locations. The symbolic significance of birds was widespread; for instance, bird reliefs and portable artifacts have been identified at sites like Göbekli Tepe, Nevalı Çori, Domuztepe, and Köşk Höyük (Schmidt, 2007; Hauptmann, 1999; Tekin, 2023; Silistreli, 1989). Similarly, an equine phalanx recovered from Gedikkaya Cave (Figure 12d), naturally resembling a human or female form and capable of standing upright, reinforces the notion of naturally anthropomorphic bones being imbued with meaning. The tortoise sculpture (Figure 9) echoes the placement of tortoise shells in the niches, further emphasizing this symbolic interplay.

The feminine-stylized limestone sculpture from Gedikkaya Cave (Figure 11) also suggests a V-shaped pubis and was found within a structure featuring a central phallus-like stalagmite. The deliberate juxtaposition of male and female elements within this context appears intentional and highly symbolic. Likely reflecting a deeper ritual or cosmological understanding among the cave's inhabitants.

Conclusions

Radiocarbon dates from the Epipalaeolithic occupation layers of Gedikkaya indicate that the site was inhabited from around 14500 calBC, coinciding with the end of the last glaciation, until approximately 11200 calBC. This period marked the diffusion of European Upper Paleolithic cultural practices into regions such as the Balkans, the Caucasus, and the Mediterranean. While Gedikkaya's precise role in this cultural diffusion remains unclear, the anthropomorphic and zoomorphic stylized sculptures from its Epipalaeolithic layers suggest cultural links between European Upper Paleolithic groups and Levantine-Anatolian Epipalaeolithic cultures. Additional cultural associations may also be inferred (Figure 13).

The area featuring the stalagmite “stele” and the surrounding double row of stones strongly indicates ceremonial significance for the Epipalaeolithic community of Gedikkaya. The structure may have influenced later monumental, phallic pillars from the Pre-Pottery Neolithic (PPN), such as Karahantepe (Karul, 2021). The use of stalagmites in caves during the Upper Paleolithic and Epipalaeolithic periods may have inspired the monumental stelae of subsequent cultures. Gedikkaya thus represents one phase in a broader cultural continuum with many interconnected developments.

Evidence uncovered at Gedikkaya Cave highlights the integral role of ritual activity in the lives of its Epipalaeolithic inhabitants. The combination of the phallus-shaped stalagmite/stela, the double row of stones, and anthropomorphic and zoomorphic objects suggest that the community crafted imaginative belief systems by drawing connections between natural phenomena. These spiritual practices reflect an effort to confront fears, express hopes, and show thankfulness, similar to rituals in many modern contexts. It is possible that such cultic practices originated in cave settlements—environments that were both morphologically inspiring and protective against environmental adversities—and were passed down through chains of cultural memory.

Acknowledgement: I sincerely thank R. Gareth Roberts for his advice and editorial assistance, as well as the referees for their insightful suggestions, which have greatly improved this manuscript. I would like to thank Enago (www.enago.com) for the English language review. I am deeply grateful to Can Yünni Gündem and his team for their preliminary assessments of the archaeozoological material, with special thanks to Tugay Güntüş for his contributions. The excavations were conducted on behalf of the Republic of Türkiye Ministry of Culture and Tourism, under the direction of the author and the auspices of the Bilecik Museum. I extend my gratitude to these institutions, to Bilecik Şeyh Edebali University for their support, and to the entire excavation team. Special thanks go to Yusuf Tuna and Büşra Mustafaoğlu for their detailed drawings of the objects. I am grateful to the Bilecik Şeyh Edebali University Research Foundation for supporting the ‘Short-term Hilltop and Cave Settlements during the Neolithic Period: The Case of Keçiçayırı and Gedikkaya Sites’ (GAP-2024-571).

Peer-review: Externally peer-reviewed.

Grant Support: Bilecik Şeyh Edebali University Research Foundation (GAP-2024-571)

Conflict of Interest: The authors has no conflict of interest to declare.

References

- Aksan, M., Ateş, G., Aydın, Y., Erbil, E., Ludwig, B., Mania, U., Pirson, F., Taşkıran, H. (2023). Ballık Mağarası (Dikili İlçesi) Kazısı. 42. Kazı Sonuçları Toplantısı, 2, pp. 357-365.
- Altınbilek Algül, Ç., Kayci, O., & Balci, S. (2022). A New Epipalaeolithic Site in the Central Taurus Mountains: Eşek Deresi Cave (Mersin/Turkey). *ArchéOrient*. Şubat 2022 tarihinde <https://archeorient.hypotheses.org/17313>
- Ayobi, R. (2014). Les objets en terre du Levant néolithique avant l’invention de la céramique: cuisson intentionnelle ou accidentelle? *Syria* (91), pp. 7-34.
- Baird, D. (2012). Pınarbaşı: From Epi-Paleolithic camp site to Sedentarising Village in central Anatolia. M. Özdoğan, N. Başgelen, & P. Kuniholm (Eds), *The Neolithic in Turkey. Central Turkey* (pp. 181-218). İstanbul: Arkeoloji ve Sanat Yayınları.
- Bar-Joseph, O. (1998). The Natufian culture in the Levant, threshold to the origins of agriculture. *Evolutionary Anthropology*, 5(6), pp. 159-177.
- Baysal, E. (2016). Anadolu ve Levant Epi-paleolitikliği ışığında direkli mağarası kişisel süs eşyaları. *Anadolu/Anatolia* (42), pp. 137-154.
- Broman-Morales, V. (1990). *Figurines and Other Clay Objects from Sarab and Çayönü*. Chicago: The Oriental Institute.

- Caldwell, D. (2009). Palaeolithic Whistles or Figurines? A Preliminary Survey of Pre-historic Phalangeal Figurines. *Rock Art Research* 1(26), pp. 65-82.
- Campana, D. V., & Crabtree, P. (2018). Bone implements from Chalcolithic Tepecik-Çiftlik: Traces of manufacture and wear on two classes of bone objects recovered from the 2013 excavation season. *Quaternary International*, A (472),75-83.
- Christidou, R., Coqueugniot, E., & Gourichon, L. (2009). Neolithic Figurines Manufactured from Phalanges of Equids from Dja'de el Mughara, Syria. *Journal of Field Archaeology* (34:3), pp. 319-335. doi: DOI: 10.1179/009346909791070844
- Conard, N. (2009). ... und noch mehr Tiere! Die neuen Kleinkunstwerke vom Hohle Fels und vom Vogelherd. *Eiszeit - Kunst und Kultur* (pp. 259-266). S. Rau (Ed.) Baden-Württemberg: Archäologisches Landes Museum.
- Demirel, M., Kartal, G., Erbil, E., Ağırsoy, Z. B., Erdem, İ. B., Perçin, P., Mutlu, M., Bal, B.C., Kartal, M. (2019). Kızılin Kazıları (II) 2018 Sezonu. A. Özme (Ed.), *41. Kazı Sonuçları Toplantısı 3. Cilt* (pp. 221-236). Ankara.
- Erbil, E., Kartal, G., & Ağırsoy, Z. B. (2021). A New Settlement from the Epi-Palaeolithic Period: The Operational Sequence and Techno-Typology of the Knapped Stone Industry at the Kızılin Site (Antalya, Turkey). *Lithic Technology*, 2(46), pp. 143-163.
- Erdoğan, B., Korkut, T., Takaoğlu, T., Atıcı, L., Kayacan, N., Guilbeau, D., Ergun, M., Doğan, T. (2021). Late Pleistocene and Early Holocene Finds from the 2020 Trial Excavation at Girmeler, Southwestern Turkey. *Anatolica*, 47, 299-320.
- Erek, M. (2014). Direkli Cave: The Significance of Fire and Female Figurines in the Paleo-Landscape during the Epi-paleolithic Period. *Selevcia Ad Calycadnm* (IV), pp. 151-164.
- Erek, M. C. (2012). Güneybatı Asya Ekolojik Nişi İçinde Direkli Mağarası Epi-Paleolitik Buluntularının Değerlendirilmesi. *Anadolu/Anatolia* (38), pp. 53-66.
- Gatsov, I., & Özdoğan, M. (1994). Some Epi Paleolithic Sites from NW Turkey Agaçlı Domalı and Gümüşdere. *Anatolica*, XX, 97-120.
- Güldoğan, E. (2020). *İstanbul İli Yüzey Araştırmaları 2018-2019, Beykoz*. İstanbul: Beykoz Belediyesi Kültür Yayınları.
- Hauptmann, H. (1999). The Urfa Region. M. Özdoğan, & N. Başgelen in, *Neolithic in Turkey, New Discoveries* (pp. 65-87). İstanbul: Arkeoloji Yayınları.
- Kartal, M. (2009). *Konar Göçerlikten Yerleşik Yaşama Geçiş, Epi-paleolitik Dönem, Türkiye'de Son Avcı-topluyucular*. İstanbul, İstanbul: Arkeoloji ve Sanat Yayınları.
- Kartal, M. (2011). Kuzey ve Orta-Batı Türkiye'de Epi-paleolitik Erken Neolitik Buluntular ve Güneybatı Anadolu İle Olan Yontmataş Karşılaştırılması. M. K. H. Taşkiran, H. Taşkiran, M. Kartal, K. Özçelik, M. B. Kösem, & G. Kartal (Eds.), *Işın Yalçınkaya'ya Armağan / Studies in Honour of Işın Yalçınkaya* (pp. 153-177). Ankara: Bilgin Kültür Sanat Yayınları.
- Karul, N. (2021). Buried Buildings at Pre-Pottery Neolithic Karahantepe / Karahantepe Çanak Çömleksiz Neolitik Dönem Gömülü Yapıları. *Türk Arkeoloji ve Etnografya Dergisi*, 202(82), pp. 21-31.
- Karul, N. (2022). Şanlıurfa Neolitik Çağ Araştırmaları Projesi: Taş Tepeler. *Arkeoloji ve Sanat Dergisi*, 169, 8-15.
- Kodaş, E. (2021). Communal Architecture at Boncuklu Tarla, Mardin Province, Turkey. *Near Eastern Archaeology*, 84(2), 159-165.

- Kozłowski, S. (1989). Nemrik 9, a PPN Neolithic Site in Northern Iraq. *Paléorient*, 1(15), pp. 25-31.
- Kuniholm, P., Başgelen, N., & Özdoğan, M. (Eds.). (2011). *The Neolithic in Turkey: the Tigris Basin*. İstanbul: Arkeoloji ve Sanat Yayınları.
- Lázničková-Galetová, M. (2019). The Symbolism of Breast-Shaped Beads from Dolní Věstonice I (Moravia, Czech Republic). *Quaternary International* 5, B (503), pp. 221-232.
- Nazik, L., Türk, K., Acar, C., Özel, E., Mengi, H., Aksoy, B., Tuncer, K., Güner, İ. (2001). *Orta Sakarya Havzasının (Eskişehir ve Bilecik doğusu) Doğal Mağaraları*. Ankara: MTA Derleme No:104.
- Otte, M., Yalçınkaya, I., Leotard, J., Kartal, M., Bar Josef, O., Kozłowski, J., López Bayón, I., Marshack, A. (1995). The Epipalaeolithic of Öküzini Cave (SW Anatolia) and its mobility art. *Antiquity*, 69(266), pp. 931-944.
- Özdoğan, M., Başgelen, N., & Kuniholm, P. (Eds.). (2011). *The Neolithic in Turkey the Euphrates Basin*. İstanbul: Arkeoloji ve Sanat Yayınları.
- Özkaya, V., & Çoşkun, A. (2011). Körtik Tepe. P. Kuniholm, N. Başgelen, & M. Özdoğan (Eds.), *The Neolithic in Turkey: the Tigris Basin* (pp. 87-127). İstanbul: Arkeoloji ve Sanat Yayınları.
- Rigaud, A. (2021). Les bâtons percés: décors énigmatiques et fonction possible. *Gallia préhistoire* (43), pp. 101-151.
- Rosenberg, M. (1999). Hallan Çemi. N. Başgelen, & M. Özdoğan (Eds.), *The Neolithic in Turkey: the Cradle of Civilization, New Discoveries*. (pp. 9-18). İstanbul: Arkeoloji ve Sanat Yayınları.
- Roussot, A., & Ferrier, J. (1970). Le Roc de Marcamps (Gironde): quelques nouvelles observations. *Bulletin de la Société préhistorique française*, 67, pp. 293-303.
- Rupprecht, K. (1960). *İnhisar civarındaki Gedikkaya mağarasında bulunan fosforit zuhurunun etüdü. Untersuchung des phosphoretvorkommens des in der Gedikkaya-Hohle bei İnhisar (Söğüt -Bilecik)*. Ankara: MTA Derleme No: 02770.
- Sarı, D. (2019). Bilecik İli 2017 Yılı Yüzev Araştırmaları. *Araştırma Sonuçları Toplantısı 36/1*, (pp. 439-454). Ankara.
- Schmidt, K. (2007). *Göbekli Tepe En Eski Tapınağı Yapanlar*. (R. Aslan, Trans.) İstanbul: Arkeoloji ve Sanat Yayınları.
- Silistreli, U. (1989). Köşk Höyük'te Bulunan Kabartma İnsan ve Hayvan Figürleriyle Bezeli Vazolar. *Belleten*, 206(53), 361-374.
- Svoboda, J. (2008). Upper Paleolithic Female Figurines of Northern Eurasia. J. A. Svoboda (Eds.), *Petrkovice: The Dolni Věstonice Studies 15*. Brno, Çek Cumhuriyeti: Academy of Sciences.
- Şanlıurfa Archaeology and Mosaic Museum/Şanlıurfa Müzesi Arkeolojik Eser Kataloğu. (2017). Şanlıurfa: T.C. Kültür ve Turizm Bakanlığı Kültür Varlıkları ve Müzeler Genel Müdürlüğü.
- Tekin, H. (2023). Domuztepe çanak-çömleği üzerindeki kuş motifleri / Birds motifs on the Domuztepe pottery. Y. Aydın, E. Erbil, & G. Kartal (Eds.), *Prehistorya'nın "Abi'si, Harun Taşkıran'a Armağan Kitabı / "The Big Brother" of Prehistory, Studies in Honour of Harun Taşkıran* (pp. 371-382). Ankara: Bilgin Kültür Sanat.
- Winthrop, R. H. (1991). *Dictionary of Concepts in Cultural Anthropology*. New York: Greenwood Press.



Kün Aftare Settlements: First Reports on the Neolithization Process in the Northern Habur Valley

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Submitted: 25.01.2024

Revision Requested: 15.04.2024

Last Revision Received: 20.09.2024

Accepted: 01.11.2024

Citation: Kodaş, E., Çiftçi, Y., İpek, B., Şan, M.,
Dinç, O., & Mentşe, D.H. (2024). Kün aftare
settlements: first reports on the neolithization
process in the Northern Habur valley. *Anadolu
Arařtırmaları-Anatolian Research*, 31, 17–30.
<https://doi.org/10.26650/anar.2024.31.1425921>

ABSTRACT

The Neolithization process in southeastern Anatolia has been the subject of many studies over the years. However, these have primarily been concentrated around the Euphrates Basin and Tigris Valley. Meanwhile, recent studies in the Şanlıurfa region provide important information on the Neolithization process in the mountainous region between these two rivers. The 2023 Archaeological Survey of the Pleistocene and Early Holocene Period in the Artuklu, Kızıltepe, Yeşilli, and Nusaybin Districts of Mardin Province revealed many settlements dating to the Neolithic Period in the Northern Habur Valley. In this context, the settlements identified at Kün Aftare Mevkii in the Nusaybin District provide new information on the unique Neolithization process of the Northeastern Habur Valley, a key area to both southeastern Anatolia and northern Mesopotamia.

Keywords: Neolithization, Northern Habur, Southeastern Anatolia, Mesopotamia, Mardin Province



Introduction

Prehistoric communities in the Near East lived a hunter-gatherer lifestyle for a long period of time before gradually transitioning to Semi-sedentary and sedentary in response to climatic changes and other external and internal factors. This process, which roughly coincided with the end of the Paleolithic period, is associated with the changes of the Younger Dryas and Early Holocene in the Near East (Kuzucuoğlu 2007; Sanlaville 1997; Wick *et al.*, 2003). During this period, parallel to the wider climatic changes, radical developments in nomadic society have begun. Chronologically, during the Epi-Paleolithic and Early Neolithic periods, the first semi- and fully-settled communities began emerging. These early villages or settlements created a context in which open-area settlements were used in addition to cave dwellings, which were a remnant of the old hunter-gatherer way of life. Notably, studies conducted in the Near East have documented the coexistence of both cave and open-area settlements. The sites of Zawi Chemi-Shanidar (Layer B) (Solecki, 1980) and Layer B1 in Shanidar Cave (Solecki, 1971) are the best reflections of this development.

While it is widely accepted that the Neolithization process in the Near East started in the Epi-Paleolithic period, the exact starting point for this process varied according to local contexts. The archaeological excavations at Ohalo and Ain Gev in the southern Levant, for example, have yielded evidence of simple settlements or village remains. The evidence of both agricultural activities and semi-settled areas suggest that the first settled communities emerged around 20,000 BC (Byrd, 2002: 71; Nadel, 1991; Nadel-Carmi *et al.*, 1995). However, since the data pertaining to these early cultures in the southern Levant are still inconclusive, the exact process that occurred in the area is still uncertain.

Natufian culture (Bar-Yosef, 1998: 162; Childe, 1953; Garrod and Bate, 1937; Neuville, 1951), which emerged in this general region, is also present in traces from these early settlements. This culture also influenced wider Mesopotamia and led to the first settlements there as well. For example, the oldest levels of the Mureybet settlement in northern Mesopotamia indicate that it first appeared in the pre-Neolithic period (Cauvin, 1977: 20; Ibáñez, 2008: 21-22). The site—which features simple, hut-shaped architectural traces—was under the influence of the Natuf-Khimian cultures. Similar data were obtained further north of the Mureybet, in the southeastern Anatolian region of Turkey. However, these data do not demonstrate a Levantine influence as in the case of the Mureybet settlement. Rather, the sites in southeastern Anatolia were more of a regional development with local and mixed cultural (Mountainous Zagros) traces.

The studies conducted in the northernmost part of northern Mesopotamia (i.e., southeastern Anatolia) provide the best evidence of early settlements and the Neolithization process in the region. This is because the area offers not only traces of the first settlements but also traces

of the earliest social and communal life in the region. The Epi-Paleolithic settlements, which are the earliest settlements of this region, are represented by the data obtained from sites such as Körtik Tepe (Benz *et al.*, 2015), Boncuklu Tarla (Kodas and Çiftçi, 2021) and Çemka Höyük (Çiftçi, 2022). In addition, the Kün Aftare settlements, which are the subject of this study, have recently yielded new data thanks to their discovery after surveys conducted in Mardin Province. These data provide traces of the early Neolithization process in the southeastern Anatolian (i.e., northern Mesopotamian) region, and thanks to the evidence that dates to the Neolithic, they demonstrate all stages of the Neolithization process. However, this process differed both temporally and formally in northern Mesopotamia compared to other parts of Mesopotamia. The sites of Çayönü (Erim Özdoğan, 2011), Çemka Höyük (Çiftçi, 2022), Boncuklu Tarla (Kodas, 2019), Demirköy (Rosenberg, 2011b), Körtik Tepe (Özkaya and Coşkun, 2011), Hallan Çemi (Rosenberg, 2011a), Gre Filla (Ökse, 2021) and Gusir Höyük (Karul, 2020) in the Tigris Valley have a local origin process in the Zagros (similar to the East Jazira region), but they also bear traces of southern cultures, albeit to a lesser extent. The sites of Qermez Dere (Watkins, 1987) and Nemrik 9 (Kozłowski and Kempisty, 1990) in East Jazira have similarities to the sites in the Tigris Valley. In the Middle Euphrates, sites like Karahan Tepe (Karul, 2022), Sayburç (Özdoğan and Uludağ, 2022), Çakmaktepe (Şahin and Uludağ, 2023) and Göbekli Tepe (Schmidt, 2012) demonstrate the regional Neolithization process and are partially related to the lower Euphrates. The sites of Jerf el-Ahmar (Stordeur, 2014), Mureybet (Cauvin, 1997), Tell Abr 3 (Yartah, 2013) and Dja'de (Coqueugnot, 2009) in the lower Euphrates (now Syria) seem to have been more closely associated with the southern Levant. The fact that these regions, which are located on two major rivers (Tigris and Euphrates), reflect a mix of shared and distinct characteristics suggests a unique development in the Neolithization process. To better understand this development, the Habur Valley, which is located between the two rivers and is thus in a key position for research, should be investigated (Nishiaki, 1992; Nishiaki, 2000) and considered together with southeastern Anatolia. The Neolithization process should thus be looked at as a whole before being narrowed down to the regional or local level.

Although southeastern Anatolia is a unique geographical designation, this region is also an important part of northern Mesopotamia. Undoubtedly, this area is of particular importance for studies on the Neolithization process in the Near East (Goring-Morris and Belfer-Cohen, 2014; Karul 2022; Molist and Gómez-Bach, 2020 Özdoğan 1999; Özdoğan 2014; Watkins, 2020). Research on the Neolithization process of northern Mesopotamia has been defined by studies conducted on the banks of the Tigris and Euphrates Rivers. Much of this research has consisted of archaeological excavations that have been carried out due to the dam projects on both rivers. However, recent studies in the Şanlıurfa region have enabled the study of the region's Neolithization process not only along the riverbanks but also across a wider geographic spectrum (Çelik, 2014; Karul, 2022, Schmidt, 2012). Studies on the Habur

Valley, which lies between these rivers, are relatively few. While important surveys have been conducted on the part of this region that lies in Syria, the part that lies within the Turkish borders has never been investigated (Aurenche and Kozłowski, 2010; Kodaş 2015; Nishiaki 1992; Nishiaki, 2000). In this context, a 2023 survey conducted in the Artuklu, Kızıltepe, Yeşilli, and Nusaybin Districts of Mardin Province (Karadoğan and Coşkun, 2013), an important area of the northern Habur Valley, has revealed many Pre-Pottery Neolithic settlements (Fig. 1).¹ Most of these sites (about 35 in total) are located on the slopes of the limestone foothills in front of the Mardin Mountains. In addition, three settlements/sites dating to the Pre-Pottery Neolithic period were found on three different mounds on the plain and in the valleys further north. These new findings suggest that a different Neolithization process may have taken place on the slopes in the mountainous regions of the northern Habur Valley. Numerous settlements and sites dating to the Epi-Paleolithic and Pre-Pottery Neolithic periods were also found at the Kün Aftare (Sırtlan Sırtı/Hyaena Ridge) site within the borders of the Hasantepe neighborhood of the Nusaybin District of Mardin Province.



Fig. 1: Epipaleolithic and PPN Period settlements identified on the Mardin region

1 The Pleistocene and Early Holocene Period Archaeological Survey of the Artuklu, Kızıltepe, Yeşilli, and Nusaybin Districts of Mardin Province was started in 2022 under the direction of Associate Professor Ergül Kodaş with the permission of the Excavations Department of the General Directorate of Cultural Heritage and Museums, Turkey.

Kün Aftare Settlements

The prehistoric settlements of Kün Aftare are located approximately two kilometers north of the Hasantepe neighborhood of Nusaybin District, Mardin Province (Fig. 2). Five different points were identified in the area. Four are settlements located on slopes and hills (three of which have been surveyed). The final location is represented by two caves located side-by-side. The settlements are located at the southern end and eastern side of the Dibek Valley, which is connected to the Midyat Plateau. The caves are located about 500 meters west of the settlements, on the other side of the Dibek Valley. This area can also be defined as the foothills of the range known today as the Dibek Mountains (or Bagok). In other words, these settlements are located on the limestone slopes between the plain and the mountain range.

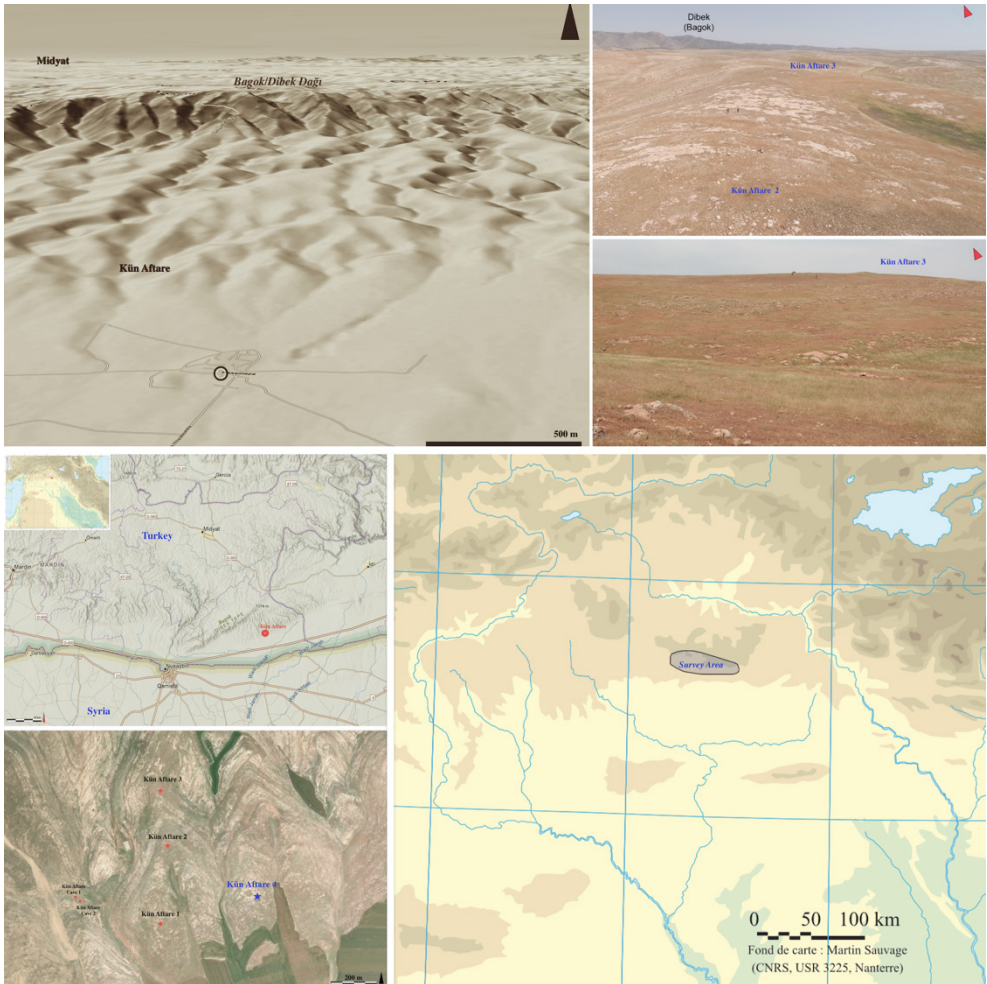


Fig. 2: Location of Kün Aftare settlements.

Kün Aftare 1

The Kün Aftare 1 settlement is located on the southern slopes of the deep Dibek Valley, about 1300 meters north of the Hasantepe (or Til Hesene) neighborhood. The site is approximately 545 meters above sea level. It measures approximately 200 × 300 meters in size and has yielded a few traces of round-plan buildings and scattered rows of walls (Fig. 3/c). Mortar carved into the bedrock and basalt tool fragments that may have been pestles or grindstones were also found (Fig. 3/a–b). Of the 71 flint and obsidian fragments collected in the area, three are obsidian and the others are flint (Fig. 3/d). Among the flint fragments there are two trapezes/trapezoids, five crescents, one micro point, one endscraper, two blades/bladelets, one microblade core, and 56 production-waste flakes. The three obsidian pieces collected in the area belonged to retouched bladelets. In addition, one flint bladelet core and chipping waste flakes (*dechet de taille*) were found in the area, suggesting that toolmaking may have occurred in this settlement.



Fig. 3: Architectural remains, chipped stone tools and grinding stones identified in Kün Aftare 1 settlement.

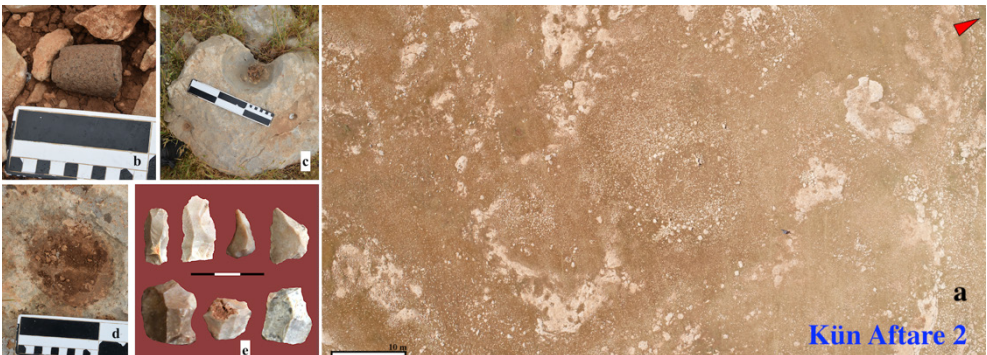


Fig. 4: Architectural remains, chipped stone tools and grinding stones identified in Kün Aftare 2 settlement.

Kün Aftare 2

Kün Aftare 2 is located approximately 400 meters north of the Kün Aftare 1. It is at the top (or southern end) of the slope on which the Kün Aftare 1 settlement is located. The site is approximately 554 meters above sea level, measures about 100 × 130 meters, and has one meter of cultural fill. Numerous rows of walls that may have belonged to a round-planned building were identified in the area (Fig. 4/a). One row is about 13 meters in diameter, another is 10 meters, and the rest are generally 4–5 meters. In addition, a mortar carved into the bedrock and basalt fragments, which may have been parts of grindstones or pestles, were found (Fig. 4/b–d). Of the 48 chipped stone fragments found in the area, five are obsidian and the others are flint (Fig. 4/e). Among the 43 flint pieces were three triangular, truncated backed bladelets, five retouched blades/bladelets, four front endscrapers, 13 thin flakes (2–3.5 centimeters long and 1–2 centimeters wide), one bladelet core, and 17 production-waste pieces. Among the obsidian fragments, one retouched blade, three thin flakes, and one piece of waste were identified.

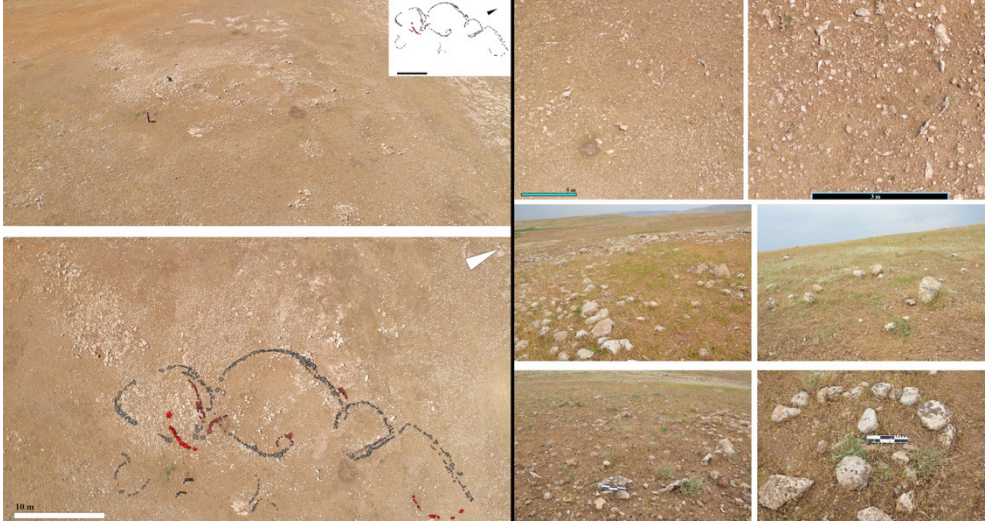


Fig. 5: General view and architectural remains in Kün Aftare 3 settlement.

Kün Aftare 3

Kün Aftare 3 is located about 300 meters northeast of Kün Aftare 2, on the eastern slope of a different hill. The site is approximately 560 meters above sea level. It has the appearance of a mound measuring approximately 200 x 130 meters. Numerous round-plan building remains were identified in the area (Fig. 5). Some are 10–12 meters in diameter, and others are between 3 and 5 meters. Many basalt or limestone grindstones and pestles were found (Fig. 6). In terms of chipped stone finds, Kün Aftare 3 is richer than the other sites (Fig. 7):

a total of 317 pieces were collected from the site. Obsidian finds are represented by more specimens (42), but no obsidian core was recovered. Among the 285 flint finds were nine micro points, eight blades/bladelets, 30 thin flakes, 21 retouched bladelets, six trapezoids, 13 crescents, five endscrapers, two thin flake cores, six bladelet cores, seven borers, 130 pieces of production waste, and 60 unidentified tool fragments. Among the obsidian fragments, two blades/bladelets, five retouched bladelets, two trapezoids, one crescent, six flakes, 18 pieces of production waste, and seven unidentified tool fragments were found.



Fig. 6: Grinding stones identified in Kün Aftare 3 settlement.

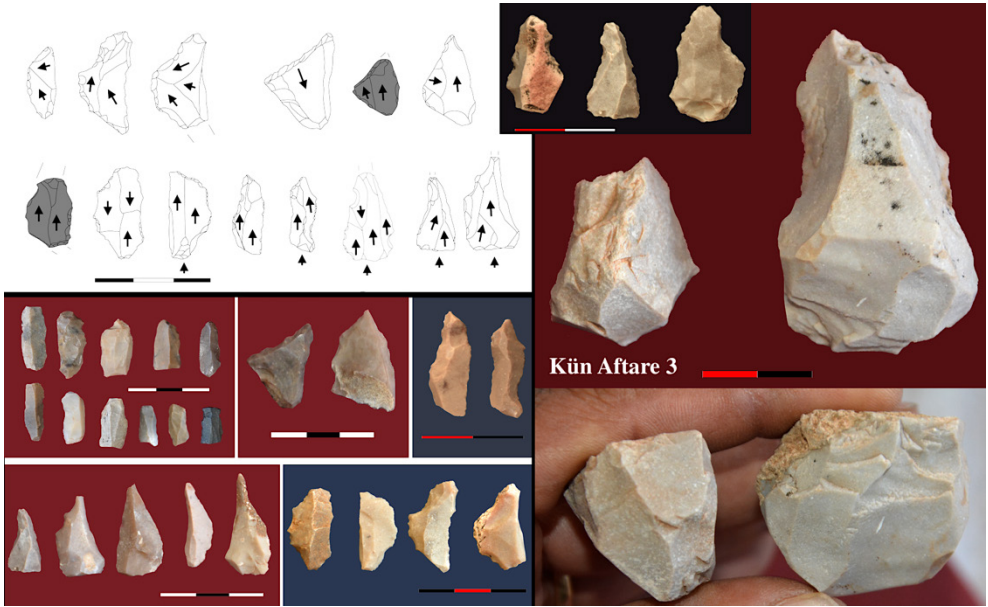


Fig. 7: Chipped stone tools identified in Kün Aftare 3 settlement.



Fig. 8: Kün Aftare caves and surrounding archaeological remains.

Kün Aftare 4

About 500 meters northeast of the Kün Aftare 1 settlement, another small mound (about 800 square meters) was discovered. However, because the area was completely covered with plants and bushes, it could not be fully analyzed at the time of the survey. A small number of chipped stone tools were found. Additionally, the remains of round-plan buildings could be seen in some places. This settlement should be revisited in the future and a more detailed survey should be carried out.

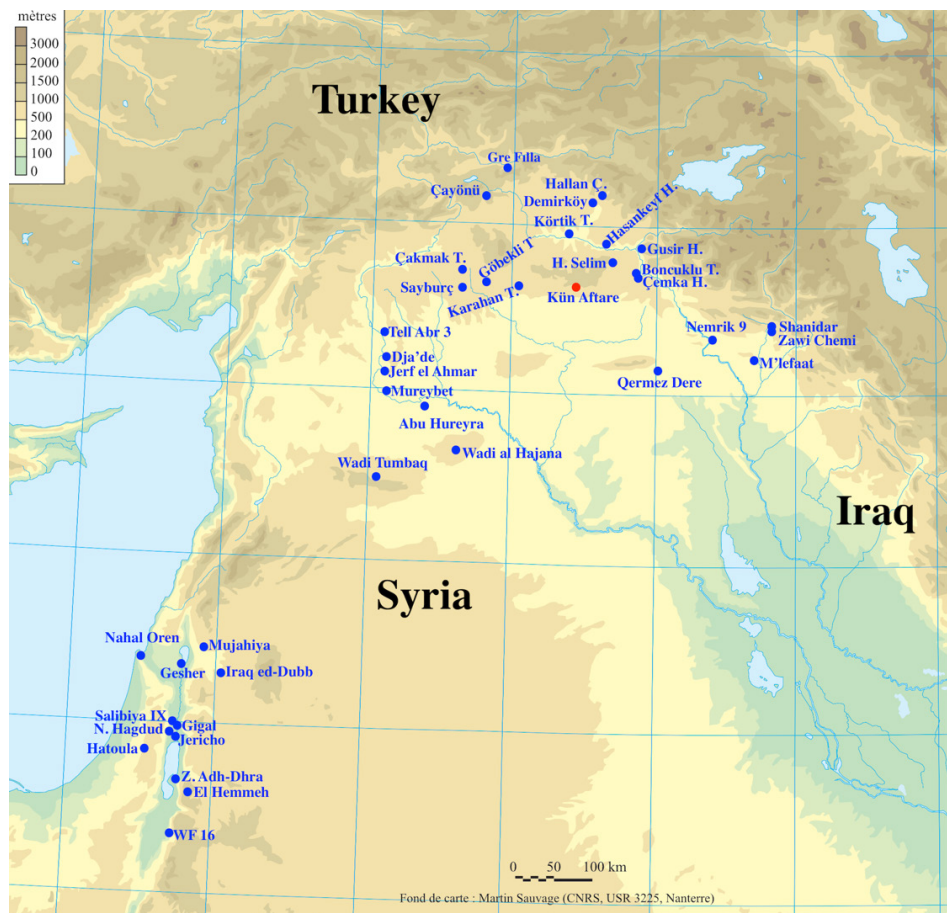


Fig. 9: Some settlements in the Near East dating back to the early stages of the Pre-Pottery Neolithic Period.

Kün Aftare Caves

The caves are located about 600 meters west of the Kün Aftare 2 and sit on the western edge of a stream that now flows seasonally (Fig. 8). The caves are approximately 540 meters above sea level. Kün Aftare Cave 1, located further to the northwest, is about 43 meters deep, 22 meters wide and 2–3 meters high. The entrance of the cave faces east and is 2 meters high and 3 meters wide. There is another, smaller cave approximately 50 meters southeast of the first cave, but it has been almost filled in by the alluvium carried in by floodwaters. A few flint tools were found on the terraces of both caves. There is also an area carved into the bedrock with a diameter of 2.5 meters just above Kün Aftare Cave 1, which may have been a dwelling. The remains of a round-planned building/structure, which may have been a storage unit, were also discovered in this area. Inside the northeastern cave, especially in

the back, were artificially rounded walls. Mortar cut into the bedrock was also found in the terrace of this cave. However, only a few chipped stones were discovered in the locality of these caves. The finds were 18 pieces in total, including 17 flint fragments and one obsidian blade. Among the flint finds are three blades, one microblade core, four thin flakes, four coarse flakes, and six pieces of production waste.

Conclusions

The Mardin Threshold, which is the mountainous region of the northeastern Habur Valley, has two distinct topographical features, one mountainous and the other valley. There are many deep valleys between the mountainous region and the plain. Kün Aftare's sites are very similar to the sites of Şika Rika, Dokane, Bikeyre, and Mer Babe, which are in the same region. In addition, many caves have been identified in the region, which has plentiful limestone bedrock. In general, the settlements of the Pre-Pottery Neolithic period are denser in the foothills between the mountain ranges, which are approximately 1200 meters altitude (above sea level), and the plain, which is approximately 500 meters altitude above sea level (570–700 meters altitude). In some areas, many settlements have been identified at short distances of 300–400 meters altitude from each other (Fig. 1). In addition, during the survey, many other cave or rock shelters were observed in areas close to these settlements. The settlements identified at the Kün Aftare locality indicate the transition to settled life in the early stage of Neolithic Period and were probably from the Epi-Paleolithic period onward. This model points to a gradual transition to settlement that may have remained semi-nomadic. There is also a high probability of a relationship between the settlements and the cave dwellings. In terms of chipped stone finds, the microlith industry was apparently more dominant in these settlements, as no macro-arrowheads were recovered. This suggests that some of the settlements may have been inhabited during the Epi-Paleolithic period (Kartal, 2009; Kartal *et al.*, 2018). When all the data are considered together, these settlements suggest that a unique Neolithization process may have taken place in the region (Fig. 9). The exact nature of this process should be clarified by further research.

Peer-review: Externally peer-reviewed.

Author Contributions: Conception/Design of Study- E.K., Y.Ç., B.İ., M.Ş., O.D., D.H.M.; Data Acquisition- E.K., Y.Ç., B.İ., M.Ş., O.D., D.H.M.; Data Analysis/ Interpretation- E.K., Y.Ç., B.İ., M.Ş., O.D., D.H.M.; Drafting Manuscript- E.K., Y.Ç., B.İ., M.Ş., O.D., D.H.M.; Critical Revision of Manuscript- E.K., Y.Ç., B.İ., M.Ş., O.D., D.H.M.; Final Approval and Accountability- E.K., Y.Ç., B.İ., M.Ş., O.D., D.H.M.

Grant Support: The authors declared that this study has received no financial support

Conflict of Interest: The authors has no conflict of interest to declare.

References

- Aurenche, O. & Kozłowski, S.K. (2005). *Territories, boundaries and cultures in the Neolithic Near East*. BAR International Series 1362. Oxford: Archaeopress.
- Bar-Yosef, O., (1998). The Natufian Culture in the Levant, Threshold to the Origins of Agriculture. *Evolutionary Anthropology*, 6(5), 159-177.
- Benz, M. K., Deckers-Rossner, C., Alexandrovskiy A., Pustovoytov, K., Scheeres, M., A. Fecher. A., Coskun, A., Riehl, S., Alt, K.W. & Özkaya, V. (2015). Prelude to Village Life. Environmental data and traditions of the Epipalaeolithic settlement at Körtik Tepe, Southeastern Turkey, *Paléorient* 41/2: 9-30.
- Byrd, B.F., (2002). Households in Transition Neolithic Social Organization within Southwest Asia, In: Ian Kuijt (Ed), *Life in Neolithic Farming Communities Social Organization, Identity, and Differentiation*. New York: Kluwer Academic Publishers, 63-92.
- Cauvin, J. (1977). Les Fouilles de Mureybet (1971-1974) et Leur Signification Pour Les Origines de la Sédentarisation au Proche-Orient. *Annals of the American School of Oriental Research*, 44, 19-48.
- Cauvin, J. (1997). *Naissance des divinités. Naissance de l'agriculture*. Paris: CNRS Éditions.
- Çelik, B. (2014). Difference and Similarities between the settlements in Şanlıurfa region where T shaped pilliars are discovered. *Türkiye Bilimler Akademisi Arkeoloji dergisi*. 17, 9-23.
- Childe, G. (1953). *New Light on the Most Ancient Near East*. New York: Routledge
- Çiftçi, Y. (2022). Çemka Höyük, Late Epipaleolithic and PPNA Phase Housing Architecture. *Near Eastern Archaeology*, University of Chicago Press. 85, 12-24., Doi: 10.1086/718166
- Coqueugnot, E. (2009). *Dja'de el Mughara (Syrie), Rapport Scientifique 2007*. Archeorient, Maison de l'Orient et de la Méditerranée, Lyon.
- Erim-Özdoğan, A. (2011). Çayönü. In: Özdoğan M., Başgelen N., Kuniholm P. (Eds.), *The Neolithic in Turkey* (185- 269). 1, Istanbul: Archaeology & Art Publications.
- Garrod, D.A.E & Bate, D.M. (1937). *The Stone Age of Mount Carmel*, Oxford.
- Goring-Morris, N. & Belfer-Cohen, A. (2014). The Neolithic in Southern Levant: Yet another 'unique' phenomenon. In: C. Manen - T. Perrin & J. Guilaine (Eds), *Transition Néolithique en Méditerranée*, (59-75). Errance, Paris.
- Ibáñez, J.J., (2008). Le Site Néolithiques de Tell Mureybet (Syrie du Nord). *En Hommage a Jaques Cauvin*. Oxford: British Archeological Report, International Series 1843.
- Karadoğan, S. & Coşkunsu, G. (2013). Key Study Edge Karst Plain: Büyükdere Depression and Geoarcheological Properties North Mardin. In: H. Korkmaz & A. Karataş (eds.), *Ulusal Jeomorfoloji Sempozyumu* (130-141), Hatay.
- Kartal, M. (2009). *Epi-paleolitik Dönem: Türkiye'de Son Avcı-Toplayıcılar*. Istanbul: Arkeoloji ve Sanat Yayınları.
- Kartal, M., Kartal, G., Coşkun, A., Carter, T., Şahin, F., and Özkaya, V. (2018). Chipped stone assemblages of Körtik Tepe (Turkey). *Journal of Archaeological Science: Reports* 19, 92-99.
- Karul, N. (2020). The Beginning of the Neolithic in Southeast Anatolia Upper Tigris Basin. *Documenta Praehistorica XLVII*: 76-95.
- Karul, N. (2022). Karahantepe Çalışmalarına Genel Bir Bakış. *Arkeoloji ve Sanat Dergisi* 169, 1-8.

- Kodaş, E. (2015). *Diversités, Interactions et Contacts Culturels Dans Les Régions Montagneuses De La Mésopotamie : Un Autre Scenarior De La Néolithisation Proche-Orientale*. Presses Académiques Francophones, Sarrebruck, Allemagne.
- Kodaş, E. (2019). Kuzey Mezopotamya’da PPNA ve PPNA-PPNB Geçiş Dönemi’ne tarihlenen ‘sembolik objelerin’ bölgesel dağılımı üzerine bazı gözlemler. Kültürel Çeşitlilik ve Yorumlanması, *Arkeoloji ve Sanat Dergisi* 161: 1-21.
- Kodaş, E. & Çiftçi, Y. (2021). Public Buildings and Spatial Organization during the PrePottery Neolithic A Period: The Case of Boncuklu Tarla/SE Turkey: First Report. *Istanbuler Mitteilungen* (71), 47-70.
- Kozłowski, S.K. & Kempisty, A. (1990). Architecture of the Pre-Pottery Neolithic settlement in Nemrik, Iraq. *World Archaeology* 21/3: 348-362.
- Kuzucuoğlu, C. (2007). Climatic and environmental trends during the third millennium B.C. in Upper Mesopotamia. *Varia Anatolica* 19: 459-480.
- Molist M. & Gómez-Bach A.. (2020) Le Pre-Pottery neolithic A. In: M. Sauvage (ed), *Atlas historique du Proche-orient ancien*,(22). Paris: Les Belles Lettres.
- Nadel, D., (1991). Ohalo 11-The third Season. *Mitekufat Haeven*, 23, 48- 59.
- Nadel, D., Carmi, I., & Segal, D., (1995). Radiocarbon Dating of Ohalo II: Archaeological and Methodological Implications. *Journal of Archaeological Science*, 22, 811-822.
- Neuville, R. (1951). *Le Paleolithique et Le Mesolithique de Desert de Judee*. Archives de L’Institut de Paleontologie Humaine Memoire 24, Paris.
- Nishiaki, Y. (1992). Preliminary results of the Prehistoric Survey in the Khabur Basin, Syria: 1990-91 Seasons. *Paléorient* 18/1, 97-102.
- Nishiaki, Y. (2000). The Palaeolithic and Neolithic industries from the prehistoric survey in the Khabur basin. In: B. Lyonnet (ed.), *Prospection Archéologique du Haut-Khabur Occidental (Syrie du N.E.)*, Bibliothèque Archéologique et Historique I (77-124). Beyrouth.
- Ökse, T. (2021). Ambar Dam Salvage Excavations 2018-2020: Ambar Höyük, Gre Filla ans Kendale Hecala. *The Arceology of Anatolia*, Volum IV, 4-20.
- Özdoğan, E. & Uludağ, C. (2022). Sayburç. Şanlıurfa’da Yeni Bir Çanak-Çömleksiz Neolitik Dönem Yerleşimi. *Arkeoloji ve Sanat Dergisi* 169, 9-24.
- Özdoğan, M. (1999). The Transition from Sedentary Hunter Gatherers to Agricultural Villages in Anatolia – Some Considerations. A. Dinçol (ed.), *Çağlar Boyunca Anadolu’da Yerleşim ve Konut Uluslararası Sempozyumu* (311–19). İstanbul: Ege Yayınları.
- Özdoğan, M. (2014). The Quest for New Criteria in Defining the Emergence and the Dispersal of Neolithic Way of Life, In: C. Manen, T. Perrin and J. Guilaine (eds), *Transition Néolithique en Méditerranée*, (59-75). Éditions Errance, Paris.
- Özkaya, V. & Coşkun, A. (2011). Körtik Tepe. In: Özdoğan M., Başgelen N., Kuniholm P. (Eds.), *The Neolithic in Turkey* (89-127), *Volume I*, İstanbul: Archaeology & Art Publications.
- Rosenberg, M. (2011a). Hallan Çemi, In: M. Özdoğan, N. Başgelen & P. Kuniholm (Eds), *Neolithic in Turkey, The Tigris Basin*, (61-78). İstanbul.: Archaeology and Art Publications.
- Rosenberg, M. (2011b). Demirköy, In: M. Özdoğan, N. Başgelen & P. Kuniholm (Eds), *Neolithic in Turkey 1. The Tigris Basin*, (79-87). İstanbul: Archaeology and Art Publications.

- Şahin, F. & Uludağ, C. (2023) Çakmaktepe Kazısı 2021 yılı Sezon Çalışmaları. 42. Kazı Sonuçları Toplantısı, 339-356.
- Sanlaville, P. (1997). Les Changements dans l'environnement au Moyen-Orient de 20 000 BP à 6 000 BP, *Paléorient*, 23/2: 249-262.
- Schmidt, K. (2012). *Göbekli Tepe a Stone Age sanctuary in South-Eastern Anatolia*. *ArchaeNova*; First Edition edition. Berlin.
- Solecki, L.R. (1980). *An early village site at Zawi Chemi Shanidar*. Undena Publications, Malibu.
- Solecki, R.F. (1971). *Shanidar; The First Flower People*. Knopf; 1st edition, New York.
- Stordeur, D. (2014). Jerf el Ahmar entre 9500 et 8700 av. J.-C. Un village des débuts de l'agriculture. Une société complexe. In: Manen C. Perrin T. & Guilaine J. (eds.), *La Transition Néolithique en Méditerranée, ou comment des chasseurs devinrent agriculteurs* (27-41). Paris: Errance.
- Watkins, T. (1987). *Qermez Dere, Tell Afar, Interim Report No 1, Project Paper 2*. Edinburgh, University of Edinburgh, Department of Archaeology.
- Watkins, T. (2020). Monumentality in Neolithic of southwest Asia: making memory in time and Space. In : Gebauer A., Sorensen L., Teather A. & De Valera A. (eds), *Monumentalising Life in the Neolithic: Narratives of Change and Continuity* (19-27). Oxbow Books.
- Wick, L., Lemcke, G. & Sturm, M. (2003). Evidence of Late Glacial and Holocene climatic change and human impact in eastern Anatolia: high-resolution pollen, char- coal, isotopic and geochemical records from the laminated sediments of Lake Van, Turkey, *The Holocene* 13: 665-675.
- Yartah, T. (2013). *Vie quotidienne, vie communautaire et symbolique a Tell Abr 3 – Syrie du Nord. Données et Nouvelles réflexions sur l'horizon PPNA au Nord du Levant 10 000-9 000 BP*. Lyon, Université de Lyon 2. (Doctoral dissertation) (Lyon 2013).



Cylinders in Anatolia: Remarks on Early Bronze Age Seals and Sealings

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Submitted: 24.04.2024
Accepted: 23.12.2024

Citation: Dede, M.G., & Oğuzhanođlu, U. (2024).
Cylinders in anatolia: Remarks on early bronze
age seals and sealings. *Anadolu Arařtırmaları-
Anatolian Research*, 31, 31–75.
<https://doi.org/10.26650/anar.2024.31.1472831>

ABSTRACT

Cylinder seals began to be used in Anatolia shortly after their emergence in Mesopotamia and Iran during the second half of the 4th millennium BCE. These seals, offering a wide narrative space, were used across Western Asia until the 5th century BCE. Seal impressions, which in their simplest function ensured property protection, appeared within similar timeframes. This study provides a comprehensive evaluation of cylinder seals and impressions from the 3rd millennium BCE in Anatolia, focusing on their significance during the Anatolian Early Bronze Age. Published cylinder seals and impressions are cataloged, categorized by region and period, and analyzed. The findings revealed that cylinder seals and impressions were prevalent at the Southeast Anatolian and Cilician–Amuq sites, areas that interacted with the Mesopotamian cultural sphere during early Early Bronze Age. In the later Early Bronze Age, these artifacts spread to Central and Western Anatolia, facilitated by trade routes known as the Anatolian Trade Network or Caravan Roads. The limited number of cylinder seals and the near absence of their impressions on clay bullae in Western Anatolia indicate that cylinder seals did not support the indigenous stamp seal tradition of the region. Moreover, they were not adopted as bureaucratic tools similar to their use in Mesopotamia. Instead, it is posited that as cylinder seals moved farther from their region of origin, they transitioned into prestige items or simple protective amulets rather than organizational instruments.

Keywords: Cylinder Seal, Sealing, Early Bronze Age, Anatolia, Mesopotamia

Introduction

Cylinder seals, introduced simultaneously in Uruk, Southern Mesopotamia, and Susa, Southwestern Iran, during the second half of the 4th millennium BCE, were used throughout Western Asia until the 5th century BCE (Teissier, 1984, xxi; Collon, 1987, 5; Porada, 1993, 563; Pittman, 1995, 1592). As a Sumerian invention (Moorey, 1994, 103), the cylinder seal provided impressions in the form of friezes, capable of depicting complex and narrative scenes (Frangipane, 2002, 222; Teissier, 1984, xxi). These seals coexisted with stamp seals, which remained prevalent in Mesopotamia.

While cylinder seals were used in certain regions of Western Asia for a relatively limited period, stamp seals were used more widely and over a longer period. This disparity contributed to cylinder seals being regarded as more exclusive and privileged objects than multifunctional and more accessible stamp seals. Cylinder seal production relied primarily on stone as the raw material, necessitating more sophisticated craftsmanship.

The status of seal carvers in Mesopotamia during the 3rd millennium BCE is supported by limited epigraphic evidence. Craftsmen known as *burgul* in Sumerian and *purkullu* in Akkadian were among the professionals specializing in stone carving. A similar is *zadim*. The mentioned in Old Babylonian texts, here it is suggested that *burgul* and *zadim* may have been involved in both activities concurrently (Edzard, 1959–1960, 31–33; Loding, 1981, 8). Edith Porada (1977, 12, fn 1–2) suggested that cylindrical pieces drilled from stone blocked during vessel production were also suitable for seal making, implying that stone vessels and cylinder seals may have been produced in the same workshop, possibly by different artisans. In the 2nd millennium BCE, these specialized craftsmen were often members of a high-status social class financed by the palace (Teissier, 1984, xxiv).

The emergence of cylinder seals may be attributed to the need for broader impression surfaces for narrative scenes and the demand for a unique bureaucratic tool to manage increasingly complex economic and administrative systems (Nissen, 1977, 15). During the Jemdet Nasr period, cylinder seal designs were distributed over a wide area, and their patterns diversified in the 3rd millennium BCE, probably due to expanded long-distance interactions, increasing bureaucratic complexity, and related factors (Collon, 1987, 15 ff.; Frangipane 2002, 202 ff.). The continued popularity of mythological scenes on cylinder seals indicates that these artifacts retained symbolic and/or religious significance alongside their functional roles.

A sealing *bullā* or *cretula* refers to a lump of soft material such as clay, plaster, wax, asphalt, or animal dung bearing one or more seal impressions (Fiandra, 2003, 32). Among these, clay was the most commonly used material for sealing. Initially, *bullae* were used to

secure containers such as sacks, baskets, boxes, jars, and doors (Collon, 1987, 113). Following the invention of writing, seals were also applied to tablets, envelopes, treaties, and letters. By the 3rd millennium BCE, seals had additional uses, including ornamental applications on vessels (Collon, 1987, 113). Mesopotamian Early Bronze Age (hereafter EBA) cylinder seals served mainly administrative and bureaucratic functions, acting as symbols of ownership, status, authority, trust, approval, and legitimacy. Additionally, they were valued as jewelry, protective amulets, votive offerings, and family heirlooms. (Dede, 2014, 11).

Cylinder seals and their impressions first appeared in Anatolia during the Late Chalcolithic Period. Notable settlements with early evidence of cylinder seals include Arslantepe, Norşuntepe, Tepecik, Hassek Höyük, Samsat, Hacinebi, and the Amuq Plain (Braidwood & Braidwood, 1960, 254; N. Özgüç, 1987, 430–432; Pittman, 2003, 35; Dede, 2014, 19–20).

The imagery on cylinder seals became increasingly diverse during the Early Dynastic, Akkadian, Post–Akkadian, and Ur III periods, collectively spanning the EBA. These depictions provide a valuable understanding of the ethnic composition, fashion, construction techniques, decoration, furniture, agriculture, weapons, and military equipment of the era. Additionally, they illustrate daily life, religious activities, ceremonies, hunting, banquets, and worship practices (Roach, 2008, 1). During the 3rd millennium BCE, cylinder seals expanded beyond southern Mesopotamia to regions such as Iran, Syria, Egypt, Anatolia, and the Aegean (Collon, 1987, 20).

The 3rd millennium BCE witnessed significant diversification and intensification of inter–regional contacts, not only in Anatolia but across the entire Mediterranean region (Şahoğlu, 2005; 2019; Efe, 2007; Massa & Palmisano, 2018). Alongside raw materials and finished goods, technology and ideology were disseminated through EBA communication networks (Rahmstorf, 2016; Oğuzhanoğlu, 2019). Although stamp seals remained the dominant seal type in Anatolia during this period, evidence of impressed *bullae* has emerged, indicating their use on clay for the first time (Massa & Tuna, 2019; Oğuzhanoğlu, 2019, tab. 6; Türkteki, 2023a). Cylinder seals, however, are also found in settlements located along significant trade routes.

Methods

This study aims to compile a comprehensive overview of the cylinder seals and impressions dating from the 3rd millennium BCE in Anatolia and evaluate their significance for the Anatolian EBA. To achieve this objective, published cylinder seals and impressions

were cataloged regionally and chronologically, grouped, and then analyzed.¹ For seals lacking exact stratigraphic information, stylistic features were used for dating. If a publication excluded information about the seal's decoration, these seals were considered only as numerical entries in the graphs.

Early Bronze Age Cylinder Seals in Anatolia

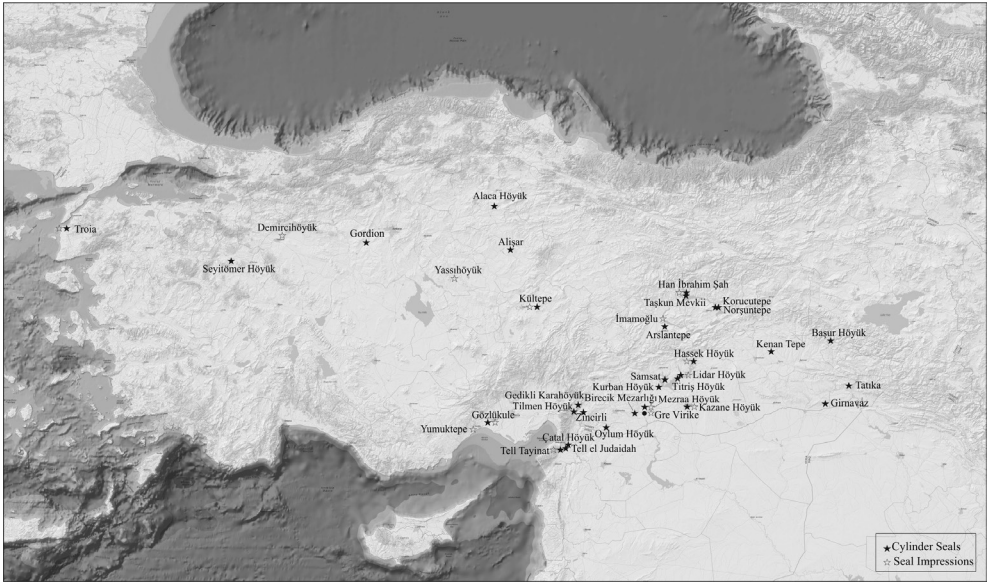
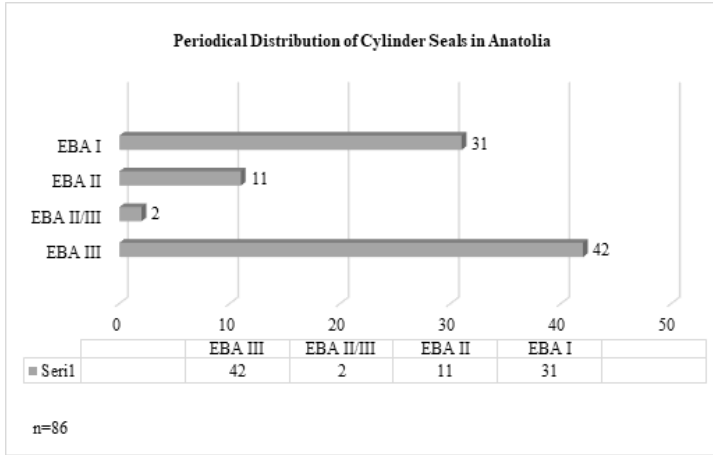


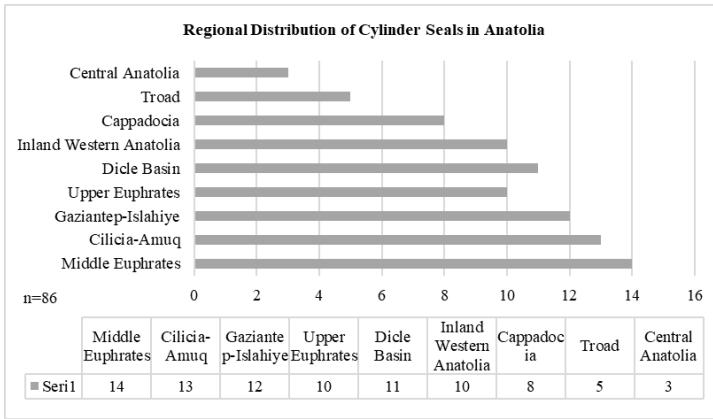
Figure 1: Sites mentioned in the text (Map: M. G. Dede)

Within the scope of this study, 86 cylinder seals were identified (Fig. 1). The EBA I and EBA III groups were predominant, whereas the EBA II assemblage was significantly smaller (Graph 1). These seals were either discovered or purchased from various parts of Anatolia, with a particular concentration in the Euphrates and Tigris basins and the Cilicia–Amuq regions (Graph 2).

¹ The core of the research in this article is based on the catalog and comparison section of the thesis titled “*Anadolu’da Bulunmuş Eski Tunç Çağı’na ait Silindir ve Damga Mühürler* (Early Bronze Age cylinder and stamp seals in Anatolia)” completed in 2014 at Ankara University, Graduate School of Social Sciences after the permission of its author. Since the aforementioned thesis did not include the sealings, this article included and analyzed them for the first time. Furthermore, the discovery and publication of new glyptic evidence after the completion of the thesis in 2014, made it necessary to revisit this issue. The images, graphics, general evaluations, and discussions used in the article are unique to this article.



Graph 1: Periodical distribution of EBA cylinder seals in Anatolia



Graph 2: Regional distribution of EBA cylinder seals in Anatolia

EBA I: Two main seal shapes were observed among the 31 EBA I seals: one featuring animal–figured handles (Cat. Nos. 1, 8, 28, 30; Fig. 2: 5, 8; Fig. 3: 2, 3) and another with a vertically oriented rope hole (Cat. Nos. 2–7, 9–27, 29–30). The decoration on these cylinder seals can be divided into two main types: geometric (Fig. 2) and figurative patterns. Geometric decorations were widely used in Mesopotamia from the Jemdet Nasr Period (3100–2900 BCE) onward. The geometrically decorated seals originated from sites in the Euphrates (Cat. Nos. 1–12), Tigris (Cat. Nos. 13–15); Islahiye (Cat. Nos. 16–17), Amuq (Cat. Nos. 18–21) and Central Anatolia (Cat. No. 22) (Table 1). Motifs within this group included zigzag patterns, intertwined/diamond patterns, net, dot, line, circle, concentric circle, hatched triangles, drill holes, scallops, fishbones, parallel lines, lozenges, crosses, and parallel or diagonal lines with various filling patterns (Fig. 2).

Several seals from Anatolia exhibit parallels with those found in Southern Mesopotamia, Northern Syria, and Iran (Frankfort, 1955; pl. 3: 7; 17: 167; 20: 209–210; 23: 238; 39: 408; 76: 827; Teissier, 1984, cat. nos. 119: 24–26; 125: 50; Hammade, 1994, 37; fig. 31, 41, No. 318; Roach, 2008, 220, nos. 1383–1401). Scholars have described these stylistically similar seals using various nomenclatures, such as *Jemdet Nasr Style* (Frankfort, 1955), *Syrian Group* (Teissier, 1984), *Peripheral Jemdet Nasr* (Buchanan, 1981), *Northern Syria–Mesopotamia Group* (Hammade, 1987), *Jemdet Nasr Brocade Style* (Hammade, 1987), and *Rough Style* (Matthews, 1997), reflecting the regions of their discovery and distinct depiction features.

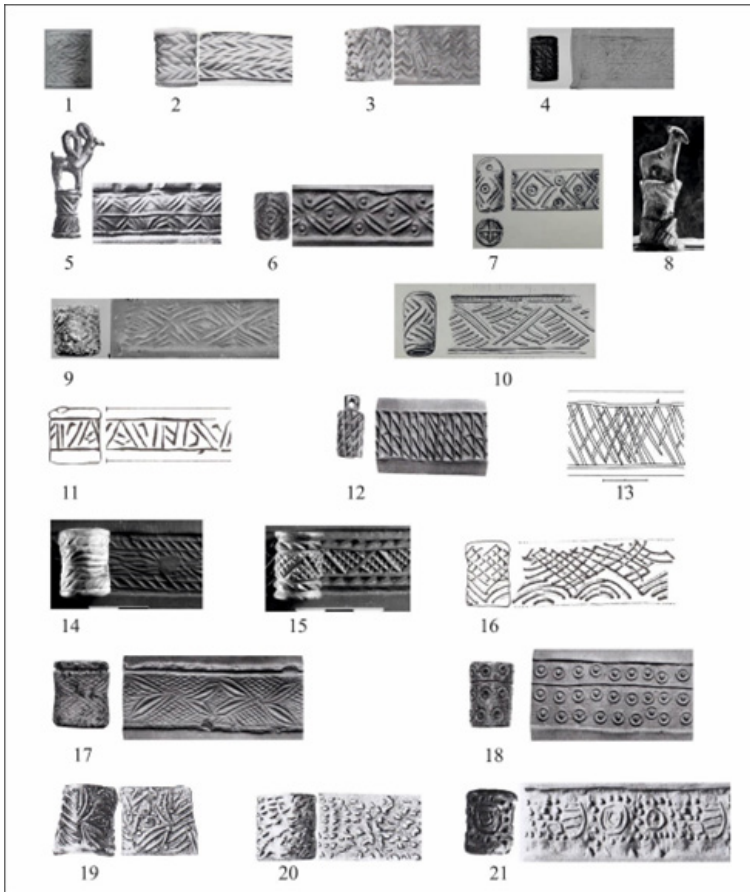


Figure 2: EBA I seals with geometric patterns (Luschan, 1943, taf. 39: d-e; Braidwood & Braidwood, 1960, fig. 254:1-3, 5; Helms, 1973, fig. 10; Hauptmann, 1974, lev. 80:1; 1982, lev. 26:2; Behm-Blancke, 1981, taf. 11:5-6; 1984, taf. 12:3-4; Palmieri, 1981, fig. 10:1; Sertok & Ergeç, 1999, fig. 12; Dusinberre, 2005, fig. 11a-b; Frangipane, 2012, fig. 8a; Sağlantimur, 2017, res. 15)

The second group of EBA I seals, which feature figurative decorations, originated from the Euphrates (Cat. Nos. 23–26; Fig. 3: 1, 4, 7–8) and Tigris basins (Cat. Nos. 27–30; Fig. 3:

2–3, 5–6). These seals generally depict rows of animals in motion (Cat. Nos. 2–28, 30), such as horned animals or scorpions, occasionally accompanied by human figures. The scenes also include depictions of human activities, such as herding cattle or plowing.

The rows of animals, either at rest or in motion, is prominent in Mesopotamian cylinder seals across almost every period from Jemdet Nasr onward (Mackay, 1931, pl. LXXX–1; Frankfort, 1939, 24 v.d, 35, pl. VIII: b; Porada, 1948, 6). Notably, the Anatolia seals exhibit strong parallels with examples from various Mesopotamian sites and private museum collections (Frankfort, 1955, pl. 18: 187, 192) and Iran (Roach, 2008, 97, no. 589). These parallels span Jemdet Nasr and Early Dynastic I *Brocade*-style seals (Buchanan, 1966, 18; pl. 7; 1981, 169, 171, 173, 175, 178–181; Strommenger, 1980, 55, abb. 43). Similar scenes have also been documented in Diyala Province, Habuba Kabira (Strommenger, 1980, 55, abb. 43), Susa, and museum collections (Porada, 1948, pl. VI: 31–32; Buchanan, 1966, 128–129; pl. 46: 705–706).

One example from Hassek Höyük (Cat. No. 25; Fig. 3: 7) features a narrative scene that likely depicts a daily chore (Behm-Blancke, 1981, taf. 11–1a, b). This exhibition recalls Jemdet Nasr-era human and animal scenes, such as an example from the Ashmolean Museum Collection (Buchanan, 1966, 47, 721).



Figure 3: EBA I seals with figurative scenes (Helms, 1973, fig. 10; Behm-Blancke, 1981, taf. 11:1a-b; 1984, taf. 12:2; Batuhan, 2014, kat. no. 091; Frangipane, 2014, fig. 9; Sağlamtımur, 2017, res. 15)

EBA II: A limited number of seals from this period have been recovered, with examples found in the Euphrates (Cat. Nos. 32–35), Tigris (Cat. Nos. 36–38), Islahiye (Cat. Nos. 39–40), and Amuq (Cat. Nos. 41–42) regions. All these seals feature figurative decorations (Table 1). Four examples depict rows of animals (Cat. Nos. 32–34, 42; Fig. 4: 1–4), similar to the EBA I style. A single seal (Cat. No. 41; Fig. 4: 9) from Tell el-Judaidah portrays a daily chore scene, belonging to the Jemdet Nasr group of *pigtailed figures or squatting women* (Porada, 1948, 4; Collon, 1987, 15–16)². Similar scenes are well-documented in excavation reports and private collections (Mallowan, 1947, 135–136, pl. XXI: 17–18; Porada, 1948, pl. III: 7e–16e; Frankfort, 1955, pl. 29: 206; 31: 312; 45: 480; 52: 542; 74: 808; 82: 871; 88: 829; Buchanan, 1966, pl. 2: 14, 15, 17; 1981, 48–51, fig. 144–152; van Driel, 1983, fig. 2; Teissier, 1984, cat. no. 187: 300–301; Matthews, 1997, pl. IX/XLII: 41; Roach, 2008, 342–43, nos. 759–780).

The contest scenes (Cat. Nos. 35–40; Fig. 4: 5–8) emerged during this period, appearing alongside previously known EBA I motifs (Table 1). The composition and style of these contests align with the Early Dynastic II/*Fara Style* (Heinrich, 1931, taf. 46: f. g; 47: b; 50: a; 55: c; 59: h; 49: i, 59: j; Amiet, 1980, pl. 65: 866, 870, 874–876; 68: 899, 876; 68: 899) Similar examples are known from archeological sites and private museum collections dating to the same period (Heinrich, 1931, taf. 42; Buchanan, 1981, fig. 247–251; Teissier, 1984, 56–57; Hammade, 1987, 35; 1994, 326).

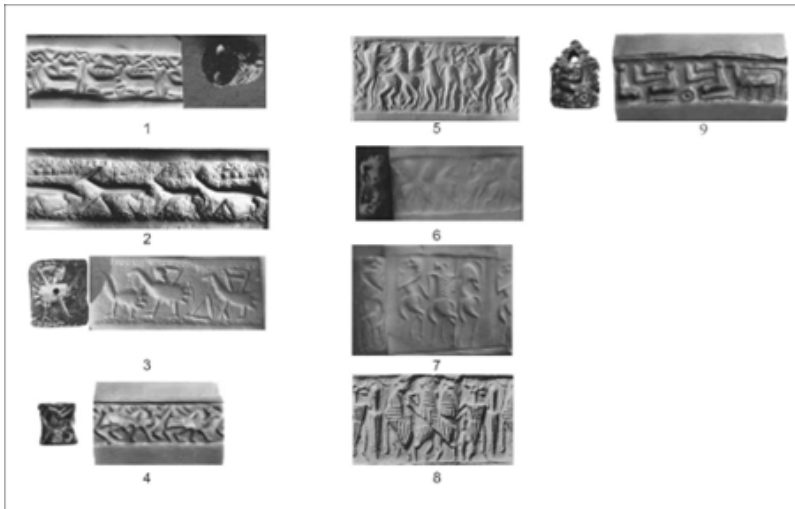


Figure 4: EBA II seals (Luschan, 1943, taf. 39:a; Braidwood & Braidwood, 1960, fig. 297: 5-6; van Loon, 1978, lev. 135:C; Erkanal, 1990, fig. 15; 1991, res.17; 2000, res. 7; N. Özgüç, 2009, s. 84, res. 354-355)

2 This seal is considered to be produced in EBA I and has been still in use during EBA II (Braidwood & Braidwood, 1960, 388). Sitting or squatting women practising dairy production, wool spinning, and pottery making are considered as the depiction of daily or temple chores (Frankfort, 1939, 37; 1955, 17; Porada, 1948, 4; Collon, 1987, 16).

EBA III: during EBA III, the distribution of cylinder seals in Anatolia expanded significantly, including Central Anatolia, Cappadocia, and Western Anatolia for the first time (Graph 2, Fig. 1, Table 1.). Alongside the prevalent geometric decorations typical of the EBA, the repertoire began to include figurative scenes of warfare, worship, hunting, and banquets.

Cylinder seals featuring geometric patterns from EBA III (Fig. 5) have been discovered in nearly all regions, the Euphrates (Cat. Nos. 43–44), Gaziantep–İslahiye (Cat. Nos. 45–46), Cilicia (Cat. Nos. 47–48), Central Anatolia (Cat. No. 49), Cappadocia (Cat. No. 50), and the Troad (Cat. Nos. 51–54). These examples exhibit parallels with those from sites such as Tell Bi’a (Strommenger & Kohlmeyer, 1998, taf. 76: 16.), Tell Brak (Matthews, 1997, pl. 32; 33: 421, 452. 428; 35: 465–466), and Abu Hureyra (Matthews, 1997, pl. 32; 33: 421, 452. 428; 35: 465–466; 39: 525), which were central to the distribution area since EBA I.

The seal from Alişar seal³ (Cat. No. 49; Fig. 5: 10) represents the Mesopotamian EBA I *Piedmont* style⁴, a style documented in Southern Mesopotamia (Frankfort, 1955, 18, pl. 42: 448), Syria (Fukai, 1974, pl. LVIII: 17; Teissier, 1984, no.119–23; Collon, 1987, 23, fig. 41; Matthews, 1997, pl. X: 57), Iran (Roach, 2008, 364–374; 208–209, no. 1319, 1322), and private collections (Porada, 1948, 7, pl. VII:35; Teissier, 1984, cat. nos. 119–23; Collon, 1987, 23, fig. 41). However, the Alişar seal was recovered from Level 8M, which dates to the controversial “Copper Age.” This term, which is often debated, generally refers to transition periods including EBA II and EBA III. Thus, Level 8M is dated to the end of EBA II or the beginning of EBA III (Bertram & İlgezdi–Bertram, 2020, 102).

Another seal from the Troad (Cat. No. 54; Fig. 5: 11) belongs to the *Piedmont* style group and features floral decoration (Frankfort, 1939, 230; Collon, 1987, 20–23). The exact stratigraphic context of the Troy seals (Cat. Nos. 51–54, 86) unearthed by Schliemann remains unknown. While the Alişar and Troad seals display earlier Mesopotamia glyptic features, they were likely imported into Anatolia through the active trade networks of the EBA.

3 Henri Frankfort states that the Alişar seal (Fig. 5: 10) was imported from southern Mesopotamia according to a similar seal from the Tell Asmar Early Dynastic I layer. Furthermore, Porada suggests that the Alişar seal and another example in the Pierpont Morgan Library Collection are works of the same craftsman. Frankfort (1955, 12 et al.), Porada (1948, 4 et al.), and Briggs Buchanan (1966, 16) date this type of seal to the Jemdet Nasr Period, while Dominique Collon (1987, 20–24) and Holly Pittman (1994, 139) date it to the Late Jemdet Nasr–Early Early Dynastic I.

4 This same group of seals made of minerals such as fired hardened steatite or chlorite has different names after regions: *Piedmont seals* (along the Zagros foothills and southern Turkey), “*Nineveh V*” (after the sounding in Nineveh), *Early Dynastic I* (Diyala Region chronology), *Early Bronze Age I* (Syrian–Palestinian terminology), *Piedmont Jemdet Nasr*, *Glazed Steatite Style*, *Fired Steatite*. The incised decoration on these narrow, long seals follows two main schemes: Geometric decorations consist of patterns such as rosettes, circles, circles surrounded by horizontal (Matthews, 1997) or vertical lines, and circles with a dot in the center, while the other group consists of figurative patterns (Porada, 1948, pl. VII; Collon, 1987, 20–23; Pittman, 1994, 135 et al.; Matthews, 1997, 77–78.)

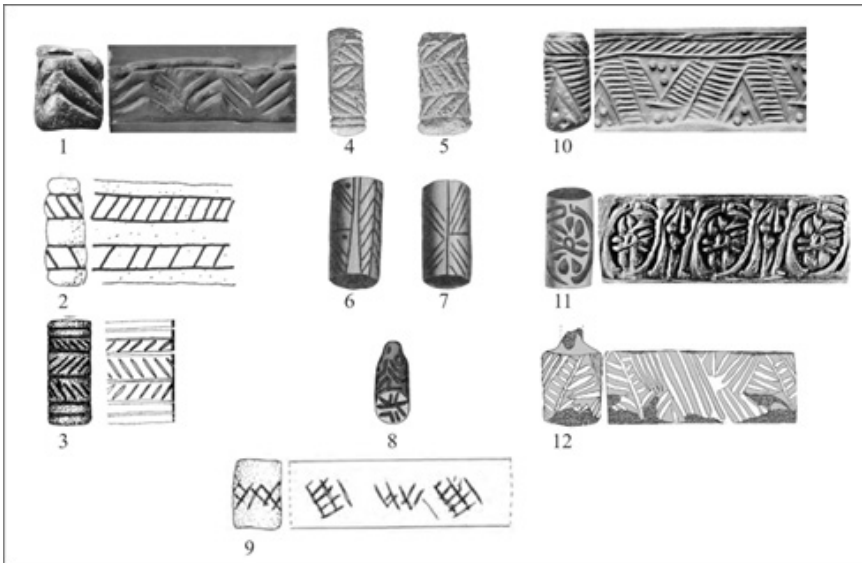


Figure 5: EBA III seals with geometric patterns (Schliemann, 1881, nos. 500, 501, 503; von der Osten, 1937, fig. 186; Goldman, 1956, fig. 393: 20-21; Algaze, 1990, pl.167: B; Duru, 2003, lev. 163:1; Özgen, et al, 1997, abb. 27:1; Ökse, 2006, 554, res. 1; Öztürk, 2019a, fig. 2, seal 1)

Seals with narrative scenes became increasingly prevalent during EBA III. A seal with a mythological scene from the Amuq Plain (Cat. No. 65; Fig 6: 1) was categorized by Pierre Amiet (1980, 65, pl. 85bis: M, P; pl. 64–72) under the *Fara Style*, by Frankfort (1955, 232, 234) under *Peripheral Early Dynastic III*, and by Donald M. Matthews (1997, 112) under *the Provincial Early Dynastic and Big Daggers scenes*. While no exact parallel to the Amuq seal has been identified, certain elements of the scene are common at other sites (Heinrich, 1931, taf. 46: f–g; 47: b; 50: a; 55: c; 59: h–j; 49: i; Koşay, 1951, pl. CLXXXII: 49; Frankfort, 1955, pl. 24: 245; Amiet, 1980, pl. 65: 866, 870, 874–876; 68: 899). Two seals from Zincirli in the Gaziantep–İslahiye Plain (Cat. No. 39; Fig. 4: 8) and Troy (Cat. No. 86; Fig. 6: 2) depict a dagger on the ground. The dagger, featuring a crescent-shaped hilt, is also seen in Mesopotamian and Susa glyptic (Heinrich, 1931, taf. 55: c; 59; Amiet, 1980, pl. 65: 866, 874).

Among seals with hunting scenes, the Titriş (Cat. No. 56; Fig. 6: 6) seal is considered a local replica of the Early Dynastic II *Fara Style* (Algaze et al., 1995, 19). Similar scenes appear in examples from Tilmen Höyük (Cat. No. 58; Fig. 6: 5) and Tell Tayinat (Cat. No. 66; Fig. 6: 3)⁵.

5 A very faint figure with a spear (?) recognizable in the photograph of the impression. However, the decoration is unclear.

The stratigraphy of the Alaca Höyük seal (Cat. No. 75; Fig. 6: 4) in a hunting scene is uncertain. Kurt Bittel (1939–1941, 299–300, abb. 3), who first published the seal, dated it to the first half of the EBA. In contrast, Donald Matthews (1997, 100, 146, pl. XXXIX: 525–526) suggested a later date in the second half of the period. The seal’s style indicates a prolonged period of use, from the beginning to the end of the EBA (Matthews, 1997, 100). However, considering the intensified long–distance connections of Central Anatolia in EBA III, controlled by elites in affluent royal contexts, as well as the dating of a highlight similar seal from the Tell Tayinat EBA III stratigraphy (Cat. No. 66), it is plausible to date the Alaca Höyük seal to EBA III.

Two examples of contest scenes originated from Kenan Tepe (Cat. No. 57; Fig. 6: 7) and Kültepe (Cat. No. 68; Fig. 6: 8). The Post–Akkadian and Ur III examples depict two figures fighting with a lion. Close counterparts of the Kültepe seal (Fig. 6:8) are found at various sites and in several collections (von der Osten, 1934, pl. X; 1936, pl. V: 40, 44; Frankfort, 1939, pl. XVI: f–g; 1955, pl. 67: 722; 69: 75; Porada, 1948, 33–34; pl. XXVI: 167–170; XLII; Legrain, 1951, pl. 15: 187, 189–196, 199–201, 203,205, 208–210; Parrot, 1952, 198, fig. 9; 1962, pl. XII:1; Boehmer, 1965, taf. XVXXIV: 274; Buchanan, 1981, 194, fig. 505; Collon, 1982, pl. XXXV: 246–249; 1987, 32–33, 36–37, fig. 95–101, 111; Yücel & Parlütü, 2023, cat. no. 3).

The composition of the Kenan Tepe seal (Fig. 6: 7) resembles the Akkadian “*two pairs of contestants*” scheme (Porada, 1948, 22–23). Although the exact parallel to the seal is unknown; key elements such as the lion (Legrain, 1951, pl. 14: 182; Boehmer, 1965, XVII: 195; Buchanan, 1981, 152, Fig. 413), the deity with a crescent moon (Porada, 1948, pl. LXVIII: 493; LXX: 514; Legrain, 1951, pl. 14: 184; Frankfort, 1955, pl. 71: 778; 66: 713; 67: 717; 68: 740; 70: 771; 86: 905; pl. 88: 935; Boehmer, 1965, XVII: 195; Buchanan, 1981, 156, fig. 422; fig. 586;), and the pole (Braidwood & Braidwood, 1960; Amiet, 1980, pl. 89: 1180; Buchanan, 1981, 127, fig. 338) are familiar motifs.

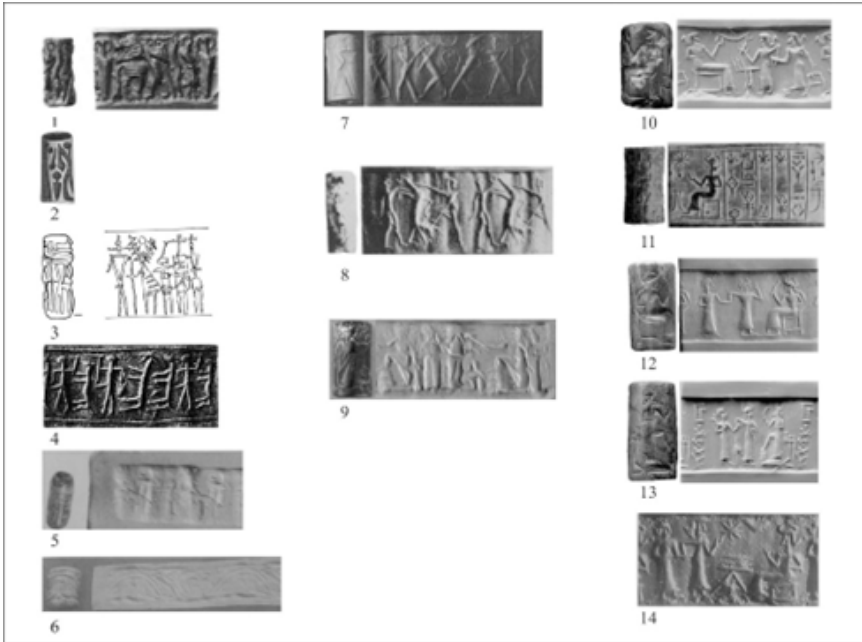


Figure 6: EBA III seals with mythological, hunting, battle and worship scenes (Schliemann, 1881, no. 502; Bittel, 1941, abb. 3; Balkan, 1957, res. 12; Braidwood & Braidwood, 1960, fig. 327; Özgüç, 1986, fig. 3-42, 43; Algaze, et al, 1995, fig. 9; Bradley Parker, et al, 2002, şek. 8-A; Duru, 2003, lev. 12:2; Özyar, et al, 2011, res. 8; Welton, et al, 2011, 160, fig. 13:4; Öztürk, 2019a, fig.6-7)

The only example of a battle scene comes from Gözlükule (Cat. No. 64; Fig. 6: 9). This seal portrays the battle of the gods, including the Sun God Shamash. Who frequently depicted Akkadian seals in various forms (Dede, 2014, 145–146). While no direct analog of the Gözlükule seal has been found, similar examples have been identified in archeological sites and private collections (Frankfort, 1939, pl. XIX: b–d, XXIII: a; Boehmer, 1965, XLI: 482; Buchanan, 1981, figs. 436–438).

All examples featuring worship scenes (Collon, 1987, 369) originate from Kültepe in Cappadocia (Cat. Nos. 69–73; Fig. 6: 10–14). These seals typically exhibit period-specific characteristics: a worshiper, accompanied by a guardian/protector goddess, is led to the major deity seated on a stool. Similar iconographic features and scenes appear in Post-Akkadian and Ur III seals (von der Osten, 1934, 90; pl. XI: 116; Porada, 1948, 31, pl. XI: 253, XL: 255–259, XL: 255–256; 1966, 243–244; Buchanan, 1981, fig. 543, 545, 555, 557, 560, 567; Collon, 1982, 110; 1987, 112; Teissier, 1984, 92, no. 135).

Banquet scenes appear in two distinct compositional schemes based on Anatolian examples. The Tell el-Judaidah (Cat. No. 67; Fig. 7: 1) and Kültepe (Cat. No. 74; Fig. 7: 2) seals depict deities seated on stools, drinking from a vessel with straw. In contrast, three examples from

Oylum Höyük (Cat. Nos. 59–61; Figs. 3–5) portray banquet scenes with tables laden with food, accompanied by musicians and dancers. The former composition is characteristic of the Early Dynastic I period, while the latter resembles banquet scenes with lyre players found on seals from the Royal Cemetery at Ur and examples from Northern Syria and museum collections (Buchanan, 1966, 153, no. 814; Selz, 1983, 167–168; taf. XIII: 159; Teissier, 1984, 345–346, no. 199; Martin, 1988, 246, no. 225; Özgen, 1994, 471; Matthews, 1997, pl. XX; Parayre, 2003, 277, pl. 1: 11–13). Two additional examples from Seyitömer Höyük in Inland Western Anatolia (Cat. Nos. 76–77; Fig 7: 7–8) probably represent banquet scenes.



Figure 7: EBA III seals with banquet scene (Bittel, 1941, abb. 4; Ward, 1910, no. 900; Braidwood & Braidwood, 1960, fig. 382: 6; Özgen, 1993, fig. 4a-c; Okatan, 2019, lev. VIII, res. 14-15)

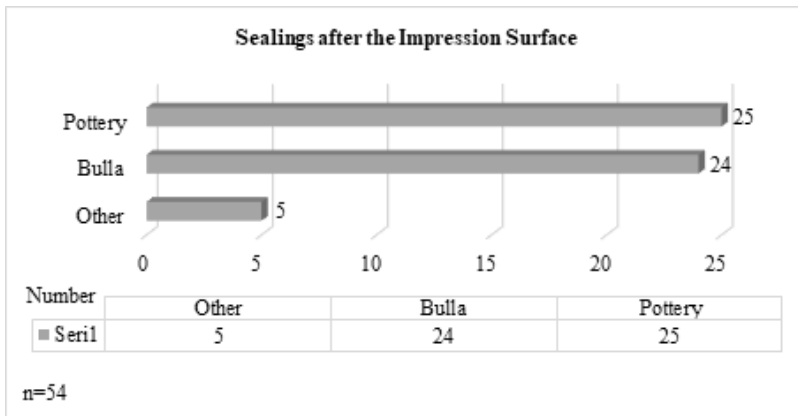
Seals depicting daily (?) scenes originate from the Euphrates (Cat. No. 55; Fig. 8: 1) and the Inland Western Anatolia (Cat. Nos. 78–85; Fig. 8: 2–7). These images seem related to agriculture or animal husbandry. Stylistically, they align with the Late Chalcolithic–Early EBA group from Southeast Anatolian and Northern Syrian (Behm–Blancke, 1993, 253, abb 2: 1; Matthews, 1997, 64–65; Yücel & Parlı, 2023, cat. no. 1).

Two seals from Oylum Höyük feature human–animal (Cat. No. 62; Fig. 7: 8) and animal–rosette friezes (Cat. No. 63; Fig. 7: 9). These were crafted in the same style as the banquet scene seals (Cat. Nos. 59–61) from the site, suggesting they may have been produced by the same seal carver or workshop. Classified by Matthews (1997, 120, pl. XXII: 261–263) under the “Brak style,” these seals represent the Syrian style, characterized by single friezes.



Figure 8: EBA III seals with daily scenes (Yalçıklı, 2019; Okatan, 2019, lev. VI, res. 8-13, 16-17)

Early Bronze Age Cylinder Seal Impressions

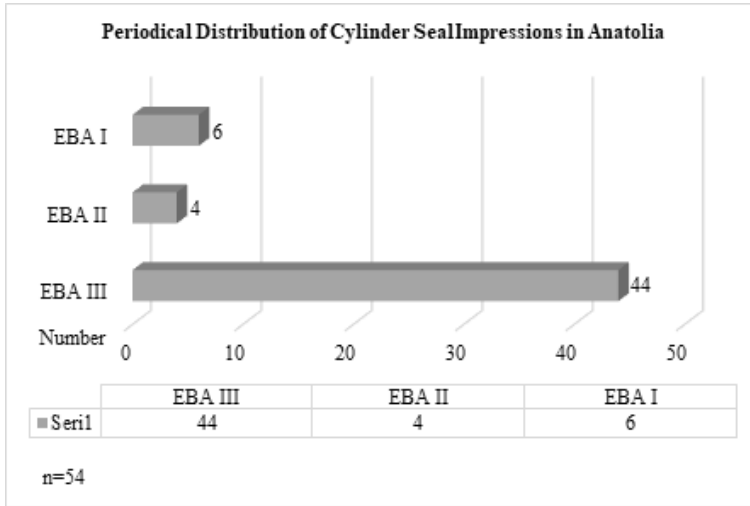


Graph 3: Sealings after the impression surface

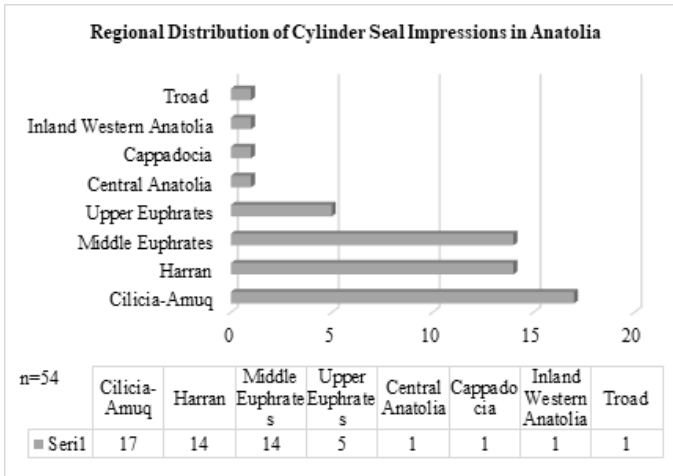
Of a total of 54 EBA sealings analyzed in this study (Cat. Nos. 87–140), 24 were found on clay bullae for doors or vessels, while 25 were identified on the body or handle of pottery.

Some impressed sherds belonged to pithoi (Table 2, Graph 3). Chronologically, six sealings are attributed to EBA I (Cat. Nos. 87–92), 4 to EBA II (Cat. Nos. 93–96), and 44 to EBA III (Cat. Nos. 97–140).

The periodic distribution of cylinder seal impressions demonstrates a significant accumulation in EBA III. The regional distribution of the impressions mirrors that of the cylinder seals (Fig. 5). The depictions of these impressions are categorized into two main groups: geometric and figurative, similar to the seals themselves.



Graph 4: Periodical distribution of cylinder seal impressions in Anatolia



Graph 5: Regional distribution of cylinder seal impressions in Anatolia

EBA I: The six examples from EBA I exhibit either geometric or figurative decorations and were found in the Euphrates Basin and Central Western Anatolia (Cat. Nos. 87–92). Among these, one bulla from Demircihöyük in Inland Western Anatolia stands out, while the remaining impressions are on vessels or terracotta plates.

Geometric decoration, represented by a single example, shows compositional and geographical similarity to scenes on cylinder seals (see above). In the Euphrates Basin, figurative scenes, all from Hassek Höyük (Cat. Nos. 88–92; Fig. 9: 2–6), depict daily chores. Notably, a cylinder seal with a similar scene was recovered from the same site (Cat. No. 25; Fig. 3: 7). Similar patterns have been identified on seals in private collections (Buchanan, 1966, 47, 721). These scenes and their iconographic features suggest a regional style that was ordained during the Late Chalcolithic and persisted into EBA. Manfred R. Behm–Blancke (1993, 253, abb 2: 1) described this as the “*rustical style*,” while Matthews (1997, 64–65) referred to it as the “*Hassek Style*” within the *Chuera Group*.

The exception in the EBA I group is the Demircihöyük bulla (Cat. No. 87; Fig. 9: 1), which features unique decoration. Though reminiscent of ordinary EBA I examples (Cat. No. 1–21; Fig. 2), its simple geometric pattern has no exact parallels among known cylinder seals or sealings (Obladen–Kauder, 1996, 286, fig.136.5; Massa 2015, 138). Considering its early dating for West Anatolia and distinctive decoration, it is plausible that this bulla was impressed not by a seal but by another cylindrical object, possibly made of perishable material and used primarily for other decoration purposes (e.g., pottery).

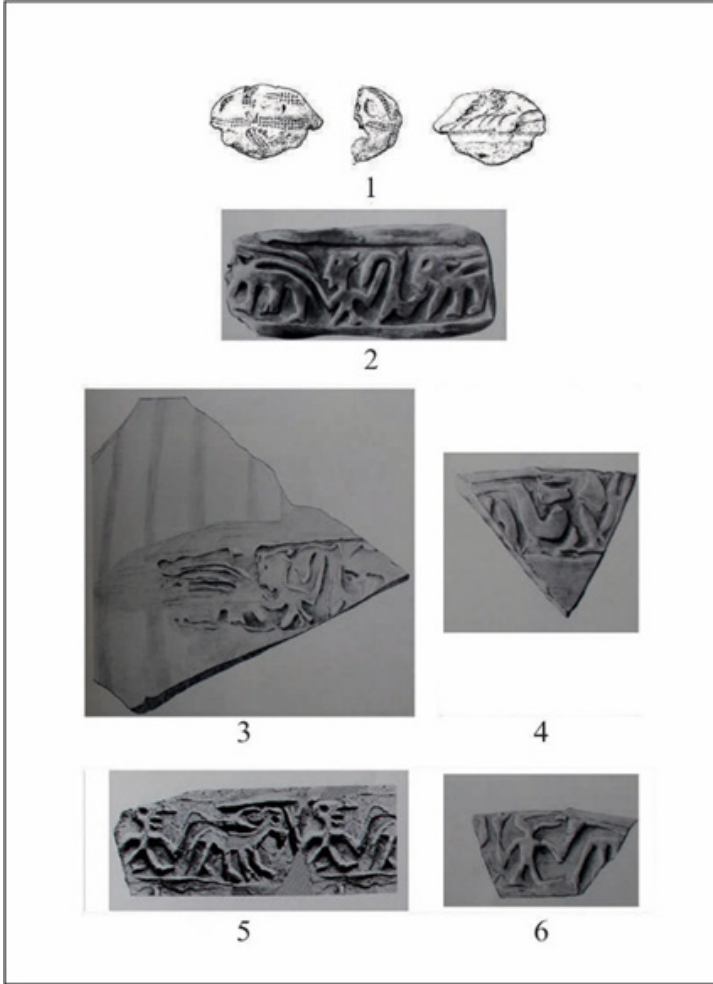


Figure 9: EBA I cylinder seal impressions: Bullae and pottery (Behm-Blancke, et al, 1981, taf. 11: 2-4; 12: 1-2; Obladen-Kauder, 1996, taf. 136: 5)

EBA II: The four seal impressions dated to EBA II originate from the Euphrates Region (Cat. Nos. 93–96; Fig. 10: 1–3). These impressions are found on various vessel types, with one featuring geometric decoration and the others depicting figurative scenes. The geometric example from Han İbrahim Şah (Cat. No. 93; Fig. 10: 1) consists of intertwined diamond–slice patterns similar to contemporary cylinder seals. A. Tuba Ökse (2016, 554) emphasized that the figurative scene from Gre Virike (Cat. Nos. 94–95; Fig. 10: 2–3) bears stylistic similarities to those at Upper Euphrates and Syrian sites throughout the EBA. Additionally, an example from Lidar Höyük (Cat. No. 96) indicates relations with Southern Mesopotamia during the Early Dynastic II period.

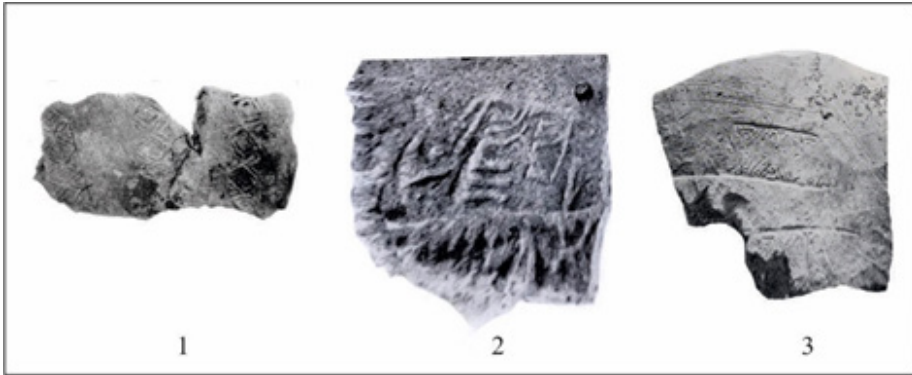


Figure 10: EBA II cylinder seal impressions: Pottery (Ertem, 1982, lev. 29, 31)

EBA III: The distribution of impressions expanded during EBA III (Cat. Nos. 97–140), paralleling the trends observed in cylinder seals. EBA III sites in Harran (Cat. Nos. 100, 121–133), Cilicia (Cat. Nos. 101–111, 113, 134–136), Amuq (Cat. Nos. 137–138), Cappadocia (Cat. No. 140), Central Anatolia (Cat. No. 139), and the Troad (Cat. No. 112) yielded cylinder impressions on bullae, stoppers, labels, and predominantly on pottery. During this period, impressions became more diverse, featuring complex scenes and styles.

Geometric decoration persisted in EBA III impressions, alongside animal or human processions, banquets (?) scenes, worship scenes, and inscriptions, which were added to existing figurative scenes for the first time. EBA impressions with geometric patterns (Fig. 11–12) were found in the Euphrates (Cat. Nos. 97–99; Fig. 11–12), Harran (Cat. No. 100), Cilicia–Amuq (Cat. Nos. 101–111, 113; Fig. 11: 3–5, 7), and the Troad (Cat. No. 112; Fig. 11: 6). These patterns and their distribution closely align with the cylinder seals at the period.

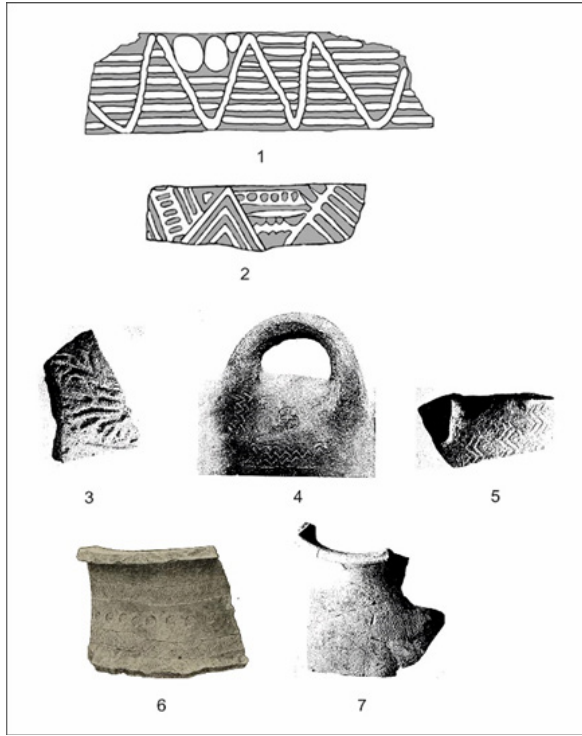


Figure 11: EBA III sealings with geometric patterns: Pottery (Schliemann, 1881, nos. 482–483; Goldman, 1956, fig. 397: 5-8, 10-11; Ökse, 2006, 556, res.2-3)

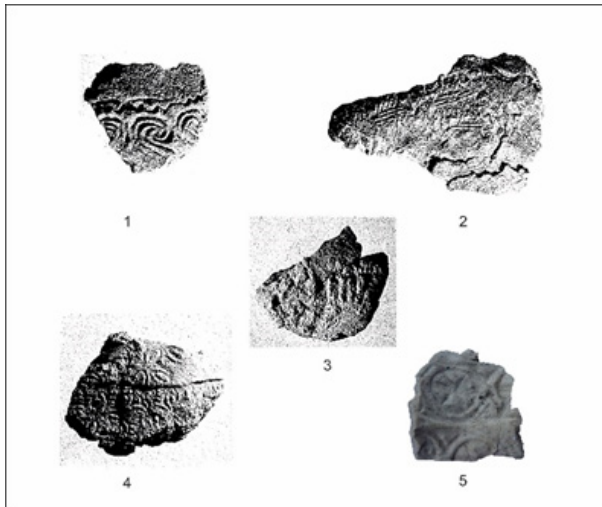


Figure 12: EBA III sealings with geometric and floral patterns: Stopper and bullae (Goldman, 1956, fig. 398: 1, 3, 4, 6; Yalçıklı, 2019, res. 3)

Two seal impressions with floral decoration, one from Mezraa Höyük (Cat. No. 99; Fig. 12: 5) and the other from Tarsus–Gözlükule (Cat. No.113; Fig. 12: 4), feature various types of rosette and linear tree patterns. These motifs bear similarities to decoration found on seals and seal impressions from Anatolia (Schliemann, 1881, nos. 500, 503; Schmidt, 1902, 303–8868; Bittel, 1939–1941, abb.1; Frankfort, 1939, 230), Mesopotamia (Tobler, 1950, CLXI: 48; Frankfort, 1955, 20, pl. 3: 9–10; 8: 51; 12: 96), Northern Syria (Weiss, 1990, 392, 406, pl. 139a–b; Parayre, 2003, pl. 4), and Iran (Roach, 2008, 187, no. 1179; 189, nos. 1189–1191).

Figurative scenes mainly consist of contests, human or animal processions, worship, and banquets. An example from Gre Virike (Cat. No. 119; Fig. 13: 1) depicts humans and animals facing an architectural structure, possibly an *altar*. Another impression from the same site (Cat. No.120; Fig. 13: 2) presents a similar scene, although the architectural feature is absent (Ökse, 2006, 555, res. 4–5). The style of these Gre Virike seals has parallels in Northern Syria and Anatolia, dating back to the Late Chalcolithic period and beyond (Courtois, 1962, fig. 21; Ertem, 1974, pl. 62: 1–2; van Loon, 1983, 3, fig. 5; Collon, 1987, 14, fig. 11, 678; Parayre, 1990, 556–558, fig. 28–4; Matthews, 1991, 148–52, fig. 2: 13–14; 1997, pl. 38: 502–503; Frangipane, 1993, 194, fig. 2:2; Schwartz et al., 2003, 329, fig. 4; Batihan, 2014, no. 091; Sağlamtimur, 2017, 16, res. 15).

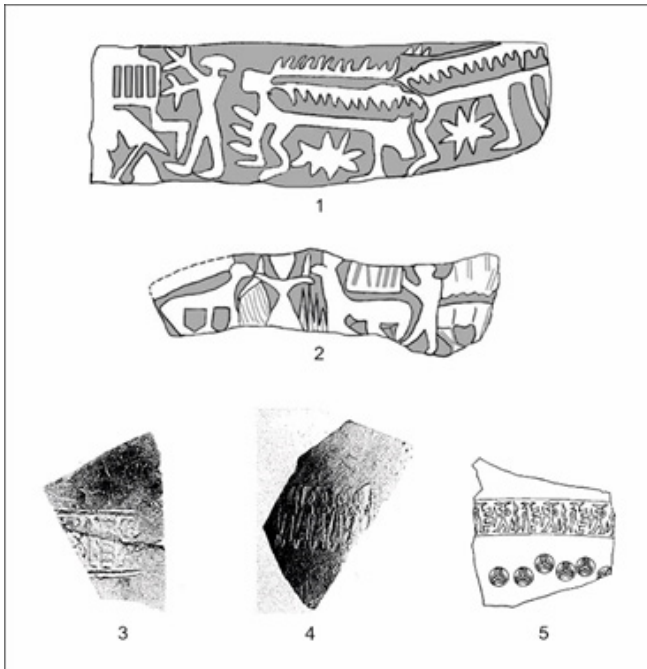


Figure 13: EBA III sealings with figurative scene: Pottery (Ökse, 2006, 556, res. 4-5; Garstang, 1953, fig. 150.17; Goldman, 1956, fig. 397: 9, 12)

The four examples depicting contest scenes originated from Lidar and Kazane. The Lidar examples (Cat. Nos. 116–118) are described in the literature as “*an animal contest scene and male figures making pithos in the style of the Early Dynastic Period.*”⁶ The Kazane example (Cat. No. 121) can similarly be interpreted as a possible contest scene. All these examples date to the Early Dynastic III period.

Human and animal processes were found in the Harran and Cilicia regions (Fig. 13: 4). The example from Kazane (No. 127) features double friezes with a row of lions (Creekmore, 2008, fig. 7.20: 388)⁷. The Gözlükule example (Cat. No. 134) depicts a human and animal procession (Goldman, 1956, 241, fig. 398:5), which suggests an Akkadian or Post–Akkadian dating (Porada, 1948, pl. XXXIX:250E, 251). In the Cilician example, while the scene itself may differ, stylistic details such as the figures’ hairstyles and clothing types resemble those found on Kültepe EBA III seals (Özgüç, 1986, fig. 3–42, 43).

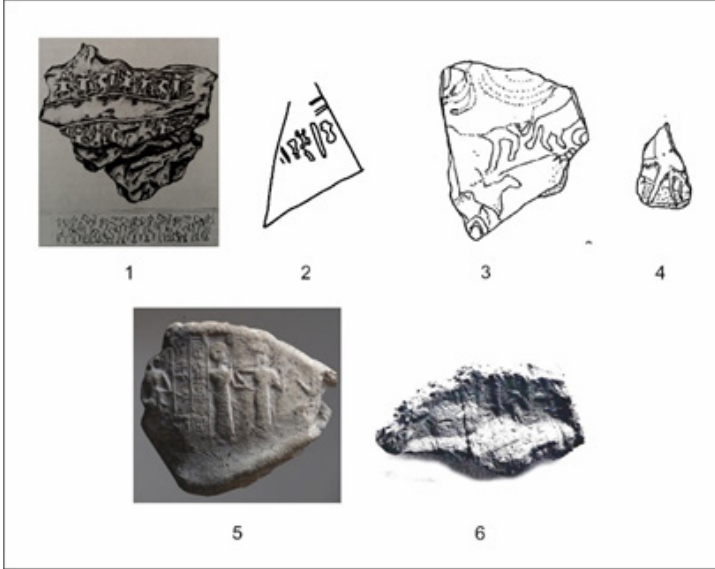


Figure 14: EBA III sealings with figurative scene: Bullae (1-4, 6) and label (5) (Uzunoglu, 198, res. 18-19; Welton, et al, 2011, fig. 13:5-6; Omura, 2016, fig. 25; Öztürk, 2019b, cat. o. 028)

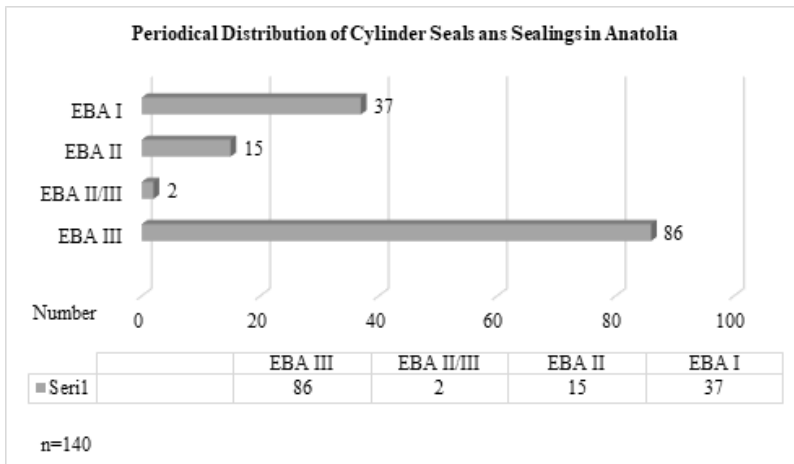
6 No further detail is provided in the publication. For other examples of contest scenes in this period, see: Buchanan, 1981, 105–145; Frankfort, 1955, 28–31; Porada, 1948, 11–2; pl. XII–XV.

7 This description is based on an unclear photo in the publication where the sealings from the Harran Plain with double friezes are compared with the Early Dynastic III examples (Creekmore, 2008, 273). For similar Early Dynastic III examples, see: Porada, 1948, pl. XVII: 105E, 108E; XVIII: 109, 111–116; XIX: 118E; XX: 125, 12–128; Frankfort, 1955, pl. 33: 334; 35: 362; Buchanan 1981, fig. 326–327; 331–338.

All examples described as banquet or presentation scenes are from Kazane (Cat. Nos. 129–131). These impressions display multiple occurrences of the same seals with double friezes. The only example of a worship scene is from a label found in Cappadocia⁸ (Cat. No. 140; Fig. 14: 5). This seal's stylistic characteristics align with the Ur III period. Similar scenes and stylistic features are well-documented in the Mesopotamian repertoire (Buchanan, 1981, fig. 538; Collon, 1982, pl. XLVI: 396–397; XLIV: 366–378; XLV: 379–390; XLVI: 391, 393–401; XLVII: 403–415). However, this is the first and only known example of an inscribed seal impression from Anatolia during the EBA⁹ (Table 2).

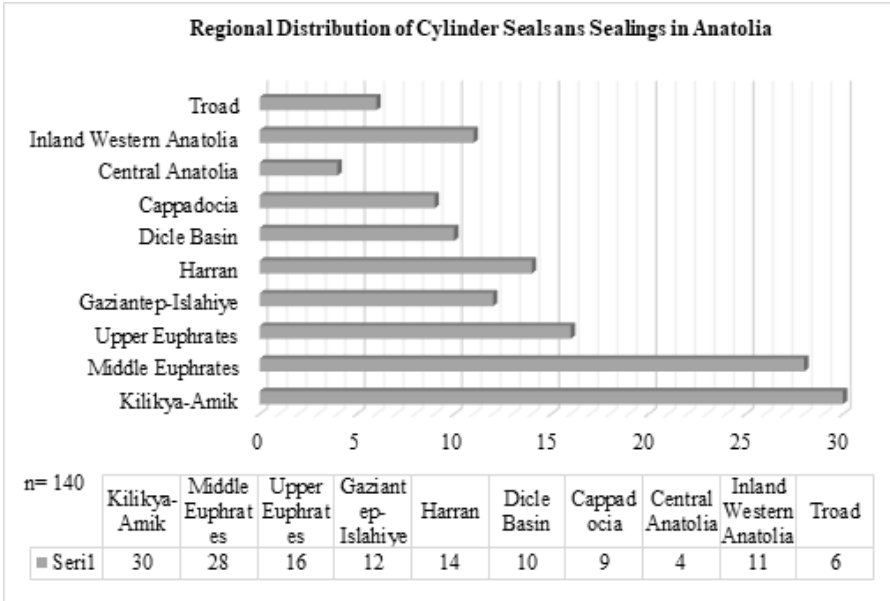
Overall Assessment and Conclusions

The cylinder seals are a distinctive artifact originating from Mesopotamia, characterized by their specialized craftsmanship. Its creation required not only access to rare materials (e.g., semiprecious stones, faience, ivory) but also advanced manufacturing techniques, such as drill usage and literacy for inscriptions. This combination of material scarcity and technical expertise renders cylinder seals rare and prestigious objects, maintaining their popularity among Mesopotamian elites and bureaucrats for an extended period. The larger surface area of cylinder seals compared to stamp seals also contributed to their appeal. Notably, regional differences in style indicate that these seals were produced in various workshops, some of which likely operated under the influence of local political authorities.



Graph 6: Periodical distribution of cylinder seals and sealings in Anatolia

- 8 There is also a bulla bearing the impression of a figurative scene, considered as an EBA example by some scholars Sabahattin Ezer (2014, fig. 14), Fikri Kulakoğlu and Güzel Öztürk (2015, fig. 4) and Michele Massa (2015, fig. 5.14, sg104). While the bulla in question (Öztürk, 2019a, cat. no. 097, Lev. 42:2) was later dated to the Assyrian Trade Colonies Period by Öztürk (2019a). According to stylistic details, the latter dating has been accepted by the authors and this bulla.
- 9 Urdun, son of Namhani mentioned in the inscription, was a scribe working for the Nippur palace in Southern Mesopotamia (Öztürk, 2019a, 89).



Graph 7: Regional distribution of cylinder seals and sealings in Anatolia

Cylinder seals first appeared in Anatolia during the Chalcolithic period, and their distribution extended from the Middle to the Upper Euphrates. This widespread adoption is attributed to the interconnectedness between the “Uruk culture” and Anatolian sites, as well as the trade and communication networks along the Euphrates Valley. For instance, chemical analyses of a cylinder seal-impressed pot discovered at Hacinebi indicate its origin in Susa (Wengrow, 2008, 19). In addition to the seals themselves, sealed vessels and objects were also part of these cultural and material exchanges. During the Chalcolithic period, the Euphrates region fell within the cultural sphere of Syro-Mesopotamian influence rather than that of mainland Anatolian, which explains why cylinder seals, a foreign technological and intellectual innovation, were first introduced in this area of Anatolia.

Unlike stamp seals¹⁰, cylindrical seals were primarily used to impress on clay from their earliest applications, serving as tools for bureaucratic functions. These included the production of *bullae*, labels, containers (used for trade or gift exchanges), and door closures.

During EBA I, the cylinder seals found in Anatolia exhibit a strong connection to the Syro-Mesopotamian tradition regarding material, decorative scenes, and style. While geometric patterns are dominant, figurative decorations are also present (Graph 6). Geometrical motifs,

¹⁰ Stamps were used throughout the long period of use from the Neolithic onwards for several purposes such as body, fabric, food, ceramic decoration, or carried as amulets (Çilingiroğlu, 2009, Atakuman, 2015; Üstün Türkteki, 2021, Türkteki, 2023b), as well as being for stamping clay in certain regions, especially after the Chalcolithic.

which appear in various forms on cylinder seals, have been observed in Mesopotamia since the Jemdet Nasr period (Collon, 1987, 20–23, 113).

In Southeastern Anatolia, the most extensive EBA I cylinder seal assemblages have been recovered from Hassek Höyük, Başur Höyük, and Arslantepe. All known figurative scenes are from these three settlements (Graph 7). Considering their stylistic similarities, it is plausible that they were produced in the same workshop or region. Interestingly, comparable figurative examples from the Euphrates Basin during EBA I continued to be used until the end of the EBA. Based on similar seal impressions, Ökse (2006, 555) stated that this style emerged in the Upper and Middle Euphrates Basin during the Late Chalcolithic and remained in use in Northern Syria until the end of the Early Bronze Age. Collon (1987, 20–23, 113) interpreted cylinder seal vessels, prevalent in Northern Mesopotamia, Syria, Palestine, and the Anatolian, as decorative elements or symbols of local dynasties.

As noted above, cylinder seals in Chalcolithic Anatolia were concentrated along the Euphrates. However, by EBA I, the Tigris Basin had also become part of this mobility network. This shift may reflect trade dynamics (Wengrow, 2008, 19) that gradually shifted toward the Tigris Basin during the early 3rd millennium BCE. Among the key actors in this trade were elite groups, such as those buried in Başur Höyük EBA I. These groups were interred in exceptionally rich tombs, accompanied by privileged goods and artifacts.

EBA II marks the period with the lowest number of cylinder seals and impressions in Anatolia, which might be attributed to insufficient research (Graph 6). However, a similar decline in settlement numbers was noted in the Upper Euphrates region, which was previously rich in seals during EBA I. During this period, the Syro–Mesopotamian influence, as observed at Norşuntepe, significantly diminished (Sagona & Zimansky, 2015, 164; Dede, 2025a). This transformation was likely driven by the Early Transcaucasian movements. However, the altered pattern of seal usage in Anatolia cannot be fully explained by internal Anatolia turmoil alone; it also reflects the broader political and economic dynamics in Mesopotamia. For instance, the Middle Euphrates and Gaziantep–İslahiye sites, which were relatively less affected by Early Transcaucasian mobility, also experienced a decline in seal usage during EBA II.

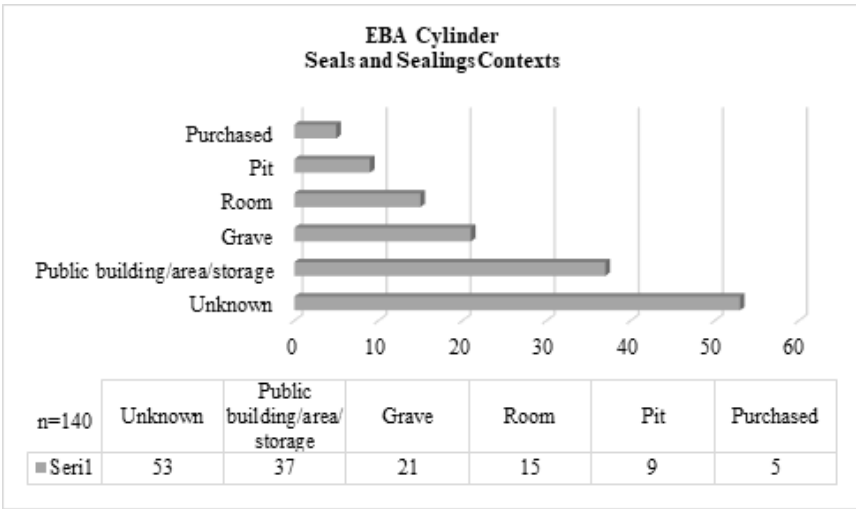
The end of EBA II witnessed the emergence of the so-called “Anatolian Trade Network/Caravan Roads.” During EBA III, Anatolian chiefdoms such as Kültepe, Acemhöyük, Alaca Höyük, Küllüoba, Beycesultan, Liman Tepe, and Troy, played crucial roles, establishing significant overseas connections with the Aegean. After the foundation of the Akkadian Empire, the expansionist policies of Akkadian kings likely brought much of Southeastern Anatolia under the Akkadian influence, explaining the resurgence in cylinder seal use during EBA III. In addition to Southeastern Anatolia, the Akkadian Kingdom also conducted

political and commercial activities in Central Anatolia (Westenholz, 1997, 102–104, 246–251; 1998, 8–9, 15; van de Mieroop, 2000, 138–139) later copies of Sargon and Naram–Sin texts. The vibrant economic activity likely made Anatolia a center of attraction. As part of this interconnected system, cylinder seals began to appear as imports in Central and Western Anatolia and parts of the Aegean for the first time (Bernabò Brea, 1976, 298–300, pl. 25; Collon, 1997, 20ff).

The Cilicia–Amuq region, located within the Syro–Mesopotamian cultural sphere, established maritime connections with Mediterranean communities even before the EBA (Sherratt, 2000, map 7). Non–Anatolian seals were also discovered in this region during and before the EBA (Braidwood & Braidwood, 1960; Dede, 2025b). Gözlükule, situated at a key inland and coastal road junction in Cilicia, served as a link with Western Anatolia during the EBA (Mellink, 1989b; 1993), and yielded a rich glyptic assemblage. Most EBA III cylinder seals and impressions in Anatolia originate from the Southeast Anatolian or Cilician–Amuq regions. Notably, the relatively rich *bullae* collections from Gözlükule and Kazane indicate that these regions, particularly their major sites, adopted a Mesopotamian–type sealing system.

In Central Anatolia, Kültepe yielded evidence suggesting familiarity with Mesopotamian seal and sealing practices, as indicated by the coexistence of cylinder seals and impressions (Kulakoğlu & Öztürk, 2015; Kulakoğlu, 2015, 10, tab. 1; 2018, 59)¹¹. In contrast, apart from the debated EBA I bulla from Demircihöyük, the glyptic assemblages of West Anatolian, including those from the EBA III layers of Seyitömer and Troy, align with the “Great Caravan Road” identified by Efe (2007). Their active roles in the EBA III trade networks were corroborated by numerous archeological findings. Seyitömer seals, which display traces of paint and were found clustered with beads, contrast with the absence of *bullae* in the heavily burned Troy II deposits. These findings indicate that by the time they reached Western Anatolia, seals had lost their original functional purposes and acquired the status of prestige objects or exotic goods likely used as ornaments or amulets. The preference for prestigious and nonindigenous materials and technologies in Anatolia, such as faience and lapis lazuli, evident in the Seyitömer and Kültepe seal groups, further supports this interpretation.

11 In a preliminary report published by Kulakoğlu and Öztürk in 2015, it is stated that thousands of bullae were found in the EBA strata. However, no further publication is available for a stylistic evaluation of this group. Of the six Kültepe cylinder seals published by Öztürk (2019a) in her PhD dissertation, two were excavation materials, and the other four were purchased, all dated to the Post–Akkadian and Ur III periods. The only seal impression dating to the EBA levels is on a label from Level 11b (Kulakoğlu, 2018, 59; Öztürk, 2019a, 2019b).



Graph 8: EBA Cylinder Seals and Sealings Contexts

The context to which most EBA cylinder seals and sealings belong remains unclear. The largest group, whose findspots have been documented, was found in public or storage areas (Graph 8). While this group is small in EBA I, its representation increases significantly after the second half of the EBA. During this later period, the rise in the number of communal buildings alongside the glyptic assemblage found related to these buildings must be understood as a consequence of the interactions among the elite (Dede, 2024). The purpose of seals and sealings in administrative areas would have been to protect valuable goods and objects. The second largest group of seals originated from burial contexts (Graph 8). These examples may indicate that the person buried was privileged, or alternatively, the seal in the grave could have lost its administrative significance, evolving into a simple amulet. The unspecified areas, sometimes defined as “rooms” in some publications, may have actually been storage spaces (Graph 8). Some examples recovered from pits may also suggest their use in public ceremonies (Türkteki et al, 2023).

In conclusion, the Southeastern Anatolia and Amuq–Cilicia plains were first introduced to cylinder seals in the Chalcolithic period, primarily through their connections with Syro–Mesopotamia. Meanwhile, Central and Western Anatolia became familiar with these objects during the EBA III, probably following the establishment of the Akkadian Kingdom. These intensified inter–regional relations facilitated the selective exchange of technologies and ideas between regions, such as metallurgy, metalworking techniques, the potter’s wheel, seal impressions, customs related to eating and drinking, grave types, and burial practices. Within this process, geographically and economically regions closer to the Akkadian Kingdom adopted cylindrical seals and impressed them onto clay. In contrast, settlements in

Western Anatolia, which had more distant and indirect relations with Mesopotamia, probably never fully adopted the practice of using cylinder seals, neither during the EBA nor in later periods. However, settlements in Central Anatolia, whose relations with Syro–Mesopotamian counterparts started during the EBA and gradually intensified during the Assyrian Trade Colonies Period, integrated cylinder seals and sealings into their administrative and bureaucratic systems. This practice, though diminished significantly during the Hittite Kingdom, did not entirely disappear.

Peer-review: Externally peer-reviewed.

Author Contributions: Conception/Design of Study- M.G.D., U.O.; Data Acquisition- M.G.D., U.O.; Data Analysis/ Interpretation- M.G.D., U.O.; Drafting Manuscript- M.G.D., U.O.; Critical Revision of Manuscript- M.G.D., U.O.; Final Approval and Accountability- M.G.D., U.O.

Grant Support: The authors declared that this study has received no financial support

Conflict of Interest: The authors has no conflict of interest to declare.

Table 1: Catalogue of Cylinder Seals

Cat. No.	Fig. No.	Site	Context	Dimensions Length	Diam.	Material	Decoration /Style	EBA Per.	Region	Description	Citation
1	2-8	Arslantepe	Elite Area			Copper	Geometric (?)	I	Upper Euphrates	Animal-shaped handle	Frangpane, 2012, 250, Fig. 8a
2	2-11	Arslantepe	Room A177				Geometric	I	Upper Euphrates	Bow and net motifs	Palimari, 1981, Fig. 10-1
3	2-15	Arslantepe	Elite Area			Stone	Geometric	I	Upper Euphrates	Scalloped triangle motifs and beveled lines within the scene bordered by two long lines	Frangpane, 2012, 250, Fig. 8a
4	2-14	Arslantepe	Elite Area			Stone	Geometric	I	Upper Euphrates	Net motif	Frangpane, 2012, 250, Fig. 8a
5	2-3	Norsuntepe	Pit 27	2.10		Clay	Geometric	I	Upper Euphrates	Five parallel rows of zigzag with a star motif on one side	Hauptmann, 1982, Lev. 26-2, Schmidt, 2002, Taf. 86.1355
6	2-2	Norsuntepe		3.90	2.20	Shell	Geometric	I	Upper Euphrates	Herringbone motif	Hauptmann, 1974, Lev. 80-1, Schmidt, 2002, Taf. 86.1354
7	2-11	Taşkun Mevku		2.30	2.10	Clay	Geometric	I	Upper Euphrates	Zigzag motif and short lines	Helm, 1973, Fig. 10; Sagona, 2004, Fig. 69-6
8	2-5	Hasek Höyük	Pithos Grave G70	5.25	1.35	Bronze	Geometric	I	Upper Euphrates	The handle in the shape of a ibex, and zigzag motifs in the seal face divided in two	Behm-Blancke, 1984, Taf. 12-4
9	2-20	Hasek Höyük	Ash pit/deposit	2.30	2.00	Clay	Geometric	I	Middle Euphrates	Dots	Behm-Blancke, 1981, Taf. 11-5
10	2-19	Hasek Höyük	Ash pit/deposit	2.60	2.17	Clay	Geometric	I	Middle Euphrates	Dots and lines	Behm-Blancke, 1981, Taf. 11-6
11	2-21	Hasek Höyük		2.00	1.40	Clay	Geometric	I	Middle Euphrates	Concentric circles surrounded by drill holes, single circle with a hole in the centre, lozenge and 'comb' motifs	Behm-Blancke, 1984, Taf. 12-3
12	2-1	Birecik Grave	Grave	4.20		Limestone	Geometric	I	Middle Euphrates	Herringbone motif between horizontal lines	Serot & Ergat, 1999, Fig. 12
13	2-9	Başur Höyük	Grave 1	1.60	1.30	Limestone	Geometric	I	Tigris	Interwined lozenge motif	Sagliamur, 2017, Res. 15
14	2-4	Başur Höyük	Grave 2	1.60	0.80	Serpentine	Geometric	I	Tigris	Zigzag motif and short lines	Sagliamur, 2017, Res. 15
15		Tanka	Grave				Geometric (?)/Piedmont	I	Tigris	No information about the seal decoration.	Okse, 2014, 9
16	2-10	Zincirli		2.50		Gray Stone	Geometric/Piedmont	I?	Gaziantep-Islahiye	Double row of hatched zigzags.	Luschan, 1943, Taf. 39-d
17	2-7	Zincirli		2.50		Green Serpentine	Geometric	I?	Gaziantep-Islahiye	Concentric circle and lozenge motifs. Cross inside an octagon on the stamp face	Luschan, 1943, Taf. 39-e
18	2-17	Judaidah	Tell el	4.30		Stone	Geometric and floral	I	Cilicia-Amuq	Four-leaf rosette and net motif	Bradwood & Bradwood, 1960, Fig. 254-5
19	2-6	Judaidah	Tell el	2.10		Green Stone	Geometric	I	Cilicia-Amuq	Concentric circle and lozenge motif	Bradwood & Bradwood, 1960, 332-332, Fig. 254-3
20	2-18	Judaidah	Tell el	2.80		Green Stone	Geometric	I	Cilicia-Amuq	Concentric circle motifs in the seal face divided in two	Bradwood & Bradwood, 1960, 332-332, Fig. 254-2

21	2:12	Tell Juddidah el				3.90	Stone	Geometric	I	Cilicia-Annuq	Net motif	Braidwood & Braidwood, 1960, 331-332; Fig. 254-1
22	2:13	Gordion	MBA_LBA deposit		1,10	2,20	1,10	Geometric/Animal Row	I	Central Anatolia	Decorated with a net motif	Dusubert 2005, 33, Fig. 11a-b
23	3:1	Arslantepe	Elite Area (near the chief's hut)				Clay	Figurative/Animal Row	I	Upper Euphrates	Two horned animals in motion. Drill used for the feet of the animal	Frangpane, 2012, s. 250, Fig.8b; 2014, s. 176, 179, Fig.9
24	3:4	Mevkii			2,90	2,60	Clay	Figurative/Animal Row	I	Upper Euphrates	Three scorpion figures in motion	Helm, 1973, Fig. 10; Sagona, 2004, Fig. 69-8
25	3:7	Hassek Höyük	Ash pit/deposit		3,20	3,15	Clay	Figurative	I	Middle Euphrates	A human figure walking to the right holds two cows with his left hand. One of the cows is fully depicted, while the head and neck of the other cow are missing	Behm-Blanche, 1981, Taf. 11:1a-b
26	3:8	Hassek Höyük			2,55	2,00		Figurative	I	Middle Euphrates	The seal face depicts three horned animals walking to the left in an area bounded by short lines at the top and bottom. The arc-like lines in the lower row are thought to resemble mountain huts	Behm-Blanche, 1984, Taf. 12:2
27	3:6	Başur Höyük	Grave 3		1,80	1,10	Serpentine	Figurative	I	Tigris	A horned animal figure is depicted with horns, tail and genitalia in a rather large size in the centre. There are an hourglass-shaped base (?) and a triangle as filling motifs	Bathan, Kat.No.091
28	3:2	Başur Höyük	Grave				Bronze	Figurative/Animal Row	I	Tigris	Handle in the form of a horned animal (goat?), Horned animals running in succession, stylised human (?) figures in between	Sağlamtımur, 2017, s. 16, Res. 15
29	3:5	Başur Höyük	Grave				Bronze	Figurative/Mythologica I(?)	I	Tigris	The scene depicts a mixed creature/human (?) with hands shaped like tree branches and a prominent phallus. Around this main scene, there are decorations with various beaks and motifs that probably complement the main story	Sağlamtımur, 2017, s. 16, Res. 15
30	3:3	Başur Höyük	Grave				Bronze	Figurative/Animal Row	I	Tigris	The handle in a combination of four animals. Horned animals in motion with interwoven angles as filling motifs on the seal surface	Sağlamtımur, 2017, s. 16, Res. 15
31		Tell Juddidah el			2,20		Green stone	Figurative	I	Cilicia-Annuq	The seal is damaged, the decoration is not recognisable	Braidwood & Braidwood, 1960, 331, 333, Fig. 254-4
32	4:3	Konurtepe			2,00	1,70	Pink Limestone	Figurative/Animal Row	II	Upper Euphrates	Three birds (cranes?) walking to the left. The bird in the centre is carrying an egg. Between the two birds is a triangle motif	van Loon, 1978, Lev. 135-C
33	4:1	Samsat			1,60	1,50	Steatite	Figurative/Animal Row	II	Middle Euphrates	A row of antelopes lying down with their heads turned back. Between the animals, a horizontal staircase with a star above, an antelope calf and a horizontal staircase with a bird above are respectively placed	N. Özgür, 2009 s. 84, Res. 355
34	4:2	Samsat			1,80	1,70	Black Stone	Figurative/Animal Row	II	Middle Euphrates	A herd of antelope walking to the left	N. Özgür, 2009 s. 84, Res. 354
35		Lidar Höyük						Figurative/Contest	II/EHDI	Middle Euphrates	Mesilium style (EHDI). No other information	Hauptman, 1981, 198
36	4:5	Gimavaz	Grave				Bone	Figurative/Contest	II	Tigris	There is a lion on the left, a bull in the centre and a goat behind it. All three figures have human arms	Ekmal, 1990, Fig. 15

37	4: 6	Gırmavaz	Grave				Bone	Figurative/Contest	II	Tigris	The seal face depicts the animal combat. The struggle between upright lion and human figures is depicted.	Erkannl. 1991, Res. 17
38	4: 7	Gırmavaz	Grave	1.80		Stone	Figurative/Contest	Figurative/Contest	II	Tigris	The seal face depicts the animal combat. The struggle between upright lion and human figures is depicted.	Erkannl. 2000, Res. 7
39	4: 8	Zincirli		5.90	2.80	Gray Stone	Figurative/Contest	Figurative/Contest	II/Er	Gaziantep-İslahiye	The scene shows a naked hero with hands raised, wearing a bull mask (?), and two lions crossed on their hind legs, with another lion in the background. A dagger is depicted behind the naked hero. The details of the figures are emphasized with striped hatches.	Lüschan, 1943, Taf. 39a; Amiet, 1980, 85b; P. Moortgat, 1988, No. 776
40		Yence					Figurative/Contest	Figurative/Contest	II/Er	Gaziantep-İslahiye	Early Dynastic II style. No other information	Demir & Ekici, 2019, 504
41	4: 9	Tell Judaidih el		2.40		Green Stone	Figurative/Daily(?)	Figurative/Daily(?)	II	Cilicia-Annu	Two people squatting or seated with another person facing them and an animal figure, with a one-centred circle motif in the centre	Braidwood & Braidwood, 1960, 387-388, Fig. 297.5
42	4: 4	Tell Judaidih el		1.40		Stone	Figurative/Animal row	Figurative/Animal row	II	Cilicia-Annu	Two horned and short tailed animals walking in the same direction. An angle motif separates the two animals	Braidwood & Braidwood, 1960, 387-388, Fig. 297.6
43	5: 12	Gre Virike		4.3-3.25	2.6-2.7	Limestone	Geometric	Geometric	III	Middle Euphrates	A motif resembling elongated leaves emerging from an oblique stem on the left, intertwined angles, four of which overlap the upper set of leaves on the right	Okse, 2006, 554, Res. 1
44	5: 9	Kurban Höyük	Sector E			Black Serpentine	Geometric	Geometric	III	Middle Euphrates	Irregular lines	Algaze, 1990, Pl.167/B
45	5: 2	Gedikli-Karaböyük		2.30	0.90	Stone	Geometric (?)	Geometric (?)	III	Gaziantep-İslahiye	The scene is horizontally divided into three horizontal areas and decorated with horizontal and vertical parallel lines	Duru, 2003, Lev. 163:1
46	5: 3	Oylun Höyük	Grave FS. 26	2.20		Frit	Geometric	Geometric	III	Gaziantep-İslahiye	Vertical parallel hatching between three horizontal lines	Ozgen et al., 1997, Abb. 27.1
47	5: 4	Gozlukule	Room 79	2.50	1.30	Blue Faience	Geometric	Geometric	III	Cilicia-Annu	Diagonal dashes between three horizontal lines	Goldman, 1956, Fig. 393:20
48	5: 5	Gozlukule		3.20	1.10	Blue Faience	Geometric	Geometric	III	Cilicia-Annu	Diagonal dashes between three horizontal lines	Goldman, 1956, Fig. 393:21
49	5: 10	Alisar		4.00		Diorite	Geometric/Piedmont	Geometric/Piedmont	II-III	Central Anatolia	Diagonal dashes between three horizontal lines	von der Osten, 1937, Fig. 186
50	5: 1	Kullepe	Storeroom of Level 13 Palace			Stearite	Geometric	Geometric	III	Cappadocia	In the main frieze at the triangles between hatched diagonal bands are filled with dots, while a hatched band borders the scene at the bottom.	Ozturk, 2019a, s. 48, 65; Fig. 2, Seal 1
51	5: 6	Troy		5: 6		Clay	Geometric	Geometric	III	Troad	No information	Schliemann, 1881, Nr. 500
52	5: 7	Troy				Clay	Geometric	Geometric	III	Troad	No information	Schliemann, 1881, Nr. 501
53	5: 8	Troy					Geometric	Geometric	III	Troad	No information	Schliemann, 1881, Nr. 500
54	5: 11	Troy		3.70	1.80	Blue Feldspat	Floral/Piedmont	Floral/Piedmont	III	Troad	Piedmont style. The seal face is decorated with ten-leaf rosettes surrounded by circles	Schliemann, 1881, Nr. 503; Schmidt, 1902, 303-304; Bittel, 1941, Abb. 1
55	8: 1	Mezra Höyük (?)	Central Building (?)	1.80	2.00	Bone	Figurative/Agriculture (Daily)	Figurative/Agriculture (Daily)	III	Middle Euphrates	A ploughing scene with a person seated on a plough drawn by two bulls and another person pulling the bulls, followed by a scorpion and a dog (?)	Yalçinkh, 2019
56	6: 6	Tinç Höyük	Late EBA floor	2.80		Clay	Figurative/Animal Hunt (?)	Figurative/Animal Hunt (?)	II-III	Middle Euphrates	A human (?) figure thrusting a spear into an eagle (midfig.?)	Algaze et al. 1995, Fig. 9

57	6: 7	Kenan Tepe	2.50	2,3-1,3	Hematite	Figurative/Contest	III	Tigris	Two fighting scenes, one between a short-haired and bearded naked hero with a forehead band holding a pointed is in a combat and an upright lion; the other one between a bearded human wearing a pointed cap and another lion	Bradley Parker, et al, 2002, Şek. 8-A
58	6: 5	Tilinen Höyük	2.00		Stone	Figurative/Animal Hunting (?)	III	Gaziantep-İslahiye	Although not very distinct on the seal face, it shows a figure trying to thrust a spear-like object into an animal	Duru, 2003, Lev. 12:2
59	7: 3	Oylun Höyük	1.80	Grave no. 25	Ivory (?)	Figurative/Banquet	III	Gaziantep-İslahiye	A table covered with food flanked by two people, one of whom plays the lyre/harp, behind, on the left is a tall rectangular pedestal with a spouted vase, a row of birds and a rosette of seven leaves in the lower frieze	Ozgen, 1993, Fig. 4c
60	7: 4	Oylun Höyük	1.80	Grave no. 25	Ivory (?)	Figurative/Banquet	III	Gaziantep-İslahiye	A table covered with food is flanked by two people, one of whom plays the lyre/harp, a bird figure on the table, and a standing figure (dancer?) with arms raised upwards	Ozgen, 1993, Fig. 4b
61	7: 5	Oylun Höyük	1.50	Grave no. 25	Ivory (?)	Figurative/Banquet	III	Gaziantep-İslahiye	A table covered with food is flanked by two people, one of whom plays the lyre/harp, a bird figure on the table, and a standing figure (dancer?) with arms raised upwards	Ozgen, 1993, Fig. 4a
62	7: 8	Oylun Höyük	1.60	Grave no. 25	Ivory (?)	Figurative/Human and Animal frieze	III	Gaziantep-İslahiye	A human figure between two animals on the upper frieze figures, two lions (?) and a scorpion on the lower	Ozgen, 1993, Fig. 4d
63	7: 9	Oylun Höyük	1.7	Grave no. 25	Ivory (?)	Figurative/Animal and Rosette frieze	III	Gaziantep-İslahiye	The scene bordered by a fishbone and a ladder motif depicts an eight-petaled rosette motif in the foreground, followed by a goat and a bird	Ozgen, 1993, Fig. 4d
64	6: 9	Gozlukule	2.90		Steatite	Figurative/Battle	III	Cilicia-Anuq	The Sun God Shamash on the right, with his foot resting on mountain, holding a mace and overpowering the enemy god kneeling in front of him. The enemy is being restrained by another god from behind, pulling him back by his horn	Ozayr, et al, 2011, Res. 8 & Braadwood, 1960, Fig. 327; Frankfort,1965, Pl. XXXIXb
65	6: 1	Çatal Höyük		Inside a red-black burnished pitthos	Stone	Figurative/Mythologica I (?)	III	Cilicia-Anuq	The scene with a lion and a bearded human figure and a bull's head is separated by a tree from a short-skirted, bald figure	Bradwood, 1960, Fig. 327; Frankfort,1965, Pl. XXXIXb
66	6: 3	Tell Tayinat		Probably storage room	Stone	Figurative/Animal Hunting (?)	III	Cilicia-Anuq	In the centre of the scene is the sun between the antlers of a stag, to the left of the stag is a man with a sword (?), and there are three figures next to the stag. The figures are schematic	Welton, et al, 2011,160, Fig.13:4
67	7: 1	Tell Judaidh	1.90		Stone	Figurative/Banquet	III	Cilicia-Anuq	Two figures, wearing horned caps, seated on opposite stools, drink from a large vessel in front of them with straws. There is a standard with a crescent moon near the straws, a tree behind the figure, a bird in front of the deity on the left, and a star above the scene	Bradwood & Braadwood, 1960, Fig. 382.6; Frankfort,1965, Pl. XXXIXf

68	8-8	Küllepe	Purchased	2.50	0.85	Lapis lazuli	Figurative/Contest	III/Post Akkad	Cappadocia	Two naked figures fighting with an upside-down lion	von der Osten, et al. 1933, Kt-126; Bittel, 1941, Abb. 5; Öztürk, 2019b, Kat. No.025
69	6-12	Küllepe	Grave 01	1.7	0.9	Lapis lazuli	Figurative/Worship	III/III, Dönemi	Ur	Utu/Shamash seated on a stool and a worshipper brought before him accompanied by the guiding deity	Öztürk, 2019a, Fig. 6; 2019b, Kat. No.26
70	6-13	Küllepe	Purchased	2.1	1	Lapis lazuli	Figurative/Worship	III/III, Dönemi	Ur	Utu/Shamash standing on a mountain and a worshipper accompanied by a guiding deity, a potion vessel between the worshipper and the guiding deity, and a two-line inscription at the end of the scene	Öztürk, 2019a, Fig.7; 2019b, Kat.No.027
71	6-10	Küllepe	Purchased	1.9	1.2	Lapis lazuli	Figurative/Worship	III/Post Akkad	Cappadocia	The guiding deity holding a plant in one hand leading the worshipper holding an object to the chief god sitting on a stool. A crescent moon motif on the offering table	T. Özgüç, 1986; Fig. 3-43
72	6-14	Küllepe	Purchased	1.9	1.1	Lapis lazuli	Figurative/Worship	III/Post Akkad	Cappadocia	The deity is seated on his throne and the guiding deity brings the worshipper. The deity's left hand is raised and the offering table in front of him has a star motif on it	T. Özgüç, 1986; Fig. 3-42
73	6-11	Küllepe		2.4	1.3	Lapis lazuli	Figurative/Worship	III/Post Akkad	Cappadocia	The seated, horned deity on his throne, wearing a long robe, a bottle on the offering table, an eight-armed star above the scene. A five-line inscription: "Abu-ahi, God Adad is his god. He is the priest of the Assyrian city god Adad"	Balkan, 1957, Res. 12
74	7-2	Küllepe	Purchased	3.8	1.9	Serpentine	Figurative/Banquet	III	Cappadocia	Two figures sitting on opposite stools drinking liquid with straws from a spherical vessel. On the other side, a human spears a four-legged reptile. Various filling motifs on the rest of the scene	Bittel, 1941, Abb. 4; Ward, 1910, No. 900
75	6-4	Alaca Höyük	Central building				Figurative/Animal Hunt (?)	II- III	Central Anatolia	Two figures holding short swords and axes, the one on the left holds a spouted pitcher in his right hand. Of the three animals, only the goat can be identified. The figures are schematic	Bittel, 1941, Abb. 3
76	7-6	Seyitomer	Central building	1.80	0.90	Faience	Figurative/Banquet (?)	III	Inland Anatolia	Two figures in the centre near the table. The object on the table is interpreted as a ziqurat, the table as an altar, and the figure behind the figures as a door	Okatan, 2019, Lev. VIII, Res.14
77	7-7	Seyitomer	Central building	1.90	1.00	Faience	Figurative/Banquet (?)	III	Inland Anatolia	A person sitting on a stool to the right of a tablen the centre, an animal to the left, an altar in the centre, and the objects under and above the table interpreted as potter's wheel	Okatan, 2019, Lev. VIII, Res.15
78	8-2	Seyitomer	Central building	2.4	1.2	Faience	Figurative/Daily (?)	III	Inland Anatolia	Two animals -one is horned- on both side of a human. A crescent with the tips pointing upwards is on the right side of the human. Traces of burgundy paint on the surface	Okatan, 2019, Lev. VI, Res. 8

79	8:3	Seyitömer	Central building	2.45	1.3	Faience	Figurative/Daily (?)	III	Inland Anatolia	Western Anatolia	Horned animal on both sides of a human. Remains of green and red paint are visible on the surface	Okatan, 2019, Lev. VI, Res. 9
80	8:4	Seyitömer	Central building	2.2	1.15	Faience	Figurative/Daily (?)	III	Inland Anatolia	Western Anatolia	Horned animals on both side of a human, and a crescent on the upper left. Remains of burgundy paint on the surface	Okatan, 2019, Lev. VII, Res.10
81	8:5	Seyitömer	Central building	2.3	1.35	Faience	Figurative/Daily (?)	III	Inland Anatolia	Western Anatolia	A human figure in the centre with horned animals on both sides. Remains of green and burgundy paint on the surface	Okatan, 2019, Lev. VII, Res.11
82	8:6	Seyitömer	Central building	2.65	1.3	Faience	Figurative/Daily (?)	III	Inland Anatolia	Western Anatolia	A human flanked by horned animals. Remains of red paint on the surface	Okatan, 2019, Lev. VII, Res.12
83	8:7	Seyitömer	Central building	2.3	1.3	Faience	Figurative/Daily (?)	III	Inland Anatolia	Western Anatolia	A human flanked by horned animals and two crescents above the head. Remains of red paint on the surface	Okatan, 2019, Lev. VII, Res.13
84	8:8	Seyitömer	Central building	2.35	1.40	Faience	Figurative/Daily (?)	III	Inland Anatolia	Western Anatolia	A human figure in the centre with horned animals on both sides. Remains of burgundy paint on the surface	Okatan, 2019, Lev. VIII, Res.16
85	8:9	Seyitömer	Central building	2.25	1.30	Faience	Figurative/Daily (?)	III	Inland Anatolia	Western Anatolia	A human figure in the centre with horned animals on both sides	Okatan, 2019, Lev. VIII, Res.17
86	6:2	Troy				Blue Faience	Figurative	III	Troad		The seal depicts a human figure and a dagger stuck in the ground. Schliemann states that this seal has an inscription bearing the name of the owner	Schliemann, 1881, Nr. 502

Table 2: Catalogue of Seal Impressions										
Cat. No.	Fig. No.	Site	Context	Dimensions	Decoration Style	EBA Period	Region	Imp. On	Description	Citation
87	9-1	Demircihöyük	Central courtyard storage pit	3.6x8.3x0.9 cm. h. of imp. 2.7 cm.	Geometric	I	Inland Western Anatolia	Bulla	Three parallel rows of small squares forming a band	Obladen-Kander, 1996, Taf. 136-5
88	9-2	Hassak Höyük	Large ash pit		Figurative	I	Middle Euphrates	Clay plaque	Agricultural/daily scene. A stylised human holding a cattle	Behm-Blancke et al., 1981, Taf. 11: 2
89	9-3	Hassak Höyük	Large ash pit	H. of imp. 2.8 cm.	Figurative	I	Middle Euphrates	Impression on reserve-slipped pot sherd	Similar scene to the one above	Behm-Blancke et al., 1981, Taf. 11: 3
90	9-4	Hassak Höyük	Large ash pit	H. of imp. 2.8 cm.	Figurative	I	Middle Euphrates	Impression on pot sherd	Similar scene to the one above	Behm-Blancke et al., 1981, Taf. 11: 4a-b
91	9-5	Hassak Höyük	Mound	H. of imp. 2.9 cm.	Figurative/Agricultural/daily	I	Middle Euphrates	Impression on reserve-slipped pot sherd	A stylised human flanked by horned animals	Behm-Blancke et al., 1981, Taf. 12: 1
92	9-6	Hassak Höyük	Large ash pit	H. of imp. 2.8 cm.	Figurative	I	Middle Euphrates		A similar scene to the one above	Behm-Blancke et al., 1981, Taf. 11: 4a-b
93	10-1	Han Ibrahim	From the room		Geometric	II	Upper Euphrates	On a pithos sherd	Lozenge	Ereem, 1982, Cat.No. 344, Lev. 31
94	10-2	Han Ibrahim	From the room		Figurative	II	Upper Euphrates	On a pithos sherd	Probably an eagle and mixed creatures	Ereem, 1982, Cat.No. 294, Lev. 29
95	10-3	Han Ibrahim	From the room		Figurative	II	Upper Euphrates	On a pithos sherd	Stylised deers (?)	Ereem, 1982, Cat.No. 344, Lev. 31
96		Lidar Höyük			No information	III	Middle Euphrates	On the neck of a jar	Defined only as ED II Mesilim style	Hauptmann, 1981,198
97	11-1	Gre Vinke		2.1x7.5	Geometric	III	Middle Euphrates	On jar body fragment	Simple geometric pattern with a wide zigzag line and small horizontal lines or circles within the triangular areas formed by it	Okse, 2006, 556, Res.2
98	11-2	Gre Vinke		1.4x4.7	Geometric	III	Middle Euphrates	On jar body fragment	Geometric design with chevrons, vertical and horizontal lines, arcs, triangles and curves	Okse, 2006, 556, Res. 3
99	12-5	Mezraa Höyük		Height 6.1 cm, length 4.6 cm, thickness 1.8 cm.	Geometric and Floral	III	Middle Euphrates	Bulla	Two impressions of the same seal. Rosette with 6 leaves and horizontal lines framed by row of triangles	Yalcikil, 2019, Res. 3, Creskane, 2008, Fig.17.20, 386
100		Kaznae Höyük	Storage room		Geometric	III	Harran Plain	Door sealing	Wavy lines	Goldman, 1956, Fig. 398:3
101	12-1	Gozlikule	Room 30		Geometric	III	Cilicia-Anuq	Stopper	S-shaped intertwined spirals within a zigzag-shaped border	Goldman, 1956, Fig. 398:3
102	12-2	Gozlikule	Room 30		Geometric	III	Cilicia-Anuq	Stopper	Three parallel lines	Goldman, 1956, Fig. 398:4
102	12-3	Gozlikule	Room 30		Geometric	III	Cilicia-Anuq	Stopper	Parallel lines	Goldman, 1956, Fig. 398:6

103	Gözlükule	Room 30	Geometric	III	Cilicia-Anniq	Stopper	Impressions from three different seals. One consists of a panel of concentric circles and vertical lines	Goldman, 1956, Fig. 398.7
104	Gözlükule	Room 39	Geometric	III	Cilicia-Anniq	Stopper	Five cylinder seal impressions. S-shaped motifs, spirals and zigzags.	Goldman, 1956, Fig. 398.2
111: 3	Gözlükule		Geometric	III	Cilicia-Anniq	On jar fragment	Schematic and angular carving of a human being and two horned animals, facing the altar. Filling motifs between the legs of the animals. The animal on the left has horn-like projections on one leg.	Goldman, 1956, Fig. 397.5
111: 7	Gözlükule		Geometric	III	Cilicia-Anniq	On phthos fragment	Partly preserved. Triangles and lines.	Goldman, 1956, Fig. 397.10
111: 5	Gözlükule	Room 36	Geometric	III	Cilicia-Anniq	On jar neck	The bevelled lines forming tree branches	Goldman, 1956, Fig. 397.11
111: 4	Gözlükule	Room 45	Geometric	III	Cilicia-Anniq	On bowl fragment	Two impressions of the same seal. Symmetrical zigzags and lozenges.	Goldman, 1956, Fig. 397.7-8
113: 4	Gözlükule		Geometric	III	Cilicia-Anniq	On bowl fragment	Two impressions of the same cylinder and one impression of stamp seal. Rowns of zigzags on cylinder seal impression; cross on stamp seal impression.	Goldman, 1956, Fig. 397.6
113: 5	Yumuktepe		Figurative	III	Cilicia-Anniq	On the pot sherd	Impression of stamp and cylinder seal. Two creatures facing each other with filling motifs in between on cylinder seal impression; intertwined angles on stamp seal impression.	Garstang, 1953, Fig. 150.17
111: 6	Troy		Geometric	III	Troad	Pottery	Stamp and cylinder seal impressions. The impression of the cylinder seal consists of two separate bands of linear decoration. The impression of the stamp seal consists of a cross motif with an intertwined angle between the arms.	Schiemann, 1881, Nr. 482-483
112: 4	Gözlükule	Room 30	Floral	III	Cilicia-Anniq	Stopper	Flowers with four petals	Goldman, 1956, Fig. 398.1
14: 1	İnanışlı Höyük	Storage room	Figurative	III	Upper-Euphrates	Bulla	A figure raising its three fingered hands with an exaggerated phthos; a human figure moving towards him and a snake between them. A bull-man, and another human figure with hands in praying gesture moving to the right with a fish between them. One more snake at the end of the scene.	Uzunoglu, 198, Res. 18-19
114	İnanışlı Höyük	Storage room	Figurative	III	Upper-Euphrates	Bulla	The same depiction with the former	Uzunoglu, 198, Res. 18-19
115	Lidar Höyük		Figurative/Contest	III	Middle Euphrates	On phthos fragment	Animal contest scene and male figures making a phthos. Early Dynastic style.	Mellink, 1985, s. 115

116	Lidar Höyük				Figurative/Contest	III	Middle Euphrates	On pithos fragment	Animal contest scene and male figures making a pithos. Early Dynastic style.	Mellink, 1985, s. 115
117	Lidar Höyük				Figurative/Contest	III	Middle Euphrates	On pithos fragment	Contest scene of upright lions	Mellink, 1985, s. 115
13: 1	Gre Vinke	Grave	2.4x8.1		Figurative	III	Middle Euphrates	On the shoulder of burial pithos	A schematic human and two horned animals, probably facing the altar. Filling motif between the legs of the animal figures. The animal on the left has a horn-like projection on one leg.	Okse, 2006, 556, Res. 4
13: 2	Gre Vinke		1.6x8.1		Figurative	III	Middle Euphrates	On a vertical handle	A schematic human with raised arms, holding a bundle of grass or a bunch through the animals on either side. On the right, a second human.	Okse, 2006, 556, Res. 5
120	Kazane Höyük	Storage room			Figurative/Contest	III	Harran Plain	Bulla	Contest scene of upright lions	Creekmore, 2008, Fig.6.19, 574
121	Kazane Höyük	Storage room			Figurative and geometric	III	Harran Plain		No information	Creekmore, 2008, Fig.7.20, 384
122	Kazane Höyük	Storage room			Figurative and geometric	III	Harran Plain	Bulla	No information	Creekmore, 2008, Fig.17.20, 381
123	Kazane Höyük	Storage room			Figurative and geometric	III	Harran Plain	Door sealing	No information	Creekmore, 2008, Fig.17.20, 396
124	Kazane Höyük	Storage room			Figurative and geometric	III	Harran Plain	Door sealing	No information	Creekmore, 2008, Fig.17.20, 395
125	Kazane Höyük	Storage room			Figurative and geometric	III	Harran Plain	Label	No information	Creekmore, 2008, Fig.17.20, 385
126	Kazane Höyük	Storage room			Figurative	III	Harran Plain	Label	Procession of upright lions moving in the same direction in two friezes	Creekmore, 2008, Fig.7.20, 388
127	Kazane Höyük	Storage room			Figurative	III	Harran Plain	Bulla	Humans, a tree and two upright lions	Creekmore, 2008, Fig.7.20, 387
128	Kazane Höyük	Storage room			Figurative/Banquet or presentation scene (?)	III	Harran Plain		Row of dots (humans?) on the upper frieze; humans sitting beside or standing on either side of a vessel	Creekmore, 2008, Fig.7.20, 382
129	Kazane Höyük	Storage room			Figurative/Banquet or presentation scene (?)	III	Harran Plain		Row of dots (humans?) on the upper frieze; humans sitting beside or standing on either side of a vessel	Creekmore, 2008, Fig.17.20, 397
130	Kazane Höyük	Storage room			Figurative/Banquet or presentation scene (?)	III	Harran Plain	Bulla	Row of dots (humans?) on the upper frieze; humans sitting beside or standing on either side of a vessel	Creekmore, 2008, Fig.17.20, 394
131	Kazane Höyük	Storage room			Figurative	III	Harran Plain	-	Two friezes. Angle-filled crosses separate the friezes.	Creekmore, 2008, 272
132	Kazane Höyük	Storage room			Figurative	III	Harran Plain		No information	Creekmore, 2008, 272
133	Gozlukale	Room 30			Figurative	III	Cilicia-Anuik	Stopper	A procession of humans holding animals and a ladder on the right of the scene	Goldman, 1956, Fig. 398:5
134	Gozlukale	Room 25			Figurative	III	Cilicia-Anuik	On jar	A procession of three or more men moving left	Goldman, 1956, Fig. 397:12

135	13: 3	Gozlukule	Room 56		Figurative	III		Cilicia-Annuq	On jar fragment	Faunistic animals (?) on the right and scattered motifs on the left separated by a ladder	Goldman, 1956, Fig. 397/9
136	14: 3	Tell Tayinat	Probably storage room		Figurative	III		Cilicia-Annuq	Door sealing	Partly preserved. Two animals standing back to back	Welton, et al., 2011, Fig. 13:5
137	14: 4	Tell Tayinat	Probably storage room		Figurative	III		Cilicia-Annuq	Door sealing	Partly preserved. The forelegs of an animal	Welton, et al., 2011, Fig. 13:6
138	14: 6	Yassiboyuk	Palace		Figurative	III		Central Anatolia	Door sealing	No information	M. Omura, 2016, Fig. 25
139	14: 5	Kultepe	Pit	3x2.6x0.8 cm	Figurative/worship	III		Cappadocia	Label	Impressions by the same cylinder seal impressed on all four sides. A seated deity and a worshipper accompanied by a guarding deity. Inscription: Ur-dun DUB SAR DUMU Nann-ha-ni Su/Ba-x DAM GAR (Urdu son of Nann-ha-ni)	Oztrak, 2019b, Cat. No. 028

References

- Algaze, G. (1990). *The Ceramic Sequence and Small Finds*. In G. Algaze (Ed.), *Town and Country in Southeastern Anatolia Vol. II The Stratigraphic Sequence at Kurban Höyük Text and Plates*. Chicago: The University of Chicago.
- Algaze, G., Goldberg, P., Honça, D., Matney, T., Mısır, A., Rosen, et al. (1995). Tiriş Höyük, A Small EBA Urban Center in SE Anatolia, the 1994 Season. *Anatolica*, XXI, 13–64.
- Amiet, P. (1963). La Glyptique Syrienne Archaïque. *Syria*, 40, 57–83.
- Amiet, P. (1980). *La Glyptique Mésopotamienne Archaïque*. Paris.
- Aruz, J. (2008). *Marks of Distinction Seals and Cultural Exchange Between the Aegean and the Orient*. Mainz: Verlag Philipp von Zabern.
- Atakuman, Ç. (2015). From Monuments to Miniatures: Emergence of Stamps and Related Image-Bearing Objects during the Neolithic. *Cambridge Archaeological Journal*, 24, 759–788.
- Balkan, K. (1957). *Mama Kırallı Anum–Hirbi'nin Kaniş Kralı Warşama'ya Gönderdiği Mektup*. Ankara: Türk Tarih Kurumu.
- Batıhan, M. (2014). *Başur Höyük Eski Tunç Çağı Mezarları ve Buluntuları (Yüksek Lisans Tezi)*. Ankara: Ankara Üniversitesi.
- Behm–Blancke, R., Hoh, M. R., Karg, N., Masch, L., Parsche, F., Weiner, K. L., et al. (1984). Hassek Höyük Vorläufiger Bericht über die Ausgrabungen der Jahre 1981–1983. *Istanbul Mitteilungen*, 34, 31–150.
- Behm–Blancke, R. M., Becker, M. R. H., Boessneck, J., von den Driesch, A., Hoh, M. R. & Wiegand, G. (1981). Hassek Höyük Vorläufiger Bericht über die Ausgrabungen der Jahre 1978–1980. *Istanbul Mitteilungen*, 31, 11–93.
- Bernabo' Brea, L. (1976). *Poliochni, citta' preistorica nell'isola di Lemnos, vol.2*. Rome: L'erma di Bretschneider.
- Bertram, K. J. & İlgezdi–Bertram, G. (2020). The Alişar 7M–11M / Ahlatlıbel / Çayyolu III–Horizon in Central Anatolia. A Reminiscence to H. H. von der Osten's "Copper Age". In H. G. Y. v. O. Stegemeier (Ed.), *Metallurgica Anatolica Festschrift für Ünsal Yalçın anlässlich seines 65. Geburtstags Ünsal Yalçın 65. Yaşgünü Armağan Kitabı* (pp. 99–111). Ege Yayınları.
- Bittel, K. (1939–1941). Ein Gräberfeld der Yortan–Kultur bei Babaköy. *Archiv für Orientforschung*, 13, 1–31.
- Boehmer, R. M. (1965). *Die Entwicklung der Glyptik während der Akkad–Zeit*. Berlin: Walter de Gruyter & Co.
- Bradley, J. P., Creekmore, A., Moseman, A. E. & Sasaki, R. (2002). Yukarı Dicle Arkeolojik Araştırma Projesi (UTARP) Kenan Tepe 2000 Yılı Çalışmaları Raporu. In N. Tuna & J. Velibeyoğlu (Eds.), *İlisu ve Karkamış Gölleri Altında Kalacak Arkeolojik ve Kültür Varlıklarını Kurtarma Projesi 1999 Yılı Çalışmaları* (pp. 613–645). Ankara: TAÇDAM.
- Braidwood, R. J. & Braidwood, L. (1960). *Excavations in the Plain of Antioch I. The Earlier Assemblages Phases A–J. OIP LXI*. Chicago: Oriental Institute Publication.
- Buchanan, B. (1966). *Catalogue of Ancient Near Eastern Seals in the Ashmolean Museum Cylinder Seals*. London: Oxford University Press.
- Buchanan, B. (1981). *Early Near Eastern Seals in the Yale Babylonian Collection*. New Haven and London: Yale University Press.

- Buchanan, B. (1984). *Catalogue of Ancient Near Eastern Seals in the Ashmolean Museum, Vol II, the Prehistoric Stamp Seals*. Oxford: Oxford University Press.
- Collon, D. (1982). *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals II, Akkadian, Post Akkadian, Ur III-Periods*. London: British Museum Publications.
- Collon, D. (1987). *First Impressions: Cylinder Seals in the Ancient Near East*. London: British Museum Publications.
- Collon, D. (1990). *Near Eastern Seals*. London: University of California Press.
- Creekmore, A. T. (2008). *Kazane Höyük and Urban Life Histories in Third Millennium Upper Mesopotamia (Dissertation Thesis)*. Evanston: Northwestern University.
- Çilingiroğlu, Ç. (2009). —Of Stamps, Loom Weights and Spindle Whorls: Contextual Evidence on the Function(s) of Neolithic Stamps from Ulucak, İzmir, Turkey. *Journal of Mediterranean Archaeology*, 22, 3–27.
- Courtois, J. C. (1962). Contribution à l'étude des Civilisations du Bronze Ancien à Ras Shamra-Ugarit (Sondages 1959). *Ugaritica*, 4, 415–75.
- Dede, M. G. (2014). *Anadolu'da Bulunmuş Eski Tunç Çağı'na Ait Silindir ve Damga Mühürler. (Yüksek Lisans Tezi)*. Ankara: Ankara Üniversitesi.
- Dede, M. G. (2024). *Erken Tunç Çağı'nda Anadolu Kamusal Yapıları (Doktora Tezi)*. Ankara : Hacettepe Üniversitesi.
- Dede, M. G. 2025a. Changes and Transformations in the Elâzığ–Malatya Region in the Early Bronze Age: An Assessment through Public Buildings. *OANNES– Uluslararası Eskiçağ Tarihi Araştırmaları Dergisi*, 7(1).
- Dede, M. G. 2025b. Cüdeyde Höyük Erken Tunç Çağı Damga Mühürleri Üzerine Bir Değerlendirme. In A. Engin, A. Aykurt, A. U. Türkcan, T. Zimmermann, D. Yaşın Meier, S.Gedik–Zimmermann, ve diğerleri (Eds.). *Prof. Dr. Ayşe Tuba Ökse'ye Armağan Kitabı*.
- Demir, T. & Ekici, M. (2019). Yenice Höyük 2016–2017 Yılı Çalışmaları. *Kazı Sonuçları Toplantısı*, 40(3), 503–520.
- Diñçol, A. (1997). Mühür. In *Eczacıbaşı Sanat Ansiklopedisi, Vol. 2*, pp. 1316–1317.
- Dodd, L. S., Parker, B. J., Creekmore, A. & Healey, E. (2005). The Upper Tigris Archaeological Research Project (UTARP): Research at Kenan Tepe in 2003. *Kazı Sonuçları Toplantısı*, 26(1), 357–371.
- Duru, R. (2003). *Unutulmuş Bir Başkent Tilmen (Islahiye Bölgesi'nde 5400 Yıllık Bir Yerleşmenin Öyküsü)*. İstanbul: TÜRSAB Kültür Yayınları.
- Duru, R. (2006). *Gedikli–Karahöyük I, Prof. Dr. U. Bahadır Alkım Yönetiminde 1964–1967 Yıllarında Yapılan Kazıların Sonuçları*. Ankara: Türk Tarih Kurumu.
- van Driel, G. (1983). Seal and Sealings from Jebel Aruda 1974–1978. *Akkadica*, 33, 34–63.
- Edzard, D. O. (1959). Neue Inschriften zur Geschichte von Ur III unter Šūsuen. *Archiv Für Orientforschung*, 19, 1–32.
- Efe, T. (2007). The Theories of the 'Great Caravan Route Between Cilicia and Troy: The Early Bronze Age III Period in Inland Western Anatolia. *Anatolian Studies*, 57, 47–64.
- Elsbeth Dusingberre, R. (2005). *Gordion Seals and Sealings: Individuals and Society*. Philadelphia.
- Erkanal, H. (1990). 1988 Gırnavaç Kazıları. *Kazı Sonuçları Toplantısı*, XI(1), 277–293.

- Erkanal, H. (1991). 1989 Gırnavaş Kazıları. *KST, XII(1)*, 277–293.
- Erkanal, H. (2012). Gırnavaş 1982–1991. In O. Bingöl, A. Öztan & H. Taşkıran (Eds.), *Dil ve Tarih–Coğrafya Fakültesi 75. Yıl Armađanı, DTCF Arkeoloji Bölümü Tarihçesi ve Kazıları (1936–2011). Anadolu Ek III.2*. Ankara: Ankara Üniversitesi Basımevi.
- Ezer, S. (2014). Kültepe–Kanesh in the Early Bronze Age. In L. Atıcı, F. Kulakođlu, G. Barjamovic & A. Fairbairn (Eds.), *Current Research at Kültepe–Kanesh: An Interdisciplinary and Integrative Approach to Trade Networks, Internationalism, and Identity. The Journal of Cuneiform Studies Supplemental Series Number 4*, 5–25.
- Fiandra, E. (1979). The Connection between Clay Sealings and Tablets in Administration. *South Asian Archaeology*, 5, 29–43.
- Fiandra, E. (2003). Mühürler, Kil Mühür Baskıları. *ArkeoAtlas*, 2, 32–34.
- Frangipane, M. (1993). New Groups of Clay–Sealings From the 4th Millennium Levels of Arslantepe–Malatya. In M. J. Mellink, E. Porada & T. Özgüç (Eds.), *Nimet Özgüç’e Armađan. Aspects of Art and Iconography. Anatolia and its Neighbors* (pp. 191–200). Ankara: Türk Tarih Kurumu.
- Frangipane, M. (2002). *Yakındađu’da Devletin Dođuşu*. İstanbul: Arkeoloji ve Sanat Yayınları.
- Frangipane, M. (2012). The Collapse of the 4th Millennium Centralised System at Arslantepe and the Far–Reaching Changes in 3rd Millennium Societies. *Origini, XXXIV*, 237–260.
- Frankfort, H. (1939). *Cylinder Seals: A Documentary Essay on the Art and Religion of the Ancient Near East*. London.
- Frankfort, H. (1955). *Stratified Cylinder Seals from the Dıyala Region* (Vol. LXXII). Chicago: The University of Chicago Press.
- Fukai, S., Horiuchi, K. & Matsutani, T. (1974). *Telul eth–Thalathat, Vol. III, The Excavations of Tell V, The Fourth Season (1965)*. Tokyo: Yamakawa Publication.
- Garstang, J. (1953). *Prehistoric Mersin Yümük Tepe in Southern Turkey*. London: Oxford University Press.
- Goldman, H. (1956). *Excavations at Gözlükule, Tarsus Vol II. Text and Plates*. New Jersey: Princeton University Press.
- Hammade, H. (1987). *Cylinder Seals from the Collections of the Aleppo Museum, Syrian Arab Republic: 1 Seals of Unknown Provenance. BAR International Series 335*. Oxford.
- Hammade, H. (1994). *Cylinder Seals from the Collections of the Aleppo Museum, Syrian Arab Republic: 2 Seals of Known Provenance. BAR International Series 597*. Oxford.
- Hauptmann, H. (1982). Norşuntepe Kazıları, 1974. In *Keban Projesi 1974–1975 Çalıřmaları. Orta Dođu Teknik Üniversitesi Keban Projesi Yayınları. Seri 1, No. 7* (pp. 15–71). Ankara: Türk Tarih Kurumu.
- Heinrich, E. (1931). *Fara Ergebnisse der Ausgrabungen der Deutschen Orient–Gesellschaft in Fara und Abu Hatab 1902/03*. Berlin.
- Helms, S. (1973). Taşkun Mevkii 1970–71. *Anatolian Studies, XXIII*, 109–120.
- Koşay, H. Z. (1951). *Türk Tarih Kurumu Tarafından yapılan Alaca Höyük Kazısı, 1937–1939’daki Çalıřmalara ve Keşiflere Ait İlk Rapor*. Ankara: Türk Tarih Kurumu.
- Kulakođlu, F. (2015). Current Research at Kültepe. In L. Atıcı, G. Barjamovic, F. Kulakođlu, J. Lehner & C. Michel (Eds.), *Subartu XXXV, Kültepe International Meetings (KIM 1)* (pp. 9–23). Turnhout: Brepols Publisher.

- Kulakoğlu, F. (2018). Kaniş Karumu: Eski Assur Ticaretinin Anadolu'daki Başkenti. In K. Köroğlu & S. F. Adalı (Eds.), *Assurlular Dicle'den Toroslar'a Tanrı Assur'un Krallığı* (pp. 56–84). İstanbul: Yapı Kredi Yayınları.
- Kulakoğlu, F. & Öztürk, G. (2015). New Evidence for International Trade in Bronze Age Central Anatolia: recently discovered bullae at Kültepe–Kanesh. *Antiquity*, 89(343).
- Loding, D. (1981). Lapidaries in the Ur III Period. *Expedition Magazine*, 23 (4), 6–14.
- Legrain, L. (1951). *Ur Excavations Volume X: Seal Cylinders*. New York: British Museum and the Museum of the University of Pennsylvania.
- van Loon, M. N. (1978). *Korucutepe Final Report on the Excavations of the Universities of Chicago, California and Amsterdam in the Keban Reservoir, Eastern Anatolia, 1968–1970 Vol. 2*. Amsterdam: North–Holland Publishing Company.
- van Loon, M. N. (1983). Hammâm et–Turkmân on the Balikh: First Results of the University of Amsterdam's 1982 Excavation. *Akkadica*, 35, 1–23.
- von Luschan, F. (1943). *Die Kleinfunde von Sendschirli, Ausgrabungen in Sendschirli V*. Berlin: Verlag von Walter de Gruyter & Co.
- Mallowan, M. E. L. (1947). Excavations at Brak and Chagar Bazar. *Iraq*, 9, 1–352.
- Martin, H. P. (1988). *Fara: A Reconstruction of the Ancient Mesopotamian City of Shuruppak*. Birmingham: Chris Martin & Associates.
- Massa, M. (2015). *Networks before Empires: cultural transfers in west and central Anatolia during the Early Bronze Age*. (Phd Dissertation). London: University College London.
- Massa, M. & Palmisano, A. (2018). Commercial Landscapes of Long–Distance Contacts in Western Asia, c. 3200 – 1600 BC: Perspectives from Material Culture. *Journal of Open Archaeology Data* 6.1:3.
- Massa, M. & Tuna, Y. (2019). Reassessing western and central Anatolian Early Bronze Age sealing practices: a case from Boz Höyük (Afyon). *Anatolian Studies*, 69, 59–75.
- Matney, T. & Algaze, G. (1995). Urban Development at Mid–Late Early Bronze Age Titriş Höyük in Southeastern Anatolia. *Bulletin of the American Schools of Oriental Research*, 299–300, 33–52.
- Matthews, D. (1991). Tell Brak 1990: The Glyptic. *Iraq*, 53, 147–157.
- Matthews, D. (1997). *The Early Glyptic of Tell Brak Cylinder Seals of Third Millennium Syria*. Fribourg: Fribourg University / Vandenhoeck & Ruprecht.
- Mellink, M. (1989a). Archaeology in Anatolia. *American Journal of Archaeology*, 93, 105–133.
- Mellink, M. (1989b). *Anatolian and foreign relations of Tarsus in the early bronze age*. In K. Emre, M. J. Mellink, B. Hrouda & N. Özgüç (Eds.), *Anatolia and the ancient Near East: Studies in honor of Tahsin Özgüç = Tahsin Özgüç'e armağan*. (pp. 319–331). Ankara.
- Mellink, M. J. (1993). The Anatolian South Coast in the Early Bronze Age: The Cilician Perspective. In M. Frangipane, H. Hauptmann, M. Liverani, P. Matthiae & M. Mellink (Eds.), *Between the Rivers and Over the Mountains. Archaeologica Anatolica e Mesopotamica Alba Palmieri Dedicata*. (pp. 495–508). Rome: Dipartimento di Scienze Storiche Archeologiche e Antropologiche dell'Antichità, Università di Roma "La Sapienza".
- van de Mieroop, M. (2000). Sargon of Agade and His Successors in Anatolia. *Studi Micenei ed Egeo–Anatolici*, XLII, 133–159.

- van de Mierop, M. (2018). *Eski Yakındoğu Tarihi MÖ 3000–323*. İstanbul: Homer Yayınevi.
- Moorey, P. R. S. (1994). *Ancient Mesopotamian Materials and Industries: The Archaeological Evidence*. London.
- Moortgat, A. (1988). *Vorderasiatische Rollsiegel*. Berlin: Gebr. Mann Verlag.
- Naumann, R., Erim, K., Gonnet, H., Cauvin, J., Aurenche, O., Vettters, H., et al. (1981). Recent Archaeological Research in Turkey. *Anatolian Studies*, 31, 177–208.
- Nissen, H. J. (1977). Aspects of the Development of Early Cylinder. In M. Gibson & R. D. Biggs (Eds.), *Seals and Sealing in the Ancient Near East, Bibliotheca Mesopotamica Vol. 6*. (pp. 15–25). Malibu: Undena Publications.
- Obladen–Kauder, J. (1996). Die kleinfunde aus ton, knochen und metall. In M. Korfmann (Ed.), *Demircihüyük die Ergebnisse der Ausgrabungen 1975–1978. Band IV: die Kleinfunde* (pp. 209–395). Mainz am Rhein: Philipp von Zabern.
- Oğuzhanoglu, U. (2019). A Lead Seal from the Laodikeia–Kandilkiri Excavations and an Overall Assessment of Seal Use in South–Western Anatolia During the Early Bronze Age. *Oxford Journal of Archaeology*, 38(1), 39–64.
- Okatan, H. M. (2019). *Seyitömer Höyük Erken Tunç Çağı III Silindir Mühürleri*. (Yüksek Lisans Tezi). Kütahya: Dumlupınar Üniversitesi,
- Omura, M. (2016). Yassihöyük Excavations First Five Seasons 2009–2013. *Anatolian Archaeological Studies*, XIX, 11–71.
- Ökse, T. (2006). Gre Virike’de Bulunan Silindir Mühür ve Kaplar Üzerinde Yer Alan Silindir Mühür Baskıları. In B. Avunç (Ed.), *Hayat Erkanal’a Armağan; Kültürlerin Yansıması* (pp. 555–559). İstanbul: Homer Kitabevi.
- von der Osten, H. H. (1934). *Ancient Oriental Seals in the Collection of Mr. Edward T. Newell. OIP XXII*. Chicago: The University of Chicago Press.
- von der Osten, H. H. (1937). *The Alishar Hüyük Seasons of 1930–32 Part I. OIP XXVIII*. Chicago: The University of Chicago Press.
- Özgen, E. (1993). An Early Bronze Age Burial at Oylum Höyük Near Kilis. In M. J. Mellink, E. Porada & T. Özgüç (Eds.), *Nimet Özgüç’e Armağan. Aspects of Art and Iconography. Anatolia and its Neighbors* (pp. 467–472). Ankara: Türk Tarih Kurumu.
- Özgen, E., Helwing, B. & Tekin, H. (1997). Vorläufiger Bericht über die Ausgrabungen auf dem Oylum Höyük. *Istanbul Mitteilungen*, 47, 39–90.
- Özgüç, N. (2009). *Samsat, Sümeysat, Samosata, Kumaha, Hahha, Hahhum Bir Başkent ve Kalenin Uzun Yaşamının 6000 Yıllık Döneminden Kesitler*. Ankara: Türk Tarih Kurumu.
- Özgüç, T. (1986). New Observations on the Relationship of Kültepe with Southeast Anatolia and North Syria during the Third Millenium B. C. In J. V. Canby, E. Porada, B. S. Ridgway & T. Stech (Eds.), *Ancient Anatolia: Aspects of Change and Cultural Development: Essays in Honor of M. J. Mellink* (pp. 31–47). Madison: University of Wisconsin Press.
- Öztürk, G. (2019a). *Yeni Kazılar Işığında MÖ. 3. Binyıl’ın Sonunda ve MÖ. 2. Binyıl’ın Başında Kültepe Mühür ve Mühür Baskıları. (Doktora Tezi)*. Ankara: Ankara Üniversitesi.
- Öztürk, G. (2019b). Post–Akkadian and Ur III Features on Cylinder Seals from Kültepe–Kanes: An Iconographic and Stylistic Analysis. *Adalya*, 22, 45–69.

- Özyar, A., Ünlü, E., Karacı, S., Person, C., Pilavcı, T. & Yalçın, S. (2011). Tarsus–Gözlükule 2009 Yılı Kazısı. *KST*, 32(3), 251–263.
- Palmieri, A. (1981). Excavations at Arslantepe (Malatya). *Anatolian Studies*, XXXI, 101–121.
- Parayre, D. (1990). Seals and Seal Impressions from Tell Leilan 1985. *American Journal of Archaeology*, 94, 556–567.
- Parayre, D. (2003). The Ninevite 5 Sequence of Glyptic at Tell Leilan. In E. Rova & H. Weiss (Eds.), *The Origins of Northern Mesopotamian Civilization: Ninevite 5 Chronology, Economy, Society*. Brussels: Brepols.
- Parrot, A. (1952). Les Fouilles de Mari. Septième Campagne. *Syria*, 29, 183–203.
- Pittmann, H. (1994). *The Glazed Steatite Glyptic Style: The Structure and Function of an Image System in the Administration of Protoliterate Mesopotamia*. Berlin: D. Reimer.
- Pittmann, H. (1995). Cylinder Seals and Scarabs in the Ancient Near East. In J. M. Sasson (Ed.), *Civilizations of the Ancient Near East, III* (pp. 1589–1605). New York: Hendrickson.
- Pittmann, H. (2003). Son Kalkolitik Çağ Mühürleri. *ArkeoAtlas*, 2, 35.
- Porada, E. (1948). *Corpus of Ancient Near Eastern Seals in North American Collection, The Collection of the Pierpont Morgan Library, Vol. I Text and Plates*. New York: Pantheon Books.
- Porada, E. (1977). Old Professional Seal Cutters and Nonprofessionally Seals. In M. Gibson & R. D. Biggs (Eds.), *Seals and Sealing in the Ancient Near East, Bibliotheca Mesopotamica Vol. 6*. (pp. 7–15). Malibu: Undena Publications.
- Porada, E. (1993). Why Cylinder Seals? Engraved Cylindrical Seal Stones of the Ancient Near East, Fourth to First Millennium B.C. *The Art Bulletin*, 75, 563–582.
- Rahmstorf, L. (2016). Emerging economic complexity in the Aegean and western Anatolia during earlier third millennium BC. In B.P.C. Molloy, (Ed.), *Of Odysseys and Oddities: Scales and Modes of Interaction Between Prehistoric Aegean Societies and their Neighbours*, (pp. 225–76). Oxford.
- Roach, K. J. (2008). *The Elamite Cylinder Seal Corpus, c. 3500–1000 BC, I–II (Dissertation Thesis)*. Sydney: The University of Sydney.
- Sagona, A. & Zimansky, P. (2015). *Arkeolojik Veriler Işığında Türkiye'nin En Eski Kültürleri MÖ 1.000.000–550*. İstanbul: Arkeoloji ve Sanat Yaynevi.
- Sağlamtimur, H. (2017). Siirt–Başur Höyük Erken Tunç Çağı I Mezarları: Ön rapor (Early Bronze Age I Cemetery in Siirt–Başur Höyük: Preliminary Report). *Arkeoloji Dergisi*, XXII, 1–18.
- Schilemann, H. (1881). *Ilios, Stadt und Land der Trojaner*. Leipzig: Brockhaus.
- Schmidt, K. (2002). *Norşuntepe Kleinfunde II. Artefakte aus Felsgestein, Knochen und Geweih, Ton, Metall und Glas*. Mainz am Rhein: Verlag Philipp von Zabern.
- Schwartz, G. M., Curvers, H. H., Dunham, S. & Stuart, B. (2003). Third Millennium BC Elite Tomb and Other New Evidence from Tell Umm el–Marra, Syria. *American Journal of Archaeology*, 107, 325–361.
- Selz, G. (1983). *Die Bankettszene: Entwicklung Eines überzeitlichen Bildmotivs in Mesopotamien von der Frühdynastischen Bis Zur Akkad–Zeit*. Wiesbaden: Franz Steiner Verlag GMBH.
- Sertok, K. & Ergeç, R. (1999). A New Early Bronze Age Cemetery: Excavations near the Birecik Dam, Southeastern Turkey Preliminary Report (1997–1998). *Anatolica*, XXV, 87–109.

- Sherratt, S. (2000). *Catalogue of Cycladic antiquities in the Ashmolean Museum: The captive spirit*. Oxford, New York: Oxford University Press.
- Strommenger, E. (1980). *Habuba Kabira, eine Stadt vor 5000 Jahren*. Mainz: Philip von Zabern.
- Strommenger, E. & Kohlmeier, K. (1998). *Ausgrabungen in Tall Bi'a /Tuttul Band I*. Saarbrücken: Druckerei und Verlag.
- Şahoğlu, V. (2005). The Anatolian Trade Network and the Izmir Region during the Early Bronze Age. *Oxford Journal of Archaeology*, 274, 339–360.
- Şahoğlu, V. (2019). The Early Bronze Age Anatolian Trade Network and Its Role on the Transformation of the Anatolian and Aegean Communities. In V. Şahoglu, M. Şevketoglu & Y. H. Erbil (Eds.), *Connecting Cultures: Trade and Interconnections in the Near East from the Beginning until the End of the Roman Period* (pp. 115–131). Ankara: Ankara Üniversitesi Basımevi.
- Teissier, B. (1984). *Ancient Near Eastern Seals from the Marcopoli Collection*. California: University of California Press.
- Tobler, A. J. (1950). *Excavation at Tepe Gawra Vol. II*. Philadelphia.
- Türkteki, M. (2023a). New Insights on the Sealing Practices in Early Bronze Age Anatolia: A Case Study from Küllüoba, Eskişehir. *Anadolu Araştırmaları*, 28, 57–71.
- Türkteki, M. (2023b). Eskişehir Küllüoba'da Bulunan Ayak Biçimli Bir Amulet Damga. *Fırat Üniversitesi Sosyal Bilimler Dergisi*, 33, 523–533
- Türkteki, M., Gündem, C. Y., Balcı, H., Tarhan, İ. & et al. (2023). Evaluation of a Clay-Covered Votive Pit from Küllüoba in Light of Interdisciplinary Research. *TÜBA-AR Türkiye Bilimler Akademisi Arkeoloji Dergisi*(32), 35–46.
- Uzunoglu, E. (1986). Malatya-İmamoğlu Höyüğünde 1985 Yılı Kazı Çalışmaları. *VIII. Kazı Sonuçları Toplantısı*, 1, 213–231.
- Üstün Türkteki, S. (2021). İlk Tunç Çağı'nda Batı Anadolu'da Görülen Baskı Nesnelерinin İşlevleri: Küllüoba Örnekleri Üzerinden Bir Değerlendirme. In M. A. Akkaya & D. K. Beşaltı (Eds.), *International Archeology, Art History and Cultural Heritage Congress the Proceedings Book* (pp. 3–13).
- Ward, W. H. (1910). *The Seal Cylinders of Western Asia*. Washington: Carnegie Institution.
- Weiss, H. (1990). Civilizing the Habur Plains: Mid-Third Millennium State Formation at Tell Leilan. In P. Matthiae, M. V. Loon & H. Weiss (Eds.), *Resurrecting the Past a Joint Tribute to Adnan Bounni* (pp. 387–407). İstanbul: NAI.
- Welton, L., S. Batiuk & Harrison, T. P. (2011). Tell Tayinat in the Late Third Millennium. Recent Investigations of the Tayinat Archaeological Project, 2008–2010. *Anatolica*, XXXVII, 147–185.
- Wengrow, D. (2008). Prehistories of Commodity Branding. *Current Anthropology*, 49(1), 7–34.
- Westenholz, J. G. (1997). *Legends of the Kings of Akkade the Text* Indiana: Eisenbraun.
- Westenholz, J. G. (1998). Relations between Mesopotamia and Anatolia in the Age of the Sargonic Kings. *XXXIV. Uluslararası Assirioloji Kongresi, Vol. 2.* (pp. 5–22). Ankara: Türk Tarih Kurumu.
- Woolley, L. (1934). *Ur Excavation the Royal Cemetery, Vol 2. Text and Plates, A Report on the Predynastic and Sargonid Graves Excavated between 1926 and 1931*. New York: The Carnegie Corporation.

- Yalçıklı, D. (2019). Mezra Höyük'te Bulunan Mühürler ve Mühür Baskısı. In F. Kulakođlu, T. Yıldırım, T. Sipahi, V. Şahođlu & H. L. Keskin (Eds.), *Uđur Silistreli Anı Kitabı: Anadolu Arkeolojisi Üzerine Yazılar* (pp. 267–373). Ankara: Ankara Üniversitesi Basımevi.
- Yücel, Ç. & Parlıtı, U. (2023). Ancient Cylinder Seals from Upper Mesopotamia. *Anadolu Arařtırmaları–Anatolian Research*, 29, 31–50.



Convex Loom Weights in the Akarçay Basin and its Surroundings

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Submitted: 13.05.2024

Revision Requested: 02.11.2024

Last Revision Received: 03.11.2024

Accepted: 07.11.2024

Citation: Koçak, Ö., & Bayramov, K. (2024).
Convex loom weights in the Akarçay basin and
its surroundings. *Anadolu Arařtırmaları-Anatolian
Research*, 31, 77–115.
<https://doi.org/10.26650/anar.2024.31.1481942>

ABSTRACT

The Akarçay basin and its surrounding mountainous areas have long been vital for livestock activities and wool and textile production, both in the Bronze Ages and today. Spindle whorls and loom weights discovered in this basin serve as tangible evidence of the high-quality craftsmanship in wool and textile production. Notably, the loom weights, often referred to as “crescent-shaped loom weights” but here termed “convex loom weights,” represent a special material group related to Bronze Age production. These textile loom weights are crucial elements and evidence of Bronze Age textile production, encountered in many settlements throughout the northwest-southeast oriented basin. The Bolvadin Üçhöyük settlement, where these loom weights are intense, is a key hub for production and trade in the area. These loom weights are divided into different groups based on their form, with the “crescent-shaped” ones being the most prevalent. These artifacts significantly enhance our understanding of wool and textile production, as well as livestock activities in the region.

Keywords: Akarçay basin, Inner-West Anatolia, convex loom weights, crescent-shaped loom weights, Üçhöyük



Introduction

The Akarçay basin stretches from İhsaniye–Sinanpaşa in the west to Akşehir–Tuzlukçu in the east, and around Şuhut and Karaadilli in the south. This closed basin, covering 2,985 km² of plains and a drainage area of 7,340 km², is approximately 130 km long and 20 km wide. The elevation ranges from 960 m to 2,611 m (Ardos 1978, 30, 63, 70; Darkot & Tuncel 1988, 11; Kargioğlu, Serteser, Şenkul & Özdemir 2008, 33; Yılmaz 2005, 4; Kuzay & Tombul 2020, pp. 53-54; Akarçay Havzası Taşkın 2019, 5 ff.; Akarçay Havzası Sektörel (2019-2024) 2018), encompassing the Sincanlı Plain in the west, Şuhut Plain in the south, the Afyonkarahisar and Bolvadin Plains in the north, and the Akşehir Plain in the east. The Akarçay River, which sustains the basin, originates near İhsaniye and Sinanpaşa, extends from the Afyonkarahisar city center to Çobanlar, forms a delta south of Bolvadin, and flows into Lake Eber. This river basin has provided a favorable living environment since the Neolithic Age. Its significance lies in the natural corridor it forms, surrounded by the Sultandağı Mountains, Akşehir and Eber Lakes, Emirdağ Mountains, Paşadağ Mountains, Karakuş Mountains, Kumalar Mountains. This corridor serves as a crucial transition point, connecting Central Anatolia to the western half of Anatolia (Ardos 1978, 30, 70; Darkot & Tuncel 1988, 11; Taş & Yakar 2010, pp. 71-72; Kargioğlu et al., 2008, 33; Akarçay Havzası Sektörel (2019-2024) 2018; Kuzay & Tombul 2020, pp. 53-54; Akarçay Havzası Taşkın 2019, 5 ff.; Afyonkarahisar İli Doğa Turizmi Master Planı, 31).

Our study, conducted within the scope of surveys around Afyonkarahisar, covers most of the Akarçay basin and extends southward toward Küçük Ova, Sandıklı Ovası, and Çölovası (Figure 3). We identified 98 crescent-shaped loom weights/samples during these surveys (Table 1).

Table 1: Settlements where loom weights were found, their dimensions, find status (sizes and elevations are given in meters)

FIND CENTER		SIZE			FIND STATUS		TOTAL FINDS
District	Settlement	Size	Height	Elevation	Broken	Intact	
İhsaniye	Alanlı Höyük	90x90	6	-	1	-	1
	Yukarıtandır	260x220 (KG-DB)	17	1088	2	-	2
	Manastır Çeşme	90x90	-	-	1	-	1
	Ablak Höyük	460x350 (KG-DB)	21	1043	8	-	8
	Çiftlik Höyük	360x330 (KD-GB / KB-GD)	14	1066	-	1	1
Sinanpaşa	Küçük Höyük	520x470 (KG-DB)	14	1091	2	1	3
	Nuh Höyük	90x210 (KG-DB)	8	1195	3	-	3
	Kımk Höyük	410x310 (KG-DB)	10	1152	5	-	5
Afyonk. Merkez	Kırınardı Mevkii	250x110 (KD-GB / KB-GD)	7	1045	3	-	3
	Çorca Höyük	240x280 (KD-GB / KB-GD)	21	1031	2	-	2

İscehisar	Çalışlar Höyük	110x180 (KD-GB / KB-GD)	12	1092	2	-	2
	Sarıçayır Mevkii	180/150 (KG-DB)	5	1346	2	-	2
Bayat	Ahaların Çeşme	150x110 (KG-DB)	-	1103	5	-	5
	Asarcık Höyük	80x80	7	1115	1	-	1
	Köy Kalesi	110x160 (KD-GB / KB-GD)	21	1316	1	-	1
Bolvadin	Yörükkaracaören	-	-	1250	1	-	1
	Üçhöyük	650x700 (KG-DB)	12	996	16	1	17
Emirdağ	Tezköy	190x150 (KG / KB-GD)	25?	1068	1	-	1
	Akçaşar Höyük	180x240 (KG-DB)	14	1080	1	-	1
Hocalar	Örencik Köyiçi	-	-	1159	1	-	1
Sandıklı	Örenkaya Üyük.	230x270 (KG-DB)	22	1040	5	-	5
	Menteş Höyük	430x470 (DB / KD-GB)	11	1076	2	1	3
Dinar	İsmail Höyük	-	-	-	3	-	3
	Tüysüz I	140x110 (KG-DB)	7	1455	1	-	1
	Alpaslan Höyük	400x430 (DB / KB-GD)	10	1142	2	-	2
	Akgün Tepe H.	260x260	7	1033	4	-	4
	Kerim Çayırı	120x190 (KD-GB)	5	1123	3	-	3
Şuhut	Pınarbaşı Höyük	190x280 (KD-GB / KB-GD)	20	1099	1	-	1
	Mahmut Höyük	320x320	9	1142	9	-	9
	Hasanlı Höyük	220x210 (KD-GB / KB-GD)	10	1105	5	-	5
	Anayurt Mevkii	600x600	3	1131	1	-	1
TOTAL	31 settlement	-	-	-	94	4	98

Convex Loom Weights

The diverse plains and surrounding mountainous areas of the Akarçay basin provide an ideal setting for agriculture, animal husbandry, and consequently, wool and textile production. Numerous pieces of evidence support these production activities in the region. The abundance of Bronze Age loom weights clearly documents the region's animal husbandry, wool and textile production, and trade activities in the region (Koçak, Bilgin & Küçükbezi 2019; Koçak, Baytak & Esen 2021)¹.

A notable group of finds related to textile production is the loom weights, commonly referred to as “crescent-shaped loom weights” which we term “convex loom weights.” The scientific community has long debated the function and definition of these objects². Their discovery alongside other loom weights and textile-related materials during excavations

1 In this study, the examples we found during the surveys conducted in the region were evaluated. The finds from Kusura, which is located in the vicinity and where short-term excavations were carried out, were used for comparison where relevant.

2 For discussion, see Lassen 2013, pp. 80-81; Lassen 2015, 136. See Koçak et al., 2021, 722-723.

suggests their use in warp-weighted looms (Korfmann 1983, 33 ff.; Lassen 2013, pp. 83-84, 89-90; Lassen 2015, pp. 128-129; Kull 1988; Mellaart & Murray 1995, 120; Goldman 1956, 319). Crescent-shaped loom weights are found in various contexts, such as palaces, temples, domestic areas, and tombs (Lassen 2015, 128-129).

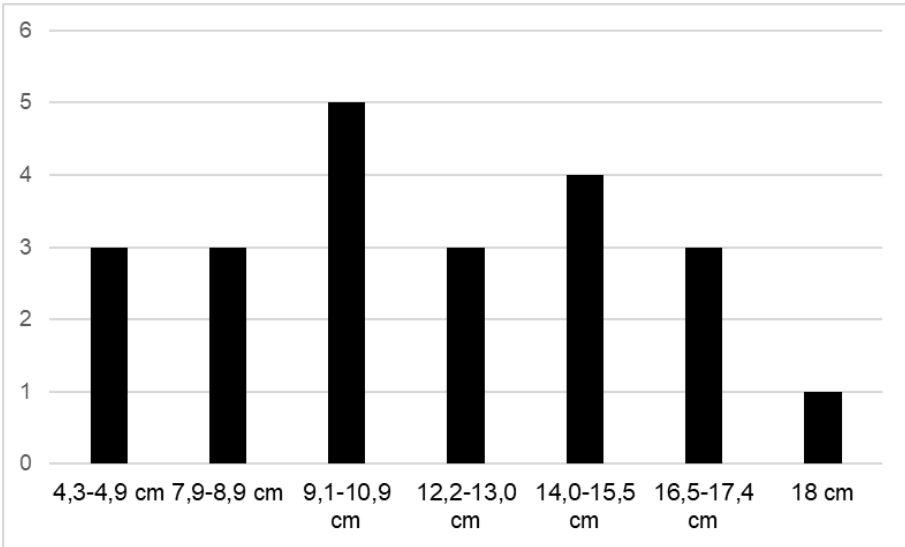


Figure 1: Approximate distances between holes in loom weights

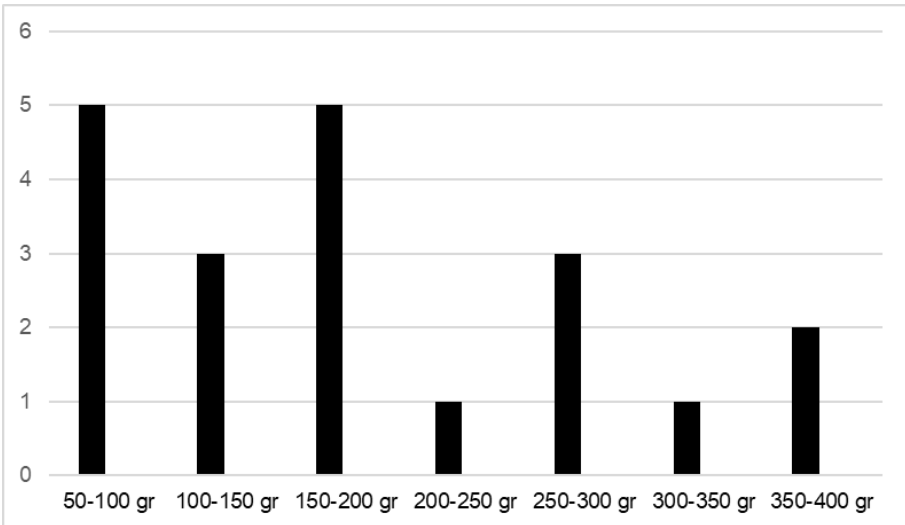


Figure 2: Average masses of loom weights

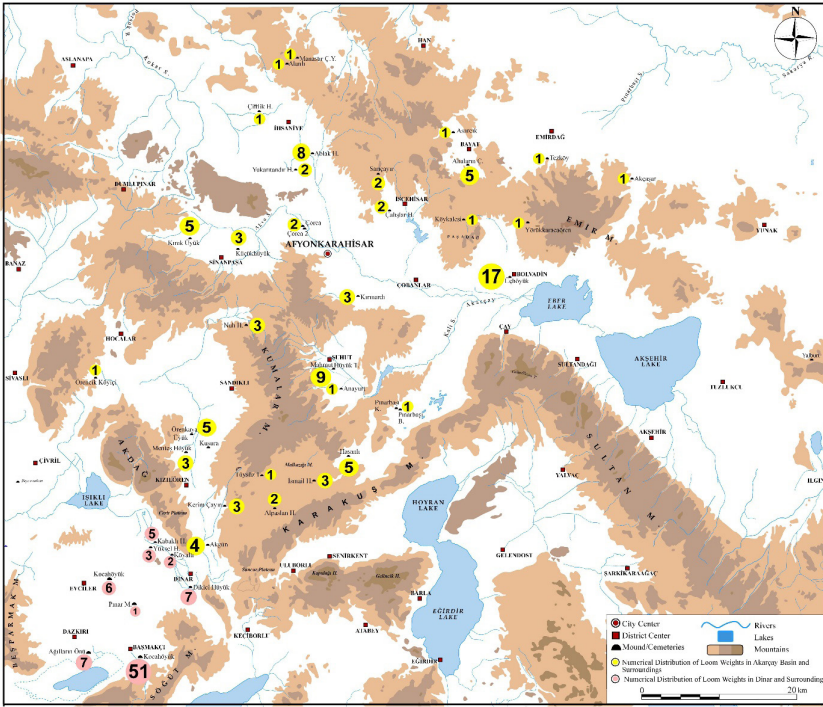


Figure 3: Distribution of loom weights found in Akaçay basin and its surrounding



Figure 4: Bolvadin Üçhöyük settlement

Table 2: Dimensions and mass weights of loom weights (dimensions are given in cm, weights are given in grams)

Sequence No	Inventory No Find Location	Figure No	Find Status	Length (available)	Length (approximately)	Width	Thickness	Height	Hole Diameter	Distance Between Holes	Current Weight	Weight (whole)
1	313.12.16.52 Tüysüz I	Figure 1:10; 8:8	Broken 1/2	7	-	2,6	2,4	-	0,4x0,5	-	64	-
2	307.26.16.23 Alpaslan H.	Figure 13:10; 9:10	Broken 1/3	5,2	-	2,2	2,2	-	Broken	-	35	-
3	307.26.16.34 Alpaslan H.	Figure 12:8; 8:6	Broken 1/3	4,9	-	2,2	1,9	-	0,4x0,5	-	30	-
4	313.14.16.21 Akgün Tepe H.	Figure 13:23; 9:23	Broken 1/2	8,2	-	2,8	2,4	-	0,4x0,5	-	64	-
5	313.14.18.98 Akgün Tepe H.	Figure 12:21; 8:19	Broken 1/2	10,7	21,1	4,3	2,8	9,1	0,5	18	148	296
6	313.14.18.144 Akgün Tepe H.	Figure 11:19; 7:18	Broken 1/3	5,1	-	2,7	2,8	-	0,3x0,4	-	45	-
7	313.14.18.121 Akgün Tepe H.	Figure 11:12; 7:12	Broken 1/4	5,5	-	3,3	1,8	-	Broken	-	35	-
8	308.19.16.20 İsmail Höyük	Figure 13:15; 9:15	Broken 1/3	8,4	-	3,7	2,8	-	Broken	-	139	-
9	308.19.16.23 İsmail Höyük	Figure 13:16; 9:16	Broken 1/2	6,8	-	3,1	2,6	-	0,3x0,4	-	75	-
10	308.19.16.12 İsmail Höyük	Figure 12:16; 8:14	Broken 1/3	5,6	-	3	2,4	-	0,4x0,6	-	59	-
11	313.18.16.06 Kerim Çayırı	Figure 13:18; 9:18	Broken 1/2	9,6	17,1	3,3	2,6	5,2	0,7x0,8	16,5	162	324
12	313.18.16.59 Kerim Çayırı	Figure 11:16; 7:16	Broken 1/3	5,9	-	2,1	2	-	Broken	-	46	-
13	313.18.16.31 Kerim Çayırı	Figure 11:5; 7:5	Broken 1/2	10,5	17,2	2,4	1,9	5,7	0,5	17	66	132
14	310.10 Örencik Köyüğü	Figure 11:7; 7:7	Broken 1/4	4	-	2,4	2,2	-	Broken	-	47	-
15	304.32.07.130 Tezköy	Figure 11:11; 7:11	Broken 1/2	6,7	-	2,9	3,2	-	Broken	-	80	-
16	304.27.07.130 Akçaşar H.	Figure 12:2	Broken 1/2	7	-	3,8	2,9	-	Broken	-	-	-

17	301.09.02.23 Y.Karacaören	Figure 14:11; 10:11	Broken 1/2	4,3	7,5	2,9	2,1	4,8	0,3x0,6	4,9	40	80
18	Üçh.22.YB.66 Üçhöyük	Figure 12:22; 8:20	Broken 1/3	5,5	-	3,9	2	-	0,6x0,9	-	47	-
19	Üçh.22.YB.81 Üçhöyük	Figure 12:5; 8:3	Broken 1/4	4,8	-	2,9	2,4	-	0,6	-	28	-
20	Üçh.22.YB.61 Üçhöyük	Figure 13:6; 9:6	Broken 1/5	4,1	-	3,5	2	-	0,4x0,6	-	27	-
21	Üçh.22.YB.62 Üçhöyük	Figure 14:8; 10:8	Broken 1/2	7	12	4,1	2,5	3	0,6x0,7	8,5	94	188
22	Üçh.22.YB.77 Üçhöyük	Figure 14:7; 10:7	Broken 1/3	5,2	-	3,6	1,9	-	0,5x1	-	51	-
23	Üçh.22.YB.149 Üçhöyük	Figure 13:25; 9:25	Broken 1/2	7,7	-	3,5	3,1	-	0,5x0,7	-	103	-
24	Üçh.21.YB.01 Üçhöyük	Figure 11:21; 7:20	Broken 1/3	4,1	-	2,5	1,5	-	0,3x0,4	-	19	-
25	Üçh.21.YB.02 Üçhöyük	Figure 12:25; 8:23	Broken 1/2	8,7	18	3,1	2	7	0,6x0,8	15,1	63	126
26	Üçh.21.YB.03 Üçhöyük	Figure 11:24; 7:23	Broken 1/3	6,1	-	3,4	2	-	0,5x0,9	-	43	-
27	Üçh.21.YB.04 Üçhöyük	Figure 13:13; 9:13	Broken 1/2	6,5	-	2,7	2,3	-	0,5	-	53	-
28	Üçh.21.YB.05 Üçhöyük	Figure 14:1; 10:1	Broken 1/2	6,8	13	3,3	2,2	6,8	0,4x0,6	9,1	71	142
29	Üçh.21.YB.06 Üçhöyük	Figure 13:4; 9:4	Broken 1/3	7,1	-	3,2	1,9	-	0,5x0,7	-	48	-
30	Üçh.21.YB.07 Üçhöyük	Figure 14:12; 7:12	Broken 1/2	4,5	10,2	3,9	2		0,8x1	8,9	48	96
31	Üçh.21.YB.08 Üçhöyük	Figure 12:11; 8:9	Broken 1/3	6,3	-	3,6	1,9	-	0,7x0,9	-	47	-
32	Üçh.21.YB.09 Üçhöyük	Figure 13:2; 9:2	Broken 1/4	5,5	-	4,2	1,6	-	0,7x1,1	-	47	-
33	Üçh.21.YB.10 Üçhöyük	Figure 12:13; 8:11	Broken 1/4	5,4	-	4,4	2,2	-	0,6x0,9	-	64	-
34	Üçh.21.A.L1.54 Üçhöyük	Figure 14:15; 10:15	Tüm	8	Tüm	3,1x4,2	1,4x2	8	0,3x0,7	4,9	84	84
35	318.11.20.27 Alanlı Höyük	Figure 13:5; 9:5	Broken 1/2	5,6	11,5	3	2,8	6	0,6x0,7	9,7	55	165

36	318.03.18.104 Yukarıtandır H.	Figure 14:6; 10:6	Broken 1/2	4,9	-	2	3,2	-	0,6x0,7	-	39	-
37	318.03.18 Yukarıtandır H.	Figure 12:18 8:16	Broken 1/2	5,7		3	2,7	-	0,2x0,5	-	60	-
38	318.12.20.123 Manastır Çeşme	Figure 11:20; 7:19	Broken 1/4	4,3	-	5,5	2,7	-	0,8x1	-	59	-
39	318.02.18.67 Ablak Höyük	Figure 14:13; 10:13	Broken 1/2	6,2	11,3	4,2	2,5	7,8	0,5x0,8	7,9	84	168
40	318.02.18.30 Ablak Höyük	Figure 12:24; 8:22	Broken 1/2	5,7	-	3,2	2,8	-	0,5x0,7	-	78	-
41	318.02.19.263 Ablak Höyük	Figure 12:20; 8:18	Broken 1/3	5	-	2,1	2	-	0,4x0,7	-	34	-
42	318.02.19.208 Ablak Höyük	Figure 12:28; 8:26	Broken 1/5	3,3	-	2,9	1,6	-	0,8x1	-	16	-
43	318.02.19.265 Ablak Höyük	Figure 12:27; 8:25	Broken 1/5	4,3	-	3,4	2,1	-	0,5x0,7	-	27	-
44	318.02.19.204 Ablak Höyük	Figure 12:23; 8:21	Broken 1/5	4,8	-	3,3	2	-	0,5x0,6	-	42	-
45	318.02.19.343 Ablak Höyük	Figure 12:6; 8:4	Broken 1/2	6,2	-	4,1	2,5	-	Broken	-	77	-
46	318.02.19.178 Ablak Höyük	Figure 13:19; 9:19	Broken 1/2	8	-	2,6	2,4	-	Broken	-	63	-
47	318.08.20.12 Çiftlik Höyük	Figure 11:1; 7:1	Tüm	16,9	16,9	3,1	3,1		0,5x0,8	14	64	64
48	307.03.20.161 Çalışlar Höyük	Figure 13:26; 9:26	Broken 1/2	6,6	-	3,1	2,3	-	Broken	-	72	-
49	307.03.20.158 Çalışlar Höyük	Figure 2:12; 5:10	Broken 1/5	4	-	3,6	1,8	-	0,9	-	33	-
50	311.22.18.120 Pınarbaşı H.	Figure 12:15; 8:13	Broken 1/2	6,3	-	2,3	2,2	-	0,5x0,7	-	44	-
51	311.06.11.95 Mahmut Höyük	Figure 11:8; 7:8	Broken 1/3	7,2		3,5	2,2	-	Broken	-	76	-
52	311.06.11.125 Mahmut Höyük	Figure 11:2; 7:2	Broken 1/3	5,7	-	1,8	1,6	-	Broken	-	24	-
53	311.06.11.05 Mahmut Höyük	Figure 13:20; 9:20	Broken 1/2	7,5	-	2,6	1,5	-	Broken	-	44	-

54	311.06.11.88 Mahmut Höyük	Figure 13:30; 9:30	Broken 1/3	5,5	-	2,4	2,4	-	Broken	-	50	-
55	311.06.11.150 Mahmut Höyük	Figure 11:9; 7:9	Broken 1/2	6,9	14,5	1,8	1,9	4,3	0,4x0,5	12,5	35	70
56	311.26.12.30 Mahmut Höyük	Figure 11:6; 7:6	Broken 1/4	3,7	-	2,2	2,1	-	Broken	-	28	-
57	308.20.09.158 Mahmut Höyük	Figure 13:7; 9:7	Broken 1/5	3,5	-	2,4	1,7	-	0,4x0,6	-	18	-
58	311.06.11.149 Mahmut Höyük	Figure 13:3; 9:3	Broken 1/4	3,5	-	2,2	2,3	-	0,2x0,4	-	24	-
59	311.06.11.121 Mahmut Höyük	Figure 13:27; 9:27	Broken 1/2	8,1	-	2,5	2,4	-	0,5	-	74	-
60	311.26.12.20 Hasanlı Höyük	Figure 13:14; 9:14	Broken 4/5	14	15,1	2,7	2	6,6	0,6x0,7	12,2	133	166
61	311.26.72.53 Hasanlı Höyük	Figure 12:14; 8:12	Broken 1/2	6,5	-	2,1	2	-	0,4	-	49	-
62	311.26.12.27 Hasanlı Höyük	Figure 11:4; 7:4	Broken 1/3	7,2	-	2,7	1,9	-	Broken	-	58	-
63	311.26.12.54 Hasanlı Höyük	Figure 13:9; 9:9	Broken 1/4	5,5	-	2,5	2,3	-	Broken	-	50	-
64	311.26.12.43 Hasanlı Höyük	Figure 13:24; 9:24	Broken ½	7	-	2,8	2,5	-	0,4	-	81	-
65	311.31.12.181 Anayurt Mevkii	Figure 11:3; 7:3	Broken 1/3	6	-	1,9	1,8	-	Broken	-	26	-
66	309.12.10.26 Örenkaya Ü.	Figure 11:14; 7:14	Broken 1/2	8,5	-	3	2	-	Broken	-	77	-
67	309.12.18.142 Örenkaya Ü.	Figure 11:23; 7:22	Broken 1/4	5	-	2,8	2,9	-	0,5x0,6	-	46	-
68	309.12.18.113 Örenkaya Ü.	Figure 14:14; 10:14	Broken 3/4	10	13,4	3	3,4	7	0,7	10	179	223
69	309.12.18.146 Örenkaya Ü.	Figure 12:9; 8:7	Broken 1/2	7,7	-	2,5	2	-	0,3x0,4	-	59	-
70	309.12.18.139 Örenkaya Ü.	Figure 13:17; 9:17	Broken 1/2	7,7	-	3,1	3	-	0,4x0,6	-	116	-
71	309.13.18.115 Menteş Höyük	Figure 13:12; 9:12	Broken 1/2	6	-	2,5	1,8	-	0,3x0,5	-	42	-
72	309.13.18.160 Menteş Höyük	Figure 11:17; 7:17	Broken 4/5	14,3	15,9	3,6	3,3	7	0,5x0,6	15,5	221	265
73	309.13.10.04 Menteş Höyük	Figure 13:22; 9:22	Tüm	17,1	17,1	2,9	2,8	7,2	0,5	14,9	-	-

74	306.08.05.131 Ahaların Çeşme	Figure 14:4; 10:4	Broken 1/2	6,6	-	3,5	2,8	-	0,5x0,8	-	102	-
75	306.08.05.128 Ahaların Çeşme	Figure 13:1; 9:1	Broken 1/2	8,8	18,2	4,3	3,7	8,5	0,6x0,8	13	187	374
76	306.08.05.129 Ahaların Çeşme	Figure 14:3; 10:3	Broken 1/3	6,5	-	3,9	2,2	-	0,3x0,8	-	74	-
77	306.08.05.130 Ahaların Çeşme	Figure 12:26; 8:24	Broken 1/4	5,7	-	4,9	3,4	-	0,5x0,8	-	97	-
78	306.08.05.127 Ahaların Çeşme	Figure 11:15; 7:15	Broken 1/2	7,6	-	4,1	2,7	-	0,5x0,6	-	119	-
79	306.04.05.470 Asarcık Höyük	Figure 11:18	Broken 1/3	5,4	-	2,9	1,5	-	0,5	-	-	-
80	306.01.06.365 Köy Kalesi	Figure 12:4	Broken 1/4	5	-	2,6	3,4	-	0,6	-	-	-
81	308.15.08.151 Kınık Höyük	Figure 12:3; 8:2	Broken 1/3	4,1	-	2,1	2	-	0,5x0,6	-	22	-
82	308.15.09.133 Kınık Höyük	Figure 12:7; 8:5	Broken 1/2	6,4	-	1,9	1,9	-	0,5	-	35	-
83	308.15.09.121 Kınık Höyük	Figure 11:13; 7:13	Broken 1/2	10,5	20,1	2,9	2,1	6	0,3x0,6	17,4	86	172
84	308.15.08.126 Kınık Höyük	Figure 11:10; 7:10	Broken 1/3	6,9	-	2,6	2	-	Broken	-	47	-
	308.15.08.48 Kınık Höyük	Figure 12:17; 8:15	Broken 1/3	5,9	-	2,1	2,4	-	0,5x0,6	-	46	-
86	308.20.18.414 Küçük Höyük	Figure 14:5; 10:5	Broken 1/2	7,5	13,1	4	4	8,1	0,6x1	10,4	178	356
87	308.20.18.397 Küçük Höyük	Figure 12:19; 8:17	Broken 1/2	6	-	2,5	2,5	-	0,5	-	44	-
88	308.20.18.07 Küçük Höyük	Figure 14:9; 10:9	Tüm	13,6	13,6	4	3,9	8,5	0,6x0,9	10,9	-	-
89	308.16.09.196 Nuh Höyük	Figure 13:21; 9:21	Broken 1/4	4,8	-	1,9	2	-	0,4	-	31	-
90	308.16.09.198 Nuh Höyük	Figure 12:1; 8:1	Broken 1/3	6	-	3,3	2,4	-	0,5x0,7	-	62	62
91	308.16.09.110 Nuh Höyük	Figure 11:22; 7:21	Broken 1/4	4,4	-	2,5	2,2	-	0,4x0,6	-	25	-
92	317.12.17.55 Kırınardı M.	Figure 14:10; 10:10	Broken 1/2	7	-	3,2	1,9	-	0,5x0,8	-	52	-

93	317.12.17.15 Kırınardı M.	Figure 13:29; 9:29	Broken 1/2	6,7	-	2,9	2,9	-	0,6x0,8	-	85	-
94	317.12.17.23 Kırınardı M.	Figure 14:16; 10:16	Broken 2/3	5	6,2	3	2,4	5,4	0,5	4,3	49	65
95	317.18.18.22 Çorca Höyük	Figure 13:8; 9:8	Broken 1/3	5,1	-	2	1,9	-	0,3x0,5	-	31	-
96	317.18.18.60 Çorca Höyük	Figure 13:11; 9:11	Broken 1/3	5,1	-	2,2	1,8	-	0,5	-	24	-
97	307.08.06.66 Sarıçayır M.	Figure 14:2; 10:2	Broken 1/2	6,8	-	4,3	3,3	-	0,5x0,8	-	109	-
98	307.08.36.69 Sarıçayır M.	Figure 13:28; 9:28	Broken 1/2	8	-	2,7	2,1	-	0,5	-	72	-

Common terms like “crescent-shaped loom weights” and “arc-shaped loom weights” may not fully encompass the variety of these weights, especially those resembling “horseshoe/U” or “V” forms. A careful classification of the material repertoire might lead to a more inclusive term, such as “**convex loom weights**.” This typological distinction could be based on the ratio between the lengths and widths of the loom weights, their cross-sections, and other characteristics. (Koçak et al., 2021, Figure 11).

Form Properties

In evaluating the “crescent-shaped loom weights” east of the Büyük Menderes River basin, three main forms are identified: Type 1, which is open-mouthed and crescent-shaped; Type 2, which is deeply convex or “V”-shaped; and Type 3, which is horseshoe- or “U”-shaped (Koçak et al., 2021, 731-732, Figure 11).

These loom weights are categorized into three groups based on form. Type 1 include those whose length is at least twice or more their height. Type 2 comprises weights whose length is less than twice their height or whose lower parts become sharper and evolve into a “V” shape. Type 3, less commonly found, is horseshoe- or “U”-shaped.

In this study, Type 1, or arc-shaped weights, were further divided into two subgroups: “open-mouthed” and “crescent-shaped,” based on variations in length and width. Of the 98 loom weights examined, 85 belong to this group, with 1/3 of them being open-mouthed and the remainder crescent-shaped. Among the open-mouthed samples, an intact loom weight from Çiftlik Höyük (Figure 11: 1; 7: 1) stands out owing to its less convex curve. Similar weights are found in the MBA layers of Seyitömer (Karaoğlan 2018, 24, Figure 3: d20),

Demircihöyük and Beycesultan³. The open-mouthed, slightly convex loom weights typically have quadrangular cross-sections with rounded corners and tips (Figure 11; 7), though some feature pointed corners. Similar examples are found in the Menderes basin (Koçak et al., 2021, pp. 731-732, Figure 11), Beycesultan (Mellaart & Murray 1995, 172, Figure O.22: 216; 173, Figure O.2: 219; Mixed Layer; PLATE XIV(b)), Aphrodisias⁴, Gordion⁵, Konya Karahöyük (Alp 1994, Lev. 143-245) and Boğazköy (Fischer 1963, 75, 153, TAFEL 126: 1208, 1203, 1207). Crescent-shaped loom weights are mostly quadrangular in cross-section with rounded corners and tips (Figures 12-13; Figure 8-9), though a few are oval or elliptical. Angular and pointed samples are generally rare. Similar crescent-shaped loom weights are found in the Menderes basin (Koçak et al., 2021, pp. 732-733), Demircihöyük (Kull 1988, pp. 200-204, Tafel 36, 38-40, 42-44, 46, 48), Beycesultan (Mellaart & Murray 1995, 119, 165, Figure O.15: 170, 169, O.19: 205, 206; O.20: 207; 173, O.23: 217), Konya Karahöyük (Alp 1994, pp. 73-101, Plates 143-245), Gordion (Fischer 1963, 75, 153, TAFEL 126: 1208, 1203, 1207), Boğazköy (Fischer 1963, 75, 153, TAFEL 126: 1208, 1203, 1207), Seyitömer (Bilgen 2015, 100, Figure 110; Karaoğlan 2018, 24, Figure 3: d7, d31, d33), Alacahöyük (Koşay & Akok, 1973, pp. 28-30, Lev. XLVIII Pl. XLVIII, Lev. XLIX Pl. XLIX), Erenler Höyük, Aktaş Höyük, Bölme Höyük (Yılmaz & Kalkan 2021, 56, Pl. 2: 17; 15; 13; 10; 6; 3).

In the study area, only 4 convex loom weights were found to be fully preserved, while the remaining 94 were broken. Two of these weights had their surfaces carved and were later repurposed as “burnishing tools” (Figure 13: 25; 9: 25; 14: 1; 10: 1). Of the 18 loom weights, either half or more were preserved. Their approximate weights and lengths were determined based on their preserved parts, including the 4 intact samples, resulting in a total evaluation of 22 loom weights (Table 2; Figure 2).

The lengths of these 22 loom weights vary between 6.2 and 21.1 cm (Table 2; Figure 1). Half of them (11 weights) measure approximately 10–16 cm in length. The distance between the holes of the loom weights varies between 4.3 and 18 cm, while most falling between 9 and 15.5 cm (Koçak et al., 2021, 746, Table 2, 5-6; Figure 3). These samples constitute 54% (12 samples) of the evaluated loom weights. Excluding two shorter samples from Akarçay, there is a similarity with samples from the Menderes basin samples regarding the distance between the holes (Koçak et al., 2021, pp. 749-750, Table 5). A comparison can also be made with Konya Karahöyük (Alp 1994, 70).

3 The loom weight in Beycesultan is an example belonging to the 5th Layer. For a suggestion on the layering of the settlement, see Dedeoğlu & Abay 2014, 9, Pic.32: 11, Table 1. 69; Kull 1988, pp. 196-204, Tafel 48:15.

4 It is similar to the examples in the layers of Aphrodisias from the Bronze Age to the Iron Age. See Joukowsky 1986, II, 701, Fig.495: 1-4; II, 576, Pic.417: 10; II.624, Pic.451, 9, Acropolis Trench 5, F-E Complexes, Bronze Age 4-MBA. For comparison with the Aphrodisias of the Iron Age, see. 701, Fig.495, 1-4, Acropolis, Layer 9, A-5 Complex. For an example of the LBA, see. 682, Fig.487, 9, Acropolis Layer 8, A-4 Complex.

5 Similar examples in Gordion are encountered in the MBA-LBA layers. See Gunter 1991, pp. 84-85, Plate 29: 529.



Figure 5: İhsaniye Ablak Höyük



Figure 6: Şuhut Anayurt Üyükler settlement

Of these 22 samples, the masses of the intact ones from Küçük Höyük (Figure 14: 9) and Menteş Höyük (Figure 12: 22) are unknown. Among the other 20 samples, 65% (13 samples) weighted between 50 and 200 g. The closest comparison can be made with samples from the Menderes basin (Koçak et al., 2021, pp. 749-750, Table 2, 4; Figure 2).



Figure 7: Loom weights

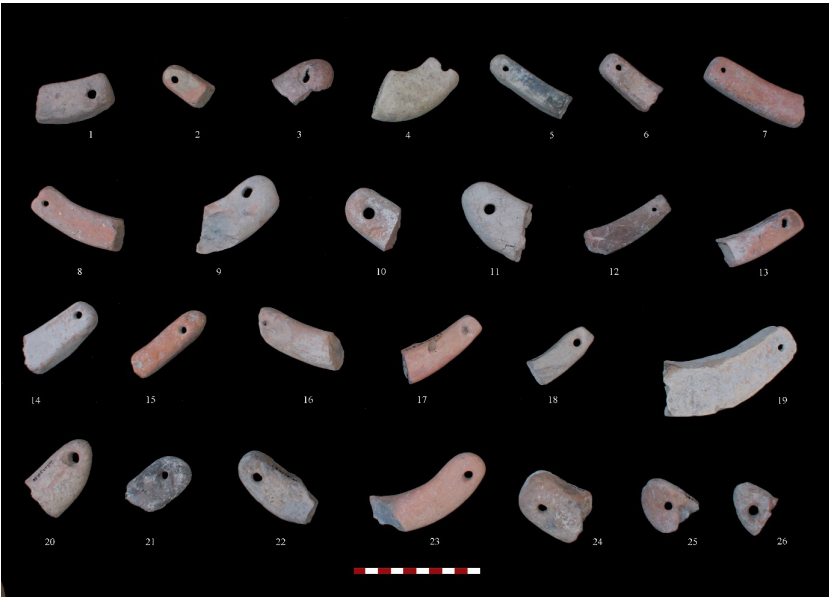


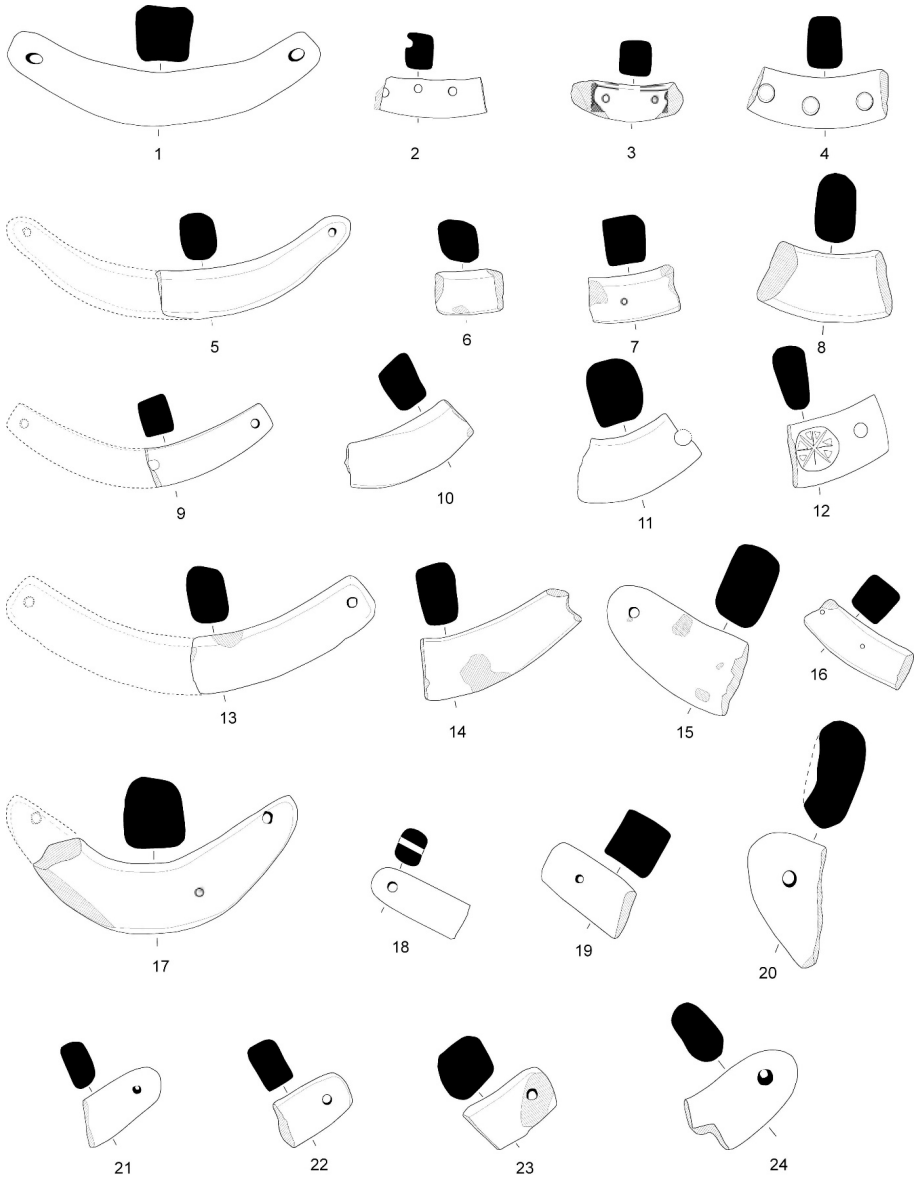
Figure 8: Loom weights



Figure 9: Loom weights

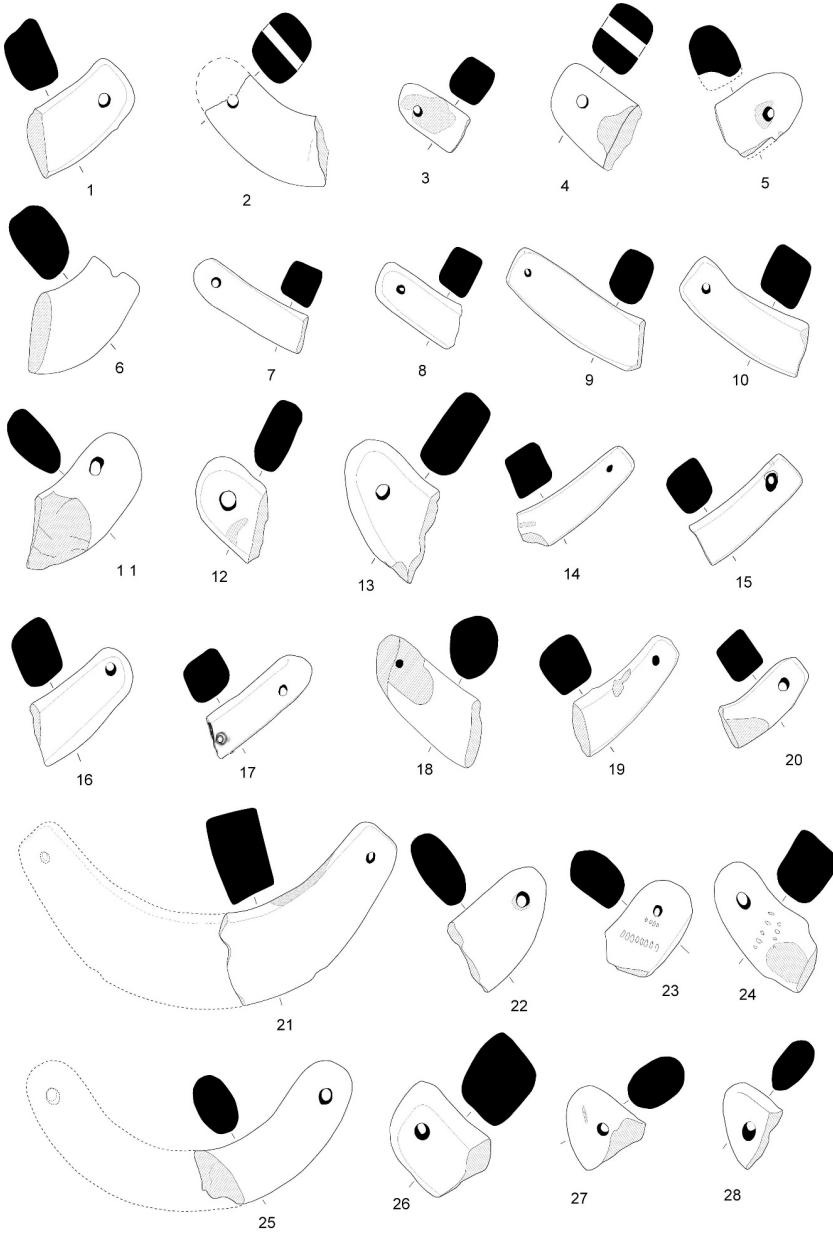


Figure 10: Loom weights



0 10 cm

Figure 11:



0 10 cm

Figure 12:

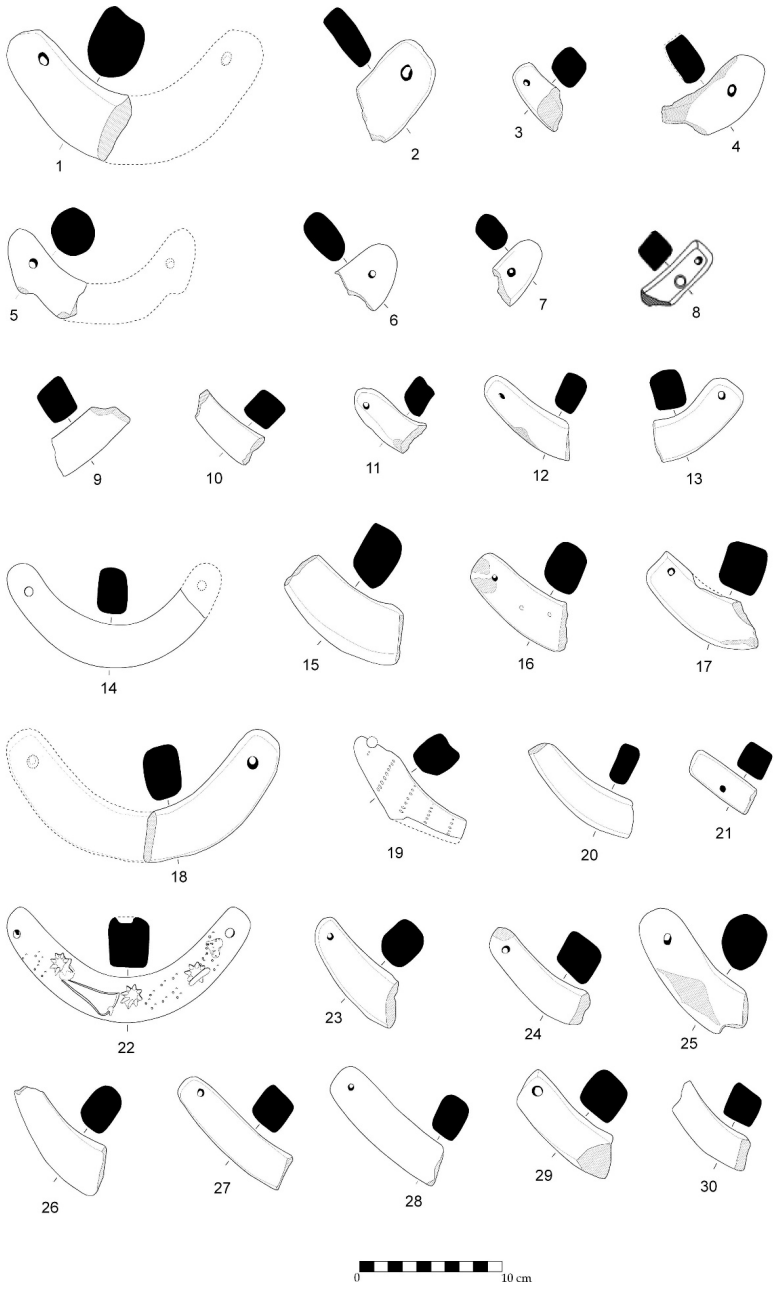


Figure 13:

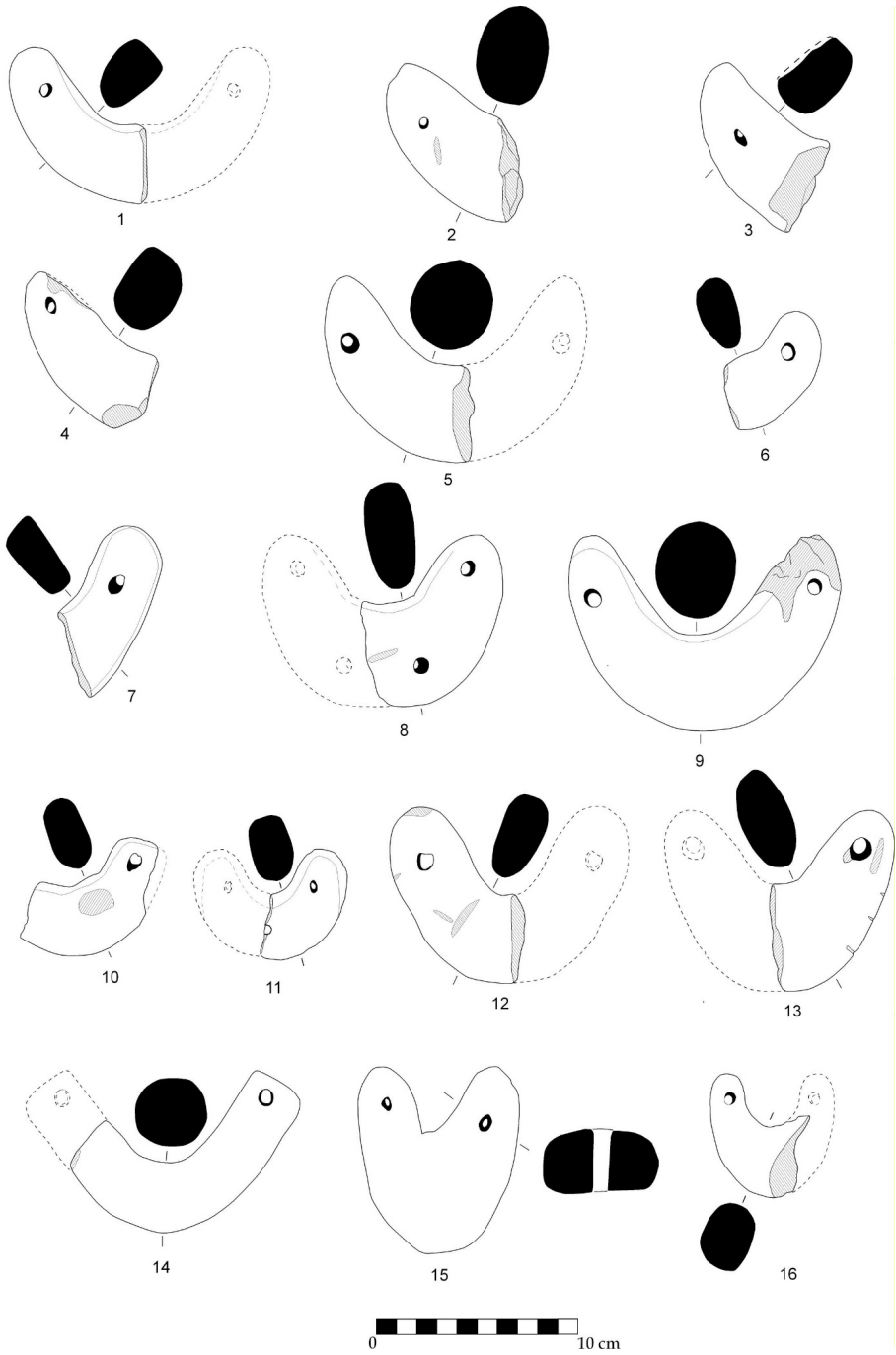


Figure 14:

Among the loom weights we have, very few are “V“- and horseshoe- or “U“-shaped. These samples feature oval, elliptical, and quadrangular cross-sections (Figure 14; 10). There are seven “V“-shaped samples found in Üçhöyük (4), Örenkaya Üyükaltı (1), Ablak Höyük (1) and Mahmut Höyük (1). These loom weights have quadrangular (Figure 13: 27–28, 14: 7; 9: 27–28, 10: 7), elliptical (Figure 14: 12–13, 10: 12–13), and oval (Figure 13: 25, 14: 14; 9: 25, 10: 14) sections. The two elliptical samples from Üçhöyük (Figure 4) and Ablak Höyük (Figure 5) are similar (Figure 14: 12–13; 10:12–13). The oval loom weight found in Örenkaya Üyükaltı differs from the others (Figure 14: 14; 7: 14). Similar “V“-shaped loom weights from Üçhöyük and Ablak Höyük are found in the Menderes basin (Koçak et al., 2021, 731 ff., Figure 6-9, 11; Figure 1-6), Seyitömer (Karaođlan 2018, 24, Figure 3: d18, d23), and Boyalı Höyük (Sipahi 2013-14, 13, Figure 14). The loom weights found in Örenkaya Üyükaltı, Mahmut Höyük, and Sarıçayır can be compared with those from Seyitömer (Karaođlan 2018, 24, Figure 3: d14) and Beycesultan (Ergün 2020, 11, Figure 10, 5b).

We have six horseshoe or “U“-shaped loom weights. Samples from Yörük Karacaören, Ablak Höyük, and Üçhöyük have a complete “U” form. (Figure 14: 8, 15–16; 10: 8, 15–16). Similar examples are found in the Menderes basin (Koçak et al., 2021, 733 ff., Figure 9, 11, Figure 7), Boyalı Höyük (Sipahi 2013-14, 13, Figure 14), Seyitömer (Karaođlan 2018, 24, Figure 3: d15), Demircihöyük (Kull 1988, Tafel, 41, 2; 39, 2, 8), and Beycesultan (Mellart & Murray 1995, 177, Figure O.27: 239, 241). The two samples from Küçük Höyük are not exactly “U“-shaped but show a transition from crescent to a “U” shape (Figure 4: 5, 9; Figure 10: 5, 9). These can be compared with the samples from Seyitömer (Karaođlan 2018, 24, Figure 3: d10), Beycesultan (Ergün 2020, 14, Figure 13: 5a), Demircihöyük (Kull 1988, Tafel 40, 1; 46, 7), and Kültepe.

One of the most distinctive features of the 98 loom weights is their quadrangular cross-section with rounded corners. Among these, arc and crescent shapes are predominant. Crescent-shaped loom weights also include oval elliptical forms (Figures 12: 11, 18, 22, 25, 27, 28; 13: 1, 5, 6, 7, 25; 8: 9, 16, 20, 23, 25, 26; 9: 1, 5, 6, 7, 25). The tips are generally rounded, with a few samples having angular and pointed tips (Figures 11: 9, 13, 17; 7: 9, 13, 17). The U- and V-shaped loom weights mostly have oval and elliptical cross-sections, with rounded tips.

Decoration Features

Standard types of convex loom weights are considered indicative of organized production. In addition, the decorations on these weights are sometimes interpreted as workshop signs (Lassen 2013, 87, pp. 89-90; Koçak et al., 2019, pp. 104-105). During our studies around the Yukarı Menderes (Koçak et al., 2021) and Akarçay basins, many decorated loom weights were identified.

Some loom weights feature scratched or imprinted decorations. One was found in Menteş Höyük (Koçak et al., 2019, pp. 104-105, Figure 95, Plate 44: 363) (Figure 13: 22; 9: 22)⁶ and another in Akgün Tepe Höyük (Figure 11: 12; 7: 12). These prints are thought to be workshop signs. Similar printed loom weights from the 2nd millennium BC are found in Konya Karahöyük (Alp 1995, Lev. 152-183), Beycesultan (Mellaart & Murray 1995, 170; 0.15: 215), and Kusura (Lamb 1936, 34, Figure 15: 2-3). The loom weight from Menteş Höyük closely resembles the Beycesultan sample in both form and imprint.

The decorated samples include notch, dot, and ring-shaped imprints. These loom weights from Ablak Höyük feature horizontal notches (Figure 12: 23-24, 13: 19; 8: 21-22, 9: 19). The decoration starts from the rim's bottom toward the center, with two weights having two rows and one having five rows. This decoration style is common in Konya Karahöyük. Vertical decorations are also present on Karahöyük samples (Alp 1995, the Lev. 242-245). Similar examples are found in Demircihöyük (Kull 1988, Tafel 36: 14; 46: 8). See 41: 3-4; 43: 1-4) and Gordion (Korfmann 1977/1978, pp. 28-29, Tafel 8: 5).

Ring-shaped decorations are located in the middle part of the loom weights and vary according to their sizes. Three of our weights have such decorations. The loom weights from Çorca Höyük (Figure 13: 8; 9: 8) and Kınık Höyük (Figure 12: 17; 7: 15) have one ring decoration, while the one from Hasanlı Höyük (Figure 11: 4; 7: 4) has three. Similar decorated loom weights are found in Beycesultan (Mellaart & Murray 1995, 172; 0.22: 216; Pl. XIV:b. See Ergün 2020, 11, Figure 10) and Konya Karahöyük (Alp 1995, Lev. 164: 503-504; 165: 507-508).

Some loom weights feature holes, typically located at their center. The holes in loom weights from Anayurt Mevkii (Figure 11: 3; 6, 7: 3), Köyiçi Mevkii (Figure 11: 7; 7: 7), Kerim Çayırı (Figure 11: 16; 7: 16), Menteş Höyük (Figure 11: 17; 7: 17), and Mahmut Höyük (Figure 11: 2; 7: 2) are small and shallow. These samples can be compared with finds from Beycesultan (Mellaart & Murray 1995, 169; 0.19: 206; 173; 0.23: 217, 2019; Pl. XIV:b; Tütüncüler 2005, Figure 4.), Kusura C (Lamb 1936, 34, Figure 15:1), and Demircihöyük MBA (Kull 1988, Tafel 39: 2; 48: 10). By contrast, the holes in loom weights from Yörük Karacaören (Figure 14: 11; 10: 11) and Mahmut Höyük (Figure 11: 9; 7: 9) are wider and deeper. The single sample from Üçhöyük (Figure 4: 8; 10: 8), has a central hole similar in shape to those at the tips of loom weights used for hanging ropes.

Most loom weights with visible imprints are angular crescent-shaped. A few rounded types also feature notches and dot decorations.

6 For examples from Karahöyük and Beycesultan see. Alp 1994, 69 ff., Plates 144-245; Mellaart & Murray 1995, pp. 119-120, 169-173, Pic. O.19-0.23.

Dough and Baking

The majority of crescent-shaped loom weights are made from red clay. Of the 98 loom weights, 64 (62%) are red or shades of red. This is followed by brown and pink, with very few made from yellow and gray clays. It is likely that the clay used for these loom weights was obtained from the same deposits used for ceramics. The crescent-shaped loom weights have medium-fine baking quality. Among them, 29 (28%) are well-baked, 52 (50%) are medium-baked, and 17 (16%) are poorly baked. Very few samples are exceptionally well burnished. Rough quality is generally observed in the rounded types. This lack of care in manufacturing suggests a focus on textile production, prioritizing quantity over quality.

Conclusion

The Akarçay basin and its surrounding elevations provide an ideal environment for animal husbandry, which is crucial for obtaining wool required for textile production. During the Bronze Age, textile production and trade were likely significant sources of income in the region.

Loom weights serve as the most important material evidence of textile production from this era. Among these, pyramidal, round, and “crescent-shaped” loom weights hold particular significance.

These loom weights, found in many different settlements around the Akarçay basin, clearly indicate widespread production activities. The high number of samples found in settlements such as Üçhöyük, Ablak Höyük, and Mahmut Höyük in Bolvadin is likely attributed to their proximity to the reserve areas. These production activities could be driven by local needs or, as in the case of Üçhöyük, by surplus products and trade. Üçhöyük, a Bronze Age settlement spanning 50 hectares, may have served as a collection center for wool and textile products.

Crescent-shaped loom weights in the region are divided into three main groups. The first group includes those whose length is at least twice their height. The second group consists of weights whose length is less than twice their height or whose lower parts become sharper and evolve into a “V” shape. The third group comprises horseshoe- or “U“-shaped weights. Approximately 88% of the samples belong to the first group, characterized by a quadrangular cross-section, rounded and tips, with some having oval and elliptical cross-sections. Similar finds from these groups are common in western and Central Anatolia. The “U“- and “V“-shaped samples also have oval and elliptical cross-sections with rounded tips, found in western Anatolia.

Patterns such as grooves, dots, and imprinted decorations, which can be interpreted as possible workshop marks, are present in many loom weights in Anatolia. Most of these loom

weights are made from red clay and lining. Typically, the distance between the holes varies between 9 to 15.5 cm, and their mass varies between 50 and 200 g.

To better interpret the loom weights of the Akarçay basin or Western Anatolian Bronze Age settlements, data from ongoing excavations at the Bolvadin Üçhöyük settlement, an important production and trade center, are crucial.

Acknowledgments: This study was carried out with the permission of the Ministry of Culture and Tourism, General Directorate of Cultural Heritage and Museums, and with the support of Selçuk University Scientific Research Projects Coordination Office and the Turkish Historical Society. We would like to thank these institutions and their officials.

Peer-review: Externally peer-reviewed.

Author Contributions: Conception/Design of Study- Ö.K., K.B.; Data Acquisition- Ö.K., K.B.; Data Analysis/ Interpretation- Ö.K., K.B.; Drafting Manuscript- Ö.K., K.B.; Critical Revision of Manuscript- Ö.K., K.B.; Final Approval and Accountability- Ö.K., K.B.

Grant Support: Selçuk University Scientific Research Projects Coordination Office, "Archaeological Surveys in Afyonkarahisar and Vicinity 2017-2018" (Project no.: 17401020); "2019 Archaeological Surveys and Mapping Studies in Afyonkarahisar and Its Districts" (Project no.: 19401082) "2020 Archaeological Surveys and Mapping Studies in Afyonkarahisar and Its Districts" (Project no: 20401083); "2021 Surveys in and around Bolvadin Üçhöyük Settlement, Mapping and Geophysics Studies" (Project no: 21401092); "2022 Surveys, Mapping and Geophysics Studies in and around Bolvadin Üçhöyük Settlement" (Project no: 22401084).

Conflict of Interest: The authors has no conflict of interest to declare.

References

- Afyonkarahisar İli Doğa Turizmi Master Planı (2013-2023) 2013*, T. C. Orman ve Su İşleri Bakanlığı, Doğa Koruma ve Millî Parklar Genel Müdürlüğü V. Bölge Müdürlüğü, Afyonkarahisar.
- Akarçay Havzası Sektörel Su Tahsis Planı Hazırlanması Projesi. Sektörel Su Tahsisi Eylem Planı ve Genelgesi (2019-2024)*, T.C. Tarım ve Orman Bakanlığı Su Yönetimi Genel Müdürlüğü, Ankara, 2018.
- Akarçay Havzası Taşkın Yönetim Planı*, T.C. Tarım ve Orman Bakanlığı Su Yönetimi Genel Müdürlüğü Taşkın ve Kuraklık Yönetimi Daire Başkanlığı, Mayıs 2019, Ankara.
- Alp, S. (1994). *Konya Civarında Karahöyük Kazılarında Bulunan Silindir ve Damga Mühürleri*, Ankara: TTK Yayınları.
- Ardos, M. (1978). *Afyonkarahisar Bölgesinin Jeomorfolojisi*. İstanbul.
- Bilgen, A. N. & Bilgen, Z. (2015). Orta Tunç Çağ Yerleşimi (IV. Tabaka). In A. N. Bilgen (Ed.), *Seyitömer Höyük I* (pp. 61-118), İstanbul: Arkeoloji ve Sanat Yayınları.
- Darkot, B. & Tuncel, M. (1988). *Ege Bölgesi Coğrafyası*. İstanbul: İ.Ü. Edebiyat Fakültesi.
- Dedeoğlu, F. & Abay, E. (2014). Beycesultan Höyük Excavation Project: New Archaeological Evidence from Late Bronze Layers- Beycesultan Höyük Kazı Projesi: Geç Tunç Çağı Tabakalarına İlişkin Yeni Arkeolojik Veriler. *Arkeoloji Dergisi*, XIX, 1-39.
- Ergün, G. (2020). Late Bronze Age Spindle Whorls and Loom Weights from Beycesultan in Western Anatolia: New Findings, New Observations. *Mediterranean Archaeology and Archaeometry*, 20(2), 1-18.
- Fischer, F. (1963). *Die Hethitische Keramik von Boğazköy*. Berlin.
- Goldman, H. (1956). *Excavations at Gözlü Kule, Tarsus. Volume II. Text. From the Neolithic through the Bronze Age*. London: Princeton University Press.

- Gunter, Ann C. (1991). *The Gordion Excavations Final Reports. Volume III. The Bronze Age*. E. L. Kohler (Ed.), Philadelphia: Published by University of Pennsylvania Museum.
- Joukowsky, M. S. (1986). *Prehistoric Aphrodisias. An Account of the Excavations and Artifact Studies. Volume I: Excavations and Studies. Volume II: Bibliography, Catalogue, Appendix, Index*. Louvain-La-Neuve.
- Karaođlan, H. (2018). Seyitömer Höyüğü'nde Orta Tunç Çađı'na Tarihlendirilen Bir Grup Dokuma Tezgah Ađırlığı. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, (58), 15-30. <https://doi.org/10.30794/pausbed.546644>
- Kargiođlu, M., Serteser, A., Őenkul, Ç. & Özdemir, M. A. (2008). Akarçay Havzası (Afyonkarahisar)'ndaki Tehlike Altındaki (Cr, En, Vu) Endemik Bitkilerin Cođrafı Bilgi Sistemleri (Cbs) ile Haritalanması ve Koruma Statüleri. *Biyoloji Bilimleri Arařtırma Dergisi*, 1(2), 33-36. Eriřim adresi: <https://bibad.gen.tr/index.php/bibad/article/view/15>
- Koçak, Ö., Bilgin, M. & Küçükbezci, H. G. (2019). *MÖ II. Binyılda Afyonkarahisar ve Çevresi Kùltürleri*. Ankara: TTK Yayınları.
- Koçak, Ö., Baytak, İ. & Esen, Ö. (2021). Büyük Menderes Nehri Havzasının Dođusunda MÖ II. Bin Yıla ait Hilal Biçimli Tezgah Ađırlıkları (Bir Grup Piramidal Ađırlıkla Beraber)". *Belleten*, 85(304), 713-780. <https://doi.org/10.37879/belleten.2021.713>
- Korfmann, M. (1977/1978). Demircihüyük. Vorbericht Über Die Ergebnisse der Grabung von 1975. *Istanbul Mitteilungen*, Vol. 27/28, 5-31.
- Korfmann, M. (1983). *Demircihüyük. Die Ergebnisse der Ausgrabungen 1975-1978. Volume I. Architektur, Stratigraphie und Befunde*. Mainz: Verlag von Zabern.
- Koşay, H. Z., Akok, M. (1973). *Alaca Höyük Kazısı 1963-1967 Çalıřmaları ve Keřiflere ait İlk Rapor. Alaca Höyük Excavations Preliminary Report on Research and Discoveries 1963-1967*. Ankara: TTK Yayınları.
- Kull, B. (1988). *Die Mittelbronzezeitliche Siedlung, Mit Einem Anhang von H. Kammerer- Grothaus und A.- U. Kossatz zu Antiken Funden aus Demircihüyük, Die Ergebnisse der Ausgrabungen 1975-1978*, Herausgegeben von Manfred Korfmann, Band V, Mainz.
- Kuzay, M. & Tombul, M. (2020). Akarçay Havzası ve Van Gölü Havzası için 1901-2015 Yılları Arasında Standartlaştırılmıř Yađıř İndeksi'ne (SPI) Göre Trend Analizi, *BŐEÜ Fen Bilimleri Dergisi*, 7- Milli Mücadele ve TBMM'nin Açılıřının 100. Yılı Anısına-100. Yıl Özel Sayısı, 51-61. DOI: 10.35193/bseufbd.645316
- Lamb, W. (1936). Excavations at Kusura near Afyon Karahisar. *Archaeologia*, LXXXVI, 1-64, pl. 1-8.
- Lassen, A. W. (2013). Technology and Palace Economy in Middle Bronze Age Anatolia: the Case of the Crescent Shaped Loom Weight. In M.-L. Nosch, H. Koefoed, & E. Andersson Strand (Eds.), *Textile Production and Consumption in the Ancient Near East. Archaeology, Epigraphy, Iconography* (pp. 78-92). Oxford: Oxbow Books, 12.
- Lassen, A. W. (2015). Weaving with Crescent Shaped Loom Weights. An Investigation of a Special Kind of Loom Weight. In E. A. Strand & M.-L. Nosch (Eds.), *Tools, Textiles and Contexts, Investigating Textile Production in the Aegean and Eastern Mediterranean Bronze Age* (pp. 127-137), Oxford: Oxbow Books.
- Mellaart, J. & Murray, A. (1995). *Beycesultan, VOL. III, Part II*. Ankara: British Institute at Ankara.

- Michel, C. (2011). Asur ve Kaniş'in Kadınları, *Anadolu'nun Önsözü Kültepe Kaniş-Karumu: Asurlular İstanbul'da* (pp. 124-133), ed. F. Kulakoğlu & S. Kangal (Eds.), Kayseri Büyükşehir Kültür Yayınları No: 78.
- Oy, H. (2024). Bronze Age Settlement and Cemetery in the Ulubey Canyon in Inland Western Anatolia: Mehmet Bey Dere, Uşak, Turkey, *Andolu Araştırmaları/Anatolian Research*, 30, 67-92. <https://doi.org/10.26650/anar.2024.30.1283747>
- Sipahi, T. (2013-14). Hitit Çağında Boyalı Höyük ve Eski yapar, *Çorum Kültür Sanat. Bilim, Kültür, Sanat, Tarih ve Turizm Dergisi, (Hitit Söyleşileri II Özel Sayısı)*, 4-22.
- Taş, B. & Yakar, M. (2010). Afyonkarahisar İlinde Yükselti Basamaklarına Göre Arazi Kullanımı. *Coğrafi Bilimler Dergisi*, 8(1), 57-76. https://doi.org/10.1501/Cogbil_0000000107
- Tütüncüler, Ö. (2005). *M.Ö. 2. Bin Ege Bölgesi Dokuma Aletleri*. (Doktora Tezi). Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Ankara.
- Yılmaz, Ö. (2005). Afyonkarahisar İli Genel Coğrafya Özellikleri. *Afyonkarahisar Kütüğü, I*, Afyonkarahisar.
- Yılmaz, M. A. & Kalkan, E. (2021). Weaving Tools from the Uşak Protohistoric Survey Project (UPDAP). *CEDRUS*, IX, DOI: 10.13113/CEDRUS.202103

Inventory List

Figure 12:10; 8:8 Code: 313.21.16.52; Tüysüz I (Dinar- Haydarlı Town); Length, width, thickness: 7, 2.6, 2.4; H. Diameter: 0.4x0.5; 2.5YR 6/6 light red clay; Fine sandy, mica, grit, lime; 2.5YR 6/8 light red slip; Very faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross-section, with rounded corners and angular tips. Broken and 1/2 of it is present. 64 gr.

Figure 13:10; 9:10 Code: 307.26.16.23; Alpaslan Höyük (Dinar- Alpaslan Village); Length, width, thickness: 5.2, 2.2, 2.2; H. Diameter: Broken; 5YR 7/6 reddish yellow clay; Fine sandy, mica, grit, lime; 5YR 6/4 light reddish brown slip; Faintly burnished; Medium badly; Crescent-shaped, quadrangular in cross section; no tip. Broken and 1/3 of it is present. 35 gr.

Figure 11:8; 8:6 Code: 307.26.16.34; Alpaslan Höyük (Dinar- Alpaslan Village); Length, width, thickness: 4.9, 2.2, 1.9; H. Diameter: 0.4x0.5; 5YR 7/6 reddish yellow clay; Fine sandy, mica, grit, lime; 7.5YR 5/4 brown slip; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross section with a rounded tip. Broken and 1/3 of it is present. 30 gr.

Figure 13:23; 9:23 Code: 313.14.16.21; Akgün Tepe Höyük (Dinar- Akgün Village); Length, width, thickness: 8.2, 2.8, 2.4; H. Diameter: 0.4x0.5; 2.5Y 7/4 pale yellow clay; Fine sandy, mica, grit, lime; 2.5Y 7/3 pale yellow slip; Faintly burnished; Well baked; Crescent-shaped, quadrangular in cross-section, with rounded corners and a rounded tip. Broken and 1/2 of it is present. 64 gr.

Figure 12:21; 8:19 Code: 313.14.18.98; Akgün Tepe Höyük (Dinar- Akgün Village); Length, width, thickness: 10.7 (approx. 21.1), 4.3, 2.8; H. Diameter- D.B.H.: 0.5, 18; 10YR 8/4 very pale brown clay; Fine sandy, little mica, little grit, lime; 7.5YR 6/4 light brown slip; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross-section and angular tips. Broken and 1/2 of it is present. 148 gr.

Figure 11:19; 7:18 Code: 313.14.18.144; Akgün Tepe Höyük (Dinar- Akgün Village); Length, width, thickness: 5.1, 2.7, 2.8; H. Diameter: 0.3x0.4; 10YR 8/4 very pale brown clay; Very well sifted sandy, little mica, little grit; 10YR 6/3 pale brown slip, with a thin watery undercoat was applied; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross-section and angular tips. Broken and 1/3 of it is present. 45 gr.

Figure 11:12; 7:12 Code: 313.14.18.121; Akgün Tepe Höyük (Dinar- Akgün Village); Length, width, thickness: 5.5, 3.3, 1.8; H. Diameter: Broken; 10 YR 7/3 very pale brown clay; Fine sandy, mica, lime, grit; 10 YR 5/1 gray slip; Faintly burnished; Decoration: There is a wheel of fortune motif in a circular area 2.3 cm wide in the center. There is a 0.7 cm

wide and 0.4 cm deep hole on the right side of this motif; Medium baked; Crescent-shaped, quadrangular in cross-section, with rounded corners; no tip. Broken and 1/4 of it is present. 35 gr.

Figure 13:15; 9:15 Code: 308.19.16.20; İsmail Höyük (Dinar- Göçerli); Length, width, thickness: 8.4, 3.7, 2.8; H. Diameter: Broken; 2.5YR 6/8 light red clay; Fine sandy, mica, grit; 5YR 7/6 reddish yellow slip; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross-section with rounded corners; no tip. Broken and 1/3 of it is present. 139 gr.

Figure 13:16; 9:16 Code: 308.19.16.23; İsmail Höyük (Dinar- Göçerli); Length, width, thickness: 6.8, 3.1, 2.6; H. Diameter: 0.3x0.4; 2.5YR 7/8 light red clay; Fine sandy, mica, grit; 10R 6/8 light red slip; Faintly burnished; Well baked; V-shaped, quadrangular in cross-section, with rounded corners and angular tips. There are fractures at the tip. Broken and 1/2 of it is present. 75 gr.

Figure 12:16; 8:14 Code: 308.19.16.12; İsmail Höyük (Dinar- Göçerli); Length, width, thickness: 5.6, 3, 2.4; H. Diameter: 0.4x0.6, 5R 8/1 white clay; Fine sandy, mica, lime; 5YR 6/8 reddish yellow slip; Unburnished; Well baked; Crescent-shaped, quadrangular in section, with rounded corners and a rounded tip. Broken and 1/3 of it is present. 59 gr.

Figure 13:18; 9:18 Code: 313.18.16.06; Kerim Çayırı (Dinar- Cumhuriyet Village); Length, width, thickness: 9.6 (approx. 17.1), 3.3, 2.6; H. Diameter- D.B.H.: 0.7x0.8, 16.5; 2.5YR 7/8 light red clay; Fine sandy, mica, abundant lime; 5YR 7/6 reddish yellow slip; Unburnished; Medium baked; Crescent-shaped, quadrangular in cross-section, with rounded corners and angular tips. Broken and 1/2 of it is present. 162 gr.

Figure 11:16; 7:16 Code: 313.18.16.59; Kerim Çayırı (Dinar- Cumhuriyet Village); Length, width, thickness: 5.9, 2.1, 2; H. Diameter: Broken; 5YR 7/8 reddish yellow clay; Fine sandy, mica; 5YR 7/6 reddish yellow slip; Well baked; Unburnished; Decoration: There are 3 holes 0.3 cm wide and 0.4 cm deep on the upper part. None; Crescent-shaped, quadrangular in cross section; no tip. Broken and 1/3 of it is present. 46 gr.

Figure 11:5; 7:5 Code: 313.18.16.31; Kerim Çayırı (Dinar- Cumhuriyet Village); Length, width, thickness: 10.5 (approx. 17.2), 2.4, 1.9; H. Diameter- D.B.H.: 0.5, 17; 5YR 6/8 reddish yellow clay; Fine sandy, mica, grit, lime; 5YR 7/6 reddish yellow slip; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross-section, with rounded corners and a rounded tip. Broken and 1/2 of it is present. 66 gr.

Figure 11:7; 7:7 Code: 310.10; Köyiçi Mevkii (Hocalar- Örencik Village); Length, width, thickness: 4, 2.4, 2.2; H. Diameter: Broken; 7.5YR 7/6 reddish yellow clay; Fine

sandy, mica, grit, lime; 7.5YR 6/4 light brown slip; Burnished; Badly baked; Decoration: There is a 0.4 cm wide, 0.2 cm deep hole in the center of the existing piece; Crescent-shaped, quadrangular in cross-section, no tip. Broken and 1/4 of it is present. 47 gr.

Figure 11:11; 7:11 Code: 304.32.07.130; Tezköy (Emirdağ- Tezköy Village) Length, width, thickness: 6.7, 2.9, 3.2; H. Diameter: Broken; 5YR 5/3 reddish brown clay; Fine sandy, mica, grit, lime; 7.5YR 5/4 brown; Unburnished; Badly baked; Crescent-shaped, quadrangular in cross-section, with rounded edges; no tip. Broken and 1/2 of it is present. 80 gr.

Figure 12:2 Code: 304.27.07.130; Akçaşar Höyük (Emirdağ- Bademli Town); Length, width, thickness: 7, 3.8, 2.9; H. Diameter: Broken; 2.5YR 5/8 red clay; Fine sandy, mica, grit, lime, plant; 5YR 6/6 reddish yellow slip; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross-section; no tip. 1/2 of it is present.

Figure 14:11; 10:11 Code: 301.09.02.23; Yörükkaracaören (Bolvadin- Yörükkaracaören Village); Length, width, thickness: 4.3 (approx. 7.5), 2.9, 2.1; H. Diameter- D.B.H.: 0.3x0.6, 4.9; 2.5YR 7/3 pale yellow clay; Fine sandy, mica, grit, plenty of lime; 2.5YR 6/3 light yellowish brown slip; Unburnished; Medium baked; Decoration: There is a 0.3 cm wide hole in the center; U-shaped, elliptical in cross section with a rounded tip. The inside of the loom weight is flattened. Broken and 1/2 of it is present. 40 gr.

Figure 12:22; 8:20 Code: Üçh.22.YB.66; Üçhöyük (Bolvadin District); Length, width, thickness: 5.5, 3.9, 2; H. Diameter: 0.6x0.9; 2.5YR 6/6 light red clay; Fine sandy, mica, grit; 2.5YR 6/4 light reddish brown slip; Unburnished; Medium baked; Crescent-shaped, elliptical in cross section with a rounded tip. Broken and 1/3 of it is present. 47 gr.

Figure 12:5; 8:3 Code: Üçh.22.YB.81; Üçhöyük (Bolvadin District); Length, width, thickness: 4.8, 2.9, 2.4; H. Diameter: 0.6; 5YR 7/6 reddish yellow clay; Fine sandy, little mica, little grit, lime; 2.5YR 5/4 reddish brown slip; Burnished; Medium baked; Crescent-shaped, oval in cross section with a rounded tip. Broken and 1/4 of it is present. 28 gr. There are fractures on the back of the existing piece.

Figure 13:6; 9:6 Code: Üçh.22.YB.61; Üçhöyük (Bolvadin District); Length, width, thickness: 4.1, 3.5, 2; H. Diameter: 0.4x0.6; 7.5YR 7/4 pink clay; Fine sandy, mica, little grit, lime; 7.5YR 6/3 light brown slip; Faintly burnished; Well baked; Crescent-shaped, elliptical in cross section with a rounded tip. Broken and 1/5 of it is present. 27 gr.

Figure 14:8; 10:8 Code: Üçh.22.YB.62; Üçhöyük (Bolvadin District); Length, width, thickness: 7 (approx. 12); 4.1, 2.5, H. Diameter- D.B.H.: 0.6x0.7, 8.5; 5YR 8/4 pink clay; Fine sandy, abundant mica, grit, plant; 2.5YR 6/6 light red slip; Unburnished; Medium baked;

Decoration: There is a complete hole measuring 0.6x0.7 cm in the center; U-shaped, elliptical in cross section with a rounded tip. Broken and 1/2 of it is present. 94 gr.

Figure 14:7; 10:7 Code: Üçh.22.YB.77; Üçhöyük (Bolvadin District); Length, width, thickness: 5.2, 3.6, 1.9; H. Diameter: 0.5x1; 10R 5/3 weak red clay; Fine sandy, little mica, lime; 10R 5/6 red slip; Faintly burnished; Medium baked; Crescent-shaped, elliptical in cross section, with sharp corners and rounded tips. Broken and 1/3 of it is present. 51 gr.

Figure 13:25; 9:25 Code: Üçh.22.YB.149; Üçhöyük (Bolvadin District); Length, width, thickness: 7.7, 3.5, 3.1; H. Diameter: 0.5x0.7; 10R 6/4 pale red clay; Fine sandy, mica, grit, abundant lime; 10YR 5/4 weak red slip; Very faintly burnished; Medium baked; V-shaped, oval in cross section with a rounded tip. Broken and 1/2 of it is present. 103 gr. The flattening marks on the broken part indicate that it was used for the second time. There are fractures on the front face.

Figure 11:21, 7:20 Code: Üçh.21.YB.01; Üçhöyük (Bolvadin District); Length, width, thickness: 4.2, 2.5, 1.5; H. Diameter: 0.3x0.4; 10R 6/6 light red clay; Fine sandy, mica, grit, lime; 10R 6/8 light red slip; Faintly burnished; Well baked; Crescent-shaped, quadrangular with rounded corners and rounded tips. Broken and 1/3 of it is present. 19 gr.

Figure 12:25; 8:23 Code: Üçh.21.YB.02; Üçhöyük (Bolvadin District); Length, width, thickness: 8.7 (approx. 18), 3.1, 2; H. Diameter- D.B.H.: 0.6x0.8, 15.1; 5YR 7/6 reddish yellow clay; Fine sandy, mica, grit, lime; 5YR 7/6 reddish yellow slip; Unburnished; Badly baked; Crescent-shaped, elliptical in cross section with a rounded tip. Broken and 1/2 of it is present. 63 gr.

Figure 11:24; 7:23 Code: Üçh.21.YB.03; Üçhöyük (Bolvadin District); Length, width, thickness: 6.1, 3.4, 2; H. Diameter: 0.5x0.9; 2.5YR 7/8 light red clay; Fine sandy, mica, little grit, lime; 10R 6/8 light red slip; Unburnished; Well baked; Crescent-shaped, elliptical in cross section with a rounded tip. Broken and 1/3 of it is present. 43 gr.

Figure 13:13; 9:13 Code: Üçh.21.YB.04; Üçhöyük (Bolvadin District); Length, width, thickness: 6.5, 2.7, 2.3; H. Diameter: 0.5; 5YR 6/4 light reddish brown clay; Fine sandy, mica, grit; 5YR 5/3 reddish brown slip; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross-section, with rounded corners and angular tips. Broken and 1/2 of it is present. 53gr

Figure 14:1; 10:1 Code: Üçh.21.YB.05; Üçhöyük (Bolvadin District); Length, width, thickness: 6.8 (approx. 13), 3.3, 2.2; H. Diameter- D.B.H.: 0.4x0.6, 9.1; 7.5YR 8/4 pink clay; Fine sandy, little mica, grit, lime, plant; 5YR 7/6 reddish yellow slip; Faintly burnished; Medium baked; Crescent-shaped, elliptical in cross section with a rounded tip. Broken and 1/2 of it is present. 71 gr. The flattening marks on the broken part indicate that it was used for the second time.

Figure 13:4; 9:4 Code: Üçh.21.YB.06; Üçhöyük (Bolvadin District); Length, width, thickness: 7.1, 3.2, 1.9; H. Diameter: 0.5x0.7; 2.5YR 7/6 pink clay; Fine sandy, mica, lime, grit; 10R 6/6 light red slip; Unburnished; Well baked; Crescent-shaped, quadrangular in section, with rounded corners and a rounded tip. Broken and 1/3 of it is present. 48 gr. There are fractures on the back of the existing piece.

Figure 14:12; 10:12 Code: Üçh.21.YB.07; Üçhöyük (Bolvadin District); Length, width, thickness: 4.5 (approx. 10.2), 3.9, 2; H. Diameter- D.B.H.: 0.8x1, 8.9; 2.5YR 7/6 light red clay; Fine sandy, abundant mica, grit; 2.5YR 7/6 light red slip; Unburnished; Medium baked; V shaped, elliptical in cross section with a rounded tip. Broken and 1/2 of it is present. 73 gr.

Figure 12:11; 8:9 Code: Üçh.21.YB.08; Üçhöyük (Bolvadin District); Length, width, thickness: 6.3, 3.6, 1.9; H. Diameter: 0.7x0.9; 2.5YR 7/6 light red clay; Fine sandy, mica, grit, lime, plant; 2.5YR 7/6 light red slip; Unburnished; Medium baked; Crescent-shaped, elliptical in cross section with a rounded tip. Broken and 1/3 of it is present. 47gr. There are fractures on the back and front of the existing piece.

Figure 13:2; 9:2 Code: Üçh.21.YB.09; Üçhöyük (Bolvadin District); Length, width, thickness: 5.5, 4.2, 1.6; H. Diameter: 0.7x1.1; 10R 6/8 light red clay; Fine sandy, mica, grit, little lime; 10R 7/6 light red slip; Unburnished; Well baked; Crescent-shaped, quadrangular in section, with rounded corners and a rounded tip. Broken and 1/4 of it is present. 47 gr.

Figure 12:13; 8:11 Code: Üçh.21.YB.10; Üçhöyük (Bolvadin District); Length, width, thickness: 5.4, 4.4, 2.2; H. Diameter: 0.7x0.9; 5YR 7/3 pink clay; Fine sandy, mica, grit, lime; 5YR 5/3 reddish brown slip; Unburnished; Medium baked; Crescent-shaped, quadrangular in cross section, rounded corners, a rounded tip. Broken and 1/4 of it is present. 64 gr. The lower part of the loom weight is shaped like a fish's back.

Figure 14:18; 10:18 Code: Üçh.21.A.L1.54; Üçhöyük (Bolvadin District); Length, width, thickness: 8, 3.1x4.2, 1.4x2; H. Diameter-D.B.H.: 0.3x0.7, 4.9; 7.5YR 5/4 pink clay; Fine sandy, mica, grit (coarse grit), lime, plant; Grey 1 2.5 N black slip; Badly baked; U-shaped, irregularly elliptical in cross section with a rounded tip. Intact. 84 gr. The front side of the loom weight is rounded and the back side is partially flattened.

Figure 13:5; 9:5 Code: 318.11.20.27; Alanlı Höyük (İhsaniye- Döğer Town); Length, width, thickness: 5.6 (approx. 11.5) 3; 2.8; H. Diameter- D.B.H.: 0.6x0.7, 9.7; 2.5YR 6/6 light red clay; Fine sandy, mica, grit; 2.5YR 6/8 light red slip; Unburnished; Medium baked; Crescent-shaped, oval in cross section with a rounded tip. There are fractures on the exterior of the existing fragment. Broken and 1/2 of it is present. 55 gr.

Figure 14:6; 10:6 Code: 318.03.18.104; Yukarıtandır Höyük (İhsaniye- Yukarıtandır Village); Length, width, thickness: 4.9, 2, 3.2; H. Diameter: 0.6x0.7; 10YR 8/2 very pale yellow clay; Fine sandy, mica, grit, lime, plant; 2.5YR 4/1 dark gray slip; Burnished; Badly baked; U-shaped, irregular elliptical section with a rounded tip. Broken and 1/2 of it is present. 39 gr.

Figure 12:18; 8:16 Code: 318.03.18; Yukarıtandır Höyük (İhsaniye- Yukarıtandır Village); Length, width, thickness: 5.7, 3, 2.7; H. Diameter: 0.2x0.5; 7.5YR 7/4 pink clay; Fine sandy, mica, grit; 10YR 7/4 very pale brown slip; Very faintly burnished; Medium baked; Crescent-shaped, oval in cross-section, with a rounded tip. There are fractures at the tip of the existing piece. The hole was closed later. Broken and 1/2 of it is present. 60 gr.

Figure 11:20; 7:19 Code: 318.12.20.123; Next to Manastır Çeşme (İhsaniye- Alanlı Neighbourhood); Length, width, thickness: 4.3, 5.5, 2.7; H. Diameter: 0.8x1; 10YR 7/3 very pale brown clay; Fine sandy, mica, grit, lime, plant; 5YR 6/6 reddish yellow slip; Unburnished; Badly baked; Crescent-shaped, elliptical in cross section with a rounded tip. Broken and 1/4 of it is present. 59 gr.

Figure 14:13; 10:13 Code: 318.02.18.67; Ablak Höyük (İhsaniye- Ablak Village); Length, width, thickness: 6.2 (approx. 11.3), 4.2, 2.5; H. Diameter- D.B.H.: 0.5x0.8, 7.9; 2.5YR 7/6 light red clay; Fine sandy, mica, grit, lime, plant; 5YR 6/6 reddish yellow slip; Unburnished; Decoration: Four parallel long notches on the dorsal side; Badly baked; V-shaped, elliptical in cross section with a rounded tip. Broken and 1/2 of it is present. 84 gr.

Figure 12:24; 8:22 Code: 318.02.18.30; Ablak Höyük (İhsaniye- Ablak Village); Length, width, thickness: 5.7, 3.2, 2.8; H. Diameter: 0.5x0.7; 2.5YR 8/3 pale yellow clay; Fine sandy, mica, grit; 2.5YR 8/3 pale yellow slip; Faintly burnished; Decoration: Two parallel rows of notched decoration on the upper part just below the hole; Badly baked; Crescent-shaped, quadrangular in cross-section, with rounded corners and a rounded tip. Broken and 1/2 of it is present. 78 gr.

Figure 12:20; 8:18 Code: 318.02.19.263; Ablak Höyük (İhsaniye- Ablak Village); Length, width, thickness: 5, 2.1, 2; H. Diameter: 0.4x0.7; 2.5Y 7/3 pale yellow clay; Fine sandy, mica, grit, lime; 2.5Y 7/3 pale yellow; Burnished; Well baked; Irregular quadrangular section with angular tips. Broken and 1/3 of it is present. 34 gr.

Figure 12:28; 8:26 Code: 318.02.19.208; Ablak Höyük (İhsaniye- Ablak Village); Length, width, thickness: 3.3, 2.9, 1.6; H. Diameter: 0.8x; 7.5YR 6/4 light brown clay; Fine sandy, mica, grit, lime; 7.5YR 6/4 light brown slip; Unburnished; Well baked; Crescent-shaped, with slip section and a rounded tip. Broken and 1/5 of it is present. 16 gr.

Figure 12:27; 8:25 Code: 318.02.19.265; Ablak Höyük (İhsaniye- Ablak Village); Length, width, thickness: 4.3, 3.4, 2.1; H. Diameter: 0.5x0.7; 2.5R 6/1 gray clay; Fine sandy, mica, grit, abundant lime; 2.5YR 6/4 light reddish brown slip; Faintly burnished; Badly baked; Crescent-shaped, elliptical in cross section with a rounded tip. Broken and 1/5 of it is present. 27 gr.

Figure 12:23; 8:21 Code: 318.02.19.204; Ablak Höyük (İhsaniye- Ablak Village); Length, width, thickness: 4.8, 3.3, 2; H. Diameter: 0.5x0.6; 10YR 6/2 light brownish gray clay; Fine sandy, mica, grit, lime; 10YR 6/3 pale brown slip; Faintly burnished; Decoration: There are two rows of vertical notch decoration on the top, just below the hole; Badly baked; Crescent-shaped, elliptical in cross section with a rounded tip. Broken and 1/4 of it is present. 42 gr.

Figure 12:6; 8:4 Code: 318.02.19.343; Ablak Höyük (İhsaniye- Ablak Village); Length, width, thickness: 6.2, 4.1, 2.5; H. Diameter: Broken; 2.5Y 8/3 pale yellow clay; Fine sandy, mica, grit; 2.5Y 7/3 pale yellow slip; Unburnished; Well baked; Crescent-shaped, quadrangular in cross-section, with rounded corners; no tip. The interior is flattened. Broken and 1/2 of it is present. 77 gr. The edges of the existing piece were smoothed and used for the second time.

Figure 13:19; 9:19 Code: 318.02.19.178; Ablak Höyük (İhsaniye- Ablak Village); Length, width, thickness: 8, 2.6, 2.4; H. Diameter: Broken; 2.5YR 7/6 light red clay; Fine sandy, mica, grit, lime; 2.5YR 7/6 light red slip; Faintly burnished; Decoration: There are four vertical rows of nail imprint decoration on the upper part. There is a 0.4 cm wide and 0.9 cm deep hole at the tip; Medium baked; Crescent-shaped, irregular quadrangular section, rounded corners, no tip. Broken and 1/2 of it is present. 63 gr.

Figure 11:1; 7:1 Code: 318.08.20.12; Çiftlik (İhsaniye- Karacaahmet Village); Length, width, thickness: 16.9, 3.1, 3.1; H. Diameter: 0.5x0.8; 14; 5 YR 6/6 reddish yellow clay; Fine sandy, mica, grit, lime, plant; 5 YR 6/1 gray slip; Faintly burnished; Badly baked; Crescent-shaped, quadrangular in cross-section with angular tips. Intact. 64 gr.

Figure 13:26; 9:26 Code: 307.03.20.161; Çalışlar Höyük (İscehisar- Çalışlar Village); Length, width, thickness: 6.6, 3.1, 2.3; H. Diameter: Broken; 2.5YR 6/6 light red clay; Fine sandy, mica, grit, lime; 2.5YR 5/4 reddish brown slip; Burnished; Well baked; Crescent-shaped, quadrangular in cross-section, with rounded corners; no tip. Broken and 1/2 of it is present. 72 gr.

Figure: 12:12; 8:10 Code: 307.03.20.158; Çalışlar Höyük (İscehisar- Çalışlar Village); Length, width, thickness: 4, 3.6, 1.8; H. Diameter: 0.9; 2.5YR7/8 light red clay; Fine sandy, mica, grit, lime; 2.5YR 6/6 light red slip; Faintly burnished; Well baked; Crescent-shaped, elliptical in cross section with a rounded tip. Broken and 1/5 of it is present. 33 gr.

Figure 12:15; 8:13 Code: 311.22.18.20; Pınarbaşı Höyük (Şuhut- Kılıçkaya Village); Length, width, thickness: 6.3, 2.3, 2.2; H. Diameter: 0.5x0.7; 10R 6/6 pale red clay; Fine sandy, mica, grit, lime; 2.5YR 6/6 light red slip; Faintly burnished; Well baked; Crescent-shaped, quadrangular in section, with rounded corners and angular tips. Broken and 1/2 of it is present. 44 gr.

Figure 11:8; 7:8 Code: 311.06.11.95; Mahmut Höyük (Şuhut- Mahmut Village); Length, width, thickness: 7.2, 3.5, 2.2; H. Diameter: Broken; 5YR 7/6 reddish yellow clay; Fine sandy, mica, grit, lime; 5YR 7/6 reddish yellow slip; Faintly burnished; Medium baked; Crescent-shaped, elliptical in cross-section; no tip. The upper part is flattened. Broken and 1/3 of it is present. 76 gr.

Figure 11:2; 7:2 Code: 311.06.11.125; Mahmut Höyük (Şuhut- Mahmut Village); Length, width, thickness: 5.7, 1.8, 1.6; H. Diameter: Broken; 2.5YR 7/8 light red clay; Fine sandy, grit, lime, few plants; 5YR 7/6 reddish yellow slip; Burnished; Decoration: There are three holes 0.4 cm thick and deep in the middle part of the piece; Well baked; Crescent-shaped, quadrangular in cross-section; no tip. Broken and 1/3 of it is present. 24 gr.

Figure 13:20; 9:20 Code: 311.06.11.05; Mahmut Höyük (Şuhut- Mahmut Village); Length, width, thickness: 7.5, 2.6, 1.5; H. Diameter: Broken; 10YR 7/6 reddish yellow clay; Fine sandy, mica, grit slip; 2.5YR 6/6 pale red slip; Burnished; Well baked; Crescent-shaped, quadrangular in cross-section, with rounded corners; no tip. Broken and 1/2 of it is present. 44 gr.

Figure: 13:30; 9:30 Code: 311.06.11.88; Mahmut Höyük (Şuhut- Mahmut Village); Length, width, thickness: 5.5, 2.4, 2.4; H. Diameter: Broken; 2.5YR 7/4 light reddish brown clay; Fine sandy, abundant mica, grit, lime; 2.5YR 5/4 reddish brown slip; Faintly burnished; Badly baked; Crescent-shaped, quadrangular in cross-section; no tip. Broken and 1/3 of it is present. 50 gr.

Figure 11:9; 7:9 Code: 311.06.11.150; Mahmut Höyük (Şuhut- Mahmut Village); Length, width, thickness: 6.9 (approx. 14.5), 1.8, 1.9; H. Diameter- D.A.M.: 0.4x0.5, 12.5; 2.5YR 7/4 light reddish brown clay; Fine sandy, mica, grit, little lime; 2.5YR 6/4 light reddish brown slip; Faintly burnished; Decoration: There is a 0.4 cm wide, 1.3 cm deep hole broken in the middle part; Well baked; Crescent-shaped, quadrangular in cross-section and angular tips. Broken and 1/2 of it is present. 35 gr.

Figure 11:6; 7:6 Code: 311.26.12.30; Mahmut Höyük (Şuhut- Mahmut Village); Length, width, thickness: 3.7, 2.2, 2.1; H. Diameter: Broken; 5Y 8/1 white clay; Fine sandy, little mica, grit, lime; 2.5YR 5/4 reddish brown slip; Burnished; Well baked; Crescent-shaped, irregular quadrangular section with rounded edges; no tip. Broken and 1/4 of it is present. 28 gr.

Figure 13:7; 9:7 Code: 308.20.09.158; Mahmut Höyük (Şuhut- Mahmut Village); Length, width, thickness: 3.5, 2.4, 1.7; H. Diameter: 0.4x0.6; 5YR 7/8 reddish yellow clay; Fine sandy, mica, grit, lime; 5YR 7/8 reddish yellow slip; Unburnished; Crescent-shaped, elliptical in cross section with a rounded tip. Broken and 1/5 of it is present. 18 gr.

Figure 13:3; 9:3 Code: 311.06.11.149; Mahmut Höyük (Şuhut- Mahmut Village); Length, width, thickness: 3.5, 2.2, 2.3; H. Diameter: 0.2x0.4; 5YR 7/6 reddish yellow clay; Fine sandy, mica, grit, lime; 10R 6/8 light red slip; Unburnished; Medium baked; Crescent-shaped, quadrangular in section, with rounded corners and a rounded tip. Broken and 1/4 of it is present. 24 gr.

Figure 13:27; 9:27 Code: 311.06.11.121; Mahmut Höyük (Şuhut- Mahmut Village); Length, width, thickness: 8.1, 2.5, 2.4; H. Diameter: 0.5; 5YR 7/6 reddish yellow clay; Fine sandy, mica, grit, lime; 2.5YR 6/6 light red slip; Faintly burnished; Medium baked; V-shaped, quadrangular in cross section with a rounded tip. Broken and 1/2 of it is present. 74 gr.

Figure 13:14; 9:14 Code: 311.26.12.20; Hasanlı Höyük (Şuhut- Karaadilli Village); Length, width, thickness: 14 (approx. 15.1), 2.7, 2; H. Diameter- D.A.M.: 0.6x0.7, 12.2; 2.5YR 5/8 red clay; Fine sandy, little mica, grit; 7.5YR 4/3 brown slip; Faintly burnished; Well baked; Crescent-shaped, quadrangular in cross section with a rounded tip. Broken and 4/5 of it is present. 133 gr.

Figure 12:14; 8:12 Code: 311.26.72.53; Hasanlı Höyük (Şuhut- Karaadilli Village); Length, width, thickness: 6.5, 2.1, 2; H. Diameter: 0.4; 5YR 4/3 reddish brown clay; Fine sandy, little mica; 7.5YR 4/2 brown slip; Burnished; Medium baked; Crescent-shaped, quadrangular in cross section with angular tips. Broken and 1/2 of it is present. 49 gr.

Figure: 11:4; 7:4 Code: 311.26.12.27; Hasanlı Höyük (Şuhut- Karaadilli Village); Length, width, thickness: 7.2, 2.7, 1.9; H. Diameter: Broken; 5YR 8/1 white clay; Fine sandy, mica, grit, lime; 5YR 4/6 red slip; Brightly burnished; Well baked; Decoration: There are three rosette-shaped circular imprinted decorations side by side on the upper part; Crescent-shaped, quadrangular in cross section; no tip. Broken and 1/3 of it is present. 58 gr.

Figure 13:9; 9:9 Code: 311.26.12.54; Hasanlı Höyük (Şuhut- Karaadilli Village); Length, width, thickness: 5.5, 2.5, 2.3; H. Diameter: Broken; 5YR 7/6 reddish yellow clay; Fine sandy, mica, grit, lime; 7.5YR 5/4 brown slip; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross-section; no tip. Broken and 1/4 of it is present. 50 gr.

Figure 13:24; 9:24 Code: 311.26.12.43; Hasanlı Höyük (Şuhut- Karaadilli Village); Length, width, thickness: 7, 2.8, 2.5; H. Diameter: 0.4; 5YR 7/6 reddish yellow clay; Medium sandy, mica, abundant grit; 10R 4/4 weak red slip; Burnished; Medium baked; Crescent-shaped, quadrangular in cross section with a rounded tip. Broken and 1/2 of it is present. 81 gr.

Figure 11:3; 7:3 Code: 311.31.12.181; Anayurt Mevkii (Şuhut- Anayurt Village); Length, width, thickness: 6, 1.9, 1.8; H. Diameter: Broken; 2.5YR 6/6 light red clay; Fine sandy, mica, lime; 5Y 6/4 reddish brown slip; Burnished; Well baked; Decoration: There are two 0.4 cm wide and 0.2 cm deep holes side by side on the upper part; Crescent-shaped, quadrangular in cross-section; no tip. Broken and 1/3 of it is present. 26 gr.

Figure 11:14; 7:14 Code: 309.12.10.26; Örenkaya Üyükaltı (Sandıklı- Örenkaya Village); Length, width, thickness: 8.5, 3, 2; H. Diameter: Broken; 2.5YR 6/6 light red clay; Fine sandy, little mica, little grit; 2.5YR 3/2 dusky red slip; Burnished; Medium baked; Decoration: There is a 0.5 cm wide and 0.8 cm deep hole in the middle of the existing piece; Crescent-shaped, quadrangular in cross-section; no tip. Broken and 1/2 of it is present. 77 gr.

Figure 11:23; 7:22 Code: 309.12.18.142; Örenkaya Üyükaltı (Sandıklı- Örenkaya Town); Length, width, thickness: 5, 2.8, 2.9; H. Diameter: 0.5x0.6; 2.5YR 5/6 red clay; Fine sandy, mica, grit, lime; 2.5YR 5/6 red slip; Faintly burnished; Well baked; Crescent-shaped, irregular quadrangular section with rounded corners and a rounded tip. There are fractures on the tip and inside. Broken and 1/4 of it is present. 46 gr.

Figure 4:17; 10:17 Code: 309.12.18.113; Örenkaya Üyükaltı (Sandıklı- Örenkaya Town); Length, width, thickness: 10 (approx. 13.4), 3, 3.4; H. Diameter- D.B.H.: 0.7; 10; 2.5YR 7/8 light red clay; Fine sandy, mica, grit, lime; 2.5YR 6/8 light red slip; Faintly burnished; Medium baked; V-shaped, oval in cross section with a rounded tip. Broken and 3/4 of it is present. 179 gr.

Figure 12:9; 8:7 Code: 309.12.18.146; Örenkaya Üyükaltı (Sandıklı- Örenkaya Town); Length, width, thickness: 7.7, 2.5, 2; H. Diameter: 0.3x0.4; 2.5YR 6/6 light red clay; Fine sandy, mica, grit, lime; 2.5YR 5/6 red slip; Faintly burnished; Medium baked; V-shaped, quadrangular in cross-section, with rounded corners and angular tips. Broken and 1/2 of it is present. 59 gr.

Figure 13:17; 9:17 Code: 309.12.18.139; Örenkaya Üyükaltı (Sandıklı- Örenkaya Town); Length, width, thickness: 7.7, 3.1, 3; H. Diameter: 0.4x0.6; 2.5YR 6/8 light red clay; Fine sandy, mica, grit, lime; 2.5YR 5/6 red slip; Burnished; Medium baked; V-shaped, quadrangular in cross-section with angular tips. Broken and 1/2 of it is present. 116 gr.

Figure 13:12; 9:12 Code: 309.13.18.115; Menteş Höyük (Sandıklı- Menteş Village); Length, width, thickness: 6, 2.5, 1.8; H. Diameter: 0.3x0.5; 2.5YR 6/6 light red clay; Fine sandy, mica, grit; 5YR 6/6 reddish yellowish slip; Burnished; Medium baked; Crescent-shaped, quadrangular in section, with rounded corners and angular tips. Broken and 1/2 of it is present. 42 gr.

Figure 11:17; 7:17 Code: 309.13.18.160; Menteş Höyük (Sandıklı- Menteş Village); Length, width, thickness: 14.3 (approx. 15.9), 3.6, 3.3; H. Diameter- D.B.H.: 0.5x0.6; 12.5; 10R 5/6 red clay; Fine sandy, mica, grit, lime, plant; 5YR 6/6 reddish yellowish slip; Burnished; Medium baked; Decoration: There is a 0.5 cm wide and 0.5 cm deep hole in the middle of the existing piece; Crescent-shaped, quadrangular in cross-section, with rounded corners and pointed tips. Broken, 4/5 of it present. 221 gr.

Figure 13:22; 9:22 Code: 309.13.10.04; Menteş Höyük (Sandıklı- Menteş Village); Length, width, thickness: 17.1, 2.9, 2.8; H. Diameter- D.B.H.: 0.5, 14.9; 5YR 6/8 reddish yellow clay; Medium sandy, mica, grit, lime, plant; 2.5YR 6/8 light red slip; Unburnished; Badly baked; Decoration: Sun (ray) shaped-notched decorations on both sides on the upper part, a single sun-shaped printed cloth in the middle; Crescent-shaped, quadrangular in cross-section, with angular tips. Intact.

Figure 14:4; 10:4 Code: 306.08.05.05.131; Ahaların Çeşme (Bayat District); Length, width, thickness: 6.6, 3.5, 2.8; H. Diameter: 0.5x0.8; 10YR 7/4 very pale brown clay; Fine sandy, abundant mica, coarse grit, lime; 7.5YR 5/4 brown slip; Unburnished; Badly baked; Crescent-shaped, oval in cross section with a rounded tip. The inner part is flattened. Broken and 1/2 of it is present. 102 gr.

Figure 13:1; 9:1 Code: 306.08.05.05.128; Ahaların Çeşme (Bayat District); Length, width, thickness: 8.8 (approx. 18.2), 4.3, 3.7, H. Diameter- D.B.H.: 0.6x0.8; 13; 2.5YR 5/6 red clay; Fine sandy, mica, grit, lime; 2.5YR 6/4 light reddish brown slip; Unburnished; Medium baked; Crescent-shaped, oval in cross section with a rounded tip. The inner part is flattened. Broken and 1/2 of it is present. 187 gr.

Figure 14:3; 10:3 Code: 306.08.05.05.129; Ahaların Çeşme (Bayat District); Length, width, thickness: 6.5, 3.9, 2.2; H. Diameter: 0.3x0.8; 2.5YR 5/4 reddish brown clay; Fine sandy, mica, grit, lime; 10R 6/2 light brownish gray slip; Unburnished; Medium baked; Crescent-shaped, elliptical in cross-section; pointed tips. Broken and 1/3 of it is present. 74 gr. The front part of the existing piece is completely broken.

Figure 12:26; 8:24 Code: 306.08.05.130; Ahaların Çeşme (Bayat District); Length, width, thickness: 5.7, 4.9, 3.4; H. Diameter: 0.5x0.8; 2.5YR 7/6 light red clay; Fine sandy, mica, grit, lime; 7.5YR 7/4 pink slip; Very faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross-section, with rounded corners and angular tips. Broken and 1/4 of it is present. 97 gr.

Figure 11:15; 7:15 Code: 306.08.05.05.127; Ahaların Çeşme (Bayat District); Length, width, thickness: 7.6, 4.1, 2.7; H. Diameter: 0.5x0.6; 2.5YR 6/6 light red clay; Fine sandy, abundant mica, grit, lime, plant; 7.5YR 7/4 pink slip; Very faintly burnished; Badly baked;

Crescent-shaped, quadrangular in section, with rounded corners and a rounded tip. Broken and 1/2 of it is present. 119 gr.

Figure 11:18; -; Code: 306.04.05.470; Asarcık Höyük (Bayat District); Length, width, thickness: 5.4, 2.9, 1.5; H. Diameter: 0.5; 7.5YR 5/4 brown clay; Fine sandy, mica, little lime; 7.5YR 4/3 brown slip; Faintly burnished; Well baked; Crescent-shaped, quadrangular in cross section, with rounded corners and a rounded tip. Broken and 1/3 of it is present.

Figure 12:4; -; Code: 306.01.06.365; Köy Kalesi (Bayat- Yukarı Çaybelen); Length, width, thickness: 5, 2.6, 3.4; H. Diameter: 0.6; 5YR 4/4 Reddish brown clay; Fine sandy, abundant mica, grit, lime; 2.5YR 4/2 weak red slip; Unburnished; Badly baked; Crescent-shaped, quadrangular in cross section, with rounded corners and a rounded tip. Broken and 1/4 of it is present.

Figure: 12:3; 8:2 Code: 308.15.08.151; Kınık Höyük (Sinanpaşa- Kınık Village); Length, width, thickness: 4.1, 2.1, 2; H. Diameter: 0.5x0.6; 10YR 6/4 light yellowish brown clay; Fine sandy, mica, grit, lime, plant; 2.5YR 6/6 light red slip; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross section with a rounded tip. Broken and 1/5 of it is present. There are 1/3 fractures on the front face. 22 gr.

Figure 12:7; 8:5 Code: 308.15.09.133; Kınık Höyük (Sinanpaşa- Kınık Village); Length, width, thickness: 6.4, 1.9, 1.9; H. Diameter: 0.5; 7.5YR 5/4 strong brown clay; Fine sandy, mica, grit; 7.5YR 6/4 light brown slip; Faintly burnished; Badly baked; some parts of the surface is black due to cooking; Crescent-shaped, quadrangular in cross-section with a rounded tip. Broken and 1/2 of it is present. 35 gr.

Figure 11:13; 7:13 Code: 308.15.09.121; Kınık Höyük (Sinanpaşa- Kınık Village); Length, width, thickness: 10.5 (approx. 20.1), 2.9, 2.1; H. Diameter- D.B.H.: 0.3x0.6, 17.4; 5Y 8/1 white clay; Fine sandy, mica, grit, lime; 5YR 7/6 reddish yellow slip; Faintly burnished; Well baked; Crescent-shaped, quadrangular in cross-section, with rounded corners and angular tips. Broken and 1/2 of it is present. 86 gr.

Figure 11:10; 7:10 Code: 308.15.08.126; Kınık Höyük (Sinanpaşa- Kınık Village); Length, width, thickness: 6.9, 2.6, 2; H. Diameter: Broken; 2.5YR 7/8 light red clay; Fine sandy, mica, grit, lime; 5YR 7/6 reddish yellow slip; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in cross-section; no tip. Broken and 1/3 of it is present. 47 gr.

Figure 12:17; 8:15 Code: 308.15.08.48; Kınık Höyük (Sinanpaşa- Kınık Village); Length, width, thickness: 4.9, 2.1, 2.4; H. Diameter: 0.5x0.6; 10R 6/8 light red clay; Fine sandy, mica, grit; 10R 6/8 light red slip; Faintly burnished; Well baked; Decoration: There is a circular imprint (rosette?) by turning a short tool in the middle; Crescent-shaped, quadrangular in cross-section, with rounded corners and a rounded tip. Broken and 1/3 of it is present. 46 gr.

Figure 14:5; 10:5 Code: 308.20.18.414; Küçük Höyük (Sinanpaşa- Küçükhüyük Town); Length, width, thickness: 7.5 (approx. 13.1), 4, 4; H. Diameter- D.B.H.: 0.6x1, 10.4; 5YR 7/6 reddish yellow clay; Fine sandy, abundant mica, grit; 5YR 6/6 reddish yellow slip; Faintly burnished; Badly baked; U-shaped, oval in cross section with pointed tips. Broken and 1/2 of it is present. 178 gr.

Figure 12:19; 8:17 Code: 308.20.18.397; Küçük Höyük (Sinanpaşa- Küçükhüyük Town); Length, width, thickness: 6, 2.5, 2.5; H. Diameter: 0.5; 2.5YR 7/6 reddish yellow clay; Fine sandy, mica, grit, lime, plant; 2.5YR 7/6 reddish yellow slip; Burnished; Badly baked; Crescent-shaped, quadrangular in cross-section with angular tips. There is a piece of metal in the hole. Broken and 1/2 of it is present. 44 gr.

Figure 14:9; 10:9 Code: 308.20.18.07; Küçük Höyük (Sinanpaşa- Küçükhüyük Town); Length, width, thickness: 13.6, 4, 3.9; H. Diameter- D.B.H.: 0.6x0.9, 10.9; 10R 5/6 red clay; Medium sandy, abundant mica, abundant grit, lime, plant; 2.5YR 5/8 red slip; Unburnished; Medium baked; U-shaped; oval in cross-section; angular tips. Intact. One of the tips is partially broken.

Figure 13:21; 9:21 Code: 308.16.09.196; Nuh Höyük (Sinanpaşa- Nuh Village); Length, width, thickness: 4.8, 1.9, 2; H. Diameter: 0.4; 10YR 6/6 brownish yellow clay; Fine sandy, little mica, abundant grit, lime; 10YR 7/4 very pale brown slip; Faintly burnished; Medium baked; Crescent-shaped with irregular quadrangular cross-section and an irregular angular tip. Broken and 1/4 of it is present. 31 gr.

Figure 12:1; 8:1 Code: 308.16.09.198; Nuh Höyük (Sinanpaşa- Nuh Village); Length, width, thickness: 6, 3.3, 2.4; H. Diameter: 0.5x0.7; 5YR 7/8 reddish yellow clay; Fine sandy, mica, grit, lime; 5YR 6/6 reddish yellow slip; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in section, with rounded corners and an irregular tip. The interior of the loom weight is flattened. Broken and 1/3 of it is present. 62 gr.

Figure 11:22; 7:21 Code: 308.16.09.110; Nuh Höyük (Sinanpaşa- Nuh Village); Length, width, thickness: 4.4, 2.5, 2.2; H. Diameter: 0.4x0.6; 10YR 7/4 very pale brown clay; Fine sandy, abundant fine mica, grit, lime; 7.5YR 5/4 brown slip; Faintly burnished; Medium baked; Crescent-shaped, quadrangular in section, with rounded corners and a rounded tip. Broken and 1/4 of it is present. 25 gr.

Figure 14:10; 10:10 Code: 317.12.17.55; Kırınardı Mevkii (Afyon- Nuribey Town); Length, width, thickness: 7, 3.2, 1.9; H. Diameter: 0.5x0.8; 10YR 6/4 light yellow brown clay; Fine sandy, mica, grit, lime; 10YR 6/4 light yellowish brown slip; Burnished; Badly baked; U-shaped, irregular elliptical section; fractures at the tip. The back side is flattened. Broken and 1/2 of it is present. 52 gr.

Figure 13:29; 9:29 Code: 317.12.17.15; Kırınardı Mevkii (Afyon- Nuribey Town); Length, width, thickness: 6.7, 2.9, 2.9; H. Diameter: 0.6x0.8; 5YR 7/6 reddish yellow clay; Fine sandy, mica, grit, lime, plant; 10R 5/4 weak red slip; Burnished; Well baked; Crescent-shaped, quadrangular in cross-section, with rounded corners and angular tips. Broken and 1/2 of it is present. 85 gr.

Figure 14:20; 10:20 Code: 317.12.17.23; Kırınardı Mevkii (Afyon- Nuribey Town); Length, width, thickness: 5 (approx. 6.2), 3, 2.4; H. Diameter: 0.5; 4.3; 5YR 6/6 reddish yellow clay; Fine sandy, mica, grit, lime, plant; 7.5YR 6/4 light brown slip; Faintly burnished; Medium baked; U-shaped, oval in cross section and pointed tips. Broken and 2/3 of it is present. 49 gr.

Figure 13:8; 9:8 Code: 317.18.18.22; Çorca Höyük (Afyonkarahisar); Length, width, thickness: 5.1, 2, 1.9; H. Diameter: 0.3x0.5; 7.5YR 7/4 pink clay; Fine sandy, mica, grit, lime, plant; 7.5YR 6/4 light brown slip; Faintly burnished; Medium baked; Decoration: There is a 0.8 cm wide circular imprint near the tip of the piece; Crescent-shaped, quadrangular in cross-section, and angular tips. Broken and 1/3 of it is present. 31 gr.

Figure 13:11; 9:11 Code: 317.18.18.60; Çorca Höyük (Afyonkarahisar); Length, width, thickness: 5.1, 2.2, 1.8; H. Diameter: 0.5; 10YR 6/4 light yellow brown clay; Fine sandy, mica, grit, lime; 10YR 6/4 light yellowish brown slip; Unburnished; Well baked; Crescent-shaped, irregular quadrangular section with a rounded tip. There are fractures on the back. Broken and 1/3 of it is present. 24 gr.

Figure 14:2; 10:2 Code: 307.08.06.66; Sarıçayır Mevkii (İscehisar- Doğanlar Village); Length, width, thickness: 6.8, 4.3, 3.3; H. Diameter: 0.5x0.8; 5YR 6/2 pinkish gray clay; Medium sandy, mica, grit, lime; 2.5YR 4/6 red slip; Burnished; Badly baked; Crescent-shaped, oval in cross section with a rounded tip. Broken and 1/2 of it is present. 109 gr.

Figure 13:28; 9:28 Code: 307.08.36.69; Sarıçayır Mevkii (İscehisar- Doğanlar Village); Length, width, thickness: 8, 2.7, 2.1; H. Diameter: 0.5; 10YR 6/2 light brownish gray clay; Fine sandy, abundant mica, grit, lime; 7.5YR 6/4 light brown slip; Unburnished; Badly baked; V-shaped, quadrangular in cross-section, with rounded edges and angular tips. Broken and 1/2 of it is present. 72 gr.

Dimensions are given in cm, weights are given in grams. H. Diameter: Hole Diameter; D.B.H: Distance Between Holes



Observations on “inan-” in Hittite Cuneiform Texts

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Submitted: 07.03.2024

Revision Requested: 25.05.2024

Last Revision Received: 03.06.2024

Accepted: 07.11.2024

Published Online: 12.12.2024

Citation: Kırçıl, Z.N. (2024). Observations on “inan-” in Hittite cuneiform texts. *Anadolu Arařtırmaları-Anatolian Research*, 31, 117–129. <https://doi.org/10.26650/anar.2024.31.1448472>

ABSTRACT

In Hittite cuneiform texts, the word *inan-* has meanings encompassing a certain disease, mental illness, discomfort, malaise, trouble. Unfortunately, there is no specific definition of the word *inan-*, which appears in various sources including prayers, rituals, and medical texts. The exact symptoms of this disease are not given in any of these sources. However, the clues given by the usages of the word *inan-* in a medical text and a *Zuwi* ritual suggest that it may have been related to a skin disease, though this is not conclusive, and more evidence is necessary to confirm this. This article also examines other texts in which the word *inan-* occurs and the effects and treatments of *inan-* disease that are discussed in these sources. In addition, evidence from magic rituals demonstrates that various adjectives were used for the Sun God, and according to the *Ayartaša* rituals that are discussed in this study, it is apparent that one of the epithets of the Sun God may have been the word *inan-*.

Keywords: *inan-*, ancient illness, Hittite medicine, skin diseases, Hittite Rituals



Introduction

Despite the existence of extensive surviving Hittite cuneiform archives in Anatolia, no Hittite equivalent of the term “medicine” has been identified (Ünal, 1980: 476). The Hittites, who adhered to a polytheistic belief system, attributed the causes of diseases to the gods. According to Hittite sources, neglecting the gods, angering them, practicing black magic, and spiritual and physical impurities were cited as examples of what might cause an individual’s affliction with illness. In wider Mesopotamia, diseases were understood through a firmly theocentric worldview in ancient times. This applied to the Babylonian world as well, where diseases were rooted in an ancient belief system attributing them to demons or angry gods (McGrath, 2016: 3).

The word *inan-* means “a certain illness, mental illness, discomfort, resentment, malaise, trouble”.¹ Meanwhile, the word GIG has been defined as either “disease” (GIG/*MURŞU*) or “skin wound” (SIM_x/*SIMMU*). According to Hutter, the Sumerogram GIG seems to correspond to the term *inan-* (HW² IV/1: 57). Akkadian dictionaries provide multiple meanings for *SIMMU*, including “abscess, skin disease, boil (carbuncle), illness, or wound” (AHw: 1045b, 1049b; CAD 15: 276a; CDA: 323b). It has also been suggested that GIG could signify “skin wound” due to the threats of causing skin wounds in the incantations performed by the Babylonian healing goddess Gula. Additionally, the Ninive tablet K.6057+ also mentions the Gula in relation to wounds, stating, “there are so many wounds that I do not know their names!” (Böck, 2004: 55–56, 109–110). This further supports the interpretation of GIG as meaning “skin wound.” In the curse section of the Hammurabi Code, reference is made to a severe skin wound that was undiagnosable and untreatable even with bandages. This wound was often associated with Ninkarrak, also known as a healing goddess.² In the Adapa myth, the disease *SIMMU*, or “skin wound,” is described as a condition brought about by the south wind, afflicting people’s bodies.³ There are other names for skin diseases that are categorized under the word *SIMMU* and which have been clearly defined. For example, if the wound looks red, swollen, and oozes fluid, and the patient has a persistent fever and vomits, this is known as a soft tissue infection called *ŠAMMANU* (Scurlock-Bruton, 2005: 62). Meanwhile, *ŠADANNU* was a skin disease in which the wound is hard, hot, extends up to the neck, and the patient has a reduced appetite.⁴

1 HW: 82; HW² IV/1: 57a; HED 1/2: 365 ff.; HEG 1: 358; Alp, 1957: 39 fn.43; Burde, 1974: 18; Goetze, 1928: 72; Jakob-Rost, 1972: 56 ff.; Kloekhorst, 2008: 386; Oettinger, 1976: 29; Puhvel, 1980: 204 ff.; Ünal, 2016: 259; Zinko, 2004: 667 ff. According to Akkadian texts, the words for “disease” are *MIQTU*, *SIMMU* and *MURŞU*. See Stol, 1993: 11.

2 See the transcription and translation in Roth, 1995: 139–140.

3 For the transcription and translation of lines 15–16 of the Adapa myth, see Izre’el, 2001: 38–39.

4 For other diseases, see Steinert, 2020: 157 ff.

inan- is generally believed to be associated with the Sanskrit *énaś-* meaning “mischief, evil, crime, sin, [or] misfortune” (HW² IV/1: 59a; HED 1/2: 366; Puhvel, 1980: 205). Other interpretations include the potential expression of discomfort related to a specific body part (HED 1/2: 366; Kloekhorst, 2008: 386). According to Alp, *inan-* can signify “pain, suffering, illness,” and it can also appear as a general term used for problems in various body organs (Alp, 1957: 39 fn. 43). Oettinger clarifies that *inan-* is not used for “mental illness,” only physical illness. Furthermore, *inan-* never appears alongside words like *irman-* or *erman-*, which mean “illness [and/or] discomfort,” suggesting that *inan-* and *irman-/erman-* could potentially be synonymous (Oettinger, 1976: 29).⁵ In this study, based on certain Hittite texts in which the word *inan-* occurs, the meaning and contextual uses of this term are examined with the aim of achieving a better understanding.

1) *inan-* in Military Oaths

inan- occurs in one oath text likely intended for Hittite military personnel:

“Whoever transgresses these divine oaths, and employs a trap against the Hittite king, and sets his eyes on the land of Hatti as an enemy, let these divine oaths seize him! May he be broken apart by (inan-)illness(es), and may he suffer a horrible death!”⁶

In both in this and other texts, as noted above, Oettinger has argued that the use this term does not indicate mental illness (Oettinger, 1976: 29). The curse for oath-breakers is a physical one. Meanwhile, in a ritual oath dating to the Middle Hittite period, the term *inan-* appears in the following context:

“[Then] they grasp the stone with their hands from below. And they [sa]y [thus]: “Just as this rock is [heavy], may [lat]er be this oath and the inan- disease in [your hearts] similarly heavy!”⁷

Considering the mention of large and heavy stones that can hardly be lifted by hand, it is likely that these stone represent distress (i.e., grief and sorrow). As the disease of *inan-* is also likened to a stone, it is implied to be a severe disease that causes great distress.

5 See also Akdoğan, 2007: 4.

6 KBo 53.33+ (CTH 427.A) obv. I ³⁴ku-iš-kán ku-u-uš-ša NI-IŠ DINGIRMEŠ šar-re-ez-zi ³⁵na-aš-ta A-NA LUGAL KUR URU^{URU}HAT-TI ap-pa-a-li da-a-i ³⁶nu-za-an A-NA KUR URU^{URU}HAT-TI LÚKÚR-li IGI^{HILA}-wa ³⁷da-a-i na-an ke-e NI-IŠ DINGIRLIM ap-pa-an-du ³⁸na-aš-kán i-na-na-aš še-er ar-ha pár-ši-ia-ad-da-ru. See transcription and translation Oettinger, 1976: 8–9; Hoffner, 2010: 136.

7 KUB 43.48 (CTH 627) rev. ²⁵[EGIR-an-]ma-aš-^{*}ša-an NA₄ ŠU-it kat-ta ap-pa-an-zi nu [an-da] ²⁶[ki-iš-š]a-an ^{*}me*-mi-an-zi ka-a-aš-wa NA₄ ma¹-ah-ha-an d[a-aš-šu-uš] ²⁷[EGIR-an-d]a-wa-aš-ša-an NI-IŠ DINGIRLIM i-na-an-na I-NA [ŠÀ-KU-NU] ²⁸[QA-TAM-MA] da-aš-ši-iš-du. See the transcription and translation in Christiansen, 2012: 412–413. See also Feder, 2010: 126.

2) *inan-* in the Ritual of *Ambazzi*

The ritual of *Ambazzi*, which was practiced against pollution and sorcery, seems to have been part of the Luwian milieu.⁸ This ritual implores the god *Tarpattašša* for the eradication of the *inan-* disease:

“God Tarpattašša, pla[ce] the eya- tree before me! And s[et] me free! Don’t le[t] the [evi]l inan- disease enter! [And] keep m[y wif]e, my children, my grandchildren al[iv]e! [...] You are a god! God Tarpattašša, you who are in front, always speak well to all gods!”⁹

The *eya-* tree (^{GIŠ}*eya-*), which does not shed its leaves and remains evergreen, was the symbolic tree of the god *Telipinu*. The relationship of the *eya-* tree with strength, life, and longevity is exemplified by the *Telipinu* myth. This perpetually green tree likely symbolized eternal youth (Mazoyer, 2003: 74–75). In the ritual’s text, the ritual practitioner wants the God *Tarpašša* to protect him and his family from the *inan-* disease through the presence of the *eya-* tree.¹⁰ Additionally, the provided example illustrating the relationship of the *eya-* tree with long life and many generations, found in the hanging *kursa-* bag, is the myth of the disappearance of the Storm God (Karağuz, 2001: 93–94, 105).

In the *Ambazzi* ritual, various practices are conducted to eradicate the *inan-* disease:

“She pours pinecones [into the red bowl]. She pours white-red [wheat o]n them. [And the]y roast them. Then she [extinguish]es the pinecone with water. And she says: “[As] I destroy this, may the evil [ina]n- disease be extinguished over the lords in the same manner!”¹¹

As observed in this passage, the natural elements associated with nature and the earth are utilized to eliminate the *inan-* disease. The likening of the disease to pinecones and the symbolic or ritualistic significance attributed to them, in which they are first burned and then extinguished with water, may have been performed in the ritual context to both protect the afflicted individual and provide healing.

8 See Christiansen, 2012: 326.

9 KBo 43.35+ (CTH 391.1.A) rev. IV 9’-10’: ^{9D}*Tar-pa-at-ta-aš-ši-iš zi-ik-]mu-kán* ^{GIŠ}*e-a-an da-a-i* ¹⁰*nu-mu-kán a-ra-wa-ah[nu i-da-]ju i-na-an an-da* ¹¹*le-’e’ tar’-na-at-i[i nu DA]M’-IA DUMUMES-IA* ¹²*DUMU. DUMUMES-IA TI-an h[ar-ak -]iš DINGIRLUM zi-’ik’* ^{13D}*Tar-pa-at-ta-aš-ši-iš [ku-iš pé-ra]an ú-e-ha-at-’ta’* ¹⁴*nu hu-u-ma-an-da-aš DINGIRMES[-aš SI]G₃-in me-mi-iš-ki*. See the transcription and translation in Christiansen, 2006: 56–57.

10 See Christiansen, 2012: 152.

11 KBo 43.35+ (CTH 391.1.A) rev. III 7[*nu-uš-ša-an A-NA* ^{DUG}*DÍLIM.GAL SA₅ h]u-ul-li-iš šu-uh-ha-a-i* ⁸[*še-ra-aš-ša-an hal-ki*]-*in kar-aš iš’-hu-wa-a-i* ⁹[*na-at-kán ša-an-h]u-’wa’-an-zi nam-ma-kán hu-ul-li-iš* ¹⁰[*ú-i-te-ni-i]t ki-iš-ta-nu-zi nu me-ma-i* ¹¹[*ma-ah-h]a-an-kán ki-i ki-iš-ta-nu-un i-da-lu-ia-aš-ša-an* ¹²[*i-na]-an A-NA BE-LU-TIM še-er QA-TAM-MA ki-iš-ta-ru*. See the transcription and translation in Christiansen, 2006: 48–51.

3) *inan-* in the Ritual of *Alli*

The purpose of the ritual against black magic performed by the Arzawa sorceress *Alli* is to identify the person who cast the evil spell on the petitioner. In this passage, the word *inan-* appears as follows:

“[And the Old] Women says to the figurines: “Come! Give [back] what we have done!”
The human being says, “We can no longer resist. We are tired. We treated the *inan-* disease.
[The]n take them! Take them away!”¹²

The sorceress makes five clay figurines to perform this ritual, and the Old Woman speaks to the figurines. In the sentence, it is clearly stated that the protection and defense mechanisms against diseases no longer work. The desire for a cure to the *inan-* disease is clear, even if the treatment process is not clearly stated.

4) *inan-* in the Rituals of *Ayatarša*, *Wattiti*, and *Šuššumaniga*

The rituals of *Ayatarša*, *Wattiti*, and *Šuššumaniga* are all dated to the Middle Hittite period. Steitler has noted that the *Ayatarša* ritual is a more suitable comparison for medical texts than rituals against black magic (Steitler, 2017: 331, fn. 1051, 332, 344). *Ayatarša* offers a sacrifice to the Sun God for the cure of a child from the *inan-* disease:

“*Ayatarša*, a servant of Nawili, declares: “If a child is weak or if their intestines are consumed, I offer a sacrifice to the Sun God of the *inan-* disease in this manner: On the first day, I sacrifice a sheep to the Sun God of the *inan-* disease. And I say: ‘Here, I offered a sacrifice to the Sun God of the *inan-* disease.’ Then, I invoke the child’s name through magic. ‘Sun God of the disease, defeat this child’s *inan-* disease!’ They butcher the sheep. Then they take clean raw meat. They present the skin, chest, and shoulder of the sheep before the god. Next, they cook the liver over a fire. He/she breaks a thick loaf of bread dedicated to the Sun God of the disease. He/she cuts the liver and places it on the raw meat. They make libations with the KUKUBU- vessel before the god. And I say as follows: ‘Sun God of the *inan-* disease, you will eat! You will drink! Defeat this child’s *inan-* disease!’”¹³

12 KBo 12.126 (CTH 402.A) obv. I ²³[nu MUNUS]ŠU.GI A-NA ALAM^{HI.A} te-ez-zi ú-wa-at-ti-en-wa iš-šu-u-en-wa ku-e nu-wa-na-ša-at ²⁴[EGIR]-pa pé-eš-ti-en UM-MA DUMU.LÚ.U₁₉.LU-MA Ú-UL-wa nam-ma ma-az-zu-u-e-ni ²⁵[kat-í]a-an-wa da-a-ri-ya-u-en nu-wa i-na-[an] a-ni-ya-ue-en nu-wa-ra-at-za EGIR-pa ²⁶[na]m-ma da-a-at-tén ne-ez pé-e-da-at-te-en. See the transcription and translation in Jakob-Rost, 1972: 24–25.

13 KBo 43.320+ (CTH 390.B) obv. I ¹UM-MA ²A-ia-tar-ša GEME ³Na-a-ú-i-la ma-a-an DUMU-la-aš ⁴al-pa-an-za na-aš-ma-aš-ši-kán ga-ra-a-ti-eš a-da-an-te-eš ⁵nu-uš-ši i-na-na-aš ⁶DUTU-un ki-iš-ša-an ši-pa-an-ta-ah-hi ⁷ha-an-te-ez-zi-kán UD-ti ⁸UDU¹i-ia-an-ta-an i-na-na-aš ⁹DUTU-i ¹⁰ši-pa-an-ta-ah-hi nu ki-iš-ša-an te-e-mi ¹¹na-na-aš ¹²DUTU-i ka-a-ša-at-ta ŠISKUR pi-ih-hu-un ¹³nu DUMU-an ku-in hu-uk-ki-iš-ki-mi na-an ŠUM-ŠU te-e-mi i-na-na-aš ¹⁴DUTU-i ki-i-da-ni-wa DUMU-li i-na-an EGIR-an ar-ha kar-aš ¹⁵nu-kán ¹⁶UDU¹i-ia-an-ta-an ar-kán-zi na-aš-ti ¹⁷UZU¹hu-i-šu ¹⁸šu-up-pa da-an-zi KUŠ UDU ¹⁹UZU¹GABA ZAG PA-NI DINGIRLIM ti-an-zi ²⁰EGIR-an-da-ma ²¹UZU¹NÍG.GIG ha-ap-pí-ni-it za-nu-wa-an-zi nu ININDA.KUR₄.RA ²²i-na-na-aš ²³DUTU-i pár-ši-ia še-er-ra-aš-ša-an ²⁴UZU¹NÍG.GIG ku-er-zi ²⁵na-at hu-i-ša-aš ²⁶šu-up-pa-aš še-er da-a-i nu IŠ-TU ²⁷DUG¹KU-KU-UB ²⁸PA-NI DINGIRLIM ši-pa-an-ti nu ki-iš-ša-an te-e-mi ²⁹i-na-na-aš ³⁰DUTU-i zi-ik az-zi-ik-ki ak-ku-uš-ki ³¹nu e-da-ni DUMU-li i-na-an EGIR-an ar-ha kar-aš. See the transcription and translation at <http://www.hethiter.net/CTH%20390>.

When a child becomes weak or suffers from an intestinal disease, the recommended cure is making an offering to the Sun God on behalf of the child. Here, a sheep and a loaf of bread are offered to the Sun God and libation is performed with a *KUKUBU*-vessel. The Sun God we see in the rest of the text (obv. I 36 *na-an* ^DUTU EGIR-*an tar-na-a-i*) can be identified with the Sun God of sickness mentioned in the introduction of the ritual. In magic, various adjectives were used as epithets for the Sun God. These were selected according to the ritual being performed and either directly or indirectly referred to the evil that the ritual was meant to eliminate. From the *Ayatarša* ritual text, we can infer that one of the epithets of the Sun God was *inan-*.¹⁴

5) *inan-* in the Ritual of *Tunnawiya*

In the *Tunnawiya* ritual, which was performed for the biological and psychological healing of a woman experiencing sexual problems due to a stillbirth, the term *inan-* disease is mentioned as follows:

*"For his twelve body parts I have arranged. Right now, the body parts of the ram are claiming the sickness [inan-] of the body parts of this mortal".*¹⁵

In the following lines of the text, diseases of the various organs of the body including the head, throat, ear, foot and penis are listed.¹⁶ It is clear that an analogy is made between the limbs of the ram and those of the patient, and this section of the text aims for the eradication of the *inan-* disease in her limbs, much like in the *Ambazzi* ritual, which says:

*"May the gods completely clean [this] person's bad inan- disease in the same manner!"*¹⁷

6) *inan-* in *Kantuzzili's* Prayer to the Sun God

Kantuzzili's prayer to the Sun God also mentions *inan-*. In this text, he expresses his grievances and seeks to learn the desires of the deity who caused his illness:

14 For other attributes of the Sun God, see Haas, 1994: 379–380.

15 KUB 55.20+ (CTH 409.IV.Tf02.A) obv. I ¹⁹A-NA 12 UZU^UÚR^{HIA}-*ia-aš-ši-kán ha-an[˘]-da[˘]-nu[˘]-un* ²⁰*ki[˘]-nu-na ka-a-[š]a ŠA ˘UDU˘.[Š]IR ha-ap-pi-iš-na-an-[t]e-eš* ²¹*ke-e-el ŠA DU[MU.NA]M.LÚ.˘U¹⁹.LU* *ha-ap-pi-iš-na-aš* ²²*i-na-an ú-e-w[a-a]g-ga-an-zi*. See transcription and translation Beckman, 1990: 36, 45.

16 See the transcription and translation in Beckman, 1990: 36–37, 45.

17 KUB 27.67+ (CTH 391.1.A) obv. II ²⁹*[ke-e-e]l-ma an-tu-uh-ša-aš i-da-a-lu i-na-an* DINGIR^{MEŠ} ³⁰*[NÍ.T]E-az ar-ha QA-TAM-MA pár-ku-nu-w-an-du*. See the transcription and translation in Christiansen, 2006: 44–45.

“But life is bound to death. Death in turn is bound to life. Man is not in life forever. His days of life are numbered. If a man were to live forever, and then if he were to fall ill with a bad inan- disease, would there not be vengeance [sorrow] for him? My house has become a house of sickness. Because of sickness, my spirit is constantly leaking elsewhere. Likewise, throughout the year, I have been a sick man. And now, for me, inan- disease and distress have multiplied. And my lord, I am constantly telling you about it”.¹⁸

This passage illustrates the limited nature of human life and the profound psychological distress caused by *Kantuzzili*'s inan- disease. He seeks relief from the deity, expressing his suffering and desiring a remedy for his illness. Additionally, *Kantuzzili* mentions having questioned a sorcerer about whether he contracted the inan- disease while in utero:

“I asked the sorcerer once whether you carved this inan- disease into me while I was in my mother's womb”.¹⁹

Kantuzzili's prayer reflects his contemplation of the relationship between life and death, highlighting the finite nature of human life and the significance of that mortality. Similarly, in another prayer text found in Tell Haddad (formerly Meturan), an unnamed individual appeals to the Sun God DUTU to understand their fate (Cavigneaux, 2009: 7):

“A person's life is but a glance. If a person were to live forever, there could be a bad [force?], an unpleasant thing - it would not harm that person. Life is bound to death, but life is not equal to death. A god can count the days of life but cannot count the days of death. The day life ends carries greater weight”.²⁰

Both *Kantuzzili*'s prayer and the prayer found in the Sumerian tablet above demonstrate deep contemplations on the relationship between life and death. They emphasize the finite nature of human life and the importance and value of mortality. These personal prayers depict the human struggle with spiritual distress and the quest for divine intervention to overcome it. In this passage, *Kantuzzili* seeks communication with the deity to alleviate his feelings of despair and loneliness, underscoring his desire to be rescued through divine intervention.

18 KUB 30.10 (CTH 373.A) obv. ²⁰*hu-iš-wa-tar-ma-pa an-da hi-in-ga-ni ha-mi-in-kán hi-in-ga-na-ma-pa an-da hu-iš-wa-an-ni-ya ha-mi-in-kán* ²¹*da-an-du-ki-iš-na-ša DUMU-aš uk-tu-u-ri na-at-ta hu-iš-wa-an-za hu-iš-wa-an-na-aš UD^{III}.A-ŠU kap-pu-u-an-te-eš* ²²*ma-a-am-ma-an da-an-du-ki-iš-na-ša DUMU-aš uk-tu-u-ri hu-u-[i]š-wa-an-za e-eš-ta ma-na-aš-ta ma-a-an* ²³*[a]n-tu-wa-ah-ha-aš i-da-a-lu-wa i-na-an ar-ta ma-na-at-ši na-at-ta kat-ta-wa-tar*; KUB 30.10 (CTH 373.A) ay. ¹⁴*nu-mu É-YA i-na-ni pé-ra-an pít-tu-li-ya-aš É-er ki-ša-at nu-mu pít-tu-li-ya-i pé-ra-an* ¹⁵*iš-ta-an-za-aš-mi-iš ta-ma-at-ta pé-e-di za-ap-pi-iš-ke-ez-zi nu MU-ti mi-e-ni-ya-aš ar-ma-la-aš* ¹⁶*ma-ah-ha-an nu-za ú-uk-ka QA-TAM-MA ki-iš-ha-at ki-nu-na-mu-uš-ša-an i-na-an pít-tu-li-ya-aš-ša* ¹⁷*ma-ak-ke-e-eš-ta na-at ši-i-ú-ni-mi tu-uk me-e-mi-iš-ke-mi*. See the transcription and translation in García Trabazo, 2002: 280–281, 284–287.

19 KUB 30.10 (CTH 373.A) rev. ²⁰... *ma-a-an-mu-kán an-na-az-ma kar-ta-a[z]ki-i i-na-an gul-aš-ta* ²¹*ú-ga-at-za a-ap-pa* ^{MUNUS}*ENSI-ta na-at-ta ku-uš-ša-an-ka pu-nu-uš-šu-un*. See the transcription and translation in Cotticelli-Kurras, 1995: 93.

20 For the text see H 150 rev. 3'–9'. See the transcription and translation in Cavigneaux, 2009: 9, 11; Metcalf, 2011: 173.

Similarly, in a prayer text dated to the Middle Hittite period, an unidentified king suffering from *inan-* disease questions the Sun God about the reason for his affliction:

*"Which god gave me this inan- disease? Whether this god is in the heavens or on earth, you, the Sun God, go to him. Go! Speak to that god! My god, what have I done to you? What sin have I committed? You, the god who created me, my god! You who created the mortal! Now what I have done to you (that you gave me this inan- disease)?"*²¹

In this passage, the afflicted king questions why he has been given the *inan-* disease and seeks to understand the sin or wrongdoing that led to his condition. He begs the Sun God to reach out to the offended deity on his behalf and give him relief from his plight.

7) *inan-* in the Myth of the Storm God of Liḫzina

In the myth of the Storm God, it is mentioned that the *inan-* disease is placed inside the *palhi-* vessels in the sea:

"In the sea, there are copper palhi- vessels. Its lid is of lead. And [] (everything) was put inside. He/she put the tarpi- (demon). He/she put evil. He/she put blood. He/she put misfortune. He/she put red. He/she put tears. He/she put sickness of eyes. He/she put pus. He/she put fog. He/she put white. He/she put inan- disease".²²

The *palhi-* vessel appears both in the myths of *Telipinu* and the Disappearance of the Storm God. In both myths, the iron *palhi-* vessel, referring to the underworld, is described as containing the sins, wrath, bad language, resentment, and anger of both gods, entering and disappearing within it (Karauğuz, 2001: 97, 104). The similarity between the *palhi-* vessels in the two Hittite myths and Pandora's Box containing all evils in the ancient Greek myth is noteworthy. In the Pandora's Box myth, Zeus gives a box to a woman created by Zeus and instructs her not to open it. However, overcome by curiosity, the woman opens the box, releasing all kinds of evils into the world (Sevinç, 2008: 238 fn. 3). In the Hittite myth, the *palhi-* vessels are sent to the underworld to contain and eliminate all evil, including the presence of *inan-* disease among these evils.

21 KUB 30.11+ (CTH 374.A) obv. II ⁹ku-iš-mu [(DINGIRLUM ki-i i-)]na-an pa-iš nu-uš-ša-(an DINGIRLUM) ¹⁰a-pa-a-aš ma-[(a-an n)]e-pi-ši ma-a-na-as tak-ni-i ¹¹zi-ga ¹²U[(TU-uš)] kat-ti-iš-ši pa-i-ši ¹³nu i-it A-N[(A DINGIR)]LIM a-pe-e-da-ni me-mi u-uk-[(za)] ¹⁴ne-ku DINGIR-IA [(tu-u)]k ku-it i-ia-nu-un ¹⁵nu ku-it w[(a-aš-t)]a-ah-hu-un ¹⁶DINGIR-IA ša-am-[(na-a-eš-m)]u zi-ik da-an-du-k[i-iš-na-an] ¹⁷zi-ik i-i[(a-aš u-g)]a-at-ta ki-nu-un ¹⁸ku-it i-ia-[(nu-)]un. See transcription and translation Murat, 2003: 93. See also the transcription and translation in Ünal, 1980: 478–479.

22 KBo 23.4+ (CTH 331.1.A) obv. II ⁹a-ru-ni-ma "URUDU"-aš pal-ha-eš ki-an-da-[ri] ¹⁰iš-tap-pu-ul-li-iš-mi-it A.BÁR-aš nu-kán [] ¹¹an-da da-iš ta-ar-pi-in da-iš pá-r-[ni-in-kán] ¹²da-iš e-eš-har da-iš ha-pa-an-zi d[a-iš] ¹³SA₅ da-iš iš-ha-ah-ru da-iš 'IGI'^[H]A-aš G[IG-an] ¹⁴da-iš ši-pa-an da-iš kam-ma-ra-[a-a]n da-[iš] ¹⁵har-ki da-iš i-na-an "da"-iš. See the transcription and translation in Groddek, 1999: 37–40; Haas, 2003: 62 fn. 347.

8) *inan-* in the Ritual of *Zuwi*

In the *Zuwi* ritual, which was performed to alleviate the sexual problems of a male patient, the *inan-* disease is alleviated along with the problems of many organs. In this ritual, a puppy is presented to the Sun God, and the dog licks the god's limbs in the same way that the patient with *inan-* disease has their limbs licked:

“And I hold it (the puppy) on its right side. As the puppy licks its nine limbs, I pronounce the name of the person. Let it lick the inan- disease of its limbs in the same way! Let it lick the inan- disease of its shoulders! Let it lick the inan- disease of its shoulder blade! And I lead it back from the patient's back. I hold the puppy's head. Let it lick the inan- disease of its h[ea]d! Let it lick the inan- disease of its body p[art]s in the same way, its shoulders and back, its rough flesh, its anus, its x limb, its knee, its hand, let it li[ck] the [inan-] disease of its lower abdomen!”²³

Above, a puppy is used to relieve the patient of the *inan-* disease. Body parts such as the shoulders, shoulder blades, head, back, flesh, anus, knee, hand, and lower abdomen, which are all affected by the *inan-* disease, are listed as being licked by the puppy. This text demonstrates that ancient societies were aware of the potential healing effects of the antibacterial properties of dogs' tongues and used this on their wounds. In the Mesopotamian world, the dog was connected to the healing goddess Gula.²⁴ Similarly, dogs were associated with the Greek healing god Asklepios, and according to one document, the eyes of a blind person were healed through a dog's licks (Gökçe, 1989: 21). The practice of having dogs lick human patients' wounds as encountered in the *Zuwi* ritual seems to have been common in the ancient world.

9) *inan-* in Medical Texts

In the medical text KUB 44.61, dated to the Imperial period, the word *inan-* is found together with the word *šatar*, which is thought to mean “irritation”:²⁵

23 KUB 35.148+ (CTH 412.1.2.A) rev. III ¹⁴*na-an-ši an-da ZAG-az e-ep-mi* UR.TUR-*aš-za ma-ah-ha-an* ¹⁵IX ¹⁶*ha-ap-pi-eš-šar-še-et li-ip-zi* ¹⁷*nu-kán an-tu-uh-ša-an ŠUM-ŠU hal-zi-ih-hi* ¹⁸*ke-e-el-la ha-ap-pi-eš-na-aš i-na-an QA-TAM-MA* ¹⁹*li-ip-du* ²⁰*UZU*ZAG.UDU-*aš i-na-an li-ip-du* ²¹*ga-ak-kar-ta-ni-ya-aš-ša-aš i-na-an li-ip-du* ²²*na-an-ši EGIR-pa iš-ki-ša-az hu-i-nu-mi* ²³*nu* UR.TUR SAG.DU-*iš-ši an-da e-ep-mi* S[AG.DU-*aš*] ²⁴*i-na-an li-ip-du me-li-ya-[aš-ša-aš]* ²⁵*i-na-an KI.MIN* ²⁶*UZU*ZAG.UDU-*aš iš-ki-ša-a-[š-ša]* ²⁷*i-na-an KI.MIN a-na-aš-ša-aš-ša-aš i-n[a-an KI.MIN]* ²⁸*ar-ra-aš-ša-aš i-na-an KI.MIN* ²⁹*UZU*x[(-) *i-na-an KI.MIN*] ³⁰*ge-e-nu-wa-aš-ša-aš i-na-an KI.MIN QA²-[TIM² i-na-an KI.MIN]* ³¹*par-aš-na-aš-ša-aš i-na-an li-i[p-du]*. See the transcription and translation in Hırçın, 1989: 41–42; Collins, 1990: 215 fn. 19; Vanséveren, 2020: 162.

24 Heimpel, 1972–1975: 496; Fuhr, 1977: 144; Böck, 2004: 38; Ornan, 2004: 17; Kağnıcı, 2018: 33.

25 See Burde, 1974: 18–19; CHD Š/2: 312b ff.

"... [in]side inan- disease and irrit[ation]... if he cannot eat... he shall take these plants: seed of cress, poison parsley, a plentiful and AN.DAH.ŠUMSAR, ½ white plant (herb) he takes it. And it him for 7 days continuously he gives".²⁶

As seen in the text, these two diseases cause problems such as the inability to eat. Various herbs are used in a treatment process, which lasts seven days. Among these herbs, ZĀ.AH.LI^{SAR} was traditionally used for blurred eyes, digestive problems, and itching (Demirel and Çakılciöğlü, 2017: 312). The word *šatar* appears in the medical text VBoT 88, where blisters are deliberately created on the skin to treat a patient, a process known as "counter-irritation" (CHD Š/2: 312b). In this context, the co-occurrence of *inan-* and *šatar*, which potentially means "irritation," further suggests that *inan-* could possibly indicate a skin condition.

Conclusion

Although there is no specific definition for the word *inan-* in Hittite cuneiform texts, it is clear from the evidence of magic rituals, prayers, and military oaths that *inan-* disease caused significant discomfort and mental distress. This was so terrible that, as we see in the text of the military oath, any enemy who wanted to harm Hatti was cursed to catch and die from *inan-* disease. According to the Hittite cuneiform texts, the God *Tarpašša* and the Sun God were asked for help to understand the cause of the *inan-* disease and to be cured. Based on the *Ayartaša* ritual, one of the many epithets of the Sun God may have been the word *inan-*.

Finally, although there is no specific feature or definition provided for *inan-* disease, *inan-* is used together with *šatar* in one medical text. Likewise, in the *Zuwi* ritual, the skin on the various parts of the body is licked by a puppy as part of the treatment. This suggests that "skin disease" could be added to the meanings of *inan-* given in dictionaries. However, further comparisons with other texts are still necessary.

Peer-review: Externally peer-reviewed.

Grant Support: The author declared that this study has received no financial support

Conflict of Interest: The author has no conflict of interest to declare.

26 KUB 44.61 (CTH 461.1) obv. ¹[a]n-dur-za in-na-na-aš ša-a-t[a-ar ²]]x-ti nu NINDA-an Ú-UL e-ez-za-zi x[³]] ke-e Ú^{HIA} da-a-i NUMUN ZĀ.AH.LI^{SAR} k[u-iš-ki ⁴] SA]R NÚ.LUH.HA^{SAR} AN.DAH.ŠUM^{SAR}-ia me-ek-ki-p[át⁵ ½ Úhar-k]i-ia me-na-ah-ha-an-da da-a-i na-at-ši I-NA UD 7^{KA[M} 6 [pé-eš-k]e-ez-zi... See the transcription and translation in Burde, 1974: 18–19; Demirel and Çakılciöğlü, 2017: 308 fn.16.

References

- Akdoğan, R. (2007). “inan” ile ilgili yeni bir hititçe tablet parçası, *Fs Koşak (Groddek D. - Zorman M. (ed.), Tabularia Hethaeorum Hethitologische Beiträge Silvin Koşak zum 65. Geburtstag, (DBH 25), Wiesbaden*, s.1-12.
- Alp, S. (1957). Zu den Körperteilnamen im Hethitischen, *Anatolia* 2, s.1-47.
- Beckman, G. M. (1990). The Hittite “Ritual of the Ox (CTH 760.I.2-3)”, *Orientalia. Commentarii periodici Pontificii Instituti Biblici, Nova Series* 59, pp.34-55.
- Böck, B. (2004). The healing goddess Gula: towards an understanding of ancient Babylonian medicine, Leiden: Brill.
- Burde, C. (1974). Hethitische medizinische Texte, (StBoT 19), Wiesbaden.
- Cavigneaux, A. (2009). Deux hymnes sumériens à Utu, *Et il y eut un esprit dans l'Homme: Jean Bottéro et la Mésopotamie*, Paris, pp.3-18.
- Christiansen, B. (2006). Die Ritualtradition der Ambazzi. Eine philologische Bearbeitung und entstehungsgeschichtliche Analyse der Ritualtexte CTH 391, CTH 429 und CTH 463, (StBoT 48), Wiesbaden.
- Christiansen, B. (2012). Schicksalbestimmende Kommunikation. Sprachliche, gesellschaftliche und religiöse Aspekte hethitischer Fluch-, Segens- und Eidesformeln, (StBoT 53), Wiesbaden.
- Collins, B. J. (1990). The Puppy in Hittite Ritual, *Journal of Cuneiform Studies* 42, pp.211-226.
- Cotticelli-Kurras, P. (1995). Hethitische Konstruktionen mit verba dicendi und sentiendi, *2HitCongr. (Atti del II Congresso Internazionale di Hittitologia. Pavia 28 giugno - 2 Luglio 1993, (StudMed 9), Pavia*, pp.87-100.
- Feder, Y. (2010). The mechanics of retribution in Hittite, Mesopotamian and Ancient Israelite sources, *Journal of Ancient Near Eastern Religions*, Volume 10, Issue 2, pp.119-157.
- Friedrich, J. (1952-1954). Hethitisches Wörterbuch. Kurzgefasste kritische Sammlung der Deutungen hethitischer Wörter. 1.-4. Lieferung, Heidelberg.
- Friedrich, J. - Kammenhuber, A. - Giusfredi, F. (ed.) (2014). Hethitisches Wörterbuch. Zweite, völlig neubearbeitete Auflage auf der Grundlage der edierten hethitischen Texte. Band IV/I, Lieferung 23, (HW² IV/23), Heidelberg.
- Fuhr, I. (1977). Der Hund als Begleittier der Göttin Gula und anderer Heilgottheiten. *Isin-Išān Ba-rīyāt I: Die Ergebnisse der Ausgrabungen 1973-1974*, ed. B. Hrouda. München: Verlag der Bayerische Akademie der Wissenschaften, pp.135-145.
- García Trabazo, J. V. (2002). Textos religiosos hititas. Mitos, plegarias y rituales, Madrid.
- George, A. - Black, J. - Postgate, N. (2000). A Concise Dictionary of Akkadian.
- Goetze, A. (1928). Madduwattaš, (MVAeG 32), Leipzig.
- Gökçe, A. N. (1989). Pergamon Asklepieion'u ve Tıp Tarihi Açısından Önemi, İstanbul Tıp Fakültesi, Yüksek Lisans Tezi.
- Groddek, D. (1999). “CTH 331: Mythos vom verschwundenen Wettergott oder Aitiologie der Zerstörung Liḫzinas?”, *Zeitschrift für Assyriologie und Vorderasiatische Archäologie*, vol. 89, no. 1, pp.36-49.
- Güterbock, H. G. - Hoffner, H. A. - van den Hout, Th. P. J. (2005). The Hittite dictionary of the Oriental Institute of the University of Chicago. Vol. Š, fasc. 2: -ši-, (CHD Š/2) Chicago.

- Haas, V. (2003). *Materia Magica et Medica Hethitica*. Ein Beitrag zur Heilkunde im Alten Orient, Berlin - New York.
- Heimpel, W. (1972-1975). "Hund," D.O. Edzard (ed.), *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 4, Berlin - New York.
- Hırçın, S. (1989). *Zuwi Ritüeli (:CTH 412)*, Yüksek Lisans Tezi, İstanbul Üniversitesi.
- Hoffner, H. A. (2010). The Political Antithesis and Foil of the Labarna in an Old Hittite Text, *Fs Hawkins (Singer I. (ed.), ipamati kistamati pari tumatimis - Luwian and Hittite Studies Presented to J. David Hawkins on the Occasion of His 70th Birthday, Tel Aviv)*, pp.131-139.
- Izre'el, S. (2001). Adapa and the South Wind Language Has the Power of Life and Death.
- Jakob-Rost, L. (1972). Das Ritual der Malli aus Arzawa gegen Behexung (KUB XXIV 9+), (TH 2), Heidelberg.
- Kağınacı, G. (2018). Eski Mezopotamya Çivi Yazılı Metinlerde Kuduz, *Tarihsel Süreçte Anadolu'da Kuduz (Editörler Çağrı Büke, Şükran Köse, Fevzi Çakmak, Eren Akçiçek)*, Gece Akademi, Ankara.
- Karauğuz, G. (2001). *Hitit Mitolojisi, Çizgi Kitabevi*, Konya.
- Kloekhorst, A. (2008). *Etymological Dictionary of the Hittite Inherited Lexicon*, Leiden.
- Lester, L. U. - Rapinib, R. P. (2009). Kalın bağırsak bozukluklarının cilt bulguları, *Current Opinion in Gastroenterology*, Cilt 2, s.66-99.
- Mazoyer, M. (2003). Le ^{GI}šeya dans la religion hittite, *L'Arbre*, pp.73-80.
- McGrath, W. (2016). The Diagnostic Series SA.GIG: Ancient Innovations and Adaptations, Master of Arts, University of Toronto.
- Metcalf, C. (2011). New parallels in Hittite and Sumerian praise of the Sun, *Die Welt des Orients. Wissenschaftliche Beiträge zur Kunde des Morgenlandes* 41, pp.168-176.
- Murat, L. (2003). Ammihatna Rituelinde Hastalıklar ve Tedavi Yöntemleri, *Archivum Anatolicum* 6/2, s.89-109.
- Oettinger, N. (1976). Die Militärischen Eide der Hethiter, *StBoT* 22, Wiesbaden.
- Ornan, T. (2004). The Goddess Gula and Her Dog, *Israel Museum Studies in Archaeology* 3, pp. 13-30.
- Puhvel, J. (1980). Rev. of: Tischler J. 1977-1983a (Tischler J., *Hethitisches Etymologisches Glossar Teil 1, A-K, (IBS 20) Innsbruck*), *Bibliotheca Orientalis* 37, pp.202-205.
- Puhvel, J. (1984). *Hittite Etymological Dictionary Vol. 1: Words beginning with A; Vol 2: Words beginning with E and I*, Berlin - New York - Amsterdam.
- Reiner, E. - Biggs, R. D. (1984). *The Assyrian Dictionary of the Oriental Institute of the University of Chicago Volume 15 - S, (CAD 15)*, Chicago.
- Roth, M. (1995). *Law Collections from Mesopotamia and Asia Minor*, Atlanta.
- Sevinç, F. (2008). Hititlerde Yeraltı Dünyası, *Eskişehir Osmangazi Üniversitesi Sosyal Bilimler Dergisi*, Cilt 9, Sayı 1, s.231-247.
- Steinert, U. (2020). Disease concepts and classifications in ancient Mesopotamian medicine, *Medicine and the Body in Antiquity*, University of Kent, UK, pp.140-194.
- Stol, M. (1993). *Epilepsy in Babylonia. Cuneiform Monographs* 2, Groningen.
- Tischler, J. (1977-1983). *Hethitisches Etymologisches Glossar Teil 1, A-K, (IBS 20)*, Innsbruck.

- Ünal, A. (1980). Hitit Tıbbının Ana Hatları [Les traits essentiels de la médecine hittite], *Belleten* 44(175), s.475-495.
- Ünal, A. (2016). Hititçe Türkçe, Türkçe Hititçe Büyük Sözlük. Hattice, Hurrice, Hiyeroglif Luvicesi, Çivi Yazısı Luvicesi ve Palaca Sözlük Listeleriyle Birlikte/Grand Dictionary of Hittite-Turkish, Turkish-Hittite alongside with Word Lists of Hattian, Hurrian, Hieroglyphic and Cuneiform Luwian and Palaic, Ankara.
- Wolfram, von Soden (1965-1981). Akkadisches Handwörterbuch. Unter Benutzung des lexikalischen Nachlasses von Bruno Meissner (1868-1947), Wiesbaden.
- Vanséveren, S. (2020). The vocabulary of the body parts in Hittite in the perspective of Indo-European comparison, *Mouton A. 2020a (Mouton A. (ed.), Flesh and Bones. The individual and his body in the Ancient Mediterranean Basin, (Semitica & Classica Supplementa 2), Turnhout)*, pp.151-169.
- Zinko, M. (2004). Bedeutungswandel im Hethitischen: Zum semantischen Feld KRANKHEIT im Hethitischen, *Gs Forrer (Groddek D. - Rößle S. (ed.), Šarnikzel. Hethitologische Studien zum Gedenken an Emil Orgetorix Forrer; (DBH 10) Dresden)*, pp.667-690.



Politics and Propaganda in the Negative Historiography of the Hittite Old Kingdom

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Submitted: 08.06.2024

Revision Requested: 20.09.2024

Last Revision Received: 25.09.2024

Accepted: 06.10.2024

Published Online: 12.12.2024

Citation: Martínez, J. (2024). Politics and propaganda in the negative historiography of the Hittite old kingdom. *Anadolu Arařtırmaları-Anatolian Research*, 31, 131–144. <https://doi.org/10.26650/anar.2024.31.1498029>

ABSTRACT

Hattuřili I faced a formidable threat to his throne from his aunt, Tawananna, who was based in Hurma. Realizing the inherent power of political propaganda, he commissioned a unique Hittite genre that Beckman has termed “negative historiography” to mitigate this threat. This genre highlighted the incompetence of various Hurmean figures in a comical way, thereby engineering a widespread negative Hurmean stereotype throughout the kingdom and preventing Tawananna from gathering any significant “grassroots” following. This paper demonstrates that once the threat was neutralized, the literary genre lost its *raison d'être* and disappeared from the scene.

Keywords: Hattuřili I, Royal family conflicts, Hittite military campaigns, Depictions of incompetence, Hittite narrative techniques, Hittite capital transition



Introduction

In his discussion of *The Siege of Uršu*, Gary Beckman (1995, 33) coined the phrase “negative historiography” to describe the unique character of both this text and *The Palace Chronicle*.¹ Historiography throughout the ancient Near East was a product of the royal court and designed to reinforce the legitimacy of the ruling king or his dynasty. Most instances of such historiography legitimated the ruler’s kingship by means of positive reinforcement, such as extolling the king’s virtues and describing the heroic or benevolent acts he has performed. Negative historiographic literature takes a different approach to achieve the same aim. In these texts, there is little focus or emphasis on the actions of the king. He primarily remains in the background, either giving the initial orders for the activities that will occur or reacting to unexpected actions. It is instead incompetent bureaucrats, politicians, employees, and military leaders who take the front stage.

This approach served two broad purposes. First, it defended the established Hittite monarchy, which was constantly beset by usurpers from among the royal family and royal court.² Disparaging these groups was one way for the king to limit the popularity of any potential rivals. The second purpose followed from the first. By downplaying the competence of the king’s rivals, the negative historiography would in turn bolster the view of the king’s competence as a ruler in contrast to his rivals.

II. The Prominence of Hurma

Although the material contained in the individual episodes of *The Palace Chronicle* and *The Siege of Uršu* is diverse, there is one overriding theme that ties most of them together more concretely than just as stories of incompetence. Natives of the city of Hurma feature prominently throughout. This is so pervasive that it is difficult to chalk it up to mere coincidence.

Among the many characters from Hurma is Šanda, a military commander who can’t seem to do anything right in *The Siege of Uršu*. There is, admittedly, no direct reference to the city of Hurma or to Šanda’s relationship to it in *The Siege of Uršu*. However, Beal (2003, 27) identifies this Šanda, who leads the titular siege on Uršu (KBo 1.11),³ with the Šanda whom the king condemns to mutilation due to either cowardice in the face of the Hurrians or for secretly meeting with them in the fourth vignette of *The Palace Chronicle* (KBo 3.34 II 32;

1 KBo 1.11; KBo 3.34 II 32; OH/NS, Muršili I, CTH 8. De Martino (2005, 227) specifically excludes these two texts from his list of Hittite historiographical texts.

2 See, v.gr. the *Political Testament of Hattušili* (KUB I 16 II 8–36, 63–68, III 6–25; Beckman 2002). This document provides an overview of the kingdom’s internal affairs during the period, detailing the revolts led by the king’s son, sister, and daughter, and the significant damage these events inflicted on the country. See as well Yiğit (2006; 2007).

3 Cf. CHT 7; Beckman 1995. Forlanini (2004, 3884) suggested that KBo 1.11 could be dated to Labarna.

OH/NS, Muršili I, CTH 8). It is in this text that we learn that Šanda was a *LÚ URU*Hurma, literally, “a man from Hurma.”⁴

Appearing immediately before Šanda in the third vignette of *The Palace Chronicle* (KBo 3.34 II 32), is Nunnu, who embezzles money from the city coffers. He and his replacement are then tied to an oxcart and forced to watch as the representatives of the king slaughter a family member before them. If *The Palace Chronicle*'s Šanda can be identified with the figure of the same name in *The Siege of Uršu*, as Beal argues, then the Nunnu who embezzles money from the city coffers could be the same Nunnu who, in *The Siege of Uršu*, commits “a foul deed.” (KBo 1.11 Obv. 26-27).

Finally, there is Askaliya, who is depicted as having a grudge against a potter named Ispudasinara.

There are also four individuals who appear in *The Palace Chronicle* that lack any apparent association with Hurma. However, these four figures are thematically connected in a way that does not apply to the three leaders of Hurma. First, each holds an occupation in food-related services. This includes the unnamed bread baker in the first vignette, the kitchen manager Pappa in the second vignette, and Ewarisatuni and Zidi, who are both identified as cupbearers in the fifth and sixth vignettes, respectively. Beyond their occupations, these characters are connected by the very nature of their stories, which differs from those of the city lords of Hurma. They each meet with a fate that has a direct connection with both their occupations and the crimes they committed.

The bread baker meets his fate in a fire, similar to the fire of the oven in which he baked a loaf of bread with a pebble in it. The kitchen supervisor must drink salted beer after serving the soldiers bread that was ground up like salt. Slightly less obvious are the punishments allotted to the two cupbearers. Ewarisatuni was mutilated for serving one of the king's guests wine in a beer mug.⁵ Zidi, conversely, had served the king's guests poor-quality wine, reserving the good wine for the king. For this, officials either “worked him over” or “finished him off.” The meaning of the iterative form of *eš-* is difficult to discern in this context.

Hurma also appears in *The Tale of Zalpa*. After Alluwa leads the city of Zalpa in an ill-fated revolt, Hattuša enters into a peace treaty with its defeated citizens. In this context, an unnamed Hittite king gifts Hurma to a political ally. This suggests that Hurma was in some way allied with Zalpa against Hattuša in this conflict. The control of Hurma thus accompanied the defeat of Zalpa and the peace treaty that followed. This serves to implicate Hurma in the rebellious behavior of Zalpa. Although *The Tale of Zalpa* does not fall into the literary genre

4 The interpretation and translation of this phrase will be explored in more detail in Section VI.

5 Although the text is broken at the point where the punishment would be narrated, the presence of the verb “[*k*] *u-uk-ku-ri-iš-ki-ir*” (KBo II 34 I 29) gives a clear indication of the punishment meted out to Ewarisatuni.

of negative historiography, it is certainly a negative portrayal of Zalpa that was composed during the Old Kingdom period. In the same way that *The Tale of Zalpa* paints the city and its inhabitants in a bad light, so does the negative historiography of Hurma paint an unflattering picture of the city and its denizens.

III. The Character of the King

One of the striking features of each text that falls into the category of negative historiography is the absence of any identification of the kings involved. None of these texts names any of the kings mentioned in the narratives. In most cases, the narrative proceeds with reference to the king only by his title, *LUGAL*. When these texts reference a different king, they continue to use circumspect titles like “the king’s grandfather” or “the old king.” This narrative strategy further reinforces the *negative* aspect of this genre by deflecting the focus off the king and placing it squarely on the incompetent lackeys in his service.

The king’s main role in most of these stories is to mete out punishment to these incompetents. He therefore plays an extremely passive role. Although the king is clearly a man actor in *The Siege of Uršu*, his only actions are to give orders and to become angry when his subordinates fail to carry them out. This is atypical of ancient Near Eastern royal historiography, which usually highlights the active role kings played in military conquests or building projects.

IV. Incompetent Lackeys

Barjamovic (2011, 186) suggests that *LÚ URUHurma* should be translated as “city lord of Hurma,” which might be considered a role similar to that of mayor. It is understandable that Barjamovic reaches this conclusion, given the use of this particular construction by most Akkadian scribes used this particular construction (CAD 1968, 57). However, there are several reasons to suggest that the Hittite scribes were innovative in their use of this title. In most of the cases in *The Palace Chronicle* where this term appears, the individual in question is living in a different town, where he is clearly performing a different official role.⁶ In addition, the scribes identify one of the figures in *The Palace Chronicle*, Askaliya, as *URUHu-ur-mi EN-aš*, or the “lord/ruler of Hurma.” It is only after Askaliya is removed from his position as the “ruler of Hurma” and installed as the *AGRIG* of Ankuwa that the scribes identify him as *LÚ URUHurma*. Moreover, it is *URUHu-ur-mi EN-aš*, not *LÚ URUHurma*, that is used in later texts to describe the rulers of this city.⁷

6 E.g., Nunnu is embezzling from the coffers of Arzawya (KBo 3.34 I 11–12); Šanda is a palace official in Hassuwa when he deserts to the Hurrian overlord (KBo 3.34 I 24); and Askaliya is a “deputy” or “agent” in the city of Utaḫzumi (KBo 3.34 II 15–16).

7 Cf. KUB 8.69 obv. 10–13; KuT 6 I:13; KBo 4.10 rev. 32; KUB 26.43 rev. 32.

Goedegebuure (2014, 561) suggests “ambassador of Hurma” as the best translation of *LÚ URUHurma*. There are two problems with this suggestion. It seems odd that an ambassador would be present and needed from a city other than, Hattuša, the Hittite capital, or even Kussara, the older Hittite capital. The second problem is that there would be no reason for a city ambassador to have access to the host city’s coffers as Nunnu has in the third vignette. It seems much more likely that this is simply a gentilic, identifying these figures as “Hurmites,” individuals whose roots are in the city of Hurma. This is not to say that the phrase *LÚ + GN* is never used to indicate the ruler of the city. The expression *LÚ + GN* could refer to the country from where the individual comes, to the governor of a province, as well as to the local ruler of a country.

A third construction, *DUMU + GN*, is also used to describe the relationship of these individuals to the city of Hurma. Although not used with the city of Hurma itself, this construction identifies several figures in the heavily broken third column of KBo 3.34. Soysal (1989, 86) translates these instances as “Fürst,” which seems the most appropriate for the context in which they appear. However, this interpretation also requires an innovative use of the phrase by the Hittite scribes, since the Akkadian scribes used it to indicate the natives of a city (CAD 1977, 315-316).

In some cases, the logogram *LÚ* has the same meaning as *DUMU*, including in *The Palace Chronicles*.⁸ I therefore propose that the Hittite scribes conflated the two constructions *LÚ + GN* and *DUMU + GN* in their minds. Therefore, in Hittite texts, both meanings “native of *GN*” and “ruler of *GN*” can apply to either construction.

V. The Historical Significance of Hurma

The key to understanding the *raison d’être* of the negative historiography of Hurma lies within the historical-political realities surrounding the Old Kingdom and especially the reign of Hattušili I. As the preceding discussion has demonstrated, the focus and theme of the negative historiography and what it repeatedly returns to are the individuals from, or closely associated with, the city of Hurma.⁹ This is not to say that the events highlighted in these texts occurred within Hurma, but rather that the main players in the events were most often Hurmean. Although Hurma practically disappeared from the Hittite political and military landscape after the Old Kingdom period, it played a significant role in these arenas during that time.¹⁰

8 Regarding the *DUMU* of Purušanda and KBo 3.27 (+) 28, see Dardano (2004).

9 About Hurma in this context, see Ünal (1996) and Martínez (2016).

10 After the Old Kingdom period, the influence of the city of Hurma on the wider Hittite kingdom seems to have been relegated to the religious sphere.

The earliest kings of the Hittite kingdom reigned from Kussara. It was during the reign of Hattušili I that the capital moved to Hattuša, where it would remain until the downfall of the kingdom. However, between Kussara and Hattuša there was another Hittite seat of power: Hurma. In his reconstruction of the family tree of Hattušili I, Beal identifies PU-Šarruma as his grandfather. According to *The Tale of Zalpa*, PU-Šarruma gave the city of Hurma to the father of Labarna I, “The father of the old king.” At that point, Labarna I’s father acted as city lord of Hurma. This was a prominent political position, but certainly not the most important in the Hittite kingdom. However, when Labarna I, “the old king,” took the throne after the death of his father-in-law, PU-Šarruma, he seems to have reigned from Hurma.

There are several reasons to draw this conclusion. First, Labarna I was intimately tied to the city of Hurma both before and after his reign. Growing up with his biological father as the “lord of Hurma” meant that Hurma was his hometown. Transitioning from the royal palace at Kussara to the existing royal palace at Hurma (KUB 56.56 IV 6, 20, 23, 27) would have required very little adjustments in terms of new infrastructure. Thus, there is every indication that Labarna I lived in Hurma before he took the throne.

Another piece of evidence for the close association of Labarna I with Hurma appears in one of the cult lists of the royal ancestors (CTH 661). Forlanino’s comments on this text are relevant to this discussion:

The lists therefore include kings, queens and princes who had died in the capital or whose remains had been brought to Hattuša. This may explain the omission of the first Labarna, whose main residences were Hurma and Kussar (Forlanini 2010, 117).

However, the relevant texts make no connection between Labarna I and Kussar. The behavior of other royal figures after his death further highlights his connection to Hurma instead. After he passed, his wife Tawananna ruled over Hurma, eventually staging a coup from that city.¹¹ The conclusion has generally been that Tawananna was sent to Hurma after her husband’s death. However, if Labarna I had ruled from Hurma, Tawananna need not have been sent anywhere. She would have been living with him there. When Hattušili I was appointed king by his uncle and moved the capital from Hurma to Hattuša, this would have left Hurma without a ruler. Giving the governance of the city of Hurma to his aunt, who was already closely connected with the local political scene, would have been a logical choice from a political standpoint. This would then clarify the first of the two epithets for Tawananna contained in KBo 3.28 rev. 21 and 23, which has caused scholars a great deal of confusion:

¹¹ Because there is every indication that Tawananna was the first name of this individual, the name appears without any qualifiers (Gurney 1973, 237; Bin-Nun 1975, 53–54).

aši MUNUS.LUGAL URUḪuruma É.GI4.A [...] MUNUS.LUGAL-aš DUMU.MUNUS É-TIM

This aforementioned ruling lady of the city of Hurma was a bride [...] the daughter of the house of the queen [...].

Beal (2003, 26 n. 80) objects to the more common translation, “aforementioned queen of Hurma,” on the grounds that “no such kingdom [of Hurma] is known from this period.” He instead offers his own translation, “the aforementioned queen was a bride/daughter-in-law *in* Hurma,” (Beal 2003, 26-27, emphasis mine), but quickly notes that the line contains no *INA* before *URUḪuruma*, as one might expect based on Beal’s translation.

The translation offered above has the value of answering both Beal’s concerns. The term *MUNUS.LUGAL* is used in two different senses in these two clauses. The logogram *LUGAL*, *ḫaššu-* in Hittite, can refer to a local “ruler” or “chief” in addition to a king, so *MUNUS.LUGAL* here seems to refer to a female ruler of a more circumscribed district than the kingdom itself. According to this reading, the phrase *MUNUS.LUGAL URUḪuruma* would thus be a feminine counterpart to *URUḪuruma EN-aš*, which appears in other contexts for the ruler of Hurma and was likely the title her father-in-law carried. The lack of a construct like *MUNUS.EN* in Hittite would seem to further support the possibility of this reading. Thus, the female ruler of the city is the *MUNUS.LUGAL URUḪuruma*, and the first element of this nominal sentence identifies Tawananna by her current title, “female ruler of Hurma.” It is only the second element, the predicate nominative, that highlights her relationship with the former king, Labarna I. The translation that interprets the first element of the nominal sentence as a reference to her as “queen,” an implicit reference to her relationship with Labarna I, turns the sentence into a non-sequitur.

It would therefore be helpful to unpack this epithet one term/phrase at a time. The epithet states that the female ruler of the city is “a bride,” and thereby related through marriage to the former Hittite king. In this context, the reason the father of the king did not punish her for her insubordination (as would otherwise be expected), lies in the predicate nominative and not in the subject of the verbless clause. The author then proceeds to quote a legal prohibition in which the second epithet appears. This quote follows upon and explains the previous statement, “My father had acted justly in regard to her.” The legal quotation helps explain how his actions were just and in accordance with Hittite law, “Wherever you carry away

the queen's daughter of the house, do not harm her."¹² The *DUMU.MUNUS* here is not the "daughter" of Tawananna, but Tawananna herself (contra Beal 2003, 30). She is not only a "female ruler" and the "bride" of the former king but also a member of the royal family by birth. As such, the king cannot lay a hand on her. It is in the following sentence that the author explains why the king might want to lay a hand on her in the first place: "The queen has continually rejected the one whom I place on my throne." Again, the subject of this sentence is Tawananna. However, *MUNUS.LUGAL* is unmodified. "The queen," that is, the bride of the former king who was born of royal blood, is the individual being insubordinate.

This purpose of this digression into Tawananna's titles is to highlight her role as ruler of Hurma. This role that she took following her husband's death emphasized a geographical continuity that both preceded and survived the reign of Labarna I. While it is certainly possible that Hattušili I could have appointed Tawananna to this new post by moving her from the palace at Kussara, these events make more sense if her royal residence had been at Hurma all along.

Hattušili I's choice to move the capital to Hattuša provides even more evidence of this geographical continuity.¹³ This decision has perplexed scholars for a variety of reasons. In the first place, Hattušili I had early ties to the city of Kussara, as indicated by his epithet, "Man of Kussara." (Annals I 1-3).¹⁴ Despite these close ties to the traditional capital, he nevertheless chose to relocate the capital to Hattuša. As such, Hattušili I must have had a compelling reason to uproot and move the capital from the familiarity of his hometown.

Even more perplexing than the fact that he chose to move the capital in the first place is his choice of Hattuša specifically as the new capital. This new location gave up his strategic

12 A passage in *The Palace Chronicle* fragments (KBo III 28 Obv. '10-'16) provides further evidence that this protection afforded to the royal family was embedded in the Hittite legal system. While the passage in question talks about insubordination perpetrated by a son of the king, the current passage indicates that this legal protection extended to daughters as well. The passage in question makes clear that even when the divine court (i.e., the river ordeal) has convicted the son of treason, the king may not imprison, enslave, or otherwise harm him under threat of divine punishment. Presumably, had the female ruler of Hurma not been a member of the royal family, her actions would have warranted much more severe consequences.

13 Beal (2003, 24-25) objects to the long-held notion Hattušili I was the one to transfer the capital from Kussara to Hattuša (see also, Hardy 1941, 186). He presents both literary and archeological evidence to support his objection. The archeological objections are valid, and the reconstruction given here takes account of them. The literary evidence focuses on the primacy of Hattuša in *The Tale of Zalpa*, the events of which take place before the time of Hattušili I. There is one line in *The Tale of Zalpa* that would seem to argue against Beal's interpretation. As translated by Holland and Zorman (2007, 42), "And Hattuša and the elders of Zalpa desired a son from [him] [...]" The context makes it clear that the cities are asking for a prominent position in the kingdom signified by a prince ruling their respective cities. If Hattuša was already the capital, such a request would make little sense. It is more likely that Hattuša acted as a secondary (or temporary) residence for the king, and as the staging ground for the offensive against the rebellious city of Zalpa.

14 Annals I 1-3. See below, Excursus: The Epithet, "Man of Kussara" for an exploration of the details of this connection.

advantage, which was a significant distance both from the routes into Syria (which Hattušili I would almost immediately use in his military campaigns), and from the southern Hittite vassal states, which were a continual source of friction (Bittel 1983, 19). Moreover, one can hardly mention the move without acknowledging the long-standing curse that Anitta placed on any king who resettle Hattuša (CTH 1:49-51). Despite these difficulties, Hattušili I decided to move the capital, which prompts the question of why.

This decision becomes more understandable if his predecessor, Labarna I, had already moved the capital away from Kussara. One possible impetus for this decision may have been the decline in Kussara's robustness. This could have occurred for multiple reasons, such as economic factors or unfavorable changes in weather conditions that affected the surrounding farmland or the water supply. Whatever the cause, the sudden disappearance of Kussara from the Hittite political scene suggests that it was no longer a thriving city even before Hattušili I stripped it of its political prominence (Barjamovic 2011, 144). If such were the case, as seems likely, Labarna I would also have had ample reason to move the capital to Hurma. If Hattušili I was uninterested in staying in Hurma after assuming the throne, he would have needed to choose another thriving city as his new capital. The archeological evidence at Hattuša suggests that the city had already been mostly rebuilt and resettled before he chose it as his new capital (Neve 1984, 89). The prominent role that it had already played as a secondary royal residence (as reflected in *The Tale of Zalpa*, see note 8) during his grandfather's reign would have made the choice of Hattuša much more logical.

Excursus: “Man of Kussara”

Bryce (2005, 68), along with many other Hittite scholars, considers the “Man of Kussara” epithet to be evidence that Hattušili I began his rule in Kussara and only later moved his capital to Hattuša and adopted his regnal name Hattušili I. However, if this were the case, it would seem more logical for him to have adopted the title used by his predecessors, “King of Kussara,” (Anitta Text line 1) using *LUGAL* instead of the lesser title of *LÚ*. At this point, the preceding discussion of *LÚ* + *GN* comes back into play. I have already noted that this term can mean both “native of *GN*” or “ruler of *GN*.” Both interpretations support the idea that Labarna I ruled from Hurma rather than from Kussara.

If the epithet indicates that Hattušili I was a native of Kussara, he would have adopted it to legitimate his rule by demonstrating the continuity between himself and previous Hittite rulers who reigned from Kussara. The fact that Hattušili I returned to Kussara when he became sick near the end of his life supports the notion that this is where he felt most at home, as it was where he would have spent the formative years of his life (Colophon to the *Bilingual Edict of Hattušili I*). Since Hattušili I was not a dynastic king, he wanted to emphasize a connection between himself and past rulers. His geographical roots may have been one way to accomplish this.

If, alternatively, the title indicates his role as “local ruler of Kussara,” this points to an interesting possible conclusion. If Labarna I had moved the capital to Hurma during his reign, Kussara would have needed a local ruler. His nephew, Hattušili I, would have been a reasonable choice for this position. This would then mean that Hattušili I had cut his teeth in politics as the local ruler of Kussara. It is likely that he had some political experience before taking over the throne. Furthermore, Hittite custom was for kings to assign such subordinate local positions of authority to members of their household and their extended relatives. Hattušili I could therefore have indeed ruled in Kussara before moving the capital to Hattuša. However, this would not have coincided with the beginning of his reign, but rather with his political experience before assuming the throne. That said, this reconstruction only works if Labarna I had already moved the capital from Kussara to Hurma, opening a position in Kussara.

Further support for this interpretation comes from the regnal name he chose, Hattušili I. The typical reconstruction is that he assumed the name Labarna (II) when he began to rule in Kussara and then adopted a different (or additional) name once he moved the capital to Hattuša. The problem with this interpretation, however, is that there is no evidence for other kings changing their regnal names during a reign. Kings chose regnal names at the beginning of their reigns and kept them throughout their career. In this reconstruction, Hattušili I would have begun his political career as the local ruler of Kussara, while Labarna I was ruling in Hurma. When Labarna I died and passed his throne to his nephew, the latter made a series of innovative personal and administrative decisions in concert with his coronation.

“Man of Kussara” is clearly distinct from his preceding epithet, which identified Hattušili I as the “King of the Land of Hatti.” In this context, “Man of Kussara” is not saying that Hattušili I is the local ruler of Kussara, which lies within the greater “Land of Hatti.” Rather, as kings throughout the ancient Near East did, Hattušili I established his historical roots to claim legitimacy to the throne. Dynastic kings did this by referencing their genealogy, but kings who acquired their position through other means needed other means of legitimization. Hattušili I used his native connection with the original Hittite capital, Kussara, for this purpose. Therefore, the term *LÚ URUKussara* indicates that Hattušili I was a Kussaran, which helped establish continuity between him and previous Hittite rulers.

The political prominence of Hurma during this period thus had implications that extended to the capital Hattuša itself. It is therefore helpful to explore these implications and the resulting impact they have on our understanding of negative historiography as a genre.

VI. Hurma and Negative Historiography in the Old Kingdom

The above discussion has painted a picture of the political situation that Hattušili I inherited.¹⁵ The early Hittite kings constantly needed to reestablish their authority over the prominent cities they had subjugated, as these cities regularly tested royal boundaries to establish their independence. However, the problems that Hattušili I faced were of a somewhat different nature.

When Hattušili I began to reign in Hattuša, Hurma would have still been filled with politicians with royal aspirations that became much less tangible once the capital moved to Hattuša. A united group committed to transferring power back to one of their own would have proven a formidable challenge for even the strongest and most popular of kings. From all indications, this is what Hattušili I faced with Hurma. After Tawananna was appointed the ruler of Hurma, she also began to have designs on the throne. Although she could not occupy it herself as a woman, orchestrating a coup and placing one of her own direct descendants on the throne would have secured who was genealogically closer to her than her nephew, Hattušili I, then her royal legacy and influence would not die. It is here that the prince of Puruṣhanda steps in. The threat in Hurma thus would not simply have reduced the size of Hattušili I's kingdom but would have removed him from power entirely. Recognizing the realities of this political situation provides one possible lens through which to understand the negative historiography the Old Kingdom produced.

VII. *The Tale of Zalpa* as Negative Historiography

Although Beckman limited his definition of negative historiography to *The Siege of Uršu* and *The Palace Chronicle*, there are several reasons to include *The Tale of Zalpa* in this genre.¹⁶ A brief look at this text through the lens of negative historiography should help illuminate the connections between *The Tale of Zalpa* and this genre. The first question to address regarding *The Tale of Zalpa* is the continuity of the two distinct stories in KBo 22.2. The first, confined to the upper half of the obverse of the tablet, is mythological in character, set in the city of Kaneš, and reminiscent of the Oedipus myth with its account of accidental incest. The second, confined to the reverse of the tablet, is either historical or legendary in character and set in Zalpa.

Other than the fact that these two stories appear on opposite sides of the same tablet, they might seem to have nothing in common. The duplicate fragments of this text are either confined to the first (KBo 26.126) or second story (KBo 3.38; KUB 48.79; and KUB 23.23), but do not span both. Even more telling in this regard is that KBo 3.38, which contains much of the second

15 For instance, see Yiğit (2005).

16 For additional references, see Sir Gavaz (2006); Corti (2005, 2010); Kloekhorst (2021). On *The Tale of Zalpa* and the period in which Hattuša became the capital, see de Martino (2022, 205–212, 217–219).

story, would not have room to accommodate the 20 lines of text of the first story (preserved on the obverse of KBo 22.2) in the space from the missing few lines in the upper portion of the obverse. Since several Akkadian tablets from this period demonstrate that scribes would occasionally write different texts on the obverse and reverse of tablets, both the internal and external evidence converge to indicate that KBo 22.2 contains two distinct narratives.¹⁷ Even if one believed that the missing portion of the tablet contained some narrative link between these two stories, this would most likely be the result of redactional editing, where a scribe attempted to connect an existent oral tradition (i.e., the sibling incest myth) with a military narrative.¹⁸ Either way, the composition of these two stories took place at different times, if they were ever connected at all. The focus of this discussion is therefore the identification of the second story's genre (the bulk of which is preserved on KBo 3.38) as an independent literary creation.

Just as in *The Siege of Uršu* and *The Palace Chronicle*, in this text the lackeys that the unnamed king has ordered to perform various tasks have proved not merely incompetent, but corrupt as well! The first figure is Alluwa, the king's treasurer, who plots against the king and then dies. His actions, which are described as a revolt (*hullanzannipāt*), indicate that this amounted to an attack from within the kingdom. In the aftermath, the cities of Zalpa and Hattuša make a peace treaty. As part of the treaty, the people of Zalpa ask the unnamed king to appoint one of his sons, rather than a member of his administration, to govern them. The idea may have been that a son would be less likely to revolt against his own father than a politician. Therefore, the unnamed king agrees to these terms, appointing his son Hakkarpili to the position. However, this turns out poorly for the inhabitants of Zalpa, as Hakkarpili revolts against his father anyway. Another official, Kisswa, reports Hakkarpili's actions to the king. In the broken section of the text, it appears that the king dispatches his military to deal with Hakkarpili, and we can assume they did just that, as there is no further mention of Hakkarpili. This same process repeats with Happi, another of the king's sons appointed over Zalpa. However, rather than promoting stability in his city as his father had hoped, he breeds fear and hostility, and Zalpa revolts against their Hittite king.

Acknowledgments: I would like to express my sincere gratitude to the peer reviewers and Virgilio García Trabazo for taking the necessary time and effort to review this manuscript. I sincerely appreciate your valuable comments and suggestions, which helped me to improve the quality of this paper.

Peer-review: Externally peer-reviewed.

Grant Support: The author declared that this study has received no financial support

Conflict of Interest: The author has no conflict of interest to declare.

17 Cf. Otten (1973, 63); Holland and Zorman (2007, 74).

18 "The mythological introduction creates a framework into which the thematically similar but apparently historical narrative of the events in Zalpa is inserted." Holland and Zorman (2007, 74).

References

- Barjamovic, G. (2011). *A historical geography of Anatolia in the Old Assyrian colony period*. CNI publications. Copenhagen: Museum Tusculanum Press.
- Beal, R. H. (2003). The Predecessors of Hattusili I. In: *Hittite studies in honor of Harry A. Hoffner Jr.: On the occasion of his 65th birthday*. H. A. Hoffner, G. M. Beckman, R. H. Beal & J. G. McMahon (Eds.) Winona Lake, IN: Eisenbrauns, 13-36.
- Beckman, G. (1995). The Siege of Uršu Text (CTH 7) and Old Hittite Historiography. *Journal of Cuneiform Studies* 47, 23-34.
- Beckman, G. (2002). Edicts and Proclamations: Bilingual Edict of Hattusili I. In: *The Context of Scripture, Vol.II: Monumental Inscriptions from the Biblical World*. W.W. Hallo & K. Lawson Younger (Eds.) Leiden: Brill.
- Bin-Nun, S. R. (1975). *The Tawananna in the Hittite Kingdom*. Heidelberg: Carl Winter.
- Bittel, K. (1983). *Hattuscha, Hauptstadt der Hethiter: Geschichte und Kultur einer altorientalischen Grossmacht*. Köln: DuMont.
- Bryce, T. (2005). *The Kingdom of the Hittites*. New York: Oxford University Press.
- CAD 1968. *The Assyrian Dictionary*. Chicago, IL: Oriental Institute of the University of Chicago.
- CAD 1977. *The Assyrian Dictionary*. Chicago, IL: Oriental Institute of the University of Chicago.
- Corti, C. (2005). Il racconto delle origini: alcune riflessioni sul testo di Zalpa, *Narrare gli eventi. Atti del Convegno degli egittologi e degli orientalisti italiani in margine alla mostra "La battaglia di Qadesh. Studia Asiatica 3*, Roma, 113-121.
- Corti C. (2010). "Because for a Long Time (the Gods of Zalpa) Have Been Ignored... Hence These Offerings in this Way Do Not We Donate". New Celebrations in the Zalpuwa Land, *JANER* 10/1, 92-102.
- Dardano, P. (2004). Il re, il grasso e l'argilla per una proposta di interpretazione di KBo 3.46 +, Ro II 13. In: *Šarnikzel: hethitologische Studien zum Gedenken an Emil Orgetorix Forrer*. D. Groddek, S. Rößle (Eds.) Dresden: Verlag der Technischen Universität, 239-251.
- Forlanini, M. (2004). La nascita di un impero Considerazioni sulla prima fase della storia hittita: da Kaniš a Hattuşa. *Orientalia* 73(4), 363-389.
- Forlanini, M. (2010). An Attempt at Reconstructing the Branches of the Hittite Royal Family of the Early Kingdom Period. In: *Pax Hethitica: Studies on the Hittites and their Neighbors in Honor of Itamar Singer*. Y. Cohen, A. Gilan & J.L. Miller (Eds.) Wiesbaden: Harrassowitz, 115-135.
- Goedegebuure, P. (2014). *The Hittite Demonstratives: Studies in Deixis, Topics and Focus*. Wiesbaden: Harrassowitz.
- Gurney, O. R. (1973). Anatolia c. 1750-1600 B.C. In: *The Cambridge Ancient History*. Vol. II, Part 1. I. E. S. Edwards, C.J. Gadd, N.G.L. Hammond, & E. Sollberger (Eds.) 3rd ed. Cambridge, U.K.: Cambridge University Press, 228-255.
- Hardy, R. S. (1941). The Old Hittite Kingdom: A Political History. *The American Journal of Semitic Languages and Literatures*, 58 (2), 177-216.
- Holland, G. B. & Zorman, M. (2007). *The Tale of Zalpa: Myth, Morality and Coherence in a Hittite Narrative*. Pavia: Italian University Press.

- Kloekhorst A. (2021). A New Interpretation of the Old Hittite Zalpa-Text (CTH 3.1): Nēša as the Capital under Ḫuzzija I, Labarna I, and Ḫattušili I, *JAOS* 141/3, 557-575.
- Martínez, J. (2016). The Evidence for Hurma as Early Hittite Capital in the Old Kingdom. In: *Anatolica et Indogermanica* (Fs Tischler). H. Marquardt, S. Reichmuth & J.V. García Trabazo (Eds.) Innsbruck: Institut für Sprachwissenschaft, 173-190.
- De Martino, S. (2005). Old Hittite Historiographical Texts: Problems of Classifications. In: *Acts of the Vth International Congress of Hittitology, Çorum, September 02-08, 2002*. Ankara: Nokta Ofset, 225-230.
- De Martino, S. (2022). *Handbook Hittite Empire: Power Structures*, Berlin, Boston: De Gruyter Oldenbourg.
- Neve, P. (1984). Ein althethitischer Sammelfund aus der Unterstadt. In: *Boğazköy VI: Funde aus den Grabungen bis 1979*. K. Bittel, H.-G. Bachmann, R. Naumann, G. Neumann, P. Neve, W. Orthmann & H. Otten (Eds.) Ausgrabungen des Deutschen Archäologischen Instituts. Berlin: Gebr. Mann, 63-89.
- Otten, H. (1973). *Eine althethitische Erzählung um die Stadt Zalpa*. Wiesbaden: Harrassowitz.
- Sir Gavaz, Ö. (2006). Hitit Kenti Zalpa'nın Yeri Üzerine, *Anadolu/Anatolia* 31, 1-18.
- Soysal, O. (1989). Mursili I: Eine historische Studie. Ph.D. Dissertation. Julius-Maximilians-Universität zu Würzburg.
- Ünal, A. (1996). *The Hittite Ritual of Ḫantitaššu from the City of Hurma against Troublesome Years*, Ankara: Turkish Historical Society Printing House.
- Yiğit, T. (2005). A Note on the Administrative System of the Old Hittite Kingdom, *Journal of Ancient Civilizations* 20, 31-35.
- Yiğit, T. (2006). Uršu Kuşatması Metni'nin Yeniden Değerlendirilmesi, *Anadolu/Anatolia* 31, 43-55.
- Yiğit, T. (2007). Haštayar and Kadduši. In: *VITA Festschrift in Honor of Belkıs Dinçol and Ali Dinçol*. M. Alparslan, M. Doğan-Alparslan & H. Peker (Eds.) İstanbul: Yayinlari, 797-801.



Recently Discovered Urartian Cuneiform Inscriptions in the Temple of the Körzüt Fortress

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Submitted: 29.11.2024

Revision Requested: 15.12.2024

Last Revision Received: 25.12.2024

Accepted: 25.12.2024

Citation: Erdoğan, S., & Süğlüm, A. (2024). Recently discovered urartian cuneiform inscriptions in the temple of the Körzüt Fortress. *Anadolu Arařtırmaları-Anatolian Research*, 31, 145–169. <https://doi.org/10.26650/anar.2024.31.1593151>

ABSTRACT

This study examines the findings from the 2023 rescue excavations at the Körzüt Fortress in the Lake Van Basin. Three newly discovered cuneiform inscriptions offer significant evidence linking the fortress's construction to the reign of the Urartian King Minua (810 - 786 BCE). The inscriptions recount the king's victory over the Erku tribe and the capture of the city of Luñiuni. They detail the spoils brought to the Urartian capital, including men, women, horses, and livestock from the city and surrounding areas. This narrative underscores Körzüt's strategic significance during Minua's northern campaigns. Moreover, analysis indicates that inscriptions previously found nearby villages likely originated from this fortress. The excavation of the Susi Temple reveals a square-plan design characteristic of Urartian temple architecture, enhancing our understanding of the period's religious and administrative structures. Collectively, these discoveries provide fresh insights into Urartu's political and cultural organization and its broader regional influence. Körzüt Fortress has thus emerged as a critical center for the study of Urartian history and archaeology in the region.

Keywords: Urartu, Körzüt Fortress, Minua, Haldi Temple, Van Region History, Urartian inscriptions, Minua's inscriptions



Introduction

One of the most prominent regions where the character and representation of Urartu can be distinctly observed is the Lake Van Basin. Setting aside the debated phenomena of Arzaškun and Sugunia, the processes of Urartu's emergence, maturation, and eventual decline are clearly traceable in this region. In this context, the Lake Van Basin, as defined in modern geographical terms, largely corresponds to the frequently mentioned concept of a "core region" for Urartu. This interpretation underscores the region's centrality within Urartian archaeology. The basin contains numerous centers associated with Urartu, among which the most notable are ̐uşpa, Toprakkale, ̐avuştepe, Anzaf, Ayanis, Kef, and Körzüt Fortresses.

Among these, the capital ̐uşpa stands out due to its monumental scale and archaeological significance. Approximately 57 km northeast of ̐uşpa lies another substantial fortress, albeit less grand than the capital. Known in the scholarly literature as Körzüt Fortress and locally referred to as Pertak, this site is located 9 km south of the Muradiye district, within the boundaries of Uluşar (Korsot) village (Fig. 1). The fortress was constructed on a basaltic rocky ridge extending north-south along Beydağı, a ridge which projects into the Muradiye Plain (Fig. 2).

As one of the largest settlements in the Muradiye Plain, Körzüt Fortress is remarkable for its strategic location, architectural features, and numerous inscribed slabs scattered in its vicinity, all highlighting its significance. Overlooking the fertile lands of the plain and controlling routes extending westward and eastward through Iran, the fortress served as an economically and militarily significant administrative center. Its fortification walls, temples, palace structures, construction techniques, and stone craftsmanship reflect its monumental nature. Numerous inscribed and unscribed stone slabs have been identified at Körzüt Fortress and in the surrounding villages of Muradiye, Karahan, Topuzarpa, Köşk, and Uluşar. Many of these slabs have been transferred to the Van Museum, underscoring importance of evaluating them collectively alongside the findings from Körzüt Fortress.

Körzüt Fortress has been a subject of study by leading scholars of Urartian research since the late 19th century. In addition to the surface surveys conducted by C. Burney and T. Tarhan-V. Sevin, the site has also been the focus of linguistic studies by Belck and Lehmann-Haupt, A. Dinçol, and M. Payne-N. Başgelen, as well as M. Salvini. The Körzüt region is one of the significant areas where Urartian inscriptions are densely found. Initially, Belck reported discovering four Urartian inscriptions in local churches during his 1891 research (Belck 1892: no.8,17,125, 480). Similarly, Belck and Lehmann-Haupt mentioned inscriptions from the Körzüt region in their studies (Belck, 1901: 302, 621, 623; Lehmann-Haupt, 1900: 621). The name Körzüt was first introduced to the academic world through Burney's surface surveys conducted in 1956. In his work, "Urartian Fortresses and Towns in the Van Region,"

Burney highlighted the Körzüt fortifications as a notable Urartian structure (Burney, 1957: 47, Fig. 6).

Another significant study of the region was conducted by Dinçol. In his article, “Die neuen urartäischen Inschriften aus Körzüt”, Dinçol examined various Urartian inscriptions from Körzüt and its surroundings, including construction inscriptions (Dinçol, 1976: 19–24). Later, the fortress was revisited during surface surveys conducted by Tarhan and Sevin, who assessed the site in terms of Urartian military and civil architecture (Tarhan & Sevin, 1976–77). Additional studies analyzing inscriptions from Körzüt and its vicinity include publications by Başgelen and Payne in 2009 (Başgelen & Payne, 2009).

Most recently, rescue excavations conducted by the Van Museum Directorate in 2016 unveiled new evidence about the region. The results of these excavations were presented to the academic community through publications such as “A New Urartian Temple in Körzüt Fortress, Turkey: A Report on the Rescue Excavation of 2016 and New Approaches on the Origin of Urartian Square Temple Architecture” (Kuvaç, Işık, Genç, 2016) and “Körzüt Kalesi Tapınak Alanı 2016 Yılı Kurtarma Kazısı” (Uslu, 2021).

Due to significant site destruction caused by looters, additional rescue excavations were conducted by the Van Museum in 2022 and 2023. The findings not only demonstrate the importance of the site but also address longstanding questions about its original name and founder.

In October 2023, during excavations at Körzüt Fortress in the so-called Southern Temple, three stone slabs containing an inscription of the Urartian king Minua were discovered.

Two basalt slabs (Slabs 1 and 2), lying horizontally close to each other, were found in the northeastern part of the temple, apparently in their original location. The remains of a later period hearth were found atop the first slab. The third slab (Slab 3) was found in the southwestern part of the temple.

A single inscription is carved across the four sides of the slabs. For convenience, the inscriptions are designated as follows: Slab 1A, Slab 1B, Slab 2, and Slab 3, where A and B indicate the sides with inscriptions. The inscription is continuous with the line progressing sequentially across the slabs (e.g., Slab 1 line 1 continues to Slab 2 line 1, and so forth). Such sequentially arrangements are characteristic of the monumental inscriptions of the Urartian kings¹. Notably, the inscription on Slab 1 occupies two sides (A and B), forming an angle that corresponds to the temple’s architectural plan.

1 For example, see the inscription of Rusa II from Ayanis, “a long cult inscription attached to the entrance to the temple of Susi» (Salvini, Ayanis I: 251; also mentioned in CTU I: 565, Salvini, Wegner, 2014: 121) or the inscription of Rusa II from Karmir Blur (KUKN 423) and some others.

Methods

This study employs a philological analysis of the primary source material, complemented by comparative philological and historical methods.

The language of the cuneiform inscription is classical Urartian². The signs are clearly carved into basalt and are remarkably well-preserved, except for the final signs on Slab 2. However, this minor damage does not hinder the readability of the text. The inscriptions feature a considerable spacing between the signs, allowing for accurate interpretation of each character.

Each basalt slab contains six lines of cuneiform text. These lines are separated from the stone's edges, creating a conditional frame, and are distinctly spaced from one another. The intervals between the lines measure 3.5 and 4 cm.

The inscriptions share similarities in content, formulation, and toponyms with other Urartian inscriptions, as documented by Salvini (CTU I A 5-2A-F) and by Arutyunyan (KUKN 47, 49, 50, 51) and by Melikishvili (UKN 30, 31, 32, 34). Based on these parallels, the discovered text may represent the initial two slabs of the so-called "Ceremonial/Festive Minua's Inscription", while Slab 3 likely corresponds to its concluding segment.

The inscription follows a standard title format and narrative style, enabling the reconstruction of the missing fragments with a high degree of accuracy (Table 2 for the reconstructed text and its transliteration and translation). The reconstruction is further facilitated by the absence of any fixed pattern in the placement of words or syllables across lines transferred to subsequent slabs. Unfortunately, it is currently impossible to determine the exact number of missing slabs. This limitation arises from the varying dimensions of the discovered stones and the different line lengths within the text.

Results

Rescue excavations conducted in 2016 and 2022 uncovered a temple structure (Kuvaç, Işık, & Genç, 2020; Uslu, 2021) and a single masonry tomb within the necropolis area. In 2023, further excavations led to the identification of a Susi Temple, a distinctive architectural feature of Urartu. These excavations were conducted near the southern edge of the citadel rock, within a destruction pit approximately 12 m in diameter and 2 m deep (Fig. 2). The findings revealed a typical Urartian square-planned Susi Temple.

The temple, which had suffered extensive damage, was partially excavated. Only the northern entrance façade was exposed down to the ground level. The eastern, western, and

2 «... the bulk of Urartian texts, more or less understandable, are standardized royal inscriptions, replete with stencil formulas...» (Khachikyan, 2010: 149).

northern walls were uncovered to the upper course of the stone levels to outline the structure's plan, while the interior was excavated to the floor level (Fig. 3). The temple is a classical example of an Urartian tower-type temple, featuring a square-planned cella (main chamber) accessed through a narrow rectangular corridor flanked by prominent risalits (projecting corners).

The northern façade includes a stepped entrance, 1.40 m wide, leading into a narrow corridor measuring 3.36 m in length and 0.75 m in width. This corridor opens to the square-planned cella, which measures 5 × 5 m. The corridor and cella sections are constructed with large, neatly cut stone slabs. Bedrock observed between and beneath the stones on the cella floor indicates that the temple was built on a level bedrock foundation.

Significant artifacts from both the Urartian and Medieval periods were discovered during the excavations. Notably, three basalt stone slabs inscribed with Urartian cuneiform were discovered on the preserved northeastern and northwestern facade walls of the temple (Fig. 3). The first two inscribed stones were positioned on the front face of the northeast risalit, while the third was located on the front face of the northwest risalit.

The first two stones, originally positioned side by side, had shifted forward from their original *in situ* alignment (Fig. 4–8). During the Medieval period, a tandır (oven) was constructed directly above these stones. The displaced stones were likely moved forward before the tandır's construction. The inscription on the northwest risalit had fallen sideways in front of the wall (Figs. 9, 10). Based on the positions and conditions of the three inscriptions, it is evident that Medieval settlers disrupted their original placement.

Table 1: Dimensions of the stone slabs

cm	Slab 1: KRZT K. 01.11.2023/1	Slab 2: KRZT K. 22.10.2023/2	Slab 3: KRZT K.22.10.2023/3
length	94	67.5	79
height	33	33	32,5
width	57	69.5	59

Discussion

The Urartian text inscribed on the slabs from Kōrzüt reveals that Minua, son of Işpuini, led a military campaign against the tribal union of *Erkuu*, during which he captured the city of *Luhiuni*. According to the inscription, Minua took men, women, horses, livestock from *Luhiuni* and its surrounding regions as spoils of war and transported them to his capital, *Ṭuşpa*.

Although the name of the city is not explicitly mentioned on the three slabs found in Körzüt, there is strong evidence to suggest that these inscriptions pertain to Minuaḫinili³.

Among the 15 texts documenting Minua's campaign against *Erkua* (Kuvaç, Işık, Genç, 2016: 115), the city of *Luḫiumi* is mentioned in at least six of them⁴. These texts originate from various sites, including Tharr (Yalındüz), Güzak (Karatavuk), Berkri (Muradiye), Körzüt (Muradiye), Dzorovank, and Tuşpa (Van Fortress). In scholarly literature, it has been suggested that the Minuaḫinili referenced in Urartian sources probably refers to the conquered city of *Luḫiumi*, renamed Minuaḫinili by the Urartian king after the construction of modest structures at the site (Arutyunyan, 1985: 130). Considering the standard form of Minua's inscription found in the Southern Temple of Körzüt, we can further explore the possibility of multiple toponyms bearing the name Minuaḫinili⁵. As Slabs 1 and 2 from Körzüt appear to have been found *in situ*⁶, it is reasonable to propose the existence of another city with the same name.

Transliteration and philological analysis play critical role in identifying whether previously found fragments belong to this text. Several fragments resembling the inscription found in Körzüt⁷ have been identified⁸, allowing for the reconstruction of lines both preceding and following the discovered slabs.

Orthographic variations in the spelling of personal names across monuments warrant close examination. For example, in the Körzüt inscription, Minua's name is written in a straightforward syllabic: *ṁmi-nu-ú-a*. By contrast, the Berkri inscription employs a phonetic spelling: *ṁmi-nu-ú-a* (CTU IA 5-2B), while the Qalatgah inscription features a more extended phonetic form: *ṁmi-i-nu-ú-a* (CTU I 5-61, KUKN 46). The reasons for these differences remain unclear; however, it seems likely that a single spelling was consistently used within a given inscription.

The six previously known identical inscriptions, which vary in their state of preservation, have been compiled (CTU I:188-189), shedding light on the fragments that

3 The suffix of affiliation *-ḫi(ni)* with the extension of the plural ending *-li* (*-ḫinili*) is used in the formation of names of various places (fortified cities, mansions, etc.) derived from the name of a person. For example, the names of the cities built by kings Minua, Argišti, Rusa: *ṁMinuaḫinili*, *ṁArgištiḫinili*, *ṁRusaḫinili* (UKN: 34; see also Ayvazyan, 2011: 111; Salvini, 2014: 20). Thus, the name of the ruler (PN) with the suffix *-ḫinili* as toponyms can be conventionally understood as “those who belong to PN”.

4 <http://oracc.museum.upenn.edu/ecut/cbd/qpn/onebigfile.html> (the date of the last reference 25.11.2024).

5 Until now, in the specialized literature, the toponym Minuaḫinili has been associated with two settlements: 1) Minuaḫinili according to the inscriptions of Minua from Tsolakert and Bashbulakh (both at Tashburun on the northern slope of Mount Ararat), the fortress (É.GAL) of the country of the *Erkua* tribe on the Ararat plain, in the right bank of the Aras River. In this case, Minuaḫinili means the city of *Luḫiumi*, renamed after the conquest of the country of *Erkua*; 2) “Minuaḫinili – according to the Akhtamar inscription of Minua apparently, is a settlement of the Erinu region on the southern coast of Lake Van. Over there, next to the country of Ay(ya)du (KUKN: 515-516; Arutyunyan, 1985: 142).

6 Slab 3 was found 9.80 meters from the first two ones.

7 The discrepancies in the found texts relate mainly to the peculiarities of phonetic spelling.

8 The reconstruction of these lines is based mainly on the publication of texts (CTU IA 5-2A-F and KUKN 47, 49, 50, 51).

were either erroneously restored or not restored at all. The new inscription from Kōrzüt makes a significant contribution to the study of site text, as it contains signs unique to this site. These signs are clearly discernible on the slabs, leaving little room for doubts in their interpretation. Consequently, the Kōrzüt inscription provides an opportunity to confidently restore previously incomprehensible signs, offers new translations of certain words and phrases, and introduces new lexemes into the Urartian language. The development allows us to verify or introduce earlier reconstructions of Urartian texts⁹. Table 2 highlights the signs absent in other inscriptions by underlining them, underscoring the Kōrzüt inscription's critical role in advancing our understanding of Urartian epigraphy.

Table 2: Signs according to the discovered slabs¹⁰

	Slab 1 Side A	Slab 1 Side B	Slab 2
1	^Dḫal-di-i-	-ni-ni uš-ma-a-ši-i-ni ^mmi-nu¹¹-a-še¹²	[^m]iš-pu-ú-i-ni-e-ḫi-ni-še
2	^mer-e-ku-	-ú-a-ḫi-i-ni-e-di ḫa-a-ú-bi <u>URU</u>	<u>lu</u> ¹³ -ú-ḫi-i-ú-ni-ni ^m er-e-
3	a-li¹⁴ ú-i-	-e a-i-še-e-i i-ni-e-i <u>qa</u>¹⁵-ab-qa-	-ar-šú-la-la-a-ni a-ru-ú-ni
4	¹⁶a-li-e-ki	za-a-áš-gu-ú-bi a-li-e-ki še-e-ḫi-	-e-ri a-gu-ú-bi 1 LIM 7 ME
5	^mmi-nu-a-še	<u>miš-pu</u>¹⁷-ú-i-ni-e-ḫi-ni-še <u>a-li</u>	<u>tú</u> ¹⁸ -sa-a-i <u>URU</u> tú-ú-š-pa-
6	ma-nu ^Lú-ú-	-e-di-a-ni-e-i gu-ur-da-ri¹⁹ <u>URU</u>a-	<u>a</u> ²⁰ -li-i-a ^{KUR} di-ru-ni ú-

9 See the notes and comment on Transliteration and Translation.

10 The signs of the slabs from Kōrzüt are highlighted in bold, while the reconstructed fragments are given in a regular font.

11 In CTU I: 188 Salvini restores the additional sign **-ú** in the name of mi-nu-ú-a-še, although this sign is not present in the Kōrzüt inscription.

12 The reconstruction of these signs in the other texts is obvious, as it shows part of the name ^mmi-nu-a + ergative -še.

13 In the texts about conquering city of Luḫiuni (e.g., CTU I A5-1) it can be seen the verb ḫa(u) – “to capture, to conquer” + the indicator of 1sg of the transitive verb **ḫi**, the first letters of the city name URUlu- in Luḫiuni.

14 In similar texts, it is always in the form *a-li-e*.

15 **qa** – a logical and indisputable restoration of the sign, as the similar phrase can be found in Urartian texts **qa-ab-qa-ar-šú-la-la-a-ni** – “(which no one else) had conquered” (e.g., CTU I 5-1).

16 In the texts where this line is reconstructed, Salvini gives sign MU “year” at the beginning – A 5-2A, A 5-2B, A 5-2C, A 5-2D (CTU I: 184-189.). However, in the text A 5-2E, where the signs at the beginning of line 4 are well preserved, as in the text found in Kōrzüt, the phrase begins directly with the word a-li-e-ki. In this case, Salvini reconstructs the *MU* sign at the end of line 3.

17 **-pu** - this sign is obviously restored in the name ^miš-pu-ú-i-ni.

18 Here, in the inscription from Kōrzüt, sign *UD* / *tú* is clearly read after *URU*, whereas in all other versions of Minua's text, the first sign is missing in this word, which leads to gaps in translation (for example, see CTU I A 5-2C:5; KUKN 51:4). In the article «Urartu Krallığı'nda Harem» Çavuşoğlu R., Gökce B. Işık K. suppose that the partially preserved signs stand for the word “harem” (Çavuşoğlu, 2010: 159). Thus, additional research is required to translate the probable term a-li-tú?-sa-a-i.

19 The etymology of the word *GURDARIE* remains unclear. Thus, most researchers translate the term “prisoners”. In the Minua's inscriptions, we are talking about women from the city of *Aelija*, the country of *Diruni*. It seems strange after the phrase “I killed some, I took others alive (captured)” to mention additionally captured women. Here, it seems important to mention Gordeziani's opinion, which I use in my translation of the text: “Probably, it must denote a state in which the people mentioned must have found themselves. The phrase follows the description of the Urartians' trophies and presumably refers to the fate of some of the captives... A special mention of taking captives to the capital city may imply that they were treated as hostages (Gordeziani, 2010-2011: 40).

20 URUa-e – in the name of the city *Aelija* is probably mentioned only in the inscriptions (CTU I A 5-2A-F) dedicated to the campaign against the tribal union of *Erkua*. But only in Kōrzüt inscription all the signs of this word are clearly seen.

Missing slabs
(possible reconstructions)

1	[a-li i-ú ^D ḫal-di-i-na-a-ú-e KÁ i-e-i-me-e 'a-a-ḫu-ú-bi i-ú ^D ḫal-di-i-ni-li KÁ
2	[-ku-a-ḫi-i-ni-e-i ^{KUR} e-ba-a-ni-i-e ^{KUR} e-ti-ú-ni-ni za-a-áš-gu-ú-bi ^m m̄i-nu-a-še ^{m̄} m̄i-š-pu-ú-i-ni-
3	[^D ḫal-di-še-e ^m m̄i-nu-a ^{m̄} m̄i-š-pu-ú-i-ni-e-ḫi-ni-e ḫa-a-ú-ni ^{URU} lu-ú-ḫi-ú-ni-i-ni
4	[33 ANŠE.KUR.RA ^{MES} 7 LIM 6 ME 16 ^{GU} 4pa-a-ḫi-i-ni a-ti-i-bi-e 5 LIM 3 ME 20 ^{UDU} šú-ú-še
5	[-a ^{URU} 21 ú-te-e a-i-še-e-i ^{LÚ} e-ri-li-e-še i-za-a-ni ^{LÚ} ú-e-di-a-ni tar-a-i-e
6	[-ni ²² ka-am-ni a-ši-ni-e-i ^{URU} a-e-li-i-a ma-nu gu-ur-da-ri ^{URU} 'a-al-tu-qu-ia ^{KUR} ši-ia-ad-ḫi-ni

Missing slab
(possible reconstructions)

Slab 3

1	ši-i-du-ú-bi su-lu-uš-ti-i-a-di ^D ḫal-di-i-e ḫu-ú-ti-i-a-di ^D]	ḫal-di-i-e di-e nu-ú[-na-a-bi]
2	e-ḫi-ni-še a-li-e ^{URU} lu-ú-ḫi-i-]	... -ú-ni-ni²³ URU pa-a-ta-[-ri-e]
3	'a-a-al-du-ú-ni ^{KUR} e-ti-i-ú-ni-i-ni me-e-ši-]	...-i-ni-i pi-e-i 50 [a-ti-]
4	i-na-a-ni ^{LÚ} e-ri-e-li-i-e nu-na-a-bi m̄i-i a-li ^{LÚ} ḫu-ra-]	...-a-di-i-na-a-še i-ri-ḫi-bi²⁴-
5	pa-a-ra-la-ni gu-ú-ni ^m m̄i-nu-a-še ^{m̄} m̄i-š-pu-i-ni-ḫi-ni-še ^{URU}]	lu-ḫi-ú-ni-a-ni pa-ru-ni²⁵ ka-
6	^D ḫal-di-i-ni-ni al-su-i-ši-ni ^m m̄i-nu-a-ni ^{m̄} m̄i-š-pu-ú-i-	...-ni-ḫi MAN DAN-NU MAN al-su-i-ni²⁶-še

Missing slab
(possible reconstructions)

1	[^m er-e-ku-ú-a-ḫi ^{KUR} e-ba-a-ni uš-ta-a-di-e]
2	^{LÚ} e-ri-e-li-nu-si-e ^m er-e-ku-ú-a-ḫi-i-ni-e-i]
3	[-bi-e X LIM X ME 'a-še(?) ^{LÚ} ú-e-di-a-ni(?) ^{LÚ} ta-ar-šú-ú-'a-a-ni-e]
4	[-tú-ú i-ú ^{KUR} ni áš-ú-la-bi ^D ḫal-di-ni-ni uš-ma-ši-ni]
5	[-am-ni] ^{LÚ} ú-e-di-a-ni 'a-a(?)-ši-ni-e-i ^{URU} tu-uš-pa-ni]
6	[MAN ^{KUR} bi-ia-i-na-ú-e a-lu-si ^{URU} tu-uš-pa URU]

21 When reconstructing, we take into account the estimated number of signs per line. In the texts in the appropriate place, the word “city” occurs in the form of a logogram *URU* (A 5-2A – well preserved; A 5-2B – partially preserved) and in phonetic spelling *pa-a-ta-a-ri-e* (A 5-2C – partially preserved; A 5-2D, A 5-2E – reconstructed (CTU I 184-189).

22 *ú-ni* is usually left untranslated in the publication of texts. Possibly, it may be an example of excessive orthography^(?).

23 Regarding ^{URU}*Lu-ḫi-i-ú-ni-ni* Arutyunyan remarks that the ending with repeated signs *-nini* is completely not typical for Urartian toponyms. is completely unusual for Urartian toponyms. Therefore, in his opinion, the latter *-ni* – is an indicator of the possessive form (KUKN 471).

24 ^{LÚ}*ḫu-ra-di-i-na-a-še i-ri-li-bil* preserved only in Körzüt inscription. ^{LÚ}*ḫuradi(e)* – “a warrior”; ^{LÚ}*ḫuradini(e)* ^{li}*MES* – “warriors”, “troops, army” + ergative *-še*; the verb *irbu* – “to take, to capture” in phonetic spelling *iribi*.

25 In all known texts, the signs *e-di-ni*, are reconstructed in an identical place, while leaving this fragment without translation (see CTU I: 185-189). In the inscription from Körzüt, clearly written and undamaged signs give the reading of *pa-ru-ni*.

26 **al-su-i-ni-še: alsuini** – “great” + ergative *-še* where *-še* preserved only in Körzüt inscription.



Figure 1: Eastern Anatolia and important Urartian Centers, (by E. Ödük)



Figure 2: Körtüt Fortress, Muradiye Plain and Lake Van from the east

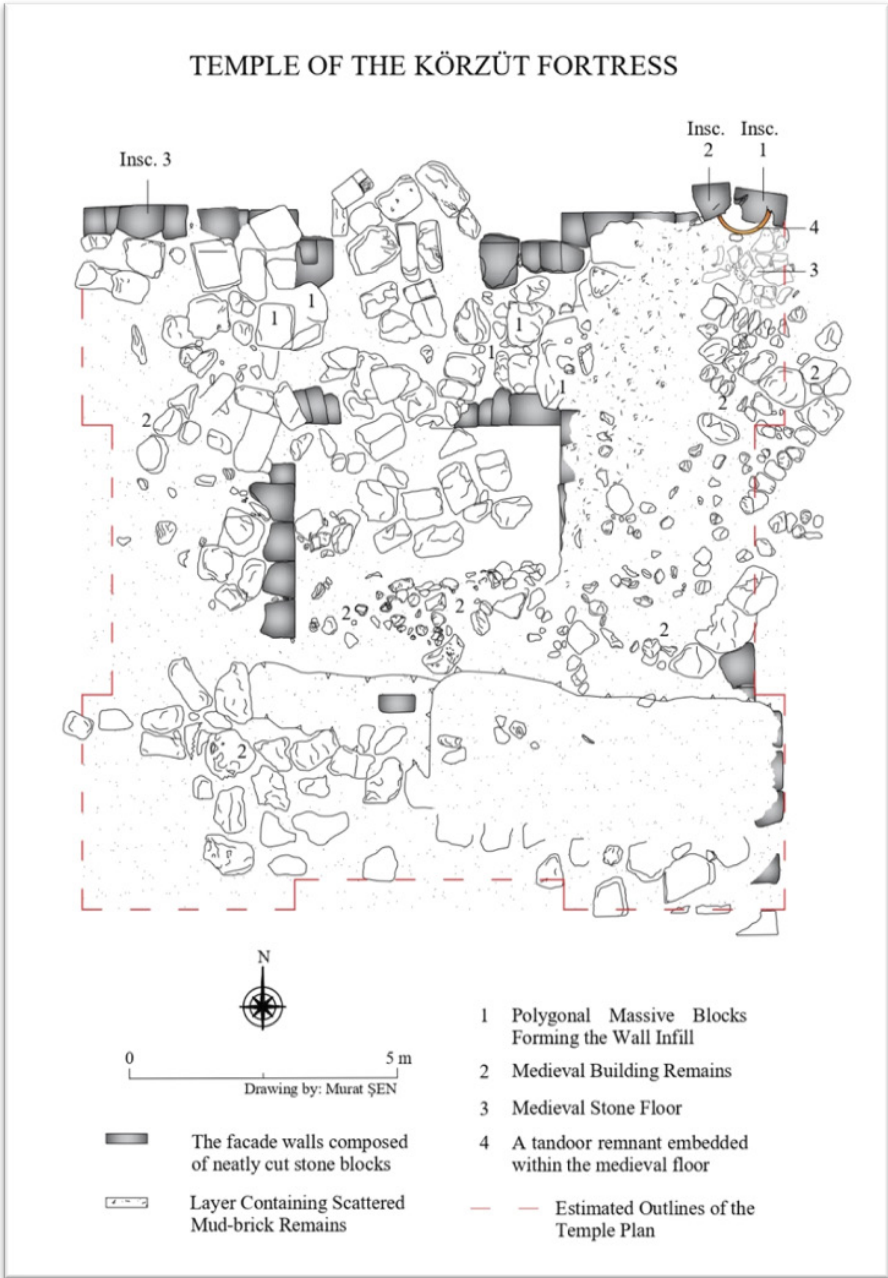


Figure 3: Susi, Haldi temple, (by M. Şen)

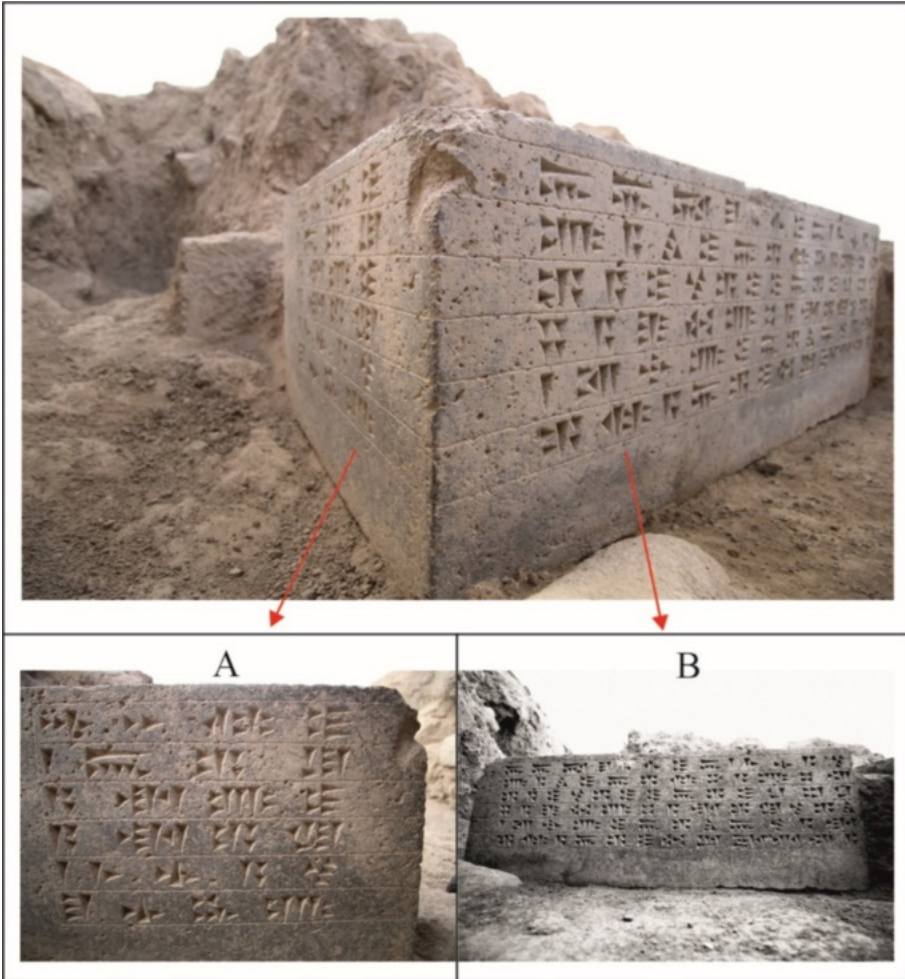


Figure 4: Slab 1, northeast tower

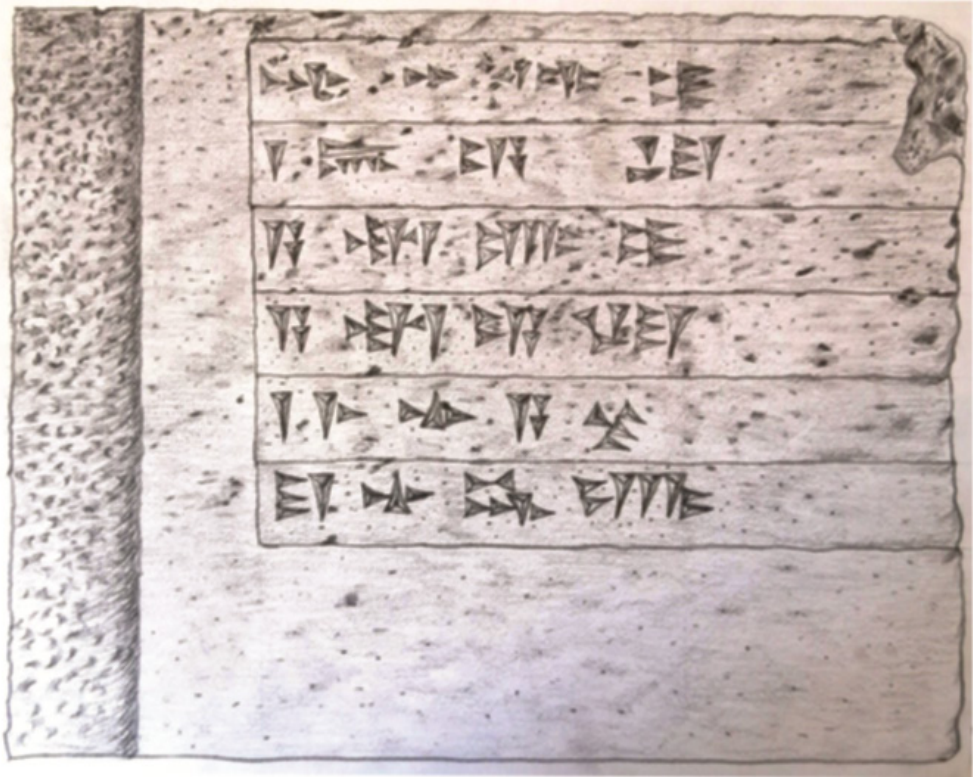


Figure 5: Slab 1, side A, (by H. Fidan)

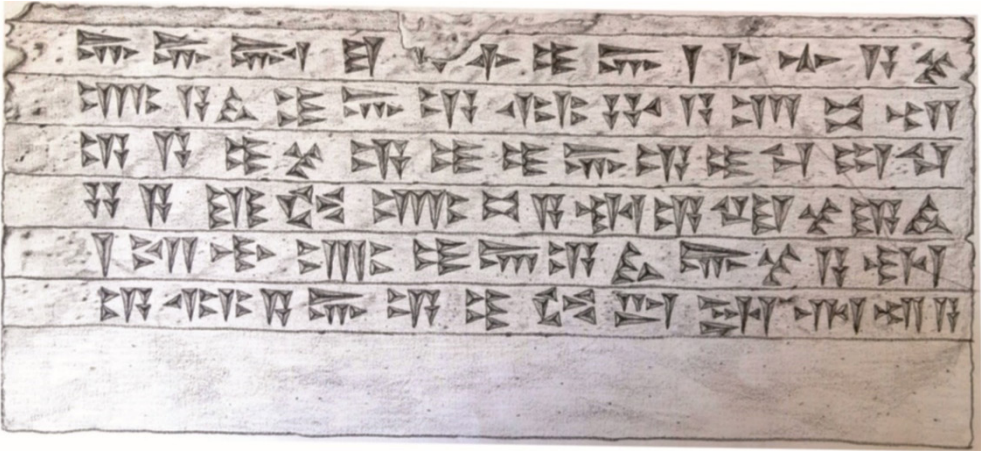


Figure 6: Slab 1, side B, (by H. Fidan)

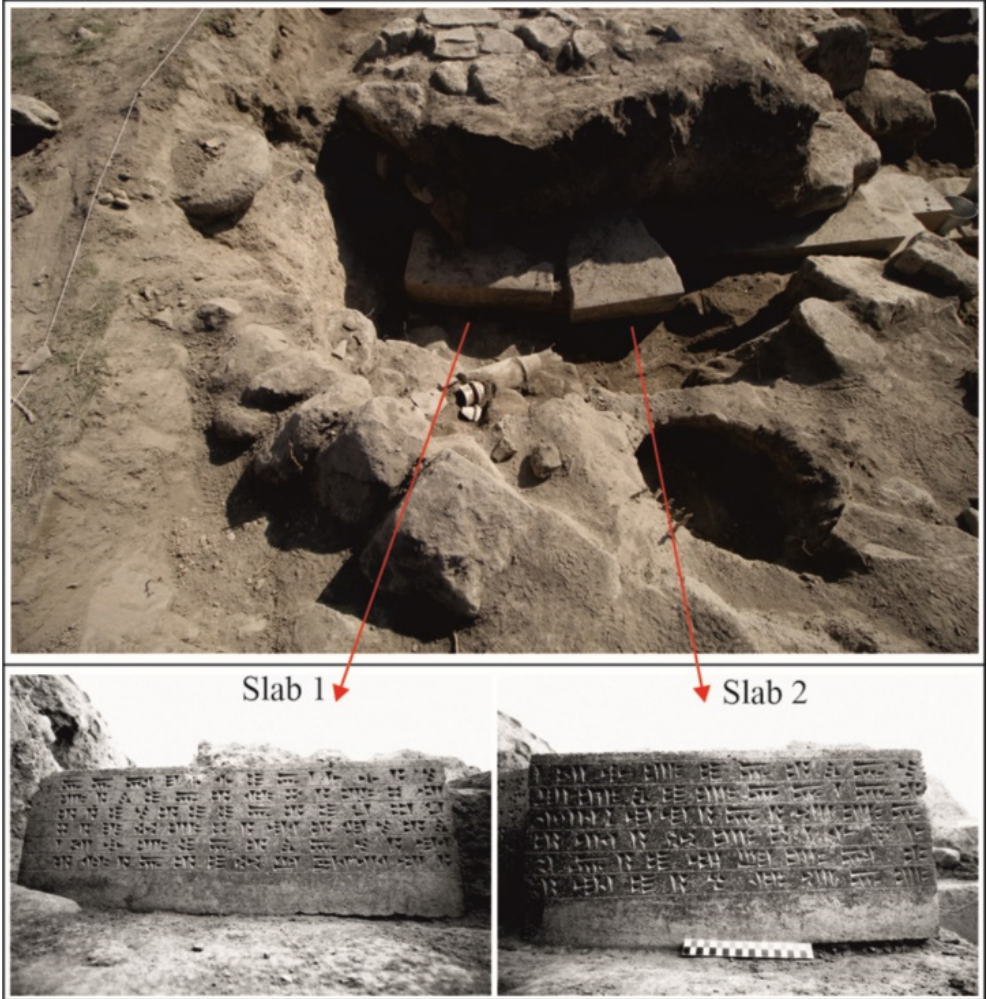


Figure 7: Slab 2, northeast tower

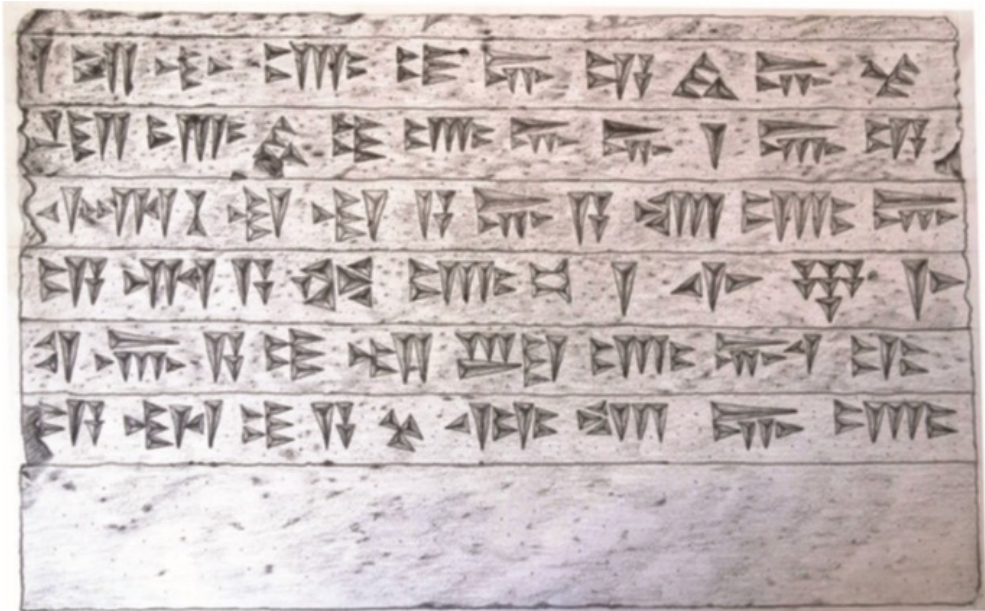


Figure 8: Slab 2, northeast tower, (by H. Fidan)

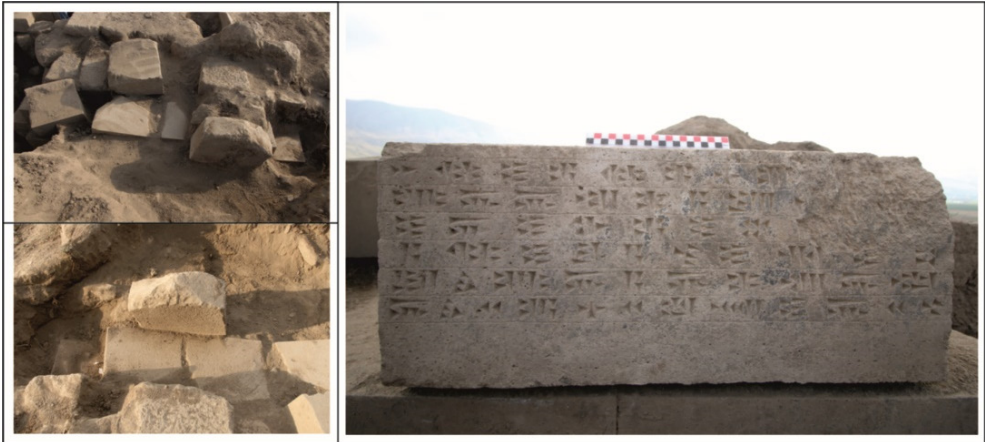


Figure 9: Slab 3, northwest tower

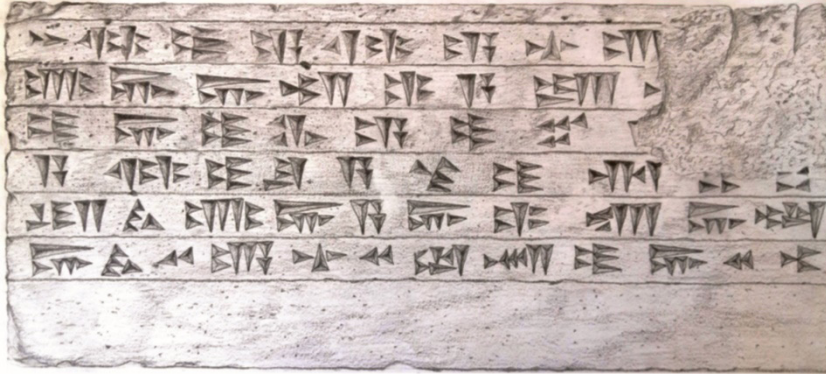


Figure 10: Slab 3, (by H. Fidan)

Transcription and translation

1. **D**ḫal-di-i-ni-ni uš-ma-a-ši-i-ni m̄mì-nu-a-še l̄m̄iṣ-pu-ú-i-ni-e-ḫi-ni-še [a-li i-ú Dḫal-di-i-na-a-ú-e KÁ i-e-i-me-e²⁷ 'a-a-ḫu-ú-bi i-ú Dḫal-di-i-ni-li KÁ ši-i-du-ú-bi su-lu-uš-ti-i-a-di Dḫal-di-i-e ḫu-ú-ti-i-a-di] **D**ḫal-di-i-e di-e nu-ú-[na-a-bi] [mer-e-ku-ú-a-ḫi KURe-ba-a-ni uš-ta-a-di-e]

1: With the power of Ḫaldi M̄nua, the son of Iṣpuini, [says: “When I established the foundation for Haldi Gate, when I built Haldi Gate, I prostrated myself before Haldi], I pray[ed] to Haldi”. [He(?)²⁸ came to the country of the tribal union[?] *Erkua*]. I set off ...

2. mer-e-ku-ú-a-ḫi-i-ni-e-di ḫa-a-ú-bi URUlu-ú-ḫi-i-ú-ni-ni mer-e-[ku-a-ḫi-i-ni-e-i KURe-ba-a-ni-i-e KURe-ti-ú-ni-ni za-a-áš-gu-ú-bi m̄mì-nu-a-še m̄iṣ-pu-ú-i-ni-e-ḫi-ni-še a-li-e URUlu-ú-ḫi-i]-ú-ni-ni URU pa-a-ta-ri-e] [LÚe-ri-e-li-nu-si-e mer-e-ku-ú-a-ḫi-i-ni-e-i]

27 This fragment remains unclear. Salvini makes the word division as follows: *Dḫal-di-i-na-a-ú-e KÁ i-e-i-me-e* – “(when) I laid the foundation of the gate (temple) of Haldi” (CTU I A 5-2F). Unfortunately, Arutyunyan does not translate this fragment due to the poor preservation of the text, but gives another word division, probably based on case coherence. *Dḫal-di-i-na-a-ú-e KÁ i-e-i-me-e...* In the commentary to this line, Arutyunyan writes that the summary texts for this fragment are not entirely convincing. He tends to see in *me-e...* the beginning of words *meripte* or *meruni* (KUKN 55). In the texts cited by Salvini, we see that in texts A 5-2A and A 5-2C the fragment *a-li i-ú Dḫal-di-i-na-a-ú-e KÁ i-e-i-me-e 'a-a-ḫu-ú-bi* is partially or completely preserved. Therefore, in this publication it makes sense to follow Salvini’s version.

28 This phrase is quite controversial. Similar phrases occur where the pronominal suffix clitic changes in verbs following each other, they are quite common. In this case, we see the intransitive verb *nuna-* with the suffix of the 3rd person singular *-bi*. Salvini translates the phrase *nunabi merkuah̄i KURebani* as “It has become the turn of the country of *Erkua*” (CTU I A 5-2). Melikishvili translates “The country of *Erkua* has come”, interpreting it as “I have reached the country of *Erkua*” (UKN 30). Arutyunyan believes that the suffix *-bi* refers to the name of the god Haldi preceding in the line: “He came (the god Haldi) to the country (of the *Erkua* tribe)”. He supposes that this is due to the phrase that the god Haldi granted M̄nua the royal city of *Luḫiuni*. And only after that M̄nua speaks on his own behalf: “I conquered the city of *Luḫiuni*” (KUKN 47).

2: ... to the country of *Erkua*. I conquered *Luhjuni*, the city of the tribal union? *Er[kua, – I destroyed the country of Etiuni*. Minua, the son of Išpuini, says: “*Luhjuni*, the royal ci[ty] [of the *Erkua* tribe],

3. **a-li²⁹ ú-i-e a-i-še-e-i i-ni-e-i qa-ab-qa-ar-šú-la-la-a-ni a-ru-ú-ni** [^Dhal-di-še-e ^mmì-nu-a ^miš-pu-ú-i-ni-e-^hi-ni-e ^ha-a-ú-ni ^{URU}lu-ú-^hi-ú-ni-i-ni 'a-a-al-du-ú-ni ^{KUR}e-ti-i-ú-ni-i-ni me-e-ši-
]-**i-ni-i pi-e-i 50** [a-ti-] [-bi-e X LIM X ME 'a-še(?) ^{LÚ}ú-e-di-a-ni(?) ^{LÚ}ta-ar-šú-ú-'a-a-ni-e]

3: which no one else conquered, [he (Haldi?) granted to Minua, the son of Išpuini”. I conquered *Luhjuni*, I defeated the country of *Etiuni* under the condition of paying trib[ute]. 50 thousa[nd of ... men, women ... people]

4. **a-li-e-ki za-a-áš-gu-ú-bi a-li-e-ki še-e-^hi-e-ri a-gu-ú-bi 1 LIM 7 ME** [33 ANŠE. KUR.RA^{MEŠ} 7 LIM 6 ME 16 ^{GU}4pa-a-^hi-i-ni a-ti-i-bi-e 5 LIM 3 ME 20 ^{UDU}šú-ú-še i-na-na-ni ^{LÚ}e-ri-e-li-i-e nu-na-a-bi ^mi-i a-li ^{LÚ}hu-ra-]-**a-di-i-na-a-še i-ri-li-bi**]-[tú-ú i-ú KUR-ni áš-ú-la-bi³⁰ ^Dhal-di-ni-ni uš-ma-ši-ni]

4: – I have slaughtered some and took others alive. 17[33 horses, 7616 heads of cattle, 15320 heads of small cattle went to the king, not to mention what the a]rmy took when it le[ft the country. With the power of Haldi]

5. ^mmì-nu-a-še ^miš-pu-ú-i-ni-e-^hi-ni-še a-li tú-sa-a-i ^{URU}tú-ú-uš-pa-[-a URU ú-te-e a-i-še-e-i ^{LÚ}e-ri-li-e-še i-za-a-ni ^{LÚ}ú-e-di-a-ni tar-a-i-e pa-a-ra-la-ni gu-ú-ni ^mmì-nu-a-še ^miš-pu-i-ni-^hi-ni-še ^{URU}lu-^hi-ú-ni-a-ni pa-ru-ni ka-[-am-ni ^{LÚ}ú-e-di-a-ni 'a-a(?)]-ši-ni-e-i ^{URU}tú-uš-pa-ni]

5: Minua, the son of Išpuini, says: “If there is [a king who was the first to bring so many women to the harem to the city of] *Tušpa*, then (this king) is Minua, the son of Išpuini, who brought women] from *Luhjuni* [to the city of *Tušpa*”]³¹.

29 In similar texts, it always goes in the form of *a-li-e*.

30 Salvini translates this phrase: “When I occupied the country” (CTU I A 5-2). Considering that from the verb *ašu* – “to sit, to occupy, to settle”, in this sentence there is a form of intransitive *ašula* – “to leave, to retire”, Arutyunyan believes that the similar phrase in another text should be translated: “When he left the country” (KUKN 241C, 46). Here, in our opinion, the suffix *-bi* refers to ^{LÚ}huradinaše – “army, warriors”, so it makes sense to translate this phrase: “When it (the army) left the country / When it (the army) was leaving the country”.

31 Due to the previously unknown sign (see note 16) and phrases found exclusively in this text, this fragment still requires additional research. In this article, the translation of this line is based on the research in the article “Urartu Krallığı’nda Harem” (Çavuşoğlu, 2010: 159).

6. **ma-nu** ^{LÚ}ú-e-di-a-ni-e-i **gu-ur-da-ri**³² ^{URU}a-e-li-i-a ^{KUR}di-ru-ni ú-[ni ka-am-ni a-ši-ni-e-i ^{URU}a-e-li-i-a ma-nu gu-ur-da-ri ^{URU}'a-al-ṭu-qu-ia ^{KUR}ši-ia-ad-ḫi-ni Dḫal-di-i-ni-ni al-su-i-ši-ni ^mmi-nu-a-ni ^miš-pu-ú-i-]ni-ḫi **MAN DAN-NU MAN al-su-i-ni-še** [MAN ^{KUR}bi-ia-i-na-ú-e a-lu-si ^{URU}ṭu-uš-pa URU]

6: (There are) women prisoners/hostages[?] from[?] the city of *Aelija*, the country of *Diru[ni, [uni]* (in addition to) the previous / (previously captured) men from[?] *Aelija* city; there are prisoners/hostages[?] from[?] the city of *Alṭuquja*, the country of *Šiadḫini*³³. By the greatness of the god Haldi Minua, son of Išpui[ni, the mighty king, the great king, [the king of the country of *Biaïnili*, the ruler of the city of *Ṭušpa*].

Index of Toponyms

1. city of *Aelija*

^{URU}a-e-li-i-a – line 6 (2 times)

2. city of *Alṭuquja*

^{URU}'a-al-ṭu-qu-ia – line 6

3. country of *Biaïnili*

^{KUR}bi-ia-i-na-ú-e – line 6

4. the country of *Diruni*

^{KUR}di-ru-ni – line 6

5. tribal union[?] *Erkua*

^mer-e-ku-ú-a-ḫi – line 1

32 Interestingly, Arutyunyan leaves this phrase without translation (KUKN 52). Salvini leaves the term *gurdari* untranslated (CTU I CTU I A 5-2). Following Gordeziani's convincing argument (see note 19) in this publication, we adhere to his point of view that *gu-ur-da-ri* are "prisoners, hostages". However, the main question comes from the fact that in the phrase *manu* ^{LÚ}úedianiei *gurdari* ^{URU}aelia ^{KUR}diruni ú[-ni kamni ašinie ^{URU}aelia *manu gurdari* ^{URU}'alṭuquia ^{KUR}šiadḫini – "prisoners" or "hostages" women from one city are mentioned separately, and from another city there is no gender index before the word "prisoners".

33 The passage is actually rather complicated for the translation firstly due to reconstructed fragments, secondly due to the lack of pronominal suffixes to determine its true meaning. In fact, it is also possible to translate not "from" those cities, but "in" those cities, as there can be locative suffixes *-a* in the end of the city-names ^{URU}a-e-li-i-a ^{URU}'a-al-ṭu-qu-ia. And the new version would be like following: "(There are) women prisoners / hostages? (from *Luhuni*) in the city of *Aelija*, the country of *Diruni*, (in addition to) the previous / (previously captured) men in the city of *Aelija*; there are prisoners / hostages? (from *Luhuni*) in the city of *Alṭuquja*, the country of *Šiadḫini*". That literally may possibly mean that hostages from the captured city were settled in other cities and countries.

er-e-ku-ú-a-ḫi-i-ni-e-di – line 2

er-e-[ku-a-hi-i-ni-e-i] – line 2 (2 times)

6. country of *Etiuni*

^{KUR}e-ti-i-ú-ni-i-ni – line 3

^{KUR}e-ti-ú-ni-ni – line 2

7. Luḫiuni – a royal city of tribal union? *Erkua*

URUlu-ú-ḫi-i-ú-ni-ni – line 2 (2 times)

[^{URU}] **lu-ḫi-ú-ni-a-ni** – line 5

^{URU}lu-ú-ḫi-ú-ni-i-ni – line 3

8. the country of *Şiadḫini*

^{KUR}ṣi-ia-ad-ḫi-ni – line 6

9. city of *Tušpa*

^{URU}**tu-ú-uš-pa**-[-a] – line 5

^{URU}tu-uš-pa-ni – line 5

^{URU}tu-uš-pa URU – line 6

1. **Aelija** – The city of **Aelija** is mentioned in several inscriptions related to King Minua's campaign against the tribal union of **Erkua** and its royal city, **Luḫiuni**. Arutyunyan locates Aelija in the Muradiye plain, situated to the northwest of Lake Van (Arutyunyan, 1985: 13). The countries of **Diruni** and **Şiadḫini**, also mentioned in the inscriptions, are believed to be located within the same region. The name **Diruni** (or **Diru**) is phonetically similar to the name of the village T/Dar. Indeed, one inscription was discovered in this village, supporting the hypothesis that **Aelija** along with **Diruni** could be located along the Bendimahi Creek near in the village of Tar (Yalındüz) and its surrounding area (Işık, 2015: 185).

2. **Altuquja** – **Altuquja** is associated with the **Şiadḫini** region and may have been situated at the northeastern corner of Lake Van, specifically in the area where the Minua inscription was discovered at Körzüt (Arutyunyan, 1985: 23).

Except for the inscriptions found in the Muradiye district, there are no other Urartian inscriptions mentioning **Altuquja**. Işık challenged Salvini's assertion that **Altuquja** could be

located in the Urmian plain, east of Zagros, arguing that there are no Urartian inscriptions in that region. The presence of Minua's reference to **Altuquja** during his conquests, however, strengthens the argument for locating it in Muradiye plain (Işık, 2015: 201).

3. **Biainili** – There is a well-established scholarly consensus that **Biainili** is the self-designation of the state referred to as Urartu in Assyrian texts. Faced with the challenge of geographical boundaries and the toponymy of the Urartian region, the term “**Biainili**”, which is found only in Urartian texts, is very difficult to compare with a certain territory³⁴. In all probability, **Biainili** is the local designation of the Urartian tribes in general, or one of their main branches, located approximately within the borders in which the Urartian kingdom emerged in the 9th century BCE. The term probably reflects the shared origin of the Urartian tribes (UKN: 8).

The name of the country **Biani** appears predominantly as a title in inscriptions. Starting with the reigns of Išpuini and Minua, the title was adopted by all later Urartian kings whose written records survived. This royal title is rendered as “MAN^{KUR}bi-a-na-ú-e a-lu-si^{URU}tu-uş-pa URU” meaning “King of the country of **Biani**, lord of the city of Tuşpa” (CTU IA 3-2).

Scholars have also suggested that **Biani** is both a tribal and geographical designation. Diakonoff-Kashkai argues that the term “**Biani Country**” is synonymous with “Urartu Country” representing the geographical core of the Urartu homeland located east of Lake Van (Diakonoff-Kashkai, 1981: 21). Hewsen narrows the localization of **Biani Country** to the area between Lake Van and Lake Erçek, proposing that **Biani** refers to the tribe that founded and ruled Urartu. (Hewsen, 1992: 185, d. n. 155).

Moreover, expressions in writing sources such as “the gods of **Biani**”, “the people of **Biani**”, and “the foreigners” suggest that **Biani** can be associated with the name Urartu. The Urartians likely used the term **Biani Country** to define themselves concerning the region east of Lake Van, where the kingdom's political, cultural and geographical center was situated (Işık, 2015: 129-131).

4. **Diruni** – The name **Diruni** (or **Diru**) appears in inscriptions describing an expedition against the city of **Luhiuni**, part of the tribal union of **Erkua** (CTU IA 5-2). These inscriptions were likely carved on building slabs for the walls of the temple of Susi, located within the fortress of Körzüt, in the Muradiye district.

The presence of inscriptions on the Muradiye plain strengthens the possibility that the referenced cities, and the Country of **Şiadhini** as well as the Country of **Diruni** were situated within the same plain³⁵.

34 In Urartian inscriptions, **Biainili** is considered as the designation of the territory of the entire vast Urartian kingdom... Despite the fact that the Urartians themselves called their country **Biainili**, this was not reflected in the toponymy of the central part of Urartu (UKN: 8).

35 For more information, see the description of the toponym Aelija.

5. **Erkua** – Based on the inscriptions mentioned above³⁶, the country of **Erkua** along with the city of **Luḫiuni** in specialized literature is generally localized on the right bank of the Aras, particularly in the Taşburun area and adjacent localities. On the territory of this country, the well-known administrative and economic center of Minuaḫinili was subsequently established – a key springboard for the Urartians to cross the Aras and conquer the land of the ʾAza tribe (Arutyunyan, 1985: 260).

The name of the **Erkua** tribe was first attributed to the Urartian king Minua. These inscriptions state that Minua captured the tribal union of the **Erkua** tribe and its royal city **Luḫiuni** during his northern campaign (Işık, 2015: 87).

6. **Etiuni** – In the specialized literature, there is a perspective that “the country of **Etiuni-Etiukhi**” represents a collective name for the vast territory of southern Transcaucasia, either a common name or a geographical concept. In any case, it appears that the western borders of the **Etiuni-Etiukhi** tribal union at times extended as far as the Sarıkamış region, while its eastern borders reached the union of the Uduri–**Etiuni** tribes in the Sevan Basin and the Sisian region (e.g., to the regions of Uluani and Tsuluk). The southern borders probably extended to the middle course of the Aras River near its confluence with the Arpaçay-Akhuryan rivers and adjacent areas, while the northern limits possibly reached Lake Çıldır (Arutyunyan, 1985: 263). Additionally, the term **Etiuni** (or Etiu) was likely used in an ethnic context (Işık, 2015: 136).

7. **Luḫiuni** – The name of **Luḫiuni**, the royal city of the tribal union of **Erkua**, is not found elsewhere in the corpus of Urartian texts apart from the inscriptions of Minua. These inscriptions suggest that **Luḫiuni** was located in the Karakoyunlu plain even before the establishment of Urartu. Melikishvili positions **Luḫiuni** between the northern foot of Mount Ararat and the Aras River in alignment with the location given in Taşburun inscription. In contrast, Diakonoff-Kashkai place it between the site where the Taşburun inscription was found and Karakoyunlu, south of the Aras River. Arutyunyan equates the city of **Luḫiuni** with Minuaḫinili, founded by Minua. He further suggests that the location may correspond to the ruins of Tsoiakert between the site of the Taşburun inscription and the Karakoyunlu plain (Işık, 2015: 222-224; *ibid.* 56).

8. **Şiadḫini** – The name of the country of **Şiadḫini** appears in inscriptions from the Muradiye plain, which document King Minua’s campaign against the tribal union of **Erkua** and their royal city of **Luḫiuni**. Those inscriptions indicate that some captive women were given as *gurdari* (a term of unknown meaning) to the city of **Aelija**, the country of **Diruni/Diru**, and the city of **Altuquja** from the country of **Şiadḫini** (CTU I A 5-2).

36 Here Minua’s inscriptions are mentioned.

The countries of **Diruni/Diru** and **Şiadđini** are only attested in the Muradiye inscriptions, making the precise location of these difficult to identify. However, the presence of these inscriptions in the Muradiye plain highlights the importance of this area (Işık, 2015: 161).

9. **Ŧuşpa** – According to Urartian inscriptions, **Ŧuşpa** was the capital of the ancient state of Biainili (Urartu). This corresponds to Ŧuruşpa mentioned in Neo-Assyrian cuneiform sources (Arutyunyan, 1985: 191; Salvini, 2014: 218-222).

In the same sources, Ŧuşpa is first mentioned in the tablet from Sultantepe containing the inscription of the Assyrian king Shalmaneser III (858–824 BC) (RIMA 3: 84-87). In the Urartian inscriptions, the name **Ŧuşpa** first appears in inscriptions from the period of the joint reign of Işpuini and his son Minua. Ŧuşpa is the most frequently mentioned city in the Urartian inscriptions.

The Urartian capital city of Ŧuşpa is traditionally associated with the fortress of Van. However, the capital likely encompassed a significant larger area than the Van Citadel alone. Estimates suggest that during the Urartian period Ŧuşpa may have been home to at least 50,000 inhabitants (Işık, 2015: 159-161).

Approximately 150 inscriptions from the reign of the King Minua have been discovered (KUKN 40-172; CTU IA 5-1 – 5-99), excluding those jointly attributed to Işpuini and Minua. These inscriptions found on various monuments including stelae, columns, rocks, building stones, harness materials, bowls, and quivers, as well as accounting type of records, provide significant insights into Minua’s rule.

King Minua focused on consolidating the internal political and social system of Urartu, initiating extensive construction projects, and fostering economic development. Simultaneously, he pursued strategically successful policy of conquest, systematically extending influence to the north, northwest, west, southwest and southeast. The strength of the Urartian military during this time is evident in its efforts to control key trade routes. Notably, under Minua’s leadership, the Urartians engaged in successful campaigns against the Assyrians, even reaching the borders of Assyria.

Minua’s expansionist efforts in the north and northeast, were particularly directed at establishing a foothold in the Lake Van. By subjugating smaller states to the north of Ŧuşpa, capturing tribute, and building garrisons and fortresses, Minua sought to secure Urartu’s advance into the Aras River basin.

An inscription discovered at Kõrzüt reveals that Minua conquered the territory of the Erkuia tribe, including its royal city of Luđiuni. This inscription emphasizes the significance of this achievement, stating that Luđiuni had never been conquered before, suggesting

previous Urartian rulers had not ventured this region. Additional inscriptions from Minua's reign indicate that to consolidate the gains from the Erkua campaign and to ensure the continued advancement of the Urartian influence, the king constructed a military stronghold – Minuaḫinili – within the conquered province of Erkua. In the case of Körzüt Fortress, it appears to have served as another fortress strategically important stronghold in the Van region.

In addition to the philological and historical assessments of the discovered inscriptions, discussions of the Körzüt Fortress's significance focus on its location and the purpose of its construction. Burney highlights the likely positioning of the fortress within the citadel, emphasizing the extensive planning of the lower city, the defensive walls supported by towers, and its strategic location overlooking the Muradiye Plain (Burney, 1957: 47–48).

Tarhan and Sevin emphasize the fortress's role in defense strategy, considering it critical component of the “chain defense strategy” formed by interconnected fortresses (Tarhan & Sevin, 1976–77: 276). They further argue that the fortress represents a substantial investment in enhancing the military protection of the Urartu Kingdom in the Muradiye Plain (Gökçe, Kuvanç, & Genç, 2021: 139, 143).

Additionally, the fortress is described as a key point within Urartu's major northern, eastern, and western transportation routes (Gökçe, Kuvanç, & Genç, 2021: 141). Located along the main route extending northward from Tuşpa, the fortress was a part of a strategic Project of the Urartian Kingdom. This route, running along Lake Van's northern shore, branches westward (Muradiye–Erciş–Patnos–Malazgirt–Bulanık–Murat River Valley) and northward (Muradiye–Çaldıran–Doğubeyazıt–Iğdır Plain–Yerevan), serving military expeditions (Gökçe, Kuvanç, & Genç, 2021: 141).

Another perspective suggests that Körzüt functioned as a royal administrative center to oversee the agriculturally rich Muradiye Plain. A physical map analysis reveals that the fortress lies 8 km east of Lake Van's shore, with the main road extending north from Tuşpa likely passing 1 km east of the site due to the lake's swampy areas. Despite its distance from the main road, the monumental walls enclosing the citadel, the temple, and the construction inscriptions found in nearby villages underscore its status as a royal investment. This suggests that the fortress's establishment at the edge of the Muradiye Plain is closely tied to the plain's agricultural potential (Danışmaz, 2020: 84, 86).

These discussions primarily emphasize military and defense concerns. However, it is important to recognize that economic considerations also played a significant role in the selection of Iron Age fortress location. Given Körzüt Fortress's commanding position over a fertile plain, it is highly probable that this factor significantly influenced its placement. The

scale of the royal investment in Körzüt highlights the extraordinary nature of the project. Therefore, explaining its establishment solely in terms of military, defense, or agricultural potential may be insufficient. A more comprehensive evaluation that integrates these aspects would provide more accurate understanding.

One of the most debated topics regarding Körzüt Fortress is determining its construction date. Before the discovery of the Susi Temple inscriptions, early assessments suggested that the fortified city was among the earliest examples of Urartian architecture of this type, mainly based on its architectural similarities with Aznavurtepe and Anzaf (Danışmaz, 2020: 86). However, it was argued from another perspective that, based on the dimensions of the stone slabs and the construction techniques employed, the fortress may date to at least the late 9th century BCE. This aligns with the joint reign of Išpuini and Minua, as it shares architectural similarities with the northern walls of the Van Fortress citadel (Tarhan & Sevin, 1976–77: 284–285). Furthermore, inscriptions found in Muradiye and surrounding villages reference both the joint reign of Išpuini and Minua as well as the independent period of Minua's rule (Kuvaç, Işık, & Genç, 2020: 114–115, Tab. 1).

Conclusions

The rescue excavations conducted at Körzüt Fortress and the recently discovered cuneiform inscriptions underscore the site's significant historical and archaeological importance. Körzüt Fortress, with its strategic location, monumental architectural features, and embedded royal inscriptions, functioned as a central hub, reflecting its military, administrative, and religious importance within the Urartian Kingdom during the reign of King Minua. The identification of numerous inscription slabs scattered across nearby villages as originating from this fortress further highlights its central role in regional governance and influence.

The analysis of the inscriptions, complemented by a comparative study of contemporary Urartian epigraphic materials, strongly suggests that Körzüt Fortress was commissioned by King Minua. The fortress appears to have been established as part of Minua's expansionist policies, serving simultaneously as a defensive bastion and an administrative center to consolidate control over newly annexed territories.

These findings not only affirm the historical importance of Körzüt Fortress but also offer valuable insights into the political organization, construction techniques, and cultural practices of the Urartian state. The newly discovered inscriptions and architectural features contribute significantly to our understanding of Urartian dominance in the region, reinforcing Körzüt Fortress's place within the broader framework of Urartian archaeology. Future detailed studies in this area are expected to provide a more comprehensive perspective on the history and archaeology of the Urartian Kingdom.

Peer-review: Externally peer-reviewed.

Author Contributions: Conception/Design of Study- S.E., A.S.; Data Acquisition- S.E., A.S.; Data Analysis/ Interpretation- S.E., A.S.; Drafting Manuscript- S.E., A.S.; Critical Revision of Manuscript- S.E., A.S.; Final Approval and Accountability- S.E., A.S.

Grant Support: Supported by Van Yüzüncü Yıl University Scientific Research Projects (BAP) unit under the Fundamental Research Project No. SBA-2024-11156.

Conflict of Interest: The authors have no conflict of interest to declare.

References

- CTU – Salvini M. (2008). *Corpus Dei Testi Uratei*, Vol. I-II, (CTU I-II) Istituto di Studi Civiltà Dell'e Egeoe Del Vicino Oriente, Documenta Asiana, Roma.
- KUKN – Arutyunyan N.V. (2001). *Corpus of Urartian Cuneiform Inscriptions*. Yerevan.
- RIMA 3 – Grayson A.K. (1996). *Assyrian Rulers of the Early First Millennium BC II (858 745 BC)*. Toronto: University of Toronto Press.
- UKN – Melikishvili G.A. (1960). *Urartian Cuneiform Inscriptions*. Moscow.
- Arutyunyan N.V. (1985). *Toponymy of Urartu*. Yerevan.
- Ayvazyan S. (2011). *Urartian-Armenian lexicon and comparative-historical grammar*. Yerevan.
- Başgelen, N., & Payne, M. R. (2009). Körzüt'ten Urartu Dönemine Ait Bir Kale Yazıtı. In H. Sağlamtimur, E. Abay, Z. Derin, A. Ü. Erdem, A. Batmaz, F. Dedeoğlu, M. Erdalkıran, M. B. Baştürk, & E. Konakçı (Eds.), *Altan Çilingiroğlu'na Armağan. Yukarı Denizin Kıyısında Urartu Krallığı'na Adanmış Bir Hayat/ Studies in Honour of Altan Çilingiroğlu. A Life Dedicated to Urartu on the Shores of the Upper Sea* (pp. 125 - 132). İstanbul: Arkeoloji ve Sanat Yayınları
- Belck, W., & Lehmann, C. F. (1892). Ueber neuerlich aufgefundene Keilinschriften in russisch und türkisch Armenien. *Zeitschrift für Ethnologie*, 24, ss.122-152.
- Belck, W. (1901). Mitteilungen über armenische Streitfragen, *Zeitschrift für Ethnologie (Verhandlungen der Berliner Gesellschaft für Anthropologie, Ethnologie, und Urgeschichte)*, 33, ss.284-329.
- Burney, C. A. (1957). Urartian Fortresses and Towns in the Van Region. *Anatolian Studies*, 7, pp.37-53.
- Çavuşoğlu R., Gökçe B. Işık K. (2010). Urartu Krallığı'nda Harem // *Colloquium Anatolicum*, sa.9, ss.153-168.
- Çilingiroğlu A., & Salvini M. (2001). Ayanis I. Ten year's Excavations in Rusahinili Eiduru-kai ("Documenta Asiana" 6), Roma.
- Danişmaz, H. (2020). *Urartu krallığı: yönetim ve organizasyon*. Ankara: Türk Tarih Kurumu.
- Diakonoff I.M. - Kashkai M.S. (1981). *Geographical Names according to Urartian Texts*, Répertoire Géographique des Textes Cunéiformes. Band 9, Wiesbaden.
- Diñçol A.M. (1976). "Die neuen Urartäischen Inschriften aus Körzüt", *Istanbul Mittelungen* 26, ss.19-30.
- Gökçe, B., Kuvanç, R., & Genç, B. J. T. İ. D. (2021). Lake Van Basin Urartian Period Road Routes Survey: First Preliminary Report (2017-2018): Muradiye and Tuşba Districts. 36(1), ss.137-162.
- Goheziani L. (2010-2011). To the Interpretation of CTU A 3-4 // PASIS. Tbilisi.

- Hewsen R.H. (1992). *The Geography of Ananias of Širak (Ašxarhac 'oyc')*. *The long and the short recensions*, TAVO B 77, Wiesbaden.
- Işık, K. (2015). *Urartu Yazılı Kaynaklarında Geçen Yer Adları ve Lokalizasyonları*. (Yayınlanmamış Doktora Tezi), Yüzüncü Yıl Üniversitesi, Van.
- Khachikyan M.L. (2010). "Urartian language" // *Languages of the world: Ancient relic languages of Near Asia* / RAS. Institute of Linguistics. Edited by N. N. Kazansky, A. A. Kibrik, Yu. B. Koryakova.— M.: Academia.
- Kuvañç R., Işık, K., & Genç, B. (2020). A new Urartian temple in Körzüt fortress, Turkey: a report on the rescue excavation of 2016 and new approaches on the origin of Urartian square temple architecture. *ARAMAZD: Armenian Journal of Near Eastern Studies*, 14(1-2), ss.112-139.
- Lehmann-Haupt, C.F., "Bericht über die Ergebnisse der von Dr. W. Belck und Dr. C. F. Lehmann 1898/99 ausgeführten Forschungsreise in Armenien", *Der Königlich Preussischen Akademie der Wissenschaften zu Berlin, Erster Halbrand-Berlin*, 1900, ss.619-631.
- Melikishvili G.A. (1964). *Urartian language*. Moscow.
- Salvini M., Wegner (2014). I. Einführung in die urartäische Sprache. Wiesbaden: Harrassowitz, S 124.
- Salvini M. (2014). "Tušpa". *RIA* 14, 3./4. S. 218-22. // *Ebeling E., Meissner B., Edzard D.O., Streck M.* (eds.) *Reallexikon der Assyriologie und Vorderasiatischen Archäologie*. Berlin – New York: Walter de Gruyter, 1922 (1976) – .
- Tarhan, M. T., & Sevin, V. (1976-77). Van Bölgesinde Urartu Araştırmaları (I): Askerî ve Sivil Mimariye Ait Yeni Gözlemler. *Anadolu Araştırmaları*, 4-5, ss.273-345.
- Uslu, E. (2021). Körzüt Kalesi Tapınak Alanı 2016 Yılı Kurtarma Kazısı. (82), ss.125-135.
- Online sources <http://oracc.museum.upenn.edu/ecut/cbd/qpn/onebigfile.html>



The Interaction of Urartian Rock Signs with Phrygians

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Submitted: 22.07.2024

Revision Requested: 26.11.2024

Last Revision Received: 27.11.2024

Accepted: 27.11.2024

Citation: Alp, E. (2024). The Interaction of Urartian Rock Signs with Phrygians. *Anadolu Arařtırmaları-Anatolian Research*, 31, 171–182. <https://doi.org/10.26650/anar.2024.31.1520085>

ABSTRACT

Urartu had significant rock-carving works, including a series of carvings on massive rock formations in various V-shaped, U-shaped, sickle-shaped, circular, and channel forms. Research has shown that these “signs” were not made randomly, but within a standard framework and according to certain measurements. These carvings were initially called “Monumental Rock Signs.” Although there are some other signs dated to the Hittite and Late Hittite periods that have been called rock signs in the literature, these more identifiable signs—which fit certain standards and consist of geometric shapes—appeared only in the first millennium. These signs are observed predominantly in the areas around the Lake Van basin; in other words, at sites within the Urartian region. On the one hand, this distribution suggests that almost all such rock signs emerged from Urartu; however, this type of rock carving also appears in certain areas within the land of the Phrygians (the western neighbors of Urartu), raising the question of the exact origins and interactions of these signs. This essay will discuss the interaction between these two regions within the framework of the rock signs found in the Urartian region and data from Hamamkaya and Zey Necropolis in the Phrygian region.

Keywords: Urartu, Phrygia, Rock Signs, Cultural Interaction, Iron Age



Introduction

Geometric shapes carved on surfaces of large rock formations, found mostly in rocky areas outside Urartian fortresses, have been called “Monumental Rock Signs” (Belli, 1989, p. 66; Belli, 2000, p. 403).¹ These signs are among the most significant examples of rock carvings (Işık, 1995, p. 45). These signs were often carved on the bedrock as 10–15 centimeter wide, 4–10 centimeter deep grooves in circular, V, U, sickle, or channel shapes (Fig. 1–2). These signs vary between 6–30 cm in width and seem to have been made within a standard scheme. Large groups of such signs as well as smaller groups of one or two signs have been found across the Urartu region (Konyar, 2008, p. 311). The most common shape is circular, followed by V-shapes, then U-shaped and sickle-shaped signs (Konyar, 2006, p. 114; 2008, p. 312).

The area in which the signs are observed most frequently is the Lake Van basin; in other words, the core of Urartu (Belli, 1989, p. 66; 2000, p. 403). Signs have been identified in this region and in the Northeastern Anatolian region, as well as at some sites in Northwestern Iran and Armenia (Belli, 1989, p. 66; 2000, p. 403).

There are two main opinions about the purpose of these signs and debates on their functions are ongoing. The first of these opinions is that the signs had religious-cultic meanings. According to this opinion, the places in which the signs are found were sacred and the channels carved onto the rock may have drained the blood of sacrificed animals (Kleiss, 1981, p. 26; Belli, 1989, p. 86; 2000, p. 406; Işık, 1995, p. 60).

The second opinion is that the rock surfaces on which these signs were carved were used to make chariot wheels, yokes, and other chariot parts and similar wooden pieces.² This opinion adds a more plausible functionality for the rock signs and does away with the problem of associating certain finds with religious faith when they cannot otherwise be attributed with an explicit meaning through texts and other data. The signs are generally located outside the walls of fortresses, in areas without any kind of religious association, which further supports this opinion.

While the opinion supporting cultic functions builds on the general opinion that the locations of these signs are related to cemetery areas, Konyar (2013) presents a different perspective in his work on the Atabindi signs. These signs are in the same area as a

1 Although some rock carvings associated with the Hittite and Late Hittite kingdoms have been called rock signs, these are deep grooves carved onto rock faces and far from being identifiable as circles, V's, U's, sickles or channels. These carvings were identified at sites such as Fraktin, Sirkeli, Yazılıkaya, and Karasu.

2 According to this opinion, timbers softened with water and steam were placed within the grooves carved onto the rocks, and as they drained, they hardened into the desired forms. In this possibility, these channels acted as molds. The idea is that the molds were used to make chariot wheels, yokes, and other chariot parts, which is supported by some ethnographic data. For details of this opinion, see Konyar (2006, pp. 113–126; 2008, pp. 311–320; 2013, pp. 239–245).

multichamber rock tomb. Multichamber rock tombs are associated with Urartu through many of their characteristics. The tomb here also likely belongs to the Urartian period based on its structural characteristics, architectural features like niches, and the typical red slip Urartian pottery found in its vicinity. However, it was also observed that the dromos that provided access to the rock tomb from above had cut through a rock sign, leading to the conclusion that this sign, which must have predated the construction of the burial chamber, was not associated with the tomb. In other words, it does not seem possible to define the two elements as being synchronously used.

There is no clear information on rock signs either reflected in the visual arts or the written sources of Urartu. Hence, it does not seem possible to associate the rock signs that are mostly encountered outside of cemetery areas with burials. Therefore, that association of these signs with burials and cults is likely not valid (Konyar, 2013, p. 242).

The rock carving signs appear at the sites of Atabindi, Çelebibağı, Harput Fortress, Pekiç/Çadırkaya, Van Fortress, Yukarı Anzaf, Çavuştepe, Edremit, Deliçay, Keçikıran, Panz, Ardıç, Aşık Hüseyin (Belli, 1989, pp. 65–88; 2000, pp. 404–406; Ceylan, 2019, p. 34, res. III–V), Van Sarıtaş Necropole (Erdoğan, 2017, p. 69),³ Tatvan (Özfirat, 2002, p. 23, res. 8), Palu (Danışmaz, 2018, p. 194, fig. 1–4), Bahçecik (Payne & Sevin, 2001, fig. 3), Kuh-i Sambil (Kleiss, 1975, abb. 4) in northwestern Iran, Bastam (Kleiss, 1968, abb. 14), Mağara Tepe (Başgelen, 1988, pp. 14–17; Belli, 1989, L. VIII/2), Aliçeyrek (Özkaya, 2014, p. 407, res. 13), and Hasanbey (Ceylan, 2015, p. 308) (Fig. 3–5; Map 1).⁴ In addition, Umut Parılı and his team identified such rock signs in Erzurum Hınıs in 2023.⁵ This distribution shows that these signs are all within the wider Urartu area.⁶

As can be seen through their distribution across the abovementioned sites, these signs seem to belong to Urartu. However, the phenomenon of rock signs also exists in various cultures to the west of Urartu (Kleiss, 1981, p. 26; Köroğlu, 2011, pp. 44–45). To the west of Urartu, some rock carvings associated with the Hittite and Late Hittite Kingdoms Period have been identified as rock signs.⁷ These are in the form of deep grooves carved onto the rock faces. The signs in Urartu; however, are in the specific shapes of circles, V's, U's,

3 Numerous rock signs are reported from the necropolis in Sarıtaş Mevkii, which sits four kilometers southwest of Çelebibağı in Erciş, Van. However, work on the subject does not include visual images of these rock signs.

4 In addition to all these sites, mention can be made of rock signs in the region of Agsal in Nahchevan. A bronze belt found at this site and an Urartian inscription (reported as “lost”) suggest that the area was used as a transit area by the Urartians, meaning the signs could be Urartian. See Bahşeliyev and Bahşeliyev (2019, pp. 15–34, fig. 4).

5 Ten rock signs have been identified in this area. These are mostly circular. A metal object with triangular motifs, also thought to be Urartian art, was found in the same area.

6 For the distribution of these rock signs, see Danışmaz (2018, fig. 5).

7 Related grooves identified as rock signs have been found at sites such as Fraktin, Sirkeli, Yazılıkaya, and Karasu. See Ussishkin (1975, p. 85, fig. 1–9) and Hellenkemper and Wagner (1977, p. 173, Pl. XXXIV a–b).

sickles, or channels: a different, more defined repertoire. In this context, it seems that the only similarity is in how they are named. The signs that have been identified as Hittite or Late Hittite are quite different from those rock signs in Urartu and are interpreted to have been likely associated with local cults.

Also to the west of Urartu, recent finds at Zey Necropolis in Eskişehir and Hamamkaya Necropolis near Midas City are noteworthy. Zey (or Kale) Necropolis is in the village of Zey in Eskişehir. This necropolis consists of 12 rock-cut tombs on steep cliffs. These are identified as Phrygian rock tombs located outside the Highlands of Phrygia (Sivas, 2012, p. 273). While some tombs in the area display small variations, the tombs share the general characteristics of other Phrygian rock tombs. About 10 meters to the north of Tomb 1 in this necropolis are multiple circular rock signs carved on a low rock mass (Fig. 6–7). Around these signs, which measure around 0.90–1.00 meter in diameter, there are smaller circular grooves that are 15 centimeters wide and 15–25 centimeters deep (Sivas, 2005, p. 222, fig. 10; 2007, pp. 80–81; 2012, p. 279, fig. 22). In general, the Zey Necropolis signs as taking the form of multiple circular rock signs on a rock mass. The second example, the Hamamkaya sign (also located in Eskişehir), was identified on a 5.5 by 3.3 meter smoothed rock platform just behind a Phrygian chamber tomb. This sign is also surrounded by a circular channel (Sivas, 2005, p. 222, fig. 11; 2007, p. 81) (Fig. 8-9).

These finds are considered unique examples of Phrygian rock carving. Viewing these signs within the framework of Urartian rock signs discussed above, both the Zey and Hamamkaya examples are highly similar to the circular rock signs found at Urartian sites. In fact, the signs are almost identical. Such rock signs are found at sites in Urartu lands, such as Çavuştepe (Belli, 1989, res. 1), Yukarı Anzaf (Belli, 1989, res. 9; 2000, fig. 2), Deliçay (Belli, 1989, res. 2), Edremit, Palu (Danışmaz, 2018, p. 195, fig. 2–3), Bastam (Kleiss, 1968, abb. 14) and Kuh-i Sambil (Kleiss, 1975, taf. 7/2; 1981, abb. 2) in northwest Iran, and Pekerçi/Çadırkaya (Ceylan, 2019, p. 34, res. III–V). Among Urartian sites, only the Edremit example was found near rock tombs like the examples at Zey Necropolis and Hamamkaya.⁸ In terms of their other attributes, the Urartian circular signs all measure 1.00 meter in diameter, almost exactly like the Zey Necropolis and Hamamkaya examples. However, while the Zey Necropolis and Hamamkaya signs have no parallels in Phrygian rock art, they have been interpreted as having Phrygian cultic functions by T. T. Sivas and H. Sivas (Sivas, 2005, pp. 221–222; 2007, pp. 80–81; 2012, p. 279).

8 Lehman-Haupt thinks that the signs found in Edremit near Kadembastı were probably associated with a nearby rock tomb (1926, p. 105).



Map 1: Distribution Map of Urartian Rock Signs.



Figure 1: Rock Signs from Anzaf (Photo: Erkan Konyar's Archive).

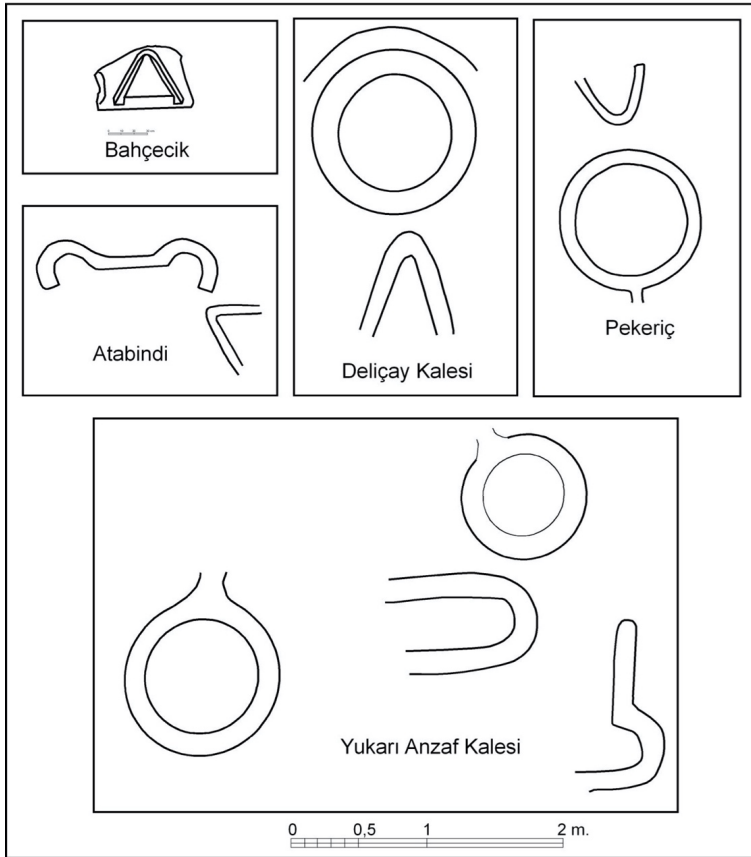
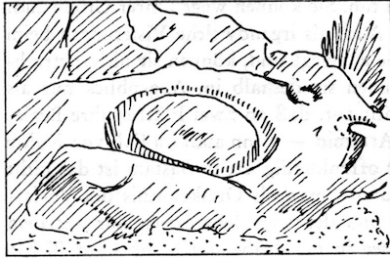


Figure 2: Rock Signs Drawings from Urartian Sites (Photo: Konyar, 2006, fig. 3).



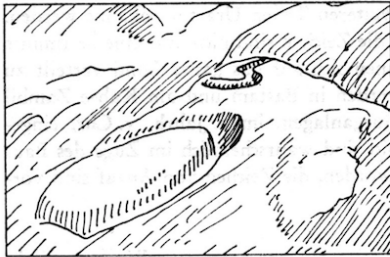
Figure 3: Rock Signs from Atabindi (Photo: Erkan Konyar's Archive).



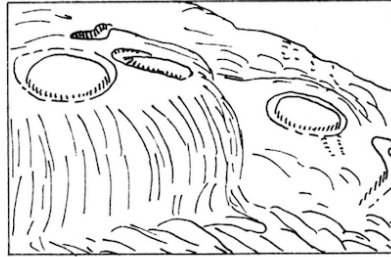
Edremit



Kuh-u zambil



Bastam



Anzaf

Figure 4: Rock Signs drawings from Eastern Anatolia and Northwestern Iran (Photo: Kleiss, 1981, abb. 2).



Figure 5: Rock Signs from Deliçay (Photo: Erkan Konyar's Archive).



Figure 6: Rock Signs from Zey Necropolis (Photo: Sivas, 2012, fig. 22).

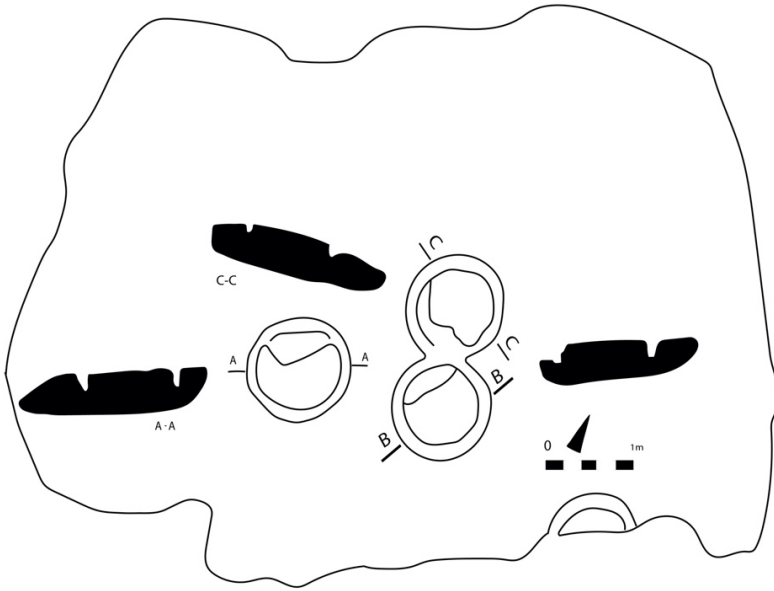


Figure 7: Rock Signs Drawing from Zey Necropolis (Photo: Sivas, 2005, fig. 10).



Figure 8: Rock Signs from Hamamkaya (Photo: Sivas, 2007, 80).

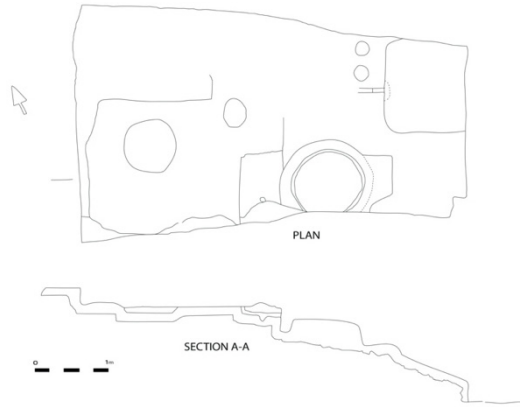


Figure 9: Rock Signs Drawings from Hamamkaya (Photo: Sivas, 2005, Fig. 11).

Conclusions

The distribution of rock signs found at more than 20 Urartian sites, including the capital Tušpa, show that they were a staple of Urartian rock carving. It is worth noting that circular rock signs at Zey Necropolis and Hamamkaya parallel the Urartian rock signs in dimension, and they are considered unique examples within their own region. Therefore, regardless of whether these signs are interpreted as having cultic significance or practical meaning as molds for chariot wheels and other parts, the Zey Necropolis and Hamamkaya signs and the Urartian examples seem to have been produced according to the same system of thought and likely served the same purpose. Rock signs are not easily transferable to small craft objects like pins, fibula, or belt buckles, which can be transported easily between regions by individuals carrying them on their person. The existence of a rock sign at a place or its purpose seem to have involved multiple people, unlike products that are small handicrafts. Therefore, such rock signs should not be considered singular, individual examples.

In this context, within the framework of opinions on the function of rock signs, it is to say that these signs were made as a result of interactions between these two regions, whether as part of shared crafting methods or in the context of religious faith. Considering that circular rock signs are more frequently found in the Urartian region, it is likely that these elements were brought from Urartu to the west.

If we consider these signs—almost all of which have been identified in the lands of Urartu—as characteristic of Urartu itself, how they were carried from Urartu to the area outside the Phrygian Highlands in modern Eskişehir? Although texts reveal that Urartu had a connection with the west through campaigns and alliances in Central Anatolia, these texts do not present any clear information specifically about this area outside of the Phrygian Highlands. Therefore, it is not yet possible to propose a clear picture of how this transfer happened. Nevertheless, based on the level of similarity between the circular rock signs at Urartian sites and those at Zey Necropolis and Hamamkaya, they were very likely produced within the same system of thought, seem to have served the same purpose, and may have been an element that was brought from Urartu to the west.

Acknowledgments: I would like to express my sincere gratitude to the peer reviewers and Virgilio García Trabazo for taking the necessary time and effort to review this manuscript. I sincerely appreciate your valuable comments and suggestions, which helped me to improve the quality of this paper.

Peer-review: Externally peer-reviewed.

Grant Support: The author declared that this study has received no financial support

Conflict of Interest: The author has no conflict of interest to declare.

References

- Alp, E. (2023). Arkeolojik Veriler Işığında Urartu-Batı Etkileşimi. (Unpublished PhD. Thesis). İstanbul: İstanbul Üniversitesi.
- Bahşeliyev, E. & Bahşeliyev, V. (2019). Urartu Devletinin Güney Kafkasya Politikasında Nahçıvan'ın Yeri (Nahçıvan, Azerbaycan). *Amisos*, 4/6, 15-34.
- Başgelen, N. (1988). Kars ve Ağrı İllerinden Bazı Kaleler Hakkında Gözlemler. *Arkeoloji ve Sanat*, 40-41, 14-17.
- Belli, O. (1989). Urartu Kalelerindeki Anıtsal Kaya İşaretleri. *Anadolu Araştırmaları*, 11, 65-121.
- Belli, O. (2000). Doğu Anadolu'da Urartu Krallığına Ait Anıtsal Kaya İşaretlerinin Araştırılması. In O. Belli (ed), *Türkiye Arkeolojisi ve İstanbul Üniversitesi* (pp. 403-408). Ankara.
- Ceylan, A. (2015). *Doğu Anadolu Araştırmaları II (Erzurum-Erzincan- Kars-Iğdır, 2008-2014)*, Erzurum: Atatürk Üniversitesi Yayınları.
- Ceylan, A. (2019). Urartu'da Kaya İşaretli Kalelerden Çadırkaya Kalesi, *Uluslararası Erzincan Tarihi Sempozyumu, 26-28 Eylül 2019 Bildiriler Vol. 1*, (pp. 28-54), Erzincan.
- Danışmaz, H. (2018). Palu Kalesi'ndeki Urartu Kaya İşaretleri. In E. Çakır, K. Çelik & Y. Kısa (eds.), *Uluslararası Palu Sempozyumu Bildiriler Kitabı Vol. 1* (pp. 198-200). Elazığ.
- Erdoğan, S. (2017). Doğu Anadolu Bölgesi Tek Odalı Kaya Mezarları: Kökeni, Gelişimi ve Tipolojisi. (Unpublished PhD. Thesis). Van: Yüzüncü Yıl Üniversitesi.
- Hellenkemper, H. & Wagner, J. R. (1977). The God on the Stag: A Late Hittite Rock-Relief on the River Karasu, *Anatolian Studies*, 27, 167-173.

- Işık, F. (1995). *Die offenen Felsheiligtümer Urartus und ihre Beziehungen zu denen der Hethiter und Phryger*, Roma.
- Kleiss, W. (1968). Urartaische Plätze in Iranisch-Azerbaidjnn, *Istanbul Mitteilungen*, 18, 1-44.
- Kleiss, W. (1975). Planaufnahmen Urartäischer Burgen und Urartäische Neufunde in Iranisch Azerbaidjan im Jahre, *Archäologische Mitteilungen aus Iran*, 8, 51-70.
- Kleiss, W. (1981). Felszeichen im Bereich Urartäischer Anlagen, *Archäologische Mitteilungen aus Iran*, 14, 23-26.
- Konyar, E. (2006). An Ethno-Archaeological Approach to the “Monumental Rock Signs” in Eastern Anatolia, *Colloquium Anatolicum V*, 113-126.
- Konyar, E. (2008). Urartu coğrafyasında ‘anıtsal kaya işaretleri’: İşlevleri üzerine etno-arkeolojik bir yaklaşım, In T. M. Tarhan, A. Tibet & E. Konyar (eds.), *Muhibbe Darga Armağanı* (pp. 331-320). İstanbul: Sadberk Hanım Müzesi Yayını.
- Konyar, E. (2013). Urartu Kaya Kalıpları: Araba Tekerlekleri, In O. Tekin, M. H. Sayar & E. Konyar (eds), *Tarhan Armağanı, M. Taner Tarhan 'a Sunulan Makaleler* (pp. 239-245). İstanbul: Ege Yayınları.
- Köroğlu, K. (2011). Urartu: Krallık ve Aşiretler. In K. Köroğlu & E. Konyar (eds.), *Urartu Doğu'da Değişim-Transformation in the East* (pp. 12-51) İstanbul: Yapı Kredi Yayınları.
- Lehman-Haupt, C. F. (1926). *Armenien Einst und Jetzt (Vol. II/1)*. Berlin.
- Özfirat, A. (2002). Van Gölü'nün Batı Kıyısında İki Urartu Merkezi, *Arkeoloji ve Sanat*, 108, 21-26.
- Özkaya, V. (2014). Erzurum/Horasan Aliçeyrek Köyü Arkeolojik Kalıntıları. In H. Kasapoğlu & M. A. Yılmaz (eds.), *Anadolu'nun Zirvesinde Türk Arkeolojisinin 40 Yılı* (pp. 403-418). Ankara.
- Payne, M. R. & Sevin, V. (2001). A New Urartian Inscription from Elazığ/Bahçecik, Eastern Turkey. *Studi Micenei ed Egeo-Anatolici*, 43/1, 111-119.
- Sivas, H. (2012). Frig Kaya Mezarları. In T. T. Sivas & H. Sivas (eds.), *Frigler: Midas'ın Ülkesinde, Anıtların Gölgesinde* (pp. 260-285). İstanbul: Yapı Kredi Yayınları.
- Sivas, T. T. (2005). Phrygian Rock-Cut Monuments from Western Phrygia, with Observations on Their Cult Functions. In A. Çilingiroğlu & G. Darbyshire (eds.), *Anatolian Iron Ages 5, Proceedings of the Fifth Iron Ages Colloquium held at Van, 6-10 August 2001* (pp. 217-226). Ankara: British Institute of Archaeology at Ankara.
- Sivas, T. T. (2007). Batı Phrygia'da Frig Yerleşmeleri ve Kaya Anıtlarının Araştırılması. In H. Sivas & T. T. Sivas (eds.), *Friglerin Gizemli Uygarlığı* (pp. 77-92). İstanbul: Yapı Kredi Yayınları.
- Ussishkin, D. (1975). Hollows, ‘Cup-Marks’ and Hittite Stone Monuments. *Anatolian Studies*, 25: 85-103.



Phrygian-Lyidian Tomb Architecture in Synnada: The İnli and Yatağan Rock-Cut Tombs

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Submitted: 06.11.2024

Revision Requested: 09.12.2024

Last Revision Received: 10.12.2024

Accepted: 11.12.2024

Citation: Baytak, İ. (2024). Phrygian-Lyidian tomb architecture in Synnada: The İnli and Yatağan rock-cut tombs. *Anadolu Arařtırmaları-Anatolian Research*, 31, 183–212.
<https://doi.org/10.26650/anar.2024.31.1580467>

ABSTRACT

The ancient border between Phrygia, Lydia and Pisidia held a significant position at the intersection of strategic trade routes in Ancient Anatolia, connecting the north to the south and the east to the west. Its role as a crossroads culture enhanced the cultural diversity and social interactions of the area. Particularly, the ancient city of Synnada (now the Şuhut district of Afyonkarahisar Province), located at the junction of these regions, stands out for its historical continuity from the Iron Age to the Hellenistic and Roman periods. The fact that this territory hosted various civilizations is evident from the traces of settlements from different periods and local archaeological remains. In this context, the sacred sites and rock-cut tombs associated with workshops in the area provide significant examples of this cultural richness across both space and time. In addition to the tombs identified by earlier researchers, this study has uncovered settlements and sites that have not yet been included in the literature. The İnli and Yatağan necropolises are filled with rock-cut tombs used in different periods that reflect both the burial traditions of the region and the architectural and artistic characteristics of the premodern era, as they were used from the Classical to the Byzantine Period. This demonstrates the necessity of considering earlier dating in contrast to previous chronologies.

Keywords: Phrygian rock-cut tombs, Lyidian rock-cut tombs, Chamber Tomb, Synnada, Burial traditions



Introduction

From a spatial perspective, this study focuses on an area located within the boundaries of Şuhut, a district in Afyonkarahisar Province, which is an important part of the Inner Western Anatolia Region, approximately 25 kilometers southeast of the provincial center. Historically and geopolitically, this region played a significant role in Ancient Anatolia as a crossroads for north-south and east-west trade routes (Tüfekçi-Sivas and Sivas, 2016, 613), particularly within the Pisidia-Phrygia-Lydia triangle, connecting various cultures and civilizations (Belke and Mersich, 1990, TIB7). In antiquity, this area—often defined as the farthest boundary of Phrygia—was in close interaction with neighboring cultural regions like Pisidia, enriching the region’s cultural heritage and fostering closer ties with the Mediterranean hinterlands. According to Strabo, “Phrygia Paroreia” was characterized by mountain ranges extending east to west and wide plains along the foothills of those mountains (Str, Geo., XII.8.13-14). Its strategic location facilitated the emergence of cultural border transitions, allowing interaction among different civilizations and cultures, which significantly shaped local social and economic structures. These cultural interactions facilitated the presence of various political formations and empires (Koçak et al., 2019). Its strategic position along ancient trade routes, particularly the Silk Road, further contributed to the area’s role as a central hub for rich resource and cultural exchanges. In this context, it holds significance not only as a settlement but also as a historical bridge (Ramsay, 1960, 41; Baytak, 2014, 471-472).

From a topographical perspective, the Şuhut Plain, which is located between mountains at an altitude of 1,120 meters, provided easy access via its low mountain passes to different cultural groups such as those from the Göller Region and Menderes. At lower altitudes, the meadows offer grazing lands, while in the higher areas such as Kumalar, Paşadağı, Karakuş, and the Sultan Mountains, agricultural activity decreases above 1,300 meters, giving rise to a history of scattered rural settlements (Taş and Yakar, 2010, 70; Koçak and Baytak, 2013, 322). The region’s relationship with surrounding cultures and settlements preserved its important role and central position in its historical geography. After Phrygian rule, the area became part of the Lydian dominion and was later governed by the Persians. The region, especially the city of Synnada, retained its importance during the invasions of Alexander the Great and his successors in Anatolia (Ramsay, 1890, 40-42; Koçak, T., 2020, 532-533). The cities surrounding Synnada—including Apameia, Prynnessos, Polybotos, Philemeion, and Amorium—remained significant for both urban and rural life throughout the local territory (Cic. Att., V.20; Magie, 2003, 5-9).

Synnada, famous for its marbles(*synnadic*) centered in nearby Dokimeion (Drew-Bear, 2003, 77), frequently appears in ancient sources up to the Roman period (Str. Geo., XII.8.14). During the Roman Empire, Synnada became a *conventus* center in the Province of Asia (Pliny, Nat. His., V.105; Ramsay, 1890, 171). Its name, which can be found on coins, was sometimes

associated with a Doric colony, sometimes with an Ionian colony, and occasionally with the phrase “*Synnadeon Dorieon Ionon*” (ΣΥΝΝΑΔΕΩΝ ΔΩΡΙΕΩΝ ΙΩΝΩΝ), reflecting a combination of both cultures. The first records of the ancient city, localized to the present-day Şuhut District, are linked to Akamas, son of Theseus, a hero of the Trojan War (Head, 1906, 393-406, n. 8-73). Previous excavations and studies (by scholars such as W. Lamb, S. Lloyd, J. Mellaart, D. French, Ö. Koçak, and M. Üyümez) carried out in the region focusing on the Neolithic to the Eastern Roman periods have significantly contributed to the understanding of the regional cultural inventory (Lamb, 1937-8; Lloyd and Mellaart, 1965; Mellaart and Murray, 1995; French, 1976, 51-54; Koçak, 2013; Üyümez et al., 2024). In later periods, the area saw further transformation. For example, one well-known practice in the area that was influenced by the Christian traditions of the Eastern Roman Empire was the conversion of areas that initially served as rock tombs into rock churches and residential structures, particularly during the Late Roman Empire. Within the Synnada territory, the rock settlements in Bininler, Hüseyinli, and Köpekinleri are prime examples of this transformation. As observed in many other places during early Christianity, rock settlements were adapted for habitation as settlements concentrated in valleys and sheltered areas. These tomb structures, used as settlements, have undergone internal and external alterations as a result.

In addition to the necropolis areas in the center of the Şuhut District, previous studies have indicated a significant concentration of the above rock settlement areas across the surrounding rural valleys and hilly terrains, which all have evidence of continuous use over time. This paper will focus on several rock tombs that were used consistently over multiple periods within both the district center and its surrounding territory. These rock tombs, which were registered in 2015 and 2019, have not been subject to any detailed studies until now. The paper will holistically consider both the central and rural settlement areas and the necropolis sites (Fig. 1). Among the discovered tombs, three were specifically evaluated for this article: two in the İneriçi area of Mahmut Village and one in the Yatağan area within the district center. Our findings and the results obtained from them are presented in detail in the evaluation section

Methods

This paper is based on the extensive studies of the necropolis areas containing the tombs undertaken during the project “Synnada and Surroundings Surface Survey” (Project No. YA010303) in the Şuhut District of Afyonkarahisar Province, under the permission of the Turkish Ministry of Culture and Tourism, General Directorate of Cultural Assets and Museums (Baytak, 2024, 471). During the surveys of the rural extensions, a significant number of rock settlement areas were identified. All settlement types, necropolis areas, and archaeological sites associated with the ancient city of Synnada and its surrounding regions were evaluated as part of this project. During our field research, over 500 rock/underground

chamber tombs were identified, with the focus being placed on the necropolises of İneriçi in Mahmut Village and Yatağan in the district center.

Effective preservation and documentation of archaeological sites are of critical importance for the sustainability of cultural heritage. In this context, the detailed identification and mapping of the boundaries of the area containing the tombs in necropolis sites are of paramount significance. As part of the fieldwork conducted in these necropolis areas, the boundaries of the tomb zones were determined through a detailed survey of the site (Fig. 2). In accordance with the Large-Scale Mapping Regulations, photogrammetric triangulation (control points) was carried out. The coordinates for the identified areas were based on Turkey's ED50 six-degree zone coordinates. Instantaneous coordinates were obtained using a Global Navigation Satellite System receiver, and a 1:1,000 scale orthophoto and the existing map of the region were prepared using drone-captured aerial photography (Baytak, 2024, 478). This comprehensive study is significant for the preservation and management of the necropolis areas. The maps that have been created will serve as a foundation for future research, provide valuable data for monitoring and assessing the status of the area, and could be considered a model that could be applied to other archaeological sites. Moreover, they will serve as an important source of information for decision-makers regarding the conservation of cultural heritage sites.

Results

The Yatağan and Derbent Necropolises

The Yatağan rock tombs are in the area known as Yatağan Dede or Yatağan Mevkii, 1.4 kilometers south of the center of Şuhut. Excavations and surveys in the area have confirmed that it is a necropolis. The site, which has a hill-like appearance, covers approximately 12 hectares and rises about 30 meters above the surrounding plain. At the highest point of the site is the Yatağan Dede Tomb. Just south of this tomb, the remnants of a wall and foundation, approximately 80 centimeters in height, were identified as part of a probable defensive structure, known as Yatağan Kale Tepe. The necropolis area is mainly spread across the northern and eastern slopes, facing toward Synnada (or Hisar) Hill. This site, located within the borders of the central Şuhut District in Afyonkarahisar Province, was registered as a first-degree archaeological site in 2015 by the Eskişehir Cultural and Natural Heritage Preservation Board under the designation “Baş ve Yalı Mahalleleri Kaya Yerleşimi ve Nekropolü.”

During the registration process, the nearby Derbent Mevkii, which is located just northwest of the Yatağan site along the road connecting Ortaköy and Aydın, was included as part of the necropolis extension. Derbent Mevkii, which is situated 1.5 kilometers southwest of the town center, covers 25 hectares and rises 19 meters above the surrounding landscape. Studies conducted on the slopes, particularly the parts facing the town center and the plain, confirmed that this is also a necropolis.

In the central area, 82 rock tomb entrances and *dromoi* (burial corridors) were identified in the Yatağan necropolis, and 112 were identified in the Derbent necropolis, totaling 200 rock tombs in the entire area. The coordinates for each tomb were recorded and mapped. In Yatağan, 10 tomb structures that allowed access and measurement were documented in detail, and 15 such tombs were similarly documented in Derbent. Both the Derbent and Yatağan necropolises are located very close to each other in central Şuhut and were part of the main necropolis area of the ancient city of Synnada. These two hilltop areas, which form a significant portion of the Synnada necropolis, are easily visible within the Şuhut Plain and would have occupied a strategic position along the eastern and southern road networks of Synnada. At the eastern slope of the hill, distinct road traces approximately 50 meters long and 2–3 meters wide, known as the Yatağan Roman Road, are visible. This road appears to have encircled the lower slopes of the necropolis and connected directly to the city center, where it intersects with remnants of a road leading eastward. Additionally, smaller road traces that seem to have followed the shape of the tomb terraces within the necropolis are linked to the larger road on the lower slopes, confirming a complex interaction between the settlement, road systems, and burial practices in the area (Baytak, 2014, 473-5).

The İneriçi-İnli Necropolis

The area known as İneriçi Mevkii, which includes the İnli rock tomb, is located 4 kilometers south of Şuhut's city center, in the northwest part of Mahmut Village. It sits at the northwest extension of the village, in Ada/Parsel and the surrounding areas, and studies have revealed that this region is a necropolis. The site, which forms a hill, spans approximately 6 hectares and has an elevation of about 10 meters above the plain. The site was registered as a first-degree archaeological site in 2019 by the Eskişehir Cultural and Natural Heritage Protection Board under the name "İnli Mevkii Kaya Mekanları ve Nekropolü" and is located on the border between Mahmut Village and Aydın Village, which lie within the boundaries of Şuhut District. The area containing the tombs lies across both Mahmut Village and Aydın Village. The parts in Aydın Village are referred to as Maltepesi Mevkii and Süllü Cemetery. However, due to its proximity and suitability, the area is mainly used as pastureland for Mahmut Village. Additionally, there are tombs located about 300 meters west in Üçler Gedigi, and southwest in Taşlı Tepe Mevkii. Recent records also indicate that the northern sections of the area, toward the plain, have also been referred to as Kürtler Mevkii. According to information gathered in this area, tile tombs and more recent Türkmen tombs have been encountered during field plowing. During our investigations in the primary necropolis area, we identified around 60 rock tombs, some of which were damaged and others whose entrances were barely visible. The tombs labeled as M4 and M5, which are the focus of our documentation and article, have been given priority (Baytak, 2014, 476).

İnli Rock-Cut Tomb M4

Our investigations at the M4 tomb revealed a tomb plan with two consecutive chambers (an antechamber and a burial chamber) extending 9 meters from east to west after a dromos was identified (Figs. 3–4). The tomb is situated on a hilltop area with a commanding view over the plain. At first glance, the site appears to resemble a tumulus; however, it better fits the definition of an underground chamber tomb. An earthen mound in front has blocked the entrance, which likely resulted from both natural collapse and debris thrown by grave robbers from inside the tomb.

The tomb's plan begins with a 2.60×1.60 meter dromos that is divided into two equal sections. The dromos leads into a rectangular doorframe measuring 0.68×1.17 meters with a thickness of 60 centimeters. This doorframe shows no traces of door fittings such as frames or moldings, and no indications of tool marks like drill holes or grooves are visible. Through this entrance, one enters a square-shaped antechamber with dimensions of 2.25×2.32 meters. The walls of the antechamber rise to a height of 1.70 meters, topped by a vaulted triangular roof with a rise of 2.33 meters. No traces of a *klinai* (burial bed) or bench/altar space, nor any evidence of burial-related carvings, were found in this chamber, suggesting it was only intended as a passage. The chamber is simply constructed, with only beams measuring 27 centimeters in thickness used to support the roof. These beams are only visible where the walls connect to the roof structure.

Following this passage, another door frame measuring 0.67×1.14 meters with a thickness of 60 centimeters leads to the main burial chamber. This floor of this chamber is 15 centimeters below that of the antechamber, further emphasizing the distinctive nature of this space. Unlike the antechamber, the burial chamber's roof was not flat; instead, it was designed as a slightly domed or vaulted triangular roof, a feature reminiscent of the Roman period (Dökü, 2015, 81). The burial chamber itself measures 2.93×2.98 meters, forming a perfect square. The north wall is 3.00 meters long, the west wall measures 2.93 meters, the south wall is 2.98 meters, and the east wall (with the door) is 2.87 meters. Although the southern and western walls are somewhat damaged, the remnants of two L-shaped rectangular *klinai* can be identified. The southern *klinai* is raised 60 centimeters above the floor and measures 0.68×2.06 meters, while the western *klinai* is 80 centimeters above the floor and measures 0.94×2.11 meters. At the southwestern corner, where these two *klinai* meet, is a raised square platform measuring 95 centimeters in height, with a surface area of 82×94 centimeters. Another square platform, measuring 86 centimeters in height and 70×75 centimeters, stands independently in the northeastern corner, separated from the *klinai*. These platforms likely served as benches or altars rather than burial spaces. Both the *klinai* and the bench/altar platforms have a thin border around their edges, and the front facades of the *klinai* are adorned with rectangular relief profiles. On the fronts of the *klinai*, there is a

profile frame *klinai* leg, 20 centimeters thick with a 3 centimeter embossment, resembling a wooden table leg. This is in a similar style to the bench and *kline* leg of the Düm Düm Kaya tomb (Fig. 14e) chamber (Büyüközer and Gider, 2015, 146, figs. 6–7). The profiles mimic wooden table legs, a typical feature in the Hellenistic and Roman architectural that are also seen in later tombs. A similar form of *klinai* is found in the M5 tomb, located approximately 50 meters to the northeast of M4.

İnli Rock-Cut Tomb M5

In our examination of rock-cut tomb M5, we observed a burial plan of 7.5 meters in length, extending east-west (Figs. 5–7). This consists of an east-west dromos 6.20 meters in length, an antechamber, and a main burial chamber (Fig. 8). It is located approximately 50 meters southwest of M4, on the eastern slope of the same hill, at a slightly lower elevation. The entrance is provided from the east through a dromos, measuring 1.02×1.10 meters in length, and shows some signs of erosion and traces of disturbance that were likely caused by collapses and natural deterioration. The dromos has suffered considerable damage, and its roof appears to have collapsed, as indicated by the remaining traces. This same collapsed condition is observed in the antechamber, which also has a roof that is partially destroyed. Despite the damage, the antechamber's side walls and plan are clearly visible, and it presents dimensions of 2.03×2.36 meters. At the western end of this room, in the center of the 2.03-meter-wide wall, a broken and damaged door frame is barely visible. The door measures approximately 0.90×1.30 meters and has a thickness of 60 centimeters.

Beyond the door, the main burial chamber is accessible, which has a near rectangular plan, measuring 2.90×4.98 meters. This room has side wall elevations of 1.95 m., and a vaulted/slightly arched triangular roof with a height of 2.45 meters. The north wall of the room

Table 1: Below are the coordinate data showing the location of the necropolises where the graves we evaluated are located.

Locations of İnli and Yatağan Rock Tombs Table			
	Village and Location Name	Sheets and block/parcels on maps(Ada-Parsel)	Coordinate
İneriçi-İnli Necropolis (M4 and M5)	Şuhut-Aydın Köyü İnler İçi	K25.D.2.1C pafta 177/5 ada/parsel	N-38,5078 E-30,5265 1158 m.
	Şuhut-Aydın Köyü Malyatağı Tepesi	L24.A.O1.A pafta 177/6 ada/parsel	N-38,5071 E-30,5268 1162 m.
	Şuhut-Mahmut Köyü Sünlü Mezarlığı	K25.D.21.C.4 pafta 5/6 ada/parsel	N-38,5069 E-30,5283 1170 m.
Yatağan Necropolis (M15)	Şuhut Merkez Yalı Mahallesi	K25.D.21.C.2.B pafta 153/135-7 ada/parsel	N-38,5214 E-30,5446 1147

measures 3.70 meters, the west wall 2.63 meters, the south wall 3.70 meters, and the east wall (where the door is located) measures 2.96 meters. Despite some minor damage to the south and west walls of the burial chamber, two L-shaped rectangular *klinai* are visible. The southern *klinai* is elevated 60 centimeters and measures 0.67×1.85 meters, while the western *klinai*, also elevated by 60 centimeters, measures 0.70×2.03 meters. Adjacent to the western *klinai*, at the southwest corner, there is a lower rectangular-shaped offering area measuring 40 centimeters in height and 60×70 centimeters in size. A gap of 1.15 meters separates the front of this offering space from the southern *klinai*. Due to the significant damage, no frame profiles or cushion marks are visible on the *klinai*. However, raised rectangular profile traces can be detected on the facades of the *klinai*. On these facades, there are wooden imitation profiles resembling table legs, with a thickness of 18 centimeters and a raised profile of 3 centimeters. This is particularly evident on the facade of the western *klinai* on the back wall (Fig. 9–10).

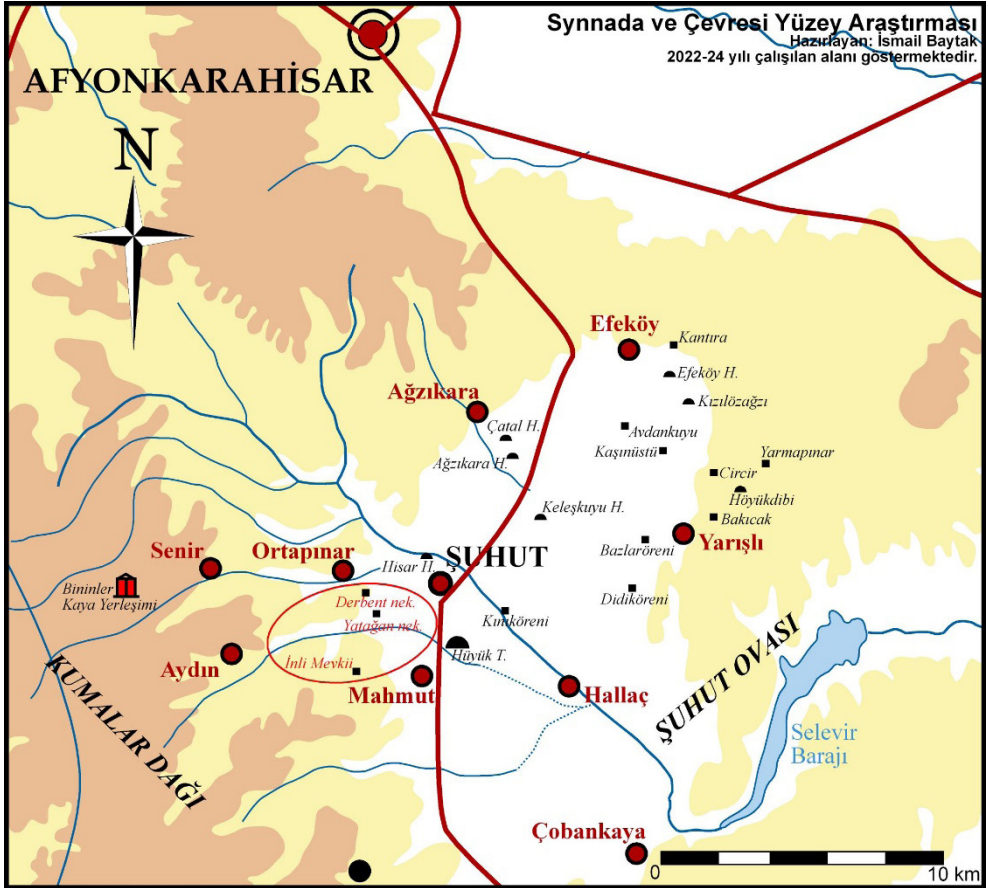


Figure 1: Synnada Survey Project: Yatağan and İnli necropolis settlement map-plan (i.baytak)

AFYONKARAHISAR İLİ
ŞUHUT İLÇESİ
YATAĞAN MEVKİİ
UMT 6 DERECE KOORDİNAT SİSTEMİNDE
ANTİK MEZAR KOORDİNATLARI

YER NO	Y	X	YER NO	Y	X
54	35096502	45212104	64	35096502	45212104
55	35096483	45212123	65	35096483	45212123
56	35096464	45212142	66	35096464	45212142
57	35096445	45212161	67	35096445	45212161
58	35096426	45212180	68	35096426	45212180
59	35096407	45212199	69	35096407	45212199
60	35096388	45212218	70	35096388	45212218
61	35096369	45212237	71	35096369	45212237
62	35096350	45212256	72	35096350	45212256
63	35096331	45212275	73	35096331	45212275
64	35096312	45212294	74	35096312	45212294
65	35096293	45212313	75	35096293	45212313
66	35096274	45212332	76	35096274	45212332
67	35096255	45212351	77	35096255	45212351
68	35096236	45212370	78	35096236	45212370
69	35096217	45212389	79	35096217	45212389
70	35096198	45212408	80	35096198	45212408
71	35096179	45212427	81	35096179	45212427
72	35096160	45212446	82	35096160	45212446
73	35096141	45212465	83	35096141	45212465
74	35096122	45212484	84	35096122	45212484
75	35096103	45212503	85	35096103	45212503
76	35096084	45212522	86	35096084	45212522
77	35096065	45212541	87	35096065	45212541
78	35096046	45212560	88	35096046	45212560
79	35096027	45212579	89	35096027	45212579
80	35096008	45212598	90	35096008	45212598
81	35095989	45212617	91	35095989	45212617
82	35095970	45212636	92	35095970	45212636
83	35095951	45212655	93	35095951	45212655
84	35095932	45212674	94	35095932	45212674
85	35095913	45212693	95	35095913	45212693
86	35095894	45212712	96	35095894	45212712
87	35095875	45212731	97	35095875	45212731
88	35095856	45212750	98	35095856	45212750
89	35095837	45212769	99	35095837	45212769
90	35095818	45212788	100	35095818	45212788
91	35095799	45212807	101	35095799	45212807
92	35095780	45212826	102	35095780	45212826
93	35095761	45212845	103	35095761	45212845
94	35095742	45212864	104	35095742	45212864
95	35095723	45212883	105	35095723	45212883
96	35095704	45212902	106	35095704	45212902
97	35095685	45212921	107	35095685	45212921
98	35095666	45212940	108	35095666	45212940
99	35095647	45212959	109	35095647	45212959
100	35095628	45212978	110	35095628	45212978
101	35095609	45212997	111	35095609	45212997
102	35095590	45213016	112	35095590	45213016
103	35095571	45213035	113	35095571	45213035
104	35095552	45213054	114	35095552	45213054
105	35095533	45213073	115	35095533	45213073
106	35095514	45213092	116	35095514	45213092
107	35095495	45213111	117	35095495	45213111
108	35095476	45213130	118	35095476	45213130
109	35095457	45213149	119	35095457	45213149
110	35095438	45213168	120	35095438	45213168
111	35095419	45213187	121	35095419	45213187
112	35095400	45213206	122	35095400	45213206
113	35095381	45213225	123	35095381	45213225
114	35095362	45213244	124	35095362	45213244
115	35095343	45213263	125	35095343	45213263
116	35095324	45213282	126	35095324	45213282
117	35095305	45213301	127	35095305	45213301
118	35095286	45213320	128	35095286	45213320
119	35095267	45213339	129	35095267	45213339
120	35095248	45213358	130	35095248	45213358
121	35095229	45213377	131	35095229	45213377
122	35095210	45213396	132	35095210	45213396
123	35095191	45213415	133	35095191	45213415
124	35095172	45213434	134	35095172	45213434
125	35095153	45213453	135	35095153	45213453
126	35095134	45213472	136	35095134	45213472
127	35095115	45213491	137	35095115	45213491
128	35095096	45213510	138	35095096	45213510
129	35095077	45213529	139	35095077	45213529
130	35095058	45213548	140	35095058	45213548
131	35095039	45213567	141	35095039	45213567
132	35095020	45213586	142	35095020	45213586
133	35095001	45213605	143	35095001	45213605
134	35094982	45213624	144	35094982	45213624
135	35094963	45213643	145	35094963	45213643
136	35094944	45213662	146	35094944	45213662
137	35094925	45213681	147	35094925	45213681
138	35094906	45213700	148	35094906	45213700
139	35094887	45213719	149	35094887	45213719
140	35094868	45213738	150	35094868	45213738

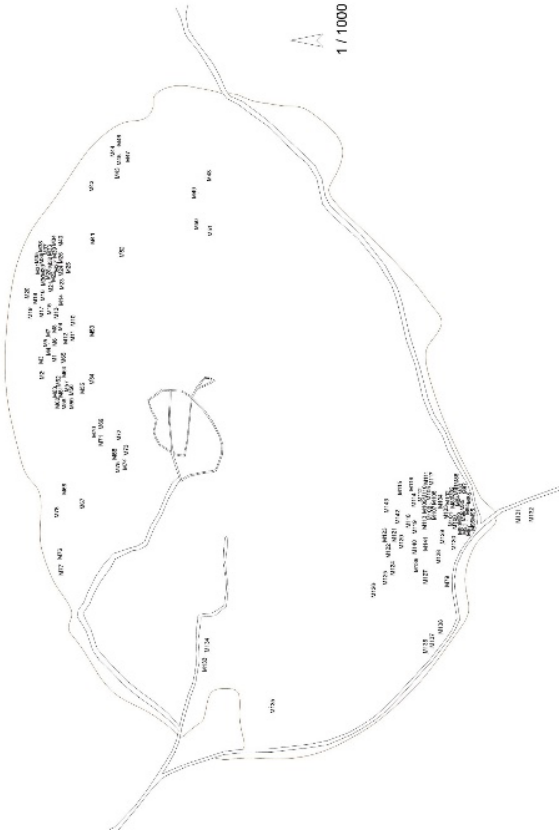


Figure 2: Yatağan necropolis positioned map-plan. (ıbaytak)



M4 dromos and entrance gate



Front chamber and rear burial chamber gate



Burial chamber west klinai



Burial chamber south and west klinai



Burial chamber east wall, door and bench/altar



Burial chamber south klinai and offering bench/altar

Figure 3: İneriçi necropolis rock-cut tomb M4 of İnli (i.baytak)



M4 west klinai ornament (left)



West klinai and corner bench/altar



West klinai ornament (right)



Northeast corner bench/altar



South klinai and east wall



South klinai ornament (right)



M4 northeast corner bench/altar relief ornament



Southwest corner bench/altar

Figure 4: İneriçi necropolis rock-cut tomb M4 of İnli (i.baytak)

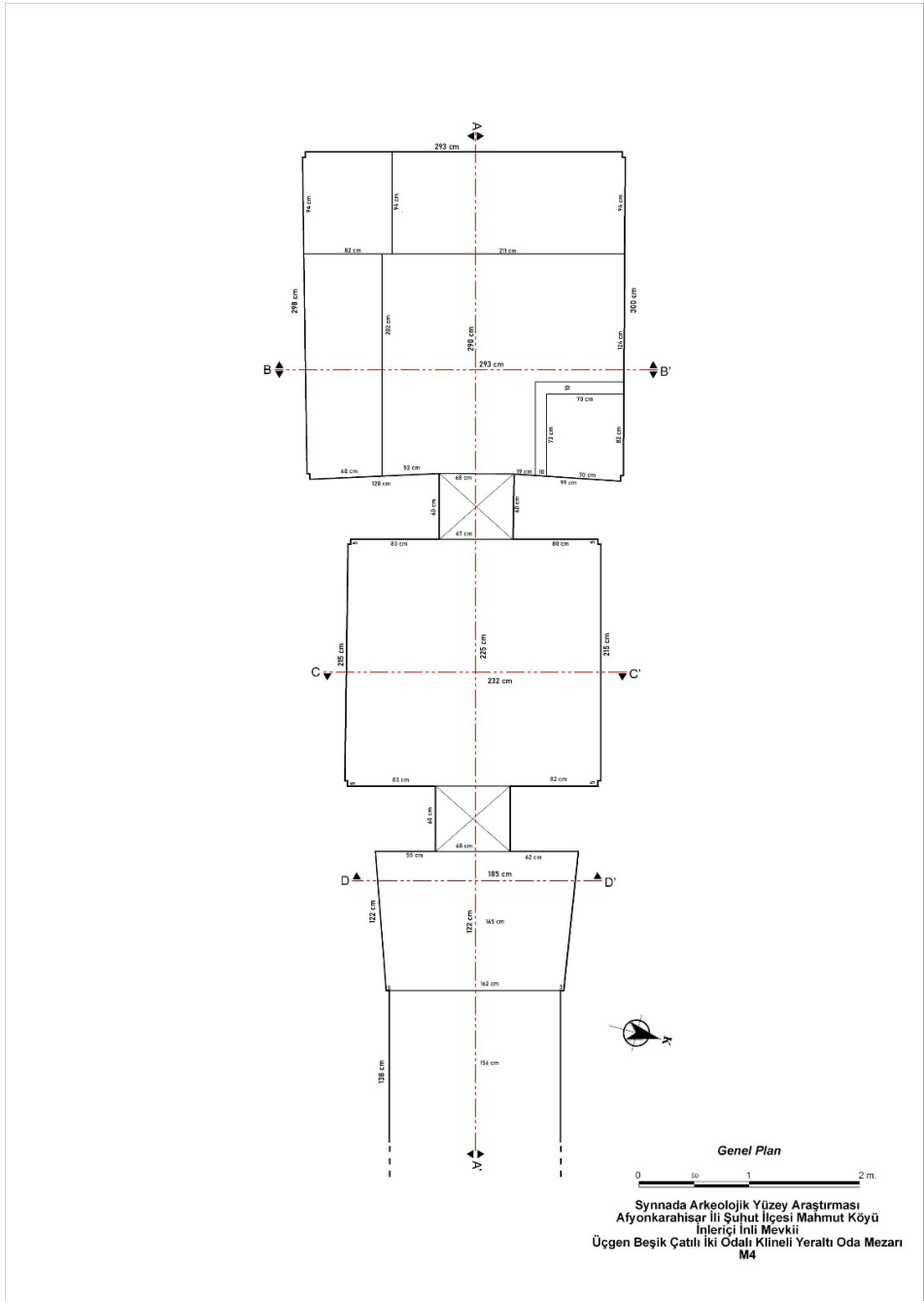


Figure 5: İnli M4 drawing, plan view of rock-cut tomb (i.baytak)

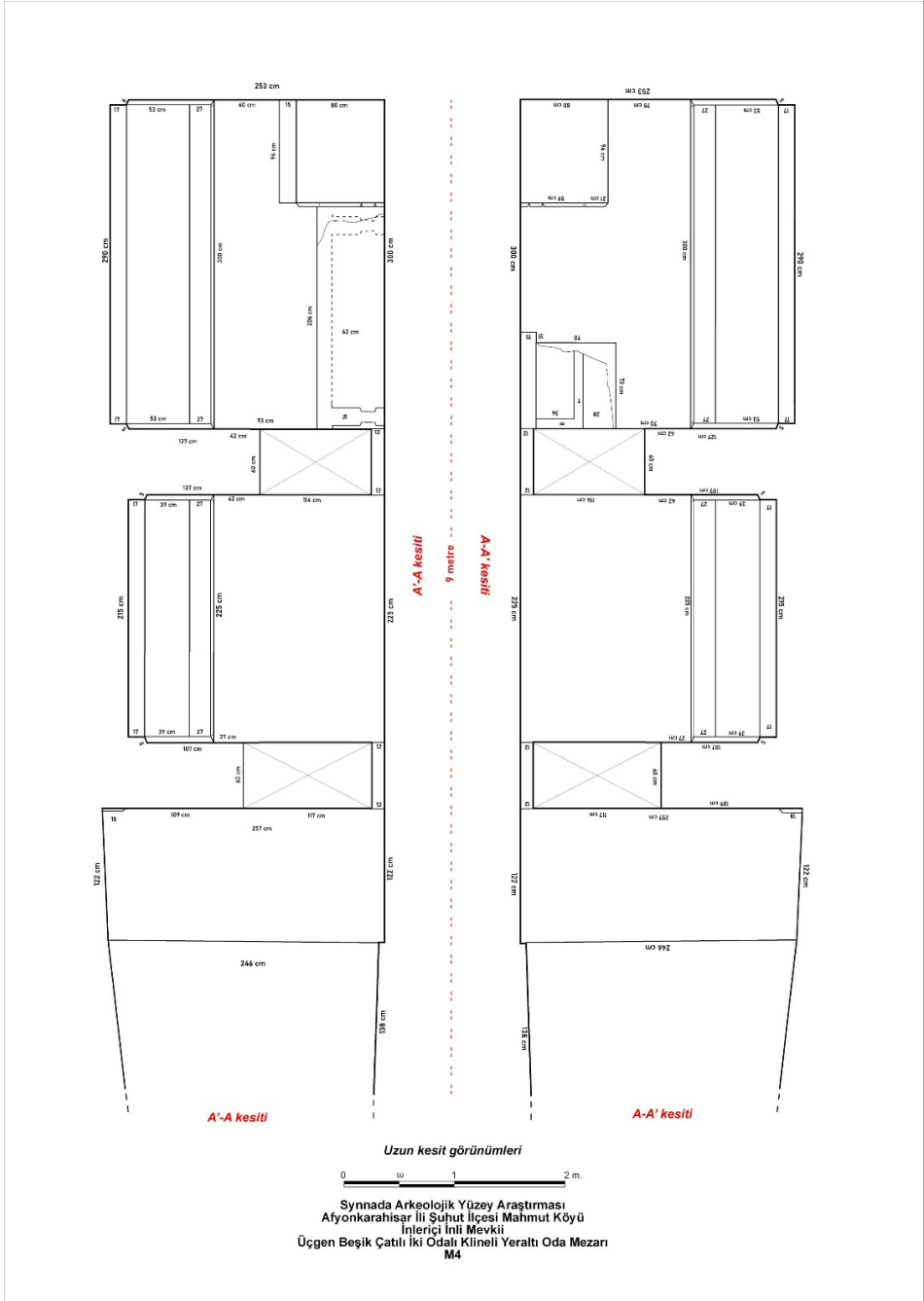


Figure 6: İnli M4 drawing, plan and cross-section view of rock-cut tomb (i.baytak)

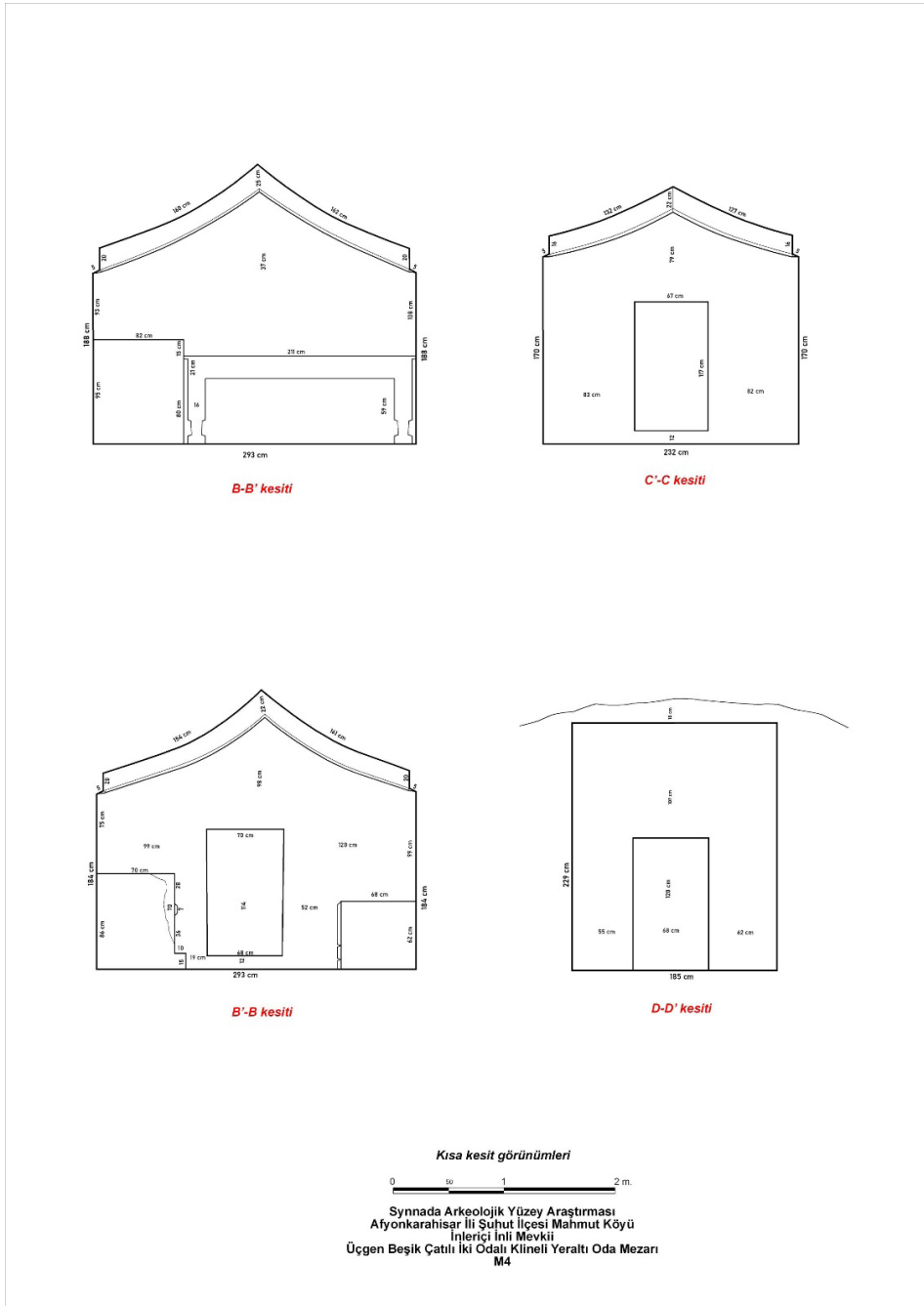
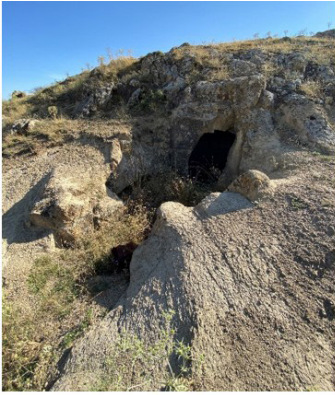


Figure 7: İnlı M4 drawing, plan and cross-section view of rock-cut tomb (i.baytak)



M5 dromos and entrance gate



M5 dromos and front room



M5 burial chamber



M5 entrance northern part and eastern klinai



M5 west klinai front ornament (right)



M5 rear wall and east and south klinai

Figure 8: İneriçi necropolis rock-cut tomb M5 of İnlı (i.baytak)

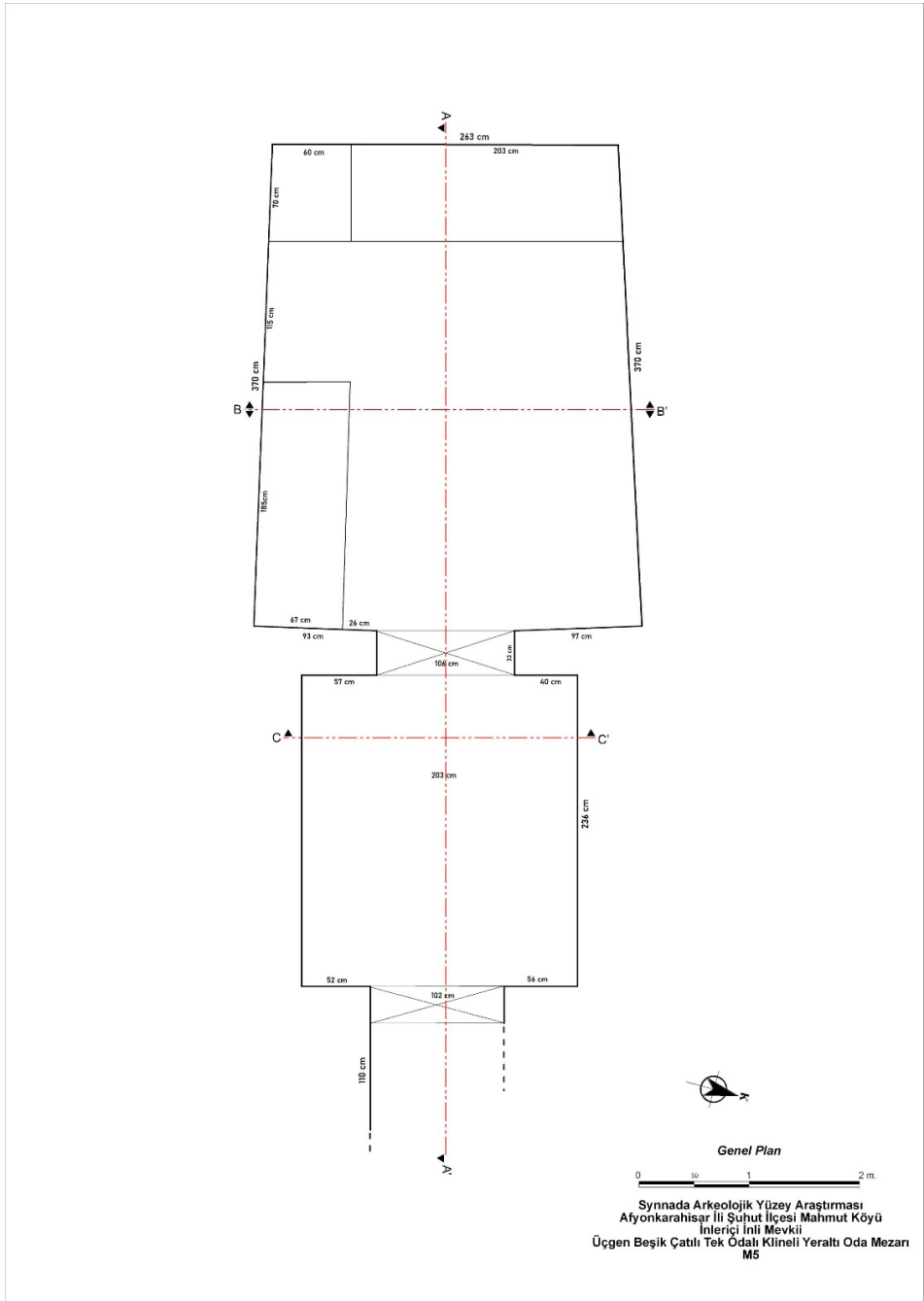


Figure 9: İnlı M5 drawing, plan view of rock-cut tomb (i.baytak)

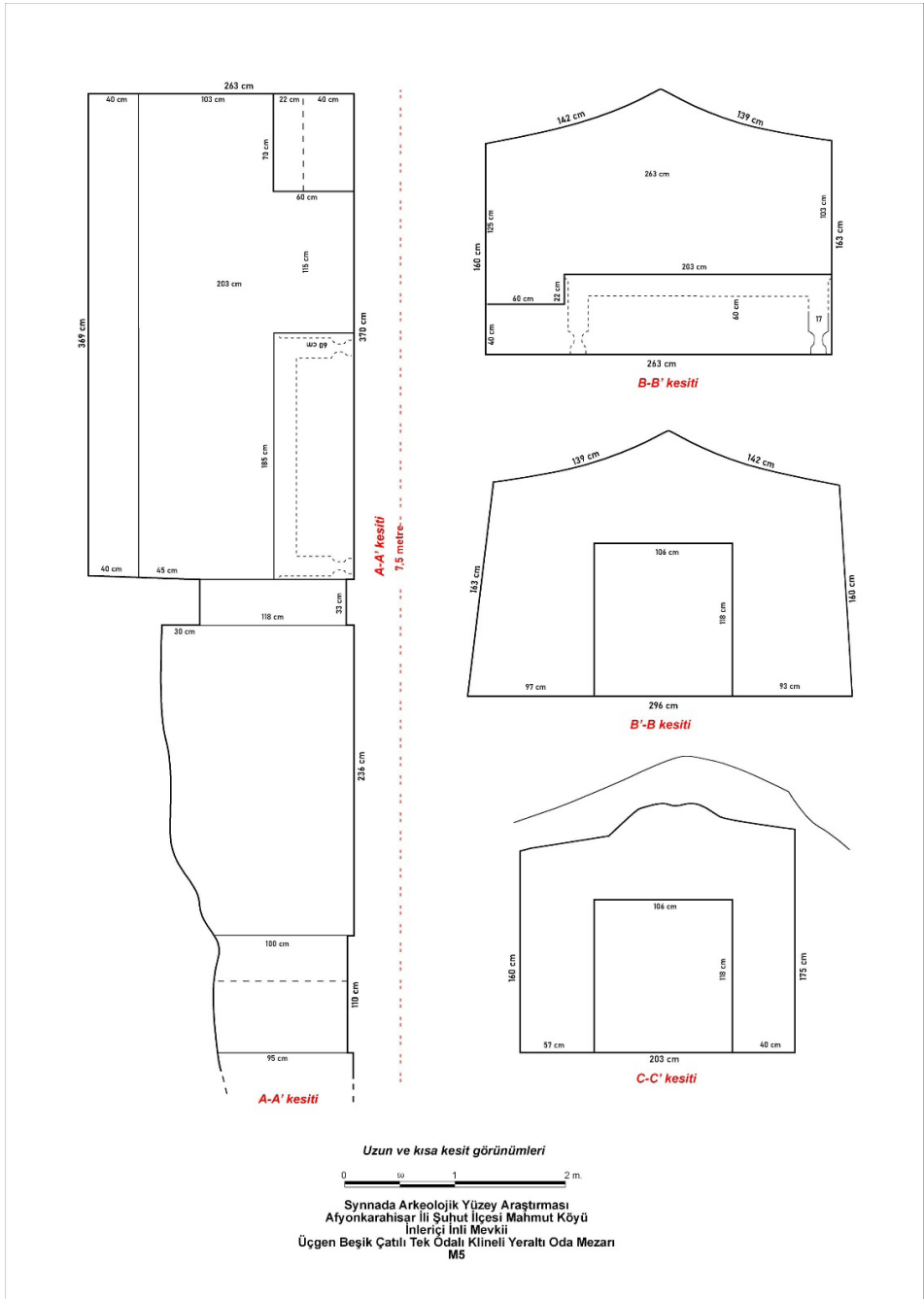


Figure 10: İnlü M5 drawing, plan and cross-section view of rock-cut tomb (i.baytak)



M15 dromos and entrance gate



M15 chamber tomb and ceiling view of the room



Gate facade with triangular pediment



M15 chamber tomb and ceiling view of the room



The wood imitation ceiling



The wood imitation ceiling



M15 The ceiling of the chamber tomb and entrance

Figure 11: Yatağan necropolis rock-cut tomb M15 of Yatağan (i.baytak)



Figure 12: Yatağan necropolis rock-cut tomb M15 of Yatağan (i.baytak)

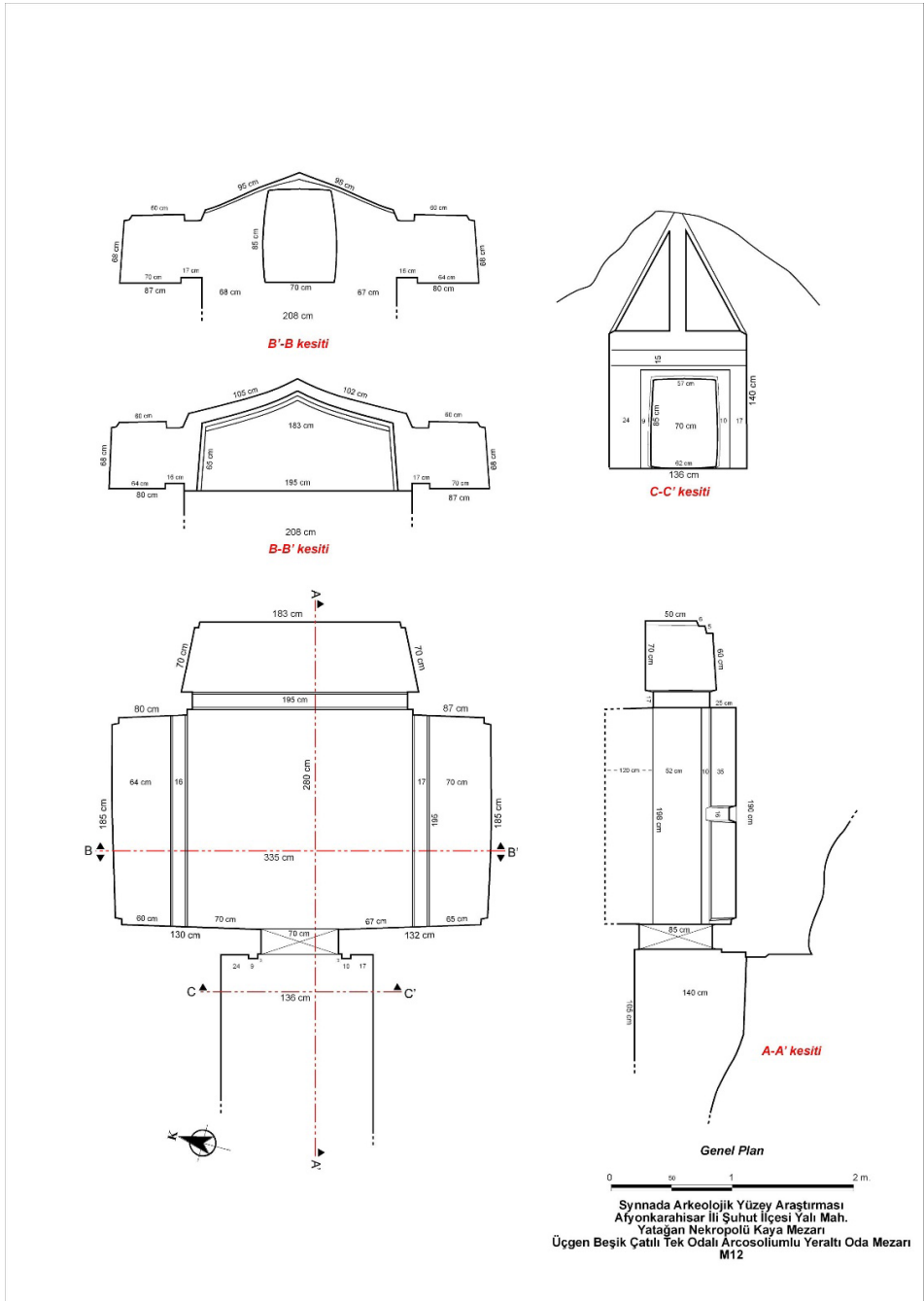


Figure 13: Yatağan M15 drawing, plan and cross-section view of rock-cut tomb (i.baytak)



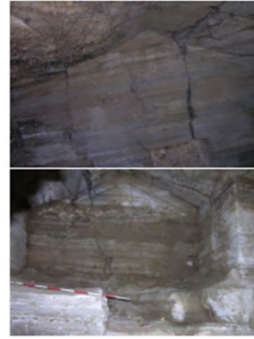
a) Gerdekkaya Yazılıkaya, Phrygian Rock Tomb No.6 (Tuna and Çağlar, 2000, p. 69, Fig. 2-5)



b) İhsaniye-Yılantaş Rock Tomb (i.baytak Archive)



c) The Lale Tepe tumulus. Digital reconstruction of the tomb chamber.(Summerer/von Kienlin 2016.fig.5)



d) The Balmahmut Phryg Rock Tomb (İlaoğlu, 2019, 67)



e) The rock-cut tomb of Düm Düm Kaya in İncesu Village, Seydişehir; The ones on the right in the picture are from (Büyüközer and Gider, 2015, fig.5 and fig.6)



Fig. 5 Ahşap konstrüksiyona oykılmış kline

Fig. 6 Kline ayakk

Figure 14: Similar examples in the region and neighborin

Yatağan Rock-Cut Tomb M15

Rock-cut tomb M15, located within the Yatağan necropolis site, is distinct from the other rock tombs in the area in its architecture and decoration. As a result, it was closely documented. This tomb stands out particularly due to its interior, which adds significant value to the site (Figs. 11–12). Positioned to face Hisar Tepe in Synnada, the tomb is located on the northern slope of the necropolis hill. The entrance is slightly visible and appears to be filled with soil. Upon conducting our investigations of M15, we found that the tomb consists of a dromos, followed by a rectangular door and a single-room burial chamber. The plan is 4.20 meters long in total and extends east to west, with the door facing west. The dromos, which is quite narrow and short and was likely built with a stepped descent, measures 1.05 meters in length and 1.36 meters in width. At the eastern end of the dromos, there is a wall measuring 1.36 meters. This wall features a triangular pediment and a gabled roof (with traces of roof beams), mimicking the architecture of a wooden house, with a doorway in the center. Two rafters are embedded into the rock to a depth of 3 cm, creating the impression of a roof reflected in the stone. A prominent ridge beam supports the roof structure. The craftsmanship and detailing of the roof exhibit a coarse and rudimentary execution. The door's dimensions are approximately 70 × 85 centimeters with a thickness of 30 centimeters, and the doorframe has a simple design with a single-molded profile.

After passing through this simple rectangular entrance, one enters the burial chamber, which is constructed in a rectangular plan. The ceiling is modeled to imitate a wooden *hatıl* and a steep gable construction. The burial chamber itself is in proportion to the façade and has a vaulted/sagging triangular roof with a height of 1.20 meters. However, due to the current soil filling and degradation, the height is not very obvious, with only a .75-centimeter elevation being noticeable. The burial chamber was designed as a single room, measuring 2.80 × 3.35 meters. It includes three rectangular arcosolia used for burials (Fig.13). Two are located on the sides, and one is situated at the back of the room. It is likely that both the remains found inside and the pottery fragments outside the tomb belong to these niches.

Discussion

The areas in which the Yatağan and İnli rock tombs are located are generally categorized as belonging to the Roman and Late Roman periods in registration documents, along with their surrounding tomb types. However, when this dating undertaken, it is likely that the above rock tombs had not been entered; they may have been assessed based solely on the entrances in a manner similar to the neighboring tombs. Given that only the general plan of the tombs were covered and their interiors were unexplored, this may have been the most logical assumption at the time. It is also important to note that the tombs discussed in this paper have recently been opened and damaged by illegal excavators. During our surface

survey conducted in 2022, we gathered evidence suggesting origins from an earlier period, which necessitated a reconsideration of the tomb's dating based on both its external and internal architecture. We propose that these tombs, in connection with the geography in which they are located, can be placed between the eighth and sixth centuries BC, with ties to the Phrygian and Lydian cultures. Within this cultural domain, imitations, similarities, transformations, and cultural exchanges were reflected in burial traditions and, consequently, in tomb architecture. These intercultural processes continued with the Persian era in the fifth century BC, followed by the Hellenistic and Roman Imperial periods (Kortanoğlu, 2012, 288-307). During Persian rule, the Lydian cultural influence extended as far as the Şuhut Plain in present-day Turkey. The tombs under evaluation therefore hold significant importance as representations of the continuation and adoption of architectural traditions inherited from Phrygia, which were then shaped according to Lydian culture's unique architectural style. In this context, discovering traces of this approach in the rock tombs excavated at Sardis should not be considered surprising (Dökü, 2015, 79).

In evaluating the İnli rock tomb, particularly the M4 burial chamber, the stone *klinai* exhibit a similarity to those found in Phrygian tombs, following an L-shaped plan. This similarity is also evident in the nearby M5, which exhibits a three-cornered, roofed, *semerdam* (beam construction) structure with an L-shaped plan. Additionally, the stone *klinai* inside M4 resemble those seen in the triangular-roofed Lydian tomb architecture, suggesting a connection to the Lydian tradition as well (McLauchlin, 1985, 142-145; Baughan, 2004, 54-100; Dökü, 2015, 82; Kahya, 2012, 29, fig.11). It is well known that burial practices involving *klinai* were common in the Megale Phrygia region, especially near the Lydian border (İzmirligil, 1975, 47). These rock tombs, especially the İnli rock tomb, share other structural features with Lydian rock tombs and tumuli, including *dromoi* (corridors) that lead to the tomb entrances (Butler, 1922, 158–165). Furthermore, they show notable similarities with the architecture of tumulus chamber tombs. The Tatarlı Tumulus (Uçankuş, 1979, 305-334; Tüfekçi-Sivas, 2010, 330-341) and the Sandıklı Maltepe Tumulus (Üyümez, 1993, 389-404) also exhibit similar plans. The Phrygian tumulus tradition, which originally featured a wooden chamber structure, evolved into stone architecture in the Lydia region starting in the seventh century BC, as exemplified by the Sardes Bintepeleer necropolis (İzmirligil, 1975, 47). Meanwhile, similarly embossed decorative *kline* legs can be observed on the *klinai* in Tombs 17 and 26 in the Köhnüş Valley. (Haspels, 1971, 120, fig. 536.6; 121, fig. 537.2).

While the underground chamber tombs do not present monumental architecture, they are still remarkable for their short, stepped *dromoi* that lead to a main burial chamber following an antechamber. When compared to other regional examples, the tombs surrounding the Yazılıkaya Midas Monument in the Phrygia Valley are particularly noteworthy (Sivas, 2012, 112-159). Among the tombs discovered near the Yazılıkaya monument during the 1970s, one

of the most remarkable was the Phrygian underground rock tomb (No. 6), which measures 2.40×3.90 meters and exhibits careful craftsmanship and a distinctive structure. This tomb shares similar characteristics and craftsmanship with the İnli rock tomb chambers evaluated above. This Phrygian monumental tomb is dated to the first half of the sixth century BC (Tuna and Çağlar, 2000, p. 69, Pl. 2-5). Meanwhile, benches inside a rock-cut chamber tomb in Sardes and the examples of the İnli rock tomb chamber share their own similarities (Roosevelt, 2012, fig. 177). In addition, there are very detailed studies that present the characteristic features of this grave type (Tüfekçi-Sivas and Sivas, 2016, 613).

The example of the Yatağan rock tomb, M15, does not present monumental architecture. However, it draws attention with its short, stepped dromos leading to a passage and the less obvious triangular pediment facade and ceiling, which mimic a wooden structure. Based on both the facade and the interior architecture, M15 first serves as an example of the stone reflection of the Phrygian funerary architecture, which is characterized by a triangular pediment, vaulted roof, and construction reminiscent of a wooden house. In this context, the definitions by Haspels come into play. In almost all the Phrygian monuments in the region, there is a pediment at the front of the facade and a pointed roof inside the burial chamber (Şahin, 1995, 137-150). Haspels defines the rock-cut tombs that began in the eighth century BC as Type 1, which can be entered through a simple rectangular door at the front and largely feature triangular pediments, pitched roofs, and wood architectural imitations, with beams carved into the rock. He classified the Type 1 tombs into four subgroups: A, B, C, and D. In this context, the İnli rock tomb can be classified in Group C due to having two-bed *klinai* (Haspels, 1971, 112-113). Although the earliest evidence of the use of *klinai* in tomb chambers has been identified in Lydian tombs, this tradition was also practiced in Phrygian culture in the sixth century BC. (McLauchlin 1985, 142-145).

Haspels identifies rock tombs from the sixth century BC as Type 2, and these also include triangular pediments, gabled roofs, and carved roof trusses and purlins on the facade (Haspels, 1971, 126). One of the best examples of Phrygian-Lyidian interaction, categorized as Type 2, is the Düver rock tomb in Burdur Yarışlı, which is notable for both its dating and its facade. Although this example is generally considered Phrygian, its baked clay covering slabs and the presence of sixth century BC Lydian painted pottery suggest the predominance of Lydian culture over Phrygian culture (Kahya, 2012, 13-32). The Hasanpaşa-Manca Deliktaş rock tomb in Burdur Tefenni exhibits similar features (Dökü, 2015, 78). Another noteworthy example of Type 2 is the Hoyran rock tomb, which lies just southeast of our research area in the northeastern part of the Pisidia region, near Lake Hoyran in Isparta (Fiedler and Taşlıalan, 2002). A similar situation can be observed in the Lydian tumuli, such as the Laletepe (Fig. 14) tumulus (Stinson, 2008, 25-48, fig. 9; Summerer and von Kienlin, 2016, Plate 252, fig. 5; Dökü, 2015, 77-79). When examining the ceiling craftsmanship of the burial chamber,

similar wooden-mimicking beam structures can also be observed in the Yılantaş (Fig. 14) rock tomb chamber in Afyon İhsaniye and the Gerdekkaya (Fig. 14a) example in Eskişehir (Kortanoğlu, 2016, 249, fig. 18). Additionally, the Beyce Tumulus near Soma can also be referenced for the “carved framework of the roof” in this region (Summerer and von Kienlin, 2016, 502, Plate 250, fig. 1).

The finds within M15 also present noteworthy results. This tomb is particularly remarkable for the scattered fragments of a terracotta sarcophagus found in the debris at the front. In this tomb, broken pieces of the body and lid of two different sarcophagi were discovered both within the rubble inside and in the surrounding soil. Sarcophagi, which occupied an important place in ancient burial practices and were used as part of mortuary rituals, can also be found in rock tombs. Sarcophagi of both stone and more fragile terracotta materials are positioned on the ground and in the *kline* areas of tombs, sometimes in various forms, enhancing the esthetic and ritual significance of the space they occupy. The finds in M15 support this interpretation. The terracotta sarcophagi, adorned with simple geometric decorations, carry esthetic value, and their surfaces feature motifs, paintings, and graffiti. These sarcophagi, which date to the fifth century BC, continued to be used throughout the Hellenistic and Roman periods as part of an ongoing tradition (Baughan, 2010). Similar examples can also be found in Lydian burial practices. In this context, the Balmahmut Kaya Tomb in Sinanpaşa (Fig. 14d) which is geographically close to the region under discussion, supports this notion not only through its architectural similarities but also its contents. The tomb chamber—with its triangular pediment, vaulted roof, and bench—along with its artifacts date to the late Phrygian period, specifically the sixth century BC. Among the finds are broken wooden interlocking furniture pieces on and in front of the bench, along with jewelry, rosettes, appliquéés, and alabastron (marble) vessels, which are highly impressive and valuable for dating purposes (İlaşlı, 2019, 61-63).

Like the sarcophagus fragment found in M15, lid fragments of a *semerdam*-style sarcophagus have also been found in other tombs in the Derbent area. Originally constructed during the Phrygian period, this tomb structure underwent three distinct phases of use, which are reflected in the fragments. The excavations revealed scattered terracotta sarcophagus box fragments (Fig. 11, top left), broken marble slabs, a broken unguentarium, and ceramics in both the tomb and the surrounding debris. The marble slabs, which were likely used as parapet blocks for the *klinai* or for closure functions, are assumed to be from the Roman period due to their craftsmanship, thus supporting the second phase of use for the tomb. The rock tombs and pottery fragments found on the hilltops and slopes further indicate that the tomb was used a second and even third time, following its original Phrygian (Iron Age) usage. Furthermore, the burial gift, which is identified as belonging to the Late Roman period due to its monogrammed seal, confirms a third phase of use for the tomb.

Conclusions

The tradition of rock-cut tombs dates to the early first millennium BC, with Phrygia emerging as the primary locus for such tombs. The İnli and Yatağan rock-cut tombs provide significant insights into burial traditions and cultural diversity during the Iron Age, Roman period, and Late Antiquity. The architectural features of the examined tombs, including simple entrance structures (dromoi), antechambers, rectangular doors, and barrel-vaulted ceilings, reflect both Phrygian influences and local traditions. These tombs display a distinctive architectural layout for burial chambers that sets them apart from other regional examples. The findings offer crucial data for understanding the burial structures and cultural interactions in the region and highlight the necessity for more detailed excavations to further explore these aspects.

Research and archaeological excavations in Synnada and surrounding areas have revealed burial traditions of the local populations spanning from the ancient period to the Roman era. The key characteristics of these tombs are that they were carved into solid rock and their burial chambers were reused, with modifications made to their layouts. Finally, there was diversity in the internal structure of the tombs: some tombs were arranged with non-standard forms and cinerary niches resembling *klinai*, while others featured sarcophagi placed on the chamber floors or in depressions carved into the ground. These archaeological findings reflect the burial structures, traditions, and practices of the ancient communities in the region. The presence of different practices indicates the evolution and development of burial customs over time. They provide valuable data for understanding local and cultural interactions, underscoring the need for further exploration through detailed excavations.

In addition to the studies conducted in the region and the collected data, the evaluations interpreting the regional culture may not be fully comprehensive. However, recent studies focusing on quick results have played a critical role in illuminating the historical and cultural heritage of the region, allowing for a clearer understanding. Underground chamber tombs, as significant archaeological remnants from antiquity, can help in illuminating the burial cultures of these prehistoric societies. However, the destruction and looting of many of these tombs complicate their dating. Based on the above findings, it is necessary to consider an earlier dating for the tombs based on new research and findings in the region. In this context, particularly for the İnli rock-cut tombs, the previously proposed dating has been reexamined, and the findings support an earlier dating. Considering all this data, a general assessment suggests that the tombs, dated to the eighth through seventh centuries BC, can be classified as follows: the İnli rock-cut tombs M4 and M5, with their dromoi, antechambers, small superficially processed door, barrel-vaulted ceilings, and *klinai* features, can be identified as Lydian tombs. Meanwhile, Yatağan rock-cut tomb M15, with its triangular pediment arrangement, shares similarities with Type 1 tombs in the mountainous Phrygia necropolises and can thus be identified as Phrygian.

This study presents significant results on tomb architecture and burial rituals in the Synnada area through the examples of the Yatağan and İnli rock-cut tombs. The examined tombs display unique architectural features shaped by the interaction between the Phrygian and Lydian cultures. Furthermore, the architectural designs and internal findings of the tombs reflect traces of different periods. Although these rock-cut tombs have been officially classified as belonging to the Roman and Late Roman periods, the findings thus indicate that a more in-depth investigation is required.

The surface surveys and excavations have revealed that the İnli rock-cut tombs underwent at least three phases of use. The initial phase can be dated to the Phrygian period, but the findings show that the tombs were reused during the Roman and Late Roman periods. Findings such as marble plaques and fragments of sarcophagi from the second phase reflect Roman period interactions and craftsmanship. The third phase, confirmed by burial gifts and monogrammed seal impressions, took place in the Late Roman period. The internal architecture of the İnli rock-cut tomb, particularly the L-shaped *klinai* and triangular vaulted structures, demonstrates the clear similarities between the Phrygian and Lydian traditions. These features also resemble other rock-cut tombs and tumuli in the region, particularly in areas like Sardis and Tefenni. Moreover, the stone *klinai* and ceiling workmanship inside the rock-cut tombs reflect an architectural evolution transitioning from Phrygia to Lydia. The nearby Balmahmut rock tomb provides supporting evidence for this development.

The findings from the Yatağan M15 rock-cut tomb provide their own important insights into the initial uses of the tomb. In particular, the terracotta sarcophagi and marble plaques indicate that the tomb was used functionally at different periods, reflecting a cultural evolution. These findings show that the tomb was initially constructed during the Phrygian period, then reused during the Roman period, and finally had a third phase of use during the Late Roman period.

The Yatağan and İnli rock-cut tombs thus provide an important window into the evolution of tomb architecture in the region. These tombs, carrying traces of Phrygian and Lydian cultures, reflect a cultural continuity that was endured into the Roman and Late Roman periods. The architecture and internal findings of the tombs offer a profound understanding of the area's historical and cultural context. Future studies and detailed excavations will further illuminate the cultural interactions and architectural developments of these tombs.

Acknowledgement: We sincerely thank the Ministry of Culture and Tourism, General Directorate of Cultural Heritage and Museums of the Republic of Turkey for their permission and the Rectorate of Dicle University for their support. In the research, we would like to thank all our team members, especially Afyonkarahisar Museum Director Mr. Mehmet Garipçin and experts Mr. Muhammed Sevim, Mr. Fatih İşleyen, Afyonkarahisar Culture Director Mr. Yusuf Altın, Mr. Mehmet Tanır (former director), Deputy Director Mr. Cemil Kaynak, Branch Manager Mr. Mevlüt Üyümez, Şuhut Mayor Mr. Muhittin Özaşkın, Mr. Recep Bozkurt (former mayor) and my valuable teacher Prof. Özdemir Koçak, for their cooperation and contributions.

Ethics Committee Approval: N/A.

Peer-review: Externally peer-reviewed.

Conflict of Interest: The author have no conflict of interest to declare.

Grant Support: This study was supported by Dicle University Scientific Research Projects Coordination, DÜBAP, EDB.23.006 project.

References

- Baughan, E.P. (2004). "Anatolian Funerary Klinai: Tradition and Identity." PhD dissertation, University of California, Berkeley, 54-100.
- Baughan, E.P. (2010). *The Lydians and their World/ Lidya Gümü Gelenekleri* ed. Nicholas D. Cahill.
- Baytak, İ. (2024). "Synnada ve Çevresi Yüzey Araştırmaları 2022(ilk sezon)", *Araştırma Sonuçları Toplantısı* 39/2, 471-488.
- Butler, C. (1922). *Sardis Vol. I. The Excavations Part 1: 1910-1914*.
- Büyüközer, A. & Z. Gider. (2015). "Lykaonia Bölgesi'nde Bir Frig Kaya Mezarı", *Mustafa Büyükkolancı'ya Armağan/Essays in Honour of Mustafa Büyükkolancı* (Eds. C.Şimşek, B.Duman & E.Konakçı). (s.145-155). İstanbul: Ege Yayınları.
- Cicero, *Epistulae ad Atticum/Letters to Atticus*. Ed. & Trans. by D. R. Shackleton Bailey. London 1999 (The Loeb Classical Library).
- Çevik, N. (2003). "Anadolu'daki Kaya Mimarlığı Örneklerinin Karşılaştırılması ve Kültürler arası Etkileşim Olgusunun yeniden İrdelenmesi", *Olba VIII*, 213-250.
- Dökü, F.E. (2015). "Manca ve Hasanpaşa'daki Yeni Bulgular Işığında Kabalis Mezar Mimarisinin Yeniden Değerlendirilmesi", *Adalya*, 18, 73-100.
- Drew-Bear, T. (2003). *Phrygia ve Pisidya Epigrafik Yüzey Araştırmaları*, *Araştırma Sonuçları Toplantısı*, 20/2, 77-82.
- Fiedler, G. & M. Taşlıalan. (2002). "Un monument rupestre phrygien au bord du lac de Hoyran", *Anatolia Antiqua X*, 97-112.
- French, D. (1976). "Roma Devri Mil Taşları ve Yolları üzerinde 1974 Yılında Yapılan Araştırmalar", *Türk Arkeoloji Dergisi*, 43/1, 51-54.
- Haspels, C.H.E., (1971). *The Highlands of Phrygia. Sites and Monuments I-II*. Princeton.
- Head, B.V. (1906). *A Catalogue of the Greek Coins of Phrygia in the British Museum*, London
- İlâşlı, A. (2019). *Balmahmut Frig Kaya Mezar Odası, İçinde İ.Akar (Edt.). VIII.Afyonkarahisar Araştırmaları Sempozyumu Bildirileri*, (pp.60-74). (E-kitap). Afyonkarahisar.
- İzmirliçil, Ü. (1975). "Uşak-Selçukler Tümülüs'leri/Tumuli at Selçukler near Uşak," *TAD 22/1*, 41-69.

- Kahya, T. (2012). "The Rock Tomb on the Düver Peninsula: An Early Example from Pisidia and Remarks on Cultural Interaction" *Adalya* 15, 13-32.
- Koçak, Ö. (2013). Afyonkarahisar İli ve İlçeleri 2011 Yılı Yüzeysel Araştırması, Araştırma Sonuçları Toplantısı, 30/2, 39-52.
- Koçak, Ö. & İ. Baytak. (2013). "Afyonkarahisar'da En Erken İskan İzleri", İçinde İ.Balık&C.Cihan (Edt.). Uluslararası Dinar ve Frigya Bölgesi Araştırmaları Sempozyumu Bildirileri, (pp.319-343). Afyonkarahisar.
- Koçak, Ö., Bilgin, M. & Küçükbezi, H.G. (2019). MÖ II. Binyılda Afyonkarahisar ve Çevresi Kültürleri, Ankara: Türk Tarih Kurumu Yayınları.
- Koçak, T. (2020). Geç Antik Çağ'da Phrygia Kentleri Synnada, Dokimeion, Amorion ve Apameia: Üretim ve Ticaret, Uluslararası Beşeri Bilimler ve Eğitim Dergisi (IJHE), C.6, Sa.14, 2020, pp.530-546.
- Kortanoğlu, R.Eser. (2012). "Dağlık Phrygia Bölgesi Hellenistik ve Roma Dönemi Kaya Mezarlarında Frig Etkileri / Phrygian Influences on the Hellenistic and Roman Rock-cut Tombs of the Phrygian Highlands", *Frigler. Midas'ın Ülkesinde, Anıtların Gölgesinde / Phrygians. In the Land of Midas, In the Shadow of Monuments* (Eds. T. Tüfekçi Sivas / H. Sivas). (pp.288-307), İstanbul.
- Kortanoğlu, R.Eser. (2016). Notes on Façade Architecture and Ornamental Elements on Monumental Rock-Cut Tombs in Highland of Phrygia in Hellenistic and Roman Imperial Periods/Dağlık Phrygia'da Hellenistik ve Roma İmparatorluk Dönemi Anıtsal Kaya Mezarlarındaki Cephe Mimarisi ve Mimari Süsleme Öğeleri Üzerine Notlar, TÜBA-AR 19, 243-268.
- Lamb, W. (1937). Excavations at Kusura near Afyon Karahisar, *Archaeologia*, LXXXVI, 1-64, pl.1-8.
- Lloyd, S. & J. Mellaart. (1965). Beycesultan, Middle Bronze Age Architecture and Pottery. Vol.II. London.
- McLauchlin, B.K. (1985). Lydian Graves and Burial Customs, Berkeley, 1985.
- Magie, D. (2003). Anadolu'da Romalılar-III, Çev: N.Başgelen, Ö.Çapar, İstanbul: Arkeoloji ve Sanat Yayınları.
- Mellaart, J. & A. Murray. (1995). Beycesultan III/II: Late Bronze Age and Phrygian Pottery and Middle and Late Bronze Age Small Objects. Occasional Publications of the British Institute of Archaeology at Ankara 12. London: The British Institute of Archaeology at Ankara.
- Perrot, G. (1876). Note Sur La Situation de Synnada (Lue devant l'Académie des inscriptions), *Revue Archeologique*, I, 190-203.
- Perrot, G. & G. Chipiez. (1892). History of Art in Phrygia, Lydia, Caria and Lycia, London.
- Pliny, The Natural History. Volume V: Books 17-19. Translated by H. Rackham. Cambridge, MA: Harvard University Press, 1950. (The Loeb Classical Library).
- Ramsay, W.M. (1890). The Historical Geography of Asia Minor, Oxford, 1890.
- Ramsay, W.M. (1960). Anadolu'nun Tarihî Coğrafyası, (Çev. M Pektas), İstanbul: Milli Eğitim Basımevi.
- Roosevelt, C.H. (2012). The Archaeology Of Lydia, From Gyges To Alexander, Cambridge University Press.
- Tüfekçi-Sivas, T. (2010). "Yeni Bir Boyalı Frig Mezarı". Eds. L. Sumerer – A. Von Kienlin, Tatarlı: Renklerin Dönüşü/The Return of Colours/Rückkehr der Farben. İstanbul (2010) 330-341.
- Tüfekçi-Sivas, T. (2012). "Frig Vadileri ve Kutsal Yazılıkaya-Midas Kenti / Phrygian Valleys and Sacred Yazılıkaya-Midas City", *Frigler. Midas'ın Ülkesinde, Anıtların Gölgesinde / Phrygians. In the Land of Midas, In the Shadow of Monuments* (Eds. T. Tüfekçi-Sivas & H. Sivas). (pp.112-159) İstanbul.

- Tüfekçi-Sivas, T. & H. Sivas. (2016). *Tumulus as Sema. Space, Politics, Culture and Religion in the First Millennium BC* (Edited by Olivier Henry & Ute Kelp). *Tumulus Tombs in Western Phrygia*, (pp.613-626 Plates 299–311). Berlin/Boston.
- Stinson, Ph. (2008), “Lale Tepe. A Late Lyidian Tumulus near Sardis II. Architecture und Painting”, in: N. Cahill (ed.), *Love for Lydia. A Sardis Anniversary Volume presented to Crawford H. Greenewalt Jr., Archaeological Exploration of Sardis 4*, (pp.25-47). Harvard.
- Strabon, *Geographika*. (Antik Anadolu Coğrafyası) Kitap: XII-XIII-XIV. (2018). Çev. A.Pekman, İstanbul: Arkeoloji ve Sanat Yayınları, (9.baskı).
- Summerer, L. & A. von Kienlin. (2016). *Tumulus as Sema. Space, Politics, Culture and Religion in the First Millennium BC* (Edited by Olivier Henry & Ute Kelp). *Roofing the Dead. Architectural Allusions in Anatolian Tumuli*, (pp.501-512. Plates 250–258). Berlin/Boston.
- Şahin, Ç. (1995). “Büyük Aslantaş: Frigya’da Bir Hitit Kaya Mezarı”. *Archivum Anatolicum-Anadolu Arşivleri* 1, 137-50.
- Taş, B., & Yakar, M. (2010). Afyonkarahisar İlinde Yükselti Basamaklarına Göre Arazi Kullanımı. *Coğrafi Bilimler Dergisi*, 8/1, 57-75.
- TIB Phrygien <https://atlas.maps-of-power.at/>
- Tuna, K. & M.D. Çağlar. (2000). “Yazılıkaya Frig Anıtsal Kaya Mezarı Restorasyonu ve F Sarnıcı Temizlik Çalışmaları”, *MKKS* 10, 69-78
- Uçankuş, H.T. (1979). “Afyon’un Tatarlı Kasabasında Bulunan Phryg Tümülüsü Kazısı / Excavation of a Phrygian tumulus at the town of Tatarlı near Afyon,” in VIII. Türk Tarih Kongresi, (pp. 305-34), Ankara, 1979.
- Üyümez M (1993). “Sandıklı Maltepe Tümülüsü Kurtarma Kazısı”, *MKKS* 3, 389-404.
- Üyümez, M., Koçak, Ö., İ. Baytak, M. Bilgin, T. Uğur, Ü. Akkemik, A.İ. Aytek, A.Y. Yavuz, & B. Aladağ. (2024). “Bolvadin Üçhöyük-2021-2022 Yılı Kazıları”, İçinde Dr.S.Ateşoğulları. (Ed.). *Uluslararası Kazı, Araştırma ve Arkeometri Sempozyumu, Kazı Sonuçları Toplantısı* 43/2, 389-408.



The “Worthless Stones” of Zincirli: Osman Hamdi Bey and the German Excavations of 1888–1902

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Submitted: 01.12.2024

Revision Requested: 13.12.2024

Last Revision Received: 15.12.2024

Accepted: 17.12.2024

Citation: Satır, O., Çifçi, A. (2024). The “worthless stones” of Zincirli: Osman Hamdi Bey and the German excavations of 1888–1902. *Anadolu Arařtırmaları-Anatolian Research*, 31, 213–244. <https://doi.org/10.26650/anar.2024.31.1594553>

ABSTRACT

This study investigates the archaeological excavations carried out by the German Orient-Comité at Zincirli Höyük between 1888 and 1902, using the Ottoman archives of the period and the documents in the Ottoman Imperial Museum. In addition to these archival documents, the wider work of the German archaeologists will be analyzed within this context. This study will focus on the relationships between Osman Hamdi Bey, the director of the Ottoman Imperial Museum at the time, Carl Humann, and Felix von Luschan. It will also reconstruct their excavation processes in Zincirli in the context of Ottoman bureaucracy. Most importantly, it will analyze how Hamdi Bey’s influence on that bureaucracy allowed the artifacts unearthed during the excavations to be taken to Germany despite the 1884 Asar-ı Atika (Antiquities) Regulation.

Keywords: Carl Humann, Osman Hamdi Bey, Felix von Luschan, Zincirli Excavations, Neo-Hittite



Introduction

From the early 19th century, the archaeological sites within the borders of the Ottoman Empire attracted the attention of European travelers and orientalists in search of antiquities, and subsequent excavations were carried out in various regions. Beginning in 1869, regulations were issued at various points for the excavation and protection of archaeological sites and artifacts (Karaduman 2004). Within this framework, German, French, British and American teams carried out excavations in various parts of Ottoman geography, especially in Anatolia, with legally obtained permits. The artifacts from these excavations were taken abroad and exhibited in various museums (Akın, 1993, 233; Özkan, 2019). To prevent the flow of artifacts out of the country, various regulations were further issued in 1874, 1884, and 1907 (Çelik, 2016; Çal, 1997, 2005; Akın, 1993; Özkan, 2019). However, despite these efforts, the flow of the archaeological artifacts found during these excavations to other countries could not be completely prevented. Most of the artifacts that were transferred abroad were taken without permission. However, some were taken abroad with permission, as gifts, or—as revealed in our study—for various other reasons, such covering transportation costs (Dilbaz, 2018, 29–54; Özkan, 2019, 104–112).

This period of intensive outward flow of artifacts coincided with the development of close relations between the Ottoman Empire and Germany at various levels. German archaeologists used both political alliances and personal connections—particularly with Osman Hamdi Bey (1842–1910), director of the Ottoman Imperial Museum (Müze-yi Hümayun)—to conduct major excavations in Ottoman territories. This alliance led to the easy attainment of excavation permits and transport of artifacts, despite the legal restrictions of the *Asar-ı Atika* (Antiquities) Regulation of 1884. The excavations of Zincirli Höyük, which were conducted from 1888 to 1902, thus occurred during a period in which these close relationships were evident at numerous levels.

Between 1888 and 1902, the excavations at Zincirli Höyük, first by Carl Humann (1839–1896) and then by Felix von Luschan (1854–1924), revealed extensive remains from the center of the Neo-Hittite/Aramean Kingdom of Sam'al, most of which were brought to Germany and are now exhibited in the Vorderasiatisches Museum in Berlin (von Luschan, 1893, 1898, 1902, 1911; von Luschan and Andrea, 1943). The artifacts that remained in Turkey are currently housed in the Department of Ancient Oriental Antiquities of the İstanbul Archaeological Museums. Although Article 3 of the *Asar-ı Atika* Regulation—which was drafted by Hamdi Bey himself in 1884—states that all archaeological artifacts found, discovered, and excavated in Ottoman territory belong to the state, and Article 8 prohibits the export of these artifacts abroad (Çal, 2005, 244–245), most of the archaeological artifacts unearthed in Zincirli were allowed to be taken to Berlin as compensation for expenses. However, it is interesting to note that according to the documents from the Ottoman State Archives, Hamdi Bey's opinion was sought each time and he approved their transfer.

This study therefore explores the archaeological excavations conducted by the German Orient-Comité at Zincirli Höyük between 1888 and 1902, drawing on documents from the Ottoman archives and the Ottoman Imperial Museum. It also examines the archaeological work of German excavators during this period. It will primarily focus on the relationships between Humann, von Luschan, and Hamdi Bey as the Ottoman Imperial Museum's director. It delves into their excavation procedures at Zincirli and, most importantly, investigates how the artifacts unearthed were transported abroad, despite the restrictions imposed by Articles 3 and 8 of the 1884 Asar-ı Atika Regulation.

The Zincirli Mound and its Discovery

Under the direction of the District Governor of İslâhiye, the first investigations at Zincirli Höyük were carried out by Hamdi Bey, who in 1883 set out to investigate the remains of the Commagene Kingdom on Mount Nemrut.¹ During this first excavation/survey, eight reliefs were uncovered on the mound. The mound was also visited by Humann and his team, who had been commissioned by the Berliner Königlich Preussischen Akademie der Wissenschaften and traveled to Mount Nemrut, shortly after Hamdi Bey under the guidance of a miller (von Luschan, 1893, 6) who was in same the region to purchase an artifact² with a relief of a lion hunt in Sakçagözü (Humann and Puchstein, 1890, 101).³ The German team reported the presence of several reliefs on the Zincirli mound, which they documented on-site despite the rainy weather (Humann and Puchstein, 1890, 167, pl. XLIV, XLV).⁴ Later, Humann would learn that these reliefs had already been uncovered by Hamdi Bey (Humann and Puchstein, 1890, 167). It thus appears that Hamdi Bey and Humann traveled to the region around the same time for the purpose of documenting the remains of the Commagene Kingdom. It is difficult to know whether this was planned or coincidental, but Hamdi Bey likely visited the site first, followed soon afterward by the German team.

Zincirli Höyük, located 10 kilometers west of the İslâhiye district of Gaziantep Province, was designated as being within the boundaries of the İslâhiye county of the Cebel-i Bereket Sanjak of Adana Province during the time of the excavations (Fig. 1). The mound is in an area close to the exit of Beylan Pass, which extends east-west direction across the Amanos

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- 1 Hamdi Bey travelled to İskenderun on 27 April 1883 with Osgan Efendi, an Armenian sculptor, to visit Mount Nemrut. Humann and his team would also begin this journey on 30 April (Humann and Puchstein, 1890, 157).
 - 2 The relief of a lion-hunting scene was removed from the wall of Ansarı Güllü Bey's house and bought for 50 Turkish lira (about 927 marks), and because it was too thick to carry, it was thinned by stonemasons to make it easier to move (Humann and Puchstein, 1890, 166).
 - 3 Felix von Luschan, who would lead the Zincirli excavations after the first excavation season, also participated in this excursion to collect ethnographic data along with Circassian Hasan Bey, who had previously travelled with Humann to Ankara and Boğazköy, joined the expedition to provide logistical support (Humann and Puchstein, 1890, 158; von Luschan 1898, 88).
 - 4 Felix von Luschan and Otto Puchstein decided to go to Zincirli. Humann, on the other hand, was to stay in Sakçagözü and carry out a sounding excavation there (Humann and Puchstein, 1890, 167).

Mountains. Excavations at the mound revealed the remains of the capital of the Sam'al Kingdom of the Neo-Hittite/Aramean, which ruled the region between the 10th and 7th centuries BC.⁵ The site includes a lower city and a rectangular citadel spread over a large area surrounded by circular double walls.

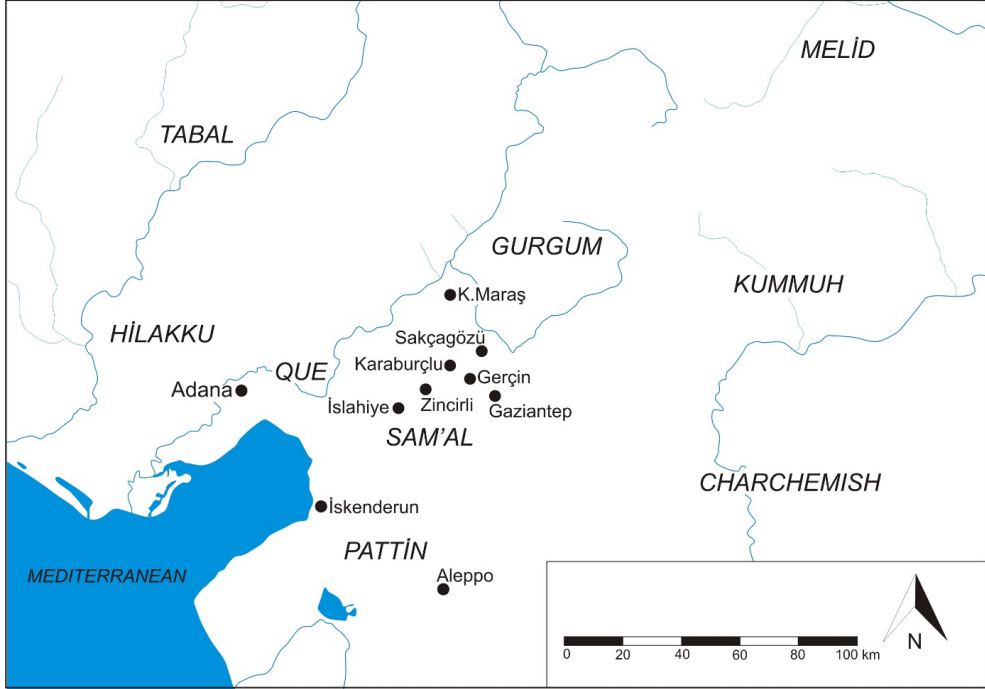


Figure 1: Map showing Zincirli Höyük and its surrounding area.

Foundation of the Orient-Comité and Excavation Preparations

In the late 19th century, there was a growing German interest in enhancing their involvement in Near Eastern excavations to enrich Berlin and other museums with more artifacts. However, concerns that the museums could not cover the costs of the excavations with their own financial resources arose, especially from Adolf Erman (1854–1937), director of the Egyptian Collection in Berlin (Wartke, 2005, 7).

It was therefore decided that excavations would be financed by special committees formed outside the museums, but managed by the museums. Furthermore, the artifacts unearthed during the excavations were to be purchased by the Berlin museums at cost price. This approach was meant to ensure the continuation of excavations and similar projects through consistent funding.

5 New excavations at Zincirli Höyük have been carried out by the University of Chicago's Oriental Institute and the University of Tübingen since 2006 (Schloen and Fink, 2009).

For these purposes, the Comite behufs Erforschung der Trümmerstätten des Alten Orients (hereafter Orient-Comité) was founded on June 10, 1887, by a group including Adolf Erman, Alexander Conze (1831–1914), Eberhardt Schrader (1836–1904), and Ernst Curtius (1814–1896) (von Luschan, 1893, 11). At the first meeting, von Luschan, then employed at the Berliner Museum für Volkerkunde, proposed that excavations be carried out at sites in southeastern Anatolia and northern Syria, including mounds such as Sakçagözü and Zincirli. The committee decided upon Zincirli (Wartke 2005, 8; 2009, 309–310). The main priority in this selection was the acquisition of archaeological artifacts at affordable prices to make them available to German museums (Wartke, 2005, 8; Pucci, 2020, 34–35).

Negotiations were then initiated with Hamdi Bey, and plans were made to share the artifacts to be excavated by the German team with the Ottoman Imperial Museum. It appears that Humann, who was conducting the excavations at Pergamon at the time, was involved in this process (von Luschan, 1898, 88; Wartke, 2005, 9–10; Pucci, 2020, 35). It is likely that he held preliminary talks with Hamdi Bey before excavations began and formulated plans for the sharing of the artifacts to be excavated (Wartke, 2005, 8; 2009, 309). In December 1887, Humann was then asked by the General Administration of the Imperial German Museums to visit İstanbul and discuss the matter with the relevant authorities (von Luschan, 1898, 88). According to Humann's account, Hamdi Bey personally asked him to examine the Zincirli artifacts and carry out a comprehensive excavation (von Luschan, 1898, 88; Wartke, 2009, 309). In addition, Hamdi Bey ensured that Sultan Abdülhamid II (r. 1876–1909) would help him to give some of the reliefs to the Imperial Museums of Germany (von Luschan, 1898, 88).

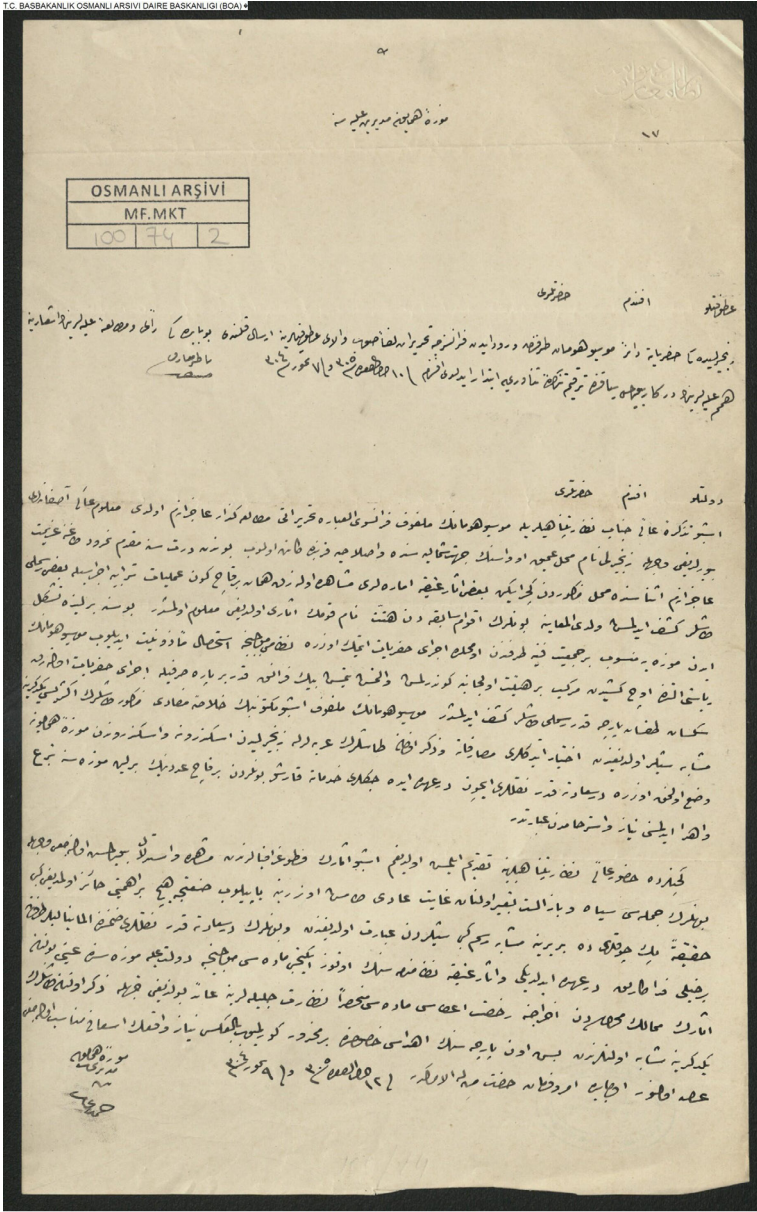
The First Excavation: The Stele of Esarhaddon

An application for the first excavation permit was made in early 1888, which was granted on March 23, 1888, on the condition that the work be carried out in accordance with the Asar-ı Atika Regulation (Fig. 2).⁶ The permit was notified to Humann on March 29, 1888, by Joseph M. von Radowitz, the German Ambassador in İstanbul. Permission to excavate, which was all granted within the Asar-ı Atika Regulation, would be valid for one year (von Luschan, 1898, 89).⁷ Ahmet Bey, an officer of the Ottoman Imperial Museum, was appointed as the Ottoman Empire's representative who would supervise the excavations.⁸

6 *BOA.MF.MKT.* 97/92.

7 During the Zincirli excavations, the Circassian Hasan Bey from Ankara assisted the German team with all kinds of logistical and other matters.

8 *BOA.MF.MKT.* 97/109.



MF.MKT.00100.00074.002

Figure 3: Document written by Osman Hamdi Bey stating that some of the artefacts found during the excavations at Zincirli in 1888 could be given to Humann in return for the cost of transport (BOA. MF.MKT. 100/74).

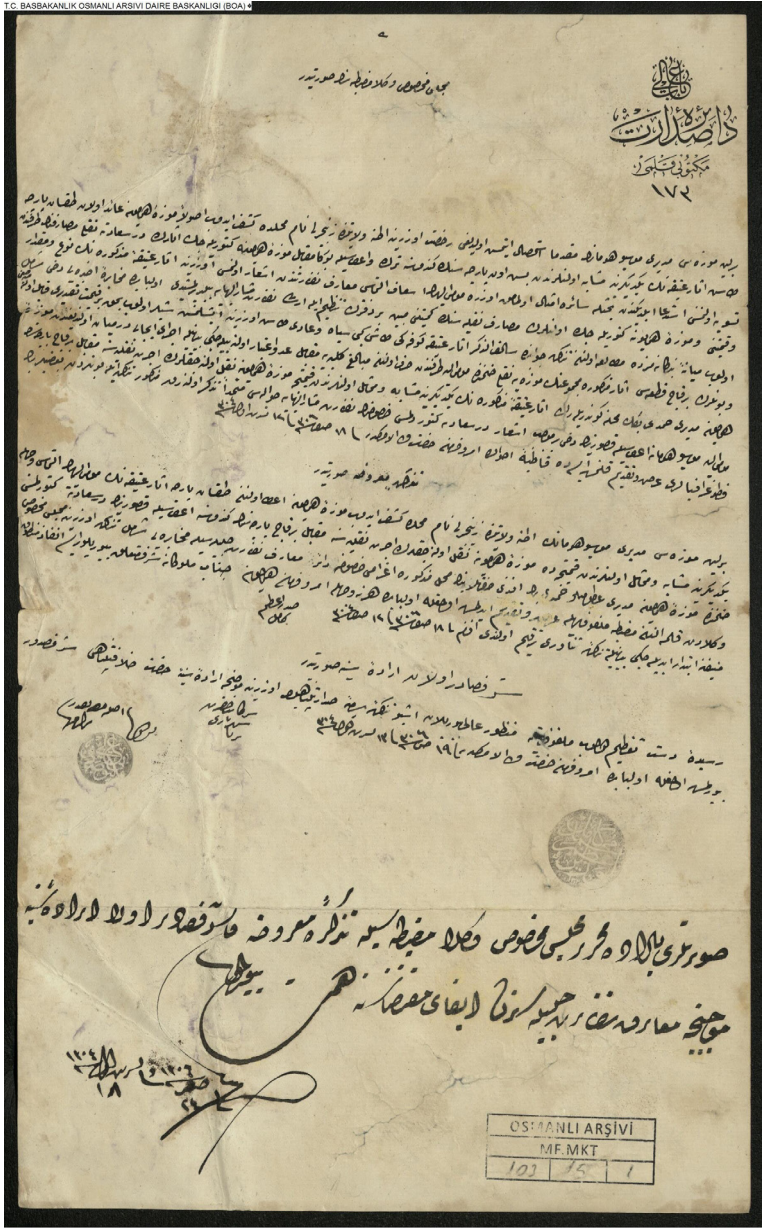
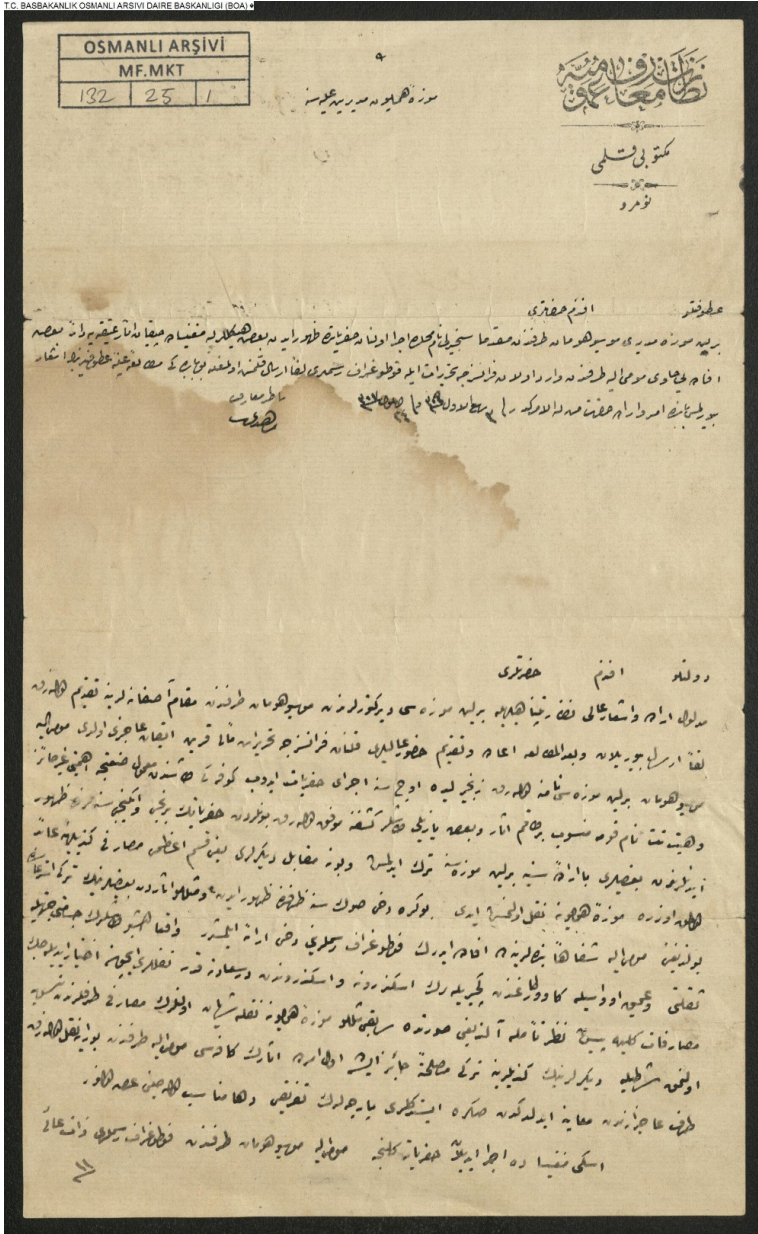
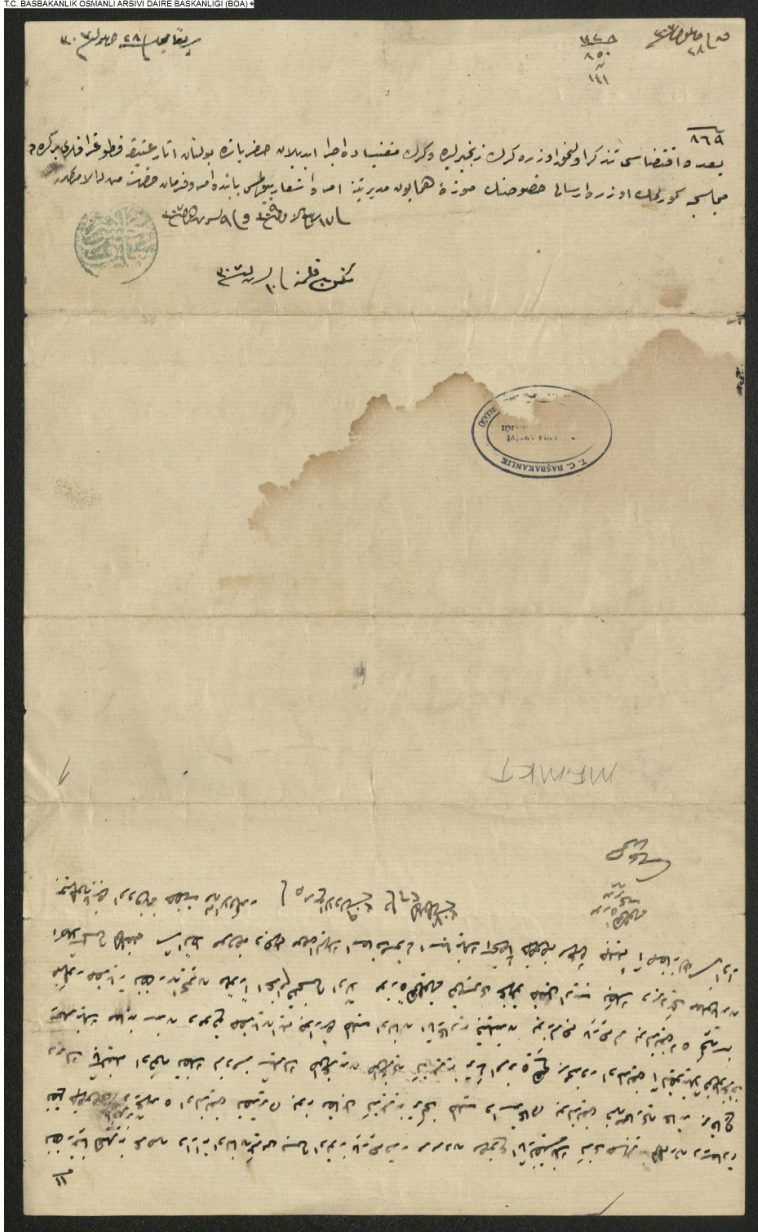


Figure 4: the Council of Ministers agreeing to allow Humann to take some of the artefacts from the 1888 excavations to Germany (BOA.MF.MKT. 103/15).



MF.MKT.00132.00025.001

a.



MF.MKT.00132.00025.001

b.

Figure 6.a-b: Hamdi Bey's declaration regarding the handing over of some of the artefacts found during the third excavation season to Humann for his expenses (BOA.MF.MKT. 132/25).

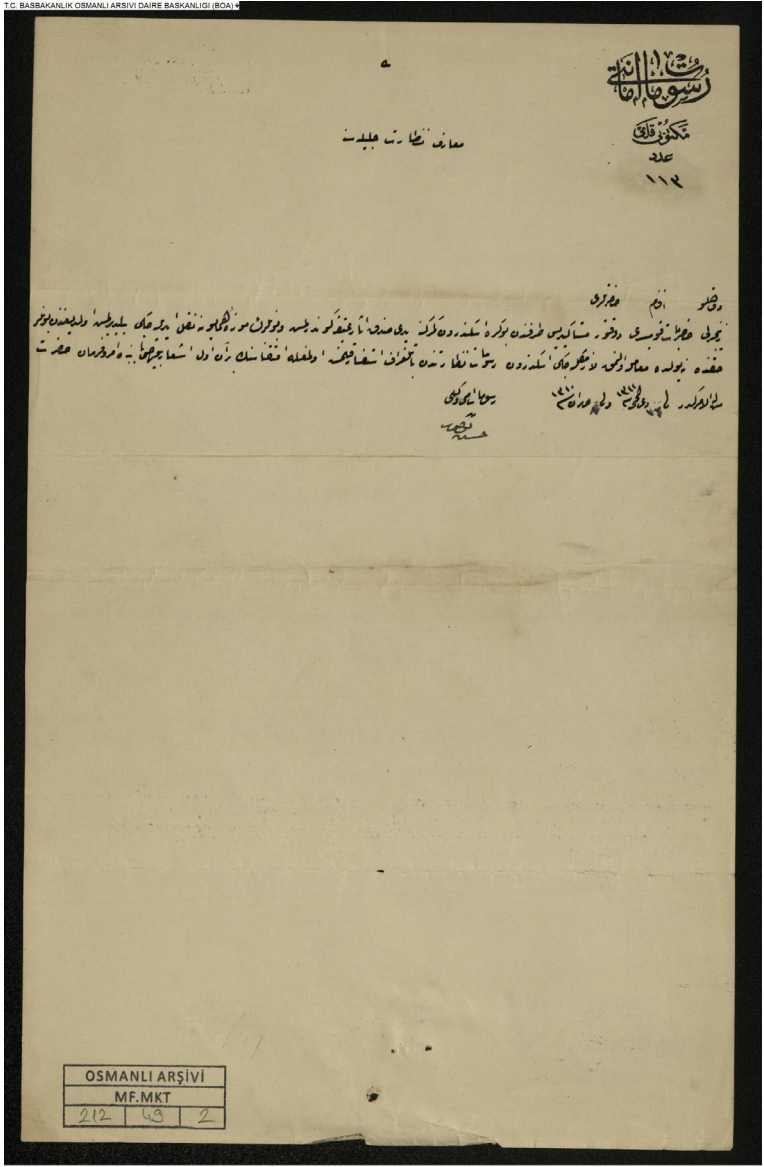
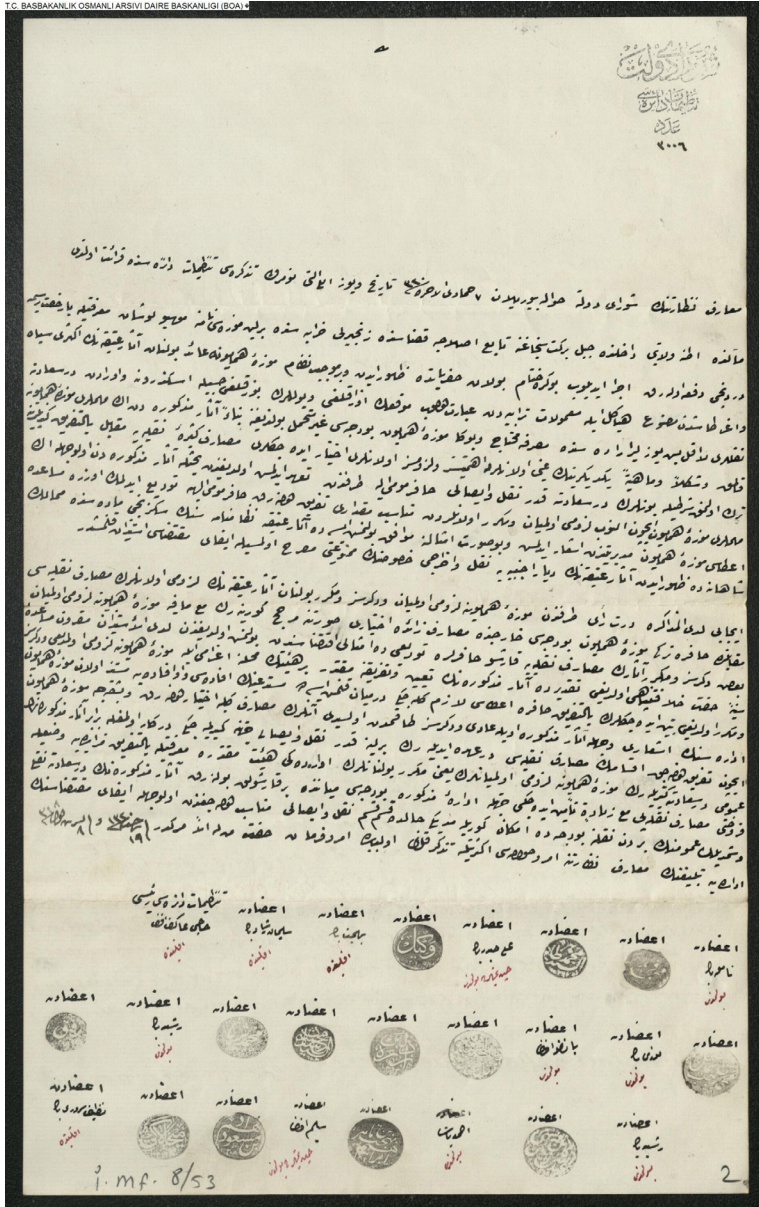


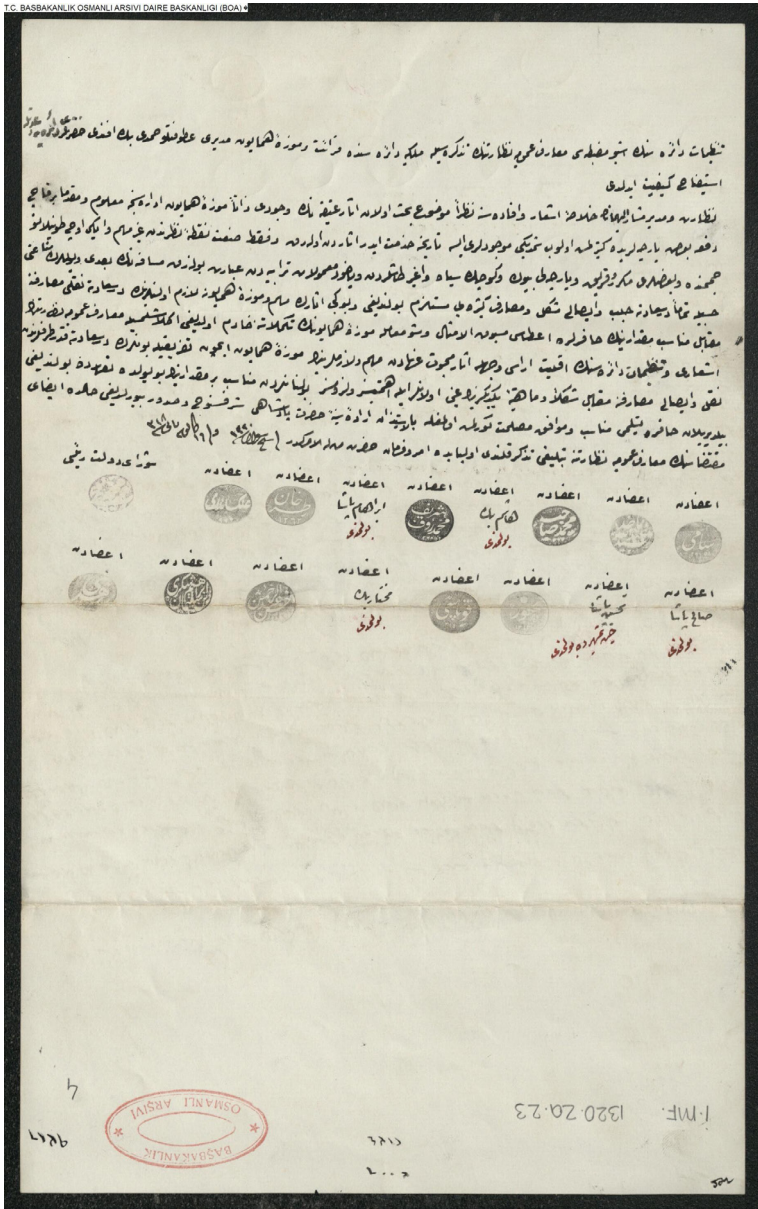
Figure 7: Customs document regarding the artefacts sent to Iskenderun Customs by Mistakidis Efendi, the representative of the fourth excavation season (BOA.MF.MKT. 212/49).

T.C. BASBAKANLIK OSMANLI ARSIVI DAİRE BAŞKANLIĞI (BOA)



LMF.00008.00053.002

a.



İ.MF.00008.00053.002

b.

Figure 8.a-b: Tanzimat Department of the Council of State refused to hand over the artefacts found during the last excavation season to the excavator in return for the cost of transporting them. However, this decision was changed at a meeting in the Mülkiye Department attended by Hamdi Bey himself, and some of the Zincirli artefacts were given to the Germans in return for excavation and transport costs (BOA.İ.MF. 8/53).



İ.MMS.00101

Figure 9: Relief on the east side of the southern gate of Zincirli Höyük from the 1888 excavation (BOA.İ.MMS.00101)



İ.MMS.00101

Figure 10: 1888 Excavation of the outer gate of the fortress, in front of which is a male figure with a spear in one hand and a hare in the other; a male figure with a spear and a shield, and finally a sphinx (BOA.İ.MMS.00101).

The first excavations at Zincirli began on April 9, 1888,⁹ and continued until July 22, 1888. The excavations were directed alternately by Humann and von Luschan (von Luschan, 1893, 7).¹⁰ Humann initially hoped to conduct excavations rapidly, employing as many workers as possible to uncover new finds and known reliefs. His objective was to transport these artifacts to the port of İskenderun for shipment to Germany.¹¹ He also wanted to excavate at Sakçagözü, but unfavorable climatic conditions, inadequate equipment, and malaria prevented a comprehensive, planned excavation (von Luschan, 1893, 7).

The work began in an area close to the site where Hamdi Bey had carried out the first sounding (von Luschan, 1898, 88)¹², and important finds were soon unearthed. On the third day, a relief of the Neo-Assyrian king Esarhaddon (680–669 BC) was discovered (Wartke, 2005, 26). Humann informed Hamdi Bey about the discovery of this stele through a letter enclosing a reconstruction drawing of the artifact (Wartke, 2005, 26, 90, no. 36).¹³ In addition to this stele, the excavations from the first season also yielded about 40 reliefs (Figs. 9–10), a large citadel gate (also with reliefs), and an Aramaic stele (Panamuwa II) near the mound (von Luschan, 1893, 6). At the end of the excavations, the finds were transported by ox-drawn carts first to Islâhiye and then to the port of İskenderun via the Belen Pass (von Luschan, 1898, 100–101; Wartke, 2005, 27–28).

On May 22, 1888¹⁴, Hamdi Bey, in coordination with Humann, applied for the transfer of the artifacts found in Zincirli to İstanbul. Around a month later, on June 18, the Islâhiye District Governorate¹⁵ was informed¹⁶ so that it would not prevent the transfer of the artifacts excavated in Zincirli to İskenderun.¹⁷ Immediately afterward, on June 30, the Ministry of Education (Maarif Nezareti)¹⁸ received Humann's request to be allowed to take some artifacts to the Berlin Museum in return for the cost of transporting them to İstanbul.¹⁹ The necessary

9 Ahmet Bey, representing the Ottoman Empire, joined the excavation on 8 May 1888, after it had begun (von Luschan, 1898, 89).

10 When Humann and his team arrived at Zincirli in April of 1888 to excavate the site, they found that the reliefs uncovered years earlier by Hamdi Bey on the southern slopes of the mound, and subsequently visited by Otto Puchstein and von Luschan, were still partially buried (von Luschan, 1898, 89).

11 For Carl Humann's letter of 27 December 1887, see: Wartke (2005, 22–23).

12 Hamdi Bey's sounding revealed 8 orthostats which were later recognized as a gate (von Luschan, 1898, 88).

13 See Humann's letter of 2/14 May 1888 in the archives of the German Archaeological Institute in İstanbul: Wartke, 2005, 90 no. 36.

14 *BOA.MFMKT.* 98/115.

15 It seems that the deputy district governor of Islâhiye at the time intercepted these artifacts during their transport from Zincirli on 13 June (von Luschan, 1898, 101).

16 *BOA.MÜZ.ARK.* 60/93.

17 *BOA.MFMKT.* 99/12.

18 As the Directorate of the Ottoman Imperial Museum was subordinate to the Ministry of Education in the Ottoman bureaucratic hierarchy of the time, all archaeological excavations throughout the empire came under its jurisdiction.

19 *BOA.MFMKT.* 100/74.

procedures had thus been initiated for the transport of the excavated artifacts to İstanbul.²⁰ On August 10, 82 boxes containing artifacts from the first excavations at Zincirli were unloaded at İstanbul Customs (von Luschan, 1898, 101).

After Humann's request, Hamdi Bey was asked for his advice;²¹ he would prepare a detailed report on the artifacts found in the Zincirli excavation (Fig. 3).²² In a report dated July 22, 1888, it was noted that a three-man committee, chaired by Humann, had conducted excavations at Zincirli in compliance with the "Asar-ı Atika Nizamnamesi" and uncovered 89 pieces of "carved stones" at a reported cost of "60 to 70 thousand francs".²³ Hamdi Bey reported that many of the reliefs unearthed during the excavation had been transported with great difficulty by steamer first to İskenderun and then to İstanbul, and that the Germans had demanded some as compensation for their expenses. He went on to say that all these reliefs are "common stones of black and basalt," have no artistic value, were highly similar to each other, and that the Germans had brought them to İstanbul at great personal sacrifice. As a result, Hamdi Bey referred to Article 32 of the Asar-ı Atika Regulation and stated that there was no harm in giving "5–10" of the artifacts to Humann. Although Article 8 of the regulation prohibited the transfer of artifacts abroad, Article 32 set out the conditions for potential transfers.²⁴ Under this article, the transfer of these artifacts was permitted if certain conditions—including the opinion of the Ottoman Imperial Museum and the presence of artifacts of the same type and value in the museum—were fulfilled.²⁵

On August 13, Humann again asked the Ministry of Education for some of the artifacts he had found during his excavations, which he planned to take to the Berlin Museum, in return for the cost of transporting them to İstanbul.²⁶ Once again, the Ministry asked Hamdi Bey about these demands, and Hamdi Bey reiterated that "the stones were of no artistic value" and repeated that Humann had made great personal sacrifices in transporting these aforementioned artifacts, and that there was no problem in giving "5–10 similar pieces" to Humann so as not to set a precedent for others. The Ministry of Education also informed with a letter the Sublime Porte (Babiâl) on August 14, and citing Hamdi Bey's belief that it was appropriate to give Humann 5–10 works of art so as "not to set a precedent".²⁷ However, a response signed by Grand Vizier Kâmil Pasha (1833–1913), dated August 30, states that instead of giving Humann artifacts to cover his expenses, the artifacts should be appraised

20 *BOA.MF.MKT.* 60/93.

21 (19 July 1888) *BOA.MF.MKT.* 99/146.

22 *BOA.MF.MKT.* 100/74.

23 (22 July 1888) *BOA.MF.MKT.* 100/74.

24 For the relevant articles of the Asar-ı Atika Regulation, see *BOA.HH.d.* 25145.

25 *BOA. MF. MKT.* 100/74.

26 (13 August 1888) *BOA. İ.MMS.* 101/4281.

27 *BOA.MF.MKT.* 100/74.

and sold, and that Humann should be paid with the profits.²⁸ A letter of September 8²⁹ asked Humann to put a price on the works, and again on September 13, Humann wrote to Hamdi Bey³⁰ complaining of a total cost of 3,600 francs had been incurred, specifying the transportation costs in great detail. In response to the suggestion that the stones be appraised and sold, Hamdi Bey again sided with Humann. He reiterated his earlier position, stating that the artifacts “have no value or worth, are made of moldy stone, are very coarse and vulgar, and date from the time of the Hittites”. He emphasized that these items were only uncovered due to Humann’s skill and efforts. Hamdi Bey thus repeated his recommendation that a few artifacts be sent to the Berlin Museum, again citing Article 32 of the Regulation on *Asar-ı Atika* to justify their transfer.³¹

Despite the Grand Vizier’s answer from August 30, Humann continued to demand artifacts in return for his expenses.³² The Ministerial Cabinet (*Meclis-i Vükela*) was also informed by the Ministry of Education that it was appropriate to give him some artifacts.³³ In its subsequent decision, the Ministerial Cabinet agreed to give Humann “5–10 pieces of the artifacts ... in return for the sums and efforts he spent on excavation and transport, so as not to set a precedent for others”. The transfer of artifacts to the Ottoman Imperial Museum was considered appropriate at this point. However, in a document dated October 24, the Grand Vizier requested the Sultan’s will for Hamdi Bey to go to Zincirli for the transport of the pieces to be brought to the Ottoman Imperial Museum in return for the cost of their transport to İstanbul. However, as we have seen, the transfer had been initiated long ago and the findings had arrived at the İstanbul customs on August 10.³⁴ As a result, again citing Article 32 of the *Asar-ı Atika* Regulation, the Cabinet once more petitioned the Sultan for permission to give “5–10 similar artifacts” to Humann (Fig. 4).³⁵ At last, approval was issued on October 25 on the condition that Hamdi Bey would identify the similar artifacts, and the Ministry of Education was ordered to oversee this process. On November 8, the Ministry of Education thus commissioned Hamdi Bey for this task in accordance with the Sultan’s

28 *BOA.İ.MMS.* 101/4281.

29 *BOA.MF.MKT.* 102/22.

30 *BOA.MF.MKT.* 102/22.

31 (15 September 1888) *BOA.MF.MKT.* 102/22.

32 (11 October 1888) *BOA.İ.MMS.* 101/4281.

33 (11 October 1888) *BOA.MF.MKT.* 102/22.

34 (24 October 1888) *BOA.İ.MMS.* 101/4281.

35 (24 October 1888) *BOA.MF.MKT.* 103/15.

will.³⁶ Humann's demands for Zincirli artifacts were thus finally fulfilled after this long and frustrating process within Ottoman bureaucracy.³⁷

It is clear from the documents that Hamdi Bey, the director of the Ottoman Imperial Museum, was entrusted with the task of allocating the artifacts to Humann and his team. The artifacts found in 82 boxes in the Zincirli excavations of 1888 were taken to the İstanbul customs and it was considered appropriate to hand over only 5-10 of these artifacts which were only similar to each other and of value. During the Zincirli excavations, Hamdi Bey and Humann held a meeting at the port of İskenderun on June 5, 1888. The meeting was requested by Hamdi Bey, who had returned from the Sayda excavations (von Luschan, 1898, 99). In addition to Humann, von Luschan³⁸ attended the meeting, during which Hamdi Bey was presented with a list of artifacts from the excavations. Although Humann's account does not indicate that this visit was planned in advance, it is evident that the visit was related to the sharing of the artifacts excavated at Zincirli. Hamdi Bey promised Humann that he would help him get his share of the artifacts from the excavation, but that he should come with him to İstanbul to discuss the matter as his time in İskenderun was limited. While in İstanbul, it was agreed with Humann that the eastern half of the Great Gate, from which 23 reliefs had been uncovered, the Esarhaddon Stele and smaller finds would be given to him by Hamdi Bey to take to Berlin (von Luschan, 1898, 100).

The Second Excavation: The Walking Camel of the Gerçin Mound

On 25 December 1889, a new license was issued for a second season of excavations at Zincirli, subject to the conditions of the first license and the necessary provisions of the Asar-ı Atika Regulation. The second excavation began on January 27, 1890, and ended on June 14. While Humann continued to make excavation applications until his death in 1896, excavations from 1890 onward were carried out under the direction of von Luschan in collaboration with Robert Koldewey (1855–1925) (von Luschan, 1893, 7; Wartke, 2005, 28).³⁹ In late February of that year, a rail system was imported from Germany (Wartke, 2005, 32). This innovation significantly expedited the removal of the excavated soil, thereby accelerating the progress of the work.

36 *BOA. MFMKT.* 103/15.

37 Other excavations were also carried out in Anatolia in parallel with Zincirli under the direction of Carl Humann on behalf of the Imperial Museums of Berlin. One of these excavations was carried out in the Teke village of Aydın Province. Humann, found the head of a statue of Apollo during his excavations here and asked that if he could find the rest of the body, would he be given a group of artifacts that he had found during his excavations at Zincirli Höyük and brought to the Ottoman Imperial Museum. This request was accepted by the Council of State (Şurâ-yı Devlet). Unfortunately, no document has been found to indicate whether Humann actually found the remaining part of the Apollo statue and, if so, what artifacts were given to him in return (17 March 1889) *BOA.MV.* 41/28.

38 After this meeting in İskenderun, von Luschan returned to Zincirli to supervise the excavations (von Luschan, 1898, 100).

39 The excavation, initially carried out on behalf of Humann, was transferred to von Luschan in 1890 at Humann's request (Humann's letter of 19 January 1890, see Wartke, 2005, 92, no. 40).

In addition, efforts were also undertaken at Gerçin Höyük, a site located approximately 7 kilometers from Zincirli.⁴⁰ A Hadad statue of the Aramaean Storm God, another statue of King Panamuwa II (743–733/732 BC), and fragments of multiple statues were found there and transported to Zincirli by sledges. The artifacts were reported to the Ottoman Imperial Museum on March 31, with photographs by excavation representative Ahmed Bedreddin Bey.⁴¹ The Gerçin artifacts were to be taken to the port of İskenderun together with the Zincirli finds and then to İstanbul to be taken to Berlin. The relevant documents reflect that the progress of the Zincirli excavations was regularly reported to the Ottoman Imperial Museum⁴², and these reports also included information on artifacts discovered by the German team at Tahtalı Pınar⁴³, Karaburçlu⁴⁴ and Elbistan Höyük.⁴⁵

At the end of the excavation, Humann asked for three of the five lion statues found in the excavations. In return, he offered to cover the expenses of the other two lions' transportation to İstanbul. On May 31, this proposal was approved by the Ministry of Education⁴⁶, which oversaw the Imperial Museum, submitted for the authorization of the Cabinet⁴⁷ and then presented to the Sultan for his approval.⁴⁸ On June 8⁴⁹, the museum was informed by Bedreddin Bey that 30 boxes containing the finds from the excavations had been sent to the port of İskenderun and that 12 boxes of artifacts were still to be transported (Fig. 5). However, at the request of the İskenderun Tax Office Directorate (Rüsumat Emaneti)—which did not allow the transfer of the artifacts given to the Berlin Museum on the grounds that it had not been informed of the matter—the Ministry of Education was notified of the decision on the matter.⁵⁰ Upon this, the Ministry of Education requested the İskenderun Tax Office Directorate to open and inspect the boxes containing the three lion sculptures given to the Berlin Museum, and to ship only these lion sculptures and confiscate any other artifacts.⁵¹ This correspondence demonstrates that custom officials at the port of İskenderun were actively trying to prevent the unauthorized removal or smuggling of artifacts from Zincirli. However, the correspondence does not contain any further information about the Gerçin Höyük artifacts. It is therefore difficult to know whether these were licitly given to the

40 During his visit to Zincirli in 1883, von Luschan was informed that a large statue of a walking camel had been found at Gerçin Höyük, but it was not possible to carry out a survey at the time because of the marshland around the mound (von Luschan, 1893, 7, 44-48; Wartke, 2005, 34).

41 *BOA.MÜZ.ARK.* 60/102.

42 *BOA.MÜZ.ARK.* 60/98; *BOA.MÜZ.ARK.* 60/100.

43 Orthmann, 1971, 76, 487, Taf. 14 d Karaburçlu 1; Hawkins, 2000a, 276, 2000b, 127.

44 Orthmann, 1971, 77, 483, Taf. 7a Elbistan 1.

45 *BOA.MÜZ.ARK.* 60/106.

46 *BOA.İ.MMS.* 113/4855.

47 *BOA.MV.* 54/39.

48 (12 July 1890) *BOA.İ.MMS.* 113/4855.

49 (8 June 1890) *BOA.MÜZ.ARK.* 60/103.

50 *BOA.DH.MKT.* 1772/122.

51 *BOA.MF.MKT.* 124/51; *BOA.MF.MKT.* 124/95.

German team by the museum administration or illegally smuggled to Germany. Fragments of various lion sculptures—such as the statue of Hadad and the Panamuwa inscription found at Gerçin Höyük—are now on display at the Vorderasiatisches Museum in Berlin.

The Third Excavation: Cholera Outbreak and Quarantine

The third excavation season took place between October 9, 1890, and March 17, 1891. Because the excavations of the second season had been fruitful and many artifacts had been unearthed, von Luschan and his team planned a third excavation after a break of only three months. The fact that the current excavation permit was only valid through the end of December 1890 had a great influence on this decision. The excavations were planned to begin in October and end in December (Wartke, 2005, 37). The Orient-Comité, which was still financing the excavations, also apparently wanted to keep the third excavation short and focus on completing the unfinished work of the second season.

However, the third season of excavation did not go as planned. The winter of 1890–1891 was harsh, with heavy snowfall, and a cholera epidemic and quarantine in the region meant that the excavations started later than planned. In addition, the quarantine⁵² due to cholera⁵³ and the unrest in Zeytinlu Maraş caused difficulties in recruiting workers (von Luschan, 1893, 7; Wartke, 2005, 37). As a result, the excavation team was forced to stay in Zincirli for longer than planned. The excavation permit expired at the end of December 1890, and a new official permit was granted again on April, 1891 (Wartke, 2005, 37).

Most of the work during this excavation was carried out in the area called Upper Palace. Here, many reliefs were unearthed in a section known as the North Hall Building. As in the previous excavations, the collection of artifacts in the region continued. For example, Bedreddin Bey reported that two stone artifacts from Maraş Hacıbeyli were transferred to Zincirli.⁵⁴ Toward the end of March, the large stone artifacts unearthed during the excavation were reburied face down on the mound, with the idea that the work would be continued in the future. Covering them with soil would prevent any wear or damage in the interim (Wartke, 2005, 39).⁵⁵ It is unclear how many artifacts were reburied in this way. However, in a letter dated January 12, 1891, Humann informed the Ministry of Education that he had packed the artifacts recovered from Zincirli into 42 boxes. He requested permission to transport 21 to Berlin and the other half to Istanbul. This was the first time Humann demanded half of the artifacts to cover expenses. The Ministry then

52 Due to the cholera epidemic, Bedreddin Bey, the excavation representative appointed by the Ottoman Imperial Museum, travelled to Zincirli via Tripoli and then Homs instead of Aleppo (*BOA.MÜZ.ARK.* 60/109).

53 On 2 December 1890, Berlin was informed that the Ottoman government had asked von Luschan to work as a quarantine doctor in Hasanbeyli (Hasanbeyli district, Osmaniye), and von Luschan accepted the position, allowing him freedom of movement under quarantine conditions (Wartke, 2005, 38).

54 *BOA.MÜZ.ARK.* 60/112.

55 The excavation team left Zincirli on the 27th of March 1891 and arrived in Berlin at the end of April (Wartke, 2005, 38).

sought approval from the İskenderun Tax Office Directorate and instructed it to deliver all 42 boxes to İstanbul.⁵⁶ In addition, the Ministry of Education informed Bedreddin Bey that the cost of transporting the excavated artifacts to İstanbul would be covered by Humann.⁵⁷

On 15 September, Humann wrote a letter to Münif Pasha (1828–1910), the Minister of Education, stating that he was ready to transfer all the artifacts from the Zincirli excavations (along with the architectural artifacts found in the Menderes excavations in Manisa) to the Ottoman Imperial Museum in İstanbul, and that he wanted to carry this out before winter.⁵⁸ In this letter, Humann stated that he had previously made a request on July 22 and that the Directorate of the Ottoman Imperial Museum was aware of the artifacts and could provide further information if requested. His main concern in September thus remained the fulfillment of his July request⁵⁹ for some of the artifacts unearthed in Zincirli and Manisa.

In his own report to the Minister of Education, Hamdi Bey stated that Humann had been excavating at Zincirli for three years and had been allowed to take some of the artifacts he had unearthed during the first and second excavations to the Berlin Museum in exchange for transporting the rest to İstanbul. He explains that the artifacts unearthed during the excavations were large and heavy, and that it was costly to transport them all the way from Zincirli to İstanbul. For this reason, he concluded that it was appropriate to give Humann a share of artifacts in exchange for him to cover the transportation expenses. Hamdi Bey also stated that after all the artifacts were brought to İstanbul, he would examine them and decide which to keep in the Imperial Museum and which to give Humann (Fig. 6.a–b).⁶⁰ Upon this, the Education Council (Maarif Meclisi) was asked to check the photographs of these artifacts⁶¹, and the Ministry of Education wrote to the Directorate of the Imperial Museum to present them.⁶²

On March 11, 1892, Hamdi Bey informed the Ministry of Education that according to the reports of Ahmed and Bedri Bey, who were in Zincirli as officials on behalf of the Ottoman Imperial Museum, the cost of transporting these Hittite artifacts made of moldy stone to İstanbul would be 50,000 kurush. According to him, the museum did not have such a budget. As mentioned above, these artifacts had been brought to İstanbul by Humann at his own expense following previous excavations, and some were given to the Berlin Museum in accordance with Article 32 of the Asar-ı Atika Regulation. Hamdi Bey reiterated that all the artifacts excavated in Zincirli must be brought to İstanbul and, after examining them,

56 *BOA.MF.MKT.* 125/12.

57 (14 March 1891), *BOA.MF.MKT.* 127/8.

58 *BOA.ŞD.* 212/6; *BOA.MF.MKT.* 131/65.

59 *BOA.MÜZ.ARK.* 60/115.

60 (8 October 1891) *BOA.MF.MKT.* 132/25.

61 *BOA.MF.MKT.* 132/25.

62 *BOA.ŞD.* 212/6.

he would identify those to be given to Humann.⁶³ The Ministry of Education submitted his request to the Council of State⁶⁴ which then approved it and submitted it to the Sultan. After the Sultan's approval⁶⁵, the Directorate of Imperial Museum was assigned to carry out the necessary procedures.

Until the application for a new excavation permit at Zincirli (which was made October 6, 1893), there was no further information about the fate of the artifacts that had been unearthed during the third excavation and reburied. However, the new excavation application stated that the majority of the excavated artifacts had been transported to İstanbul and that the remainder were expected to reach İstanbul soon.⁶⁶ On February 28, 1894, a letter was sent to Adana Province requesting assistance to Mistakidis Efendi in transporting the artifacts unearthed during the third period of excavations to İskenderun.⁶⁷

The Fourth Excavation

The fourth excavation at Zincirli began on March 20, 1894, and ended on June 28 (von Luschan, 1898, 85). During this period, priority was given to transporting the large reliefs and sculptures uncovered during the third season to Berlin. Kaiser Wilhelm II (r. 1888-1918) provided financial support for the excavations conducted during this season (von Luschan, 1898, 85). The Kaiser's letter of April 17, 1893, to the Orient-Comité shows that he personally contributed 25,000 marks to finance the fourth excavation (Wartke, 2005, 9).

Although the Orient-Comité had initially planned a new excavation at Zincirli for the autumn of 1891, it had been three years before it could begin. The existing financial support from the Imperial Museums in Germany had not been sufficient to finance the third excavation and the recovery of the buried finds (Wartke, 2005, 40). The first three excavations had been carried out solely through the funds and support of the Orient-Comité. In 1894, however, the cooperation between the Imperial Museums and the Orient-Comité came to an end for economic reasons.⁶⁸ Due to the lack of operating funds and support from the German Empire, the Orient-Comité was no longer able to support fieldwork in the Near East. From 1898, excavations in the region would be supported by the Deutsche Orient-Gesellschaft. Unlike the Orient-Comité, the Deutsche Orient-Gesellschaft—with the generous support of the German Empire—offered the finds from its excavations to museums free of charge (Wartke, 2005, 9–11).

63 *BOA.ŞD.* 212/6.

64 *BOA.İ.ŞD.* 118/7071; *BOA.BEO.* 6/411.

65 (4 July 1892) *BOA.MFMKT.* 144/88; *BOA.MÜZ.ARK.* 60/115.

66 (6 October 1893) *BOA.MFMKT.* 189/80; (10 December 1893) *BOA.ŞD.* 212/59.

67 *BOA.MFMKT.* 197/59.

68 On the financing of the Zincirli excavations, see Wartke (2005, 9-11).

The application for permission to start new excavations was made in October 1893, and a permit was issued on March 5, 1894, for a period of one year.⁶⁹ The excavation permit contained very detailed new conditions. Articles 17, 19, 20 and 21 of the *Asar-ı Atika* Regulation were emphasized and it was stated that the excavations should be carried out in such a way that no castles, military fortifications, or official buildings would be damaged and that the excavation area was limited to 10 kilometers.⁷⁰ In addition, if there was private property in the excavation area, the excavation had to be carried out with the consent of the owner of that property. Furthermore, the permit would be terminated if the excavation was not started within three months of the licensing date or if the excavation was stopped for two months without justification. However, the most striking aspect of the new permit is the emphasis on Articles 11 and 12 of the regulation, which state that only drawings and molds of any unearthened artifacts could be kept by the excavator and that the artifacts themselves belonged to the Ottoman Imperial Museum. A record of all artifacts unearthened during the excavation was to be kept and handed over to the Museum.⁷¹ Finally, it is stated that the artifacts unearthened during the third excavation were to be sent to the Ottoman Imperial Museum.⁷² Although the fourth was meant to focus on transporting artifacts to Berlin (Wartke, 2005, 39), then, the new permit demanded their transfer to İstanbul.

During the fourth excavation, new palace structures were also uncovered in the western part of the mound. Several reliefs, including orthostats depicting the Sam'al king Barrakib (733/732–713/711 BC) with his scribe, were found in the so-called Northern Hall.⁷³ The artifacts unearthened during this excavation were first sent to the port of İskenderun, as had been done before. On June 19, 1894, Mistakidis Efendi, the new representative of the excavations in Zincirli, sent seven boxes of artifacts to the İskenderun Customs Bureau. However, the customs office had not been informed of this and asked the Ministry of Education what should be done with them (Fig. 7).⁷⁴ Another 21 boxes arrived at the İskenderun Customs, the Customs Bureau again asked the Ministry of Education for information.⁷⁵ Although there is no information in the records on the fate of these 21 boxes, the Ministry of Education's Commission of Inspection and Control (*Maarif Nezareti Teftiş ve Muayene Encümenliği*) asked that the first seven boxes be sent to the Directorate of the Imperial Museum.⁷⁶

69 *BOA.MF.MKT.* 189/80; *BOA.ŞD.* 212/59; *BOA.İ.MF.* 2/24; *BOA.BEO* 355/26609.

70 For the relevant articles of the *Asar-ı Atika* Regulation, see *BOA.HH.d.* 25145.

71 *BOA.MF.MKT.* 198/21.

72 This licence was amended on 10 March 1894 to the effect that no compensation would be paid to the owner of the excavation in the event that the excavation was cancelled by the State and that it was forbidden to transfer or sell the licence to another person (*BOA.MF.MKT.* 198/21).

73 Mistakidis Efendi was appointed to represent the Ottoman Empire in the excavations (*BOA.MÜZ.ARK.* 60/118).

74 *BOA.MF.MKT.* 212/49.

75 *BOA.MF.MKT.* 212/49.

76 (2 July 1894 and 19 July 1894) *BOA.MF.MKT.* 212/49.

Unfortunately, no further information could be found in the Ottoman State Archives about the fate of the artifacts from this excavation. It is only known that Mistakidis Efendi shipped a total of 28 boxes of excavation finds to the port of İskenderun and that only seven of these were ordered to be sent onward to İstanbul. The next preserved document related to Zincirli is a letter of November 1, 1895, from Hamdi Bey to the Ministry of Education, in which Mistakidis Efendi is awarded the “Mecidi Order of the fourth rank” for his outstanding services in the excavations of Zincirli, Hisarlık, and Ayasuluk.⁷⁷ Zincirli reappears in archival documents from August 24, 1901, when a new excavation application was made. Although there is no further information on this subject in the Ottoman State Archives, von Luschan (1898, 85) stated that all the important artifacts unearthed at the end of the excavation were transported. However, it is not clear where and how these artifacts were taken. It appears that the artifacts excavated at the end of this period were somehow brought to Germany, and there is no information in the archive as to what role, if any, the Ottoman Imperial Museum and its director, Hamdi Bey, played in this process.

The Final Excavation at Zincirli Höyük

The final excavation on the Zincirli mound focused on the completion of the excavations and the recovery of areas excavated between 1888 and 1894. On August 24, 1901⁷⁸, the German Embassy requested a six-month permit to complete the excavations in Zincirli, which would allow the archaeologists to prepare their books on the excavation for publication and to read and photograph the inscriptions found during the excavations. Due to Humann’s death, the application for the excavations was made by von Luschan (Wartke, 2005, 40). The Foreign Department of the Sublime Porte⁷⁹, through the Ministry of Education, received this application.⁸⁰ Given the approval of the Directorate of the Imperial Museum⁸¹, the Minister of Education’s application for a permit was then discussed by the Tanzimat Department of the Council of State.⁸² After receiving the Sultan’s approval⁸³, the Ministry of Education was allowed to grant the license.⁸⁴

The German team-encountered various problems during their last excavations at Zincirli Höyük. The excavation tools and the excavation house they had used in previous periods had been destroyed, and there were even attempts to confiscate von Luschan’s letters in the Beylan Post Office. When von Luschan and his team arrived at Zincirli, they were

77 *BOA.MF.MKT.* 294/5.

78 (24 August 1901) *BOA.MF.MKT.* 583/18.

79 (28 August 1901) *BOA.MF.MKT.* 583/18.

80 (1 October 1901) *BOA.ŞD.* 217/21.

81 (6 September 1901, 24 September 1901) *BOA.MF.MKT.* 583/18.

82 (15 November 1901) *BOA.İ.MF.* 7/49

83 (28 November 1901) *BOA.İ.MF.* 7/49.

84 (14 December 1901) *BOA.MF.MKT.* 583/18.

unable to locate the materials they had used previously, including the railway equipment for transporting the excavated soil. Ralf-B. Wartke (2005, 40) states that the excavation house and its contents were destroyed during the disturbances in the region in 1901. However, the correspondence in the Ottoman State Archives gives a different account. Apparently, von Luschan filed a complaint with the Ministry of Foreign Affairs, stating that he had entrusted the excavation house and its equipment to a man named Halil Efendi following the Zincirli excavations in 1894, but could not find them when he returned and therefore demanded compensation.⁸⁵ The Ministry then instructed the Adana Provincial Governor to investigate these claims.⁸⁶ When questioned by the İslâhiye District Governor's Office, Halil Efendi denied these allegations (he had moved from the village of Zincirli to the Pazarcık district of Maraş only a few years earlier). Halil Efendi said that the items had been left in the care of the now deceased Gökçan Agha, a resident of Zincirli, and that Agha had handed them over to the "Trappist clergyman Beraytin Efendi" in Şeyhli (in the İslâhiye district) by a "written order" from von Luschan himself. Halil Efendi also stated that the excavated land belonged to him and that von Luschan had made these accusations to avoid paying him the money he was owed according to the article of the Asar-ı Atika Regulation regarding payments to landowners.⁸⁷ The situation was reported to the Adana Governor's Office⁸⁸ then to the Ministry of Internal Affairs.⁸⁹ On September 23, 1902, the Ministry of Internal Affairs relayed Halil Efendi's statement and the relevant documents to the German Embassy through the Ministry of Foreign Affairs.⁹⁰

As mentioned above, further complications arose during the excavations when the postmaster of Beylan in Aleppo Province (today the Belen District of Hatay Province) seized a package containing Luschan's letters to the vice-consul of İskenderun. This package was opened on the grounds that it does not have a stamp. A fine was imposed for each letter and the carrier was released after being detained for two days. In addition, a post office was opened in Hassa (between Zincirli and İskenderun), and von Luschan was informed that he had to deliver his letters there from then on. Following these events, he complained about the situation first to the German Embassy and then to the Ministry of Foreign Affairs.⁹¹ The latter again asked the Ministry of Internal Affairs to investigate von Luschan's allegations.⁹² The

85 It is stated that the entrusted goods consisted of 7 barracks, a railway consisting of rails and wagons laid for transport, an iron forge, many wheelbarrows, picks and shovels for 300 workers, a pharmacy and other excavation tools, and a darkroom for taking photographs (10 March 1902, *BOA.HR.İD.* 2122/64; *BOA.DH.MKT.* 478/8)

86 (12 April 1902) *BOA.DH.MKT.* 478/8.

87 (27 May 1902) *BOA.HR.TH.* 269/15.

88 (27 May 1902) *BOA.HR.TH.* 269/15.

89 (10 June 1902) *BOA.HR.TH.* 269/15.

90 (23 September 1902) *BOA.DH.MKT.* 478/8.

91 *BOA.HR.İD.* 2026/33, (10 March 1902) *BOA.HR.İD.* 2026/34, (24 March 1902) *BOA.DH.MKT.* 462/48.

92 (19 March 1902) *BOA.DH.MKT.* 478/8.

first response came from the Aleppo Governorate, which insisted that the letters in question were only kept at the Beylan Post Office because they were unstamped and that they were sent onward after it was confirmed that the package came from the excavators at Zincirli.⁹³ The Ministry of the Post and Telegraph⁹⁴ responded similarly.

Despite all these difficulties, the final excavation at Zincirli began on January 3, 1902, under wintery conditions and continued until June 13. By the end of May, the work had been completed except for the cleaning and removal of artifacts.⁹⁵ Buildings K and J and the complex south of Hilani II and Hilani III had been uncovered (Wartke, 2005, 41).

As in the previous excavations, some of the artifacts recovered during this last excavation season were also requested by Germany. In his evaluation of this request, Hamdi Bey noted that, as with earlier requests, most of the requested artifacts consisted of black, heavy stones and insignificant sculptures. He also stated that there was insufficient budget for the transport of the items to İstanbul and that it would therefore be appropriate to give some of the unimportant artifacts to Germany in return for their coverage of the transport costs. This opinion was sent to the Ministry of Education⁹⁶ and then to the Council of State to be forwarded to the Sublime Porte.⁹⁷

However, the Tanzimat Department of the Council of State opposed the established pattern of exchanging artifacts for transport costs. The Department's review questioned the assessments of both von Luschan's and the Imperial Museum, asking why, if the artifacts were worthless, did the Germans want to transfer them first to İstanbul and then to Berlin at great expense and inconvenience? The Tanzimat Department stated that all artifacts should instead be brought to İstanbul using the Imperial Museum budget. The unnecessary and duplicate pieces could then be auctioned off in İstanbul to cover the transport costs without the need for German assistance. If there was not enough money to transfer everything to İstanbul at once, it was decided that they should be sent piece by piece. The Department thus challenged the idea voiced by the Germans and the Ottoman Imperial Museum that these artifacts were "vulgar and worthless" (Fig. 8. a–b).⁹⁸

Hamdi Bey was asked to attend an evaluation meeting, which was held at the Mülkiye Department of the Council of State on November 4, 1902.⁹⁹ At this meeting, it was stated that

93 (1 April 1902) *BOA.DH.MKT.* 462/48.

94 *BOA.DH.MKT.* 462/48, *BOA.DH.MKT.* 480/15.

95 Although the last excavations were carried out in 1902, it is clear that von Luschan wanted to continue the excavations at Zincirli and, in particular, to determine the stratigraphy of the mound. However, he did not have the opportunity to excavate at Zincirli again.

96 (22 July 1902) *BOA.MF.MKT.* 441/35.

97 (11 September 1902) *BOA.ŞD.* 218/28.

98 (21 October 1902) *BOA.İ.MF.* 8/53.

99 (30 October 1902) *BOA.MF.MKT.* 441/35.

artifacts found in Zincirli had been brought to the museum before, and that despite their historical value, the artifacts found during more recent excavations were of no artistic importance and consisted of heavy stones weighing 2–3 tons and were often broken, fragmented, and lacking in unique qualities. Transporting them to İstanbul was deemed too difficult and costly due to poor roads and long distances. As with previous excavations, it was nevertheless argued that the procedure of bringing the artifacts to İstanbul by the excavator, examining them, keeping those deemed important and necessary for the museum, and giving an “appropriate amount” of the remaining artifacts to Germans in return for the transportation costs would serve the development of the Imperial Museum. Although some representatives of the Mülkiye Department still argued against giving artifacts to the Germans, it was finally agreed that the important and necessary items should be reserved for the museum and the rest should be given to the Germans in return for the transport costs, on the condition that the museum would carry out its examination procedures in Zincirli rather than taking everything to İstanbul.¹⁰⁰ Following this decision, the Sultan’s will was requested¹⁰¹ and then issued¹⁰² on February 21, 1903.¹⁰³

Discussion and Conclusion

The documents from the Ottoman State Archives reveal that Osman Hamdi Bey played an important role in the transfer of the artifacts from Zincirli to Germany. Hamdi Bey became the director of the museum in 1881 and served in this position until his death in 1910. He was also the author of the *Asar-ı Atika* Regulation of 1884, which banned the export of archaeological artifacts abroad and prevented the flow of artifacts from Ottoman lands to Western countries. Foreign archaeologists who wished to excavate in the Ottoman Empire and take archaeological finds back to their home countries therefore tried to establish good relations with Hamdi Bey (Holod and Ousterhout, 2011, 30–31). They would curry his favor by purchasing his paintings, exhibiting his paintings in important international art exhibitions, awarding him honorary doctorates, or trying to establish close friendships with him and his family (Sayce, 1923, 327–328; Holod and Ousterhout, 2011, 30–31; Alaura, 2017; Çifçi, 2019, 375–376). For example, on the initiative of Sir Arthur Evans, Sir William Ramsay, and David G. Hogarth, the University of Oxford awarded Hamdi Bey an Honorary Doctorate of Law in 1913 (Pears, 1916, 177). He also received an honorary doctorate from the University of Pennsylvania (Holod and Ousterhout, 2011, 32).

Hamdi Bey’s paintings were purchased by the French through the efforts of Leon Heurzey, Curator of Oriental Antiquities at the Louvre, and by the Americans through the University of Pennsylvania (Holod and Ousterhout, 2011, 30–31). Similarly, on the recommendation

100 (29 January 1903) *BOA.İ.MF.* 8/53.

101 (14 February) 1903 *BOA.MF.MKT.* 825/93.

102 (21 February 1903) *BOA.MF.MKT.* 825/93.

103 Unlike the artifacts from previous seasons, those from the final season were donated free of charge to the Berlin museums by the *Deutsche Orient-Gesellschaft* on 23 May 1903.

of the rector of the University of Liverpool (Sir F. Chatillon Danson), his *A Young Emir Studying* (1905) was purchased by the Walker Art Gallery in England (Rutland, 2014, 57; Pears, 1916, 177). The Germans who carried out the Zincirli excavations also patronized his artistic career. In 1891, three of his paintings were exhibited at the Internationale Kunst-Ausstellung in Berlin, and he received a certificate of honor for his contributions to the art (Eldem, 2010, 100–101).

However, the most important factor determining the Zincirli excavations and the fate of the excavated artifacts was Hamdi Bey's close friendship with Humann (Eldem, 2010, 280; 2014, 38, 108, 158). This is reflected in their letters of 1893, when Hamdi Bey confided in Humann about the death of his brother and shared his excitement about the birth of his daughter, Nazlı (Eldem, 2014, 38). Hamdi Bey even painted a portrait of Humann, whom he hosted in his own home in 1894 (Eldem, 2010, 282).

This close friendship played an important role in the speedy and easy management of the Zincirli excavations and especially in the transport of the excavated artifacts to Germany.¹⁰⁴ Apart from the 1902 excavation license, Humann made other applications for both excavation permits and to transport the artifacts from the excavations to Germany.¹⁰⁵ Ottoman archive documents analysed during the study show that Osman Hamdi Bey consistently sought to fulfill Humann's requests for artifacts from Zincirli. The Ottoman State Archives show no evidence that Hamdi Bey made efforts to retain artifacts from the Zincirli excavations. On the contrary, he repeatedly supported the idea of giving artifacts to the German team. He downplayed the artifacts' value and argued that it was reasonable to give them to the Germans in exchange for their expenses. While Articles 3 and 8 of the 1884 regulation asserted Ottoman ownership and prohibited the export of ancient artifacts, Article 32 provided a legal basis for their transfer abroad. This article was frequently cited in correspondence regarding the Zincirli excavations, with Hamdi Bey supporting the artifacts' export under its provisions. Notably, Articles 11 and 12, which emphasized that only pictures and molds could be taken and that

104 It is also noteworthy that there is no information in this correspondence about the small finds from the excavations. It seems that the small finds were considered unimportant and were not even mentioned. Again, there is no information in these letters and archival documents about the transfer of the artifacts collected in and around Zincirli Höyük to Germany.

105 Only a few of the excavated artifacts were transported to İstanbul after a long journey under difficult conditions, while the majority were transported to Berlin. However, the excavated artifacts, especially the large reliefs, were often not suitable for such a long journey. For this reason, the back sections of the thick relief blocks unearthed were turned into thin slabs by the stonemasons to facilitate their transport. However, this practice sometimes leads to the fragmentation of artifacts. For example, the orthostat with a hunting scene that was bought in Sakçagözü in 1883 and taken to Berlin was thinned out by stonemasons. This relief consists of 3 parts and during the thinning of the third relief, a crack in one of its corners broke off and the third relief was broken into 5 parts (Humann and Puchstein, 1890, 166). Not only the backs of the reliefs were chipped to transport them, but they were also cut into pieces to reduce their weight. For example, a large double sphinx base unearthed in the fourth excavation season was cut into two pieces, and a newly discovered gate lion was cut into five pieces and placed in boxes for transportation (Wartke 2005, 40).

the originals belonged to the Imperial Museum, were rarely referenced during this process, meaning the artifacts were exported despite these restrictions. However, it should be noted that the close relations between the Ottoman Empire and Germany in the last quarter of the 19th century also played a role in the easy export of these archaeological artifacts, especially in obtaining the approval of the Council of Ministers and the will of Sultan Abdülhamid II.

Peer-review: Externally peer-reviewed.

Author Contributions: Conception/Design of Study- O.S., A.Ç.; Data Acquisition- O.S., A.Ç.; Data Analysis/ Interpretation- O.S., A.Ç.; Drafting Manuscript- O.S., A.Ç.; Critical Revision of Manuscript- O.S., A.Ç.; Final Approval and Accountability- O.S., A.Ç.

Grant Support: The authors declared that this study has received no financial support

Conflict of Interest: The authors has no conflict of interest to declare.

References

Archive Documents

Presidential Ottoman Archive (BOA)

BOA.BEO. 6/411; 355/26609.

BOA.DH.MKT. 462/48; 478/8; 480/15; 1772/122.

BOA.HH.d. 25145.

BOA.HR.İD. 2122/64; 2026/33; 2026/34.

BOA.HR.TH. 269/15.

BOA.İ.MF. 2/24; 7/49; 8/53.

BOA.İ.MMS. 101/4281; 113/4855.

BOA.İ.ŞD. 118/7071.

BOA.MF.MKT. 97/92; 97/109; 98/115; 99/146; 99/12; 100/74; 102/22; 103/15; 114/142; 124/51; 124/95; 125/12; 127/8; 131/65; 132/25; 144/88; 189/80; 197/59; 198/21; 212/49; 294/5; 441/35; 583/18; 825/93.

BOA.MÜZ.ARK. 60/93; 60/98; 60/100; 60/102; 60/103; 60/106; 60/109; 60/112; 60/115; 60/118.

BOA.MV. 35/23; 36/57; 41/28; 54/39.

BOA.ŞD. 212/6; 212/18; 212/59; 217/21; 218/28.

Research Papers

Akın, N. (1993). "Osman Hamdi Bey, Asar-ı Atika Nizamnamesi ve Dönemin Koruma Anlayışı Üzerine" In Z. Rona (ed.) *Osman Hamdi Bey ve Dönemi* (233-239). İstanbul: Tarih Vakfı Yurt Yayınları.

Alaura, S. (2017). "Little by little the obscurity is being cleared away from the earlier history of Asia Minor. Searching for the Hittites, from Sayce to Winkler" In M. Doğan-Alparslan, M. Alparslan and A. Schachner (eds.) *The Discovery of an Anatolian Empire / Bir Anadolu İmparatorluğunun Keşfi* (13-27). İstanbul: Türk Eskiçağ Bilimleri Enstitüsü Yayınları.

- Çal, H. (1997). "Osmanlı Devleti'nde Asar-ı Atika Nizamnameleri" *Vakıflar Dergisi* 26: 391- 400.
- Çal, H. (2005). "Osmanlı'dan Cumhuriyete Eski Eserler Kanunları" In E. Semih Yalçın (Ed.) *60. Yılında İlim ve Fikir Adamı Prof. Dr. Kazım Yasar Kopruman'a Armağan* (234-270) Ankara.
- Çelik, Z. (2016). *Asar-ı Atika-Osmanlı İmparatorluğu'nda Arkeoloji Siyaseti*. İstanbul: Koç Üniversitesi Yayınları.
- Çifçi, A. (2019). "John Garstang and Sakçagözü Excavations (1908-1911)" *Tarih İncelemeleri Dergisi* 34/2: 369-386.
- Dilbaz, B.K. (2018). *Osmanlı Devleti'nin Arkeoloji Politikası*. İstanbul: Okur Tarihi.
- Eldem, E. (2010). *Osman Hamdi Bey Sözlüğü*. İstanbul: Kültür ve Turizm Bakanlığı.
- Edhem E. (2014). *Nazlı'nın Defteri: Osman Hamdi Bey'in Çevresi = Nazlı's guestbook: Osman Hamdi Bey's circle*, İstanbul: Homer Kitabevi.
- Hawkins, J.D. (2000a). *Corpus of Hieroglyphic Luwian Inscriptions I. Inscriptions of the Iron Age: Part 1. Text: Introduction, Karatepe, Karkamis, Tell Ahmar, Maras, Malatya, Commagene*. Berlin: Walter de Gruyter.
- Hawkins, J.D. (2000b). *Corpus of Hieroglyphic Luwian Inscriptions Volume I, Inscriptions of the Iron Age: Part 1. Text: Introduction, Karatepe, Karkamis, Tell Ahmar, Maras, Malatya, Commagene, Part 3 Plates*. Berlin: Walter de Gruyter.
- Holod, R., Ousterhout, R. (2011). *Osman Hamdi Bey the Americans, Archaeology, Diplomacy and Art*. İstanbul: Pera Müzesi.
- Humann, K., Puchstein, O. (1890). *Reisen in Kleinasien und Nordsyrien*. Verlag von Dietrich: Berlin.
- Karaduman, H. (2004). "Belgelerle İlk Türk Asar-ı Atika Nizamnamesi" *Belgeler XXV*: 68-83.
- Orthmann, W. (1971). *Untersuchungen zur späthethitischen Kunst*, Saarbrücker Beiträge zur Altertumskunde. Bonn: Rudolf Habelt Verlag.
- Özkan, S. (2019). *Osmanlı Devleti'nde Arkeolojik Kazılar ve Müzecilik* (Genişletilmiş 2. Baskı). İzmir: Ege Üniversitesi Basımevi.
- Pears, Sir E. (1916). *Forty Years in Constantinople - The Recollections of Sir Edwin Pears 1873-1915*. London: Herbert Jenkins.
- Pucci, M. (2020). "Excavating Zincirli's Archives: The Discovery of the Southern City Gate" In S. Alaura (ed.) *Digging in the Archives: From the History of Oriental Studies to the History of Ideas* (33-49). Roma: Edizioni Quasar.
- Rutland, F.P. (2014). *The Lost Gallery: John Garstang and Turkey – A Postcolonial Reading* University of Liverpool, School of Archaeology, Classics and Egyptology. Unpublished PhD.
- Sayce, A.H. (1923). *Reminiscences*. London: Macmillan.
- Schloen, J.D., Fink, A.S. (2009). "New Excavations at Zincirli Höyük in Turkey (Ancient Sam'al) and the Discovery of an Inscribed Mortuary Stele" *Bulletin of the American Schools of Oriental Research* 356: 1-13.
- von Luschan, F. (1893). *Ausgrabungen in Sendschirli. V. 1: Einleitung und Inschrift*. Berlin: Spemann.
- von Luschan, F. (1898). *Ausgrabungen in Sendschirli. V. 2: Ausgrabungsbericht und Architektur*. Berlin: Spemann.
- von Luschan, F. (1902). *Ausgrabungen in Sendschirli. V. 3: Thorsculpturen*. Berlin: Georg Reimer.

- von Luschan, F. (1911). *Ausgrabungen in Sendschirli. V. 4: Ausgeführt und herausgegeben im Auftrage des Orient-Comites zu Berlin*. Berlin: Georg Reimer.
- von Luschan, F., Andrae, W. (1943). *Ausgrabungen in Sendschirli. V. 5: Die Kleinfunde von Sendschirli*. Berlin: Walter de Gruyter.
- Wartke, R.-B. (2005). *Sam'al: Ein Aramäischer Stadtstaat des 10. bis 8. Jhs. v. Chr. und die Geschichte seiner Erforschung*. Mainz: Philipp von Zabern.
- Wartke, R.B. (2009). "Felix von Luschan und die Ausgrabungen in Sendschirli" P. Ruggendorfer, H.D. Szemethy (eds.) *Felix von Luschan (1854-1924). Leben und Wirken eines Universalgelehrten*, (307-320). Wien: Böhlau Verlag.



West Slope Pottery of the Seyitömer Mound*

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Submitted: 13.11.2024

Revision Requested: 13.06.2024

Last Revision Received: 21.11.2024

Accepted: 28.11.2024

Citation: Usta, H. (2024). West slope pottery of the Seyitömer Mound. *Anadolu Arařtırmaları-Anatolian Research*, 31, 245–263.
<https://doi.org/10.26650/anar.2024.31.1390427>

ABSTRACT

This study examines West Slope pottery unearthed during excavations conducted between 1989 and 1995 and 2006 and 2012 at the Seyitömer Mound, located south of the region known as *Phrygia Epiktetos*. West Slope pottery, which emerged toward the end of the 4th century BC and gained popularity in the first quarter of the 3rd century BC, is characterized by painted decorations in orange-yellow or white hues and botanical motifs engraved on dark, black, or red slips. At the Seyitömer Mound, these imported vessels, represented primarily by the kantharos form, highlighted the commercial and cultural interactions between Seyitömer and Pergamon. Based on clay-slip characteristics, form, and decorative elements, the pottery resembles Pergamon's examples. These potteries reflect the commercial and cultural relations established between Seyitömer and Pergamon. The usage period of the Seyitömer Mound's West Slope pottery, based on the stratigraphic layers in which they were found and comparable examples, is estimated to span the 3rd to 2nd centuries BC.

Keywords: Seyitömer Mound, Hellenistic Period, West Slope Pottery, Black Glaze, Phrygia

* The potteries discussed in this study are based on a chapter from the author's doctoral thesis titled "*Seyitömer Mound Potteries from the Hellenistic Period*".



Introduction

The Seyitömer Mound, located south of the region historically known as *Phrygia Epiktetos* (Strabon, XII, 8, 12), lies within the Seyitömer coalfield, near the borders of the old town of Seyitömer, approximately 25 km northwest of Kütahya's city center. This settlement was a significant center for generating new insights into the Hellenistic Period of inner Anatolia. This study evaluates the West Slope pottery unearthed at the mound during excavations between 1989 and 1995 and 2006 and 2012, aiming to highlight their relevance and importance within Western Anatolia Hellenistic Period archeology (Topbaş, 1993, pp. 3–4; Bilgen and Çevirici-Coşkun, 2015, pp. 19–33).

The Hellenistic Period settlement, corresponding to Layer II of the Seyitömer Mound, is among the most well-preserved settlements at the mound's center (Fig. 1). This settlement, surrounded by strong towers and fortification walls, has two architectural phases: Early/IIB and Late/IIA. Findings indicate that the fortified walls and structures on the mound's slope were first constructed during the Early Hellenistic Period and subsequently underwent renovations during the Late Hellenistic Period (Bilgen and Çevirici-Coşkun, 2015, pp. 19–33). During these phases, new rooms and divisions were added to the original structures, while earlier spaces were abandoned. The construction materials and interior elements exhibit consistent characteristics across both phases of Layer II (Figs. 2-3).

Artifacts from this layer, including coins and potteries, underscore the settlement's commercial and cultural relations with neighboring regions. However, the available data make it difficult to draw definitive conclusions regarding the political status of the Hellenistic settlement at Seyitömer Mound. Historical records indicate that the Phrygian Epiktetos region, where the Mound is located, experienced conflict between the Pergamon and Bithynia Kingdoms. The region ultimately fell under Pergamon's rule following the defeat of the Bithynian King Prusias by Pergamon King Eumenes II in 184/183 BCE (Strabon XII. 3.7, 4.1, 4.3, 8.12; Şahin 1986, pp. 265–268).

The focus of this study, West Slope pottery, was first identified during the excavations on the west slope of the Athenian Acropolis (Schäfer, 1968, p. 45). This pottery type, termed *West Slope Ware* by H. Thompson (Thompson, 1934, p. 438) was introduced to the literature as *Westabhang Keramik* by C. Watzinger (Watzinger, 1901, p. 50) and later underwent reclassification. Rotroff suggested that the term should not merely define a vessel form but also a decorative style and technique, which he termed the *West Slope Technique* (Rotroff, 1997, p. 39).



Figure 1: Hellenistic Period, Layer II, Phase A - B (Kütahya Dumlupınar University Seyitömer Höyük Excavation Archive)

The West Slope pottery emerged at the end of the 4th century BCE and gained widespread use during the first quarter of the 3rd century BCE. These vessels were characterized by painted decorations, which are applied with orange-yellow or white paint, and botanical motifs created with engraved lines on a dark - typically black or red - lining.



Figure 2: Southwest view of Seyitömer Mound (Kütahya Dumlupınar University Seyitömer Höyük Excavation Archive)



Figure 3: Seyitömer Mound fortification walls (Kütahya Dumlupınar University Seyitömer Höyük Excavation Archive)

Athens and Pergamon are recognized as the main production centers of these vases. Additionally, another production center in the south, whose exact location remains unidentified, has been referenced (Rotroff, 2002, p. 102). West Slope pottery is seen in many centers both as imported items and as locally produced pottery (Fig. 4).



Figure 4: Centers referenced in the text

The Seyitömer West Slope potteries are analyzed in the context of their typological definitions, chronological development, and similarities with comparable examples from other contemporary centers in Anatolia, the Aegean, and the Mediterranean regions. This comparative approach highlights their cultural significance within the Seyitömer Mound's framework.

The clay used in Seyitömer Mound West Slope pottery is nonporous, hard, and contains silver mica, lime, and sand. Its color ranges from shades of red and reddish-brown to light red and reddish-yellow. These characteristics are notably similar to those of Pergamon West Slope pottery' whose clay also exhibits a spectrum of light red to brown hues (Schäfer, 1968, p. 28).

The lining of the Pergamon West Slope pottery is typically thick and shiny, though examples with a matte black lining have also been found (Schäfer, 1968, p. 28). In contrast, the Seyitömer Mound example displays color shades ranging from black to brown.

Two decoration techniques: engraving and painting, were used on Seyitömer Mound West Slope pottery. One example (No. 12) shows the simultaneous use of both techniques, where paint dominates in some examples, while the engraving takes precedence in others. Late-period characteristics include increased use of incised lines and a decline in the care and quality of decoration (Gürler, 1994, p. XIII). Common decoration motifs include vine, olive

branch of wreath, heart-shaped leaves, pointed droplets of necklace designs, vine branches, and bay leaves, often applied to vessel necks using thinned-out clay. Example No. 12, for instance, features vine branches engraved and painted ivy leaves.

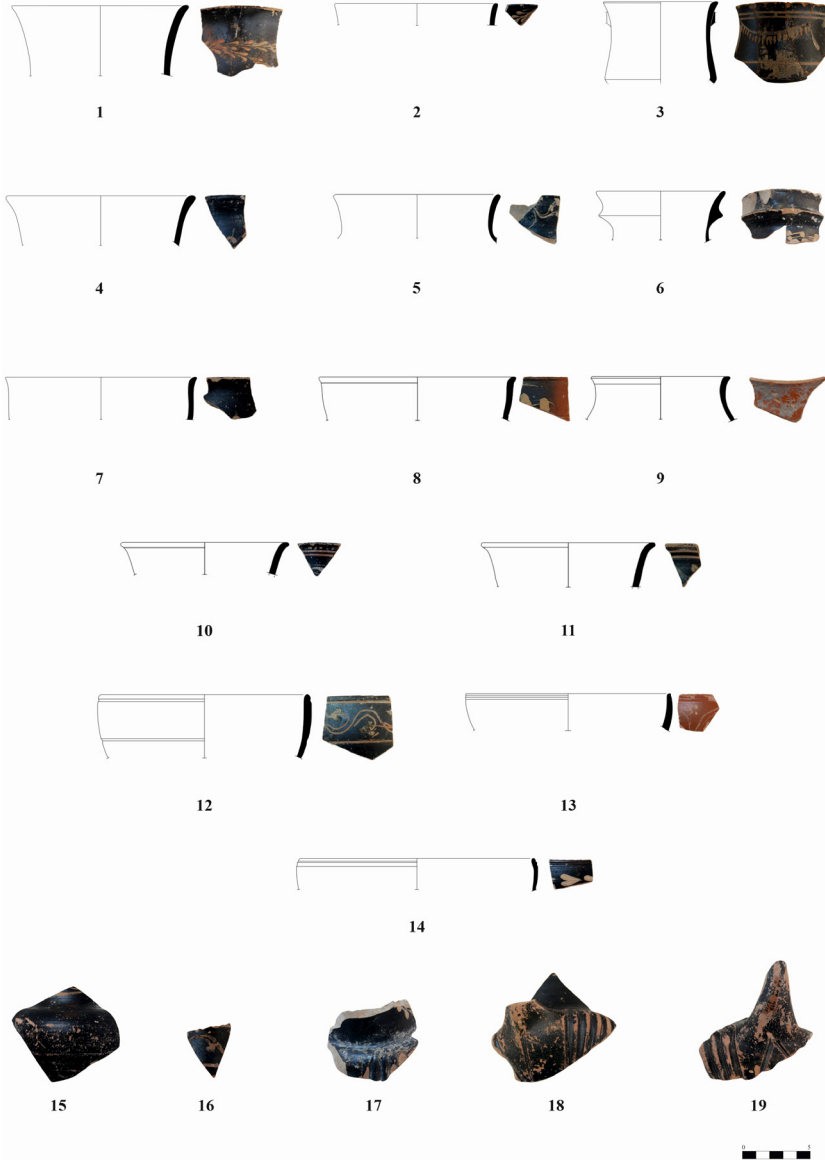


Figure 5: West Slope pottery of Seyitömer Mound
(Kütahya Dumlupınar University Seyitömer Höyük Excavation Archive)

The Layer II vessel repertoire includes bowls with inward and outward rims, mold-made embossed bowls, kantharos, plates, fish plates, masts, unguentarium, oil lamps, amphora, salt shakers, Myke, oinochoe, krateriskos, jugs, and pots. Forms such as mold-made embossed bowls, masts, and unguentarium are characteristic of the Hellenistic Period. (Alkaç -Coşkun, 2020; Çevirici Coşkun, 2017; Usta, 2023). Among the imported ceramics of the Seyitömer Mound Hellenistic Period, the West Slope pottery is predominantly represented by the kantharos form. These vessels are evaluated based on their clay, lining, form, and decorative qualities (Fig. 5).

Hellenistic Kantharos on the Seyitömer Mound

The Kantharos (κάνθαρος), a favored drinking vessel of the 4th century BCE (Sparkes and Talcott, 1970, p. 122), represents a significant vessel form of the Hellenistic Period, found across a wide geographical area in published examples. Its primary usage occurred during the 3rd century BCE and the early 2nd century BCE, with popularity declining after 150 BCE (Gassner, 1997, p. 0). The kantharos, which is characterized as a drinking vessel, features a wide, open mouth, a high base, a deep body, and vertical double handles rising from the base of the body. Some examples incorporate decorative elements such as hammers, spurs, vine branches, and satyr masks on the handle for thumb placement, enhancing usage (Rotroff, 1997, pp. 83, 85, Pl. 3, 29, Pl. 11, 106,108, Pl. 16, 174–175, Pl. 18, 190).

Kantharos No. 1–2 exhibit slightly extraversive mouth edges, bodies with concave profiles, and successive painted olive branch decorations along the neck. Both the inner and outer surfaces display a shiny black lining. Comparable examples have been identified at Khersonesos, the Athenian Agora, Samaria Sebaste, Ephesos, Pergamon, Troia, and Kültepe (Schierup, 2008, Fig. 66a; Rotroff 1997, Fig. 5, 28; Rotroff, 2006, Fig. 14, 62–64, 66–67; Miller, 1974, Pl. c30/7; Crowfoot, Crowfoot, and Kenyon, 1957, Fig. 44, 3–4; Gassner, 1997, Taf. 38, 442; Schäfer, 1968, Taf. 5, C 24; Tekkök 2000, Pl. 3, 31; Tüysüz, 2022, Lev. 1, Çiz. 1). These kantharos are dated to the first half of the 3rd century BCE, based on their stratigraphic context and in parallel with similar examples.

Kantharos No. 3 features an extraversive mouth edge, a long and narrow neck, and a concave body profile. Two rows of painted band decorations are located just below the rim, accompanied by a necklace-like string or pointed drop motifs along the neck. The closest parallels to the Seyitömer Mound example, dated to the early 3rd century BCE, have been discovered at Kolonos Agora, Aegina, Veroia, Phokaia, Smyrna, Pergamon, Ephesos, Parion, and Ilios (Rotroff, 1983, Pl. 52, 24; Smetana and Scherrer 1982, Abb. 57, 501; Kallini, 2013, Fig. 7; Saygıner, 2019, Çiz. 1, Kat. No. 9; Ersoy, 2020, Lev. 40, 155; Conze, 1913, 39, 2; Schäfer, 1968, Abb. 3, 3; Behr, 1988, Abb 10, 34; Ziegenaus and De Luca 1968, Taf. 54, 335–336; Mitsopoulos and Leon 1991, Taf. 27, B25, Kasapoğlu, Keleş and Fırat 2020, Lev.1,

7–8; Berlin, 1999, Pl. 2, 60; Tekkök-Bicken, 1996, Fig. A15–A16; Tekkök, 2000, Pl. 3, 32).

Kantharos No. 4, which featured an extraversive mouth edge, exhibited painted botanical motifs on its body. Parallels from Smyrna and Ilion, dated to the late 3rd century BCE, provide a temporal context for this work (Ersoy, 2020, Lev. 36, 138; Berlin, 1999, Pl. 3, 94).

Kantharos No. 5 shows an extraversive mouth edge, a rounded lip, and vine branch motifs beneath the lip. Comparable pieces from Ilion, Ephesos, Metropolis, Daskyleion, Smyrna, Laodikeia Dorylaion, and Parion are dated to the 3rd and 2nd centuries BCE (Berlin, 1999, Pl. 2, 8; Mitsopoulos and Leon, 1991, Taf. 24, B15; Ekin Meriç, 2003, Lev. NR 67; Dereboylu, 2003, Pl. XLV, BY 14; Ersoy, 2020, Lev. 41, 156; Duman, 2009, Lev. 4, 12–13, Yedidağ, 2017, BY1–BY2; Kasapoğlu, Keleş and Fırat, 2020, Lev. 1. 6).

Kantharos No. 6, with an extraversive mouth edge and a concave body profile, features red lining on its interior and black lining on its exterior. Similar examples from Athens Agora, Pergamon, Samaria, Labraunda, Gözlükule, and Metropolis are dated to the first half of the 3rd century BCE (Rotroff, 1997, Figs. 6, 10 74, 110; Pinkwart, 1968, Taf. 64, 75; Crowfoot, Crowfoot, and Kenyon, 1957, Fig. 46. 1–2; Rotroff and Oliver 2003, Pl. 4, 5; Goldman, 1940, Fig. 22, B36; Mitsopoulos and Leon, 1991, Taf. 20, 21, B2, B4; Ekin Meriç, 2013, Lev. 4. S26).

Kantharos No. 7 and 8 have extraversive, rounded mouth edges. Painted decorations are visible on the body below the mouth edges, and a groove can be seen beneath the mouth area at No. 8. Similar examples, dated to the 2nd century BC, have been discovered in Pergamon and Phokaia (Pinkwart, 1968, Taf. 64, 75; Civelek, 2006, Fig. 4b).

Kantharos No. 9 example's handle area was not preserved. It features an extraversive mouth edge, and its neck exhibits a concave profile. Similar examples, dated to around the 2nd century BCE, are known from centers such as the Athens Agora, Ephesos, Pergamon, and Ilion (Thompson, 1934, Fig. 15, B4; Mitsopoulos and Leon 1991, Taf. 25–26, B20, B25; Behr, 1988, Abb. 2, 5; Schäfer, 1968, Lev. 15, D61, Ziegenaus and De Luca 1968, Taf. 50, 282; Tekkök 2000, Pl. 3, 29).

Kantharos Nos. 10 and 11 examples display slightly extraversive, rounded mouth edges. Kantharos No. 10 displays two painted line decorations just below the mouth edge and a leaf decoration on the body, while No. 11 displays two painted line decorations below the mouth edge and a vine motif on the body. The closest parallels, with similar mouth and body profiles, are dated to around 325 BCE and were excavated in the Athens Agora, Ephesos, and Pergamon (Berlin, 1999, Pl. 3, 94; Rotroff, 1997, Fig. 10, 102; Mitsopoulos and Leon, 1991, Taf. 23, B11; Behr, 1988, Abb. 22, 99).

Kantharos No. 12–14 have upright mouth edges and convex body profiles. No. 12 features a vine branch decoration between two engraved grooves below the mouth edge. No. 13 is distinguished by three grooves under the lip and its outer surface lining, along with painted botanical motifs on the body. No. 14 has a painted heart-shaped botanical motif on the body. Similar examples have been documented in Athens Agora, Labraunda, Knidos, Pergamon, Korinthos, and Ephesos, dating to approximately 250–225 BCE (Rotroff, 1997, Fig. 12, 147; Rotroff and Oliver 2003, Pl. 19, 114, 119; Kögler, 2010, Abb. 14, D. 102; Behr, 1988, Abb. 13, 55; Schäfer, 1968, Taf. 12, D 14; Ziegenaus and De Luca, 1968, Taf. 49, 244; Edwards, 1975, Pl. 15, 378; Mitsopoulos and Leon, 1991, Taf. 38, B60–6, Taf. 41, B 71; Ekin Meriç, 2003, Lev.13, Nr. 91).

Kantharos No. 15 has a convex profile and painted botanical motifs. **No. 16** displays a vine branch motif flanked by two painted bands on its preserved body fragment. Comparable examples, dated to the 3rd–2nd centuries BCE, have emerged in Koroneia, Ephesos, Smyrna, Serçe Harbor, Pergamon, Metropolis, Troia, and Kelenderis (Vanderpool et al., 1962, Pl. 20, 37; Mitsopoulos and Leon 1991, Taf. 23, B13; Ersoy, 2020, Lev. 40, 41, 150, 161; Pulak et al., 1987, Fig. 15, HW 77; Behr, 1988, Abb. 24, 107; Ekin Meriç, 2003, Lev. 5, Nr. 37; Tekkök, 2000, Pl. 2, 23; Zoroğlu, 2004, 108, 3).

Kantharos Nos. 17–19 have convex profiles with vertical grooves on their surface. No. 18 displays successive olive branch motifs on its body. Similar examples, dated to 3rd–2nd centuries BCE, have been found in the Athens Agora, Pergamon, Smyrna, Ephesos, Metropolis, and Troia (Rotroff, 1997, Fig. 10, No. 102; Behr, 1988, Abb. 24, 107; Ersoy, 2020, Lev. 173–177; Mitsopoulos and Leon, 1991, Taf. 23, B10; Ekin Meriç, 2003, Lev. 5, Nr. 37; Tekkök, 2000, Pl. 3–4, 24, 28–29).

Based on the stratigraphic layer and comparable findings, the usage period of the Seyitömer Mound's West Slope pottery is estimated to have been between the 3rd and 2nd centuries BCE.

Conclusion

The pottery pieces evaluated in this study originated from Layer II of the Seyitömer Mound, which is dated to the Hellenistic Period. The settlement associated with this layer, which is enclosed by strong towering fortifications and walls, has two distinct architectural phases. Square or rectangular rooms were reused, with previous entrances sealed and new ones constructed. Additionally, new spaces were created by replacing old walls with newly constructed ones. At the center of the settlement, surrounded by formidable fortifications, stands multi-room structures built during the early phase, which were later modified and repurposed in the late phase.

The pottery repertoire of Seyitömer Mound from the Hellenistic Period includes various forms: bowls with inward-turned rims, bowls with outward-turned rims, mold-made embossed bowls, plates, fish plates, mastos, kantharos, unguentaria, oil lamps, amphorai, salt shakers, myke, oinochoe, krateriskos, jugs, and pots. Notably, forms such as bowls with inward-turned rims, outward-turned rims, kantharos, fish plates, oil lamps, amphoras, and salt shakers trace their origins to the Classical Period, with Attic examples discovered in the Seyitömer Mound. Characteristic ceramic forms of the Hellenistic Period include mold-made embossed bowls, mastos, bowls with hemispherical bodies, and unguentaria.

In addition to pottery, coins emerged as critical dating stand evidence among the Layer II finds. Coins attributed to the kingdoms of Macedonia, Seleukos, and Bithynia were dated to the second half of the 4th century BCE through the mid-2nd century BCE, aligning with the chronological framework assigned to Layer II (Bilgen and Çevirici-Coşkun, 2015, p. 33, Fig. 32–34; Köker, 2022, p. 798).

The West Slope pottery group is represented in the Seyitömer Mound Hellenistic pottery repertoire by the kantharos form. These ceramics were primarily fragmentary and were classified based on clay, lining, and form characteristics and compared with analogous examples from contemporary centers. This material group was uncovered during excavations conducted between 1989 and 1995 and 2006 and 2012. However, the first-period rescue excavations conducted by museums (1989–1995) lacked precise contextual information regarding the location and stratigraphy of the samples. Conversely, the 2006–2012 excavations were largely retrieved during leveling studies without an associated architectural context, although a few in situ pieces served as dating references.

The clay colors of the Seyitömer Mound West Slope pottery ranged from red, reddish-brown, and light red to reddish-yellow. The clay is firm, well-fired, and minimally porous, with inclusions of fine sand, silver mica, and traces of lime. The decoration techniques involve engraving and painting motifs.

All kantharoi from the West Slope of Seyitömer Höyük were found in fragments. As a result, the complete decorative composition of these vessels remains unclear. Prominent decorative motifs of this period include vines, olive branches or wreaths, heart-shaped leaves, pointed droplets, necklace-like decorations, vine branches, and bay leaves. These motifs typically use thinned, light-colored clay, and are applied primarily to the necks of the vessels. In one black-glazed example (No. 12), the decorations consist of vine branches rendered by an engraving technique, complemented by painted leaves.

Analysis of these artifacts reveals a decline in craftsmanship over time. Early examples display high-quality decoration and linings, while later examples are marked by low-quality

lining and sloppy decoration techniques. This decline is evident in the No. 12 example, where both engraving and painting techniques are used, but the execution appears less precise than in earlier works.

The Hellenistic West Slope pottery of the Seyitömer Mound, based on their clay linings, forms, and decorative features, shows a stylistic affinity to Pergamon-made examples. Evidence indicates that the West Slope kantharoi were in use at the Seyitömer Mound between the 3rd and 2nd centuries BCE and were popular as drinking vessels among the settlement's inhabitants. The discovery of West Slope pottery in production workshops in the Aegean region and at Seyitömer Mound reflects active commercial and cultural exchanges between these regions.

Catalog

No: 1

Type: Mouth Piece

Measurements: MD: 13 cm; H: 5.2 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of lime, sand, and silver mica.
- Texture: Firm, nonporous, well-baked.
- Color: Reddish-brown (5YR 5/4) clay.
- Surface Lining: Black (10YR 2/1) on both outer and inner surfaces.

No: 2

Type: Mouth Piece

Measurements: MD: 12.4 cm; H: 1.6 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of lime, sand, and silver mica.
- Texture: Firm, nonporous, well-baked
- Color: Reddish-brown (2.5YR 5/4) clay.
- Surface Lining: Black (5YR 2.5/1) on both outer and inner surfaces.

No: 3

Type: Mouth Piece

Measurements: MD: 8.4 cm; H: 6 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of lime, sand, and silver mica.
- Texture: Firm, nonporous, well-baked.
- Color: Reddish-brown (2.5YR 5/6) clay.
- Surface Lining: Black (2.5YR 2.5/1) on both outer and inner surfaces.

No: 4

Type: Mouth Piece

Measurements: MD: 14 cm; H: 5.8 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of mica.
- Texture: Firm, nonporous, well-baked.
- Color: Red (2.5YR 5/6) clay.
- Surface Lining: Black (2.5YR 2.5/1) on both outer and inner surfaces.

No: 5

Type: Mouth Piece

Measurements: MD: 12 cm; H: 3.5 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of lime.
- Texture: Firm texture, nonporous, well-baked.
- Color: Light red (2.5YR 6/6) clay.
- Surface Lining: Black (5YR 2.5/1) on both inner and outer surfaces.

No: 6

Type: Mouth Piece

Measurements: MD: 8.8 cm; H: 3.5 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of mica and lime.
- Texture: Firm, nonporous, well-baked.
- Color: Light red (10R 6/6) clay.
- Surface Lining: Red (10R 4/3) and Black (2.5YR 2.5/1) on both outer and inner surfaces.

No: 7

Type: Mouth Fragment

Measurements: AR: 12.6 cm; H: 2.9 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of fine sand and silver mica.
- Texture: Firm, nonporous, well-baked.
- Color: Very dark brown (10YR 7/3) clay.
- Surface Lining: Black (10YR 2/1) on both outer and inner surfaces.

No: 8

Type: Mouth Fragment

Measurements: MD: 13 cm; H: 2.9 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of lime and silver mica.
- Texture: Firm, nonporous, well-baked.
- Color: Light red (2.5YR 6/8) clay.
- Surface Lining: Red (10R 5/6) on both inner and outer surfaces.

No: 9

Type: Mouth Fragment

Measurements: MD: 9 cm; H: 2,9 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of fine sand and silver mica.
- Texture: Firm, nonporous, well-baked.
- Color: Reddish yellow (5YR 7/6) clay.
- Surface Lining: Light red (2.5YR 6/8) on both outer and inner surfaces.

No: 10

Type: Mouth Fragment

Measurements: MD: 11.2 cm; H: 2.2 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of silver mica and fine sand.
- Texture: Firm, nonporous, well-baked.
- Color: Reddish yellow (5YR 7/6) clay.
- Surface Lining: Black (2.5YR 2.5/1) on both outer and inner surfaces.

No: 11

Type: Mouth Fragment

Measurements: MD: 11.4 cm; H: 3 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of silver mica and lime.
- Texture: Firm, nonporous, well-baked.
- Color: Reddish yellow (5YR 6/6) clay.
- Surface Lining: Black (2.5YR 2.5/1) on both outer and inner surfaces.

No: 12**Type: Mouth Fragment**

Measurements: MD: 9.8 cm; H: 3 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of silver mica and lime.
- Texture: Firm, nonporous, well-baked.
- Color: Light red (2,5YR 6/6) clay.
- Surface Lining: Black (2.5YR 2.5/1) on both outer and inner surfaces.

No: 13**Mouth Fragment**

Measurements: MD: 14.4 cm; H: 2.6 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of lime and fine sand.
- Texture: Firm, nonporous, well-baked.
- Color: Light red (2.5YR 6/6) clay.
- Surface Lining Yellowish red (5YR 5/6) on both outer and inner surfaces.

No: 14**Type: Mouth Fragment**

Measurements: MD: 12.6 cm; H: 1.7 cm

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of silver mica.
- Texture: Firm, nonporous, well-baked.
- Color: Pink (5 YR 7/4) clay.
- Surface Lining: Black (2.5YR 2.5/1) on both outer and inner surfaces.

No: 15

Type: Body Fragment

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of lime and mica.
- Texture: Firm, nonporous, well-baked.
- Color: Light reddish brown (2.5YR 6/4) clay.
- Surface Lining: Light reddish brown (2.5YR 6/4) on the body; black (10 YR 2/1) on both outer and inner surfaces.

No: 16

Type: Body Fragment

Clay and Surface Craftsmanship:

- **Composition:** Mixed with small amounts of lime.
- Texture: Firm, nonporous, well-baked.
- Color: Brown (7.5 YR 5/3) clay.
- Surface Lining: Black (10 YR 2/1) on the inner surface.

No: 17

Type: Body Fragment

Clay and Surface Craftsmanship:

- **Composition:** Mixed with small amounts of lime.
- Texture: Firm, nonporous, well-baked.
- Color: Light reddish brown (2.5YR 6/4) clay.
- Surface Lining: Black (10YR 2/1) on both outer and inner surfaces.

No: 18

Type: Body Fragment

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of silver mica and fine sand.
- Texture: Firm, nonporous, well-baked.
- Color: Brown (7.5YR 5/4) clay.
- Surface Lining: Black (7.5YR 2.5/1) on the outer surface.

No: 19

Type: Body Fragment

Clay and Surface Craftsmanship:

- Composition: Mixed with small amounts of silver mica and lime.
 - Texture: Firm, nonporous, well-baked.
 - Color: Reddish brown (2.5YR 5/4) clay.
- Surface Lining: Black (2.5YR 2.5/1) on both outer and inner surfaces.

Peer-review: Externally peer-reviewed.

Grant Support: The author declared that this study has received no financial support

Conflict of Interest: The author has no conflict of interest to declare.

References

- Behr, D. (1988). Neue Ergebnisse zur pergamenischen Westabhangkeramik. *IstMitt*, 38, 97-178.
- Berlin, A. (1999). Studies in Hellenistic Ilion: The Lower City, Stratified Assemblages and Chronology. *Studia Troica*, 9, 73-158.
- Bilgen, A. N.- Çevirici Coşkun, F. (2015). Hellenistik Dönem Yerleşimi (II. Tabaka). A. N. Bilgen (Ed.). *Seyitömer Höyük I*, Arkeoloji Sanat Yayınları, 119-186, İstanbul.
- Çevirici Coşkun, F. (2017). Seyitömer Höyük Hellenistik Dönem Balık Tabakları. *Seleucia VII*, 325-344, Mersin.
- Civelek, A., (2006). Phokaia 2004: Hellenistik Dönem Seramiği Üzerine Gözlemler, *Olba, XIII*, 179-198.

- Conze, A., (1913). *Stadt und Landshaft: Die Stadt*. AvP. Band I. (Text 2). Berlin.
- Coşkun, G. -Alkaç, E. (2019). Seyitömer Höyük’de Ele Geçen Mühürlü Amphora Kulpları. *Olba*, XXVIII, 2020, 243-262.
- Crowfoot, J. W., Crowfoot, G. M., Kenyon, K. M. (1957). *The Objects from Samaria, Samaria-Sabaste III. Reports of the Work of the Joint Expedition in 1931-1933 and of the British Expedition in 1935*. London: Palestine Exploration Fund.
- Dereboylu, E. (2003). Daskyleion Kabartmalı Kaseleri ve Batı Yamacı Kapları Kronoloji ve Üretim Yeri Problemleri. In C. Abaide-Reynal (Ed.), *Les Ceramiques En Anatolie Aux Epoques Hellenistique Et Romaine, Actes de la Table Ronde d’Istanbul*, 22-24 mai 1996. *Varia Anatolica* 15. Paris, 55-63.
- Duman, B. (2009). Lykos Laodikeiası’nda Bulunan Batı Yamacı Tekniğinde Bezenmiş Seramikler. *Helenistik ve Roma Dönemi Seramik Çalışmaları Sempozyumu I, 11-14 Haziran 2009*. Kültür ve Sanat Araştırmaları Merkezi. Başkent Üniversitesi.
- Edwards, G. R. (1975). *Corinth: Results of Excavations Conducted by the American School of Classical Studies at Athens, Corinth 7/3, Corinthian Hellenistic Pottery*. New Jersey: Princeton University Press.
- Ekin Meriç A. (2003). *Metropolis’de Bulunmuş Batı Yamacı seramikleri*. (Yüksek Lisans Tezi). Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü, İzmir.
- Ekin Meriç, A. (2013). *Metropolis İonia III, Ana Tanrıça Kutsal Mağaraları*. İstanbul: Homer Kitapevi.
- Ersoy, A. (2020). *Smyrna / İzmir Hellenistik Dönem Seramiği*. İstanbul: Ege Yayınları.
- Gassner, V. (1997). *Das Südtor der Tetragonos-Agora Keramik und Kleinfunde*. Österreichischen Akademie der Wissenschaften, Wien.
- Goldman, H. (1940). The Acropolis of Halae. *Hesperia*, 9 (4), 381-514.
- Gürler, B. (1994). *Metropolis’in Hellenistik Dönem Seramiği*. (Doktora Tezi). Ege Üniversitesi Sosyal Bilimler Enstitüsü, İzmir.
- Kasapoğlu, H. Keleş, V. Fırat, G. (2020). Parion Yamaç Hamamı 1515-1260 Depoziti Batı Yamacı Seramikleri. *Turkish Studies - Historical Analysis*. s. 91-122.
- Kallini, C. (2013). Hellenistic Kantharoi. Their production centers and their distribution in the Eastern Mediterranean. BAR. Oxford.
- Kögler, P. (2010). *Feinkeramik aus Knidos vom mittleren Hellenismus bis in die mittlere Kaiserzeit (ca. 200 v. Chr. bis 150 n. Chr.)*. Wiesbaden: Reichert.
- Köker, H. (2022). *Seyitömer Höyük Kurtarma Kazıları Sikke Buluntuları*. S. Ünan (Ed.) Seyitömer Höyük Kurtarma Kazısı 1989-2021. Bilgin Kültür Sanat Yayınları. Ankara.
- Miller, S. G. (1974). Menon’s Cistern. *Hesperia* 43. 2.194-245.
- Mitsopoulos-Leon, V. (1991). *Die Basilika am Staatmarkin Ephesos. Kleinfunde I, Keramikhellenistischer und römischer Zeit. FiE*, IX (212). Wien.
- Pinkwart, D. (1972). *Die Hellenistisch-römische Bleiglasurkeramik aus Pergamon*. Pergamenische Forschungen Band I (Ed. E. Boehringer), 140- 163, Berlin.
- Pulak, C. Townsend, R. F., Koehler C. G., Wallace, M. B. (1987). Wallace The Hellenistic Shipwreck at Serce Limani, Turkey: Preliminary Report, *American Journal of Archaeology*, Vol. 91, No. 1, 31-57.
- Rotroff, S. I. ve Oliver, A. Jr. (2003). *The Hellenistic Pottery from Sardis: The Finds through 1994*. Sardis Mon 12. Cambridge and London.

- Rotroff, S. I. (1983). Three Cistern Systems On The Kolonos Agoraios. *Hesperia, Vol. 52.* 257-297.
- Rotroff, S. I. (1997). *Hellenistic Pottery, Athenian and Imported Wheelmade Table Ware and Related Material.* The Athenian Agora, XXIX, Princeton University Press, New Jersey.
- Rotroff, S. I. (2002). West Slope in the East. Ceramiques hellenistiques et romaines. Productions et diffusion en Mediterranee orientale (Chybre, Egypte et cote syro-palestinienne), Lyon 2-4 Mars 2000, TMO 35 (Ed.: F. Blonde, P. Ballet, J. Francois-Salles), Lyon, 97-115.
- Rotroff, S. I. (2006). Attic West Slope Vase Painting. *Hesperia, Vol. 60.* pp. 59-102.
- Saygıner, H., (2019). *Phokaia Maltepe Tümülüsü Erken Hellenistik Dönem Seramiği.* Yayınlanmamış Doktora Tezi, Ege Üniversitesi Sosyal Bilimler Enstitüsü, İzmir.
- Şahin, S. (1987). Phrygia Epiktetos. 4. *Araştırma Sonuçları Toplantısı*, 265-268.
- Schäfer, J. (1968). *Hellenistische Keramik aus Pergamon.* Berlin: Walter de Gruyter.
- Schierup, S. (2008). Two Assemblages of Hellenistic Pottery. *The Study of Ancient Territories. Chersonesos & South Italy. Report for 2008-2011*, University of Texas, Austin.
- Smetana-Scherrer, R. (1982). Spätklassische und Hellenistische Keramik. In H. Walter (Ed.), *Alt-Ägina 2*, Vol. 1. Mainz, 56-91.
- Sparkes, B. A., & Talcott, L. (1970). *Black and Plain Pottery of the 6th, 5th and 4th Centuries B.C., The Athenian Agora XII.* Princeton, New Jersey.
- Strabon, Geographica (Çev. A Pekman 2012). İlke Kitapevi, Ankara.
- Tekkok, B. (2000). The City Wall of Ilion: New evidence for Dating. *Studia Troica, Band 10*, Mainz, 2000, 85-95.
- Tekkok-Bicken, B. (1996). *The Hellenistic and Roman Pottery from Troia: the Second Century B.C. to the Sixth Century A.D.* (Doktora Tezi). University of Missouri, Columbia.
- Thompson, H. A. (1934). Two Centuries of Hellenistic Pottery. *Hesperia III*, 311-480.
- Topbaş, A. (1993). Kütahya Seyitömer Höyüğü 1991 Yılı Kurtarma Kazısı. *III. Müze Kurtarma Kazıları Semineri*, 1-30.
- Tüysüz, B. (2022). *Kültepe'nin Hellenistik Dönem Seramikleri.* (Doktora Tezi). Pamukkale Üniversitesi Arkeoloji Enstitüsü. Denizli.
- Usta, H., (2023). *Seyitömer Höyük Hellenistik Dönem Seramikleri,* (Doktora Tezi). Selçuk Üniversitesi, Sosyal Bilimler Enstitüsü, Arkeoloji Anabilim Dalı, Klasik Arkeoloji Bilim Dalı, Konya.
- Vanderpool, E., McCredie J. R., Steinberg, A. (1962). A Ptolemaic Camp on the East Coast of Attica, *Hesperia, Vol. 31*, No. 1, 26-61.
- Watzinger, C. (1901). Vasenfunde Aus Athen. *Mitteilungen des Deutschen Archäologischen Instituts*, 26, Athen.
- Yedidağ, T. (2017). Batı Yamacı Keramikler ve Dorylaion'dan Bir Grup Örnek. I. Adak Adıbelli vd. (Ed.) *Bariş Salman Anı Kitabı*, (s. 259-266), İstanbul, Ege Yayınları.
- Ziegenaus, O. and De Luca, G. (1968). Das Asklepion, *Altortümer von Pergamon XI-I*.
- Zoroğlu, L. (2004). Hellenistic Pottery From Kelenderis. *Praktika 4*, Athens, 299-310.



A Spatial Analysis of the Borders of Ancient Armenia

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Submitted: 11.08.2024

Revision Requested: 07.10.2024

Last Revision Received: 26.11.2024

Accepted: 26.11.2024

Citation: Ozsoy, N.B. (2024). A spatial analysis
of the borders of ancient Armenia. *Anadolu
Arařtırmaları-Anatolian Research*, 31, 265–298.
<https://doi.org/10.26650/anar.2024.31.1531594>

ABSTRACT

This study aims to conduct a comprehensive spatial analysis of the geographical boundaries of ancient Armenia. In antiquity, Armenia represented a significant geopolitical region, encompassing Eastern Anatolia, the Caucasus, and the Iranian Plateau. This article offers a meticulous reconstruction of Armenia's ancient boundaries, employing an integrated methodology that synthesizes ancient and contemporary written sources alongside archeological evidence. Moreover, it presents an in-depth analysis of the political, military, and sociocultural dynamics that have shaped these borders over time. This study investigates the temporal and spatial evolution of ancient Armenia's frontiers, with a particular focus on the Eastern Anatolian region and the implications of historical changes for the region's ethnic and cultural composition. The results indicate that both natural geographical barriers and human interactions were instrumental in delineating the borders of ancient Armenia. Consequently, this spatial analysis contributes to a more nuanced understanding of the historical geography of the region and elucidates the complex processes that underpinned its ancient political and cultural boundaries. **Keywords:** Armenia, Ancient geography, Exonym, Ancient sources, Iron Age Armenia



Introduction

The boundaries of ancient Armenia were shaped by a complex intersection of geographical, political, and cultural dynamics, and analyzing these factors has become a focus of widespread interest in the study of West Asian antiquity. However, studying the area's boundaries is a field that requires the collaboration of several academic disciplines, including historical geography, classical philology, archeology, ethnography, and linguistics. The spatial analysis of Armenia's ancient borders thus requires an interdisciplinary approach that focuses not only on the geomorphological features of the region but also on the variability of its political boundaries, the impact of its cultural identity, and how these elements were reflected in ancient sources.

This study analyzes the interplay between the determining role of geographical features in the political structures of ancient Armenia and how ancient authors interpreted this geography. Therefore, it presents a comprehensive evaluation from both perspectives. First, the physical geography of ancient Armenia and its impact on the political boundaries of the region requires a thorough analysis of historical geography and regional spatial analysis. Although natural boundary markers such as mountain ranges, valley systems, and riverbeds are thought to have shaped the physical borders of the region, the political role of these borders was much broader. In this sense, major mountain ranges, such as the Taurus and Caucasus, and the Euphrates, Arakses, and Kyros Rivers defined the external borders of the region and formed internal borders that preserved ethnocultural differences within the region. In particular, bodies of water such as Lake Thospitis (now Lake Van) and Lake Urmia functioned as not only geographical barriers but also cultural symbols that determined the relations between the Armenian subregions. Thus, these natural geographical features of ancient Armenia were physical barriers that defined political borders while playing a central role in delimiting specific subcultures and local political structures.

The information from ancient sources on ancient Armenia's borders also plays a crucial role in understanding how geographical analyses were linked to ancient perceptions of the world. Ancient authors such as Herodotus, Strabo, Gaius Pliny, and Ptolemy described the borders of Armenia as outside observers according to the political realities and cultural perspectives of the time. For example, Strabo's description of Armenia in his *Geographica*, in which he uses Eratosthenes' calculations, reflects the perceived authorities of ancient geographical knowledge in the Hellenic world and the way these authorities determined how the region's strategic position was perceived. Conversely, the detailed descriptions in Pliny's *Naturalis Historia* indicate the influence of the border politics of the Roman Empire and imperial discourses of dominance over its peripheral territories. This external perspective in ancient sources emphasizes the geographical elements of Armenia as a frontier while highlighting the region's role as a political buffer between multiple empires. The works

of these external observers help us understand how Armenia's borders were shaped by the geopolitical vagaries of the time and show how the region's physical features were used as political boundary markers.

Another important factor in shaping Armenia's borders is the diversity of political and cultural interactions in the region. During the Persian Empire, Armenia was understood as a regional administrative unit, and its borders were thus defined according to the administrative needs of the Empire. In this context, the satrapal system transformed Armenia into a region with defined external borders but internally independent administrations. However, the Roman Empire's influence in the region redefined the internal borders of Armenia and revealed the differences between Armenia Major and Armenia Minor. This distinction implies a military and cultural restructuring of the region for imperial interests. The presence of different ethnic groups and cultural influences within Armenia also suggests that these boundaries were shaped for political purposes and to preserve cultural identities and the autonomy of subregions.

However, the study on the boundaries of ancient Armenia faces significant historical and methodological challenges. The lack of locally written sources means that the available information is largely based on external observers, thereby emphasizing the biases of ancient authors and the dominant geopolitical perspectives of the time. This increases the influence of a subjective approach in determining the boundaries of a region and makes the fluid nature of border determination even more challenging to reconstruct. However, contemporary archeological evidence and analysis can address this by allowing us to verify or reassess the information provided by ancient sources. Modern spatial analysis techniques provide a deeper understanding of the historical variability of Armenia's borders, revealing the more objective functions of ancient geographical elements in boundary creation.

The spatial analysis of the borders of ancient Armenia thus requires a comprehensive understanding of the interactions between geography, politics, and culture. The region's natural elements are described in ancient sources as physical boundary markers and strategic territorial elements that could be reorganized according to both local and imperial political interests. The analysis presented in this paper will thus revisit the historical evolution of Armenia's borders from the perspective of ancient authors and the influence of geography on the political structure to create a broad overview of how borders were defined in antiquity. In particular, this study will focus on the region of Eastern Anatolia, a key area in terms of ancient Armenia's geography, politics, culture, and historical border disputes.

Ancient and modern sources of ancient Armenian borders

High mountain ranges, river valleys, and gorges, which are prominent natural choices for boundary markers, significantly influenced ancient Armenia's strategic position for multiple empires, including the Roman and Persian empires. In this context, it is essential to also recognize that ancient Armenia's borders had a multifaceted significance that extended beyond their military or political connotations. They also played a crucial role in safeguarding the region's distinctive cultural and ethnic structure.

The Armenian borders were shaped as the product of multilayered geographical, cultural, and political interactions throughout ancient history. This study first analyzes these borders referring to data provided by ancient sources. This study also draws on information from modern sources and findings to analyze the geographical barriers and political factors that shaped Armenia's boundaries.

The Analysis of Ancient sources

The most comprehensive information about the borders of ancient Armenia can be found in the works of Herodotus, Strabo, Pliny, and Ptolemy. However, it is essential to interpret their descriptions in the context of the geographical knowledge and political circumstances prevailing during their respective eras.

Herodotus.¹ In his *Histories* (Ἱστορίαι), written in the late 5th century BC, Herodotus (Ἡρόδοτος, c. 484–425 BC) provides a detailed account of the geographical features that shaped the boundaries of Armenia. Herodotus, described by Cicero as the “Father of History” (*Pater Historiae*), sets out the borders of Armenia in the context of the administrative regions of the Persian Empire. Here, Herodotus states that the Media region surrounds Armenia to the east and the Colchis region borders Armenia to the north (Hdt. III.93; Asheri et al. 2007). The definitions provided by Herodotus were shaped by the administrative arrangements of the Persian Empire during this period. The administrative nature of these arrangements suggest that the borders of ancient Armenia were in constant flux (Dandamaev & Lukonin 2004).

Strabo. In his *Geographica* (Γεωγραφικά), Strabo (Στράβων, c. 64 BC–AD 24) provides a more detailed account of the physical boundaries of Armenia. Using Eratosthenes' (Ἐρατοσθένης, c. 276–195 BC) calculations, he delineated the function of geographical impediments as potential boundary markers (Strab. XI.1ff.). In this context, he states that the Araks and Euphrates Rivers and the Taurus and Caucasus Mountains were perceived as Armenia's natural boundaries (Roller 2014). Accordingly, Strabo states that the ancient Armenian Kingdom was bordered by the regions of Iberia (part of modern-day western Georgia) and Colchis (also part of modern-day western Georgia) to the north, Media (modern-

1 For more information on the place and importance of Herodotus in ancient historiography, see Demir (2005).

day western Iran) to the east, and Pontus and Cappadocia (modern-day Turkey) to the west. These descriptions demonstrate Strabo's interpretation of the strategic importance of ancient Armenia (Strab. XI.14.1-14.9; Roller 2014; Roller 2018).

Plinius, Tacitus, and the Roman Perspective. Following Strabo, who lived during the Roman period and whose work has served as a source of reference for centuries, were the Roman historians Gaius Plinius Caecilius Secundus (or Pliny, 23–79 AD) (Anguissola 2021; Anguissola & Grüner 2021) and Gaius Cornelius Tacitus (56–120 AD) (Birley 2000; ten Berge 2023). Pliny and Tacitus emphasize the strategic importance of Armenia between the Roman and Parthian Empires. Additionally, Pliny offers comprehensive geographical descriptions. However, it should be noted that Tacitus' work differs in this respect. In his *Annales*, Tacitus instead elucidates the role of Armenia as a buffer zone for the Roman Empire and how its borders were delineated for this purpose (Tac. *ann.* II.56-60; Syme 1958).

However, Pliny greatly emphasizes the strategic importance of ancient Armenia in his *Naturalis Historia*, providing detailed information on the region's natural resources and their utilization by the Roman Empire. Moreover, he highlights the economic and strategic significance of the region by providing detailed information on the natural resources and military routes of ancient Armenia (Saller 2022). The data demonstrate how the natural and strategic riches of ancient Armenia were instrumental in determining its borders and highlight the region's role as a buffer zone for the Roman Empire. Pliny's information, particularly regarding military passageways and border points, shows that Armenia was strategically positioned on the eastern borders of the Roman Empire for its defensive interests (Plin. *nat.* 6.10; Beagon 2005).

Ptolemy. Ptolemy's (Πτολεμαῖος, c. 100–c. 170 AD) *Geography* (Γεωγραφικὴ Ὑφήγησις) is notable for defining the borders of Armenia according to mathematical coordinates, a feat that marks a significant advancement in cartographic precision. This coordinate system formed the basis of modern geography and allowed for a more precise analysis of Armenia's borders in line with today's geographic information systems (Talbert 2012). Of particular note is the coordinate-related information on Eastern Anatolia, which demonstrates the scientific approach of Ptolemy's geographical observations in his efforts to determine its borders.

Ptolemy subdivided Armenia into 21 subregions, providing detailed descriptions of each, including their cities and subregions. These sub-regional divisions were administrative units recognized by the kings of Armenia at the time (Ptol. V.13.1–22; AŠX. V.21, V.22; Hewsen 2001, p. 64ff.). This reflects the region's geographically and politically complex nature and reveals the historical origins of the weakness of centralized authority.

Movses Khorenatsi. Notably, Movses Khorenatsi (Մովսէս Խորենացի, c. 410–490s AD), regarded as the Armenian Herodotus, is the first known ancient Armenian author to write on the borders of his homeland. His oeuvre, which does not otherwise encompass the temporal scope of this article, is thus pivotal as the inaugural indigenous historical account of the region. His work, *History of the Armenians* (Պատմութիւն Հայոց), provides information about the origins and historical development of the Armenian people. In defining the borders of ancient Armenia, Khorenatsi synthesizes the mythological and historical elements of the region. This work shows how the borders of ancient Armenia were embedded in the Armenian people's collective memory and how these boundaries were culturally defined. Khorenatsi's account thus holistically encompasses the borders of ancient Armenia from a historical, cultural, and mythological perspective (Garsoïan 1989).

Anania Shiragatsi. Anania Shiragatsi's (Անանիա Շիրակացի, c. 610–c. 685 AD) *Ashkarhatsuyts* (Աշխարհացոյց) subdivided Armenia in detail.

As an Armenian scholar, mathematician, and cosmographer who lived in the 7th century, Anania Shiragatsi made distinctive and significant contributions to the historiography of ancient Armenia. His works played a pivotal role in preserving and advancing the intellectual heritage of the ancient Armenian cultural and scholarly tradition of his era. Notably, Anania is renowned for his cosmographic treatises, which compile historical and geographical knowledge. These works systematically address the physical and cultural geography, historical background, and regional significance of ancient Armenia.

Shiragatsi's writings reflect a unique methodological approach to the Armenian historiography of the period, recounting historical events and analyzing their geographical contexts. This integration of geography and history marked a paradigm shift in medieval Armenian historiography, influencing subsequent historians and fostering a model wherein spatial and temporal dimensions were intricately intertwined. Beyond providing chronological data on the history of ancient Armenia, Anania's works also offer insights into the social and political structures of the region (Hewsen 1992; Greenwood 2011)².

His contributions are vital for understanding Armenia's position under Byzantine and Sasanian influence. The detailed descriptions and meticulous data presented in his works enhance our comprehension of Armenia's strategic and cultural significance during this period.

2 Greenwood, T. (2011). "A Reassessment of the Life and Mathematical Problems of Anania Širakac'i". *Revue des Études Arméniennes*, 33, 131-186.
Hewsen, R. H. (1992). *The Geography of Ananias of Širak (AŠXARHAC'OYC')*: The Long and Short Recensions. Reichert Verlag.

Modern Sources

In recent years, archeological excavations within the borders of ancient Armenia have contributed to the discovery of material cultural elements that were used to define its ancient borders (Zimansky 1995; Badalyan et al. 2003; Smith & Badalyan 2009; Konyar 2006; Konyar 2011; Smith 2012; Siddiq & Işıklı 2024). In particular, the Urartian remains in and around Armenia provide evidence that the country's ancient borders were largely shaped in harmony with natural barriers. These findings also demonstrate that the determination of ancient borders was not solely based on geographical elements but also the presence of military garrisons and settlement networks (Adontz 1970; Hewsen 2001; Badalyan-Smith-Khatchadourian 2010).

A comparison of these sources with ancient material reveals that the two primary sources for defining ancient Armenia's borders often overlap. For instance, Strabo's identification of the Caucasus and Taurus Mountains as natural boundaries aligns with contemporary spatial analyses highlighting their strategic crossing points (Roller 2014). However, it is essential to note that contemporary geopolitical concerns and external perspectives shaped the definitions present in the ancient sources. The fact that the Roman Empire saw Armenia as a buffer zone to strengthen its borders and that ancient authors like Pliny defined the region's borders according to these interests point to a political perspective that can differ considerably from the geographical realities presented by modern scientific data.

Identifying the borders of ancient Armenia with modern archeological technologies contributes to our understanding of the impact of geographical features on border definitions and reveals how political and cultural factors shaped these borders. Although ancient authors identified mountains, rivers, and valleys as natural boundary elements³, modern spatial analysis techniques have demonstrated that these boundaries were also utilized as economic and military transit areas. Evidently, the borders of ancient Armenia were shaped by not only physical geography but also the military and political dynamics of the period.

Eastern Anatolia and historical ancient Armenia borders

The physical geography of the *high country*⁴

Eastern Anatolia, or the "*high country*" (Erinç 1953, p. 1), is of significant geographical importance, as it encompasses the mountain ranges that extend east to west along the Anatolian Peninsula's north and south axes before reaching their highest peaks and converging. The

3 Strab. XI.14.4-6; Plin. *nat.* VI.10.27-28; Tac. *ann.* II. 56; Ptol. V.13.1-4; Xen. *Anab.* IV.4.3-4; Pomp. Trog. XLII.2

4 The term "high country," first used by the geographer Sırrı Erinç (1953, p. 1), succinctly encapsulates the elevated region of Eastern Anatolia, which is akin to an autonomous entity in its own right, separated from the Anatolian Peninsula by its topography.

region's high altitude and rugged topography have been pivotal in forming natural borders, serving as a natural defense line against external expansionist forces throughout history. This geological uplift both determined ancient geographical boundaries and reinforced the region's historical and strategic importance (Burney & Lang 1971, p. 7; Tarkan 1974, p. 7; Atalay-Mortan 2006, p. 441; Çiğdem-Can 2006; Işıklı-Can 2007).

The geographical structure of the high country significantly influenced the formation of the surrounding natural environment and the development of local social and economic processes. The region's dominant geomorphological features, climatic conditions, and vegetation have significantly influenced the population density, the organization of agricultural production, and the development of transportation networks. As emphasized by Erinç (1953) and Işıklı (2005), this natural structure has been a fundamental dynamic that has guided the region's history in terms of both opportunities and constraints (Erinç 1953, p. 1; Işıklı 2005, p. 20).

The Eastern Anatolia Region is Turkey's most extensive geographical area, covering 163,000 km² (Atalay & Mortan 2006, p. 441; Arınç 2011, p. 1). The region's modern borders were formally defined at the First Turkish Geography Congress in 1941. These utilized the North Anatolian Mountains to the north, the Euphrates and Kızılırmak Rivers to the west, the Southeastern Taurus Mountains to the south, and the political borders of Turkey to the east. The region extending from the Hakkâri Mountains to the Iraqi border now endows Eastern Anatolia with strategic geopolitical importance as it shares borders with five countries (Erinç 1953, pp. 1-2; Atalay & Mortan 2006, p. 441).

This demarcation also needs to reflect the historical and cultural integrity of the region. Notwithstanding the geographical boundaries, the northeastern part of the high country should be considered a subcultural region due to its historical and cultural ties with Transcaucasia⁵ (Erinç 1953, pp. 2-3; Erzen 1992, pp. 15-16; Hewsen 1997, p. 2; Işıklı 2005, pp. 21-22; Işıklı 2010, p. 15). The area's geographical and cultural richness has resulted in a significant sphere of influence, which is evinced in its social structure and cultural interactions throughout history.

The high country is most distinguished by its elevated topography. The average altitude of Central Anatolia is approximately 1,100 m. However, in Eastern Anatolia, this almost doubles to 2,000 m. Furthermore, it should be noted that this is merely an average value applicable to the relatively flat areas within the region. Eastern Anatolia thus truly earns its moniker as "*high country*," with vast plains above 2000 m and a distinctive geographical profile (Erinç 1953, p. 2; Tarkan 1974, p. 8; Hewsen 1997, p. 5).

5 For a more comprehensive examination of this subject and the concept of the Trans-Caucasus-Eastern Anatolia Cultural Region, please refer to the following sources: Işıklı (2005, pp. 21-22; 2010, p. 15; 2005; 2010.).

A predominantly harsh continental climate characterizes the high country. The specific morphological structures have played a pivotal role in the formation of these harsh climatic conditions. This is particularly evident in the interior and eastern areas of the region. The winters in Eastern Anatolia are characterized by prolonged periods of cold, snowy conditions, whereas the summers are relatively short and hot (Erinç 1953, p. 20; Tarkan 1974, pp. 11-12; Atalay-Mortan 2006, p. 457).

These climatic characteristics have significantly determined the region's vegetation, agriculture, settlement patterns, and daily life and have shaped its socioeconomic dynamics throughout history. The forest cover in Eastern Anatolia is richer than that in Central Anatolia. The region's upper limit of forest cover is 2800 m, which contributes to the region's status as a natural resource. Several ancient sources, from Aššur to Xenophon, have highlighted the richness of these forests. However, throughout history, the forests have suffered significant degradation due to human exploitation. Furthermore, the extensive alpine meadows, plateaus, and depressions have rendered Eastern Anatolia an optimal habitat for pastoral communities and agriculture (Erinç 1953, pp. 4-5; Erzen 1992, p. 20; Belli 1996, p. 633).

Despite the challenging climatic and geographical conditions, the geomorphological structure of the high country provided favorable ecological niches for settlements through its plains and basins. From the fourth millennium BC onward, there was a notable concentration of pastoral communities in these plains, which directly impacted the region's cultural and political structure (Çiğdem-Can 2006; Işıklı-Can 2007; Işıklı 2010; Işıklı 2015, p. 55ff.; Pekşen 2018¹; Pekşen 2018²). The mountainous and rugged terrain formed a dispersed, confederative sociopolitical order with weak central authority. Consequently, Eastern Anatolia was historically considered a peripheral region susceptible to external penetration by foreign powers (Erinç 1953, p. 73; Lang 1970, p. 27, 3; Işıklı 2005, p. 20; Çiğdem-Can 2006, Işıklı-Can 2007; Bournoutian 2011, p. 15; Grousset 2019, pp. 17, 20). The region, which was organized as a satrapy under Persian sovereignty (c. 585–330 BC) after the fall of the Urartian Kingdom (c. 860–585 BC), retained this fragmented structure of various feudal authorities even during the Armenian Kingdom (331 BC to 428 AD). This illustrates that the structural disadvantages of geography have had a detrimental impact on the political stability and unity of the region throughout history.

Eastern Anatolia from Protohistory to the Middle Iron Age⁶

In antiquity, the region now known as Eastern Anatolia was characterized by dynamic geography and politics, with shifting boundaries and a multiplicity of exonyms. Ancient written sources, particularly Mesopotamian documents, frequently emphasized the region's high altitude and rugged topography. The first written sources from the protohistoric periods reveal Eastern Anatolia's complex geographical structure and strategic importance.

Relations between protohistoric Mesopotamian civilizations and Eastern Anatolia were generally shaped by military expeditions, exploitation, and plunder. Its mineral deposits and natural resources were subject to repeated plunder and capture by Mesopotamian powers during their expeditions to the region. The confederative local structures were also subjected to taxation, which further impeded the development of a central authority. Consequently, Eastern Anatolia remained an unstable border region susceptible to exploitation and control by external powers throughout protohistory.

The earliest surviving documents on Eastern Anatolia are found in sources from Aššur, a Mesopotamian civilization. These sources refer to the region by various eponymic names and emphasize its high altitude. During the Middle Kingdom of Aššur (1400–1050 BC), under the reign of Šalmanesser I (1274–1245/1263–1234 BC), the first plundering expedition was organized (ARAB I: 112; Messerschmidt 1911, no. 13; Luckenbill 1912, pp. 40, 226; Erzen 1992, p. 24; Çilingiroğlu 1997, p. 16; Kuhrt 2010, pp. 457, 460).

During this period, the kings of Aššur⁷ organized increasingly frequent expeditions to the region stretching from the southern borders of Eastern Anatolia to the basin of Lake Van. During these expeditions, information about the physical geography, vegetation, and sociopolitical structure of the region was recorded (Piotrovskii 1967, p. 2; Tarhan 1978, p. 145; Barnett 1982, p. 329; Russel 1984; Çilingiroğlu 1984, p. 30; Çilingiroğlu 1994, pp. 5-6; Salvini 2006, p. 30; Salvini 2011, p. 77; Köroğlu 2011, p. 21; Pekşen 2018¹; Pekşen 2018²; Konyar 2022; Pekşen-Topaloğlu 2024). The Assyrian sources use the terms “Uruadri” and “Uruatri,” along with the designation “Upper/Mountainous Country,” which collectively encapsulate the region's distinctive topographical characteristics. These records show that Eastern Anatolia's rich natural resources were exploited frequently and that the region remained open to the control of foreign powers throughout protohistory (Lehmann-Haupt

6 The period between 1300 and 900 BC is considered the Protohistoric or Early Iron Age of Eastern Anatolia. This period, for which the only surviving source of information about the region are Near Eastern written artifacts, ended with the reign of Sarduri I (840–330 BC), one of the founding kings of the Urartu Kingdom, which united the region under one ruler (Belli 1978, p. 45; Erzen 1992, p. 27; Kuhrt 2010, pp. 228, 457; Salvini 2011, p. 76; Dönmez 2016, p. 3). Meanwhile, the Middle Iron Age is c. 900–600 BC.

7 For other Aššur kings who organized expeditions to eastern Anatolia, see Luckenbill (1926; 1927), Grayson (1972; 1976; 1987; 1991; 1996), and Frayne (1993).

1928, pp. 60-61; Adontz 1946, p. 28; Melik'işvili 1960, p. 69; Loon 1966, p. 6; Salvini 1967, pp. 24, 32; Piotrovskii 1969, p. 43; Tarhan 1978, p. 87; Sevin 1979, p. 105; Barnett 1982, p. 329; Belli 1982, p. 139; Pehlivan 1991, pp. 1-28; Erzen 1992, p. 24; Çilingiroğlu 1994, p. 62; Konyar 2022).

The region's mountainous geography made political control difficult. Nevertheless, the attraction of its resources led the Aššur kings to capture these riches. During these attacks, the rugged terrain further prevented the development of a centralized authority and increased the dispersed political structure. Modern sources describe this political structure as the "Proto History of Urartu" (Loon 1966, p. 6) or the "Archaic Age of Urartu" (Tarhan 1986, p. 285; Erzen 1992, p. 24).

In the Early Iron Age, the region was mainly composed of pastoral and village communities organized into tribes or small "kingdoms." However, the ethnic origins of these groups are not clear (Köroğlu 2011, p. 17ff.; Zimansky 2011, p. 86; Konyar 2022). These "kingdoms," which were often conquered and plundered by Aššur, were independent and scattered. It is unclear whether they shared the same culture and beliefs. This structure would characterize the whole of the Early Iron Age in Eastern Anatolia (Tarhan 1978, p. 44; Salvini 2006, pp. 28-34; Zimansky 1985, pp. 48-50; Erzen 1992, p. 25; Çilingiroğlu 1997, p. 16ff.; Kuhrt 2010, pp. 225-226; Köroğlu 2011, p. 20ff.; Emir & Çiğdem 2017; Pekşen 2018¹; Pekşen 2018²).

The Aššur raids, which spanned nearly four centuries, concluded with the advent of the Urartu Kingdom (840–830 BC), the inaugural centralized authority in Eastern Anatolia (Belli 1978, p. 45; Erzen 1992, p. 27; Kuhrt 2010, pp. 228, 457; Salvini 2011, p. 76; Dönmez 2016, p. 3; Emir & Çiğdem 2017; Çiğdem-Topaloğlu 2018, p. 417). This political transformation also led to changes in the region's nomenclature. The exonym *Uruatri-Nairi* (Salvini 2011, p. 76; Salvini 1995, p. 22; Çilingiroğlu 1997, p. 18ff.) used in Aššur sources was replaced by the endonym *Bianili* (bi-a-i-na-ú-e), used by the Urartians in their own language (Salvini 2006, p. 28ff; Kuhrt 2010, p. 226). Thus, the evolution of Urartu from a confederation to a centralized kingdom redefined the political and cultural identity of the region.

The fall of Urartu and the rise of the Persian-Achaemenid Empire

The fall of the Urartian Kingdom⁸ (c. 585 BC)⁹ (Kalkan 2008, p. 28; Salvini 2006, pp. 94; Sevin 2012, p. 363), followed by the collapse of the Aššur Empire¹⁰ (609/612 BC) (Yakar 2007, p. 67), resulted in a profound political vacuum and widespread chaos in Eastern

8 For a recent publication on the history of the Urartu Kingdom, the glorious kingdom of Eastern Anatolia, see Konyar (2022).

9 For discussions on the process of the Urartian Kingdom's withdrawal from the historical scene, see Zimansky (1995, p. 99), Salvini (2006, p. 128), Rollinger (2008, pp. 51-65), and Sevin (2012, p. 352).

10 The Aššurids, like their rivals the Urartians, were vanquished by the ascendant warrior powers of the Near East, namely the Scythian, Median, and Babylonian alliance (Yakar 2007, p. 67).

Anatolia. Although the disappearance of the Urartians meant the end of the central authority in the region, the people who had lived under Urartian rule continued to exist (Rice 1957, p. 45; Olmstead 1963, p. 424; Salvini 2006, p. 128). In Babylonian sources of the period (609/610, 605–562 BC), the region is consistently referred to by the exonym Uraštu (Wiseman 1956, pp. 64ff.; Kuhrt 2010, p. 239; Salvini 2006, p. 129).

Following the collapse of Urartu, a transitional period of approximately two centuries ensued, during which the region was deprived of political stability. Subsequently, the Late Iron Age (600–330 BC) commenced with the Post-Urartu (Median) period (Xen. *Cyrop.* III.3.5) and was followed by the advent of the Persian-Achaemenid rule (Işıklı-Parlıtı 2019, p. 183; Wiesehöfer 2003; Can 2007; Sevin 2019, p. 9). The advent of this new period saw the region's cultural and political structure undergo significant transformation under the Persian-Achaemenid Empire (550–330 BC).¹¹ This empire became the largest political power the world had ever seen, with vast territories extending to the Near East, India, Egypt, Anatolia, and Greece (Hewsen 2001, p. 29; Kuhrt 2010, p. 353).

During this period, Eastern Anatolia was named “Armina” or “Armenia” by the Persians and the region was reorganized within the framework of the Persian administrative system (DB 2.33–63). This region, which was previously defined by exonyms such as Urartu, Uraštu and Nairi, was now known by a name based on geography. “Armenia” began being used in epigraphic documents, and it was later widely adopted in ancient Hellenic and Roman sources. Although the administrative structure of the region changed under Persian rule, Hellenic sources mention various peoples living in this geography for the first time. Thus, Eastern Anatolia's ethnic and cultural diversity became more visible in the ancient world. Among these many groups were the Saspeiroi/Saspeirs (Hdt I.104.1, 110, 3.94, 4.37, 40, 7.79; Strab. XI.14.12; Xen. *Anab.* VII.8.25), Alarodioi (Adontz 1970, p. 352), Matienoi (Strab. XI.7.2), Khaldaoı (Hdt. I.28.1; Xen. *Anab.* IV.3.4, 5.35, 7.15–18; Strab. VII.3.28, XI.14.5, XII.3.19, 28), Chalybes (Xen. *Anab.* V.5.1; Plin. *nat.* 6.3.11), Mardioı (Strab. XI.8.8), Phasianoi (Xen. *Anab.* IV.6.5), Taokhoı (Xen. *Anab.* IV.7.), and Carduchians (Xen. *Anab.* III.5.16; Diod. XIV. 27.4). The people mentioned in the Hellenic sources provide an important indicator of the ethnic and cultural diversity of Late Iron Age Eastern Anatolia. The data presented here thus offer a robust critique of the current claims that ancient Eastern Anatolia was characterized by a homogeneous ethnicity (Dönmez 2016).

After the Persian Empire conquered Babylon, its greatest rival in the Near East, it developed an effective administrative system to manage its vast borders. The empire successfully managed communities of different ethnicities, cultures, and beliefs in the vast territories it conquered. The Persians gave new opportunities to local elites by guaranteeing continuity

¹¹ For a critique of the negative presentation of the Persian/Achaemenid Empire under the influence of classical Hellenic and Roman sources, see Rollinger (2022).

to the peoples they defeated, and, as did Babylonia, they strengthened communities' loyalty to the new government by granting certain powers to local rulers (Kuhrt 2010, p. 371). This flexible administrative approach facilitated the coexistence of disparate peoples and ensured the maintenance of stability across the vast expanse of the empire. The administrative model designed by the Persian Empire to govern its vast territories thus continued the deep-rooted imperial traditions of Mesopotamia. In this system, called satrapy,¹² satraps appointed from the center carried out administrative, military, and tax collection functions on behalf of the emperor and ensured the flow of bureaucracy and intelligence (Hdt. III.89.1; Olmstead 1948, p. 59; Frye 1976, pp. 102ff., 112ff.; Brosius 2006, p. 20; Schmitt 2014: EnIr: AchaemenidDynasty; Rollinger 2023, p. 289ff.).

However, the assassination of Cambyses II's brother Bardiya (or Smerdis) and the subsequent events led to significant chaos in the Persian Empire. During this period of uncertainty, many subjects rebelled and tried to turn the situation in their favor. Amid these conflicts, which erupted in 522–521 BC, Dareios I (Dārayavauš, also spelled Darius, 522–486 BC), who was thought to have seized the throne under dubious conditions (Kurht 2010, pp. 378–379; Axworthy 2016, pp. 35–36), succeeded in suppressing these rebellions with the support of the elite group known as the “Seven” (Cook 1983, p. 53) and became the new emperor (Hdt III. 67.1ff., 88.3ff.; Olmstead 1948, p. 107ff.; Cook 1983, p. 53). Dareios I provided an early example of the future “system of nations” by successfully establishing the coexistence of different ethnic groups and cultures in the vast territories he conquered (Hdt. III.67-88; Olmstead 1948, p. 107ff.; Frye 1976, p. 94ff.; Brosius 2006, p. 14ff.).

Continuing the imperial traditions of Mesopotamia, Dareios detailed his suppression of rebellions and consolidation of his throne in the Behistun Inscription (520/519 BC). This epigraphic text functioned as propaganda that reinforced his actions and legitimacy through its narrative. The Behistun Inscription should be regarded as a *res gestae* (Cook 1983, pp. 52, 68) of Dareios' political powers (Olmstead 1948, p. 107ff; Root 1979, p. 59ff; Casabone 2007, p. 24; Brosius 2006, p. 20), which he used to legitimize his controversial rule and re-establish central authority. “Armina” (Xen. *Cyrop.* III.3.5), which came under the rule of the Persian-Achaemenid Empire after the Medes, is listed in the Behistun Inscription among the 23 countries/satrapies under the empire (DB I. 15; King-Thompson 1907, p. 50):

King Darius says, “These are the provinces that are under me, and I have become their king by the favor of Ahuramazda¹³: Persia, Elam, Babylonia, Assyria, Arabia, Egypt, [the] Sea [i.e., its islands], Lydia, Ionia, Media, Armenia [Armina], Cappadocia, Parthia, Drangiana,

12 Per: *χῆσαρπᾶν*, *ksaçapavan*, Hell: *σατράπης*: *strapes* (Protector of the Empire). See Jacobs (2011: EnIr: Achaemenid Satrapies).

13 *𐎠𐎼𐎷𐎡𐎴*: *Ohrmazd, Harzoo, Hormazd, Hourmazd, Hurmuz Ahûra Mazdâ*, “Lord of Knowledge” (Wilkinson 2008, p. 148–152).

Aria, Chorasmia, Bactria, Sogdiana, Gandara, Scythia, Sattagydia, Arachosia, and Maka—twenty-three countries in all” (King-Thompson 1907, p. 4).

Dareios I also recounts his conflict with Armenia, which is listed as a region that rebelled against the empire during the civil war he faced in the early years of his reign. This struggle lasted for about a year and a half (Potts 2006/2007, pp. 133–146):

King Darius says: “I sent my servant, an Armenian named Dâdaršiš, to Armenia and instructed him: ‘Go, destroy this army that has rebelled and does not recognize my authority.’ So Dâdaršiš set out. When he arrived in Armenia, the rebels gathered and marched forward to engage Dâdaršiš in battle. They fought at a place called Zuzza in Armenia. Ahuramazda brought me aid; with the help of Ahuramazda, my army completely defeated the rebel army. On the eighth day of the month Thûravâhara [20 May 521 BC],¹⁴ the battle was fought by them The rebels gathered for a second time and marched against Dâdaršiš to engage in battle. They clashed at a fortress called Tigra in Armenia. Ahuramazda brought me assistance; by the favor of Ahuramazda, my army completely defeated that rebel force. The battle took place on the eighteenth day of the month Thûravâhara [30 May 521 BC]¹⁵ The rebels assembled for a third time and mobilized to fight against Dâdaršiš. They engaged in battle at a fortress called U[yam]â in Armenia. Ahuramazda provided assistance; by the favor of Ahuramazda, my army thoroughly defeated the rebel force. The battle occurred on the ninth day of the month Thâigaciš [20 June 521 BC].¹⁶ Then Dâdaršiš waited for me in Armenia until I arrived in Media I sent my servant Vaumisa, a Persian, to Armenia and instructed him, ‘Go and strike down the army that has rebelled and does not recognize my authority.’ Vaumisa then set out. Upon his arrival in Armenia, the rebels gathered and advanced to fight against Vaumisa. They engaged in battle at a place called I[zal]â in Aššur. Ahuramazda provided assistance; by the favor of Ahuramazda, my army decisively defeated the rebel force. The battle took place on the fifteenth day of the month Anâmaka [31 December 522 BC] The rebels regrouped for a second time to fight against Vaumisa. They clashed at a place called Autiyâra in Armenia. Ahuramazda provided assistance, and by the favor of Ahuramazda, my army completely defeated the rebel force. The battle occurred at the end of the month Thûravâhara [11 June 521 BC]. Vaumisa then awaited my arrival in Armenia until I reached Media.” (King-Thompson 1907, pp. 26–30; Vogelsang 1998, p. 197).¹⁷

As the text indicates, Dareios I first engaged in battle with Armenia using a Persian commander, Vaumisa, followed by an Armenian commander, Dâdaršiš, who remained loyal

14 <https://www.livius.org/sources/content/behistun-persian-text/behistun-t-15/>

15 <https://www.livius.org/sources/content/behistun-persian-text/behistun-t-16/>

16 <https://www.livius.org/sources/content/behistun-persian-text/behistun-t-17/>

17 The reckonings of the dates are based on those of “Behistun, Persian Text,” *Livius*, February 22, 2019, accessed November 27, 2024, <https://www.livius.org/sources/content/behistun-persian-text/>.

to him and likely served in the Persian army. On 31 December 522 BC, Vaumisa secured a victory at Izalâ in Aššur, within the modern Tur Abdin hill complex. Subsequently, on May 20, 521 BC, Dâdaršiš defeated his fellow Armenians at Zuzza. Ten days later, Dâdaršiš achieved another victory at the fortress of Tigra. That June, Vaumisa won a second victory in the Autiyâra region of the Tiyari Mountains and Dâdaršiš declared a third victory at the fortress of Uyamâ.

However, these military victories were of limited importance, as both Vaumisa and Dâdaršiš were unable to completely suppress the resistance in the region, and Dareios himself finally had to intervene. This shows how strong the resistance in Armenia was and that the Persian commanders had difficulty fully controlling local uprisings. Dareios' intervention was therefore critical to the complete suppression of the revolt (Olmstead 1963, p. 114).

Furthermore, it is challenging to ascertain the precise and locations of the satrapies and other places listed in the inscription (Cook 1985, p. 256; Wiesehöfer 2003, p. 101; Bournoutian 2006, p. 20). Although governing extensive territories, the Persian Empire under Dareios I continued to foster collaboration with local authorities, conferring upon them a degree of autonomy. This approach emphasized a governance model based on voluntary obedience and cultural integration rather than delineating clear borders (Casteluccia 2019, p. 57). This model represents a pioneering approach to administration, marking a departure from the centralized and oppressive styles previously observed in the Near East. The Persians' flexible administrative organization served as a prototype for subsequent empires, thereby establishing a lasting legacy of cultural integration.

The following suggestions are put forth regarding the localization of Izalâ in Dareios's inscription. The toponym "Izalla" or "Azalla," which originated in the Aššurian period, has survived in classical sources and the Syriac *Izlō* (or *Tūrā d-Izlō*) *Izala*. Accordingly, Izalâ is identified as part of the *Tūr Abdīn*¹⁸ mountain range and is traditionally situated to the west of Mardin in the Assyriological literature. An alternative interpretation is that the mountain range refers to Nusaybin, or the "rugged mountains in Mardin." Nevertheless, the prevailing view among scholars of Syriac sources is that *Izlō* corresponds to the mountain's southeastern slope between Nusaybin and Idil, which is identified on modern maps as Mount Dibeck. Nevertheless, the earliest Assyrian reference to Izalla's geographical location indicates that it is situated in the region of *Turo d-Malbash* (Mount Dibeck) (Olmstead 1963, pp. 113–114; Radner 2006, p. 292ff.; Demir 2014, p. 194). The term "Autiyâra" is also used in the text to denote a geographical area situated at the transition zone between the *Tūr 'Abdīn* region to

18 A low mountain plateau in southeastern Turkey, *Tur'Abdin* is part of the Anti-Taurus mountain chain. The Tigris River bounds it to the north and east, the Mesopotamian plain to the south, and Mardin to the west. In Roman times, it was known as *Mons Masius* or *Izla* and was part of the province of Mesopotamia. *Tur'Abdin* means "Mountain of the Servants of God" in Syriac (Keser-Kayaalp 2018, pp. 1530-1531).

the east and the northern region along the Tigris River. This area is located between Aššuria and Armenia's interior. Meanwhile, the locations of the Zuzza and Uyamâ fortresses are unknown. However, the Tigra fortress is known to be located in the Upper Tigris valley (Demir 2014, p. 194).

Although the Behistun Inscription details the Persian army's response to the uprisings in Armenia, it does not provide sufficient information on the nature of the Armenian forces organizing the resistance, who their leaders were, and whether they were led by a central force or a combination of local forces. Dareios' description of Dâdaršiš as an "Armenian" in his inscription creates uncertainty as to whether he is referring to his ethnic origin or only to the geographic area from which he came. Therefore, it is difficult to relate this description to modern Armenian ethnic identity.

On the other hand, the fact that the people of Armenia spoke Persian, as mentioned by Xenophon in his *Anabasis* (Xen. *Anab.* IV.5.9–11), suggests an ethnological solid or at least linguistic Persian influence in Eastern Anatolia at that time (Bournoutian 2006, p. 23). This challenges any discernable linguistic distinction between the commanders appointed by Dareios to suppress the uprisings in Armenia. The identities of the communities in the region at the time may have also been influenced by local and cultural contexts rather than their ethnic Armenian identity in the modern sense.

The designation of the satrapy of Armenia within the Persian Empire was not based on ethnic considerations but rather on a geographical classification. Accordingly, sources from the Persian tradition indicate that the term "Armenia" was primarily employed to designate the mountainous regions to the north. This exonym reflects the Persians' prospective and geographical perception of the region. However, it is notable that archeological findings from the Achaemenid period are almost nonexistent in Eastern Anatolia and Armenia compared to findings from the Urartian period. The dearth of archeological evidence from this period presents a significant challenge for researchers. Consequently, our understanding of this period is predominantly derived from Persian royal inscriptions. Descriptions of the regions by Hellenic writers would not arise until the mid-5th century BC, approximately a century after the Persian conquests (Garsoïan 1997, p. 39).

The Achaemenid inscriptions, as noted above, can be regarded as official propaganda texts that legitimized the empire's expansionist policies and justified administrative decisions based on geographical considerations. These inscriptions served as ideological instruments to reinforce the empire's geographical control and integrate disparate populations into its administrative apparatus.

What was ancient Armenia?

The above information can be integrated to create a general definition of what Armenia *was* in the ancient world, as defined by the boundaries attributed to it. When considered in a broader context, the Euphrates River has served as a central axis for the region historically known as Armenia. To the east of the Euphrates River, the territory has extended to the Caspian Sea, whereas to the west, it has encompassed part of what is generally recognized as Asia Minor. The first of these two extensive regions was commonly designated as Armenia Minor, whereas the second was known as Armenia Minor. Local historians and Byzantine scholars identified several subdivisions within these regions, each mentioned by name. However, Hellenistic and Roman geographers largely limited themselves to these two major divisions, which seem to have been established by the successors of Alexander the Great (James 1870, p. 215).

Despite being one of the most ancient sources of information on the region, the Bible does not directly discuss Armenia. However, several Hebrew names refer to Armenia as a whole or to specific areas within it in ways that reflect the world known to the ancient Hebrews. The first of these names is Togarmah, which appears in Genesis 10:3 and Ezekiel 27:14. Gomer, mentioned alongside Togarmah, is associated with Cappadocia, whereas Ashkenaz is located in the western part of Asia Minor. Mesech, Tubal (Thubal), and the Chaldeans are located to the north of Togarmah, regions identifiable with the Moschians, Tiberians, and Chaldean peoples mentioned in ancient Hellenic and Roman sources. The second name is Ararat, famously known as the land where Noah's ark came to rest (Gen. 8:4); it is also the place to which Sennacherib's sons fled after murdering their father (2 Kings 19:37; Isa. 37:38) and one of the kingdoms called upon to rise against Babylon (Jer. 51:27). The province of Ararat was central to the kingdom, and according to Movses Khorenatsi, it was divided into 20 provinces. The third Biblical name is Minni, which likely corresponds to Minyas (Gen. 8:4), a location also referenced by Josephus (I.3.6.), who cites Nicolaus of Damascus (c. 64 BC–AD 4) in relation to traditions concerning the flood (Coleman 1855, p. 10; James 1870, p. 215).

The information contained in the Bible is highly descriptive yet lacks precision in demarcating the boundaries of the region. It merely points to specific areas and serves as a corroborative reference for earlier written sources. However, these and many other sources used to delineate the borders of Armenia inevitably present various challenges. Each source was written with different purposes in mind, and as a result, they offer differing perspectives. Consequently, any attempt to define the borders of Armenia based on these sources is inherently complex and must be approached with caution.

One of the most significant challenges in determining the borders of Armenia lies in identifying the appropriate basis for these borders. The primary criteria—be they geographical, political, or historical—offer different means of defining Armenia’s boundaries. When considering the exonym “Armenia,” defined on geographical grounds as the Eastern Anatolian lands that have historically remained on the periphery of central powers, it becomes evident that historical, political, and archaeopolitical approaches have all played influential roles in shaping the region’s borders. Throughout history, Armenia’s borders have shifted in response to various political developments. For instance, during the reign of King Tigranes the Great (c. 95–55 BC), the Armenian Kingdom’s borders expanded to their greatest extent, far beyond what is today defined as Eastern Anatolia. Conversely, the borders of the Armenian satrapy, which was part of the Persian Empire as the thirteenth satrapy, were far different. When examining ancient Hellenic and Roman sources, we observe that these sources tend to offer more geographically based definitions. Therefore, it is both biased and unscientific to use these historically fluid borders as a basis for addressing contemporary or recent political controversies.

In this part of the article, the boundaries of Armenia will be delineated based on ancient and modern sources, deliberately avoiding archaeopolitical interpretations. Regardless of the ethnological and linguistic origins of the name “Armenia,” it has historically denoted the lands of Eastern Anatolia, often described as the “upper country” or the “high country.”

The most critical sources guiding modern scholarship on this topic are the ancient Hellenic and Roman texts. These sources provide valuable information not only about the physical geography and borders but also about the political, cultural, ethnic, linguistic, architectural, economic, and livelihood structures of the region. Hekataeus of Miletus (c. 550–476 BC), who preceded Herodotus, offers the earliest chronological reference to Armenia in his *Description of the Earth* (περιήγησις). Here, he mentions the Armenioi people living south of the Chalybes, a people inhabiting the shores of the Black Sea (Εὔξεινος Πόντος) (FGrHist, Ia. F.203; Step. Byz. Ethnika=Khalybes; Lang 1970, p. 112; Chahin 2001, p. 177). Based on Hekataeus’s information, it is thus possible to infer the northern border of ancient Armenia. From the 5th century BC onwards, the Chalybes were located from Themiskyra (near modern Samsun/Terme) (BATlas 87 B3 Themiskyra) eastwards to the Paryadres Mountains (BATlas 87 C4 Paryadres M.), opposite Pharnakeia (modern Giresun) (BATlas 87 D4 Kerasous/Pharnakeia). The Chalybes were well-known for their expertise in blacksmithing and steel production. Based on information from other ancient Hellenic authors about the region inhabited by the Chalybes, we can identify the Paryadres Mountains as the northern border of Armenia during the 6th–5th centuries BC (Arslan 2007, p. 35; Demir 2009, pp. 82–83).

The first chronological source after Hekataeus regarding the borders of Armenia is Herodotus’s *Historia*. Herodotus describes Assyria as lying south of Armenia and lists the other regions adjacent to Armenia. He indicates that the border between Armenia and the

Matiens in the southeast is marked by the Euphrates River, Cilicia lies to the southwest of Armenia, and the Caucasus Mountains form the northern boundary. The eastern boundaries of Armenia extended to the sources of the Euphrates. At this point, the Arsanias (or Murat Suyu), one of the northern tributaries of the Euphrates, served as the geographical marker for this border (Hewsen 1983, pp. 128–129).

We can thus conclude that the Caucasus Mountains defined the northern border of Armenia in Herodotus's time. The Great Caucasus Mountains also represented the natural northern limit of the Persian-Achaemenid Empire, of which he was a contemporary, and the empire rarely crossed north of these mountains (Jacobs 2006: EnIr: Achaemenid Rule in Caucasus). Herodotus also mentions the peoples living in the area from the land of Pactyes to Armenia and the Euxine Sea. The Matienoi, Saspeires, and Alarodioi (Hdt. III.94.1), which Herodotus states were within the borders of the 18th satrapy and paid 200 talents in taxes, were thus among the peoples who lived in ancient Armenia in antiquity.

However, the position of the Armenian satrapy as described by Herodotus reflects the arrangements made by Darius I. Before Darius I reorganized the Persian satrapies, the Armenian satrapy was the 10th among the 20 satrapies, with broader borders. The Moschian, Tibarenoi, Makrones, Mossynoikoi, Mares, Alarodioi, and Saspeires peoples were included within these borders. Armenia, which had been organized as a satrapie during the Median kingdom in Anatolia, was restructured as a separate unit during the Persian/Achaemenid rule and was divided into two satrapies during the reigns of Xerxes I (r. 486–465 BC) and Artaxerxes I (r. 465–424 BC) (Hewsen 1983, p. 127).

Another significant work concerning Eastern Anatolia and thus Armenia is Xenophon's *Anabasis*. Xenophon provides detailed accounts of an arduous journey of survival with his mercenaries. After they crossed the mountains of Corduena under extremely challenging conditions and attacks from local forces (Xen. *Anab.* IV.1.3ff.), they reached the banks of the Kentrites River, which separated Armenia from the territory of the Carduchians. Here, they entered the territory of Armenia, caught between two enemy forces (the Armenians before them and the Carduchians behind them) and exposed to potential danger (Xen. *Anab.* IV.3.1ff.). They established a headquarters on the plain where the ancient Kentrites River flowed, which we might identify today as the Botan Stream (James 1870, p. 585; Honigmann 1935, p. 23; BAAtlas 89 D3 Kentrites). This region can therefore be defined as the Botan Valley (Saglamtimur-Schachner 2005, p. 95ff.; Schachner-Saglamtimur 2008, p. 411).

Based on Xenophon's narrative, it is reasonable to identify the contemporary southern border of Armenia as the Kentrites River. By 400 BC, the borders consisted primarily of the southwestern part of Eastern Anatolia. The Kentrites River thus marked Armenia's southernmost boundary with the Carduchians, whereas its border with the Chalybes was

delineated by a river that Xenophon mistakenly identified as the Phasis but was actually either the Araxes River or one of its tributaries (Xen. *Anab.* IV.6.4-5). Xenophon also explicitly states that the Kentrites River separated Armenia from the land of the Carduchians (Hdt. I.72.2), thereby situating the territory of Corduena to the south.

If we trace a border from the Kentrites River, as indicated by Xenophon's recollection of entering Armenia, we can deduce the following from the above sources: the northern border of Armenia was delineated by the Chalybes, known for their blacksmithing, whereas the southern border was defined by the warlike Carduchians. Herodotus mentions that the Halys River originates in Armenia (Hdt. I.72.2), leading us to the area later known as Armenia Minor, located west of the Euphrates. Armenia's border can then be extended eastward to the sources of the Euphrates (Hdt. IV.44; Xen. *Anab.* IV.5.25). In this context, the border extends to the area north of Lake Thospitis, where the Murat River originates, or to the Araxes Valley, the territory of the Matiens. The northern boundary of Armenia was defined by the Colchians and other Proto-Caucasian tribes and extended from the west of the Trapezous (now Trabzon) to the mouth of the original Phasis (or Rioni) River in Colchis. South of this boundary lived the Sasperoi, Hesperites, or Spers, localized in the upper reaches of the Çoruh Valley. Xenophon and his troops encountered the Phasis and the Toachians in a pass in the foot of the mountains about 16 kilometers north of the Araxes River, also known as the Phasis River (Hdt. IV.6.5). Given that the Sasperoi and Phasisians resided within the borders of Armenia and, despite these groups acting independently, both were therefore subordinate to the satrapy of Armenia, as the northern border of Armenia encompassed the area in which these peoples lived. This territory included lands inhabited by peoples such as the Chalybes, Chaldians, Makrones, Colchians, Mossynoi, and Tibareans. However, it appears that there was no practical Persian-Achaemenid rule over these peoples; rather, it was a formal, propagandistic rule that existed primarily as the lists of satrapies. Although we can attempt to delineate the borders of Armenia based on ancient sources, it is therefore impossible to reach a definitive conclusion.

The concept of borders, as understood today, is a modern construct. In ancient times, although there was an understanding of territorial domains or areas of influence, the notion of borders was highly fluid and variable. Indeed, the regions through which Xenophon traveled were nominally under the sovereignty of the Persian-Achaemenid Empire, but in reality, there was no clearly defined borders or control over them by the central authorities in these areas. According to the Persian-Achaemenid central administration, their sphere of influence extended to the Caucasus Mountains, but in practice, this was a matter of contention. The Chalybes, Taokhois, Phasis, and Kardouchoi mentioned earlier were local peoples that operated with considerable independence within this system. This reflects the broader reality of ancient Anatolian history, in which the territory of Armenia was home to a diverse array

of peoples, both indigenous and migratory, of various ethnicities and cultures (Hewsen 2001, p. 4).

Undoubtedly, as mentioned earlier, the rugged topography of the Eastern Anatolia Region has played a significant role in shaping the fluid nature of borders throughout history. Consequently, during Xenophon's time and in later periods, as borders shifted, moving from one territory or people to another. When delineating the boundaries of a specific area, then, the best we can do is piece together a general view of the landscape, much like assembling a puzzle. In this chapter, the attempt has been to define the borders of Armenia in a manner that aligns with our contemporary understanding of the region. For the Eastern Anatolian plateau in the early 4th century BC and the areas to which the exonym "Armenia" was applied, this approximation holds true.

Following Xenophon, Diodorus Siculus serves as another ancient source providing chronological information about Armenia. Diodorus also provides details related to the The Ten Thousand (οἱ Μύριοι). Similar to Xenophon, he notes that the Hellenes entered Armenia after crossing the Kentrites River (Diod. XIV.27.7). However, Diodorus' account here diverges from Xenophon's. In Diodorus' narrative, Tiribazus is directly introduced as the satrap of Armenia, with no mention of Orontes I. This difference highlights some contradictions between the two accounts.

Strabo's *Geographica* is another invaluable work that offers insight into the historical geography of Armenia in the first century BC (about 24 BC). In fact, many authors relied heavily on the information provided by Strabo until the 18th century (Galichian 2014, p. 14ff.). When Strabo discusses the borders of Armenia, he references Eratosthenes, who lived about two centuries prior and is regarded as one of the founding fathers of geography. By doing so, Strabo allows for more detailed inferences about the Armenian region. According to Strabo, the distance between Thapsacus¹⁹ and Armenia, located further north, is one thousand and one hundred *stadia*, with the western border delineated by the Euphrates River. This corroborates the information provided by other ancient authors who also identified the Euphrates as Armenia's western boundary (Strab. II.1.23/26).

Strabo also draws from Theophanes of Mytilene, who estimated the width of Armenia to be one hundred *schoenus* and its length to be twice that. However, Strabo finds these values too high and offers corrections. He suggests that the length of Armenia should be reckoned as one hundred *schoenus* and proposes also reducing the width by half, or slightly more than half, of that value (Strab. XI.14.11).

19 Thapsacus, whose location has been the subject of various suggestions, is thought to have been near the ancient Carchemish on the west bank of the Euphrates or at Seleucia at Zeugma on the upper Euphrates (Farrell 1961, p. 153).

Continuing with his description of Armenia's borders, Strabo states that the region's southern boundary is defined by the Taurus Mountains, which separate Armenia from Mesopotamia. He adds that to the east lie the Greater Media and Atropatene,²⁰ with the Araks River forming the border between Armenia and Atropatene. To the north, the Parachoathras²¹ Mountains, which stretch along the length of the Caspian Sea, encompass the peoples living in Albania, Iberia, and Caucasia, thereby forming Armenia's northern boundary (Strab. XI.14.1). Strabo references Apollodorus of Athens for these boundaries. According to this account, the border between Armenia and Iberia is delineated by the Arakses (or Aras) River, but primarily by the Cyrus (or Kura) River and the Moschian Mountains (Strab. I.3.21). The Arakses River, which defines the boundary between Armenia and Iberia, also serves as the border between Armenia and Albania, eventually flowing into the Caspian Sea (Strab. XI.14.4). In addition, certain sections of the Caucasus Mountains extend into the interior of Iberia and mark the borders with Armenia and Colchis (Strab. XI.3.2, 14.1). The western boundary of Armenia is meanwhile formed by the Paryadres and Skydides Mountains, which extended into Armenia Minor. The lands along the course of the Euphrates River thus separated Armenia from Cappadocia and Commagene (Strab. XI.1.7, 14.1).

In this context, Pliny the Elder provides detailed information about the borders of Armenia Major in his *Naturalis Historia*. He explains that Armenia Major begins at the Paryadres Mountains. The region is separated from Cappadocia by one of the two famous rivers, the Euphrates, and from Mesopotamia by the equally renowned Tigris River. The westernmost course of the Euphrates marks the region's western border. Pliny also notes that both the Euphrates and the Tigris originate in Armenia and that Mesopotamia lies between them. Furthermore, he states that the natural border between Armenia Major and Armenia Minor is drawn by the Absarus (or Absarros) River, which originates from the Paryadres Mountains. The northern and northeastern borders of the region are defined by the Cyrus River, which joins the Arakses and flows into the Caspian Sea. The western and northwestern borders of Armenia Major are marked by the Moschian Mountains and the Euphrates, part of the Caucasus Mountain System (the Lesser Caucasuses), which connect the Caucasus Mountains with the Anti-Taurus Mountains and are today part of Georgia. The southern and southeastern boundary is delineated by the Masius, Niphates, and the lower reaches of the Gordiæan Araxes, whereas the eastern boundary is defined by the confluence of the Cyrus and Araxes (Plin. *nat.* VI.9–10).

20 According to Strabo, the Atropatene (modern Adarbadagan, Azerbaijan), located northeast of the Matiane and adjacent to it, lies to the northwest of the Great Media, with the Hyrcanian (Caspian) Sea to its east. It is separated from Armenia to the west by the Arakses River (Strab. XI.13.2, 6, 14.1, 13; BAtlas II, 1292; Chaumont 1987: EnIr: Atropates; Schippmann 1987, pp. 211–224; Boyce and Grenet 1991, p. 69).

21 The Parachoathras mountains, which can be equated with the mountain system stretching along the north of Iran, now known as the Elbrus Mountains, are thought to derive their name from the word *Pateishoreis*, or *Pâtishuvari* in Old Persian, meaning “people of the country on the sunny side of the mountain” (Brunner 2004: EnIr: Iran v. Peoples of Iran (2) Pre-Islamic; Bobek 2019).

According to Ptolemy, meanwhile, Armenia Major was bounded in the north by parts of Colchis, Iberia, and Albania along a line crossing the Cyrus River, in the west by Cappadocia and the line of the Moschian Mountains of Pontic Cappadocia extending to Colchis; and in the east by part of the Hyrcanian Sea, starting from the mouth of the Cyrus River. In the south, the region was bordered by Mesopotamia along the Taurus Mountains, which merged with the Euphrates and then the Tigris. The southern boundary continues along a straight line with Assyria, following the Niphates Mountains, and merges with the previously mentioned border near the Caspian Mountains (Ptol. V.13.1-4).

It is therefore possible to infer the borders of the satrapy of Armenia, which was part of the satrapal system within the administrative structure of the Persian Empire, by examining the written sources from Persia, Ancient Greece, and the earlier civilizations (such as Assyria and Urartu) that had once existed in the region. Some of the ancient borders of Armenia (which differ from those of the area we define today as Eastern Anatolia) extended beyond the current political borders of the country. Armenia, as defined by the ancient sources, is a mountainous region in Asia Minor, situated north of Syria and Mesopotamia, bordered by the Media Atropatene and Lake Spauta (Σπαῦτα, or Urmia) to the east, Cappadocia and Commagene to the west, and Cilicia to the southwest (Vaux 1872, p. 1031). The region known as Armenia Major, after Pompeius's reorganization of Asia Minor, lay east of the upper Euphrates and was bordered to the north by Thospitis (Θωσπίτις λίμ, now Lake Van) and along the valley of the Arakses, which flows into the Caspian Sea, extending northward to the southern borders of the small kingdom of Iberia, south of Lychnitis (Λυχνίτις, Lake Sevan, or Lake Gökçe), the Cyrus River, and the lower part of the Caucasus Mountains. The northeastern border of Armenia was the territory inhabited by the Matiens. Its elevation contributed to its isolation from surrounding regions, particularly from the low plains of Mesopotamia. This isolation, coupled with its rugged topography, served as a deterrent to external invasions or outright conquests. However, this same rugged terrain also created distinct subregions within Armenia, each fostering its own subcultural groups, dialects, and traditions. This fragmentation is reflected in the political landscape of the region, a reality evident throughout nearly every period of Armenia's history. There were different entry points into Armenia from Mesopotamia. These included Sophene (Tunceli/Elâziğ) from the southwest and Tomisa (Strab. XIV.2.29; Polyb. VIII.34.13), an important crossing point of the Euphrates in Cappadocia, from the southeast (Elâziğ/Baskil). The strategic significance of these regions continued to be recognized throughout the centuries. Indeed, passage through this point was necessary to access the Sophene region (Hdt. III.89ff.; Cameron 1943, p. 307ff.; Briant 2002, p. 173; Bournoutian 2006, p. 5; Payaslian 2011, p. 5; Drower et al. 2012, p. 164; Mitchell 2015, p. 363ff.; Çiğdem-Topaloğlu 2018, pp. 427-428).

Conclusions

A spatial analysis of the borders of ancient Armenia demonstrates that the concept of borders in the ancient world was multifaceted, encompassing both geographical and sociopolitical dimensions. They were shaped by a multitude of factors, including social structures, imperial strategies, and the internal dynamics of the region. The borders of Armenia assumed disparate meanings throughout the course of its ancient history, creating a nexus where local identities, cultural continuity, and imperial interests were mutually constituted.

In their writings, ancient authors such as Herodotus, Strabo, Pliny, and Ptolemy defined the borders of Armenia not only in geographical terms but also in terms of cultural, ethnic, and political elements. Herodotus' descriptions of Armenia's borders in his *Historia* were made in reference to the Persian administrative structure of the period. In contrast, Strabo's emphasis on geographical calculations and natural barriers in his *Geographica* contributed to a deeper understanding of borders in the Hellenistic world. In defining these borders, Strabo focused on Armenia's function as a strategic border region based on the Eratosthenes' mathematical calculations and his knowledge of Hellenistic geographical data. These definitions demonstrate that the borders of Armenia reflected the political and geographical imaginations embedded in the knowledge systems of the time. In other words, borders were determined not only as a result of physical geography but also as a reflection of political concerns and geopolitical strategies.

The Roman Empire's designation of Armenia as a border region provides a clear illustration of borders being used as a political instrument. Pliny's *Naturalis Historia* illustrates the strategic importance of Armenia as a buffer zone on the eastern border of the Roman Empire, with military passageways and fortifications in place to protect it. Pliny underscores the notion that borders were not merely physical barriers but also strategic points where political dominance was consolidated. This demonstrates that borders were not perceived as a mere geographical boundary between states but rather as domains of power and influence. Similarly, the organization of Armenia as a satrapy during the Persian Empire was conducted with the objective of preserving the region's sociocultural identity. In addition to military security, the continuity of local identities was taken into account when defining borders. The Persian administration therefore accorded due consideration to the cultural autonomy and ethnic diversity of the region alongside its geographical realities. These borders were thus conceived as a kind of "cultural buffer" zone.

When the impacts of the Roman and Persian Empires on Armenia are examined, it becomes evident that ancient borders were not merely lines on a map; rather, they were products of political and cultural considerations that allowed communities to safeguard their distinct identities. This illustrates the pivotal role played by the sociopolitical structure of Armenia in the maintenance of cultural diversity. The semiautonomous form of government offered by the

Persian satrapal system provided a degree of ethnic and cultural autonomy within Armenia's political borders, thereby facilitating the preservation of the region's cultural identity.

A spatial analysis of Armenia's borders thus illustrates the intricate nature of borders as a concept in antiquity. Ancient borders were not solely delineated by physical geography; they were also shaped by political and cultural considerations. They served not only as barriers but as spaces for both social segregation and interactions. By integrating the subjective appraisals of ancient authors with contemporary spatial analysis techniques, this study has ascertained the extent to which imperial policies and perspectives were reflected in border delineations, thereby contributing to a more nuanced understanding of Armenia's historical geography. This comprehensive analysis reinforces the idea that ancient borders were the multifaceted product of geographies, regional interactions, political strategies, and cultural affiliations. They were not static structures but a process that was reshaped by constantly changing political conditions and cultural dynamics. Ancient borders can therefore be understood through a multidimensional analysis as both a physical and social reality.

Ethics Committee Approval: N/A.

Peer-review: Externally peer-reviewed.

Grant Support: The author declared that this study has received no financial support

Conflict of Interest: The author has no conflict of interest to declare.

References

Ancient References

AŠX: (= Anania Širakac' i, Ašxarhac' oyc')

The Geography of Ananias of Širak: (Ašxarhac' oyc'): The Long and the Short Recensions. (Griş, Çeviri ve Yorum) Robert H. Hewsen (1992). Weisbaden: Dr. Ludwig Reichert Verlag.

BAtlas: (= Barrington Atlas of the Greek and Roman World)

Barrington Atlas of the Greek and Roman World. (Ed.) Richard J. A. Talbert. (2000). Princeton; Oxford: Princeton University Press.

DB: (= Darius, Behistun)

The Sculptures and Inscription of Darius the Great on the Rock of Behistûn in Persia (Ed.) L. W. King ve R.C. Thompson (1907). London: Oxford University Press.

Diod: (= Diodorus Siculus, Bibliothek Historike)

Diodorus of Sicily. (Trans.) Geer, R. M. (1947). Cambridge; MA; London: Harvard University Press - The Loeb Classical Library

FGrHist: (= Die fragmente der griechischen Historiker)

Die fragmente der griechischen Historiker I-XV. (Ed.) F. Jacoby. (1923-1958). Berlin-Leiden: Brill.

Hdt: (= Herodotus, Historiai)

- Herodotus, *The Persian Wars, I-IV*. (Trans.) Godley A. D. (1920-1925). Cambridge; MA; London: Harvard University Press-The Loeb Classical Library
- Herodotos, *Historiai*). Kullanılan Metin ve Çeviriler: Herodotus. (İng. çev. A. D. Godley). Cambridge, Mass.-London. 1920.
- Ioseph: (= Iosephus)
- : *Antiq. Iud.* (= *Antiquitates Iudaicae*)
- Flavius Josephus: *Jewish Antiquities* (Trans.) Marcus R. (1934). Cambridge: Harvard University Press – Loeb Classical Library
- : *Bell. Iud.* (= *Bellum Iudaicum*)
- Flavius Josephus: *The Jewish War*. (Trans.) Thackeray, H. St. J. (1927). Cambridge: Harvard University Press – Loeb Classical Library.
- Ksen: (= Ksenophon)
- : *Anab.* (= *Anabasis*)
- Ksenophon, *Anabasis I-VII*. (Trans.) Brownson, C. L. (1922). Cambridge: Harvard University Press. - Loeb Classical Library
- Ksenophon, *Anabasis Onbinlerin Dönüşü*, (Trans.) Yarlıgaş, O. (2011) Kabalcı Yay., İstanbul.
- Ptol.: (= Claudius Ptolemaeus, *Geographike Hyphegesis*)
- Klaudios Ptolemaios *Handbuch der Geographie (Griechisch-Deutsch)*. (Trans.) Stückelberger, A. and Graßhoff, G. (2017). Basel: Schabe Verlag.
- Strab.: (= Strabon, *Geographika*)
- The Geography of Strabo I-VIII*. (Trans.) Jones, H. L. (1917-1932). Cambridge: Harvard University Press – Loeb Classical Library
- Strabon, *Coğrafya*. (Trans.) Pekman, A. (2000). İstanbul: Arkeoloji ve Sanat Yayınları.
- Tac.: (= Publius Cornelius Tacitus)
- : *ann.* (= *Annales*)
- The Annals*. (Trans.) Jackson, J. (1969). Cambridge, Mass.-London-The Loeb Classical Library.

Epigraphical Refences

ARAB: (= Ancient Records of Assyria and Babylonia)

Ancient Records of Assyria and Babylonia, I-II. (Trans.). Luckenbill, D.D. (1926). Chicago: University of Chicago Press.

Modern References

Anguisolla-Grüner 2020 Anguisolla, A., Andreas Grüner, “Nature and Culture in the Natural History”, *The Nature of Art. Pliny the Elder on Materials, Art and Materiality: Textual and Visual Experiences Series* (Ed. Anna Anguisolla, Andreas Grüner), Brepols.

- Anguisolla 2022 Anguisolla, A., *Pliny the Elder and the Matter of Memory, An Encyclopaedic Workshop*. New York: Routledge.
- Adontz 1946 Adontz, N., *Historie d'Arménie: Les Origines du Xe Siècle au VIe (Av. J.-C)*. Paris: Union Générale Arménienne de Beinfaisance.
- Adontz 1970 Adontz, N., *Armenia in the Period of Justinian. The Political Conditions Based on the Naxarar System*. (N. G. Garsoïan, Trans.). Lisbon: Calouste Gulbenkian Foundation.
- Archibald-Davies-Gabrielsen 2011 Archibald, H. Z., Davies J., Gabrielsen V., Oliver G. *Hellenistic Economies*. London: Routledge.
- Arınç 2011 Arınç, K., *Doğal, İktisadi, Sosyal ve Siyasal Yönleriyle Türkiye'nin İç Bölgeleri, Biyosfer Araştırmaları Merkezi*. Coğrafya Araştırmaları Serisi No. 101. Erzurum: Eser Ofset.
- Arslan 2007 Arslan M., *Mithradates VI Eupator. Roma'nın Büyük Düşmanı*. İstanbul: Odin Yayıncılık.
- Asheri ve et.al. 2007 Asheri, D., Lloyd A., Corcella A., *A Commentary on Herodotus Books I-IV (Bks. 1-4)*. Oxford University Press.
- Atalay-Mortan 2006 Atalay, İ., Mortan K., *Türkiye Bölgesel Coğrafyası*. İstanbul: İnkılap Kitabevi.
- Axworthy 2016 Axworthy, M., *İran Aklın İmparatorluğu Zerdüşt'ten Günümüze İran Tarihi*. İstanbul: Say Yayınları.
- Badalyan et. al 2003 Badalyan, R., Smith, A.T., Avestiyan, P., "The Emergence of Sociopolitical Complexity in Southern Caucasia: An Interim Report on The Research project ArAGATS" In A. T. Smith & K.S. Rubinson (Eds.), *Archeology in the Borderlands. Investigations in Caucasia and Beyond*. (pp. 144-166). Los Angeles: University of California,
- Badalyan-Smith-Khatchadourian 2010 Badalyan, R.S., Smith A.T., Khatchadourian, L., "Aragats Projesi: Ermenistan Tsaghkahovit Ovası'nda 10 Yıldır Sürdürülen Tunç ve Demir Çağı Araştırmaları", *TÜBA-AR, Türkiye Bilimler Akademisi Arkeoloji Dergisi 13*, 263-276.
- Barnett 1982 Barnett, R. D., "Urartu". *CAH, III*, 71, 215-365.
- Beagon 2005 Beagon, M., *The Elder Pliny on the Human Animal: Natural History Book 7 (Clarendon Ancient History Series)*. Oxford: Oxford University Press.
- Belli 1978 Belli, O., "Urartu Sanatının Sosyo-Ekonomik Açından Eleştirisi Üzerine Bir Deneme", *Anadolu Araştırmaları VI*, 45-95. İstanbul.
- Belli 1982 Belli, O., "Urartular". *Anadolu Uygarlıkları Ansiklopedisi I*, 139-208. İstanbul: Görsel Yayınlar.
- Belli 1996 Belli, O., "Doğu Anadolu Bölgesi'nde Keşfedilen Urartu Barajlarına Toplu Bir Bakış", *Belleten*, 60/229, Ankara: Türk Tarih Kurumu, s. 631-680.
- Birley 2000 Birley, A.R., "The Life and Death of Cornelius Tacitus", *Historia: Zeitschrift für Alte Geschichte, Bd. 49, H. 2 (2nd Qtr., 2000)*, 230-247.
- Bobek 2019 Bobek, H., "Elbruz Mountains". *Encyclopedia Britannica*. <https://www.britannica.com/place/Elburz-Mountains>
- Bournoutian 2006 Bournoutian, G. A., *A Concise History of the Armenian People, From Ancient Times to the Present*. California: Mazda Publishers.
- Bournoutian 2011 Bournoutian, G.A., *Ermeni Tarihi Ermeni Halkının Tarihine Kısa Bir Bakış*. İstanbul: Aras Yayıncılık.

- Boyce and Grenet 1991 Boyce M., Grenet F., *A History of Zoroastrianism, Zoroastrianism Under Macedonian and Roman Rule: 3.* (Handbook of Oriental Studies. Section 1 the Near and Middle East, Religion). Brill
- Briant 2002 Pierre, B., *From Cyrus to Alexander: A History of the Persian Empire.* (P. T. Daniels, Çev.). Winona Lake: Eisenbrauns.
- Brosius 2006 Brosius, M., *The Persians. An Introduction.* London-New York: Routledge.
- Brunner 2004: EnIr: Iran v. Peoples of Iran (2) Pre-Islamic Brunner, C. J. "İRAN v. PEOPLES OF IRAN (2) Pre-Islamic". Encyclopedia Iranica [Elektronik Sürüm]. <https://iranicaonline.org/articles/iran-v2-peoples-pre-islamic>
- Burney and Lang 1971 Lang, D. M., Burney C., *The peoples of the hills: Ancient Ararat and Caucasus, History of Civilization Series.* London: Weidenfeld & Nicolson.
- Cameron 1973 Cameron, G.G., "The Persian Satrapies and Related Matters". *Journal of Near Eastern Studies* 32, ½. Chicago: The University of Chicago Press.
- Can 2007 Can, B., "Antik Kaynaklar Işığında Kuzeydoğu Anadolu Bölgesi Tarihi ve Kültürel Coğrafyası". (Ed.) Işıklı M. & Can B. *Doğudan Yükselen Işık Arkeoloji Yazıları*, 189-206, Erzurum: Atatürk Üniversitesi Yay.
- Casabone 2007 Casabonne, O., "Büyük Kral ve Persler". *ArkeoAtlas, VI*, 20-35.
- Castellucia 2019 Castellucia, M., "The Border between War and Peace. Power and propaganda and Achaemenid Art". *Actual Problems of Theory and History of Art IX*, 56-66-fig., 809-811.
- Chahin 2001 Chahin, M., *The Kingdom of Armenia.* London: Routledge.
- Chaumont 1987: EnIr: Atropates Chaumont, L. M. "ATROPATES". Encyclopedia Iranica [Elektronik Sürüm]. <https://iranicaonline.org/articles/atropates-aturpat-lit>
- Coleman 1855 Coleman, L., *An Historical Text Book and Atlas of Biblical Geography.* Philadelphia: Presbyterian Board of Publication.
- Cook 1983 Cook, J. M., *The Persian Empire.* New York: Schocken Books.
- Çiğdem 2000 Çiğdem, S., "Başlangıçtan Eski Tunç Çağı Sonuna Kadar Erzurum ve Yöresi Geçim Kaynakları". *Atatürk Üniversitesi Sosyal Bilimler Dergisi*, 26, 197-210.
- Çiğdem-Can 2006 Çiğdem, S., Can, B., "Erzurum Müzesi'nde Bulunan Tarım Aletleri Işığında Geç Kalkolitik ve Tunç Çağlarında Bölgedeki Tarımsal Aktiviteler". *Anatolia*, 29, 13-27.
- Çiğdem-Topaloğlu 2018 Çiğdem, S., Topaloğlu, Y. "Eski Çağ'da Doğu Anadolu'nun İktisadi Hayatı Üzerine Genel Bir Değerlendirme", (Ed.) Gökçek, L. G., Yıldırım, E., Pekşen O. *Anadolu'nun Eskiçağlarında İktisadi ve Zirai Hayat*, 413-457. İstanbul: Değişim Yayınları.
- Çilingiroğlu 1984 Çilingiroğlu, A., *Urartu ve Kuzey Suriye, Siyasal ve Kültürel İlişkiler.* İzmir: Ege Üniversitesi Yayını.
- Çilingiroğlu 1994 Çilingiroğlu, A., *Urartu Tarihi.* Bornova: Ege Üniversitesi Edebiyat Fakültesi Yayınları.
- Çilingiroğlu 1997 Çilingiroğlu, A., *Urartu Krallığı Tarihi ve Sanatı.* İzmir: Yaşar Eğitim ve Kültür Vakfı.
- Dandamaev & Lukonin 2004, Dandamaev, M.A., Lukonin, V.G., *The Culture and Social Institutions of Ancient Iran.* Cambridge University Press.
- Dandamayev 2011: EnIr: Cyrus Dandamayev, M.A., "CYRUS iii. Cyrus II The Great", Encyclopedia Iranica VI, [Elektronik Sürüm], <https://www.iranicaonline.org/articles/cyrus-iii>

- Demir 2005 Demir, M., “Eskiçağ Tarih Yazıcılığında Herodotos’un Yeri ve Önemi”, *Tarih İncelemeleri Dergisi* 2, 59-78.
- Demir 2009 Demir, M., “Antik Dönemde Bir Doğu Karadeniz Kavmi: Khalybler” (Ed.) İltar, G. *Giresun ve Doğu Karadeniz Sosyal Bilimler Sempozyumu 09-11 Ekim 2008*, 67-85. Ankara.
- Demir 2014 Demir, M., “Roma – Armenia İlişkileri (M.Ö. 95 – M.S. 118)”. *Tarihte Türkler ve Ermeniler I*, 55-98. Ankara: TTK Yay.
- Demir 2019 Demir, M., “Marcus Antonius’un Parthia Savaşı’nın (MÖ 40-33) Sebepleri ve Sonuçları Üzerine Bazı Değerlendirmeler”. *TÜBA-AR* 24, 149-168.
- Doğan 2023 Doğan, A., “Panorama of a River in Antiquity: The Araxes”, *Archivum Anatolicum (ArAn)*, 17/1, 127-142.
- Dönmez 2016 Dönmez, Ş., *Anadolu ve Ermeniler, Kızılırmak Havzası Demir Çağı Toplumunun Doğu Anadolu Yaylasına Büyük Göçü*. İstanbul: Anadolu Öntarih Yayınları 1.
- Drower et.al 2012 Drower, S. M., E., W., Gray, Sherwin-White, M., S., “Armenia” (Ed.) Simon Hornblower & Antony Spawforth. *The Oxford Classical Dictionary (3rd Edition)*, 170-171. Oxford: Oxford University Press.
- Emir ve Çiğdem 2017 Emir O., Çiğdem, S., “Yüzey Araştırmaları Işığında Tarih Öncesi Dönemlerde Bayburt ve Çevresi”, *Prof. Dr. Recep Yıldırım’a Armağan, (Ed. Pınar Pınarcık, Bilcan Gökce, C. S. Kandal)*, Ankara: Bilgin Kültür Sanat, 161-173.
- Emir 2020, Emir, O., “Yüzey Araştırmaları ve Antik Kaynaklar Işığında Güneyden Trabzon ve Araklı Limanlarına Ulaşan Tarihi Yollar”, *Geçmişten Günümüze Karadeniz’de Ulaşım, (Ed. Mehmet OKUR, Ülkü KÖKSAL, Volkan AKSOY)*, Trabzon: Karadeniz Teknik Üniversitesi Yayınları, 1-22.
- Emir, Köse ve Topaloğlu 2024, Emir, O., Köse İ., Topaloğlu, Y., “An Evaluation of the Return Route of the Ten Thousand and Theches Hill: Araklı/Sürmene– Bayburt Road”, *Atatürk University Turcology Research*, 79, 49-61.
- Erinç 1953 Erinç, S., *Doğu Anadolu Coğrafyası*, cilt no:15, sayı: 572. İstanbul: İstanbul Üniversitesi Coğrafya Enstitüsü Yayınları.
- Erzen 1992 Erzen, A., *Doğu Anadolu ve Urartular, XX. dizi, sayı 8*, Ankara: Türk Tarih Kurumu.
- Farrell 1961 Farrell, W. J., “A Revised Itinerary of the Route Followed by Cyrus the Younger through Syria, 401 B. C.”, *The Journal of Hellenic Studies* 81, 153–155.
- Frayne 1993 Frayne, D.R., Sargonic and Gutian Periods (2334 – 2113 BC). *The Royal Inscriptions of Mesopotamia, Early Periods*, II, Toronto; Buffalo; London: University of Toronto Press.
- Frye 1976 Frye, R. N., *The Heritage of Persia*. London: Weidenfeld & Nicholson.
- Galichian 2014 Galichian, R., *Historical Maps of Armenia*. The Cartographic Heritage, London: Bennet & Bloom.
- Garsoïan 1989 Garsoïan, N., *The Epic Histories Attributed to Peawstos Buzand, “Buzandaran Patmutedwne”* (Garsoïan N.G., Trans.). *Harvard Armenian Texts and Studies*, 8. Harvard: Harvard University Press.
- Garsoïan 1997 Garsoïan, N., “The Emergence of Armenia”. *Armenian People from Ancient to Modern Times I*, (Ed.) Hovannisian R., G. 37-62. New York: St. Martin’s Press.
- Ghirshman 1954 Ghirshman, R., *Village Perse-Achéménide, Mémoires de la Mission Archéologique en Iran, XXXVI*. Paris: Presses Universitaires de France.

- Goodspeed 1899 Goodspeed, G.S., “The Persian Empire from Darius to Artaxerxes”. *The Biblical World*, 14, 4, 251-257.
- Grayson 1972 Grayson, A.K., *Assyrian Royal Inscriptions I: From the beginning to Ashur-resha-ishi I. Records of the Ancient Near East II*. Wiesbaden: Otto Harrassowitz Verlag.
- Grayson 1976 Grayson, A. K., *Assyrian Royal Inscriptions II: From Tiglath-Pileser I to Ashur-nasir-apli II. Records of the Ancient Near East II*. Wiesbaden: Otto Harrassowitz Verlag.
- Grayson 1987 Grayson, A. K., *Assyrian Rulers 3rd and 2nd Millenia BC (to 1115 BC), Royal Inscriptions of Mesopotamia*. Assyrian Periods, I. Toronto: University of Toronto Press.
- Grayson 1991 Grayson, A. K., *Assyrian Rulers of the Early First Millennium BC I (1114-859 BC), Royal Inscriptions of Mesopotamia*. Assyrian Periods II. Toronto: Toronto University Press.
- Grayson 1996 Grayson, A. K., *Assyrian Rulers of the Early First Millennium BC II (858-745 BC), The Royal Inscriptions of Mesopotamia*. Assyrian Period III. Toronto: University of Toronto Press.
- Grousset 2019 Grousset, R., *Başlangıcından 1071’e Ermenilerin Tarihi*. (Dolanoğlu, S. Çev.). İstanbul: Aras Yay.
- Hewsen 1983 Hewsen, R.H., “Introduction to Armenian Historical Geography III: The Boundaries of Orontid Armenia”. *REArms* 18, 347-366.
- Hewsen 1997 Hewsen, R. H., “The Geography of Armenia”. *The Armenian People from Ancient to Modern Times I* (Ed.) Hovannisian, R.G. 1-17. New York: St. Martin’s Press.
- Hewsen 2001 Hewsen, R.H., *Armenia: A Historical Atlas*. London: The University of Chicago Press.
- Honigmann 1935 Honigmann, E., *Die Ostgrenze des Byzantinischen Reiches*. Bruxelles: Editions de l’Institut de Philologie et d’Histoire Orientales.
- Hübschmann 1904 Hübschmann, H. J., *Die Altarmenischen Ortsnamen, mit Beiträgen zur historischen Topographie Armeniens und einer Karte*. Straßburg: Verlag von Karl J. Trübner.
- Işıklı 2005 Işıklı, M., *Doğu Anadolu Erken Transkafkasya Kültürünün Karaz, Pulur ve Güzelova Malzemesi Işığında Tekrar Değerlendirilmesi* (Yayınlanmış Doktora Tezi). İzmir: Ege Üniversitesi Sosyal Bilimler Enstitüsü Arkeoloji Anabilim Dalı.
- Işıklı 2010 Işıklı, M., *Doğu Anadolu Erken Transkafkasya Kültürü, Çok Bileşenli Gelişkin bir Kültürün Analizi*. İstanbul: Arkeoloji ve Sanat Yayınları.
- Işıklı 2015 Işıklı, M., “The Kura Araxes Culture in the Erzurum Region: in the Erzurum Region the Process of Its Development”. *TÜBA-AR*, 18, 51-69.
- Işıklı-Can 2007 Işıklı, M., Can, B., “Erzurum Region in the Early Iron Age: New Observations”. *Anatolian Iron Ages 6: The Proceedings of the sixth Anatolian Iron Ages Colloquium held at Eskişehir*. 153-166.
- Işıklı-Parlıtı 2019 Işıklı M., Parlıtı, U., “Doğu Anadolu Geç Demir Çağı: Sorunlar ve Çözümsel Perspektifler”, Orta ve Doğu Anadolu Geç Demir Çağı: Post Urartu, Med ve Akhaimenid İmparatorlukları. (Ed.) Özfırat, A., Dönmez, Ş., Işıklı, M., Saba, M. İstanbul: Ege Yayınları. 117-128.
- Jacobs 2006: EnIr: Achaemenid Rule in Caucasus Jacobs, B., “CAUCASUS, iii. ACHAEMENID RULE IN”, *Encyclopedia Iranica* [Elektronik Sürüm], <https://iranicaonline.org/articles/caucasus-iii>
- Jacobs 2011: EnIr: Achaemenid Satrapies Jacobs, B., “ACHAEMENID SATRAPIES”, *Encyclopedia Iranica* [Elektronik Sürüm], <https://iranicaonline.org/articles/achaemenid-satrapies>

- James 1870 Boucher, J. E., "Centrites". *A Dictionary of Greek and Roman Geography I.* (Ed.) William Smith, W. London: John Murray, Albemarle Street. 585.
- James 1870 Boucher, J. E., "Araxes". *A Dictionary of Greek and Roman Geography I.* (Ed.) William Smith, London: John Murray, Albemarle Street. 215-218.
- James 1870 James, E.B., "Armenia". *A Dictionary of Greek and Roman Geography I.* (Ed.) William Smith. London: John Murray, Albemarle Street, s. 215-218.
- Jones A. Raymond (2024, May 21). Ptolemy. Encyclopedia Britannica. <https://www.britannica.com/biography/Ptolemy>
- Kalkan 2008 Kalkan, H., *MÖ 6-4. Yüzyıllarda Doğu Anadolu: Arkeolojik Veriler Işığında Tarihsel ve Kültürel Değerlendirme (Basılmamış Doktora Tezi)*. İzmir: Ege Üniversitesi, Sosyal Bilimler Enstitüsü.
- Keser-Kayaalp 2018 Keser-Kayaalp, E., "Tur Abdin". *The Oxford Dictionary of Late Antiquity I.* 1530-1531.
- King-Thompson 1907 King, W. L., Thompson, R. C., *The Sculptures and Inscription of Darius the Great on the Rock of Behistun in Persia*. London: British Museum.
- Konyar 2006 Konyar, E., "An Ethno-Archaeological Approach to the "Monumental Rock Signs" in Eastern Anatolia", *Colloquium Anatolicum* 5, 113-126.
- Konyar 2011 Konyar, E., "Excavations at the Mound of Van Fortress/Tuspa", *Colloquium Anatolicum X*, 147-166.
- Konyar 2022 Konyar, E., *Urartu: Aşiretten Devlete*, İstanbul: Homer Yayınları.
- Köroğlu 2011 Köroğlu, K., "Urartu: Krallık ve Aşiretler". *Urartu-Doğu'da Değişim* (Haz.) Köroğlu K., Konyar E. İstanbul: Yapı Kredi Yayınları. 12-51.
- Köroğlu-Konyar 2011 Köroğlu, K., Konyar, E., (Ed.), *Urartu: Transformation in the East, Anadolu uygarlıkları serisi*. İstanbul: Yapı Kredi Yayınları.
- Kuhr 2010 Kuhr, A., *Eski Çağ'da Yakındoğu I-II.* (Şendil D., Çev). İstanbul: Türkiye İş Bankası Kültür Yayınları.
- Lang 1970 Lang, D. M., *Armenia, Cradle of Civilization*. London: George Allen & Unwin Ltd.
- Lee 2007 Lee, J. W.I., *A Greek Army on The March. Soldiers and Survival in Xenophon's Anabasis*. Cambridge: Cambridge University Press.
- Lehmann-Haupt 1928 Lehmann-Haupt C., Ferdinand F., *Corpus Inscriptionum Chaldicarum I-II*. Berlin-Leipzig: Walter de Gruyter GmbH.
- Loon 1966 Loon, M. G., *Urartian Art: Its Distinctive Traits in the light of New Excavations*. Leiden: Nederlands Instituut Voor Het Nabije Oosten.
- Luckenbill 1912 Luckenbill, D. D., "Inscriptions of Early Assyrian Rulers". *AJSL, XXVIII*, 3. Chicago: The University of Chicago Press. 153-203.
- Luckenbill 1926 Luckenbill, D.D., *Ancient Records of Assyria and Babylonia I*. Chicago: University of Chicago Press.
- Luckenbill 1927 Luckenbill, D. D., "Notes on the Assyrian Historical Texts". *JNES*, 43, 3, 208-225.
- Melik'ışvili 1960 Melik'ışvili, G.A., *Urartskie Klinoobraznye Nadpisi*. Moskova: Izdatel'stvo Akademii nauk SSSR.
- Messerschmidt 1911 Messerschmidt, L., Weber, O., Delitzsch, F., Schroeder, O., "Keilschriften aus Assur historischen Inhalts". *WDOG*, 16, 37. Leipzig: J.C. Hinrichs.

- Mitchell 2015 Mitchell, C., “The Testament of Darius (DNA/DNB) and Constructions of Kings and Kingship in 1-2 Chronicles”. *Political Memory in and after the Persian Empire*. Atlanta: SBL Press. 363-380.
- Olmstead 1948 Olmstead, A.T.E., *History of the Persian Empire*. Chicago: University of Chicago Press.
- Olmstead 1963 Olmstead, A. T. E., *History of Assyria*. New York and London: Charles Scribner’s Sons.
- Payaslian 2011 -Payasliyan, S., *The History of Armenia, From the Origins to the Present*. New York: Palgrave Macmillan.
- Pehlivan 1991 Pehlivan, M., *Daya(e)ni/Diau(e)hi, (Uruatri-Nairi Konfederasyon Döneminden Urartu’nun Yıkılışına Kadar)*. Erzurum: Atatürk Üniversitesi Fen-Edebiyat Fakültesi Yayınları No. 124.
- Pekşen 20181 Pekşen, O., “Asur Kral Yıllıklarına Göre Asur Krallarının Anadolu’ya Düzenledikleri Askeri Seferler, Sefer Güzergâhları ve Kentler”, *Eski Yakınođu’da Ulaşım Üzerine Yazılar (Ed. Bilcan Gökçe, Pınar Pınarcık)*, Ankara: Akademisyen Yayınevi, 307-322.
- Pekşen 20182 Pekşen, O., “Asur Kral Yıllıklarına Göre Anadolu’nun Sahip Olduđu İktisadi ve Zirai Zenginliğin Bölgeye Yapılan Asur Seferlerine Yansımaları”, *Anadolu’nun Eski Çağlarında İktisadi ve Zirai Hayat, (Ed. Lütfi Gürkan Gökçek, Ercüment Yıldırım, Okay Pekşen)*, İstanbul: Değişim Yayınları, 373-398.
- Pekşen-Topalođlu 2024 Pekşen O., Topalođlu, Y., “A Theocratic Approach to Governance in Ancient Times: Assyrians”, *Journal of Academic Researches in Religious Sciences*, 24/1, 9-36.
- Piotrovskii 1967 Piotrovskii, B. B., *Urartu: The Kingdom of Van and its Art*. New York: F.A. Praeger.
- Piotrovskii 1969 Piotrovskii, B. B., *The Ancient Civilization of Urartu*. New York: Cowles Book Co.
- Polat 2014 Polat, E., *Onbinlerin Dönüş Yolunda Tarihi Coğrafya ve Arkeoloji. Yayınlanmamış Yüksek Lisans Tezi*. Van: Van Yüzüncü Yıl Üniversitesi Sosyal Bilimler Enstitüsü.
- Polat 2018 Polat, E., “Kentrites’ten Teleboas’a Dönüş Yolu: Anabasis”. *TÜBA-AR* 22, 173-181.
- Potts 2006/2007 Potts, T.D., “Darius and Armenians”. *Iranistik* 9-10, 133-146.
- Radner 2006 Radner, K., “How to Reach the Upper Tigris: The Route Through The Tur Abdin”. *State Archives of Assyria Bulletin* XV. 273-305.
- Roller 2014 Roller, D. W., *The Geography of Strabo, An English Translation with Introduction and Notes*. Cambridge: Cambridge University Press.
- Roller 2018 Roller, D. W., *A Historical and Topographical Guide to the Geography of Strabo*. Cambridge: Cambridge University Press.
- Rollinger 2008 Rollinger, R., “Med Krallığı”. *Arkeoatlas*, 6, 8-18.
- Rollinger 2008 Rollinger, R., “The Median ‘Empire, The End of Urartu and Cyrus The Great’s Campaign in 547 (Nabonidus Chronicle II, 16)”, *Ancient West and East*, 7, 51-65.
- Rollinger 2022 Rollinger, R., “Kingship in the Achaemenid Empire”, *Persia. Ancient Iran and the Classical World (Ed. Jeffrey Spier, Timothy Potts, and Sara E. Cole)*, Los Angeles: J. Paul Getty Museum, 33-41.
- Rollinger 2023 Rollinger, R., “Contextualizing the Achaemenid-Persian Empire: What does empire mean in the First Millennium BCE?”, *Achaemenid Studies Today, Proceedings of the Mid-Term Conference of the Societas Iranologica Europaea held in Naples, 2017, December 11-13, UNIVERSITÀ DI NAPOLI L’ORIENTALE DIPARTIMENTO ASIA, AFRICA E MEDITERRANEO Series Minor CII, (Ed. Gian Pietro Basello, Pierfrancesco Callieri and Adriano V. Rossi)*, Roma: Internazionale di Studi sul Mediterraneo e l’Oriente, 289-338.

- Root 1979 Root, M. C., “The king and kingship in Achaemenid Art: Essays on the Creation of an Iconography of Empire”. *Acta Iranica 19*. Leiden: Diffusion, EJ Brill.
- Russel 1984 Russel, H.F., “Shalmaneser’s Campaign to Urartu in 856 B.C. and the Historical Geography of Eastern Anatolia According to the Assyrian Sources”. *Anatolian Studies, 34*. 171-201.
- Sagona and Sagona 2004 Sagona, G. A., Sagona C. *Archaeology at the North-east Anatolian Frontier, I: An Historical Geography and a Field Survey of the Bayburt Province*. Louvain [Belgium]; Dudley, MA: Peeters Press.
- Sağlamtimur-Schachner 2005 Sağlamtimur H., Schachner A., “Anabasis-Marsch der Zehntausend Der lange Heimweg des Griechenheeres durch Südostanatolien aus archaologisch-topographischer Sicht”. *Antike Welt Heft 3*. Darmstadt: Wissenschaftliche Buchgesellschaft. 93-97.
- Saller 2022 Saller, R.P., *Pliny’s Roman Economy, Natural History, Innovation, and Growth*. Oxford: Princeton University.
- Salvini 1967 Salvini, M., *Nairi e Ur(u)atri: Contributo alla storia della formazione del regno di Urartu, Incunabula Graeca v. 16*. Roma: Edizioni dell’Ateneo.
- Salvini 1995 Salvini, M., *Geschichte und Kultur der Urartäer*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Salvini 2006 Salvini, M., *Urartu Tarihi ve Kültürü*. İstanbul: Arkeoloji ve Sanat Yayınları.
- Salvini 2011 Salvini, M., “Urartu Tarihine Genel Bir Bakış”. *Urartu-Doğu’da Değişim* (Haz.) Koroğlu K., Konyar E. İstanbul: Yapı Kredi Yayınları. 74-101.
- Scalon 2015 Scalon, T.F., *Greek Historiography*. Wiley Blackwell.
- Schachner-Sağlamtimur 2008 Schachner, A., Sağlamtimur, H., “Xenophon Überquerung des Kentrites-ein archaologischer Nachtrag”. *İstanbul Mitteilungen 58*. Tübingen & Berlin: Ernst Wasmuth Verlag GmbH & Co. 411-416.
- Schippmann 1987: EnIr: AZERBAIJAN Schippmann, K., “AZERBAIJAN iii. Pre-Islamic History”, *Encyclopedia Iranica III*, [Elektronik Sürüm], <https://iranicaonline.org/articles/azerbaijan-iii>
- Schmitt 2014: EnIr: Achaemenid Dynasty Schmitt R., “ACHAEMENID DYNASTY”, *Encyclopedia Iranica I*, [Elektronik Sürüm], <https://www.iranicaonline.org/articles/achaemenid-dynasty>
- Sevin 1979 Sevin, V., *Urartu krallığının Tarihsel ve Kültürel Gelişimi. (Yayınlanmamış Doçentlik Tezi)*. İstanbul: İstanbul Üniversitesi Edebiyat Fakültesi.
- Sevin 2012 Sevin, V., “Van Bölgesi’nde Post-Urartu Dönemi: Yıkıntılar Üzerinde Yeni Bir Yaşam”. *Belleten 76*, 276, 351-368.
- Sevin 2019 Sevin, V., “Urartu Sonrası Doğu Anadolu’da Çözülüş...”, (Ed.) Özfırat A., Dönmez, Ş., Işıklı, M., Saba M. *Orta ve Doğu Anadolu Geç Demir Çağı: Post-Urartu, Med ve Akhaimenid İmparatorlukları*. İstanbul: Ege Yayınları. 9-12.
- Siddiq ve Işıklı 2024 Siddiq A.B., Işıklı, M., “ Tracing royal consumption and socio-symbolism through faunal remains: Zooarchaeology of Iron Age–Urartu Ayanis citadel, Eastern Türkiye”, *Journal of Archaeological Science: Reports 55*: 104505.
- Smith 2012 Smith, A.T., “The Prehistory of a Urartian Landscape”, *BIANILI-URARTU The Proceedings of the Symposium held in Munich 12-14 October 2007* (Ed. S. KROLL, C. GRUBER, U. HELLWAG, M. ROAF & P. ZIMANSKY), Peeters. 39-52.

- Smith & Badalyan 2009 Smith, A. T., Badalyan, R. S., *The Archaeology and Geography of Ancient Transcaucasian Societies Volume 1 The Foundations of Research and Regional Survey in the Tsaghkahovit Plain, Armenia*, THE ORIENTAL INSTITUTE OF THE UNIVERSITY OF CHICAGO: ORIENTAL INSTITUTE PUBLICATIONS, VOLUME 134.
- Syme 1958 Syme, R. *Tacitus I-II*. Oxford: Clarendon Press.
- Tarhan 1978 Tarhan, T. M., M.Ö. XIII. Yüzyılda “Uruatri” ve “Nairi” Konfederasyonları, (*Yayımlanmamış Doçentlik Tezi*). İstanbul: İstanbul Üniversitesi Edebiyat Fakültesi.
- Talbert 2012 Talbert, R. J., A., (Ed.), *Ancient Perspectives Maps and Their Place in Mesopotamia, Egypt, Greece, and Rome*, University of Chicago Press.
- Tarkan 1974 Tarkan, T., “Ana Çizgileriyle Doğu Anadolu Bölgesi”. *Erzurum ve Çevresi, Atatürk Üniversitesi 50. yıl Armağanı-I*. Erzurum: Atatürk Üniversitesi Yayınları. 7-22.
- ten Berge 2023 ten Berge, B., L., H., *Writing Imperial History: Tacitus from Agricola to Annales*, University of Michigan Press
- Vaux 1872 Vaux, W.S.W., “Spartua”. *A Dictionary of Greek and Roman Geography II*. (Ed.) Smith W., Boston: Little Brown and Company. 1031.
- Vogelsang 1998 Vogelsang, W., “Medes, Scythians and Persians: The Rise of Darius in a North-South Perspective”. *Iranica Antiqua*, 33. 195-224.
- Wiesehöfer 2003 Wiesehöfer, J., *Antik Pers Tarihi*. (İnci, M.A. Çev.). İstanbul: Telos Yayıncılık.
- Wilkonson 2008 Wilkonson, P., “Zoroastrianism”. *Religions. Eyewitness Companions*. New York: DK Publishing. 148-156.
- Wiseman 1956 Wiseman, D.J. *Chronicles of Chaldaean Kings (626-556 B.C.)*. London: The British Museum.
- Yakar 2007 Yakar, J., *Anadolu'nun Etnoarkeolojisi: Tunç ve Demir Çağlarında Kırsal Kesimin Sosyo-Ekonomik Yapısı*. İstanbul: Arkeoloji ve Sanat Yayınları.
- Yarlıgaş 2022 Yarlıgaş, O., “Herodotus in Turkish: A Preliminary Study on Herodotean Scholarship”, *Anadolu Araştırmaları – Anatolian Research*, 27, s. 139-149. <https://doi.org/10.26650/anar.2022.1203961>
- Zimansky 1985 Zimansky, P.E., *Ecology and Empire: The Structure of the Urartian State, Studies in Ancient Oriental Civilization 41*. Chicago: The University of Chicago Press.
- Zimansky 1995 Zimansky, P.E., “An Urartian Ozymandias”. *Biblical Archaeologist*, 58. 94-100.
- Zimansky 2011 Zimansky, P.E. “Urartu ve Çağdaşları”. *Urartu-Doğu'da Değişim* (Haz.) Köroğlu K., Konyar E. İstanbul: Yapı Kredi Yayınları. 106-121.



Hellenistic Period Mould-Made Oil Lamps From the Sinop Museum

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Submitted: 09.08.2024

Revision Requested: 28.10.2024

Last Revision Received: 30.10.2024

Accepted: 28.11.2024

Citation: Saęlan, S. Hellenistic period mould-made oil lamps from the Sinop museum. .

Anadolu Arařtırmaları-Anatolian Research, 31, 299–333.

<https://doi.org/10.26650/anar.2024.31.1530628>

ABSTRACT

Hellenistic Period mould-made oil lamps from the Hellenistic Period were first produced in the early 3rd century BC and remained in use until the first half of the 1st century AD. This study examines Hellenistic Period mould-made lamps housed in the Sinop Museum. These lamps, originating from the ancient city of Sinope, one of the most significant harbor cities in the Paphlagonia Region, were acquired through excavations, purchases, and donations. The museum collection was analyzed and categorized into three sub-types: Ephesus-type oil lamps, lamps with a channel on the nozzle, and lamps depicting antithetic Eroses. Due to the absence of stratigraphical dating data, the lamps were identified by comparing them with similar lamps from nearby neighboring and distant centers. The Ephesus-type oil lamps, known for their distinctive characteristics, are dated from the mid-2nd century BC to the late 1st century BC, their peak period of popularity. The substantial quantity of these lamps reveals intensive trade connections with Western Anatolia. The coexistence of high-quality examples alongside cruder, imperfect versions suggests that local workshops may have produced imitations of the Ephesus-type lamps. However, clay analyses are necessary to confirm this hypothesis definitively. A variation of the Ephesus-type oil lamp, featuring a channel on the nozzle, is represented by a single specimen in the collection. Similarly, an oil lamp depicting antithetic Eroses, also a singular example, dates between the mid-2nd century BC and the 1st century BC. The latter underscores trade activity with the Eastern Mediterranean region.

Keywords: Sinope, Paphlagonia, Hellenistic oil lamps, the Black Sea, mould-made oil lamps



Introduction

The collection of the Sinop Archaeological Museum began in 1921 with artifacts found in the city and its immediate surroundings. Initially housed in a high school building, these artifacts were relocated to the Pervane Madrasah in 1932, which was converted into a museum in 1941. The museum's collection expanded significantly following excavations conducted by Ekrem Akurgal and Ludwig Budde between 1951 and 1953, focusing on the center of Sinop and the Kocagöz Tumulus in Demirciköy. This growth necessitated the construction of a new museum building, which opened to the public in 1970 at a site in the city center near the ruins of the Serapeion. The museum now exhibits a diverse range of finds from the Early Bronze Age to the end of the Byzantine Period, primarily from Sinop and its surrounding areas.

The Sinop Archaeological Museum houses an extensive collection of lamps made from terracotta, bronze, and glass, spanning from the Archaic Period to the end of the Byzantine Period. Among these, lamps from the Hellenistic Period hold particular importance. However, publications on the lamps found in the ancient cities of the Southern Black Sea Region, historically known as Paphlagonia, remain scarce, including those specific to Sinope. Only a limited number of Sinope's lamps have been documented, such as examples from the Balatlar Church excavations (Güngör Alper 2019), museum rescue excavations (Kan Şahin & Aksoy 2019), and three plastic lamps published separately (Pastutmaz Sevmen 2018). Additionally, lamps from the Archaic and Classical Periods within the Sinop Museum have also been published¹.

The terracotta lamps in the Sinop Museum Collection dating to the Hellenistic Period produced via wheel and mould techniques, are numerous and typologically. This study focuses specifically on the Hellenistic Period mould-made terracotta lamps, all of which were found in and around the ancient city of Sinope. Due to the lack of stratigraphical dating data, the lamps were identified by comparing them with similar artifacts from nearby and distant centers. This study aims to introduce these previously unpublished lamps to the academic literature, providing a resource for future research and illuminating the cultural and commercial interactions facilitated by Sinope's trade connections with other centers.

In total, 32 complete or nearly complete lamps were evaluated in this research. These lamps entered the museum collection through various means, including excavations in Sinope conducted between 1951 and 1954 (Cat. Nos. 2, 3, 8, 12–16, 18–22), ongoing museum rescue excavations (Cat. Nos. 4, 7, 32) and purchases (Cat. Nos. 5, 9, 10, 17, 23, 25, 26, 31). Some lamps were documented in the Museum's inventory as having been found in Sinop (Cat. Nos.

1 Pastutmaz Sevmen, D. & Sağlan, S. Archaic and Classical Lamps from Sinop Museum. In: XXIV Symposium on Mediterranean Archaeology "Ideas that traveled by the sea," SOMA 2023, Udine (in print).

1, 6, 11, 24, 27–30), though the precise circumstances of their discovery remain unknown.

The mould-made lamps examined in this study were divided into three sub-groups: Ephesus-type lamps, lamps with a channel on the nozzle, and lamps depicting antithetic Erotes.

Type 1. Ephesus-Type Lamps

The group of lamps referred to as “Ephesus-Type” by Walters (1914, pp. 46 et al.), owing to their extensive discovery during the Ephesus excavations between 1868 and 1872, was later classified as Type 19 by Broneer (Broneer 1930, pp. 66–70), and Type 49A by Howland (Howland 1958, pp. 166–169). In addition to the numerous moulds recovered during the excavations, clay analyses have conclusively proven that this lamp type was produced at Ephesus (Giuliani 2005, p. 139; Kajzer et al. 2021, p. 321; Fragnoli et al. 2022, p. 20). Recognized by their distinctive characteristics, Ephesus-type oil lamps were produced over a long period, from the early 2nd century BC to the early 1st century AD, reaching peak popularity during this time (Howland 1958, p. 166).

Examples of this popular form, widely displayed in museums, especially in Western Anatolia, indicate their spread across the Mediterranean through trade. Local workshops even produced imitations. For instance, moulds and imitations from the Pergamon workshop have been found together with their moulds (Schäfer 1968 Taf. 69, T 4). Additionally, a mould found in Thasos (Daux 1966, p. 979, Fig. 23) and two from Nea Paphos (Kajzer 2013, p. 251, Pl. 1:1) reveals production outside Anatolia.

In Anatolia, Ephesus-type lamps have been identified in numerous centers, including Ephesus (Walters 1914, Nr. 326–349; Bailey 1975, Q159-199; Gassner 1997, p. 193, Nr. 796–800, Taf. 63. 90). Tarsus (Goldman & Jones 1950, p. 90), Sardes (Shear 1922, pp. 401–402, Fig. 10), Metropolis (Gürler 2002, pp. 133 et al., Abb. 1–8, Kat. Nr. 1–20) and Kyzikos (Öztürk 2003, pp. 58–59, Lev. 2–4). Beyond Anatolia, these lamps have been found in centers such as Delos², Athens³, Corinth⁴ and Cyprus⁵. They were particularly prominent in the northern Black Sea region, including Pantikapaion and other Bosporean sites, where they were the most popular imported type from the late 2nd to early 1st centuries BC. Both imported

2 Bruneau 1965, pp. 51-78, Pl. 12-20. The Delos specimens were analyzed by Bruneau in 11 groups and dated to the end of the 2nd-century BC and the 1st century BC.

3 Howland 1958, pp. 169-170. Howland, who dates the Ephesus-type oil lamps to the last quarter of the 2nd and 1st century BC, states that the form became widespread in Athens after the second quarter of the 1st century BC.

4 Broneer 1930, pp. 66-70. The Corinthian examples were dated by Broneer to the second half of the 1st century BC.

5 In Cyprus, Ephesus oil lamps known from Kition (Vessberg and Westholm 1956, p. 122, fig. 37: 15), Nea Paphos (Kajzer 2013, Nr. 1, 2, Pl. 1. 1- 2), Geronisos (Connelly and Młynarczyk 2002, p. 297, Nr. 29, 30) and Salamis (Oziol 1977, 60-63) prove that the Ephesian type was quite popular in Cyprus in the Hellenistic Period.

and local imitations of Ephesus-type lamps were prevalent in Bosporan settlements until the last 1st century BC⁶. In the southern Black Sea region, examples from the Giresun Museum Collection (Temür 2019, p. 312, Cat. No.3, Fig.3) and finds from Kurul Castle excavations (Yorulmaz 2020, p. 101, Lev. 1: 2, Lev. 4: 12, Lev. 5: 13, 15) have been documented.

Ephesus-type oil lamps are easily distinguishable due to their characteristic form, clay composition, and decorative features. Early examples produced in Anatolia in the early 2nd century BC include lamps with a biconical profile, bowl-shaped or plastic-banded discus, a sharp mould parting line, and long, thin nozzles with triangular tips (Howland 1958, pp. 166–167). Although later forms featured rounded nozzles, triangular nozzles persisted and were produced concurrently with round-nozzled lamps (Howland 1958, p. 167; Günay Tuluk 2003, p. 24; Bussière and Lindros Wohl 2017, p. 30). A hallmark of these lamps is the presence of small air holes around the filling hole on the discus,⁷ typically numbering three, though variations exist. Some rare examples lack air holes altogether.

Another defining feature is the handle, which is divided into three sections by two grooves and attached vertically to the body in a ring-like form. Since the handles were crafted separately and attached to the decorated upper shoulder, they often disrupt the surrounding relief decoration (Broneer 1930, p. 68).

The decoration on the shoulder of Ephesus-type oil lamps is remarkably varied. These lamps feature innovative compositions formed using floral motifs, geometric patterns, or a combination of both (Broneer 1930, p. 67). Occasionally, the motifs used for the shoulder decoration are also applied on the nozzle, though different ornamental elements are sometimes preferred for these parts.

The clay, typically gray, contains lime and sometimes fine mica particles among the visible additives. Depending on the firing process, the clay and slip color can vary, with some examples exhibiting red or orangish-red hues. The slightly raised oval base, triangular nozzle, and black slip indicate that Ephesus-type oil lamps were imitations of metal prototypes crafted from clay, a more economical material (Broneer 1930, p. 68; Howland 1958, p. 166; Bussière and Lindros Wohl 2017, p. 30).

Among the Hellenistic lamps housed in the Sinop Museum, the Ephesus-type lamps constitute the most represented group. The slip color of these specimens is predominantly gray, consistent with the Ephesus type, although some are red (Cat. Nos. 5, 6, 15–17, 24).

6 Zhuravlev et al. 2010, pp. 20-21. At the Ust Alma Necropolis in the Crimea, Ephesus-type oil lamps were found in graves dating from the late 1st- early 2nd-century AD. Zhuravlev and Zhuravleva 2014, p. 284, fn. 96.

7 Although their number varies, these holes, which are usually three in number, were made with the help of a pointed tool after the oil lamp was removed from the mould, in order to allow the air remaining inside to escape during the pouring of the oil into the chamber and to allow the oil accumulated on the surface to flow inside.

The slip applied using a dipping technique, has flowed down to the oval base in certain specimens.

One unique example among the Sinop collection features a discus surrounded by a high rim, giving it a bowl-like appearance (Cat. No. 1)⁸. In other lamps, the discus is encircled by a plastic band. While most lamps have three holes around the filling hole (Cat. Nos. 1–24, 26, 27, 29, 30), one example features four holes (Cat. No. 25 and another lacks these holes entirely (Cat. No. 28). The nozzle tips are predominantly triangular (Cat. Nos. 1–28), with only two examples having rounded tips (Cat. Nos. 29, 30).

The vertically attached handles, divided into three parts by two grooves, are characteristic of the type and were separately moulding and added later. This assembly interrupts the decoration surrounding the shoulder (Cat. Nos. 2, 5, 6, 11). Except for one lamp with a slightly raised ring-shaped base (Cat. Nos. 27), the bases of these lamps are generally slightly raised, oval rather than circular, and often extend toward the nozzle.

Ephesus-type oil lamps exhibit limited stylistic variation but a broad range of decoration motifs. The shoulder decorations of the Sinope specimens include geometric patterns such as Ionian kymation (Cat. No. 1), interconnected spirals (Cat. Nos. 14, 23, 24, 26, 29), nested squares with a central dot (Cat. No. 28), vertical bars (Cat. No. 27) and floral motifs like rosettes (Cat. Nos. 8, 12, 13, 21), palmettes (Cat. No. 4) and ivy leaves (Cat. No. 22). Animal motifs include oyster shells (Cat. Nos. 6, 7) and dolphins (Cat. No. 2). Lamp No. 3 uniquely combines a bucranium, an altar with garland, a lyre, a rosette, and a vine leaf, with a herm decoration on the nozzle.

Similarly, lamp No. 30 features lyre and altar motifs on the shoulder alongside a herm decoration on the nozzle.

In certain specimens, the shoulder and nozzle share identical decorations (Cat. Nos. 12, 13). However, in most cases, the nozzle decoration differs, featuring geometric motifs such as diamonds (Cat. Nos. 1), rectangles (Cat. No. 27), dots (Cat. Nos. 2, 5, 11, 14, 21, 24, 26), or unique designs like a hook-like object accompanied by a three-point motif (Cat. Nos. 6, 7).

The repertoire of decoration on Ephesus-type oil lamps is remarkably diverse, making it difficult to find lamps with identical motifs originating from the same mould. Even when lamps with similar decorations are identified, variations in size are often observed (Broneer 1930, p. 67). Among all collections, only two lamps—catalog numbers 12 and 13 are identical in both size and decoration elements. Their shared clay and slip characteristics, coupled with

8 This high edge, which was not made in the mould but added separately after the lamp was removed from the mould, was made to facilitate the filling of the oil into the lamp and to prevent the oil from spilling out. See Broneer 1930, p. 66; Howland 1958, p. 166.

rosette motifs adorning both the shoulder and nozzle, strongly suggest that these lamps were produced from the same mould. Slight tonal differences in the clay and slip between these two examples are likely attributable to their respective position within the kiln during firing.

In several specimens, the decorations on the shoulder or nozzle are partially obscured due to wear (Cat. Nos. 5, 9–11, 15, 25). Additionally, some oil lamps in the collection lack any form of decoration altogether (Cat. Nos. 16–20).

The richness of the decorative motifs, the reuse of identical elements in varied forms, and the replication of admired designs through moulds complicate the processes of dating and workshop identification (Broneer 1930, p. 67). The poor quality observed in several Ephesus-type lamps housed in the Sinop Museum Collection, as evidenced by thinly applied slips, inferior craftsmanship, and occasional construction defects (e.g., Cat. No. 18), implies that these lamps were likely produced in Sinope or a near local workshop attempting to emulate Ephesus-type designs.

Evidence supporting the existence of a local workshop is further provided by specimens such as catalogue numbers 25 and 26. In these examples, the small ventilation holes around the filling hole appear to have been created for aesthetic purposes only, as they were not fully opened. These details reflect an effort by the local artisans to uphold the stylistic traditions associated with Ephesus-type oil lamps, albeit with varying degrees of success.

Type 2. A lamp with a Channel on the Nozzle

This type of oil lamp, featuring a flattened, biconical body with a lug on each side, represents a variation of the Ephesus Type. Its defining characteristic is a long nozzle with a triangular tip. A plastic band surrounding the discus extends to form a channel along the nozzle, which widens slightly toward the tip⁹. The decoration on the shoulder is interrupted by a vertical handle, a feature also seen in Ephesus-type oil lamps. The base is ring-shaped and slightly concave. The only example of this form in the Sinop Museum displays a garland array motif with semicircles in relief on the shoulder (Cat. No. 31). It is made of pinkish clay containing traces of lime and mica, with a light red slip that has partially flaked off.

Similar lamps are housed in the Ödemiş and Tire Museums, as documented by Günay Tuluk (2003, p. 25, Pl. XXVII. 1, 2) and in the British Museum, which holds a lamp of Kerch origin (Bailey 1975, Q127, Pl. 24).

9 This plastic band surrounding the small filling hole is made to prevent the oil from overflowing from the flat discus and to ensure that the excess oil flows back into the chamber of the oil lamp through the wick hole. See Günay Tuluk 2003, p. 25.

Type 3. Lamp Depicting Antithetic Eroles

Mould-made oil lamps with flattened and kite-shaped bodies, a lug on each side and no handles fall under Howland's Type 45A classification (Howland 1958, pp. 143–145). Their bases are either flat or feature concave rings, while their upper surfaces are often adorned with floral reliefs. The long nozzle typically has either a flat or tubular top.

The example from the Sinop Museum, registered as a single specimen, closely resembles this type. It features a flattened, kite-shaped body with a lug on each side, a flat top with a round-tipped nozzle (Cat. No. 32), and a base marked by two concave rings. The filling hole, surrounded by a relief, is sufficiently large to cover about one-third of the top. The lamp is made of pale yellow clay containing lime and sand, with a very dark gray matte slip applied exclusively to the upper part, much of which has flaked off.

On the shoulder, two antithetically posed Eroles are depicted holding palmettes between their upraised hands¹⁰. Diagonal grooves mark the transition to the nozzle, which features a palmette decoration on its flat plate.

Lamps with antithetic erotes have been found in several Eastern Mediterranean centers, including Tel Anafa¹¹ and Haifa (Elgavish 1972, Fig. 16), Beirut (El Masri 2019, pp. 433, 435, Fig. 3, Nos. 83, 84), Sidon¹², Samaria (Crowfoot et al. 1957, p. 370, No. 7, Fig. 87.7), Cyprus (Oziol 1977, p. 59, Nos. 132–133; Lightfoot 2021, p. 65, Cat. No. 52) and Delos¹³. Their frequent discovery in the Eastern Mediterranean suggests an origin in this region¹⁴.

Conclusion

In the 2nd century BC, as Athens retreated into its shell, other centers such as Ephesus, Cnidus, Pergamon, and Alexandria rose to prominence. Original products for trade, including daily-use vessels, amphorae, and mould-made lamps, which were faster to produce and more durable than wheel-made lamps, found markets across vast regions, particularly through maritime trade. While local oil lamp workshops generally met the basic needs of their respective regions, the desire for diverse and higher-quality items from other centers persisted, driving trade (Günay Tuluk 2003, p. 17).

10 This type of oil lamp depicting antithetical Eroles shows a palmette in the hands of the figures, as well as a mask or caduceus. See Bruneau 1965, pp. 87–88, Nr. 4173–4201, Pl. 21.

11 Among the mould-made Hellenistic oil lamps found at Tel Anafa, the densest group is of oil lamps depicting Eroles. Weinberg 1971, p. 104, Pl. 18A.

12 Wesleyan University Museum Collection, Inventory No. 1905.1947.1. Date accessed: 8.08.2024. https://www.wesleyan.edu/libr/collections/arch-anth/highlights/ancient_oil_lamps.html

13 Bruneau 1965, 87, Pl.21, Nr. 4144–4172. Bruneau dated the lamps depicting Eroles found in Delos to the period from the mid-2nd century BC to the 1st century AD.

14 Clay analyses conducted on similar lamps found in Nea Paphos suggest that these lamps originate in the Levantine coast and more specifically, that analogous fabrics have been associated with the Sidon-Tyre area. See Kajzer et al. 2021, p. 324.

The distribution of mould-made oil lamps from the Hellenistic Period indicates that Sinope, a key port city in the Paphlagonia Region, was one such trade hub. Strabo notes that Sinope was established as a Milesian colony in the late 8th century BC (Strab. XII, 3, 11 (C 546)). Archaeological evidence, however, suggests that Greek colonization began during the third or fourth quarter of the 7th century BC (Akurgal and Budde 1956, pp. 4–7; Akurgal 1956, pp. 48 et al.; Budde 1956, p. 5 et al.; Erzen 1956, p. 48; Boysal 1958, pp. 27 et al.). Continuously inhabited through the Archaic, Classical, Hellenistic, and Roman periods, Sinope experienced significant Hellenization starting with Alexander the Great’s campaigns. During the Hellenistic Period, the city came under the rule of the Antigonos and later the Seleucids. Its importance grew further in 183 BC when Mithridates incorporated it into the Pontic Kingdom, making it a capital city. The wealth of Hellenistic artifacts uncovered in Sinope highlights the city’s prosperity during this era.

Situated at the northernmost point of the Black Sea coast of Anatolia and equipped with two natural harbors, Sinope became a major trade center due to its strategic location. This prominence is evidenced by the widespread distribution of Sinope amphorae, which were first produced during the Hellenistic Period.

The presence of imported materials in Sinope is consistent with its status as a major port city. For instance, the large number of Ephesus-type lamps and the smaller selection of Cnidian lamps indicate that these popular products also reached Sinope. The abundance of Ephesus oil lamps points to strong trade connections with western Anatolia. The mix of very high-quality lamps and more rudimentary or faulty ones suggests that local workshops may have imitated the Ephesus-type designs. Definitive conclusions on this matter, however, require clay analyses. Additionally, the single oil lamp depicting antithetic erotes reflects active trade with the Eastern Mediterranean.

Acknowledgment

I would like to extend my sincere gratitude to Mr. Hüseyin Vural, Director of the Sinop Archeological Museum, for permitting me to conduct this study. I am equally thankful to Eray Aksoy and Mehmet Çöndür, archeologists at the museum, for their invaluable assistance and support throughout this process. Special thanks are due to Songül Sözel and Handan Süzer for their meticulous drawings.

Grant Support

This study was supported by the Selçuk University Department of Scientific Research Projects (BAP) under project number 19401084, titled “*Sinop Müzesi’nde Bulunan Kandiller.*”

Catalogue

Cat. 1 (Fig. 1. 1; Fig. 5. 1)

Sinop Museum Inv. No.: 16.1.77

Origin: Sinope.

Dimensions: L. 8.6 cm; W. 6.7 cm; H. 3.6 cm.

Clay and Slip: Clay: 10YR 6/1 (gray); Slip: Gley 1 4/N (dark gray).

Condition: Intact except for the nozzle tip and the vertical handle, which was added to the high rim surrounding the discus. Description: Moldmade lamp with a biconical body. The discus features a central filling hole surrounded by a narrow ridge, with three evenly spaced, small air holes. Around the discus is a broad collar that flares upward. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: On the shoulder, a row of ionic kymation. The nozzle bears two dots on each side, with a diamond and a dot on top.

References: (Form): Walters, 1914, Nr. 340, Fig. 52 (same form and decoration);

Goldman & Jones, 1950, Nr. 47; Howland, 1958, Nr. 649–653, 657, Pl. 49; Kassab

Tezgör & Sezer, 1995, p. 113, Nr. 290; Gürler, 2002. Nr. 10. (Decoration): Demangel & Laumonier, 1925, Pl. XVII, Nr. 21.

Date: Mid-2nd to end of the 1st century BC.

Cat. 2 (Fig. 1.2)

Sinop Museum Inv. No.: 2.153.54

Origin: Sinope, 1951–1954 excavations.

Dimensions: L. 12.5 cm; W. 2.6 cm.

Clay and Slip: Clay: 10YR 6/1 (gray); Slip: 10YR 3/1 (very dark gray).

Condition: Intact.

Description: Moldmade lamp with a biconical body and a ribbon handle featuring two grooves. The discus contains a filling hole surrounded by a narrow ridge, with three air

holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder is adorned with two pairs of dolphin motifs separated by two dots. The nozzle displays a cluster of four dots and two additional dots on either side.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3. (Decoration): Demangel & Laumonier, 1925, Pl. XVII, Nr. 56; Broneer, 1930, p. 67, Fig. 29.10; Bailey, 1975, p. 102, Q 169, Pl. 32-33; Kassab Tezgör & Sezer, 1995, 114, Nr. 294.

Date: Mid-2nd to end of the 1st century BC.

Cat. 3 (Fig. 1.3)

Sinop Museum Inv. No.: 2.154.54

Origin: Sinope. 1951–1954 excavations.

Dimensions: L. 14.2 cm; W. 8 cm; H. 3.7 cm.

Clay and Slip: Clay: 10YR 6/1 (gray); Slip: 10YR 3/1 (very dark gray).

Condition: Intact except for the vertical handle; nozzle restored.

Description: Moldmade lamp with a biconical body. The discus includes a filling hole surrounded by a narrow ridge, with three air holes. The discus is bordered by two plastic rings. The lamp features a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder on each side displays a bukranon, garlanded altar, vine leaf, and lyre motifs separated by two vertically aligned dots. A herm figure decorates the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3.

Date: Mid-2nd to end of the 1st century BC.

Cat. 4 (Fig. 1.4)

Sinop Museum Inv. No.: 4.5.2016

Origin: Kefevi District, Sinop. Found during the rescue excavation of parcel no. 196.

Dimensions: L. 12 cm; W. 6.3 cm; H. 3 cm.

Clay and Slip: Clay: 10YR 7/3 (very pale brown); Slip: 10YR 4/1 (dark gray).

Condition: Intact except for the vertical handle.

Description: Moldmade lamp with a biconical body. The discus includes a filling hole surrounded by a narrow ridge, with three air holes. The discus is bordered by two plastic rings. The lamp features a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder is adorned with a row of leaves. Three-dot clusters flank the nozzle, which remains undecorated on top.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3.

Date: Mid-2nd to end of the 1st century BC.

Cat. 5 (Fig. 1.5)

Sinop Museum Inv. No.: 5.5.99

Origin: Sinope. Acquired through Purchase.

Dimensions: L. 10.5 cm; W. 5.3 cm; H. 2 cm.

Clay and Slip: 2.5YR 6/3 (light reddish brown).

Condition: Intact except for the upper part of the vertical handles

Description: Moldmade lamp with a biconical body and a ribbon handle featuring two grooves. This discus includes a filling hole surrounded by a narrow ridge, with three air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: Shoulder decoration is indistinct, with a single dot on the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3.

Date: Mid-2nd to end of the 1st century BC.

Cat. 6 (Fig. 1.6; Fig. 5.6)

Sinop Museum Inv. No.: 8.93.70

Origin: Sinope.

Dimensions: L. 11.6 cm; W. 6.6 cm; H. 3.2 cm.

Clay and Slip: Clay: 5YR 6/3 (light reddish brown); Slip: 2.5YR 6/4 (light reddish brown).

Condition: Intact except for the end of the nozzle.

Description: Moldmade lamp with a biconical body and a ribbon handle featuring two grooves. The discus includes a filling hole surrounded by a narrow ridge, with three air holes. The discus is surrounded by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder of each side features a row of oyster shells separated by two dots (one on top of the other). A hook motif appears between two dots on top, with a cluster of three dots below the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3.

Date: Mid-2nd to end of the 1st century BC.

Cat. 7 (Fig. 1.7; Fig. 5.7)

Sinop Museum Inv. No.: 5.2.07

Origin: Kefevi District, Sinop. Found on parcel no. 197 during a rescue excavation by the Sinop Museum.

Dimension: L. 11.5 cm; W. 6.6 cm; H. 3.1 cm.

Clay and Slip: Clay: 2.5Y 8/3 (pale yellow); Slip: 2.5Y 6/1 (gray).

Condition: Intact except for the vertical handle. Burn marks on the nozzle.

Description: Moldmade lamp with a biconical body. The discus includes a filling hole surrounded by a narrow ridge, with three air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder on each side features a row of oyster shells separated by two dots (one on top of the other). A hook motif appears between two dots on top, with a cluster of three dots below the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3.

Date: Mid-2nd to end of the 1st century BC.

Cat. 8 (Fig. 1.8)

Sinop Museum Inv. No.: 2.149.54

Origin: Sinope. Discovered during the 1951–1954 excavations.

Dimensions: L. 10 cm; W. 5.5 cm; H. 2.1 cm.

Clay and Slip: Clay: 5Y 7/1 (light gray); Slip: 5YR 4/1 (dark gray).

Condition: Intact except for the vertical handle.

Description: Moldmade lamp with a biconical body. The discus includes a filling hole surrounded by a narrow ridge with three air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: Each shoulder features three rosettes. The top of the nozzle is undecorated.

References: (Form): Bailey, 1975, p. 104, Q177, Pl. 32–33; Gürler, 2002, Nr. 5, 8, 13, 17, 18. Decoration: Demangel & Laumonier, 1925, Pl. XVII, Nr. 14; Howland, 1958, Nr. 651, Pl. 49.

Date: Mid-2nd to end of the 1st century BC.

Cat. 9 (Fig. 1.9; Fig. 5.9)

Sinop Museum Inv. No.: 11.1.94

Origin: Sinope. Acquired through purchase.

Dimensions: L. 9.8 cm; W. 5.4 cm; H. 2.4 cm.

Clay and Slip: Clay: 5YR 5/2 (reddish gray); Slip: 5YR 5/1 (gray).

Condition: Intact except for the vertical handle.

Description: Moldmade lamp with a biconical body. The discus includes a filling hole surrounded by a narrow ridge, with three air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder and nozzle decoration are indistinct.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3.

Date: Mid-2nd to end of the 1st century BC.

Cat. 10 (Fig. 2. 10)

Sinop Museum Inv. No.: 13.5.2000

Origin: Sinope. Acquired through purchase.

Dimensions: L. 9 cm; W. 4.6 cm; H. 2 cm.

Clay and Slip: Clay: 7.5YR 7/3 (pink); Slip: 7.5YR 5/1 (gray).

Condition: Intact except for the vertical handle. Chips are present in the body.

Description: Moldmade lamp with a biconical body. The discus includes a filling hole surrounded by a narrow ridge, with three air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder and nozzle decoration are indistinct.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11,

14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3.

Date: Mid-2nd to end of the 1st century BC.

Cat. 11 (Fig. 2. 11)

Sinop Museum Inv. No.:-

Origin: Sinope.

Dimensions: L. 11.2 cm; W. 5.5 cm; H. 1.9 cm.

Clay and Slip: Clay: 10YR 7/3 (very pale brown); Slip: 10YR 3/1 (very dark gray).

Condition: Intact, with minor chips on the body and burn marks on the nozzle.

Description: Moldmade lamp with a biconical body and a ribbon handle featuring two grooves. The discus includes a filling hole surrounded by a narrow ridge, with three partially closed air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: Shoulder decoration is indistinct. A single dot is on the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3.

Date: Mid-2nd to end of the 1st century BC.

Cat. 12 (Fig. 2. 12)

Sinop Museum Inv. No.: 2.137.54

Origin: Sinope. 1951–1954 excavations.

Dimensions: L. 11.1 cm; W. 6.1 cm; H. 2.2 cm.

Clay and Slip: Clay: 2.5Y 7/2 (light gray); Slip: 2.5Y 5/1 (gray).

Condition: Intact, except for the vertical handle and a small part of the nozzle tip.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder features four rosettes on each side, with a rosette on top of the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3. (Decoration): Demangel & Laumonier, 1925, Pl. XVII, Nr. 14; Howland, 1958, Nr. 651, Pl. 49.

Date: Mid-2nd to end of the 1st century BC.

Cat. 13 (Fig. 2. 13; Fig. 5. 13)

Sinop Museum Inv. No.: 2.152.54

Origin: Sinope. 1951–1954 excavations.

Dimensions: L. 11.1 cm; W. 6.2 cm; H. 2.5 cm.

Clay and Slip: Clay: 2.5Y 7/2 (light gray); Slip: Gley 1 4/N–7.5 YR 5/1 (dark gray-gray).

Condition: Intact, except for the vertical handle.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder features a row of rosettes, with a rosette on top of the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3. (Decoration): Demangel & Laumonier, 1925, Pl. XVII, Nr. 14; Howland, 1958, Nr. 651, Pl. 49.

Date: Mid-2nd to end of the 1st century BC.

Cat. 14 (Fig. 2. 14)

Sinop Museum Inv. No.: 2.151.54

Origin: Sinope. 1951–1954 excavations.

Dimensions: L. 11.1 cm; W. 5.8 cm; H. 2.5 cm.

Clay and Slip: Clay and Slip: 5YR 6/1 (gray).

Condition: Intact, except for the vertical handle and the end of the nozzle.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three large air holes. The discus is bordered by two plastic rings. The flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder features a row of interconnected spirals separated by three vertically stacked dots on each side, with a single dot on the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3. (Decoration): Demangel & Laumonier, 1925, Nr. 48–50; Broneer, 1930, p. 67, Fig. 29.43; Howland, 1958, Pl. 49, Nr. 655; Bruneau, 1965, Pl. 17, Nr. 2291; Zhuravlev et al., 2010, pp. 28, 31, cat. No. 419, 425.

Date: Mid-2nd to end of the 1st century BC.

Cat. 15 (Fig. 2. 15)

Sinop Museum Inv. No.: 2.130.54

Origin: Sinope. 1951–1954 excavations.

Dimensions: L. 10.4 cm; W. 6.3 cm; H. 2.5 cm.

Clay and Slip: Clay: 5YR 8/4 (pink); Slip: 2.5YR 6/8 (light red).

Condition: Intact, except for the vertical handle and part of the nozzle.

Description: Moldmade lamp with a biconical body. The discus features a slightly imperfect filling hole surrounded by a narrow ridge and three air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: Shoulder and nozzle decorations are indistinct.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3.

Date: Mid-2nd to end of the 1st century BC.

Cat. 16 (Fig. 2. 16)

Sinop Museum Inv. No.: 2.132.54

Origin: Sinope. 1951–1954 excavations.

Dimensions: L. 10.6 cm; W. 6.1 cm; H. 2.2 cm.

Clay and Slip: Clay: 5YR 8/4 (pink); Slip: 2.5YR 6/8 (light red).

Condition: Intact, except for the vertical handle and part of the nozzle; body restored.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three large air holes. The discus is bordered by plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: Undecorated.

References: (Form): Schafer 1968, Taf. 69; Gürler 1994, Nr. 177.

Date: Mid-2nd to end of the 1st century BC.

Cat. 17 (Fig. 2. 17)

Sinop Museum Inv. No.: 5.6.99

Origin: Sinope. Purchase.

Dimension: L. 9.8 cm; W. 5.2 cm; H. 2.3 cm.

Clay and Slip: Clay: 7.5YR 7/4 (pink); Slip: 2.5YR 6/4 (light reddish brown).

Condition: Intact, except for the vertical handle.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: Undecorated.

References: (Form): Schafer 1968, Taf. 69; Gürler 1994, Nr. 177.

Date: Mid-2nd to end of the 1st century BC.

Cat. 18 (Fig. 2. 18)

Sinop Museum Inv. No.: 2.139.54

Origin: Sinope. 1951–1954 excavations.

Dimension: L. 10.6 cm; W. 6.1 cm; H. 2.4 cm.

Clay and Slip: Clay: 2.5Y 7/2 (light gray); Slip: 2.5Y 5/1 (gray).

Condition: Intact, except for the vertical handle; burn marks on the nozzle and a manufacturing defect under the base near the handle.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: Undecorated.

References: (Form): Schafer 1968, Taf. 69; Gürlér 1994, Nr. 177.

Date: Mid-2nd to end of the 1st century BC.

Cat. 19 (Fig. 2. 19)

Sinop Museum Inv. No.: 9.155.71

Origin: Sinope. 1951–1954 excavations.

Dimensions: L. 10.9 cm; W. 6.2 cm; H. 2.5 cm.

Clay and Slip: Clay: 2.5Y 4/1 (dark gray); Slip: 2.5Y 5/1 (gray).

Condition: Vertical handle and part of the body broken off.

Description: Moldmade lamp with a biconical body. The discus features a slightly imperfect filling hole surrounded by a narrow ridge and two air holes. The discus is bordered by two plastic rings. The lamp has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: Undecorated.

References: (Form): Schafer 1968, Taf. 69; Gürler 1994, Nr. 177.

Date: Mid-2nd to end of the 1st century BC.

Cat. 20 (Fig. 2. 20)

Sinop Museum Inv. No.: 2.136.54

Origin: Sinope. 1951–1954 excavations.

Dimensions: L. 9.1 cm; W. 6.2 cm; H. 2.6 cm.

Clay and Slip: Clay: 7.5YR 7/1 (light gray); Slip: 10YR 5/2 (grayish brown).

Condition: Intact, except for the vertical handle and the tip of the nozzle.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three air holes. The discus is bordered by two plastic rings. The lamp has a slightly raised oval base.

Decoration: Undecorated.

References: (Form): Schafer 1968, Taf. 69; Gürler 1994, Nr. 177.

Date: Mid-2nd to end of the 1st century BC.

Cat. 21 (Fig. 3. 21)

Sinop Museum Inv. No.: 2.138.54

Origin: Sinope. 1951–1954 excavations.

Dimensions: L. 10.8 cm; W. 6.3 cm; H. 2.5 cm.

Clay and Slip: Clay: 2.5Y 7/2 (light gray); Slip: 2.5Y 5/1 (gray).

Condition: Intact, except for the vertical handle and a small part of the body broken off.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three air holes. The discus is bordered by two plastic rings. It has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: On the shoulder, each side features a row of three rosettes with a central raised dot. A dot is present on each side of the handle, and a cluster of three dots is located on the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3.

Date: Mid-2nd to end of the 1st century BC.

Cat. 22 (Fig. 3. 22; Fig. 5. 22)

Sinop Museum Inv. No.: 2.150.54

Origin: Sinope. 1951–1954 excavations.

Dimensions: L. 10.3 cm; W. 5.2 cm; H. 2 cm.

Clay and Slip: Gley 1 4/N (dark gray).

Condition: Intact, except for the vertical handle. Burn marks on the nozzle.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three air holes. The discus is surrounded by two plastic rings. It has a flat-topped, long nozzle with a triangular tip and an oval base.

Decoration: The shoulder is adorned with a row of ivy leaves, with an ivy leaf also present on the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3. (Decoration): Broneer, 1930, p. 67, Fig. 29.33.

Date: Mid-2nd to end of the 1st century BC.

Cat. 23 (Fig. 3. 23)

Sinop Museum Inv. No.: 3.2.2000

Origin: Sinope. Purchase.

Dimension: L. 9.1 cm; W. 5 cm; H. 2.2 cm.

Clay and Slip: Clay: 10YR 7/2 (light gray); Slip: 7.5YR 5/1 (gray).

Condition: Intact, except for the vertical handle and a small part of the nozzle tip. Burn marks on the nozzle.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three large air holes. The discus is bordered by two plastic rings. It has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder displays a row of interconnected double spirals. The nozzle is undecorated.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3. (Decoration): Demangel & Laumonier, 1925, Nr. 48–50; Broneer, 1930, p. 67, Fig. 29.43; Howland, 1958, Pl. 49, Nr. 655; Bruneau, 1965, Pl. 17, Nr. 2291; Zhuravlev et al., 2010, pp. 28, 31, Cat. No. 419, 425.

Date: Mid-2nd to end of the 1st century BC.

Cat. 24 (Fig. 3. 24)

Sinop Museum Inv. No.: 8.96.70

Origin: Sinope.

Dimensions: L. 9.9 cm; W. 5.7 cm; H. 2 cm.

Clay and Slip: Clay: 5YR 7/2 (pinkish gray); Slip: 2.5YR 6/3 (light reddish brown).

Condition: Intact, except for the vertical handle and a small part of the nozzle end.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three large air holes. The discus is bordered by two plastic rings. It has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder is adorned with a row of interconnected spirals, separated by two dots arranged vertically. A single dot is located on the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3. (Decoration): Demangel & Laumonier, 1925, Nr. 48-50; Broneer, 1930, p. 67, Fig. 29.43; Howland, 1958, Pl. 49, Nr. 655; Bruneau, 1965, Pl. 17, Nr. 2291; Zhuravlev et al., 2010, p. 28, Cat. No. 419, 425.

Date: Mid-2nd to end of the 1st century BC.

Cat. 25 (Fig. 3. 25)

Sinop Museum Inv. No.: 5.7.99

Origin: Sinope. Purchase.

Dimensions: L. 9 cm; W. 5.3 cm; H. 2.2 cm.

Clay and Slip: Clay: 5YR 7/1 (light gray); Slip: Gley1 3/N (very dark gray).

Condition: Intact except for the vertical handle.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and four air holes, Two of which are not fully open. The discus is bordered by a plastic ring. It has a flat-topped, long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The decoration on the shoulder and nozzle is indistinct.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3.

Date: Mid-2nd to end of the 1st century BC.

Cat. 26 (Fig. 3. 26)

Sinop Museum Inv. No.: 39.2.78

Origin: Sinope. Purchase.

Dimensions: L. 10.8 cm; W. 6.5 cm; H. 2.5 cm.

Clay and Slip: Clay: 2.5Y 4/1 (dark gray); Slip: 2.5Y 5/1 (gray).

Condition: Intact, except for the vertical handle.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three air holes that are not fully open. The discus is bordered by a plastic circle. It has a flat-topped, topped long nozzle with a triangular tip and a slightly raised oval base.

Decoration: The shoulder has two rows of interconnected spiral motifs and a raised dot on the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3. (Decoration): Demangel & Laumonier, 1925, Nr. 48-50; Broneer, 1930, p. 67, Fig. 29.43; Howland, 1958, Pl. 49, Nr. 655; Bruneau, 1965, Pl. 17, Nr. 2291; Zhuravlev et al., 2010, pp. 28, 31, Cat. No. 419, 425.

Date: Mid-2nd to end of the 1st century BC.

Cat. 27 (Fig. 3. 27; Fig. 5. 27)

Sinop Museum Inv. No.: 9.9.94

Origin: Sinope.

Dimension: L. 10.5 cm; Yük. 3 cm.

Clay and Slip: 7.5YR 5/1 (gray).

Condition: Intact, except for the vertical handle.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three air holes. The discus is bordered by two plastic rings. It has a flat-topped, long nozzle with a triangular tip and a low, concave ring base.

Decoration: Radial relief decoration on the shoulder and a large dot on the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 301; Gürler, 2002, pp. 11, 14, Nr. 4, 9; Gürler, 2003, Kat. Nr. 5, 6; Zhuravlev et al., 2010, p. 24, Nr. 410; Temür, 2019, p. 318, Kat. Nr. 3. (Decoration): Howland, 1958, Pl. 49, Nr. 660.

Date: Mid-2nd to end of the 1st century BC.

Cat. 28 (Fig. 3. 28; Fig. 5. 28)

Sinop Museum Inv. No.: 10.4.72

Origin: Sinope.

Dimensions: L. 9.7 cm; W. 5.9 cm; H. 3.1 cm.

Clay and Slip: Gley1 4/N (dark gray).

Condition: Intact, except for the vertical handle.

Description: Moldmade lamp with a biconical body. The discus is inclined inward and surrounded by a plastic ring. It has a flat-topped, long nozzle with a triangular tip and a flat oval base.

Decoration: A row of two nested squares with a dot at the center of the discus. The top of the nozzle is undecorated.

References: Broneer, 1930, Abb. 29, p. 55; Shear, 1922, p. 401; Howland, 1958, Taf. 49, p. 655; Gürler, 2003, Nr. 6, Abb. 1.6.

Date: 2nd half of the 1st century BC.

Cat. 29 (Fig. 3. 29)

Sinop Museum Inv. No.: 9.6.72

Origin: Sinope.

Dimensions: L. 10.7 cm; W. 5.8 cm; H. 2.3 cm.

Slip: Gley 1 4/N (dark gray).

Condition: Intact, except for the vertical handle and part of the filling hole.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three air holes. The discus is bordered by two plastic circles. It has a long nozzle with a rounded tip and a slightly raised oval base.

Decoration: A row of interconnected spiral motifs bordered by dots above and below the shoulder. The top of the nozzle is undecorated.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 302; Gürler, 2002, Nr. 8, 12. (Decoration): Demangel & Laumonier, 1925, Nr. 48–50; Broneer, 1930, p. 67, Fig. 29.43; Howland, 1958, Pl. 49, Nr. 655; Bruneau, 1965, Pl. 17, Nr. 2291; Zhuravlev et al., 2010, pp. 28, 31, Cat. Nos. 419, 425.

Date: Mid-2nd to end of the 1st century BC.

Cat. 30 (Fig. 3. 30)

Sinop Museum Inv. No.: 8.94.70

Origin: Sinope.

Dimensions: L. 10.1 cm; W. 6.7 cm; H. 3 cm.

Clay and Slip: Clay: 2.5Y 7/2 (light gray); Slip: 2.5Y 5/1 (gray).

Condition: The handle and a small piece of the nozzle tip are broken off.

Description: Moldmade lamp with a biconical body. The discus features a filling hole surrounded by a narrow ridge and three air holes. The discus is bordered by two plastic rings. It has a long nozzle with a rounded tip and a slightly raised oval base.

Decoration: A garlanded altar and two lyres separated by two dots one on the shoulder. A herm motif is present on the nozzle.

References: (Form): Kassab Tezgör & Sezer, 1995, p. 116, Nr. 302; Gürlér, 2002, Nr. 8, 12.

Date: Mid-2nd to end of the 1st century BC.

Cat. 31 (Fig. 4. 31)

Sinop Museum Inv. No.: 13.6.2000

Origin: Sinope. Purchase.

Dimensions: L. 8.3 cm; W. 5.8 cm; H. 2.9 cm.

Clay and Slip: Clay: 5YR 7/3 (pink); Slip: 2.5YR 6/6 (light red).

Condition: Intact, except for the vertical handle. Minor chips and burn marks on the nozzle.

Description: Moldmade lamp with a biconical body. The discus features a small filling hole surrounded by a relief ring forming a narrow channel that extends toward the nozzle. It has a long nozzle with a triangular tip and matching scroll lugs. The base is slightly raised and concave.

Decoration: Two garlands with semicircular motifs inside on each side of the shoulder.

References: (Form): Walters, 1914, p. 46, Nr. 324, Fig. 48; Bailey, 1975, p. 77, Q127, Pl. 24; Günay Tuluk, 2003, p. 25, Pl. XXVII. 1, 2; Svobodová, 2006, p. 7, Nr. 34.

Date: End of 2nd to 1st century BC.

Cat. 32 (Fig. 4. 32)

Sinop Museum Inv. No.: 5.3.07

Origin: Kefevi District, Sinop. Found on the southern corner of parcel number 197 during the Sinop Museum's rescue excavation.

Dimensions: L. 9.5 cm; W. 6.7 cm; H. 3.1 cm.

Clay and Slip: Clay: 2.5Y 7/3 (pale yellow); Slip: 5Y 3/1 (very dark gray).

Condition: Intact.

Description: Moldmade lamp with a double convex, kite-shaped body. The discus features a large filling hole surrounded by a narrow ridge. It has matching scroll lugs and a long nozzle with a rounded tip. The base is flat and surrounded by two grooves.

Decoration: Antithetic winged Erotes holding a palmette between their heads on the upper part of the body. A large palmette on the nozzle with three diagonal lines on either side of the nozzle.

References: Crowfoot et al. 1957, p. 369, Fig. 87,7; Howland, 1958 Pl. 55, Benachi 2 (Type 45A); Bruneau 1965, p. 87, Pl.21, Nr. 4144-4172; Weinberg, 1971, p. 104, Pl. 18A; Bailey, 1975, p. 236, Q509, Pl. 102; Oizol, 1977, p. 59, Pl. 8, Nr. 132-133; Rosenthal& Sivan, 1978, p. 14, Kat. Nr. 24-25; Rosenthal Heginbottom, 1995: p. 274 (Type 11), Fig. 5.16: 5-7; El Masri 2019, pp. 433, 435, Fig. 3, Nr. 83, 84; Lightfoot, 2021, p. 65, Kat. Nr. 52.

Date: Mid-2nd to early 1st century BC.



Figur 1: Ephesus Type oil lamps. Cat. No. 1-9.



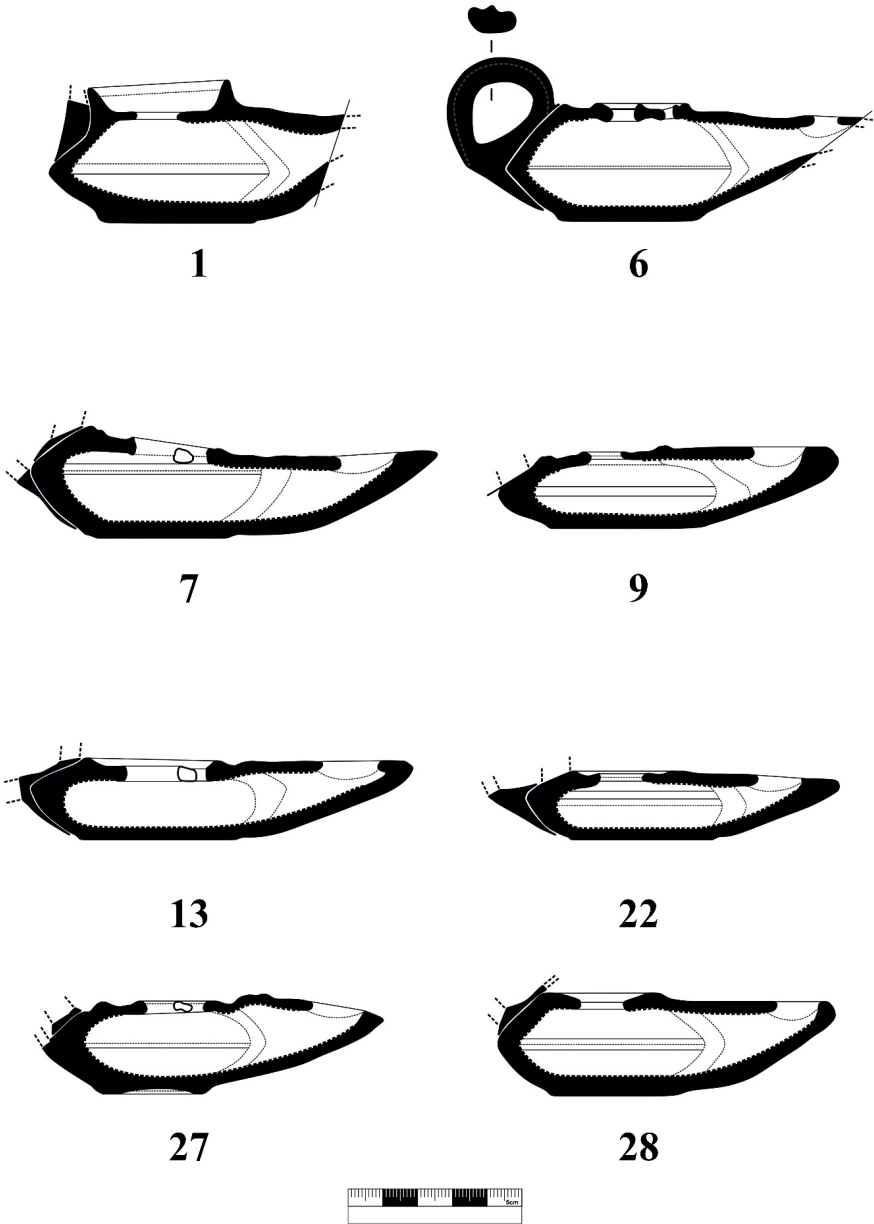
Figur 2: Ephesus Type oil lamps. Cat. No. 10-20



Figur 3: Ephesus Type oil lamps. Cat. No. 21-30.



Figure 4: 31 (Type 2. Lamp with a Channel on the Nozzle); 32 (Type 3. Lamp depicting Antithetic Eroses)



Figur 5: Drawings of Ephesus Type oil lamps

Peer-review: Externally peer-reviewed.

Grant Support: The author declared that this study has received no financial support

Conflict of Interest: The author has no conflict of interest to declare.

References

- Akurgal, E. (1956). Sinop kazıları. *Türk Arkeoloji Dergisi* 6/1, 47-61.
- Akurgal, E. & Budde, L. (1956). Vorläufiger Bericht über die Ausgrabungen in Sinope. Ankara: Türk Tarih Kurumu Basımevi.
- Arslan, M. (2005). *Arrianus'un Karadeniz Seyahati (Arriani Periplus Euxini)*. İstanbul: Odin Yayıncılık.
- Bailey, D. M. (1975). *A Catalogue of the Lamps in the British Museum I. Greek, Hellenistic and Early Roman Pottery Lamps*. London: British Museum Publications.
- Boysal, Y. (1958). Sinop'un En Eski Buluntuları ve Kolonizasyonu Hakkında, *Türk Arkeoloji Dergisi* 8/2, 23-29.
- Broneer, O. (1930). *Corinth: results of excavations conducted by the American School of Classical Studies at Athens. Vol.4, Part.2, Terracotta Lamps*. Cambridge, Massachusetts: Harvard University Press.
- Bruneau, P. (1965). *Exploration archéologique de Délos, Fase. 26, Les Lampes*. Paris.
- Budde, L. (1956). Kurzer vorläufiger Bericht über die Grabungen in Sinope der Kampagnen 1951-1952, *Türk Arkeoloji Dergisi* 6(2), 5-10.
- Bussi re, J. & Lindros Wohl, B. (2017) *Ancient Lamps in the J. Paul Getty Museum*. Los Angeles: Getty Publications.
- Cahn Klaiber, E. M. (1977). *Die antiken Tonlampen des Arch ologischen Instituts der Universit t T bingen*. T bingen: Wasmuth.
- Chrzanowski, L. & Zhuravlev, D. (1998). *Lamps from Chersonesos in the State Historical Museum, Moscow, Studia Archaeologica* 94. Roma: L'Erma di Bretschneider.
- Connelly, J. B. & Mlynarczyk, J. (2002). Terracotta oil lamps from Geronisos and their context, *Report of the Department of Antiquities Cyprus*, 293-316.
- Crowfoot, J. W., Crowfoot, G. M. & Kenyon, K. M. (1957). *The Objects from Samaria*. London: Palestine Exploration Fund.
- Daux, G. (1966). Thasos. *Bulletin de Correspondance Hell nique* 90 (2), 944-988.
- Demandel, R. & Laumonier, A. (1925). Fouilles de Notion (1921), *Bulletin de Correspondance Hell nique*, 49, 322-346.
- El Masri, M. (2019). Terracotta oil lamps from the Excavation at the BEY 004 Site (Beirut, Lebanon), *Polish Archaeology in the Mediterranean* 28/1, 423-459.
- Elgavish, J. (1972). *The Excavations of Shikmona. A Seleucian Garrison Camp from Hasmonean Times*. Haifa: Municipal Corporation of Haifa.
- Erzen, A. (1956). Sinop Kazısı 1953 Yılı alıřmaları, *Türk Arkeoloji Dergisi* 6(1), 69-72.
- Fragoli, P., Ugarkovi , M., Sterba, J. H. & Sauer, R. (2022). Looking for Ephesian workshops: an integrated petrographic, geochemical, and chrono-typological approach to Late Hellenistic Ephesos lamps, *Archaeological and Anthropological Sciences Vol. 14:* 19.

- Gassner, V. (1997). Das Südtor der Tetragonos-Agora. Keramik und Kleinfunde, *Forschungen in Ephesos XIII 1, 1*. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Giuliani, A. (2005). Hellenistische Matrizenlampen aus Ephesos. In: L. Chrzanovski (Ed.), *Lychnological Acts 1. Actes du Ier Congrès International d'études sur le luminaire antique (Nyons - Genève, 29.IX - 4.X. 2003)*. *Monographies Instrumentum 31*. Mergoïl, Montagnac, 139-142.
- Goldman H. & Jones F. F. (1950). The lamps. In: H. Goldman (Ed.), *Excavations at Gözli Kule, Tarsus 1. The Hellenistic and Roman Periods*. Princeton, New Jersey, 84-134.
- Günay Tuluk, G. (2003). İonia Bölgesindeki Hellenistik Döneme Ait Kandiller. In: C. Abadie Reynal (Ed.), *Les céramiques en Anatolie aux époques hellénistiques et romaines. Actes de la Table Ronde d'Istanbul, 23-24 mai 1996. Varia Anatolica 15*. Paris, 17-26.
- Güngör Alper, E. (2019). Sinop Balatlar Yapı Topluluğu 2010–2013 Yılları Arasında Bulunan Pişmiş Toprak Kandiller (Sinop Balatlar Building Complex – terracotta lamps from 2010–2013). In: H. Kaba, G. Şahin Kan, B.M. Akarsu, & O. Bozoğlan (Eds), *International Symposium on Sinope and Black Sea Archeology: "Ancient Sinope and the Black Sea"*. Proceedings Book. Sinop, 162-175.
- Gürler, B. (1994). *Metropolis'in Hellenistik Dönem Seramiği*. Unpublished Phd. Thesis, Ege Üniversitesi Sosyal Bilimler Enstitüsü, İzmir.
- Gürler, B. (2002). Ephesos-Lampen aus Metropolis/Ionien. *Jahreshefte des Österreichischen Archäologischen Instituts 71*, 133-147.
- Gürler, B. (2003). Ephesos-Lampen im Museum von Tire. *Jahreshefte des Österreichischen Archäologischen Instituts 72*, 123-131.
- Hayes, J. W. (1980). *Ancient Lamps in the Royal Ontario Museum I. Greek and Roman Clay Lamps: A Catalogue*. Toronto: Royal Ontario Museum Publications.
- Howland, R. H. (1958). *Greek Lamps and Their Survivals. The Athenian Agora IV*. Princeton, New Jersey: The American School of Classical Studies at Athens.
- Kajzer, M. (2013). The 'Ephesian' Terracotta Oil Lamps from the Agora of Nea Paphos. *Studies in Ancient Art and Civilization 17*, 249-253.
- Kajzer, M., Marzec, E., Kiriati, E. & Müller, N. S. (2021). Production and supply of ceramic oil lamps in Hellenistic and Early Roman Nea Paphos, Cyprus: integrated typological, chronological and provenance studies. *Annual of the British School of Athens 116*, 291-357.
- Kan Şahin, G. & Aksoy, E. (2019). Some Hellenistic and late Roman terracotta lamps in the Sinop Archaeological Museum in northern Turkey. *Polish Archaeology in the Mediterranean, 28(1)*, 349-361.
- Kassab Tezgör, D. & Sezer, T. (1995). İstanbul Arkeoloji Müzeleri Pişmiş Toprak Kandiller Kataloğu, Cilt 1: Protohistorik, Arkaik, Klasik ve Hellenistik Dönemler, *Varia Anatolica 6(2)*, İstanbul.
- Lightfoot, C. S. (2021). *The Cesnola Collection of Cypriot Art: Terracotta Oil Lamps*. New York: Metropolitan Museum of Art Publications.
- Oziol, T. (1977). *Les lampes du Musée de Chypre. Salamine de Chypre 7*. Paris: de Boccard.
- Öztürk, N. (2003). *Kyzikos Kandilleri*. Unpublished Phd. Thesis, Atatürk Üniversitesi Sosyal Bilimler Enstitüsü, Erzurum.
- Pastutmaz Sevmen, D. (2018). Sinop Müzesi'nde Bulunan Üç Plastik Kandil (Three plastic lamps from Sinop Museum). *Arkhaia Anatolica, 1*, 93-107.

- Rosenthal Heginbottom, R. (1995). Imported Hellenistic and Roman Pottery. In: E. Stern (Ed), *Excavations at Dor, Final Report 1 B. Areas A and C: The Finds, Qedem Reports 2*, 183-288.
- Rosenthal, R. & Sivan, R. (1978). Ancient Lamps in the Schloessinger Collection, *Qedem*, 8, 1-179.
- Schäfer, J. (1968). Hellenistische Keramik aus Pergamon. *Pergamenische Forschungen*, 2, Berlin: De Gruyter.
- Shear, T. L. (1922). Sixth Preliminary Report on the American Excavation at Sardes in Asia Minor. *American Journal of Archaeology*, 26 (4), 389-409.
- Strabon. *Antik Anadolu Coğrafyası (Geographika: XII-XIII-XIV)*. Çev. Prof. Dr. Adnan Pekman. İstanbul 1993.
- Svobodová, H. (2006). Ancient lamps in the Prague National Museum. *Sborník Národního muzea v Praze, Acta Musei Nationalis Pragae, řada A - Historie, LX/3-4*, 1-96.
- Temür, A. (2019). Giresun Müzesi'nde Bulunan Pişmiş Toprak Kandiller. *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi* 23(1), 311-337.
- Vessberg, O. & Westholm, A. (1956). *The Swedish Cyprus Expedition, Vol. IV, Part. 3. The Hellenistic and Roman Periods in Cyprus*. Stockholm.
- Waldhauer, O. (1914). *Kaiserliche Ermitage. Die antiken Tonlampen*. St. Petersburg: Kaiserliche Ermitage.
- Walters, H. B. (1914). *Catalogue of the Greek and Roman Lamps in the British Museum*. London: British Museum Publications.
- Weinberg, S.S. (1971). Tel Anafa: The Hellenistic Town, *Israel Exploration Journal*, 21, 86-109.
- Yorulmaz, L. (2020). Kurul Kalesi Pişmiş Toprak Kandilleri. *Seleucia (ad Calycadnum)*, 10, 97-125.
- Zaytsev, Yu. P. (2002). *Imported Lamps and Candelabra from Ust'-Alma Necropolis (Crimea, Ukraine)*. In: D. Zhuravlev (Ed), *Fire, Light and Light Equipment in the Graeco-Roman World*. BAR International Series 1019. Oxford, 41-59.
- Zhuravlev, D. (2007). Lighting Equipment of the Northern Pontic Area in the Roman and Late Roman Periods: Imports and Local Production. In: V. Gabrielsen, J. Lund (Eds), *The Black Sea in Antiquity: Regional and Interregional Economic Exchanges, Black Sea Studies*, 6, 209-237.
- Zhuravlev, D. & Lomtadze G. (2007). Keramičeskie komplekxy ellinističeskogo vre-meni iz nekropolya Ol'vii, *ArkheologijaKiiv 1*, 78-91.
- Zhuravlev, D., Bykovskaya, N. & Zheltikova, A. (2010). *Catalogues of the Lamps from the Collection of the Kerch Museum, Vol. II, Lamps of the second half of the 3rd century BC - 4th cent. AD, Hellenistic Imported Lamps, Bosphoran Hellenistic and Roman Lamps*. Kiev.
- Zhuravlev, D. & Zhuravleva, N. (2014). Late Hellenistic Pottery and Lamps from Pantikapaion: Recent Finds. In: P. Guldager Bilde, M. L. Lawall (Eds), *Pottery, People, and Places: Study and Interpretation of Late Hellenistic Pottery, Black Sea Studies*, 16, 255-286.



Funeral Jewelry and Gold Artifacts from the Yüksel Erimtan Collection: Examination of Ritual and Artistic Values

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Submitted: 05.03.2024

Revision Requested: 07.10.2024

Last Revision Received: 08.10.2024

Accepted: 28.11.2024

Citation: Avli, A., & Aydın Tavukçu, Z. Funeral jewelry and gold artifacts from the Yüksel Erimtan collection: examination of ritual and artistic values. *Anadolu Arařtırmaları-Anatolian Research*, 31, 335–356.
<https://doi.org/10.26650/anar.2024.31.1447619>

ABSTRACT

This study examines a group of gold artifacts from the Yüksel Erimtan Collection, focusing on their ritual and artistic significance. The examination includes 15 gold artifacts, categorized as funerary jewelry, comprising mouth-eye bands, wreaths, wreath fragments, and eye appliques. These artifacts are distinct from personal adornments, being crafted from thinner and less durable gold plates. Experimental investigations based on cranial measurements of adult individuals were undertaken to determine the functional aspects of the mouth-eye bands and eye appliques. The findings revealed that the mouth-eye bands were diverse and exhibited different forms: Long, thin strips on the arms and rhombic bands were determined to be mouth bands. Additionally, a round-shaped artifact was identified as an eye band. Eye appliques stand out among these artifacts, likely used as funeral jewelry, alongside wreaths and their fragments, which are tentatively dated from the 1st century BC to the 2nd century AD. Notable pieces include spiral-shaped, stylized snake-head earrings from the 5th–4th centuries BC and ring-disk earrings reflecting the Roman Imperial Period fashion, posited to have originally served as pendulums. The study also includes pendulum and hook earrings from the Roman Imperial Period, adorned with semiprecious stones. Collectively, the artifacts in the Erimtan Collection exemplify craftsmanship spanning from the 5th century BC to the 4th century AD, offering valuable insight into the fashion and artistry of the period.

Keywords: Erimtan Museum, Gold, Mouth-Eye Band, Wreath, Earing



Introduction

The tradition of wearing jewelry originated from a confluence of factors, including religious beliefs, talismans, charms, and the desire for good fortune. Over time, its purposes expanded to include funerary offerings, devotional dedication to deities, indicators of social status, expressions of wealth, gifts, and simple aesthetic adornments. The allure of jewelry, rooted in both spiritual motivations and the pursuit of beauty, has persisted throughout human history (Bingöl, 1999, p. 13). Accordingly, the materials used in jewelry-making exhibit significant variation across cultures and periods (Köroğlu, 2004, p. 2). During the early Neolithic period, when settled communities emerged, individuals fashioned seashells, animal teeth, and bones into adornments, later incorporating drilled ornamental stones to create beaded necklaces (Köroğlu, 2004, p. 2; Tekin, 2018, p. 117). The advent of underground mining in the Late Neolithic marked a turning point, enabling the use of metals in jewelry-making and the production of decorative metal ornaments (Tekin, 2018, p. 118). From the 4th millennium BC onward, artisans skillfully worked gold and silver, incorporating vibrant gemstones such as agate and chalcedony into their designs (Köroğlu, 2004, p. 16). Throughout the Archaic and Classical periods, gold jewelry reached remarkable levels of technical and aesthetic sophistication (Uygun, 2007, p. 96). Ancient artisans employed diverse techniques such as molding, stamping, forging, and casting, embellishing their creations with filigree, granulation, enamel, inlay, embossing (repoussé), and niello (Higgins, 1961, p. 8; Meriçboyu, 2001, p. 28; Aydın Tavukçu, 2007, p. 21).

The Erimtan Archaeology and Art Museum, a repository of the gold artifacts under examination, serves as a cultural institution showcasing valuable materials from the Hittite, Urartian, Hellenistic, Roman, and Byzantine periods within the Yüksel Erimtan Collection. Utilizing contemporary exhibition techniques, the museum integrates archaeology with diverse art forms and interdisciplinary activities in alignment with modern museological principles¹. Among the museum's funerary jewelry holdings are 15 gold pieces, including mouth-eye bands, eye appliques, wreaths and wreath fragments, earrings with their respective pendants, and a distinct pendant. This study analyzes these artifacts in terms of their typological characteristics and functions. Since the provenance and contexts of the artifacts acquired to the museum through acquisition are unknown, they will be dated by analogy and style criticism in the light of similar examples.

1. Funeral Jewelry

Among the diverse array of grave goods and archaeological artifacts uncovered in necropoleis, a specific category crafted from thin, delicate gold plates is termed “funeral jewelry.” This category includes items such as mouth-eye bands, forehead bands, masks,

¹ <https://erimtanmuseum.org/tr/muze>.

wreaths/diadems, clothing appliques, and belts, which differ from personal adornment used during life. These artifacts, characterized by their specific designs, craftsmanship, and intended purpose, provide valuable insights into the burial customs and cultural practices of the periods and regions from which they originate (Despini, 2009; Uygun, 2021, p. 316). The most striking group of funerary jewelry in the Erimtan Museum are the rare mouth and eye bands.

1.1. Mouth-Eye Bands

In ancient burial practices, meticulous preparation of the deceased (*soma*) often included washing, anointing with oils, and ritual covering of the eyes, mouth, and chin (Şahin, 1996, p. 145; Uhri, 2014, p. 177; Akçay, 2017, pp. 102, 106; Aydın Tavukçu-Avli, 2021, p. 70). The origins of artifacts used in these rituals such as masks, forehead or cheek plates (Ogden, 1982, p. 26, Res. 5; Despini, 2009; Rohde, 2020, p. 452; Uygun, 2021, p. 318), and mouth-eye bands can be traced back to the Near Eastern Neolithic period. Evidence from plastered skulls unearthed at Köşkhöyük indicates the spread of these practices to Central Anatolia, highlighting their cultural significance in immortalizing the deceased's visage (Gavrilaki-Tzifopoulos, 1998, p. 347; Özbek, 2009, p. 157; Akçay, 2017, p. 15; Uygun, 2021, p. 318). The widespread use of mouth-eye bands in burial customs was particularly in Northern Greece from the late 8th to early 7th centuries BC (Despini, 2009, p. 34; Uygun, 2021, p. 318).

The naming conventions for these foil-shaped artifacts, generally designated as ‘mouth-eye bands’, show variations. The artifacts are generally termed “epistomion” (or epistomia) for mouth bands and “epiophthalmos” for eye bands in Greek and Roman cultures (Gavrilaki-Tzifopoulos, 1998, p. 347; Οικονόμου, 2003; Despini, 2009, p. 21; Uygun, 2021, p. 318; Aydın Tavukçu-Avli, 2021, p. 70). These bands, made of sheets obtained by forging ingots, are evidence that the deceased were of high status, that their graves were carefully prepared, and that they were probably buried with rituals (Polat, 2013, p. 432). Their inclusion in burials symbolized the high status of the deceased, showcasing elaborate funerary rituals and embodying belief in an afterlife and eternity (Gavrilaki-Tzifopoulos, 1998, p. 352).

Particularly noteworthy among funerary jewelry are the mouth-eye bands with thread holes or rings created using the repoussé (hammering) technique (Bingöl, 1999, p. 37)². It is thought that the bands were tied to the head with threads passed through these thread holes on the edges of the bands (Serdaroğlu, 1972, p. 23)³. It is evident that some of the mouth-eye bands, which are rarely found and about which we have very little information, have

2 For details, see. Higgins, 1961, p. 9-10.

3 Using gold leaf samples with holes at the edges, which could be placed directly on the mouth or eyes, by sewing them onto the fabric, increased durability, see. Quast, 2014, p. 270; Uygun, 2021, p. 318.

geometrically incised decorations made with the repoussé technique (Pierides, 1971, PL. VII, p. 1-6; Bingöl, 1999, p. 208-211, Cat. No. 232-235; Yalçınkaya, 2019, p. 519, Cat. No. 314) or depictions of animals, humans or gods/goddesses made with the relief technique (Uygun, 2021, p. 321-325, Kat. No. 4-7), and some even have mouth bands with important lip depictions made in relief (Kurtz-Boardman, 1971, p. 212; Pierides, 1971, PL. VII, p. 2-6; Bingöl, 1999, p. 212; Uygun, 2021, p. 320, Cat. No. 1). There are also decorated bands with coin or seal prints on them (Bingöl, 1999, p. 213, 217). The 5 mouth-eye bands in the Yüksel Erimtan Collection, which are the subject of this study, are decorated only with repoussé (hammering) technique, with back-drawn ornaments and thread holes. The common feature of the mouth-eye bands in the collection is that they are made of thin gold sheets in the form of foil, and except for one, the others have holes for threading on both edges. Many of the bands, which are of medium thickness and cannot be used for daily function, have tears and punctures. When the bands, whose lengths vary between 7.9–11 cm, widths vary between 1.9–4.3 cm and weights vary between 0.38–2.72 cm, are examined in their entirety, it is seen that they differ from each other in terms of form. Hence, it was concluded that the works can be divided into 4 types and thus the usage functions of the bands can be understood.



Fig. 1: Mouth Band (Cat. No. 1)

Cat. No. 1: Cat. No. 14 the artifact, which has a rhombus form, is separately categorized as Type 1 due to its distinctive characteristic, albeit with minor details (Fig. 1). It is clearly oval or round with broad edges. The piece, featuring a blunt cut with tears, contains numerous holes along its bottom, top, and edges, likely resulting from breaks caused by its thin foil construction. Usually, additional drilling holes are present at the top and bottom, a rare feature. Given the plates' thinness, it is plausible that the object was tied to the head using

4 Museum Inv. No.: 1096; Dimension: Length:7.9cm; Width: 3.7cm; Short edge width: 3.2 cm – 3 cm; Weight: 0.38g.

threads passed through the four corner holes or sewn onto fabric for added durability (Quast, 2014, p. 270; Uygun, 2021, p. 318). The artifact displays a ray-shaped decoration consisting of parallel lines, etched by scraping the back with a fine tool. A comparable example is the British Museum (Marshall, 1969, p. 18, Pl. II, 179) features relief dot borders and spiral depictions and is dated to 1300–1100 BC. Similarly, a silver band resembling the Erimtan sample, originating from Akseki and housed at the Anatolian Civilizations Museum, includes a central line flanked by zigzag and grape cluster decorations along its edges (Bingöl, 1999, p. 208, Kat. Cat. No. 232). This work is dated to the 5th-4th century BC. Additionally, a mouth band (Rudolph-Rudolph, 1973, p. 186, 151d) from the Burton Y. Berry Collection parallels the Erimtan artifact in form. Dated to the 2nd–4th century AD, it features a rhombus shape and includes rope passage holes on both sides. Another striking element is that the work, which is almost the same in size, has relief dot decorations made with the repoussé technique on its edges, unlike Cat. No. 1. Although there is no exact equivalent of the Erimtan Collection sample, its similarity to the work in the Burton Y. Berry Collection suggests a comparable context. Based on the thinness of the foil and the description of the repoussé technique, it was concluded that assigning Cat. No. 1 to a broad time frame, such as the Hellenistic Period, is appropriate. Furthermore, when analyzed in terms of form, the artifact's compatibility with the structure of the mouth is noteworthy. Tests conducted on the skull revealed that it was likely produced and used as a mouth band⁵ (Fig. 3).

Cat. No. 2: Within the Erimtan Collection, a Type 2 gold band, distinguished by its oval shape, is catalogued as Cat. No. 2⁶. This artifact deviates from its counterparts in the configuration of its thread holes, as illustrated in Fig. 2-3. On both sides, ring-shaped rope-passing holes were created by spirally twisting the ends of the extended sheet. Although the band, made of a thick plate, shows visible wrinkles and distortions, it lacks any deliberate decorative elements. The artifacts are entirely oval-shaped, resembling an eye-shaped form. A similar work in the British Museum (Marshall, 1969, p. 19, Pl. III, 185), dated to 1300–1100 BC, features floral volute decoration. Another band with ring-shaped thread holes on display at the Tokat Museum (Göral, 2019, p. 98, Cat. No. 80) dates to the 3rd–2nd century BC and shares nearly identical formal characteristics with Cat. No. 2. Additionally, an oval-shaped artifact with a double row of straight lines at its center is exhibited in the Adana Museum (Uygun, 2021, p. 321, Fig. 2). In the Adana Museum (Uygun, 2021, p. 321, Fig. 2), there is

5 Based on the average skull measurement of an adult individual (average length: 25 cm) and the original dimensions of the mouth/eye bands and eye appliques. Experiments were conducted using a skull drawing prepared by Expert Archaeologist Rabia Gören to determine the positioning and intended use of these bands. The article includes visuals depicting the artifacts on the skull based on their original measurements, illustrating the data derived from these experiments. For detailed dimensions of the average adult, see Çalış-Çalış-Koçali-Büyükkakıncı, 2021, p. 147-161.

6 Museum Inv. No.: 581; Dimension: Length: 10,4 cm; Width: 4,3 cm; Short Edge Width: 3,7 cm – 3,9 cm; Weight: 1,60 gr.

an oval-shaped work with a double row of straight lines in the middle, and it can be seen that it is quite similar in form to Cat. No. 2, regardless of the thread hole. Uygun highlights the similarity of this artifact to wreath leaves from the Hellenistic Period and notes its use as a mouth/eye band in the Roman Imperial Period, dating the piece to the 1st–2nd centuries AD (Uygun, 2021, p. 321). Experiments conducted on skull drawings have confirmed that Cat. No. 2 served as an eye band. Considering the Adana Museum example and parallel examples in form, Cat. No. 2 can also be dated to the 1st–2nd centuries AD (Fig. 2).

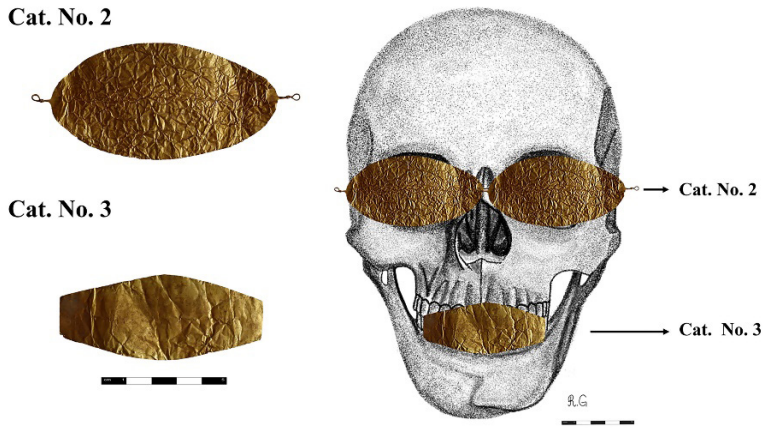


Fig. 2: Possible Uses of Eye (Cat. No. 2) and Mouth Band (Cat. No. 3) on the Skull Drawing

Cat. No. 3-4: Another bands in the museum collection with a rhombus form is Cat. No. 3⁷ and 4 (Fig. 2-3)⁸. The artifacts defined as Type 3 exhibit a sharper form in their middle sections, narrowing toward the edges compared to Cat. No. 1. They gradually taper into a long diamond shape as they thin slightly toward the edges. Cat. No. 3, crafted from plain, undecorated, medium-thick foil, lacks thread holes along its edges⁹. Conversely, Cat. No. 4 features a row of dot decoration along its edges, created using the repoussé technique, alongside geometric depictions resembling small and large diamond shapes at its center. A decorated artifact displayed in the Cyprus Museum, dated to 1400–1230 BC, shares similarities in form with Cat. No. 3 and Cat. No. 4. Additionally, a band with relief floral motifs and lion depictions housed in the British Museum (Marshall, 1969, p. 20, Pl. III, 195) and dated to the early periods of 1300–1100 BC, exhibits comparable features.

7 Museum Env. No.: 1082; Dimension: Length: 9,9 cm; Width: 3,5 cm; Short Edge Width: 2,6 cm; Weight: 2,72 gr.

8 Museum Env. No.: 581; Dimension: Length: 8 cm; Width: 3,2 cm; Short Edge Width: 2,1 cm; Weight: 1,27 gr.

9 The absence of thread holes, a rare feature, suggests two possibilities: the artifact may have been left unfinished and unused, or it might have been simply placed on the mouth.

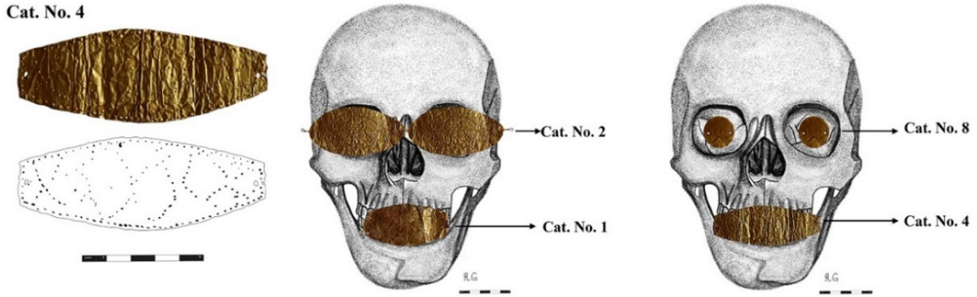


Fig. 3: Mouth Band (Cat. No. 4) with detailed drawing; Eye (Cat. No. 2) and Mouth Band (Cat. No. 1) on the skeleton drawing; Again, on the skeleton drawing, the possible uses of the Eye Applique (Cat. No. 8) and the Mouth Band (Cat. No. 4)

Among the funeral jewelry in the Adana Museum (Uygun, 2021, p. 320, Fig. 1), a band with a lip motif, dated to the second half of the 2nd millennium BC, and another plain, undecorated rhombus-shaped example recovered from the Stratonikeia Necropolis (Polat, 2013, p. 432, Lev. 121a.), bear similarities to the Erimtan examples. Other parallels include the Sagalassos sample (Yalçınkaya, 2019, p. 519, Cat. No. 314), dated to the late 2nd–early 3rd century AD, and a rim band with dot decoration made using the repoussé technique from the Burton Y. Berry Collection (Rudolph-Rudolph, 1973, p. 186, 151d.), dated to the 4th century AD. Based on stylistic and decorative similarities with artifacts from Stratonikeia, Sagalassos, and the Burton Y. Berry Collection, the rhombus-shaped Erimtan examples are likely dated to the 2nd–3rd centuries AD. Observations of their mouth/lip motifs and structural compatibility suggest that Cat. No. 3 and Cat. No. 4 functioned as mouth bands, similar to Cat. No. 1 (Fig. 2-3).

Cat. No. 5: Among the 5 mouth-eye bands of Type 4, Cat. No. 5 exhibits the most distinctive shape¹⁰ (Fig. 4). The band lacks any decoration features, resembling a wristwatch in form. However, its side parts extend into strips, terminating in holes. It is clear that the long, thin edges were extended to tie it to the head with threads passed through the holes, and the middle part in the form of a rhombus may have been used to cover the mouth. The central rhombus-shaped section might have served as a mouth covering. It is seen Archaeological comparison reveals that artifacts dated to the Roman Imperial Period in Stratonikeia (Polat, 2013, p. 432, Lev. 121b.) and Neapolis necropolises (Aydın Tavukçu-Avli, 2021, p. 76, Type 3a, Fig. 7b; Tip 3b, Fig. 8a-e.) are similar in form to Cat. No. 5. Additionally, artifacts from the Museum of Anatolian Civilizations (Bingöl, 1999, pp. 213, 216-217, Cat. Nos. 237, 240-241) share certain structural similarities with the Erimtan artifacts dated to the Roman Period, although they feature rows of repoussé dot decorations along the edges and coin or seal

10 Museum Inv. No.: 581; Dimension: Length: 11 cm; Width: 1,9 cm; Short Edge Width: 0,2 cm; Weight: 0,41 gr.

impressions in the center. The inclusion of coin or seal impressions on such bands suggests their use as mouth bands¹¹. Among the parallel examples, it was concluded that Cat. No. 5 can be dated to the Roman Imperial Period (Fig. 4).

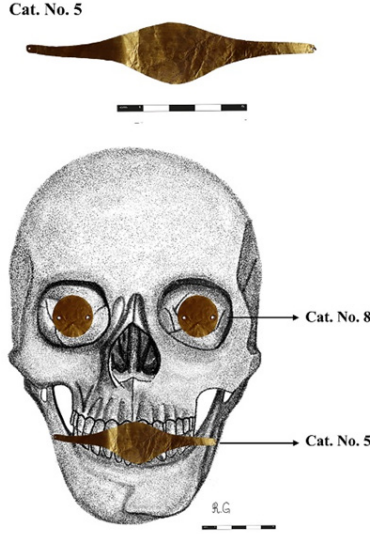


Fig. 4: Mouth Band (Cat. No. 5); Possible uses of Eye applique (Cat. No. 8) and Mouth Band (Cat. No. 5) on the skull drawing

1.2. Wreath (Crown)

Among the gold artifacts discovered in Greek graves, crowns, diadems, and honor wreaths are the most significant group (Türe, 2011, p. 185). Adorning the deceased's head with wreaths and headbands, a custom absent during the Homeric age, symbolized respect and sanctity (Rohde, 2020, p. 181). These adornments served multiple purposes: votive offerings, signs of authority, ornamental jewelry for gods and humans, expressions of love in private life, and during events such as birth, feasts, illnesses, death, and funeral ceremonies (Türe-Savaşçın, 2002, p. 101; Aydın Tavukçu, 2008, p. 384). Most wreaths and diadems unearthed today are grave offerings (Türe-Savaşçın, 2002, p. 101). Wreaths, or crowns, later became more prominent as symbols of status and adornment (Bingöl, 1999, p. 33). According to ancient texts and inscriptions, wreaths were also awarded as honors and worn during ceremonies (Türe-Savaşçın, 2002, p. 101). Early examples were crafted from olive, oak, and myrtle branches, later transitioning to metalwork (Bingöl, 1999, p. 33). Late Hellenistic

¹¹ Ancient people believed that the ferryman Charon received money to carry the souls of the dead across the River Styx (River of the Dead), so placing an obolos (penny/coin) in the mouth of the dead as part of the burial customs was of great importance for people. It is possible that the coin or seal impression seen as decoration on the bands was made based on this tradition. See Grimal, 2007, p. 369; Erhat, 2007, p. 173.

and Early Roman wreaths are among the most ornate artifacts of the era (Tonkova, 2013, p. 432). Hellenistic wreaths, similar to those from the 5th century BC, incorporated attached to circular gold bands or pipes (Türe, 2011, p. 200; Türe-Savaşçın, 2002, p. 100)¹². By the 4th century BC, wreaths featured dense foliage and detailed central ornaments, such as Nike and Eros figures or multi-layered flower rosettes, which persisted until the 2nd century BC. Starting in the 3rd century BC, the Herakles knot, a hallmark of the Hellenistic Period, was added to the center of wreaths (Türe, 2011, p. 200). During the Roman Empire, head jewelry continued in use until the 2nd century AD but gradually declined in significance (Türe, 2011, p. 216).

Cat. No. 6: The Erimtan Archaeology and Art Museum houses a wreath designated as a Cat. No. 6¹³, composed of 24 thin gold leaves, each shaped like a triangle (Fig. 5). The wreath leaves weighed 1.35 grams in total and consisted of small and large pieces ranging in size from 2 to 4.1 cm. The visible on the wreath leaves are breaks and punctures, along with parallel fiber lines extending downward from the midpoint of the triangular parts. These lines, produced using the scraping technique, from a triple grouping, are interpreted as imitation of the olive and myrtle branches depicted in Fig. 5. Early wreath suggest that the thin foliage of the foliage on this artifact renders it impractical for daily use (Miller, 1979, p. 44-45, 62; Tonkova, 2012, p. 714). Instead, the wreath likely originated as a funerary artifact before it was exhibited in the museum's collection.



Fig. 5: Funeral Wreath (Cat. No. 6)

12 Thin gold tubes filled with resin or wax provide flexibility and resistance to deformation. See Türe-Savaşçın, 2002, p. 100.

13 Museum Inv. No.: 1096; Dimension: Length-Width: 2-4,1 cm; Total Weight: 1,35 gr.

Similar three-lobed wreath leaves were discovered in the tomb of a Thracian noblewoman from Anchialos, located on the western Black Sea coast, and are dated to the Late Hellenistic Period (Tonkova, 2012, p. 714, Fig. 8; Tonkova, 2013, p. 432, Fig. 34). Notably, Amisos(?) wreath pieces from the same period exhibit a leaf form that resembles Cat. No. 6 (Şirin-Yiğitpaşa, 2021, p. 185, Cat. No. 61). In addition to the examples previously mentioned, several works dating to the 1st century BC are present in the Hamburg Museum of Art and Industry (Hoffman-Clear, 1968, pp. 46, 31-32), the Anatolian Civilizations Museum (Bingöl, 1999, p. 54, Cat. No. 15), and the Tokat Museum (Göral, 2019, p. 64, Cat. No. 4). These collections include leaf-shaped wreath pieces similar to Cat. No. 6. Notably, a wreath featuring three-lobed leaves was unearthed from a Roman tomb in Ankara-Balgat, dated to the 1st–2nd century AD (Temizsoy-Demirdelen, 1999, p. 29, Pic. 13). Additionally, a large number of wreath leaves were discovered at Fanagoria dating to the first half of the 2nd–3rd century AD (Юрьевич, 2015, p. 479–483, 529, Cat. Nos. 162–164, 224). Based on similar examples, it was established that the large pieces of Cat. No. 6 constitutes the primary structure of the wreath, while the smaller pieces were interspersed between them. The lower sections of all of the components are elongated, folded, and secured using bands or pipes at these points. Through a comparative analysis of grave goods and analogous artifacts from museum collections, Cat. No. 6 is likely attributable to the latter half of the 1st century BC or the 1st century AD.

Cat. No. 7: It was determined that Cat. No. 7¹⁴ which has a leaf form similar to that of Cat. No. 6, was part of another wreath (Fig. 6). This artifact, made of thick foil, features two, possibly three, thread holes at its base. These perforations suggest the possibility of attachment to a dress or another object as an applique. However, based on its form and comparative analysis, it was concluded that this piece was more likely a component of a wreath. It is believed that it may have been secured to the wreath using pipes or bands threaded through the perforated sections. Drawing parallels between the example from Phanagoria and the artifacts represented by Cat. No. 6, it is suggested that this fragment (Cat. No. 7) was part of a funerary wreath. The wreath is believed to date back to the latter half of the 1st century BC or the 2nd century AD (Юрьевич, 2015, pp. 505-508, Cat. No. 194).

14 Museum Inv. No.: 1333; Dimension: Length-Width: 2,7 cm; Weight: 1,44 gr.

Cat. No. 7



Fig. 6: Fragment of funeral wreath (Cat. No. 7)

1.3. Eye Appliques

Cat. No. 8: Cat. No. 8¹⁵ is another Erimtan example made in a circular form with holes drilled on both sides (Fig. 7). The artifact, crafted from a thicker foil compared to Cat. No. 9, aligns with works from Fanagoria dated between the mid-1st century AD and the mid-2nd century AD. These pieces were described as ornamental weaves positioned between wreaths (Юрьевич, 2015, p. 495, Cat. Nos. 183; 546-548, Cat. No. 256). However, the fact that the mentioned works have a hole on one side makes them more likely to be part of a funeral wreath, and we believe that it would be more logical to use the double-hole Erimtan sample as a dress applique on the corpse or to tie it to the head with threads passed directly through the holes over the eyes of the dead as eye applique (Demirer, 2016, pp. 133-148). As a result of the experiments conducted on the skull drawing, considering its original size, Cat. No. 8 is thought to be an eye applique¹⁶ (Fig. 3-4). Based on similar examples that are compatible in terms of form, the work was dated to the 1st-2nd century AD.

Cat. No. 8



Fig. 7: Eye Applique (Cat. No. 8)

15 Museum Inv. No.: 1333; Dimension: Diameter: 2,7 cm; Weight: 1,44 gr.

16 In Fig. 3 and 4, it was placed on both eyes in order to determine Cat. No. 8's position on the skeleton.

Cat. No. 9: Another example, which is claimed to have been used as a decorative element as part of a wreath but could also have been placed over the eyes of the dead, is named Cat No 9¹⁷ (Fig. 8). Both of the samples, which can be considered dress appliques due to their size, were 0.7 cm in diameter and weighed 0.02 g in total. The works were cut from a flat thin gold leaf and presented in a circular form. A gold-eye band was recovered from the Kültepe excavations, which has an oval shape and is slightly hollow inside (Bingöl, 1999, p. 207, Cat. No. 231). This band, which is similar in form and dated to the first half of the 2nd millennium BC, appears to be much larger in diameter. Among the Fanagoria examples, there are artifacts with diameters similar to Cat No 9, described as wreath pieces and dated to the first half of the 2nd century AD through the first half of the 3rd century AD (Юрьевич, 2015, pp. 512-514, Cat. No. 201a-d; 550; Cat. No. 260).

Cat. No. 9



Fig. 8: Eye Appliques (Cat. No. 9)

The artifacts were recovered from the head areas of various graves and were therefore identified as components of funerary wreaths. This data proves that the numerous similar artifacts found are not likely to be dress appliques, but rather wreaths or eye appliques. Notably, the artifacts' frequent discovery in pairs, combined with their lack of holes or thread loops (unlike Cat. No. 8, which features such elements) supports the interpretation that they served as eye applique placed directly over the eyes of the deceased during burial rituals. This differs from Cat. No. 8, which was tied using thread. Based on similar examples, the most accurate dating for these eye appliques is between the 2nd and 3rd century AD.

2. Earrings

The tradition of ear ornament dates back to the Paleolithic Period (Tekin, 2018, p. 163). The earliest examples, worn by both men and women as symbols of adornment, were simple thin wires shaped into rings (Bingöl, 1999, p. 33; Tekin, 2018, p. 163). Initially crafted from copper, earrings transitioned to silver and gold production by the late 4th millennium BC. By the 3rd millennium BC, when jewelry-making flourished, earrings produced using advanced techniques began to exhibit aesthetic sophistication. These designs, particularly prominent from the 1st millennium BC onward, were considered markers of nobility (Tekin, 2018, p.

¹⁷ Museum Inv. No.: 581; Dimension: Diameters: 0,7 cm; Total Weight: 0,02 gr.

16). Crescent and sandal-shaped earrings were especially popular during the Archaic and Classical periods (Higgins, 1961, pp. 122-127; Meriçboyu, 2001, pp. 47-49). However, by the mid-3rd century BC, disc and sandal-shaped earrings gave way to hoop earrings adorned with mythological figures such as Eros, Nike, and Pegasus (Ergil, 1983, p. 7; Türe, 2011, p. 203). From the 3rd century BC to the 1st century BC, earrings featuring human and animal figures gained widespread popularity due to their intricate and striking designs (Higgins, 1961, pp. 161-167; Bingöl, 1999, p. 33; Türe, 2011, p. 203). During the Roman Period, jewelers catered to diverse social classes, producing opulent earrings for the wealthy and simpler models for those of lower status (Uygun, 2007, p. 98). Designs included massive spherical pendants, hollow spheres, discs, and various pendulum styles, with or without stones (Bingöl, 1999, p. 33). Simple ring-shaped earrings, originating in the Hellenistic Period, persisted into the Roman period (Ergil, 1983, p. 8; Türe, 2011, p. 218; Meriçboyu, 2001, p. 199). In these extremely simple earrings, twisted rings were sometimes created by making a few grooves on the ring, and sometimes by wrapping the wires in a spiral shape. Pendulums suspended on a flat ring could be plain or decorated with spherical shapes or stones (Ergil, 1983, p. 8).

There are 5 earrings, two of which are pairs, that are the subject of the study in the Erimtan Archaeology and Art Museum. Three of these are ring-shaped earrings, while the remaining two belong to the pendulum earring group, crafted from precious or semiprecious stones. The study discusses these earrings chronologically, focusing on their form and stylistic development.

2.1. Classical Period

Cat. No. 10



Fig. 9: Spiral Earring (Cat. No. 10)

Cat. No. 10: The Erimtan Collection includes an earring made by twisting a gold band in a spiral shape. On the work named Cat. No.10¹⁸, it displays four relief decorations resembling grape clusters, created using the granulation technique¹⁹ arranged clusters (12 clusters). Additionally, a snake-shaped motif is formed by curling a separate thin band at one end (Fig. 9). The opposite end of the earring, adorned with granulated relief dots, tapers off and is broken at this point.

The earring transitions from an oval to a quadrangular profile as it approaches the snake's head, making this piece notable for its intricate form and decorations. Spiral earrings featuring flower or triangular decorations consisting of granulated elements date back to the 5th century BC. Commonly, granulated pyramidal ornaments adorned the ends of these earrings, which sometimes concluded with human or animal heads (Türe-Savaşçın, 2002, p. 101). A similar spiral-shaped earring from Xanthos is preserved in the Istanbul Archaeological Museum (Türe-Savaşçın, 2002, p. 89, Pic. 175). This piece, adorned with granulated pyramids at its ends, dates to the 7th century BC, though it was re-dated by Higgins to 450–330 BC (Higgins, 1961, p. 123, Pl. 25C). Another similar piece is held in the British Museum (Higgins, 1961, p. 123, Pl. 24F). Dating to 450–350 BC, it exhibits stylized decorations and pyramids granulation at its ends. The spiral earrings in the Erimtan Collection align stylistically with the examples. Similar 5th–4th centuries BC granulated earrings can be found in the Istanbul Archaeological Museum and the British Museum (Ergil, 1983, p. 17, Pic. 11; Marshall, 1969, p. 178, Pl. XXX, 1649). A pair of spiral earrings from Pantikapaion also bears structural similarities to the Erimtan example (Williams-Ogden, 1994, p. 152, Pic. 93). These earrings, dating to around 400 BC, feature granulated pyramidal decorations at their ends. Based on analogical evaluations, Cat. No. 10 is most accurately dated to the 5th–4th century BC.

2.2. Roman Period

Cat. No. 11: The two earrings from the Yüksel Erimtan Collection examined in this study represent the hoop earring type, a significant type of jewelry from the Roman period. These pieces are identified as Cat. No. 11²⁰ and Cat No 12²¹, Cat No. 11, recovered as a pair, holds a place in the collection (Fig. 10). These earrings consist of a simple flat hoop with one end soldered to the back of a flat curved disc and the other end hooked into a loop to close. The disc, featuring spherical protrusions at its ends, is hollow and has been crushed over time. A similar pendulum earring, dated to the 2nd century AD, is located in the Tokat Museum and demonstrates a parallel to the Erimtan example (Göral, 2019, p. 75, Cat. No. 28). Another

18 Museum Inv. No.: 917; Dimension: Diameter: 2,5 cm; Weight: 7,04 gr.

19 For details, see Higgins, 1961, p. 18-23.

20 Museum Inv. No.: 1369; Dimension: Length: 1,45 cm; Weight: 0,75 x 0,71 gr; Total Weight: 1,46 gr.

21 Museum Inv. No.: 1370; Dimension: Length: 1,5 cm; Weight: 0,85 gr.

similar piece in the British Museum dated to the 2nd–3rd century AD, features a disk ring with a bead at its tip and a simple disk like the Erimtan example. This piece also includes a pendulum bordered by wire (Marshall, 1969, p. 294, Pl. LIII, 2532). An earring in the Museum of Anatolian Civilizations, acquired from Burdur, is almost identical to Cat. No. 11 (Bingöl, 1999, p. 73, Cat. No. 50). This work, surrounded by a wire border, is dated to the 2nd–3rd centuries AD.

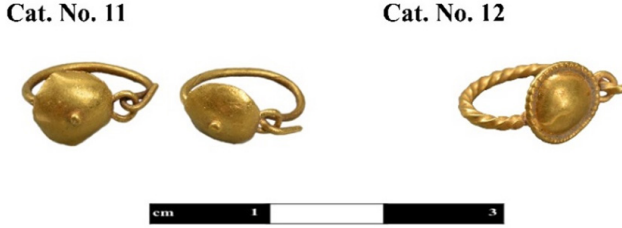


Fig. 10: Earrings with disk hoops (Cat. No. 11-12)

Another relevant example is a ring disc earring from the Neapolis Necropolis, also dated to the 2nd–3rd century AD (Avli, 2020, p. 121, Cat. No. 119). Similarly, a pendulum earring with a flat ring and curved disc from the Istanbul Archaeological Museum closely resembles Cat. No. 11, except for its pendulum (Ergil, 1983, p. 8-9, Cat. No. 95). This piece, dated to the Roman Period, features a bead made using the granulation technique at the center. Its pendulum includes a horizontally grooved, drop-shaped white stone encased in a decorated border and surrounded by a wire border.

Cat. No. 12: Crafted from thick wire, features a twisted ring designed and formed by winding the wire around itself. Its hemispherical disk, bordered by intricate filigree, was found hollow and crushed (Fig. 10). One end of the earring's ring is soldered to the back of the disc, while the other end hooks into a loop to close. A similar example a pendulum earring with a twisted disc and ring was unearthed during rescue excavations at the Neapolis Ancient City necropolis and is dated to the 2nd century AD (Avli, 2020, p. 122-124, Cat. No. 120). It is noteworthy that the earring with a disc ring and surrounded by wire borders, which is among the jewelry of the Tokat Museum, is fitting with the Erimtan example in terms of its crafting technique (Göral, 2019, p. 75–76, Cat. No. 29). Another artifact, discovered in Kula, Uşak, and acquired by the Museum of Anatolian Civilizations, exhibited a hemispherical disk soldered onto a twisted ring, closely similar to Cat. No. 12. This piece is also dated to the 2nd–3rd century AD (Bingöl, 1999, p. 72, Cat. No. 48). Additionally, the British Museum holds a similar earring with a twisted ring and disc pendulum, attributed to the Roman Period (Marshall, 1969, p. 293, Pl. LIII, 2526). The Erimtan samples, Cat. Nos. 11 and 12,

dated from the 2nd to the 3rd century AD. Similar examples frequently feature pendulums, suggesting that the Erimtan earrings may originally have included pendulums. Based on the stylistic and technical evaluations, the works are appropriately dated to the 2nd–3rd century AD.

Cat. No. 13: A hook-and-pendulum earring from the Yüksel Erimtan Collection, identified as Cat. No. 13²² (Fig. 11). The piece features a semi-lunar-shaped filigree setting that encloses a stone, likely crafted from glass frit to emulate the appearance of lapis lazuli. Three pendulums are affixed to the slot in the center of the piece via separate rings that have been rotated several times and secured in a hooked form. The pendulums on the right and left sides are adorned with elongated, rounded green glass frits beads on the upper sections, designed to imitate lapis lazuli, while the lower sections showcase translucent, lustrous white pearls. Conversely, the central pendulum incorporates a bead of genuine lapis lazuli in a deep, matte blue hue, accompanied by a bright white pearl and a carnelian bead exhibiting a rich reddish-brown color. Additional ornamentation includes relief dot patterns created using the granulation technique. These details are present around the slot in the center and between the beads on each pendulum. The pendulums are finalized by coiling the lower ends around themselves and sealing them. Comparable examples provide insight into the earring's historical context. A similar piece discovered in Isparta, now held by the Museum of Anatolian Civilizations, has been dated to the 3rd century AD by Bingöl (Bingöl, 1999, p. 88, Cat. No. 77). Looking at the details it is seen that the hook of the work, which differs from the Erimtan example with minor differences, has a disc and a pendulum, and its three separate pendulums are decorated with stones. Another comparable example is housed in the Hamburg Museum of Art and Industry, dated to the 3rd–4th century AD or later. This piece, featuring a precious stone set within a disc and two pendulums, exhibits distinctions from Cat. No. 13 in its pendulum count and specific characteristics (Hoffman-Clear, 1968, p. 143, 92). Additionally, a gold earring recovered from a tomb in Olbia, near the Black Sea, closely resembles the Erimtan example in form. This artifact, exhibited in the British Museum, has been dated to the 3rd century AD (Marshall, 1969, p. 306, Pl. LV, 2656). Originally designed with three pendulums, one is now missing. The square-shaped stone slot and some pendulum adornments are also absent. Based on these evaluations, Cat. No. 13 aligns with the characteristics of similar artifacts dated to the 3rd century AD and is therefore attributed to this period.

22 Museum Inv. No.: 914; Dimension: Length/Height: 1,5 x 3 cm; Diameter of the stone inside the disc: 0,6 cm; Weight: 3,42 gr.



Fig. 11: Hook and Pendulum Earrings (Cat. No. 13-14)

Cat. No. 14: Among the artifacts in the Erimtan Museum, the pendulum and probably hook artifact identified as Cat. No. 14²³, is made entirely of gold and a solid filling hollow (Fig. 11). The design includes a long, rectangular segment that widens in the center and terminates in pendulums. A round bluish-green turquoise stone is set into a slot at the top. The central section is adorned with a circular carnelian agate stone of a reddish-brown hue, positioned within a rosette decoration that extends inwards. Two thin, flat gold rings, made using the filigree technique, are soldered on either side of the piece²⁴. Two pendulums were originally passed through the rings at the base before soldering. These pendulums were inserted through a rectangular transitional element secured by hooking the ends of thin wires, which were then wrapped around the pendulum. One of these wires is broken, while the other retains a square-shaped decorative pattern created using the granulation technique. In the original form, the pendulum strings were probably decorated with semiprecious stones. This artifact can be compared to earrings dated to the 3rd century AD, categorized as hooked disc-and-pendulum earrings in the collection of the Anatolian Civilizations Museum (Bingöl, 1999, pp. 88-91, Cat. Nos. 76-80, 83). Similar features include square or round rosette decorations centered with colored stones and completed with double or triple pendulums. Comparable examples from the Istanbul Archaeological Museum exhibit two pendulum earrings with square and oval-shaped rosette decorations, each centered with a semiprecious stone and adorned with three pendulums, mirroring the Erimtan artifact (Ergil, 1983, Pic. 121-122). Artifacts dated to the 4th century AD also feature precious stones at the pendulum ends, and their rosette designs close resemblance to Cat. No. 14. Based on these comparisons and supporting literature studies, Cat. No. 14 has been dated to the 3rd–4th century AD.

23 Museum Inv. No.: 913; Dimension: Length/Height: 2,4 cm; Weight: 1,83 gr.

24 There are probably also rings on the left side of the piece, but this part is broken and missing.

3. Pendant

The Paleolithic period marked the emergence of the earliest necklaces, crafted from naturally available materials such as colored stones, animal teeth and horns, and shells. These materials were shaped through rubbing and scraping and then strung together after being drilled (Köroğlu, 2004, p. 14). During the Archaic and Classical periods, jewelry craftsmanship became highly meticulous. Necklaces commonly featured acorn-, cocoon-, vase-, and sphere-shaped pendants crafted using the granulation technique, suspended from gold wire braids (Türe, 2011, p. 205). From the Hellenistic Period onward, string necklaces with pine cone pendants and gold beads gained popularity. By the 4th century AD, gold necklaces featuring double or triple pendants suspended from short chains had emerged (Türe, 2011, p. 205). In the Roman period, necklace designs diversified, incorporating chain necklaces woven in intricate patterns or composed of large plates, along with pendants and cameos imbued with religious and magical significance (Türe, 2011, p. 216; Tavukçu-Göral, 2020, p. 1476). Roman pendants and medallions often featured hanging rings crafted from wide strips (Türe, 2011, p. 216). Among the necklace and earring elements, pendants stand out with their larger sizes than other pieces and are seen as the only element in necklaces. In addition to those made of precious metals, there are also those made of various metal or precious stone combinations (Bingöl, 1999, p. 33).

Cat. No. 15: A pendant is exhibited in the Erimtan Archaeology and Art Museum, and this work is identified as Cat. No. 15²⁵ (Fig. 12). The specific pendant under study (Cat. No. 15) features a wide, grooved ring encircled by a filigree frame. The centerpiece of the thin, disc-shaped gold plate is a helical decoration formed by winding a thin gold wire into a spiral.

Cat. No. 15



Fig. 12: Disc-shaped pendant (Cat. No. 15)

The exact symbolism of this design reminiscent of a stylized Ionic headdress is uncertain but seems to represent a floral motif akin to the Tree of Life. Three circular ornaments, the largest positioned centrally, embellish the lower portion. In addition, a circular ring is positioned at the

25 Museum Inv. No.: 1287; Dimension: Diameter: 1,3 cm; Thickness: 0,05 cm; Weight: 0,56 gr.

base of the spirals, splitting upward. The crafting technique firmly situates this pendant within the Roman period. For precise dating, comparable examples are essential. Similar disc-shaped pendants include one housed in the Anatolian Civilizations Museum, which shares stylistic elements with Cat. No. 15, such as a gold plate and filigree framing (Bingöl, 1999, p. 145, Kat. No. 161). However, unlike the Erimtan example, it features a Helios (?) relief crafted using the repoussé technique. Another example is from the Burton Y. The Berry Collection dated to the 2nd–3rd century AD, incorporates busts of Helios and a youth on its disc-shaped body, also crafted with the repoussé technique (Rudolph-Rudolph, 1973, p. 78a). This pendant includes granulation and central rosette decoration, (Rudolph-Rudolph, 1973, p. 129a-b), surrounded by filigree a characteristic shared with Cat. No. 15. Cat. No. 15 can be dated to the 3rd century AD based on the characteristics and dating of parallel specimens.

Evaluation and Conclusion

This article analyzed earrings and pendants, with a focus on funerary jewelry in the Yüksel Erimtan Collection. Items such as mouth-eye bands, wreaths, and eye applique were included. Material analysis revealed their delicate construction, including unsuitability for daily use. Comparisons with skull drawings clarified the functions of these items: one served as an eye band (Cat. No. 2), while four were identified as mouth bands (Cat. No. 1, 3-5).

As a result of the analogical evaluations, the Erimtan bands were categorized into four types (Cat. Nos. 1–5). Of these, Type 1 and Type 4 with repoussé decoration are dated between the Hellenistic Period and the 3rd century AD. The thin foil wreaths (Cat. Nos. 6–7) are attributed to the Roman Period. Two appliques, crafted from thin gold leaf, are likely funerary eye appliques (Cat. Nos. 8–9), despite earlier interpretations suggesting they were components of wreaths.

The collection also includes spiral-shaped, stylized snake-head earring and earrings with a disc ring and a pendulum rosette. The intricate craftsmanship of the spiral-shaped earring (Cat. No. 10) indicates an early origin in the (5th–4th century BC). In contrast, the earrings with disc rings and pendulums (Cat. No. 11–14), embellished with semiprecious stones, are comparable to similar items in other museum collections and are dated to the 3rd–4th century AD. Although the chain of the disc-shaped pendant (Cat. No. 15) is not extant within the collection, its central spiral decoration is noteworthy. Despite extensive research, a precise parallel for this piece, dated to the 3rd century AD, has not yet been identified.

The purchased works in the Yüksel Erimtan Collection collectively span a wide chronological range, from the Classical to the Roman Periods. The production techniques of jewelry, whether intended for burial or daily use, evolved significantly, reflecting technological advancements across different eras and cultures. This evolution has been closely tied to economic factors from ancient times to the present day. Unfortunately, the

inventory records at the Erimtan Archaeology and Art Museum lack precise data regarding the excavation contexts of these artifacts. Despite this loss of archaeological information, these works, evaluated within a typological framework, undoubtedly offer valuable contributions to the scholarly literature through their distinctive iconography and ornamentation.

Acknowledgement: We extend our heartfelt gratitude to the Erimtan Archaeology and Art Museum Directorate and Collection Manager, Selma Ünal Çakmak for the support in permitting us to conduct this study. We are deeply appreciative of the opportunities and assistance they generously provided throughout the study process.

Peer-review: Externally peer-reviewed.

Author Contributions: Conception/Design of Study- A.A., Z.A.T.; Data Acquisition- A.A., Z.A.T.; Data Analysis/ Interpretation- A.A., Z.A.T.; Drafting Manuscript- A.A., Z.A.T.; Critical Revision of Manuscript- A.A., Z.A.T.; Final Approval and Accountability- A.A., Z.A.T.

Grant Support: The authors declared that this study has received no financial support

Conflict of Interest: The authors has no conflict of interest to declare.

References

Modern References

- Akçay, T. (2017), *Yunan ve Roma'da Ölü Kültü*. Ankara: Bilgin Kültür Sanat Yayınları.
- Avli, A. (2020), *Neapolis Nekropolünden İki Oda Mezar ve Buluntuları*. (Master Thesis). Atatürk Üniversitesi, Sosyal Bilimler Enstitüsü, Erzurum.
- Aydın Tavukçu, Z. (2007), *Parion Nekropolü 2005 Yılı Buluntuları*. (Unpublished PhD dissertation). Atatürk Üniversitesi Sosyal Bilimler Enstitüsü, Erzurum.
- Aydın Tavukçu, Z. (2008), "Parion Altınları", Can, B., Işıklı, M. (Ed.), *Atatürk Üniversitesi 50. Kuruluş Yıldönümü Arkeoloji Bölümü Armağanı, Doğudan Yükselen Işık Arkeoloji Yazıları* (pp. 383-399). İstanbul: Zero Prod Ltd.
- Aydın Tavukçu, Z. ve Avli, A. (2021), "Neapolis Nekropolünden Bir Grup Altın Epistomion", Yılmaz, M. A., Can, B. ve Işıklı, M. (Ed.), *Anadolu Arkeolojisiyle Harmanlanmış Bir Ömür Mehmet Karaosmanoğlu'na Armağan*. (pp. 67—90). Ankara: Bilgin Kültür Sanat Yayınları.
- Bingöl, F. R. I. (1999), *Antik Takılar, Anadolu Medeniyetleri Müzesi*. Ankara: TC. Kültür Bakanlığı Anıtlar ve Müzeler Genel Müdürlüğü.
- Çalış, S., Çalış, Ç., Koçali, K., Büyükkakıncı, B. Y. (2021), "18-65 Yaş Arası Kişilerin Antropometrik Verilerinin Belirlenmesi Üzerine Bir Alan Araştırması: Yükseköğretim Kurumu Uygulaması", *Ergonomi*, 4(3), 147-161.
- Demirer, Ü. (2016), "Kıbyra Kazılarında Yeni Bir Buluntu Grubu: Göz Aplikleri", *Phaselis II*, 133-148.
- Despini, A.(2009), "Gold Funerary Mask", *AntK*, 52, 20-65.
- Ergil, T.(1983), *Küpelere, İstanbul Arkeoloji Müzeleri Küpelere Kataloğu*. İstanbul: Sandoz Yayınları-Güzel Sanatlar Matbaası.
- Erhat, A.(2007), *Mitoloji Sözlüğü*. İstanbul: Remzi Kitabevi.

- Gavrilaki, I. ve Tzifopoulos, Y.Z.(1998), “An “Orphic-Dionysiac” Gold Epistomion from Sfakaki near Rethymno”, *Bulletin de correspondance hellenique*, Vol., 122, livraison 1, 343-355.
- Göral, S.(2019), *Tokat Müzesi’ndeki Grek ve Roma Dönemi Altın Takıları*. (Master Thesis). Atatürk Üniversitesi, Sosyal Bilimler Enstitüsü, Erzurum.
- Grimal, P.(2007), *Mitoloji Sözlüğü*, Yunan ve Roma (Çev. Tamgüç, S.). İstanbul: Kabalcı Yayınevi.
- Higgins, R.A.(1961), *Greek and Roman Jewellery*. London: University of California Press.
- Hoffmann, H.-Claer, V. V.(1968), *Museum Für Kunst Und Gewerbr Hamburg, Antiker Goldund Silberschmuck, Katalog mit Untersuchung der Objecte auf technischer Grundlauge*. Germany: Verlag Philipp Von Zabern.
- Köroğlu, G.(2004), *Anadolu Uygarlıklarında Taki*. İstanbul: Ege Yayınları.
- Kurtz, D.C. - Boardman, J.(1971), *Greek Burial Customs*. England, Ithaca, New York : Cornell University Press.
- F. H. Marshall, M. A.(1969), *Catalogue of the Jewellery. Greek, Etruscan, and Roman, in the Departments of Antiquities, British Museum*. Oxford: Great Britain at the University Press.
- Meriçboyu, Y.A.(2001), *Antikçağ’da Anadolu Takıları*. İstanbul: Akbank Kültür ve Sanat Kitapları.
- Miller, S. G.(1979), *Two Groups of Thessalian Gold*, Classical Studies, Voluma 18. London: University of California Publication.
- Ogden, J.(1982), *Jewellery of The Ancient World*. London: Trefoil Books.
- Özbek, M.(2009), Köşk Höyük (Niğde) Neolitik Köyünde Kil Sıvalı İnsan Başları, *Hacettepe Üniversitesi Edebiyat Fakültesi Dergisi*, 26(1), 145-162.
- Pierides, A.(1971), *Jewellery In The Cyprus Museum*, Picture Book No. 5. Nicosia Cyprus: Zavallis Press LTD.
- Polat, R.T.(2013), Stratonikeia Akdağ Nekropolü: Somut ve Soyut Kültür Üzerine Bir Araştırma. (PhD Thesis) Ankara Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.
- Quast, D.(2014), “Goldener Sepulkral schmuck der Römerzeit aus Tartus/Antarados”, Honesta Missione (Ed.), Römisch-Germenisches Zentralmuseum (pp. 265-310). Verlag des Römisch-Germanischen Zentralmuseums: Festschrift für Barbara Pferdehirt Mainz,
- Rohde, E.(2020), *Psyche, Yunanlarda Ruhlar Kültü ve Ölümsüzlük İnanç* (Çev. Orhan, Ö.). İstanbul: Pinhan Yayıncılık.
- Rudolph, W. - Rudolph, E.(1973), *Ancient Jewelry from The Collection of Burton Y. Berry*. Indiana: Indiana University Art Museum Publication.
- Serdaroğlu, Ü.(1972), Ağın ve Kalaycık Kazıları 1970, *Keban Projesi 1970 Çalışmaları*, Seri I, No. 3 (pp. 7-44). Ankara: Orta Doğu Teknik Üniversitesi Keban Projesi Yayınları.
- Şahin, N.(1996). “Beyaz Lekythoslar Işığında Klasik Devirde Atina’da Ölüm İkonografisi ve Ölü Kültü”, *Arkeoloji Dergisi*, IV, 143-167.
- Şirin, O. A.-Yiğitpaşa, D.(2021), “Yeni Veriler Işığında Amisos Altın Eserleri Üzerine Gözlemler”, *Amasya Üniversitesi Sosyal Bilimler Dergisi (Asobid)*, Sayı: 10, 143-216.
- Tavukçu, A. Y.-Göral, S. (2020), “Tokat Müzesi’nden Bir Grup Altın Kolye”, *Atatürk Üniversitesi Sosyal Bilimler Dergisi*, Sayı: 24 (3), 1473-1487.
- Tekin, H.(2018), *Madeni Eser Tipolojisi*. Ankara: Bilgin Kültür Sanat Yayınları.

- Temizsoy, İ.-Demirdelen, H.(1999), Balgat Roma Mezarı, *Anadolu Medeniyetleri Müzesi 1998 Yıllığı* (pp. 24-52) Ankara: Plaka Matbaa.
- Tonkova M.(2012), *The jewellery of a wealthy Thracian woman from Anchialos and the fashion in Middle and Late Hellenistic jewellery, Actualité de la recherche sur les mobiliers non céramiques de l'Antiquité et du haut Moyen Âge*, Actes de la table ronde européenne instrumentum, Lyon (F, Rhône), Chauvigny Mémoire XLIX, Association des Publications Chauvinoises.
- Tonkova M.(2013), “Gold Wreaths From Thrace, The Thracians and their Neighbors in the Bronze and Iron Ages”, *Proceedings Of The 12th International Congress Of Thracology, “Necropolises, Cult Places, Religion, Mythology”, Volume II*, Braşov, 413-445.
- Türe, A.- Savaşçın, M. Y.(2002), *Anadolu Antik Takıları*. İstanbul: Goldaş Kültür Yayınları.
- Türe, A.(2011), *Eski Çağlardan Orta Çağa, Dünya Kuyumculuk Tarihi I*. İstanbul: Kuyumcular Odası Yayınları.
- Uhrı, A.(2014), *Anadolu'da Ölümün Tarihöncesi, Bir Geleneğin Oluşum Süreçleri*. İstanbul: Ege Yayınları.
- Uygun, Ç.(2007), “Silifke Müzesi Örneklerin Işığında Hellenistik-Roma Dönemi Küpe Tipolojisi”, *Silifke Müzesi Konferansları*. Silifke, Taşeli Matbaası, 96-105.
- Uygun, Ç.(2021), “Adana Müzesi'nden Cenaze Takıları ve Aplikler”, *Arkhaiia Anatolika, Anadolu Arkeolojisi Araştırmaları Dergisi*, Vol. 4, 314-340.
- Yalçınkaya, F.(2019), *Bir Zamanlar Toroslar'da Sagalassos*. İstanbul: Yapı Kredi Kültür Sanat Yayıncılık.
- Οικονόμου, Σ. (2003), *Χρυσά και Αργυρά Επιστόμια*, Ρίθυμνα: Θέματα Κλασικής Αρχαιολογίας, αρ. 17, Ρέθυμνο.
- Юрьевич Т.М.(2015), Фанагория. Результаты археологических исследований. Том 2 / Под общ. ред. В.Д. Кузнецова. Золото Фанагории / Под ред. Кузнецов Владимир Дмитриевич [общ. ред.], М.Ю. Трейстера. М.: ИА РАН, Институт археологии РАН, Москва.
- Williams D.-Ogden J.(1994), *Greek Gold, Jewellery Of The Classical World*. London: British Museum Press.

Internet References

<https://erimtanmuseum.org/tr/muze> (Access Date: 21.01.2024; Clock: 21:18)



New Excavations of a Section of the Late Roman (Valens) Aqueduct in İstanbul

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Submitted: 23.08.2024

Revision Requested: 05.11.2024

Last Revision Received: 09.11.2024

Accepted: 10.01.2025

Citation: Talay, D., Yılmaz, M.D., Aydın, B.A., & Gündüz, V. (2024). New excavations of a section of the late roman (valens) aqueduct in İstanbul. *Anadolu Arařtırmaları-Anatolian Research*, 31, 357–371.
<https://doi.org/10.26650/anar.2024.31.1536091>

ABSTRACT

İstanbul, throughout history, has been home to several civilisations and has been named differently by each civilisation. As the direct and indirect source of life, the need for water was one of the most important requirements of İstanbul's populace. In this context, the city is known to have received its first long-distance aqueduct during the Roman Empire under the reign of Emperor Hadrian (AD 117-138). Later, a second aqueduct was constructed during the reign of Emperor Valens (AD 364-378).

A vaulted channel belonging to a Roman Age aqueduct discovered under the foundations of old structures removed during an urban transformation project constitutes the subject of this work. The aqueduct composed of a vaulted channel is located within Gaziosmanpaşa Municipality's Bağlarbaşı District near Adsız Nefer Street and holds important information regarding the aqueducts of İstanbul which began to be utilized to bring water from far destinations.

With knowledge from previous research, this work aims to investigate and identify which aqueduct line the channel belongs to and to contribute to the knowledge regarding the city's water supply.

Keywords: İstanbul, Aqueduct, Water Supply, Vaulted Channel, Roman Age Archaeology



Introduction

İstanbul, throughout history, has been home to several civilisations and has been named differently by each civilisation. The city was named Byzantium/Byzantium during the Greek and Roman Ages, later during the Late Roman and Byzantine Empire the city was known as Konstantinoupolis and eventually during the Ottoman Empire and the Turkish Republic, it was renamed İstanbul.

As the direct and indirect source of life, the need for water was one of the most important requirements of the cities' populace. In this context, the city is known to have received its first long-distance aqueduct during the Roman Empire under the reign of the Emperor Hadrian (AD 117-138) (Çeçen, 1991, 23; Mango, 1995, 10; Çeçen, 1996, 20; Crow et al., 2008, 10-14; Crow, 2012b, 118; Ward et al., 2017, 178,179-180; Ruggeri, 2018, 34; Ward, 2018, 349; Öziş et al., 2023, 81). Later a second aqueduct was constructed during the reign of the Emperor Valens (AD 364-378) (Çeçen, 1991, 23; Mango, 1995, 12; Çeçen, 1996, 20; Crow et al., 2008, 9-14; Crow, 2012b, 118; Snyder, 2013, 7-8; Ward et al., 2017, 179-180,185; Ruggeri, 2018, 34-36; Ward, 2018, 349,357; Öziş et al., 2023, 81). Throughout the following ages, the city's aqueducts were renovated and extended. Although these aqueducts were not the city's only aqueducts, they are known as being the oldest ones in the city. The city is known to have had many aqueducts during the Ottoman Empire (Çeçen, 1991, 55-168; Çeçen, 1996, 73-99; Öziş et al., 2020, 13-16).

The Channel's Composition

The section of the aqueduct (Fig. 1) which is the topic of this work consists of a vaulted channel unearthed from below the foundations of old structures which had been removed during an urban transformation project¹. The channel is located within the Bağlarbaşı district of Gaziosmanpaşa Municipality close to Adsız Nefer Sokak (Fig. 2).

The coordinates² of the channels most northwest (sourceward) are 41°4'2.90"N, 28°54'57.36"E. The distances of the channel to some of the major land marks are as: 4.2 km northwest of the Eğrikapı / Theodosian Wall (crossing point), 6.3 km northwest of the Bozdoğan Kemerli and 2 km north of Rami Kışlası (Rami Barracks). Measured elevation of the channel floor is 60.500 m asl at the northwest (sourceward) and 60.488 m asl at the southeast (cityward), above the vault of the channel at the northwest (sourceward) is measured as 62.65 m asl. The distance between these measurements is 122.23 m resulting in the gradient being almost 0.001% (0.00098%)³.

1 The channel of interest will be preserved in-situ and this project will be a topic of another paper.

2 The coordinates were taken from Google Earth.

3 It should be noted that the GPS CORS was held by the author during the documentation. During the coordinate reading for the northwest reading the channel floor was observed and during the southeast reading the floor was not observed due to the water being unclear. Therefore the gradient calculation might have errors.



Figure 1: Aerial photograph of the aqueduct channel.

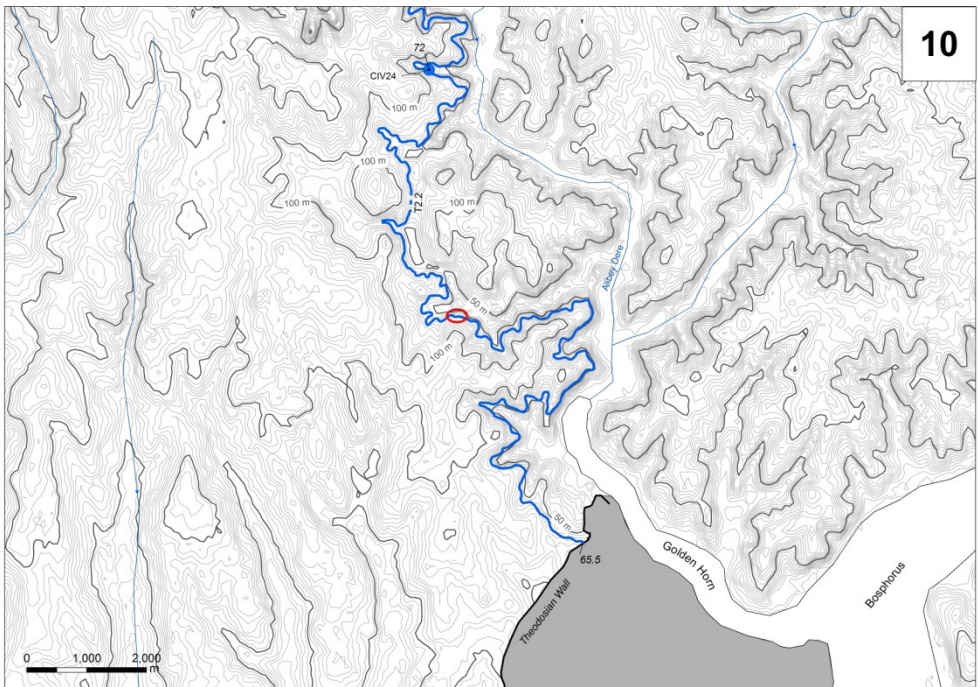


Figure 2: Location of the aqueduct channel (after Ruggeri 2018, Map 38).

This channel, to keep the required gradient was constructed with bends following the contours of the topography. A significant detail regarding the construction is the positioning of the channel inside the foundation bed prepared by carving the bedrock (Fig. 1,3). The stones used for the construction of the walls of the channel are also from the same rock, revealing that excess material from the bedrock carving has been re-utilized. This detail reveals the site of construction was also used as a quarry for the intended construction, which reduced the need to have construction materials transported for the construction. The topography of the land as well as the bedrock formation would have been the direction criteria for the course of the aqueduct.

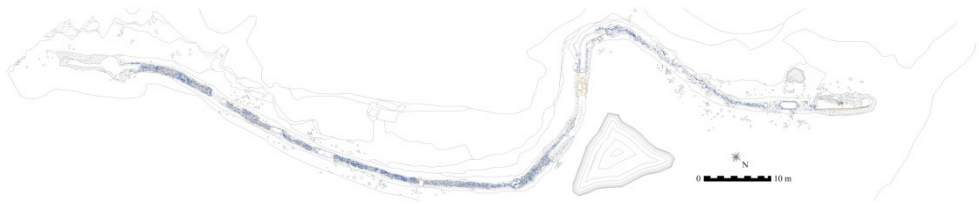


Figure 3: Plan of the aqueduct channel (Blue= original phase, Orange= Ottoman phase).



Figure 4: Aerial view of the vaulted aqueduct channel.

Dimensions⁴ of the channel are measured as 180-200 cm in height, 92 cm in width, and with a wall thickness of 30-33 cm (Fig. 4-6). The springing point (impost point) of the channel is 150 cm high and the vault over it was constructed with rubble stones utilizing mortar (Fig. 4-10). The side walls of the channel are understood to have been constructed by using slates of the local stone (sandstone and limestone) and utilizing pink-coloured hydraulic mortar (*opus signinum*), without the usage of plaster or lining on the inner walls of the channel. The omission of plaster or lining being used reveals the local stone (bedrock) to be impervious. Although the side walls were constructed without the execution of hydraulic plaster or lining,

4 Dimensions of the channel are greater than the 4th century channels of 65 cm wide, 100 cm height (springing point), though inferior to the 5th century channels of 160 cm wide, 170 cm height (springing point) (Crow et al., 2008, 27; Ruggeri, 2018, 41, Fig. 3.2-3.3; Crapper, 2020, 428-429).

It should also be noted that within the 4th century channels there are examples of the exact same sizes (Ruggeri, 2018, Fig. 3.3).

hydraulic plaster was used on the channel floor⁵. In the corners where the channel floor and side walls meet, traces of fillets are not found. As the floor lining is intact and has no traces of fillets, reveals the channel floor and side walls to have been joined without the use of fillets⁶.



Figure 5: Vault from the original phase of the aqueduct channel.

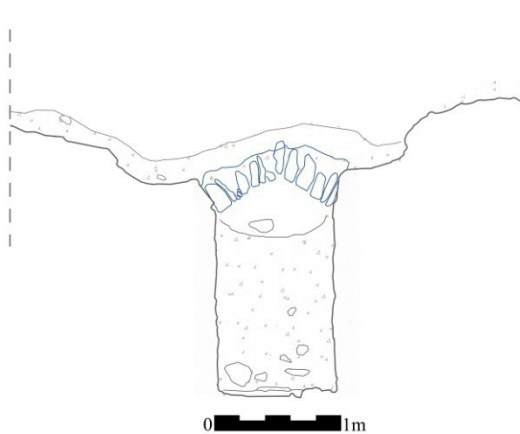


Figure 6: Cross-section drawing of the vault from the original phase of the aqueduct channel.

- 5 The channels differ from the previously documented channels regarding the absence of the hydraulic plaster/lining on the side walls (Ruggeri, 2018, 41, Fig. 3.2).
- 6 The detail regarding the fillets will be discussed further in the conclusion.

The vault of the channel and the superstructure of the channel are observed to be depredated in some parts and some of these depredateions are observed to have been renovated during the Byzantine and Ottoman Ages however some of the damage is understood to have been caused after the channel was no longer servisable and ceased to be used (Fig. 4,9-10). In some parts the depredateion is not only on the superstructure but also on the side walls, with some of the walls having been totally destroyed however through the rest of the channel and the bedrock the direction of the channel is understood (Fig. 1,4,9).



Figure 7: Damaged vault from the original phase of the aqueduct channel.

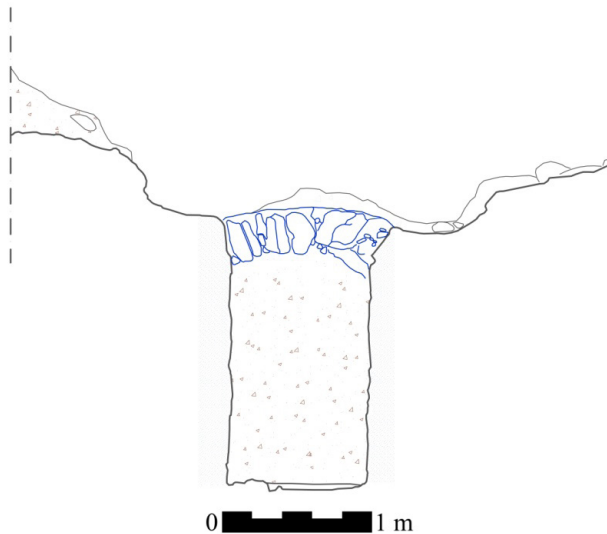


Figure 8: Cross-section drawing of the damaged vault from the original phase of the aqueduct channel.

The renovations that were carried out during the Byzantine and Ottoman Ages are observed to have utilized white-coloured lime-based mortar and the collapsed sections of the vault were renovated by using lids or large blocks fashioned from mantra limestone (Fig. 9,11). However, due to these renovations and the lack of evidence on the original vault, no traces are witnessed regarding the airing shafts.



Figure 9: Vault from the Ottoman renovation phase of the aqueduct channel.

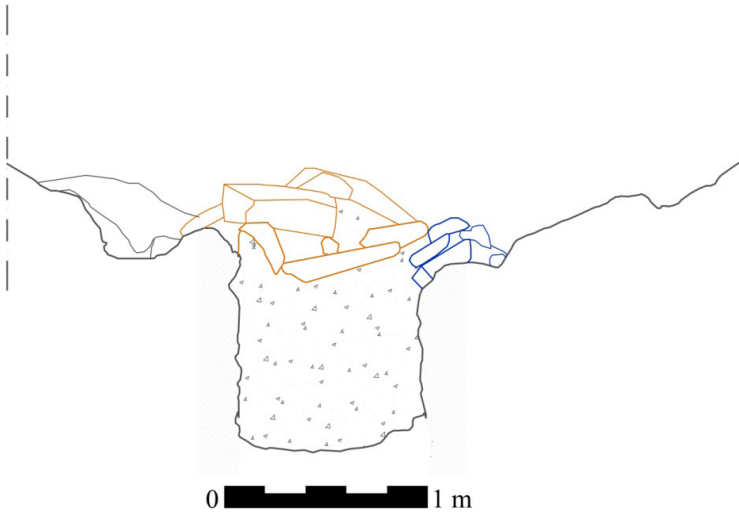


Figure 10: Cross-section drawing of the vault from the Ottoman renovation phase of the aqueduct channel.



Figure 11: Vault from the Ottoman renovation phase with mantra limestone lids.

The excavations conducted on the channel were carried out after the demolition of the old unsafe buildings on the site, therefore some parts of the vaults were damaged before the discovery and identification of the channel. After the channel remains were understood to be archaeological, rescue excavations were conducted. During the construction of the mentioned buildings over the channel which took place approximately 60 years ago, some damage was caused before the demolition of these buildings. This is understood from some of the foundations being directly over the channel. The excavations were conducted between the modern rubble and the archaeological layers.

During archaeological research within the channel sadly a stratigraphy was not observed within the fill, close to the floor a limited amount of pottery fragments dating to the Late Byzantine and Ottoman Ages were found. The architectural features and the finds from within the channel indicate that the channel was originally built during the Late Roman Ages. The architecture of the channel is similar to previously published channels between Tayakadın and Edirne Kapı (Theodosian Wall) in regards to the vaults (Çeçen, 1996, 115-116,121,124) and side walls (Çeçen, 1996, 115-116,121-123).

Related Aqueduct

According to the location, the aqueduct channel should be part of either the two Ottoman Aqueducts⁷ in the area: the Halkalı Aqueduct or the Kırkçeşme Aqueduct which are mentioned to have been built during the reign of the Late Roman/Byzantine Emperors Valens (AD 364-378) and Theodosius I. (AD 378-395) respectively (Çeçen, 1991, 171-172; Çeçen, 1996, 76,80,215-216; Crow, 2007, 270; Crow et al., 2008, 9-15,87, fn. 109; Crow, 2012a, 40). Though it should be noted that Byzantine sources mention an Aqueduct of Hadrian which

⁷ The Ottoman aqueducts are known to have changed the sources and the course of previous aqueducts of the city with renovations.

is referred to as “the aqueduct of the city” which is distinct from the Aqueduct of Valens (Crow et al., 2008, 10-14, 114-117; Crow, 2012a, 38, 42) (Fig. 12). It is also mentioned that the Aqueduct of Theodosius I. is most likely the new name of the renovated Aqueduct of Hadrian or Valens, which most likely is the former (Çeçen, 1996, 214; Crow et al., 2008, 16). The Hadrianic Aqueduct is stated to have entered the city close to the Kırkçeşme Aqueduct’s distribution chamber in the vicinity of Eğrikapı at 35 m altitude (Çeçen, 1996, 82; Crow, 2007, 273-276; Crow et al., 2008, 115; Crow, 2012b, 120; Snyder, 2013, 7-8, Map. 2.1; Ruggeri, 2018, 60; Ward, 2018, 191). While the Valens Aqueduct enters the city by crossing the Theodosian Wall at 55-65 m altitude close by to Edirne Kapı (Çeçen, 1996, 120-121; Crow, 2007, 273-276; Crow et al., 2008, 27,120-121; Crow, 2012b, 120; Snyder, 2013, 8-9, Map. 2.1; Ruggeri, 2018, 60; Ward, 2018, 221). The Kırkçeşme Aqueduct is located 60 m in distance to the northeast and located parallel to the channel of interest, resulting in the channel belonging to the Ottoman Halkalı Aqueduct and Roman Valens Aqueduct therefore dating to the reign of Emperor Valens (Fig. 2) (Çeçen, 1991, Plan 6; Çeçen, 1996, 80; Crow et al., 2008, Fig. 2.1-2.2; Crow, 2012a, Fig. 2; Ruggeri, 2018, 60, Map 5).

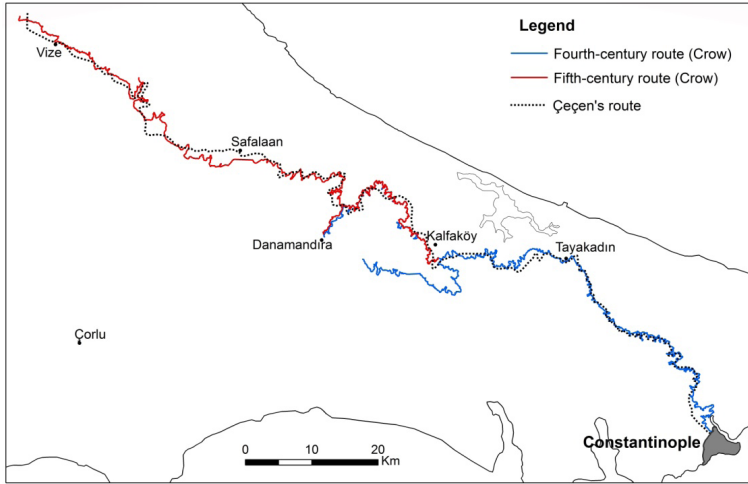


Figure 12: 4th & 5th century AD aqueduct of the city (Ruggeri 2018, Map 1).

Halkalı sources began to be used after the 15th century AD by the Ottomans (Çeçen, 1991, 25-28; Çeçen, 1996, 76-79; Bono et al., 2001, 1333; Crow, 2007, 274-275; Crow et al., 2008, 22-23,28), therefore for the Roman Age aqueducts the aqueduct will be referred to as the Aqueduct of Valens.

Previous works carried out on the ancient aqueducts of İstanbul present some information relating to the area of the channel of the topic. According to Çeçen’s work, the area of study is located between the aqueduct bridges known as Sinekli Kemer and Kuyu Keçelik Kemer (Çeçen, 1996, 75,7).

The sources and springs for this aqueduct (Valens) are mentioned to have been surveyed during the reign of Constantius II. in 357 AD (Crow 2012a, 39; Crow 2012b, 117-118). After the completion of the construction the Aqueduct of Valens is known to have brought water to the city in 373 AD (Mango, 1995, 12; Çeçen, 1996, 20,216; Crow, 2007, 270; Crow et al., 2008, 225; Crow, 2012a, 39; Crow, 2012b, 118; Crapper, 2020, 427) and that it utilized bridges and tunnels (Crow et al., 2008, 224; Crow, 2012a, 39; Crapper, 2020, 427). The water source chosen for the Aqueduct of Valens is known as the Danamandıra and Pınarca district's waters (Crow, 2007, 272-273; Crow et al., 2008, 14-15,118; Crow, 2012a, 40; Crow, 2012b, 122,124; Snyder, 2013, 9-10, Fig. 2.1; Ruggeri, 2018, 38-40,50-53,54,56, Map 1,3,4; Ward, 2018, 119-121, Map. 5.3; Crapper, 2020, 427-428, Fig. 1; Öziş et al., 2020, 11; Öziş et al., 2023, 81) and later the additional Vize district's waters (Mango, 1995, 12-14; Bono et al., 2001, 1325,1327; Crow, 2007, 270,273; Crow et al., 2008, 25; Crow, 2012a, 40; Crow, 2012b, 122-123; Snyder, 2013, 9-10, Fig. 2.1; Ruggeri, 2018, 40,50-54,56, Map 1,3,4; Ward, 2018, 119-121, Map. 5.3; Crapper, 2020, 427-428, Fig. 1; Öziş et al., 2020, 11; Öziş et al., 2023, 81).

Additions to the aqueduct are understood to have been made during the reign of Theodosius I (AD 379-395) and later during the renovations of Justinus II (AD 565-578). The Valens Aqueduct as well as the Hadrian Aqueduct are known to have been renovated during 575-576 AD (Crow, 2007, 270; Crow et al., 2008, 16-17; Crow, 2012a, 48; Crow, 2012b, 131). During the reign of Constantine V (741-775 AD), both of the aqueducts (Valens and Hadrian) were once again renovated (Mango, 1995, 17; Crow et al., 2008, 19-20; Crow, 2012a, 49; Crow, 2012b, 133,135; Ruggeri, 2018, 34-38, Fig. 3.1).

Halkalı sources began to be used after the 15th century AD (Çeçen, 1991, 25-28; Bono et al., 2001, 1333; Crow, 2007, 274-275; Crow et al., 2008, 22-23,28. Çeçen, 1996, 76-79). In other words, additional closer water sources were tapped by branches were added to the existing aqueduct during the Ottoman renovations. During these renovation and construction activities, the Bozdoğan Kemerleri is known to have been renovated and utilized for the (Ottoman) Halkalı Aqueduct during the reign of the Ottoman Sultan Mehmet II the Conqueror (AD 1451-1481) (Çeçen, 1991, 134-138; Çeçen, 1996, 51-53; Crow et al., 2008, 22-23) and later renovated once again in 1790 by Ali Paşa (Çeçen, 1991, 25-28).

Valens Aqueduct's course followed the western bank of the Alibey River. Though it is mentioned that due to the Alibey Dam, the aqueduct cannot be observed at the location of the dam (Crow, 2007, 273; Crow et al., 2008, 27).

Different approaches for the aqueduct course are taken in various researches (Ruggeri, 2018, 48, Map 2). In various studies, the length of the Aqueduct of Valens is mentioned as being 242 km (Çeçen, 1996, 132,216), 246 km (Ward, 2018, 280) 426 km (Ward et al., 2017,

176; Ruggeri, 2018, 97-98,120, Table 5.3), 454 km (Crow, 2012a, 41; Snyder, 2013, 199-200, Tab. 7.3) and 592 km (Crow et al., 2008, 26).

According to one of these researches, the average gradient from Kalfaköy to İstanbul is calculated as 4% (Ruggeri, 2018, 99-100, Table 5.4), and the flow rate is calculated as 0.7 m³/s on annual average (Ruggeri, 2018, 202-203, Table 7.12). And the daily amount of water per capita is calculated as 160-320 liters (Ruggeri, 2018, 224-227, Table 7.12; Ward, 2018, 271-27).

In regards to the construction details of the aqueduct within the modern city of İstanbul, the channel above the Bozdoğan Kemerı is published as being 0.92 m in width and 1.88 m in height (Crow et al., 2008, 119; Ward, 2018, 280). A published photograph of a channel upstream of the Bozdoğan Kemerı which might belong to the Valens Aqueduct reflects the brick channel has a vaulted cover and no hydraulic lining on its walls (Ward et al., 2017, 186, Fig. 5; Ward, 2018, 208-211, Fig. 6.8). Dimensions of this channel are given as 2 m wide and 2.5 m tall. The channel either belongs to another aqueduct line or the outer dimensions are presented instead of the inner dimension. Therefore using the known dimensions of the channel above the Bozdoğan Kemerı will be more accurate. The Bozdoğan Kemerı was produced with coursed grey limestone ashlar and mortared grey limestone rubble with the usage of pinkish mortar (Ward-Perkins, 1958, 65; Snyder, 2013, 29-30). Byzantine mortars are known to have ranged from grey to pink, the pink or pinkish mortar being known to have been produced with crushed brick and brick dust since the Roman Ages (Ousterhout, 2008, 134; Snyder, 2013, 215-216, Table 7.8).

The location of the channel of topic runs through a paleozoic complex which consists of shale, sandstone, marl, and limestone (Snyder, 2013, 134, Map. 5.2). Greenstone is mentioned as a local stone that is disintegrated granite; hard but coarse-grained and is known to scale easily (Ward-Perkins, 1958, 53-54). Other stones known to be used in the Aqueduct of Valens are; tertiary limestone or cream to grey sandstone, both are known to be quarried locally in the vicinity of Bakırköy (ancient Hebdomon) and mantra limestone known to have been quarried from Bakırköy and Sefaköy (Safaraköy). The latter is known to have been used throughout the Byzantine Period (Ward-Perkins, 1958, 53-55; Ousterhout, 2008, 136; Snyder, 2013, 30).

Conclusion

The water channel which is the topic of this work is important for providing information regarding the aqueducts of the Late Roman Age İstanbul (Byzantium), as well as the renovation and extensions that were carried out on these earlier aqueducts during the later periods and ages for the city's need of water. The obtained information ranges from the path of the aqueduct to the renovation and usage phases of this particular aqueduct.

The dimensions of the channel by being the same as the channel of the Bozdoğan Kemerî together with the building techniques used reflect the channel as being part of the Valens Aqueduct with similar masonry (Çeçen, 1996, 115-116,121-124).

Previously some parts of the aqueduct were unknown and therefore the maps produced regarding the aqueduct were incomplete. The new evidence presented in this work supplements our previous knowledge, though the course of the aqueduct is still not precisely known as a whole.

Elevation of the channel is the floor is measured as 60.500 m asl at the northwest (sourceward) and 60.488 m asl at the southeast (cityward) giving a gradient of almost 0.001% (0.00098%) at 122.23 m distance at the researched area⁸. Above the vault of the channel at the northwest (sourceward) part is measured as 62.65 m asl. The channel should have been carrying the water to the Bozdoğan Kemerî as both are part of the Valens Aqueduct. Though when some measurements are compared it seems impossible due to the Bozdoğan Kemerî being given at the altitude of 60-61 m (Çeçen, 1991, 134), though when more recent studies are taken into consideration the height of the channel is given as 56-57 m asl and the water entering the city below the Theodosian Walls at 59.5 m asl (Crow et al., 2008, 118,120-121) and with these measurements, the channel would certainly have been able to convey the water to the Bozdoğan Kemerî.

Approaching the numeric data it seems that the old research may have been using another base value for the 0 point. If the data had not corresponded to each other the channel would require to have had a sudden, approximately 22 m loss of elevation to join the Hadrianic Aqueduct (Çeçen, 1996, 120-121; Crow et al., 2008, 85 fn. 107). Therefore numeric values need to be reassessed.

Additional information on the aqueduct's path is to be found in the techniques and architecture that were used to convey the water during the Late Roman Age. According to the newly gained information the channel consisted of orderly and neat walls which were covered over by a barrel vault. The channel was constructed into a foundation bed which was carved into the bedrock and during this process, the excess material from the shaping of the bedrock was utilized as construction material for the channel's architecture. Judging the foundation bed carved into the bedrock, surveying instruments mentioned by Vitruvius (VIII.5.1-3): such as the *dioptra* and *chorobates* should have been used for the surveying required for the gradient calculations which are referred to as *perlibratio* not only for during the construction but also before the construction during the bedrock carving. The lack of hydraulic lining or plaster on the walls of the channel, reveals the local stone which was

8 The gradient calculation might not reflect absolute precision due to the southeast part being under unclear water.

also used for the construction to be impervious. Having hydraulic lining on the floor of the channel combined with the absence of fillets on the joining corners between the floor and the walls reflect the water conveyed to have had no hard impurities (Keleş & Yılmaz, 2020, 142-144,146; Yılmaz, 2021, 68,71-73). The conveyed water being free of hard impurities at this section of the aqueduct makes one (or more) of the following remarks to be the characteristic of the aqueduct itself:

The spring structure of the aqueducts may have an incorporated settling tank,

The aqueduct has a settling tank or settling tanks between the studied section and the spring,

The spring structure for collecting water utilizes a sluiceway taking water from above,

The spring does not contain hard impurities such as sand or stones.

The aforementioned remarks and possibilities give us preliminary notions regarding the Late Roman Aqueduct of İstanbul. With further evidence and studies, the topic will need to be re-evaluated.

The wider channels mentioned in previous studies might be settling pits among the aqueduct channel (Ruggeri, 2018, 49, Fig. 3.6, 3.8). One very important detail is that judging the earlier documentation of the channels the measurements were taken with earth within, therefore settling tanks would not be possible to be identified⁹. As Hodge states settling pits along the aqueduct are constructed by having the channel made wider and deeper in required areas (Hodge, 2002, 103,123-125). Though not many settling pits are documented (Hodge, 2002, 124), most likely due to damages or insufficient exploration¹⁰.

Archaeological evidence reveals that the channel continued to serve the city with renovations and additions during the Byzantine and Ottoman Ages. The stones used for these renovations as well as the mortars do not resemble the choices of the original construction phase of the channel. The choice of mortars hints at these renovations being conducted during the Ottoman Ages rather than the Byzantine Ages.

With further evidence and studies on the channel of the Roman Aqueduct of the city, hydraulic calculations as well as further insight regarding the city's urbanization will be brought to light and will contribute greatly to the understanding of the Roman and Late Roman Ages in İstanbul.

9 Widening of water channels in order to accommodate a settling tank is known from Aqueduct Bridge of Parion (Keleş & Yılmaz, 2020, 142-144; Yılmaz, 2021, 71-72).

10 It should be noted that unearthing and completely documenting an aqueduct is almost impossible, even if the complete length of the aqueduct was preserved.

Peer-review: Externally peer-reviewed.

Author Contributions: Conception/Design of Study- M.D.Y.; Data Acquisition- D.T., M.B.A., V.G.; Data Analysis/ Interpretation- M.D.Y., D.T.; Drafting Manuscript- M.D.Y.; Critical Revision of Manuscript- D.T., M.B.A., V.G.; Final Approval and Accountability- M.D.Y., D.T., M.B.A., V.G.

Grant Support: The authors declared that this study has received no financial support

Conflict of Interest: The authors has no conflict of interest to declare.

References

- Bono, P., Crow, J. & Bayliss, R. (2001). The Water Supply of Constantinople: Archaeology and Hydrogeology of an Early Medieval City. *Environmental Geology*, 40, 1325-1333.
- Crapper, M. (2020). The Valens Aqueduct of Constantinople: Hydrology and Hydraulics. *Water Hist*, 12, 427-448.
- Crow, J. (2007). The Infrastructures of a Great City: Earth, Walls and Water in Late Antique Constantinople. In L. Lavan, E. Zanini & A. Sarantis (Eds), *Technology in Transition A.D. 300-650* (pp. 251-285). Brill: Leiden.
- Crow, J. (2012a). Ruling the Waters: Managing the Water Supply of Constantinople, AD 330-1204. *Water Hist*, 4, 35-55.
- Crow, J. (2012b). Water and Late Antique Constantinople: "It would be abominable for the inhabitants of this Beautiful City to be compelled to purchase water." In L. Grig & G. Kelly (Eds.), *Two Romes: Rome and Constantinople in Late Antiquity* (pp. 116-135). New York: Oxford University Press.
- Crow, J., Bardill, J. & Bayliss, R. (2008). *The Water Supply of Byzantine Constantinople*. London: Society for the Promotion of Roman Studies.
- Çeçen, K. (1991). *İstanbul'un Vakıf Sularından: Halkalı Suları*. İstanbul: İstanbul Büyükşehir Belediyesi İstanbul Su ve Kanalizasyon İdaresi Genel Müdürlüğü.
- Çeçen, K. (1996). *Roma Suyollarının En Uzununu*. İstanbul: Türkiye Sınai Kalkınma Bankası.
- Hodge, A.T. (2002). *Roman Aqueducts & Water Supply*. London: Bristol Classical Press.
- Keleş, V. & Yılmaz, M.D. (2020). Aqueduct Bridge of Parion and its Settling Tank. In G. Wiplinger (Ed.), *De Aquaeductu Urbis Romae. Sextus Iulius Frontinus and the Water of Rome: Proceedings of the International Frontinus Congress on the History of Water Management and Hydraulic Engineering in the Mediterranean Region. Rome, November 10-18, 2018* (pp. 137-148). Leuven: Babesch/Peeters.
- Mango, C. (1995). The water supply of Constantinople. In C. Mango & G. Dagron (Eds.), *Constantinople and its Hinterland: Papers from the Twenty-seventh Spring Symposium of Byzantine Studies, Oxford, April 1993* (pp. 9-18). London: Routledge.
- Ousterhout, R. (2008). *Master Builders of Byzantium*. Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.
- Öziş, Ü., Alkan, A., & Özdemir, Y. (2020). From Rome to İstanbul: Parallels in Water Conveyance Systems to Rome and İstanbul through Two Millennia. *Schriftenreihe Der Frontinus-Gesellschaft*, 32, 7-21.
- Öziş, Ü., Baykan, O., Atalay, A., Arısoy, Y., Alkan, A. & Özdemir, Y. (2023). *From Past to Present Water Works in the World*. İzmir: Dokuz Eylül Üniversitesi Mühendislik Fakültesi Yayınları.

- Ruggeri, F. (2018). *Engineering the Byzantine Water Supply of Constantinople: Mapping, Hydrology and Hydraulics of the Long Aqueducts Outside the City*. (Doctoral dissertation, University of Edinburgh). Retrieved from: <https://era.ed.ac.uk/handle/1842/31521>
- Snyder, J.R. (2013). *Construction requirements of the Water Supply of Constantinople and Anastasian Wall*. (Doctoral dissertation, University of Edinburgh). Retrieved from: <https://era.ed.ac.uk/handle/1842/8257>
- Ward, K. (2018). *An Engineering Exploration of the Water Supply System of Constantinople*. (Doctoral dissertation, University of Edinburgh). Retrieved from: <https://era.ed.ac.uk/handle/1842/33033>
- Ward, K., Crow, J. & Crapper, M. (2017). Water-supply Infrastructure of Byzantine Constantinople. *Journal of Roman Archaeology*, 30, 175-195.
- Ward-Perkins, J.B. (1958). Notes on the Structure and Building Methods of Early Byzantine Architecture. In D. T. Rice (Ed.), *The Great Palace of the Byzantine Emperors, Second Report* (pp. 52-104). Edinburgh: Edinburgh University Press.
- Yılmaz, M.D. (2021). *Parion Su Yolları (Temin-Dağıtım-Tahliye)*. (Doktora Tezi). Atatürk Üniversitesi Sosyal Bilimler Enstitüsü, Erzurum.



The Mosaics of the Küçükdalyan Church in Antakya: An Iconographic Analysis

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Submitted: 22.08.2024

Accepted: 14.01.2025

Citation: Ersoy, A., & Durak, U. (2024). The mosaics of the Küçükdalyan Church in Antakya: an iconographic analysis. *Anadolu Arařtırmaları-Anatolian Research*, 31, 373–390. <https://doi.org/10.26650/anar.2024.31.1537176>

ABSTRACT

Antakya, which is the central district of Hatay, was known as Antioch in ancient times and today it is completely under the modern settlement of Antakya. The city, which was named Theopolis - City of God in the early Byzantine period, had many religious buildings in its period as it was the first region where Christianity spread. Today, only the Church of St Peter, the Monastery of St Simeon, and the Monastery of St Barlaam have survived. In Küçükdalyan, which is the centre of the city of Theopolis, the subject of our article, the mosaics of a large church that will make great contributions to the Early Byzantine period and the art of the city were found for the first time, and the church was named Küçükdalyan Church because of its location. In the narthex of the church, geometric mosaics with depictions of various kinds of animals in vine spirals and 4 refrigerium scenes were uncovered in the central nave. In this article, the place of the church mosaics among the mosaics of Antioch will be revealed and the iconography of the floral and figurative depictions in the mosaics will be examined. Based on the Küçükdalyan Church, the political events of the period, the spread of Christianity in Antioch, and the religious structures of the Early Christian Period will be investigated in the light of archaeological excavations in the region and scientific publications. In addition, the mosaics will be compared with the mosaics of religious and civil architecture in Anatolia, North Africa, Eastern Mediterranean, and Balkan countries and the mosaic will be introduced to the world of archaeology from a scientific point of view.

Keywords: Mosaic, Antioch, Theopolis, Nave, Refrigerium

* The potteries discussed in this study are based on a chapter from the author's doctoral thesis titled "Seyitömer Mound Potteries from the Hellenistic Period".



Introduction

The fact that Antakya is located at a crossroads on the Silk Road on the east-west axis in terms of trade has made the city privileged in every period (İstek, 2020: 228). In the Hellenistic period, the city, which was founded in the 4th century BC by Seleucus Nicator I, one of the commanders of Alexander, was also the capital of the Seleucid Kingdom. During the Roman Empire, the Roman commander Pompei made the city the centre of the Syrian province and gave it the title of “Metropolis”. It became a very important centre for Christianity with the arrival of Christian missionaries to the city during Caligula’s reign. The biggest factor in the arrival of missionaries to Antioch was that the city, as a metropolis, was a cultural and commercial centre and had a cosmopolitan structure dominated by pagan religion (Aydın, 2003: 7). Thanks to the religious teachings of Paul and Barnabas, who took the name “Christian” for the first time in Antioch and who were the most important apostles, the first patriarch was established in the city, whose entire population became Christians in a short period of one year. Peter, the first patriarch, was also the first founder of the Church of Antioch (Malalas, 1986:1311). The church founded by St Peter gave legitimacy and prestige to Christians (Downey, 1961: 190-193). Antioch, along with Rome and Alexandria, was a factor in the spread of Christianity the collapse of the Roman Empire, and the establishment of the Byzantine Empire, which was the continuation of Rome (Yaşar, 2022: 194). Although the Roman Empire approached the religion of the people in the lands it ruled with tolerance, the atmosphere of tolerance was disrupted when Emperor Nero had Antioch Episcopal Ephudyos killed in the 2nd century when Christianity began to pose a danger to Roman rule. The wars and territories lost by the Roman Empire and the earthquakes, floods, and fires in Antioch were blamed on the people’s abandonment of pagan gods and belief in Christianity, and the Empire passed harsh laws against Christians and officially banned Christianity. Emperor Diocletian, against the Sassanids, who were a great danger to Antioch, Syria, and Anatolia, divided the administration into two, east and west, and took over the administration of the east. Diocletian came to Antioch in 312 AD to bring the pagan cults of the Empire back to the forefront persecuted the Christian people and clergy and had many churches in the city destroyed. Galerius, who later seized power in the power struggles in Rome, granted Christians the right to live their beliefs freely with the “Edict of Toleration” issued in 311 AD. Constantinus I started the construction of the Octagonal Great Church in Antioch. Antioch, the most important political and cultural city of the East, became the centre of Eastern Christianity. In the great earthquakes of 458 and 526 AD, most of the city was destroyed. Emperor Justinian named the city “Theoupolis-City of God” to put an end to the earthquakes. The people, rich merchants, clergymen, and emperors of the period, who adhered to the Christian religion established and developed in Antioch, played a major role in the spread of religion by building many churches, basilicas, and martyrions in Antioch. Since Antioch maintained its military and political importance as a gateway to the east during

the Byzantine period (Dokdemir, 2021: 840), it was subjected to invasions, and as a result of natural disasters such as earthquakes and fires, many public buildings, churches, baths, and residences were destroyed from time to time and the city became a ruin. After each disaster, the Byzantine Empire, taking into account the geopolitical position and religious importance of the city, revived the city with reconstruction works and financial aid. In the ancient sources, there are St Ignatius, Octagonal Constantine, Palaia, Kassianus, Makkabes, Theotokos, Kosmos and Damian Churches, St Romanus Martyrion, Machouka Church on the Aleppo road route of the city, St Babylas Cross Church on the Iskenderun road west of Antakya, Makkabes Martyrion in Daphne-Defne, St Michael the Archangel Martyrion, St Leontus Martyrion. There are also the Martyrion of St.Thomas, the Martyrion of St.Julian, the Martyrion of St.Stephen, the Church of St Dometius, the Church of St John, and the Church of John the Baptist, the location of which cannot be determined in the sources (Eğer, 2020: 226-227). Today, except for the Church of St. Pierre, no examples of religious architecture from this era have survived in the city center. (Plan 1).

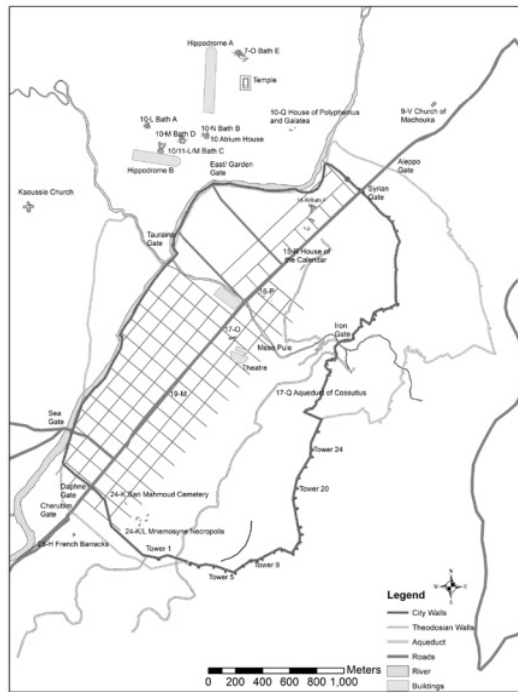


FIGURE 4.7 Antioch after Justinian's building programs

Source: Created by Stephen Batiuk

Plan 1: Map of Antioch (Antiokheia) Depicting Churches from the Reign of Justinian

In 2023, during the scientific rescue excavations carried out by the Hatay Museum in the Grade I archaeological site in the Küçükdalyan Quarter, mosaics belonging to the narthex and middle nave of the Küçükdalyan Church were unearthed at the level of 84.90 m¹. The figured mosaic found in the naos of the church measures 9.80x7.70 m. The mosaic has survived to the present day intact. In the western part of the figured mosaic, another geometrically patterned mosaic floor measuring approximately 11.50x4.3 m was unearthed at the level of 85.05 m. A part of the narthex mosaic has been damaged by trees and plant roots over time. Apart from the mosaics, no remains of the architecture of the church have survived to the present day.

The Mosaic of the Narthex

The narthex of the church, which is about 4 cm higher than the nave, is covered with a rectangular one-piece geometric patterned mosaic measuring approximately 11.50x4.3 m transversely in the north-south direction. The mosaic is bounded by three rows of borders narrowing from outside to inside. The outer border consists of a thin saw tooth and the second border consists of a lotus. The lotuses follow each other in an inverted-flat manner. The inner border surrounds the main composition without decoration. The outer thin border and the lotus border have disappeared in places. The main panel in the centre is composed of geometric patterns. The geometric pattern consists of circles and ellipses connected to each other and to the square in the centre by double guipure knots. The circle and ellipse forms cover the floor of the entire narthex in succession, and the circles and ellipses are connected to the squares in the centre with knots on 4 sides. In the middle of each square in the centres there are stylized flowers, each different from the other, in the middle of the circles there are identical stylized rosettes, and in the ellipses, there is a circular rosette on the axis and stylized palmette motifs with three opposite leaves on both sides of the rosette.



Fig. 1: The Mosaic of the Narthex

1 Since there is no inscription regarding the name of the church in the mosaics, the church was named after the neighborhood where it is located.

The Mosaic of the Nave

The unearthed nave mosaic measures 9.80x7.70m. On the central axis of the mosaic is a peacock with its wings open from the front. There is a cantharos in the centre of the four sides of the mosaic with the peacock in the middle and peacocks, gazelles, and sheep depicted symmetrically on both sides of the cantharos. The double vine branches emerging from the cantharos in the centre of the four sides of the mosaic form spirals and spread rhythmically over the entire surface, integrating with the peacock on the axis. The vine branches and shoots are densely enriched with vine leaves and grape clusters. Domestic and wild animal species within the circles formed by the vine spirals harbour a very rich variety. The mosaic is surrounded by a thin border consisting of a double garland. There are 4 rows of Greek dedicatory inscriptions in a tabula ansata to the southwest of the mosaic.

The inscription reads:

Κ Α Λ Ω Σ Π Ε Π Ο Ν Θ Ω Σ Π Α Υ Λ Ο Σ Ε Γ Ν Ω Τ Η Ν Χ Α Ρ Ε Ι Ν
Κ Α Π Γ Ω Ν Ο Π Α Γ Ω Ν Τ Ο Ν Ο Ι Κ Ο Ν Ω Σ Ε Υ Ε Ρ Γ Ε Τ Η Ν
Τ Ι Θ Η Σ Ε Ι Τ Α Ι Σ Ψ Η Φ Ι Σ Ε Ι Ν Ε Υ Π Ρ Ε Π Ε Σ Τ Η Ρ Ο Ν
Ε Ν Μ Η Ν Ι Γ Ο Ρ Π Ι Ε Ω Α Ι Ν Δ Ε Ι

Καλῶς πεπονθως Παύλος ἐγνώτην χαρὲν
κάπων ὄπλων τὸν οἶκον ὡς εὐεργέτην
τιθησείταις ψηφίσειν εὐπρέπεστηρον
ἐν μῆνι Γορπίεω α΄ ἰνδ(ικτιῶνος) εἰ΄

The translation of the inscription: “*The church steward and benefactor Paulos carried out the laying of the mosaic stones on the first day of the month of Gorpaios (between 24th July and 23th August) of the 15th tax period in a good and careful manner*”.



Fig.2 The Mosaic of the Nave.

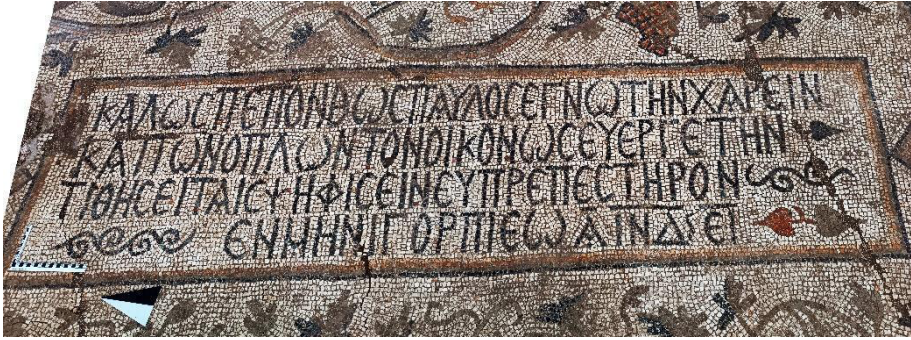


Fig. 3: Inscription on the Mosaic of the Nave

Since the vine spirals coming out of the cantharus on the four sides of the mosaic surrounding the peacock in its centre, the refrigerium scenes in the mosaic will be described in sections according to the animal depictions on both sides of the cantharus.

Refrigerium, West Scene: Two grapevine branches spiraling out of a cantharus with a narrow spherical neck with 8 slices in the centre and a wide mouth opening outwards, forming circles on both sides of the cantharus. Within the circles are two peacocks in profile facing each other. The one on the right of these peacocks is lower than the other. Just above the cantharus, within the circles formed by the spiraling vine branches, there is an eagle on the left with its wings open and its head turned backward, and a pelican with its head tilted forwards within the circle formed by the spiral on the right. In the space where these two spirals meet at the bottom, a deer is lying to the right with its head turned to the left. Two small birds are depicted in two thin spirals with thin branches, which are the last spirals of the vine on this side, located in the extension of the spirals where the pelican is located. In the spiral circle above the peacock to the left of the peacock on the right of the cantharus is a zebra moving to the right, in the last spiral to the east of the vine after the zebra is a bald ibis moving to the left, and in the lower spiral is a deer facing left. In the space between these two spirals there is a goose in the position of eating a vine leaf with its head tilted to the right. The left peacock in the upper left spiral circle, unlike the other animal species, is not facing left or right, but facing the peacock on the axis.



Fig. 4: Refrigerium, West Scene

Refrigerium, East Scene with Sheep: Two sheep are depicted facing each other symmetrically within the circles formed on both sides of the vessel by the vine branches coming out of the eight-slice flattened spherical body cantharus in the centre. The sheep on the left is damaged. In the space under the hind legs of the sheep on the left, there is a partridge towards the right, and in the space under the forelegs of the sheep on the right, there is another partridge with its head turned to the left. In the extension of this spiral, a mountain goat is lying to the right with its head facing the ostrich. The spiraling medallions formed by the spiraling spirals above the sheeps have a pheasant on the right and a dove on the left. In the last medallion formed in the extension of the spiral on the left, there is a hen and chicks, and in the spiral medallion below the hen, there is a rooster. There is a stationary horse in the spiral that is an extension of the vine branches where the pheasant is located and a duck in the spiral formed in the extension of this spiral. The spiral circle to the right of the cantharus, which is an extension of the damaged sheep, is also damaged. In the circle next to this spiral there is a basket with grapes and in the last spiral in the corner, there is a duck.



Fig. 5: Refrigerium, East Scene with Sheep

Refrigerium, North Scene with Deer: In the centre of the circles formed by the vine branches coming out of the cantharus in the same form as the others, a male deer is depicted on the left, and a female deer on the right. In the two circles formed by the two vine branches coming out of the cantharus in a spiral above these figures, a duck is moving to the right on the left, a goose with its head tilted to the left in the spiral behind the duck, a peacock stationary to the left in the medallion on the right, three single-headed birds rotating in the right of the spirals above these figures, and a bunch of grapes in the circle formed by two spirals opposite the rotating birds. In the circle immediately behind the doe on the right of the cantharus is a deer leaning to the right to eat grape leaves, and in the last spiral of this section is a horse turned to the left, facing the deer. In the extension of the spiral with the stag on the left of the cantharus, there is a bull with its head and body bent with a damaged head and a single horn, and in the last extension of this spiral, in the spiral in the corner of the mosaic, there is a depiction of a rabbit running with its head upwards.



Fig. 6: Refrigerium, North Scene with Deer

Refrigerium, South Scene with Sheeps: Two sheep facing each other in spiraling circles formed on both sides by vine branches emerging from the cantharus in the centre. A goose is depicted to the left in the spiral on the extension of the sheep on the left, a fox with an open mouth is depicted to the right in the circle on the extension of the spiral of the sheep on the right, and a small duck is depicted in the last medallion in the corner of left extension. The spiral on the figure to the left of the two vine branches bears a christogram, and the last spiral opposite this spiral bears a bunch of grapes. A partridge is on the small spiral that

continues this spiral, and a dove is on the spiral opposite the partridge. In this section of the mosaic, two pelicans are depicted looking at each other in the space created just above the vine branches emerging from the cantharus. There is a horse in the spiral of the vine branch on the left coming out of the cantharus. The circle of this spiral is also connected to the vine spiral coming from the west. In the extension of the spiral depicting the horse, a rabbit eating grapes is depicted to the left, and a sparrow is depicted in the small spiral below this spiral.

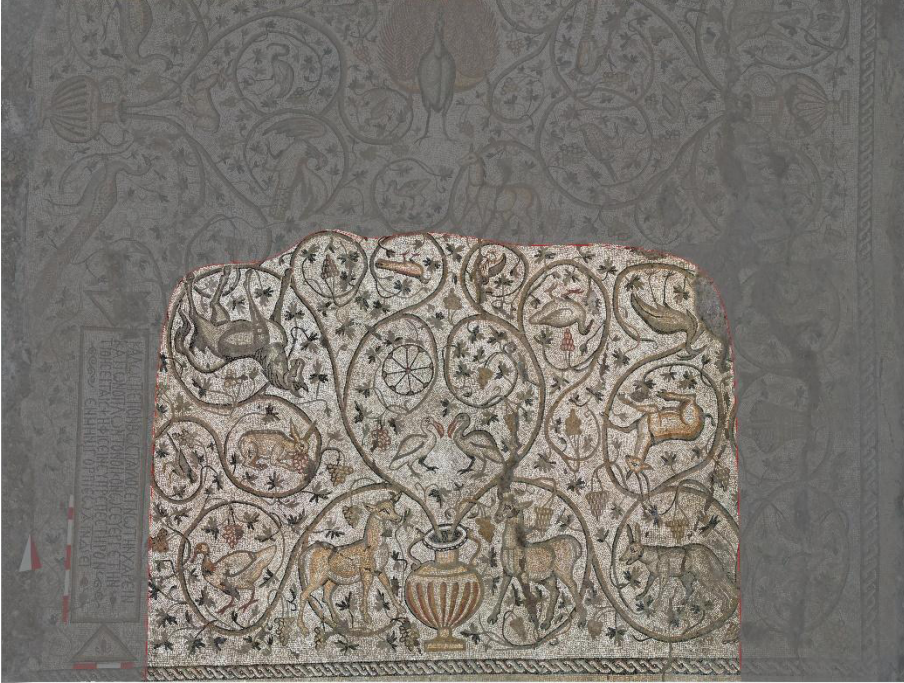


Fig. 7: Refrigerium, South Scene with Sheep

Evaluation

In Anatolia geometric patterns are generally seen in the mosaics in the religious buildings of the early Byzantine Period, while animal figures are seen in figurative mosaics (Çıtaoğlu, 2016: 11). While geometric patterns dominated the mosaics in religious buildings towards the end of the 4th century AD and in the first half of the 5th century; in the second half of the 5th century, mosaics with figurative patterns started to be seen in addition to geometric patterns. There is a mosaic with a geometrical pattern in the narthex of the Küçükdalyan Church and a figurative mosaic in the nave. The circles and ellipses rhythmically connected to each other with looped knots, which constitute the main theme of the geometric patterned mosaic, are frequently encountered in the churches of that period in Anatolia, especially in the borders. This geometric pattern was used as the main theme covering the entire surface

of the mosaic in the narthex of Küçükdalyan Church. The geometric pattern spread over the main panel is similar to the Artemis Mosaic found during the excavations in Erzin-Epiphaneia and currently exhibited in the Hatay Museum (Çelik, 2012: 61- 62) and the border of the mosaic belonging to the Ram's Head House found in Antioch in the 1930s. (Levi 1947: 442). In Anatolia, it is similar to the border of the prothesis mosaic of the Episcopal Church in Rhodiopolis (Tiryaki 2016: 518-519), the mosaic of the north nave of the East Basilica in Xanthos (Raynaud 2009: 63-67,69,72,73,165), and the mosaic of the western portico of the harbour street in Patara (Aktaş 2022: 25-31). The lotus motif, which also forms the narrow border of the mosaic, is found as a border on the Buffet House Mosaic in Antakya (Levi, 1947: 311-312. Pl. CXXIXd), on the naos mosaic of the Adana Karlık Church (Tülek, 2004: 124) and on the mosaics of the Ozem Church in Israel (Habas, 2018: 99). This type of lotus motif is called double lotus (Campbell, 1988: 88, fig.62a).

The motif of the vine spirals emerging from the cantharus in the nave of the Küçükdalyan Church goes back to the Hellenistic period. In the first three centuries AD in the Eastern Mediterranean and North African countries they mostly adorned borders of mosaics. The border consisting of vines and grapes surrounding the Judgement of Paris mosaic, which was found in the Atrium House during the excavations in Antakya in 1932 and taken to France and still exhibited in the Louvre Museum, is a very good example from the Roman Imperial Period (Levi, 1949: 15-16). The outer border, which consists of bird depictions within vine spirals in the Birth of Venus mosaic unearthed during excavations in Defne in 2011 and on display at the Hatay Archaeological Museum, also reflects this period. In the mosaics of the early Byzantine period, the vine spirals, which are most frequently encountered in figural depictions in Anatolia, North Africa, Eastern Mediterranean, and Balkan countries, especially in religious buildings, were enriched with animal figures and started to be used both in borders and as the main panel. The depictions of animals among the vine branches forming the main composition in the nave of the Küçükdalyan Church are similar to the border of the Mosaic of the Martyrium (Levi, 1947: 359-363) dated to the second half of the 5th century AD (Dunbabin, 1999: 179,181) found in the ancient city of Seleucia Pieria in 1938-1939 and still exhibited in the Hatay Museum (Levi, 1947: 359-363) and the borders of the House of Bird Spirals mosaic found during the excavations in Defne in the same years (Campbell, 1936: 7-8). In Anatolia and the Eastern Mediterranean, the border of the Life Mosaic and the corridor mosaic of the same villa in Kahramanmaraş-Germanicia (Ersoy, 2017: 133-164), the apse mosaic of Church B in Hadrianoupolis (Verim, 2019: 282-283), the mosaic from the church in Erzincan Altintepe (Can 2009: 5-13), the mosaic from the Church of Mersin Dağ Pazarı (Tülek 2004: 271), the mosaic from the church in Düziçi (Tülek 2004: 89), the City mosaics in Perre (Salman 2012: 195), the mosaics of the Agora Basilica in Kelenderis (Zoroğlu, 2008: 353-371), the mosaics of the Zahrani Church in Beirut (Helau, 2019: 122), the mosaics of the church in Khan Khalde in Lebanon (Helou, 2019: 61), the

mosaics found near the Damascus Gate of Jerusalem (Karademir 2021: 158-186) and in the mosaics of a Roman villa near Nymphaion (Kemalpaşa) (Tok, Talaman, Atıcı 2013: 65-71), vine spirals appear as borders and main themes.

The animal figures in the mosaic and the compositions formed by the figures generally carry iconographic meanings. Especially the sheep, deer, and peacocks on both sides of the cantharus depicting baptism and eternal life are Christian images that take their subjects from the Bible and the Torah. The scene, which is referred to as the refrigerium scene in the literature and literally means “relaxation”, also includes the meal given after the dead in pagan and Christian beliefs (Sanchez; 2015:1-45). In general, in mosaics and architecture, animals such as peacocks, deer, and sheep drink the water of life from a bowl; this symbolizes that believers will reach immortality by drinking this water and going to heaven (Hetto-Köroğlu-Çorağan 2022: 207). The early theologian Tertullian describes refrigerium as a place between heaven and hell (Goff, 1984:47). According to Tertullian, the dead wait in a place called refrigerium, located between heaven and hell, as they await the resurrection. Tertullian believes that souls experience a peaceful waiting in refrigerium until the final judgment. On this subject, Christine Mohrmann explains that refrigerium represents the temporary happiness of souls awaiting Christ’s return in the bosom of Abraham (Mohrmann, 1958: 196-214). Water, which is the most important element of the refrigerium scene, is the main source used by believers all over the world as a means of cleansing and purification (Acara, 1998:183-201). The crater used in the refrigerium scenes is associated with the calix and altar used in the Eucharist (Mercangöz, 2004: 43-52). In Christian theology, the refrigerium is also interpreted as the place where good spirits wait before heaven. This scene is e. g. depicted in the mosaic of the Incirli Village Church in Hatay Kırıkhan (Çelik, 2013: 2-3), in the corners of the border of the mosaics of the House of Bird Spirals in the ancient city of Defne-Daphne (Levi, 1947: 366), in the Balatlar Church in Sinop (Hetto-Köroğlu,-Çorağan 2022: 203-205), in the Chora Church (Church A) of Hadrianoupolis (Verim, 2021: 105), in the Chora Church (Church C) of Hadrianoupolis (Çelikbaş 2019: 292), in the Çatalcam Basilica of Muğla-Akyaka (Özyurt, Özcan, 2013: 460), in the mosaic of the East Portico of the North Colonnaded Street in Stratonikeia, in the Second Basilica in the Han Krum Street in Varna (Popova-Lirsch 2011: 793-812). In Christian art, scenes of refrigerium can be observed in spaces and architectural elements related to death. Examples include the Via Latina Catacomb (Nees, 2002:52), the Viminacium tomb chamber (Dragana, 2011:239), the Kyustendil Basilica (Popov & Lirsch, 2011: 793-812), as well as architectural elements such as an arch found in the Konya Archaeological Museum (Temple, 2013:182) and a Byzantine-era architrave fragment repurposed as spolia on the wall of the Tuzla Hüdavendigâr Mosque in Ayvacık, Çanakkale (Türker, 2018:105).

The symmetrical peacocks on both sides of the cantharus to the west of the nave mosaic of the Küçükdalyan Church, as well as the peacocks on the main axis of the mosaic and those in the spiral in the northern part, were considered sacred in both Paganism and Christianity. Peacocks, which were commonly depicted on Roman tombstones, were believed to be sacred birds that carried the souls of the dead to the gods. In Christianity, the tradition of depicting peacocks as the most beautiful birds in Roman gardens evolved into the portrayal of peacocks as the most beautiful and immortal birds of the Garden of Eden. The depiction of peacocks drinking holy water from the cantharus in the mosaic is one of the most common motifs found in mosaics from the same period unearthed to date. It was believed that the flesh of peacocks did not decay after drinking holy water, granting them immortality, and that the spots on their wings represented the all-seeing eyes of God. In the mosaic of the Church of the Holy Apostles in Arsuz, Hatay, two peacocks are depicted following each other (Çelik, 2018: 265-276). The male peacock in the center of the mosaic, with its wings spread, can be interpreted as symbolizing the animal kingdom—believers—depicted in iconography as the all-seeing eyes of God. The depiction of a peacock with open wings from the front also appears in the mosaic of the Eastern Church of Theodorias in Libya, which is now exhibited in the Kasr Museum, in the mosaics of the Ancient City of Paphos in Cyprus, and in the apse mosaic of the caldarium section of the Ancient City of Anemurion, where it forms a half-dome (Campbell, 1998: 37).

The depictions of deer on both sides of a cantharus in the northern part of the Nave mosaic are also common in church mosaics, especially in the Eastern Mediterranean basin of the period. The deer in Psalms 42:1-2—”As the deer pants for streams of water, so my soul pants for you, my God. My soul thirsts for God, for the living God. When can I go and meet with God?”—emphasizes the believers’ longing for God. This reflects a deep yearning for a connection with the divine (Daloğlu, 2011:78).. In Christian legends, although the deer and gazelle have a nature that fears all creatures, they are believed to kill all kinds of snakes. For this reason, the deer and gazelle are considered sacred as a symbol of Christian belief. The depictions of sheep on both sides of a cantharus on the south and east sides of the mosaic are also among the most used images in Christianity: The sheep represent either unbaptized people or Christian believers in general (Daloğlu, 2011: 80).

The canthari on the four sides of the mosaic have rectangular bases, narrow rims, segmented flattened spherical bodies, and two handles. The cantharus, which appears in almost every branch of early and middle Byzantine art, originates in the Dionysian cult of antiquity. The cantharus, which is already seen in the wall paintings of the Christian catacombs in the 3rd century, is found as a vessel with vine branches emerging from it on the church floors of the 4th-6th centuries. With Christianity, the cantharus began to symbolize the calix used in the Eucharist (Mercangöz, 2004: 43-52). In the north aisle of the Yeni yurt B Church in Hatay Dörtiyol the cantharus is depicted in the centre of the mosaic floor (Çelikay, 2018: 83-86).

There are also many species of birds in the mosaic. Since birds always fly in the sky and God is above, bird species are frequently included in early Byzantine mosaics as the souls of believers. The presence of different species of birds in mosaics represents believers with different spiritual structures (Cirlot, 2001: 28). Unlike other animals in the mosaic, the eagle, depicted majestically from the front with open wings, has had an important place in eastern and western art since ancient times. The eagle, which is frequently encountered in necropolis areas, has become a symbol of Christianity's victory over Paganism. Since the eagle flies to the highest point of the sky, unlike other birds, it was identified with Jesus (Hetto, K rođlu,  orađan 2022: 212). In the Old Testament, in Deuteronomy 32:11, we read, "Like an eagle that stirs up its nest and hovers over its young, that spreads its wings to catch them and carries them on its pinions." Psalm 103:5, says, "He who satisfies your desires with good things so that your youth is renewed like the eagle's." Isaiah 40:31 states, "But those who hope in the Lord will renew their strength. They will soar on wings like eagles; they will run and not grow weary, they will walk and not be faint." The depiction of an eagle with its wings outstretched in the mosaic is exactly the same as the eagle figure in the mosaic in the Balatlar Church in Sinop (K rođlu-Tok 2018:129-130).

The cross figure in feathers on the tops of the peacocks in the mosaic is unique. After the prohibition of cross motifs on the floors in the Novella of Emperor Theodosius II in 427 AD, the use of cross motifs on floor mosaics began to decrease over time, but the use of crosses did not end completely (Dalton 1911:22; Mango 1986:36; Rodley 1994:35). The fact that the feathers on the tops of the peacocks on the mosaic of the K c kdalyan Church were made in the shape of a cross and the cross depiction inside a circle on the mosaic are quite striking. Considering that Antioch was the center of the spread of Christianity, the cross, which is the most important symbol of Christianity and Jesus, was inevitably included in the mosaic. In Anatolia and the Eastern Mediterranean countries where Christianity spread, many cross motifs with different designs are encountered in the mosaics of the early Byzantine period. Cross motifs are e. g. encountered in the naos section of the church in B y kg k eli, Isparta (Akaslan, Demirci, Per in, Labarre 2015:159-161), in the floor mosaic of the naos of the church in G rdes  ađlayan Village (Tok 2008: 156), in the mosaics of the Chrysopolitissa Basilica and the Radolista Basilica in Nea Paphos (Hoddinot 1963:232) and especially in many church and chapel mosaics in the Near East countries. (Habas 2015: 33-34). Considering that peacocks are the symbol of resurrection, salvation, and eternal life, the fact that the sacred symbol of Christianity, the cross, is hidden on the head of the peacock is a reflection of the abovementioned Edict of Emperor Theodosius. The cross motif in the circle on the edge of the mosaic is noteworthy. The cross motif in the circle is also found on the mosaic of the East portico of the North Colonnaded Street in Stratonikeia (S g t-Aytekin 2017,224). However, the arms of the crosses in the Stratonikeia mosaic are thicker.



Fig.8: Peacock in the mosaic of the nave.

Conclusion

The mosaic masters trained in the Antakya workshops played a very important role in the spread of mosaic art to Anatolia, the Eastern Mediterranean, and the Western world. During the Byzantine Period, Antakya, the third largest city in the Roman world, became the most important center for the spread of Christianity after Jerusalem, where Christianity was born. During this period, mosaic art continued to be made on the floors of houses, baths, churches, and martyriums. With the influence of paganism in the city, especially at the end of the 3rd century and the first quarter of the 4th century, the teachings of Christianity began to be given with personification in the center of a dignified aristocratic woman in bath and house mosaics. The Megolopsychia/Great Spirit, Ananeois/Rebirth Epikosmesis/Creative Spirit, and Ktisis/Foundation mosaics currently exhibited in the Hatay Museum are the depictions that best describe this period. As in the Megolopsychia mosaic, while depicting the main center as a well-groomed woman from a symbolic front, it also reflected the most important Christian doctrine by giving it the name of the Great Spirit. The hunting scenes of Roman heroes around the mosaic are an indication that it could not break away from its roots in pagan tradition. The Philia Hall Mosaic, found in excavations carried out in 1932-1939 when Antioch was under French mandate, was defined by Doro Levi as the first mosaic with figurative patterns in Antioch that had a Biblical influence. Geometric and plant decorations,

which mostly served as borders in the Roman Period, began to form the main mosaic base as endless compositions in the Early Byzantine Period. The subjects treated in figurative mosaics were given in a plain and simple manner based on the idea of a single God who is invisible to the eye but is omnipotent. “Mosaic Art”, which became the most important part of Byzantine art as well as in Rome, turned into an art form that served only Christianity after Christianity was accepted as the official religion by Constantius I in 313 AD. During the Byzantine period, artists began to act only within the framework of religious rules in mosaics.

In Antakya, one of the largest cities of the period when Christianity was born and spread, many large monumental and neighborhood churches were built within the urban fabric, as well as many village churches integrated with local characteristics in rural areas. Mosaics, which serve as a document in shedding light on the Byzantine period of the Ancient City and its surroundings, which are completely buried under the modern settlement today, also play a very important role in determining the locations of churches, martyriums, and baptisteries whose remains have not survived to the present day. Archaeological excavations carried out to date have unearthed the Manşuklu Church, the Kavashlı Church and Baptistery, the Defne City Square Baptistery in central Antakya, the martyrium in Samandağ in the districts, the Incirli Church and the Martyrium in Kırıkhan Incirli Village, the Karamağara Church, the Mazmanlı Church in Hassa, the Altınözü Ziyaret Village Church, the Yeniyurt A and B Church in Dört Yol, and the 5th-6th century ruins and mosaics of the Holy Apostles Church in Arsuz. The “Küçükdalyan Church” has now been added to the religious structures. The church must have been an important monumental church of the city of Antioch-Theopolis. The fact that the church is located in the center of the ancient city and that there are four refrigerium scenes in the mosaic in the nave proves this thesis.

In almost all late-period church and martyrium mosaics in North Africa, the Southern Mediterranean region, and Anatolia, animal depictions located between vine spirals are generally used as borders and rarely as the main composition covering the entire surface. Especially seen in religious structures, the vine has an important place as a tool in spreading the religious mission since it represents Jesus and the Christian spirit. The refrigerium scenes in the middle nave of Küçükdalyan Church are the result of an allegory and represent hope for reaching heaven. The narthex and nave mosaics are made on a light-colored background using the opus tessellatum technique and the animals are reflected in a realistic style. Since no remains of the church’s architecture have survived to the present day, it is possible to say that it is a monumental basilical planned church belonging to the Early Christian Period with an east-west axis when compared with the churches of the period in the city. Based on the style and technical features of the mosaics, inscriptions, and archaeological findings, the church can be dated to the end of the 5th century and the beginning of the 6th century.

The mosaic of the nave of the Küçükdalyan Church is of great importance in terms of both its visual and artistic illumination of the Early Byzantine Period of Antioch and its reflection of the iconography of Christianity with the religious teachings it carries.

Acknowledgements: We would like to thank all our colleagues who worked devotedly and contributed to the Küçükdalyan Church Kurtüz excavation work carried out within the Hatay Archaeological Museum.

Peer-review: Externally peer-reviewed.

Author Contributions: Conception/Design of Study- A.E., U.D.; Data Acquisition- A.E., U.D.; Data Analysis/ Interpretation- A.E., U.D.; Drafting Manuscript- A.E., U.D.; Critical Revision of Manuscript- A.E.; Final Approval and Accountability- A.E., U.D.

Grant Support: The mosaic excavation examined in the article was carried out with the support of the Ministry of Culture and Tourism of the Republic of Turkey and under the control of the Museum Directorate, which I manage.

Conflict of Interest: The authors has no conflict of interest to declare.

References

- Acara, M (1998). Bizans Ortodoks Kilisesinde liturji ve liturjik eserler. *Hacettepe Üniversitesi Edebiyat Fakültesi Dergisi* 15(1), 183-20.
- Aktaş, Ş. (2022). Patara Liman Caddesinde mozaikli bir yapı. *JMR* 15, 25-31.
- Akaslan, M, Demirci-D, Perçin-Ö, Labarre (2015). L'eglise paleochretienne de Bindeos (Pisidie). *Anatolia Antigua (Eski Anadolu) XXIII*, 151-178.
- Aydın, M. (2003). Antakya ve Tarsus Eksenli İlk Dönem Hıristiyanlığına Bir Bakış. *Necmettin Erbakan Üniversitesi İlahiyat Fakültesi Dergisi* (15), 7
- Can, B. (2009). Erzincan Altıntepe Church with Mosaic. *Journal of Mosaic Research* 3(4), 5-13.
- Çelik, Ö. (2012). *Erzin (Epiphaneia) Roma Dönemi Hamam Mozaikleri*. (Yayınlanmamış yüksek lisans tezi). Mustafa Kemal Üniversitesi, Hatay.
- Çelik, Ö. (2013). İncirli Köyü-I mozaikleri. *JMR*, (6), 2-3
- Çelik, Ö. (2021). İncirli Köyü Martyrium Mozaikleri ve Hatay Mozaikleri arasındaki yeri. *JMR*, (14), 53-77.
- Çelikbaş, E. (2019). *Hadrianopolis Kilise C Mozaikleri konusunda bir ön değerlendirme. Uluslararası geçmişten günümüze Karabük ve çevresinde dini, ilmi ve kültürel hayat sempozyumu, Karabük*
- Çıtakoğlu, H. (2006). Bursa/Hisar Bölgesi mozaikleri ve geometrik desen repertuarı. *Sosyal Bilimler Enstitüsü Dergisi* 2016 Cilt 9 Sayı 1. s.11
- Dalton O.M. (1911). *Byzantine Art and Archaeology*, Oxford At the Clarendon Press.
- Daloğlu, E. (2011). *Anadolu'da Erken Bizans Dönemi figürlü zemin mozaikleri*. (Yayınlanmamış yüksek lisans tezi). Çanakkale Onsekiz Mart Üniversitesi, Çanakkale
- De Giorgi. A.U.-Eger A.A. (2021) *Antiochia: a history* Routledge. 226-227
- Downey G. (1961). *A History of Antioch in Syria from Seleucus to the Arap Conquest*. New Jersey: Princeton Univ. Pres. 190-193
- Dunbabin, K.M.D. (1978). *The Mosaic of North Africa studies in iconography and patronage*, Patronage Clarendon Press, Oxford.
- Dunbabin M.D.K. (1999). *Mosaic of the Greek and Roman World*, Cambridge University Press, Cambridge.

- Dragana, J.A.C. (2011) Peacock as a sign in the late antique and Christian art, *Archaeology and Science* 6, 231-248
- Ersoy A. (2017). *Mozaikleri ile yeniden doğan kent-Germanicia*. (Etd. Fevziye EKER) Lambert Academic Publishing, 133-164.
- Goff Le J. (1984) . *The birth of Purgatory* . University of Chicago Press, United Kingdom
- Habas, L. (2015). Crosses in the mosaic floors of churches in Provincia Arabia and nearby territories, Against the background of the edict of Theodosius II, *JMR* 8, 33-34
- Habas, L.(2018). Early Byzantine Mosaic floors of the church at ozem. *İsrael JMR* 11
- Helau, N. (2019). Les Mosai ques protohazanties (falsche Schreibweise) du liban iconographie et symbolisme. *Jounieh: Universite Saint Esprit de Kaslik*, 61,122,175
- Hoddinot R. F.(1963) *Early Byzantine Churches in Macedonia and Serbia: a study of the origins and the initial development of East Christian art*. Newyork.
- Hetto O.-Köroğlu G.,-Çorağan N. (2022) Sinop Balatlar Kilisesi'nden refrigerium konulu mozaik pano ve Bizans ikonografisindeki yeri. *Art-Sanat* (17). 203-205, 207-208, 212.
- Habas, L. (2016). The mosaic floors of the church at ozem. J.Patrigh-O.Peleg-Barkat-E.BEN-Yosef (Eds). *Arise, walk through the land. Studies in the archaeology and history of the land of İsrail in memory of Yizhar Hirschfeldon on the Tenth Anniversary of his Demise*, Jerusalem, 273-290.
- İstek, E. (2020). Seyyahların gözüyle Antakya şehri (10-19.Yüzyıllar arası). *Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (40), 228.
- Karademir, T. (2021). Bizans dönemi taş eserlerinde refrigerium sahneleri, *Troy Academy*, 6, (1), 158-186
- Köroğlu G.-Tok E.(2018). Sinop Balatlar kazısında ortaya çıkarılmaya başlanan erken Bizans Dönemi döşeme mozaikleriyle ilgili ilk veriler. *JMR* 11, 129-130
- Levi D. (1947). *Antioch mosaic pavements*. Princeton University Press, Princeton, 359-363, 366, 442
- Malalas. J. (1986) *The Chronicle of John Malalas*. (Çev. Elizabeth Jeffreys, M. Michael Jeffreys, and Roger Scott). Published by Australian National University. Canberra, 128.
- Mercangöz, Z. (2004). *Ortaçağ hristiyanlık inanışında ökaristi ve sanattaki yansımaları :Bizans sanatında Ökaristi Sembolleri. Sanat ve inanç* 2. İstanbul: Mimar Sinan Üniversitesi Yayınları, 43-52
- Mango C.(1986) *The Art of the Byzantine Empires 312-1453*. Toronto, Buffalo, and London. 36
- Mohrmann C.(1958). Locus refrigerii,lucis et pacis. Questions liturgiques et paroissiales, 39,Paris,196-214.
- Nees L. (2002) *Early Medieval Art*. OUP Oxford, İngiltere, 58.
- Ovadiah, A-R. (1987). *Hellenistic, Roman, and Early Byzantine mosaic pavements in İsrail*. L'erma di Brettschneider.
- Popova, V.-Lirsch A. (2011). *Corpus of late antique and early Christian Mosaics in Bulgaria*. XI. Uluslararası Antik Mozaik Sempozyumu Bildiriler. İstanbul: Ege Yayınları ,793-812
- Raynaud M.P. (2009). *Corpus of the mosaic of Turkey I-Lycia-Xanthos, Part 1, The East Basilica*. İstanbul. 63-67,69,72,73,165
- Rodley L. (1994). *Byzantine art and architecture: An introduction*. Cambridge.
- Sanchez , J.R.A. (2015). *La acepcion trascendente del refrigerium cristiano: Entre el agua el infern*. *Collectanea christiana orientalia*. 12, 1-45

- Salman B.(2012). Kommegene ve Suriye bölgesi mozaiklerinde yerel özellikler ve yabancı etkiler: Karşılaştırmalı bir değerlendirme. *JMR* 5, 195
- Söğüt B.-Aytekin F. (2017). Barış SALMAN Anı kitabı. I.Adıbelli vd. (Ed.). *Stratonikeia Kuzey Sütunlu Caddede Doğu Portik Mozaiği* (pp. 221-232). Ege Yayınları.
- Temple Ç. (2013) Konya İkonion ve çevresinde bulunan Bizans Dönemi taş eserleri.(Yayınlanmamış Doktora Tezi) Hacettepe Üniversitesi .Ankara 182
- Tiryaki, A (2016). *Rhodiopolis Piskoposluk Kilisesi'nin geometrik desenli taban mozaikleri. OLBA XXIV*, 518-519.
- Tülek F. (2004). *The late Roman and early Byzantine floor mosaics in Cilicia*. (Yayınlanmamış doktora tezi). University of Illinois. 124- 271
- Türker A. (2018) Byzantine Architectural Sculpture in Çanakkale,Ankara. 105
- Tok E.(2008). *Kuzey Lidya 'da bir kiliseye ait zemin mozaikleri: Manisa Gördes Çağlayan Köyü yakınlarındaki kilise kalıntısı*. Şahin M. (Ed.). IV. Uluslararası Türkiye mozaik köprusu sempozyum bildirileri, Geçmişten günümüze mozaik köprüsü. Bursa 155-159
- Tok E.-Talaman A.-Atıcı (2013). Nymphaion (Kemalpaşa) yakınlarında bir Roma Villasının Mozaikleri: Eski Ahit Öyküleri Üstüne Bir Yorum. *JMR* 6 65-71
- Özyurt,Özcan H. (2013). Akyaka Çatalcam Bazilikası'na Ait Döşeme Mozaikleri, *OLBA XXI*, 460.
- Verim E. (2019). *Paphlagonia'da bir piskoposluk merkezi: Hadrianoupolis Antik Kenti*. Uluslararası geçmişten günümüze Karabük ve çevresinde dini, ilmi ve kültürel hayat sempozyumu. 282-283
- Verim E. (2021). *Karabük Eskipazar Paphlagonia Hadrianoupolis'i (2010-2014 Sezonları)*. Verim E.-Çelikbaş E.-Yılmaz A. Bilgin Ed. Kültür Sanat Yayınları. Ankara, 105
- Yaşar, Ş. (2022). IV. -VI. Yüzyıllarda Antakya Episkoposluk Bölgesindeki mezhep çatışmaları. *Akademik MATBUAT*, 6(2), 194-200.
- Zoroğlu L.-Tekocak M. (2008). Kelenderis 2007 yılı kazı ve onarım çalışmaları, *30. kazı sonuçları toplantısı. Kültür Varlıkları ve Müzeler Genel Müdürlüğü, Cilt 3*,



A Life Dedicated to Carian Archaeology and Cultural Heritage Preservation Professor ADNAN DİLER 01.01.1956 – 19.12.2023

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Adnan Diler was an inspiring figure in Carian archaeology renowned for his multifaceted approach and unwavering dedication to the preservation of cultural heritage. He passed away unexpectedly on December 19, 2023, in İstanbul. Throughout his career, Diler devoted his



life to the study and protection of archaeological sites, particularly in Caria. Driven by a deep sense of social responsibility, he worked tirelessly to raise awareness of cultural preservation, ensuring that future generations could continue to appreciate and learn from the rich heritage of the past.

Education and Professional Experience

Diler was born in Erzurum in 1956. He completed primary and secondary education in İstanbul, later returned to Erzurum for his university studies. He graduated from Atatürk University's Faculty of Arts and Sciences, Department of Archaeology, in 1982 and became a research assistant in the same department in 1983. Diler received his Master's degree in 1986 with a thesis entitled "*The Origin and Development of Horned Protome Rythons in the Light of Gökçeşeyh Finds*", published in *Belleten* in 1998. He completed his doctorate in 1990 under the supervision of Fahri Işık with a dissertation titled "*The Sanctuary of Kaunos*". The results of this dissertation were published in *Asia Minor Studien* in 1995 under the title "*Account of the Sanctuary Exposed at Caunos City*".

In 1992, Diler became an assistant professor at Atatürk University. The following year, he was promoted to associate professor in Classical Archaeology and continued his academic career in Erzurum until 1997. In the same year, he joined Muğla University, where he was promoted to full professor in 1999. There, he served as the head of the Department of Archaeology, acting dean, and a member of the university senate until his retirement in 2023.

In 2000, he established the Carian Research Center at Muğla University to conduct studies on the archaeology of the region. The center also coordinated the Muğla Cultural Inventory Project. To train specialists in interdisciplinary research methods, Diler launched graduate programs in Archaeology, Cultural Heritage and Site Management, Archaeometry, and Museology. He also organized international symposia on modern sculpture and pioneered the opening of Türkiye's first Museum of Cast Gallery at Muğla Sıtkı Koçman University in 2012.

Excavations and Research

Diler's career began with archaeological excavations at Horiskale (1981), Kaunos (1981), İzolikkale (1982), Sos Höyük (1988), and Patara (1989-1991). In 1988 and 1990, he conducted short-term research on cult practices at Olympos. He continued to take an active part in the excavations at Kaunos, directed by Baki Ögün, which he had joined during his student years. His detailed study of the so-called Terrace Temple formed the core of his doctoral thesis. As part of the excavation team, he also contributed to significant work on the North Necropolis, the Kaunos Saltworks, the East Terrace of Küçükçikkale, and the Rock Altar at Kaunos.

From 1992 onward, Diler focused on rural life and traditional production techniques of the ancient Aegean and Mediterranean basin, as well as industrial archaeology. In 1997, he

received a grant from the Gerda Henkel Foundation to study olive and wine presses and spent a year conducting research in Kiel, Germany. His work culminated in the organisation of the symposium “*Olive Oil and Wine Production in the Aegean and Mediterranean in Antiquity: Rural Settlements, Urban Centers, and Trade*” in Bodrum in 2022.

Throughout his career, Diler conducted extensive surveys in Caria and engaged in rescue excavations and conservation projects in collaboration with the Muğla, Marmaris, Milas, and Bodrum Underwater Archaeology museums. The regions and settlements he prioritized were pivotal to understanding the cultural identity of the Carians. His most comprehensive work focused on the Lelegian settlements of the Bodrum Peninsula, identifying key excavation sites such as Pedasa and Asarlık/Termera. By examining traces of life and burial customs within the Lelegian culture, often referred to as the “Lelegian Peninsula” due to its distinct cultural imprints, Diler has significantly advanced the understanding of this unique heritage.

His dedication to exploring key sites from various periods in Caria is reflected in his research on Müsgebi and Pilavtepe for the Bronze Age; Damlıboğaz (Hydai) for the Early Bronze Age through the Archaic period; Kedreai, the island settlement of Rhodian Peraea, for the Hellenistic period; Aspat (Strobilos) for the Middle Ages; Kissebükü for the Late Antique period, and Mobolla, a fortified settlement in inner Caria. Beyond their scientific importance, these projects showcased Diler’s commitment to harmonious collaboration with the Ministry of Culture and the General Directorate of Cultural Heritage and Museums.

The excavations at Damlıboğaz (Hydai), Termera (Asarlık), Müsgebi, Pilavtepe, Pedasa, Sedir Island (Kedreai), and Milas Uzunyuva, the so-called Hekatomneion, have significantly advanced our understanding of the archaeology of Caria. Among these, the research at Pedasa, a Lelegian settlement mentioned by ancient authors, stands out for its contributions to the study of the region’s ancient peoples, from the Late Bronze Age onwards. The excavations at Pedasa have revealed vital information about the settlement’s unique organization, daily life, religious practices, burial customs, and cultural identity. Beyond uncovering material culture, such as pottery, tools, and architectural features, the work at Pedasa has also prioritized the preservation of the archaeological site and its surrounding ecological environment. These efforts ensure a more holistic understanding of the site and its place within the broader context of Carians regional and international connections.

Diler’s studies have highlighted Damlıboğaz (Hydai) as a crucial site for understanding the regional cultures of Caria from the Early Bronze Age through to the end of the Archaic period. Following Pedasa, the excavations at Termera became key for shedding light on the Early Iron Age and Archaic Period developments in the region. The 2012 salvage excavation at Termera was especially instrumental in exploring the relationship between Lelegian identity, burial customs, and material culture, particularly in connection with the broader

Aegean cultural sphere. The 2013 rescue excavations at Müsgebi further enriched our understanding of the site, building on the earlier work of Yusuf Boysal in the 1960s. These excavations reintegrated Müsgebi into contemporary discussions about the presence of Late Bronze Age Aegean/Mycenaean-type chamber tombs in the region. The analysis of grave goods and burial practices provided new insights into the cultural interactions between Caria and the wider Aegean world.

Diler's involvement in the rescue excavations at Milas Uzunyuva, as part of the scientific committee, led to the discovery of the monumental tomb and surrounding structures associated with Hekatomnos, the founder of the Hekatomnid dynasty during the Persian period. These excavations revealed the tomb as a significant marker of cultural change in the region during the 4th century BC. In 2020, Diler edited the book *Mylasa Uzunyuva Hekatomneion* and contributed an article discussing the grave offerings and cult practices related to the tomb.

Sedir Island (Kedraei) has remained a major focus of Diler's research. Ongoing surveys, which evolved into rescue excavations, helped address the lack of studies on the identity and chronological development of settlements in the Rhodian Peraea. These excavations revealed that Sedir Island had been inhabited since the end of the Early Iron Age and featured well-preserved structures from the Hellenistic Period and Late Antiquity.

At Mobolla, a Hellenistic fortress settlement perched on a cliff overlooking the center of Muğla, Diler oversaw rescue excavations and the development of the site for visitor access. His work at Mobolla has further enriched our understanding of the region's historic landscape and facilitated public engagement with its archaeological heritage.

Research Projects

Diler has been involved in several interdisciplinary research projects focusing on both the archaeology and ecological environment of the Caria. He was the principal investigator of the TÜBİTAK-funded project entitled "*Archaeological Park Management in Aspat (Strobilos) and its Territorium and Agro-Tourism Planning in Ancient Agricultural Terrace Areas.*" This project aimed to integrate archaeological and ecological preservation with sustainable tourism development in the region. Additionally, Diler contributed to the European Union's SMAP III project, where he participated in the sub-working group focused on the preparation and implementation of an integrated management action plan for Gökova Gulf and Sedir Island. This initiative, led by Muğla University Rectorate, aimed to harmonize conservation efforts with local development needs and tourism. The preliminary results of his research on Sedir Island were published in 2009, enhancing our understanding of its archaeological and environmental significance.

Cultural Heritage Documentation

Adnan Diler's academic career extends beyond archaeological excavations, focusing significantly on the documentation and preservation of cultural heritage, particularly in multi-layered heritage sites. One of his primary objectives has been to sustainably preserve the natural and archaeological environment, while incorporating traditional cultural elements and engaging local communities in the process.

A notable achievement in this area was the Muğla Cultural Inventory project, conducted through a protocol between Muğla Sıtkı Koçman University, the Carian Research Center, and the Governorship of Muğla. This initiative aimed to document and preserve the region's cultural heritage and is regarded as the most comprehensive cultural inventory project in the region. It has set a precedent for future research in the field. The project led to the publication of four volumes of the *Muğla Cultural Inventory: Bodrum Yarımadası Kentsel Sit: Halikarnassos I* (2007), *Bodrum Yarımadası Etnografik Eserleri II* (2013), and *Bodrum Yarımadası Arkeoloji ve Sanat Tarihi Kalıntıları III.1-2* (2013). These volumes are crucial for understanding and preserving the cultural heritage of the region.

Adnan Diler has made significant efforts to protect the cultural heritage of Lelegian settlements on the Bodrum Peninsula, particularly Pedasa, and its surrounding areas. Recognizing the vulnerability of the region to destruction from unplanned construction and rapid population growth, Diler has worked alongside universities, local governments, and non-governmental organizations to develop holistic and sustainable conservation strategies. These collaborative efforts aim to safeguard both the cultural heritage and the natural environment of the peninsula, ensuring its preservation for future generations.

His legacy is defined by his dedication to preserving cultural heritage, his scholarly contributions to Carian archaeology, and his tireless efforts to integrate modern archaeological practices with ecological and social sustainability. His efforts have not only enriched our knowledge of the Caria but have also ensured the preservation of cultural heritage for future generations.

Publications

- 1988 "Olympos ve Hephaistion'da Kült Kalıntıları Üzerine Bir Ön Araştırma". **VI. Araştırma Sonuçları Toplantısı**, Ankara 23-27 Mayıs 1988, pp. 107-120.
- 1991 "Düzset Yapısı Çalışmaları". in: F. Işık, Patara 1989. **XII. Kazı Sonuçları Toplantısı** II. Cilt, Ankara 28 Mayıs-1 Haziran, pp. 35-36.
- 1991 "Lykia Olympos Dağında Bir Ön Araştırma". **Türk Arkeoloji Dergisi** 29, pp. 161-176.
- 1992 Diler, A., Çıracı, S., "Düzset Yapısı". in F. Işık, Patara 1990 Etkinlikleri, **XIII. Kazı Sonuçları Toplantısı** II. Cilt, Çanakkale 27-31 Mayıs 1991, pp. 239-240.

- 1993 “Tapınak Teras Sondajları”, içinde: Işık, C. “Kaunos 1991”. **XIV. Kazı Sonuçları Toplantısı**, II. Cilt, Ankara 25-29 Mayıs 1992, pp. 159.
- 1993 “Doğu Nekropol-1 Yapısı”, in: Işık, F. “Patara 1991”. **XIV. Kazı Sonuçları Toplantısı** II. Cilt, Ankara 25-29 Mayıs 1992, pp. 392- 393.
- 1994 “Akdeniz Bölgesi Antik Çağ Zeytinyağı ve Şarap İşlikleri”. **XI. Araştırma Sonuçları Toplantısı**, Ankara 24-28 Mayıs 1993, pp. 505-520.
- 1995 “Akdeniz Bölgesi Antik Çağ Zeytin ve Üzüm Presleri 1993”. **XII. Araştırma Sonuçları Toplantısı**, Ankara 30 Mayıs-3 Haziran 1994, pp. 441-458.
- 1995 “Account of the Sanctuary Exposed at Caunus City”. **Asia Minor Studien** 16, pp. 9-22.
- 1995 “The Most Common Wine-Press Type Found in the Vicinity of Cilicia and Lycia”. **Lykia** II, pp. 83-98.
- 1996 “İç Karya Yüzev Araştırmaları - 1994”. **XIII. Araştırma Sonuçları Toplantısı** II. Cilt, Ankara 29 Mayıs-2 Haziran 1995, pp. 315-334.
- 1997 “İç Karya Yüzev Araştırmaları - 1995”. **XIV. Araştırma Sonuçları Toplantısı** I. Cilt, Ankara 27-31 Mayıs 1996, pp. 198-206.
- 1998 “İç Karya Yüzev Araştırmaları - 1996”. **XV. Araştırma Sonuçları Toplantısı** II. Cilt, Ankara 26-30 Mayıs 1997, pp. 409-422.
- 1998 “Gökçeşeyh Buluntuları Işığında Protomlu Boynuz Rhytonların Kökeni ve Gelişimi”, **Belleten** 202, pp. 19-32.
- 1999 “Secred Stone Cult in Caria”. **Studien zur Religion und Kultur Kleinasiens und des ägäischen Bereiches: Festschrift für Baki Ögün zum 75. Geburtstag. Asia Minor Studien** 39. Ed C. Işık, pp. 51-77. Habelt: Bonn.
- 2001 “Ein Opferstock in Kaunos”. **Günüşğında Anadolu. Cevdet Bayburtluođlu için Yazılar**. Eds. C. Özgünel, O. Bingöl, V. İdil, S. Doruk, M. Kadiođlu, pp. 59-70. Homer: İstanbul.
- 2001 Eds Ögün, B., Işık, C., Diler, A., Özer, O., Schmaltz, B., Marek, Ch., Doyran, M. **Kaunos-Kbid. 35 Yılın Araştırma Sonuçları (1996-2001)**. Mopak: İzmir.
- 2002 “The Northern Rock Necropolis of Caunus”, **Asia Minor Studien** 44, 2002, pp. 63–95.
- 2002 “Damlıboğaz/Hydai Araştırmaları - 2000”, **19. Araştırma Sonuçları Toplantısı** I. Cilt, Ankara 28 Mayıs-1 Haziran, pp. 225 – 236.
- 2003 ‘Damlıboğaz/Hydai ve Leleg Yarımadası Araştırmaları 2001’. **20. Araştırma Sonuçları Toplantısı** II.Cilt, Ankara 27-31 Mayıs 2002, pp. 11-22.
- 2004 “Erzurum Arkeoloji Müzesinden Bir Pişmiş Toprak Boğa “Bibru”. **Anadolu’da Dođdu. 60. Yaşında F. Işık’a Armağın**. Ed. K. Taner, pp. 285-292. Ege Yayınları: İstanbul.
- 2004 “Tradition and Change in Olive Oil Processing in Rural Caria”, **Ethnoarchaeological Investigations in Rural Anatolia** Vol.1, Ed. T. Takaođlu, pp. 55-65. Ege Yayınları: İstanbul.
- 2004 Muğla’da Kültür ve Tabiat Varlıklarının Korunmasında Yaşanan Sorunlar: Kültürel ve Doğal Kaynak Yönetimi Ön Araştırması I. **The Problems of the Protection of the cultural and Natural Heritage in Muğla: A Preliminary Reseach on the Cultural and Natural Resource Management I**. Elit Ofset: İstanbul.
- 2004 “Bodrum Yarımadası Leleg Yerleşimleri, Mylasa/Damliboğaz ve Çevresi Yüzev Araştırması – 2002”. **21. Araştırma Sonuçları Toplantısı** II. Cilt, Ankara 26-31 Mayıs 2003, pp. 143-154.

- 2005 “Bodrum Yarımadası Leleg Yerleşimleri Pedasa, Mylasa, Damlıboğaz ve Kedreai (Sedir Adası) Yüzey Araştırması- 2003”. **22. Araştırma Sonuçları Toplantısı** II. Cilt, Konya 24-28 Mayıs 2004, pp.137-146.
- 2005 “Karya Bölgesi Zeytin ve Üzüm Presleri”. **Ramazan Özgan’a Armağan**. Eds. M. Şahin, İ. H. Mert, pp. 79-86. Ege Yayınevi: İstanbul.
- 2006 “Interpretation of Earlier Caunian Coins with Pyramid Depictions and their Relationship With Sacred Stone (Baitylos) in Caunos”, **Οβολός** 8, 2006, pp. 65-78.
- 2006 “Pedasa Geç Protogeometrik Tümülüsü ve Leleglerde Ölü İnancı”, **Anadolu Arkeolojisine Katkılar. 65. Yaşında Abdullah Yaylalı’ya Sunulan Yazılar**, Ed. T. Takaoğlu, pp. 109-131. Hitit Color: İstanbul.
- 2007 “Bodrum Yarımadası, Leleg Yerleşimleri Pedasa, Mylasa, Damlıboğaz (Hydai), Kereai (Sedir Adası), Kissebükü (Anastasioupolis) ve Mobolla Kalesi Yüzey Araştırmaları 2004-2005”, **24. Araştırma Sonuçları Toplantısı** II. Cilt, Çanakkale 29 Mayıs-2 Haziran 2006, pp. 479-500.
- 2007 “Kaunos’tan bir Ölçek Taşı (Sekoma)”, **Calbis. Baki Öğün’e Armağan. Melanges Offerts à Baki Öğün**, Eds. Çizmeli Öğün, Z., Işık, C., Varkıvanç, B., pp. 75-81. Türk Tarih Kurumu: Ankara
- 2007 “Kıbrıs Valia’dan Bir Kaya Presi”. **Patronus. Coşkun Özgünel’e 65. Yaş Armağanı**, Eds. M. Kadioğlu, E. Öztepe, pp. 141-145. Homer Kitabevi: İstanbul.
- 2007 “Ülkemizde Arkeoloji Mesleğinin Çıkmazları ve Farklı Yaklaşımlar: Pedasa’da Hobi Arkeoloji Parkı Önerisi”, **Atatürk Üniversitesi 50. Kuruluş Yıldönümü Armağanı: Doğu’dan Yükselen Işık. Arkeoloji Yazıları** Eds. B. Can, M. Işıklı, pp. 45-54. Ege Yayınları: İstanbul
- 2007 **Kedreai. Sedir Adası / Kedreai. Sedir Island**. Arkeoloji ve Sanat Yayınları. İstanbul.
- 2007 T.C. Muğla Valiliği İl Özel İdaresi. **Muğla Kültür Envanteri. Bodrum Yarımadası Kentel Sit: Halikarnassos I**. Neşa Ofset Ambalaj. İzmir
- 2008 T.C. Muğla Valiliği İl Özel İdaresi. **Bodrum Yarımadası Etnografik Eserleri II**. Cem Ofset: İstanbul
- 2009 Diler, A., Türkoğlu, S., Çörtük, U., Gümüş, Ş., “Bodrum Yarımadası Leleg Yerleşmeleri, Pedasa, Aspat, Kissebükü (Anastasioupolis), Mylasa Sarıçay Ovası, Damlıboğaz (Hydai) – Pilavtepe, Kedreai (Sedir Adası) ve Mobolla Yüzey Araştırmaları 2006 – 2007”, **26. Araştırma Sonuçları Toplantısı** III. Cilt, Ankara 26-30 Mayıs 2008, pp. 125-143.
- 2009 Diler, A., Özer, B., Bulut, H., “Pedasa Kazı ve Araştırmaları – 2007/2008”. **Eskiçağ Bilimleri Enstitüsü Haberler Dergisi** 28, pp. 29-31.
- 2009 Diler, A., Özer, B., Çakmaklı, Ö. D., Türkoğlu, S., “Pedasa, 2007”. **30. Kazı Sonuçları Toplantısı** 3. Cilt, Ankara 26-30 Mayıs 2008, pp. 267 – 284.
- 2009 “Tombs and Burials in Damlıboğaz (Hydai) and Pedasa. Preliminary Report in the Light of Surface Investigations and Excavations”. **Die Karer und die Anderen. Internationales Kolloquium an der Freien Universität Berlin 13.bis-15 October 2005**, Ed. F. Rumscheid, 2009, pp. 359-376. Habelt: Bonn.
- 2010 “Oil and Wine Production of the Halicarnassos Peninsula in Karia”, **Antikçağda Anadolu’da Zeytinyağı ve Şarap Üretimi, Sempozyum Bildirileri 06-08 Kasım 2008, Mersin Türkiye**. Eds. Ü. Aydınoğlu, K. Şenol, pp. 135-174. Zero Production: İstanbul.
- 2010 Diler, A., Gümüş, Ş., “Bodrum Yarımadası Leleg Yerleşimleri, Pedasa, Adalar, Aspat, Kissebükü (Anastasioupolis), Milas Damlıboğaz (Hydai), Sedir Adası (Kedreai) ve Muğla (Mobolla) Kalesi Yüzey Araştırmaları 2008”, **27. Araştırma Sonuçları Toplantısı** I. Cilt, Denizli 25-29 Mayıs 2009, pp. 101-120.

- 2011 “Pedasa 2008/2009”, **32. Kazı Sonuçları Toplantısı** IV. Cilt, İstanbul 24-28 Mayıs 2010, pp. 324-341.
- 2011 Diler, A., Özer, B., Gümüş, Ş., Özyurt-Özcan, H., Elmas, M., Novaliç, A., “Bodrum Yarımadası Leleg Yerleşimleri, Adalar, Aspat, Kissebükü (Anastasioupolis), Mylasa Damlıboğaz (Hydai), Pilavtepe ve Sedir Adası YüzeY Araştırmaları – 2009”, **28. Araştırma Sonuçları Toplantısı** III. Cilt, İstanbul 24-28 Mayıs 2010, pp. 187-206.
- 2011 “The Delicate Balance of Natural and Cultural Heritage: a Proposal for the Management Plan of Sedir Island (Kedreai)”, **Xantener Berichte**, 19, pp. 107-129.
- 2012 Diler, A., Özer, B., Bulut, H., Gümüş, Ş., “Pedasa 2010”, **33. Kazı Sonuçları Toplantısı** IV. Cilt, Malatya 23-28 Mayıs 2011, pp.167-194.
- 2012 Diler, A., Gümüş, Ş., “Bodrum Yarımadası Leleg Yerleşimleri, Adalar, Aspat, Kissebükü (Anastasioupolis) Mylasa – Damlıboğaz (Hydai), Kedreai (Sedir Adası) ve Karacaada YüzeY Araştırmaları 2010”, **29. Araştırma Sonuçları Toplantısı** III. Cilt, Malatya 23-28 Mayıs 2011, pp. 439-462.
- 2012 Diler, A., Özyurt - Özcan, H., “Byzantine Period in Kedreai (Sedir Island): Churches”, **Olba** XX, pp. 453-492.
- 2013 T.C. Muğla Valiliği İl Özel İdaresi. **Bodrum Yarımadası Arkeoloji ve Sanat Tarihi Kalıntıları III.1-2**. Renk Matbaası. İstanbul.
- 2013 Diler, A., Gümüş, Ş., Eryılmaz, N.S., “Bodrum Yarımadası Leleg Yerleşimleri, Adalar, Aspat (Strabilos), Kissebükü (Anastasioupolis), Damlıboğaz (Hydai), Sedir Adası (Kedreai) YüzeY Araştırmaları 2011”, **30. Araştırma Sonuçları Toplantısı**, 1. Cilt, Çorum 28 Mayıs-1 Haziran 2012, pp. 255- 270.
- 2014 Diler, A.- Özer, B., Bulut, H., Gümüş, Ş. Adıgüzel, G., Kasar, Ö., Eryılmaz, N. S., Çur, M., “Pedasa 2011-2012”, **35. Kazı Sonuçları Toplantısı** 3. Cilt, Muğla 27-31 Mayıs 2013, pp. 530-547.
- 2014 Diler, A., Gümüş, Ş., Eryılmaz, N. S., Çur, M., “Bodrum Yarımadası Leleg Yerleşimleri, Adalar, Aspat (Strabilos), Kissebükü (Anastasioupolis), Damlıboğaz (Hydai), Sedir Adası (Kedreai) YüzeY Araştırmaları 2012”, **31. Araştırma Sonuçları Toplantısı**, 2. Cilt, Muğla 27-31 Mayıs 2013, pp. 419 - 436.
- 2015 “Genel Hatları ile Lykia ve Karia İlişkileri Üzerine Bazı Notlar”. **Kum’dan Kent’e. Patara Kazılarının 25. Yılı Uluslararası Sempozyum Bildirileri 11-13 Kasım 2013**. Eds. H. İřkan, F. Iřık, pp. 145-186. Ege Yayınları: İstanbul
- 2015 Diler, A., Adıgüzel, G., “Pedasa Akropolis Giriş Kapısında Kült Çanağı”. **Ömer Özyiğit’e Armağan. Studies in Honour of Ömer Özyiğit**. Eds. E. Okan, C. Atıla, pp. 89-102. Ege Yayınları: İstanbul.
- 2015 Eds Diler, A., Şenol, Aydınöğlü, Ü., **Olive Oil and Wine Production in Eastern Mediterranean During Antiquity International Symposium Proceedings 17-19 November 2011, Urla Turkey**, Ege Üniversitesi Yayınları: İzmir.
- 2015 “Agricultural Land Use in Lelegian Termera: Change in Settlement Model in Agricultural Landscape”. **Olive Oil and Wine Production in Eastern Mediterranean During Antiquity International Symposium Proceedings 17-19 November 2011, Urla Turkey**. Eds. A. Diler, K. Şenol, Ü. Aydınöğlü, pp. 1- 29. Ege Üniversitesi Basımevi: İzmir.
- 2015 Diler, A., Özer, B., Çur, M., Yaman, A., “Pedasa 2013”. **36. Kazı Sonuçları Toplantısı** 3. Cilt, Gaziantep 2-6 Haziran 2014, pp. 339 – 360.

- 2015 Diler, A., Gümüş, Çur, M., “Bodrum Yarımadası Leleg Yerleşimleri, Adalar, Aspat (Strabilos), Kissebükü (Anastasioupolis), Damlıboğaz (Hydai), Sedir Adası (Kedrai) Yüzey Araştırmaları 2013”, **32. Araştırma Sonuçları Toplantısı**, 2. Cilt, Gaziantep 2-6 Haziran 2014, pp. 423 - 446.
- 2016 Diler, A., Kasar, Ö. “Pedasa Buluntusu Pişmiş Toprak Figürinler”, **Lykiarhissa: Havva İşkan’a Armağan. Festschrift für Havva İşkan**. Eds. E. Dündar, Ş. Aktaş, M. Koçak, S. Erkoç, pp. 261-280. Ege Yayınları: İstanbul.
- 2016 “Stone Tumuli in Pedasa on the Lelegian Peninsula. Problems of Terminology and Origin”. **Tumulus as Sema. Space, Politics, Culture and Religion in the First Millenium BC. Topoi. Berlin Studies of the Ancient World**. Eds. O. Henry, U. Kelp, pp. 455- 473. de Gruyter: Berlin.
- 2016 Diler, A.- Özer, B. – Bulut, H. – Gümüş, Ş.- Oruç, S. Z.- Adıgüzel, G.- Çur, M., “Pedasa 2014”, **37. Kazı Sonuçları Toplantısı** 3. Cilt, Erzurum 11-15 Mayıs 2015, pp. 559- 580.
- 2016 Diler, A., Gümüş, Ş., “Bodrum Yarımadası Leleg Yerleşimleri, Adalar, Aspat (Strabilos), Kissebükü (Anastasioupolis), Damlıboğaz (Hydai), Pilavtepe, Sedir Adası (Kedrai) Yüzey Araştırmaları 2014”, **33. Araştırma Sonuçları Toplantısı**, 1. Cilt, Erzurum 11-15 Mayıs 2015, pp. 147 - 170.
- 2017 “Bir Kültür Bölgesi Olarak KBID/Kaunos ve Karia Kimliğindeki Yeri”. **50. Yılında Kaunos/kbid. Memet Cengiz Işık’a Armağan. Basileus**. Eds. A. Diler, Özen, S., U. Çörtük, M. Doyran, B. Ö. Kleine, S. Akerdem, N. O. Özer, Y. Say Özer, pp. 136 – 154. Bilgin Kültür Sanat Yayınları: Ankara
- 2017 “Anadolu-Pers Dönemi Sanatında İkonografi: Gelenek, Gerçeklik ve Paradoks”. **Persler: Anadolu’da Kudret ve Görkem. The Persians. Power and Glory in Anatolia**. Eds. K. İren, Ç. Atay, Ö. Kasar, pp. 284-305. Yapı Kredi Yayınları: İstanbul
- 2017 “Neandrea ve Aşkidal Akarca’dan Araştırma Kültürü”. **Arkeoloji ve Aşkidal Akarca’nın Emeği**. Ed H. Ş. Şanlıdağ, pp. 57-60. Milas Belediyesi Yayını. Ata Matbaacılık: İzmir
- 2017 Eds. Diler, A., Özen, S., Çörtük U., Doyran, M., Kleine- Özen, B., Akerdem, Özer, N. O., Say Özer Y. **50. Yılında Kaunos/kbid. Memet Cengiz Işık’a Armağan. Basileus**, pp. 136 – 154. Bilgin Kültür Sanat Yayınları: Ankara
- 2017 “Bir Kültür Bölgesi Olarak KBID/Kaunos ve Karia Kimliğindeki Yeri”. **50. Yılında Kaunos/kbid. Memet Cengiz Işık’a Armağan. Basileus**. Eds. A. Diler, Özen, S., U. Çörtük, M. Doyran, B. Ö. Kleine, S. Akerdem, N. O. Özer, Y. Say Özer, pp. 136 – 154. Bilgin Kültür Sanat Yayınları: Ankara.
- 2017 “Kaunos/Kbid Tanrı Kültleri ve Kült Alanları Üzerine Bazı Notlar”. **Uluslararası ‘Anadolu’da Demeter ve Diğer Ana Tanrıça Kültleri’ Sempozyumu, Kaunos Kazı Evi 25-28 Haziran 2014**. Eds. M. Doyran, B. Özen-Kleine, U. Çörtük, S. Özen, pp. 165 – 194. Bilgin Kültür Sanat Yayınları: Ankara.
- 2019 “Early Iron Age Termara (Asarlık): Some Notes on the Lelegian Settlements and their Impacts on Karian Identity”. **Karia Arkhaia. La Carie des origines à la période pré-hékatomnide. İstanbul 14-16 novembre 2013**. Eds O. Henry, K. Konuk, pp. 507-545. Zero Production: İstanbul.
- 2019 Diler, A.- Özer, B. – Bulut, H. – Gümüş, Ş.- Adıgüzel, G.- Yıldız, S. Z.- “Pedasa 2017”, **40. Kazı Sonuçları Toplantısı** 1. Cilt, Çanakkale 7-11 Mayıs 2018, pp. 19-42.
- 2019 Diler, A., Gümüş, Ş., “Muğla İli, Adalar, Bodrum Yarımadası, Damlıboğaz, Sarıçay Ovası, Pilavtepe, Kissebükü, Sedir Adası (Kedrai), Anakara Leleg Yerleşimleri Yüzey Araştırması 2017”. **36. Araştırma Sonuçları Toplantısı** 1. Cilt, Çanakkale 7-11 Mayıs 2018, pp. 55 - 80.

- 2020 “Taşların Efendisi Leleg Halkının Ana Kenti Pedasa’da Geç Tunç-Erken Demir Çağı’nda Yaşam ve Ölüm”. **Kariahlılar. Denizcilerden Kent Kuruculara**. Eds. O. Henry, A. B. Henry, pp. 254-273. Yapı Kredi Yayınları: İstanbul
- 2020 Ed. A. Diler, **Mylasa Uzunyuva Hekatomneion’u. Uzunyuva Hekatomneion in Mylasa**. Ege Yayınları: İstanbul.
- 2020 “Uzunyuva Hekatomneion’unda Kült ve Ölü Adakları. The Cult ans the Votive Objects at Hekatomneion”. **Mylasa Uzunyuva Hekatomneion’u. Uzunyuva Hekatomneion in Mylasa**. Ed. A. Diler, pp. 323- 405, Ege Yayınları: İstanbul
- 2020 Diler, A., Özer, B., Gümüş, Ş., Adıgüzel, G., Yıldız, S. Z., “Pedasa 2018”, **41. Kazı Sonuçları Toplantısı**, 1.Cilt, Diyarbakır 17-21 Haziran 2019, pp. 35-60.
- 2021 “The Hekatomneion in Mylasa: Preliminary Studies on the Cult”. **Karia and the Dodekanese. Cultural Interrelations in the Southeast Aegean. Late Classical to Early Hellenistic**. Eds. P. Pedersen, B. Poulsen, J. Lund, pp. 87-106. Oxbow Books: Philadelphia
- 2021 Diler, A., Özer, B., Bulut, H., Gümüş, Ş., Ünver, G., Özen-Klein Britta, Adıgüzel, G., Yıldız, S. Z., Ayhan, G., Eryılmaz, N. S., Demircan Aksoy Z., Çur Mazlum, Topaloğlu, S., Akkaya, A. D., Doğan, N. H., Yurdagül, S. “Pedasa Kazı ve Araştırmaları”, **MSKÜ Edebiyat Fakültesi Dergisi, Bitig**, Cilt I, Sayı 1, pp. 182-267.
- 2021 Diler, A., Topaloğlu, S., “Karia’da Leleg Yarımadası Yerleşimi Pedasa’da Arazi Kullanımı Üzerine Bazı Notlar”, **Anadolu Arkeolojisiyle Harmanlanmış Bir Ömür. Mehmet Karaosmanoğlu’na Armağan**. Eds. M. A. Yılmaz, M. Işık, pp. 261-290. Bilgin Kültür Sanat Yayınları: Ankara
- 2022 Diler, A., Özer, B., Bulut, H., Gümüş, Ş., Ayhan, G., Demircan Aksoy, Z., Eryılmaz, N. S., Topaloğlu, S. “Pedasa 2019 – 2020”. **Kültür Varlıkları ve Müzeler Genel Müdürlüğü 2019-2020 Yılı Kazı Çalışmaları** 1. Cilt, pp. 35- 58.
- 2022 Diler, A., Gümüş, Ş., Topaloğlu, S., “Muğla İli, Adalar, Bodrum Yarımadası, Damlıboğaz, Sarıçay Ovası, Pilavtepe, Kissebükü, Sedir Adası (Kedreai), Anakara Leleg Yerleşimleri Yüzey Araştırması 2019”. **Kültür Varlıkları ve Müzeler Genel Müdürlüğü 2019-2020 Yılı Yüzey Araştırmaları** 1. Cilt, pp. 117 – 132.
- 2023 Eds. Diler, A., Özen, S., **Befestigungsbauten im weslichen Kleinasien. Beiträge des internationalen Kolloquiums in Kaunos 2019. Historica occidentalis et orientalis 2**. Saarland University Press: Saarbrücken.
- 2023 Diler, A., Gümüş, Ş., “Preliminary Evaluation of the Fortification and Defence Structures of the Lelegian Peninsula in Karia”, Eds. A. Diler, S. Özen, **Befestigungsbauten im weslichen Kleinasien. Beiträge des internationalen Kolloquiums in Kaunos 2019. Historica occidentalis et orientalis 2**. Saarland University Press: Saarbrücken, pp. 1- 49.
- 2024 Diler, A., Savran, G., Ünver, G., Adıgüzel, G., Arslan, A., Çinar, F., Sancak, U., Schnorr, N., Ürker, K., Yurdagül, S., Tanrıverdi, M. “Kedreai (Sedir Adası) 2022”, **43. Kazı Sonuçları Toplantısı**, 4. Cilt, Ankara 16-20 Ekim 2023, pp. 25-46.
- Yayın aşamasında Diler, A., Savran, G., Ünver, G., Yıldız, S. Z., Kleine-Özen, B., Adıgüzel, G., Yıldız, S., Schnorr, N. “Kedreai (Sedir Adası) 2023”. **44. Kazı Sonuçları Toplantısı**, Nevşehir 27-31 Mayıs 2024.
- Yayın aşamasında Diler, A. “Iron Age Dwellings at Pedasa”. **Nostoi II: Traveling in the Eastern Mediterranean Sea + Inland Routes from the Early Bronze to the End of the Early Iron Ages. 11-13 November 2022 Acropolis Museum, Athens**. Eds N. Stampolidis, K. Kopanias, Ç. Maner, I. Fappas. Brepols.

Other Publications

- 1995 “Rhodos’un Karşı Kıyısı”, **Atlas** 26.
- 1998 “Taş Kültü’nün Gizleri”, **Atlas** 58.
- 2008 Diler, A., Çakmaklı, Ö., D. “Leleg Uygarlığı’nın Merkezi PEDASA Antik Kenti”, **Aktüel Arkeoloji** 4, Ocak 2008, pp. 50-56.
- 2011 “Muğla Üniversitesi Mulâj Müzesi”, **Aktüel Arkeoloji** 19, Ocak 2011, pp. 52-53.
- 2011 “Pedasa, Bir Leleg Kenti”, **Aktüel Arkeoloji** 19, Ocak 2011, pp. 38.
- 2011 “Aspat (Strobilos) ve Territoriumu’nda Arkeolojik Park Yönetimi ve Antik Tarım Alanlarında Agro-Turizm Planlaması”, **Aktüel Arkeoloji** 19, Ocak 2011, pp. 24-25.
- 2015 Diler, A., Adıgüzel, G. “British Museum’da Karia/Caria at the British Museum”, **Aktüel Arkeoloji**, Sayı 47, pp. 82-91.
- 2022 “Kırsal Kimliğin Yaşayan Tanıkları: Tarım Terasları”. **Arkeo Duvar** 10, pp. 115-123.

Scholarships / Awards

- 1992 American Research Institute in Turkey (ARIT) PhD Research Scholarships
- 1995 German Archaeological Institute Research Fellowship (Berlin)
- 1997 Gerda Henkel Foundation Research Scholarships (Kiel)
- 2004 Academician of the Year Award 2004 (Muğla Hamle Newspaper)
- 2014 University of Münster, Visiting Researcher Fellowship
- 2016 German Archaeological Institute Research Fellowship (Athens)

