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Outline of Elmacıktepe Mound (Bafra Plain, Samsun) in the Chalcolithic Age

Kalkolitik Çağ'da Elmacıktepe Höyüğü'nün (Bafra Ovası, Samsun) Ana Hatları

Cahide Gizem TIRIL ÖZBİLGİN[1], Atila TÜRKER[2], Semih Yaşar ÇİZİKCİ[3]

[1]Ondokuz Mayıs Üniversitesi Lisansüstü Eğitim Enstitüsü Arkeoloji Anabilim Dalı/Doktora Öğrencisi, Samsun
· **gizemtiril74@gmail.com** · ORCİD > 0000-0003-1522-4624

[2]Ondokuz Mayıs Üniversitesi İnsan ve Toplum Bilimleri Fakültesi Arkeoloji Bölümü/Doç. Dr., Samsun
· **atilaturker@gmail.com** · ORCİD > 0000-0003-3893-4135

[3]Tokat Gaziosmanpaşa Üniversitesi, Fen-Edebiyat Fakültesi, Arkeoloji Bölümü, Dr. Öğr. Üyesi, Tokat
· **semihyasarcizikci@gmail.com** · ORCİD > 0000-0002-5906-7870

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Sorumlu Yazar/Corresponding Author: Cahide Gizem TIRIL ÖZBİLGİN

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OUTLINE OF ELMACIKTEPE MOUND (BAFRA PLAIN, SAMSUN) IN THE CHALCOLITHIC AGE

ABSTRACT

This article focuses on the Chalcolithic finds uncovered at the Elmacıktepe Mound, examined during the archaeological surface surveys conducted in the Bafra Plain between 2017 and 2019. With its diameter and elevation, Elmacıktepe is one of the largest mounds in the Black Sea Region. The surface survey employed a restricted area method, which revealed that Chalcolithic ceramics and small finds were concentrated on the western slope of the mound. The ceramic assemblage is dominated by local characteristics, primarily consisting of dark-faced burnished and unburnished wares. These are followed by vessels with light/dark brown and red surface colors. Vessel forms range from bowls and dishes to jars, some featuring lug handles, short necks, or no necks at all. Decorations executed in white paint on dark backgrounds, as well as incised and excised relief motifs, represent the most conspicuous indicators of interaction with Central and Western Anatolia during the Chalcolithic period. This also suggests that the settlement may have participated in cultural exchanges or shared production traditions. Small finds include stone weights, stone adzes, a marble bracelet fragment and blade, grinding stones, a chipped stone assemblage, and terra-cotta biconical sling bullets, all recovered from the western slope. However, the site's location and the presence of stone tools suggest that a period of conflict may have occurred in the region. Together, these findings reflecting diversity in production, subsistence strategies, and cultural interaction demonstrate that Elmacıktepe was a significant settlement in the Middle and Late Chalcolithic periods. Given its potential for Black Sea and Chalcolithic studies, including Elmacıktepe among the targets of systematic excavation would be of strategic importance.

***Keywords*:** Anatolia, Black Sea, Bafra Plain, Chalcolithic Age, Elmacıktepe, Surface Survey.

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KALKOLİTİK ÇAĞ'DA ELMACIKTEPE HÖYÜĞÜ'NÜN (BAFRA OVASI, SAMSUN) ANA HATLARI

ÖZ

Bu makale, Bafra Ovası'nda 2017-2019 yılları arasında yürütülen arkeolojik yüzey araştırmaları sırasında incelenen Elmacıktepe Höyüğü'ndeki Kalkolitik Çağ buluntularına odaklanıyor. Elmacıktepe, çapı ve yüksekliğiyle, Karadeniz Bölge-

si'nin en büyük höyüklerinden biridir. Yüzey araştırması daraltılmış alan yöntemiyle yapılmış, böylece keramik ve küçük buluntular bakımından Kalkolitik Çağ'ın höyüğün batı yamacında yoğunlaştığı anlaşılmıştır. Keramiklerde yerel özellikler baskındır ve çoğu koyu yüzlü perdahlı ve perdahsız mallar grubuna aittir. Bunlara açık/koyu kahve ve kırmızı tona sahip yüzeyi renkli mallar takip eder. Kap formları çanak ve kaselerden, bazıları mahmuz kulplu, kısa boyunlu ve boyunsuz çömleklere kadar çeşitlenir. Koyu zemin üzerine beyaz boya, çizi ve kazıma ile kabartma yöntemiyle yapılan bezemeler, Anadolu'nun Orta ve Batı yarısıyla Kalkolitik Çağ etkileşimini gösteren en bariz unsurları yansıtırlar. Ayrıca yerleşmenin kültürel etkileşim veya ortak üretim anlayışına sahip olduğunu da göstermektedir. Küçük buluntular taş ağırlık, taş keserler, mermerden bilezik parçası ve uç, öğütme taşları, yontma taş topluluğu ile pişmiş bikonik toprak sapan taşlarından ibarettir. Ancak höyüğün konumu ve bulunan taş aletler, bölgede çatışmalı bir sürecin yaşanmış olabileceğini düşündürmektedir. Bölgede üretim ve geçim çeşitliliğini ve etkileşimleri yansıtan bütün bu buluntular, Bafra Ovası'ndaki Elmacıktepe'nin Orta ve Geç Kalkolitik Çağ'da önemli bir yerleşim olduğunu göstermektedir. Karadeniz ve Kalkolitik Çağ araştırmaları için taşıdığı potansiyel dikkate alındığında sistematik kazı hedefleri arasına Elmacıktepe Höyüğü'nün dahil edilmesi gerektiği stratejik bir öneme sahiptir.

***Anahtar Kelimeler*:** Anadolu, Karadeniz, Bafra Ovası, Kalkolitik Çağ, Elmacıktepe, Yüzey Araştırması.

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INTRODUCTION

The number of archaeological research conducted in the Black Sea Region is considerably lower than in other regions of Anatolia. Among the provinces in the region, Samsun has been better investigated in terms of the number of excavations and surveys; however, the data obtained so far remain insufficient to yield a significant outcome. This is mainly because of the short duration of excavations, aside from the major sites of İkiztepe and Oymaağaç, and the limited number of publications. Another reason is the general lack of detailed documentation regarding surface finds. The difficulties in publishing surface survey results in detail originate from the absence of comparative contexts and, more importantly, inconsistencies in dating. Previous studies revealed that, except for the Neolithic period, all major chronological phases are represented in the Black Sea Region, particularly in Samsun. After a prolonged silence after the Paleolithic, the region appears to have been reoccupied during the Chalcolithic period. Although the number of settlements markedly increased in the Early Bronze Age, the transition and continuity between these two periods rely largely on ceramic evidence, making it difficult to present

conclusive arguments. While it is difficult to evaluate this framework in a fully homogeneous structure, this study aims to contribute to the literature by introducing the Chalcolithic finds from Elmacıktepe Mound (Fig. 1), which we had the opportunity to examine during our surface surveys.

Fig.1. Elmacıktepe Mound, from Southwest.

RESEARCH HISTORY

Elmacıktepe Mound was first discovered in 1972 during surface surveys conducted by Uluğ B. Alkım[1] in the Bafra Plain, prior to the İkiztepe excavations. Alkım recorded evidence of Early Bronze Age and Hittite-period occupation at the site. The mound was re-examined by Şevket Dönmez[2] as part of the 1997-1999 Amasya-Samsun surveys, and he identified remains from the Late Chalcolithic, Early Bronze Age (phases I-III), and Middle Bronze Age. Most recently, the site was re-investigated by our team in 2017 and 2019 as part of the Samsun Coastal Region Archaeological Survey Project carried out between 2015 and 2019.[3] In our preliminary report, we noted that the settlement likely dated back to the Early(?)-Middle Chalcolithic period and was abandoned after the Iron Age[4]. This article evaluates the Chalcolithic finds and their potential within the time frame targeted by our survey.

1 Alkım 1974, 24.
2 Dönmez 2002, 879.
3 Türker - Tırıl-Özbilgin, 2022, 193-199.
4 Türker et al. 2019, 217-219; Türker - Tırıl-Özbilgin, 2022, 197.

LOCATION AND ENVIRONMENTAL FEATURES

Elmacıktepe is located 20 km south of the Bafra District center, 2 km west of Türkköyü, adjacent to the southern edge of Dere Neighborhood, and 1 km southeast of Hacıoğlu Village. The İslamderesi Stream (formerly "İlâmdere/Kümbetderesi") curves along the northern and western edges of the mound, eventually joining the İlyaslı Stream, which flows into the Kızılırmak River to the south. The mound is bordered by open plains to the north and south and by oak-covered slopes to the east. It leans against a natural ridge extending westward from the slope. The mound stands at an elevation of 107 (±2) meters above sea level and rises approximately 15 (±2) meters above the surrounding plain. Based on its natural boundaries and ceramic distribution, the mound's estimated diameter is around 950 m^2 (Fig. 2).

Fig.2. Elmacıktepe Mound, from South.

Elmacıktepe is a first-degree archaeological site.[5] Intensive mechanized farming, especially on the southern slope, resulted in terracing that has damaged the mound's appearance. Looting pits represent another form of disturbance. At the summit, one such pit revealed architectural elements such as burned floors and oven/hearth fragments, along with a substantial number of Early Bronze Age III and early 2nd millennium BCE ceramic sherds (Fig. 3). The mound's northern slope, facing the stream, is steep and covered with trees and dense shrubbery.

[5] Registration: Samsun KTVKK 640-11/24/2012.

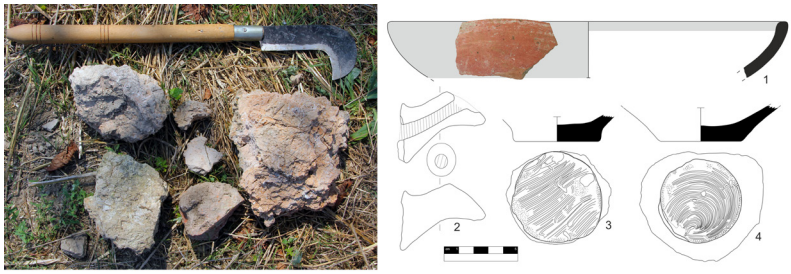

Fig.3. Burnt adobe pieces and early 2nd millennium BCE pottery found on top of the mound.

The mound is surrounded by low but steep hills interspersed with wide plains. After İlyaslı Stream, which is roughly 1 km to the south, the terrain becomes increasingly rugged, forming the eastern edge of the Küre Mountains. In these constricted zones where the Kızılırmak flows through a narrow valley, archaeological sites and contemporary villages become increasingly sparse. To the north, the landscape slopes down into the delta plain, offering more favorable conditions for habitation. Positioned at the edge of this ancient alluvial plain, Elmacıktepe enjoys a strategic location, with easy access in all directions.

FINDINGS

Pottery sherds dated to the Late Iron Age, Early Bronze Age III, Middle Bronze Age, and the Chalcolithic Period constitute the predominant chronological groups observed on the surface of Elmacıktepe. These materials were identified in varying densities across different parts of the mound (Fig. 4). It should be emphasized that this is a preliminary observation based on the surface distribution of the artifacts and will require further clarification through stratigraphic excavation. The majority of Chalcolithic ceramics were concentrated along the western slope of the mound, where they were spread over a large area at an elevation of approximately 8 meters. As will be discussed below, some of these ceramics may be attributed to the Early Bronze Age. Sherds from the Early Bronze Age III and Middle Bronze Age were primarily found on the summit of the mound and on the flat terrain along its southern base. The concentration of Late Iron Age ceramics on the southern terrace suggests that the slope may have been inhabited during this period.

Small Finds were grouped according to type, material, and function. The categorized items include stone weights, stone adzes, a marble bracelet fragment and blade, grinding stones, a chipped stone assemblage, and terra-cotta biconical sling bullets. All were discovered on the western slope of the mound.

Fig.4. Elmacıktepe Mound, aerial photograph.

POTTERY

The material characteristics and formal repertoire of the ceramics from Elmacıktepe, classified as belonging to the Chalcolithic Age, are quite limited. A small number of decorated examples provide key insights for the dating of the ceramics and for understanding potential cultural interactions.

The majority of the assemblage consists of Dark Faced Ware (DFW). Among them, Dark Faced Burnished Ware (DFBW) is predominant, while unburnished (smooth) specimens are relatively rare. The surfaces are predominantly black and dark gray, with a few examples in light gray. The distribution of this ware group, which is believed to have spread across a broad chronological span in Anatolia extending westward across the continent[6], has been a topic of ongoing discussion[7]. It is known that its earliest presence in the Samsun region was uncovered in the excavations at Dombalaktepe[8]. Following this group are wares in shades of brown (reddish and light brown) and red; light-colored examples are scarce.

The vessel forms (Fig. 5) consist mostly of open shapes, with a relatively smaller number of closed forms. The majority are bowls and dishes (Fig. 5/1-9), followed

6 Lamb 1954, 28-31.
7 Akgül 2012, 103-106.
8 Türker et al. 2023, 260.

by pots, some of which feature short necks (Fig. 5/10-17). Vessel bases are rounded, concave, or flat (Fig. 5/18-22). Two fragments with dark, matte surfaces belong to fruit stands (Fig. 5/23-24). This distinctive bowl form, dated to the Late Chalcolithic period, is known from settlements in the Kızılırmak Basin and the Upper Euphrates region in Anatolia[9]. All handles, which are vertically oriented, exhibit oval, thin-oval, or sub-rectangular cross-sections; some of them were horned (Fig. 5/25-30). Horned handles are among the characteristic handle types that first appear in the Early Chalcolithic in the Balkans, the Aegean Islands, Northern and Western Anatolia, and Thrace, becoming widespread during the Middle Chalcolithic[10]. In North-Central Anatolia, especially at sites such as Middle/Late Chalcolithic Büyük Güllücek[11] and Late Chalcolithic İkiztepe, they appear in a wide variety of form types[12]. The richness of this repertoire provides tangible evidence for the region's interactions and connections with western Anatolia.

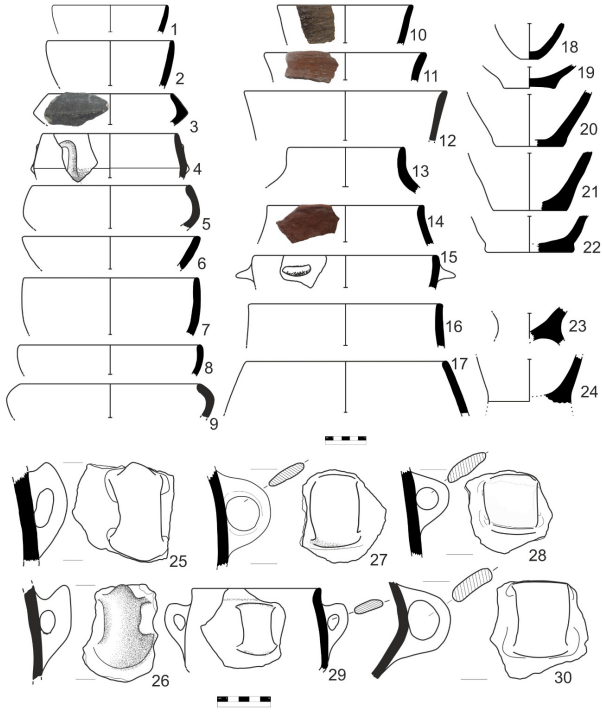

Fig. 5. Chalcolithic vessel forms, drawing, monochrome group.

9 Akgül 2020, 91.
10 Caymaz 2013, 55-56, 70; Erdoğu - Çevik 2020, 53-56.
11 Koşay - Akok 1957, 13, Taf. XVIII/2, XIX.
12 Dönmez 2006, 70.

The vessels have various types of decoration (Fig. 6), including painted, incised, grooved, and relief techniques. All painted decorations consist of white lines applied over a dark (black or red) background. Based on identifiable profiles, these were applied below the rim, on the lower half of the neck, and on the vessel's exterior surface (Fig. 6/1-4). This painted decoration tradition, which originated in the Eastern Aegean-Western Anatolia, began appearing at numerous sites in North-Central Anatolia during the second half of the 5th millennium BCE[13]. Grooved decoration is seen only on a single neck fragment (Fig. 6/12). Incised decorations feature either shallow or deep grooves; shallow grooves have thin walls, whereas deeper grooves have thicker walls (Fig. 6/5-11). One sherd with horizontal incised lines also features a white inlay (Fig. 6/5). On another, fine incised lines form a highly symmetrical and circular motif on the vessel body, with one edge framed by a fine groove (Fig. 6/11). Many similar examples of these decorations are known from the Chalcolithic contexts of North-Central Anatolia[14].

Moreover, there are several decorated fragments of particular note. One example (Fig. 6/13) features a globular body. On its light red (2.5YR6/8) surface, elongated rectangles were incised with fine lines and inlaid, then filled with irregular dot impressions. Such incision-dot stamp decorations are known from sites in the region's immediate vicinity[15], especially İkiztepe[16], as well as from North-Central Anatolian settlements such as Büyük Güllücek[17]. The earliest examples of such interactional styles are known from Central Anatolia, within the Gelveri Culture and related influences[18]. In those contexts, dot stamps typically appear either within triangular frames or as frameless clusters. However, the composition at Elmacıktepe, dot impressions within elongated rectangular panels, has no known parallels. Another notable example (Fig. 6/14) is a slightly concave body sherd made of red-black paste with thick walls. A nipple-like knob is positioned at the center, surrounded by shallow, wide grooves arranged in a roughly circular pattern. These rosette-shaped motifs, reminiscent of floral designs, are among the distinctive ornamental styles of Anatolia. The earliest known examples appear among Halafian decorations in Levels XVII/XVIz-XVI at Yumuktepe and in Ubaid-period materials from the same site[19]. At Yumuktepe, rosette motifs are painted in black or dark brown over a cream slip. An example of an incised decoration was also found in the Canhasan 2B level, which represents the Early to Middle Chalcolithic transition[20].

13 Türker - Tırıl-Özbilgin, 2025, 62-64.
14 Schoop 2005, Taf. 1-187.
15 Dönmez 2000, 79, Pl. 53/7; 2006, Pl. 5/5; see also Schoop 2005, Taf. 1-187.
16 Alkım et al. 1988, 34-35.
17 Koşay - Akok 1957, 10-11.
18 Godon - Özbudak 2019, 43-45.
19 Garstang 1953, 120-163, Fig. 75/15-17, 92/6, 102/14-15, Pl. XXII/2.
20 French 2005, 43, Fig. 24.1.

Comparable motifs do not appear again until the earliest phase of Jemdet Nasr[21] and the sealings of the Ninevite V period[22].

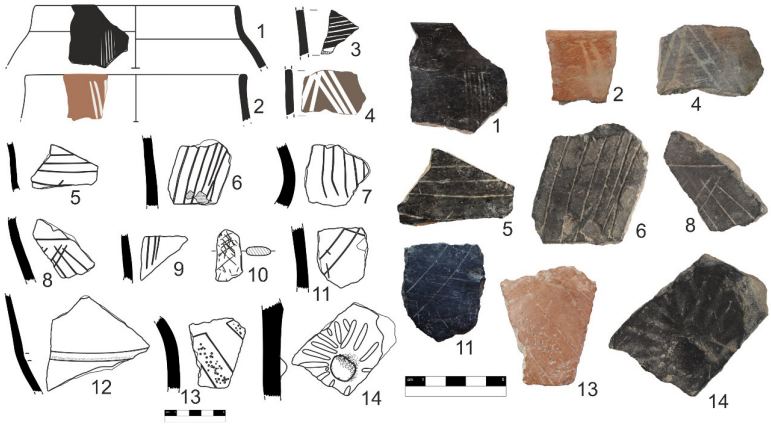

Fig. 6. Decorated vessel fragments from the Western Slope.

SMALL FINDS

The stone tools and artifacts, along with the ceramic finds uncovered on the surface, have various types and functions (Fig. 7).

The function of a flat stone with notches on all four sides remains a matter of debate (Fig. 7/1). These notched stones of varying types have generally been interpreted as weights[23] and were claimed to serve purposes such as fishing pole weights, net sinkers, or tools used in weaving or matting[24].

Another group of stone artifacts consists of chisel-like adzes (Fig. 7/2-3). Depending on their function, these stone adzes may also be identified as axes or chisels. Their bodies are flat, with the upper halves broken, and their striking/cutting edges tapered toward the end. The bodies are well-smoothed, and one example (Fig. 7/3) is also polished. While the second type represents the most common standard form seen from the Neolithic period onward, their widespread distribution makes it difficult to attribute them to a specific region or time period as diagnostic indicators.

21 Frankfort 1939, 30-34, Pl. VI.
22 Rova 2017, 116, Fig. 21/7.
23 Bamyacı 2018, 13 ff.
24 Stroulia et al. 2022, 16-18, Fig. 7-11, 15.

Two marble artifacts stand out due to their fine workmanship and polished surfaces: a bracelet fragment and a blade. The bracelet, made of variegated white marble (Fig. 7/4), is speculative in terms of its production sites, geographic distribution, and chronology[25]. As marble bracelets spread thousands of kilometers from east to west across Europe during the Neolithic period in the Mediterranean world, they have been regarded as part of a complex, cross-cultural archaeological phenomenon[26]. We know that their production continued in Anatolia during the Chalcolithic period and that there were many marble tool workshops. Considering the distribution data, their presence in North-Central Anatolia is also documented. Although it is difficult to make a definitive comparison due to its small size and missing upper half, the marble blade (Fig. 7/5) may be assessed in association with the marble bracelet fragment.

Many stoneware pieces associated with a primitive industry were observed on the mound surface. Most of these belong to grinding stone fragments and have either elliptical (Fig. 7/6) or irregular elliptical form. They were primarily used in food processing, particularly for grinding cereals[27]. However, recent studies carried out at Güvercinkayası suggest that their functions may have been more diverse and complex[28]. Among this category, two examples with central depressions are particularly noteworthy due to their apparent specialized function (Fig. 7/7-8). Although the depressions have not been analyzed, comparative studies of similar artifacts suggest that they may have functioned as ancient stone anvils or mortars. They were likely used for grinding minerals such as malachite and preparing ore for the beneficiation stage of copper smelting[29]. Comparable examples were documented in Murgul[30], Mamlis[31], Göltepe[32], and Derekutuğun[33]. Their presence was also reported around Uzgur Höyük, not far from Elmacıktepe in the Samsun region[34].

The lithic industry consists of a chipped stone assemblage made up of flint and a single obsidian piece. These include retouched flakes (scrapers) (Fig. 7/13), flint blades (Fig. 7/14-16), and one obsidian blade fragment (Fig. 7/17), representing a limited range of tool types. The Black Sea coast of Anatolia is known to yield very little obsidian, likely due to the region's distance from raw material sources[35].

25 Schoop 2005, 97, 341–342, Tab. 3.2.
26 Baysal et al. 2015, 254-255.
27 Herch 1981, 595.
28 Řídký et al. 2025, 49-50.
29 Wagner - Öztunalı 2000, 60.
30 Wagner - Öztunalı 2000, 46-47, Fig. 22.
31 Wagner - Öztunalı 2000, 56-58, Fig. 40.
32 Yener 2021, 149-153, Fig. 86-88, Pl. 29.
33 Yalçın 2016, 53-54.
34 Türker 2017, 396-397, Fig. 7.
35 Chataigner et al. 1998, Fig. 1.

In contrast, flint is abundant in the area and sufficiently meets local needs, a fact corroborated by surface survey results[36].

All four sling stones found on the surface are made of fired clay and have a biconical form[37]. These are standard types of ammunition known since the Neolithic of Southwest Asia and Southeastern Europe and were used across the Old World until the Roman period[38]. Many examples were documented around Samsun, particularly at İkiztepe[39]. The presence of sling stones in both the Samsun region and Elmacıktepe may indicate hunting activities in the area, but it could also suggest intergroup conflict during this period. Supporting evidence for this interpretation comes from severe injury marks found in the İkiztepe burials[40].

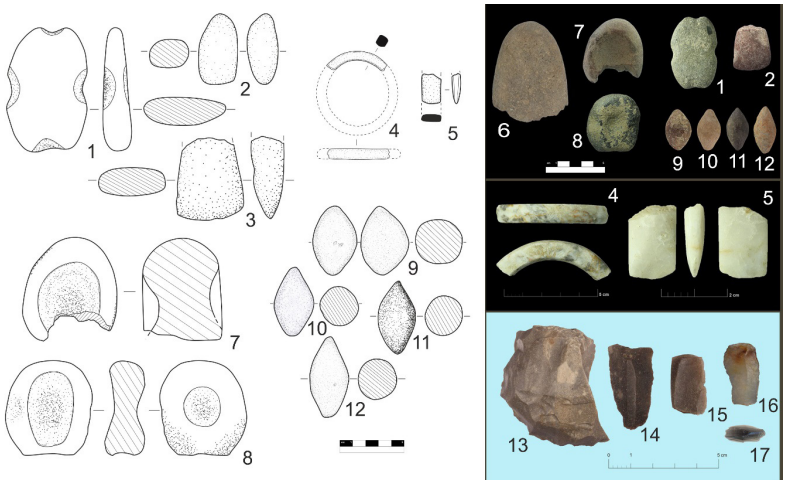

Fig. 7. Small finds from the Western Slope.

36 Türker 2021, 10-11, n. 87.
37 Türker et al. 2019, 218.
38 Meriç 2022, Map 7.1, Tab. 8.2, 10.1-2.
39 Meriç 2022, Tables 7.1-3.
40 Erdal 2010, 73-74.

CONCLUSION

Elmacıktepe is situated in a location within the Bafra Plain that allows for the optimal utilization of its environmental resources. Its substantial size and cultural sequence make it one of the largest mounds in the Samsun region, an observation that becomes evident at first glance. Although our knowledge regarding its status during the Chalcolithic Age remains limited, its strategic position within the same plain suggests that it occupied a significant place among its contemporaries (Fig. 8).

The Chalcolithic findings compiled here are of course open to debate, except for pottery. The shapes of the ceramics and, in particular, their decorative elements are quite distinctive and more persuasive for attribution to the Chalcolithic period. In contrast, the remaining artifacts, primarily consisting of stone materials, may be assigned to various periods, including the Chalcolithic Age. Nevertheless, some indirect evidence presented in this text supports the interpretation that the majority of these artifacts can be attributed to the Chalcolithic period, and it is not possible to refute it. At least, objects such as fragments of marble artifacts, sling bullets, chipped stone tools, and stone loom weights have origins traceable back to the Neolithic period.

The limited ceramic repertoire displays decorations such as paint, incisions, grooves, and reliefs, indicating the simultaneous use of different production techniques. Painted decoration reflects ties with the Eastern Aegean and Western Anatolia, while grooved and incised patterns point to connections with Central Anatolia. Moreover, the resemblance of rosette-shaped floral motifs to examples from Yumuktepe highlights Elmacıktepe's integration into a network of diverse cultural interactions or, at minimum, a shared understanding of production techniques.

The mound's strategic location and size, along with the presence of sling stones and chipped stone tools, strengthen the possibility that conflicts similar to those documented at İkiztepe may have occurred here as well, suggesting that the region was undergoing a turbulent historical process.

Determining the precise phase of the Chalcolithic Age in which settlement began along the Black Sea coast of Anatolia, particularly in the Samsun region, is a complex issue. The prevailing scholarly view tends to favor a Late Chalcolithic Period attribution. However, more recent discussions introduced alternative reference points and cast doubt on the chronology of İkiztepe. At least, the decorative elements found on ceramics from Elmacıktepe are similar to those of the Middle Chalcolithic repertoire of Central Anatolia. However, without systematic archaeological excavation, the trajectory of this debate is unlikely to shift.

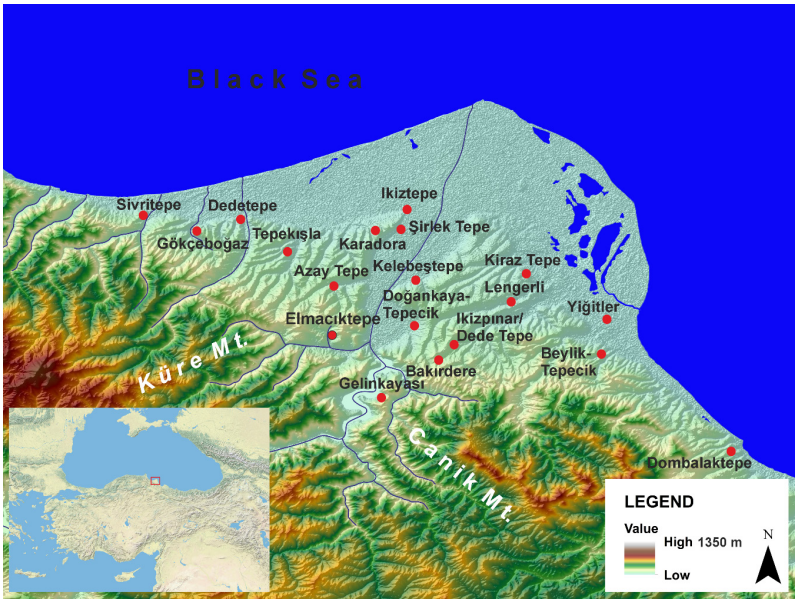

Fig. 8. Distribution of Chalcolithic Age localities in the Bafra Plain

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Conflict of Interest

Within the scope of the study, there is no personal or financial conflict of interest between the authors.

Ethical Statement

Regarding the requirement for Ethics Committee approval, the authors and reviewers have confirmed that no such approval is necessary for this study.

Author Contributions

Design of Study: CGTO(40%), ATT(30%), SYC(30%)

Data Acquisition: CGTO(40%), ATT(40%), SYC(20%)

Data Analysis: CGTO(40%), ATT(40%), SYC(20%)

Writing Up: CGTO(40%), ATT(30%), SYC(30%)

Submission and Revision: CGTO(60%), ATT(40%)

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