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LATE BRONZE AGE POT MARKS FROM THYATEIRA – HASTANE HÖYÜĞÜ

THYATEIRA – HASTANE HÖYÜĞÜ'NDE BULUNAN GEÇ TUNÇ ÇAĞI ÇÖMLEKÇİ İŞARETLERİ

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ABSTRACT

Various hypotheses have been formulated to explain the function and meaning of pre/post-firing marks in the Late Bronze Age Anatolia. Known as "pot marks," these signs have been prominently associated with the administrative systems–central authorities or viewed as an indicator of asymmetric interregional economic relations. However, these interpretations are not suitable for Western Anatolia due to the limited number of pot marks found in only a few settlements, the distinctive qualities of pottery tradition in the region, and the lack of institutionalized interregional economic connections. This article presents several pot marks found in Thyateira-Hastane Höyüğü (or Höyük) in Central West Anatolia with preliminary observations on the Late Bronze Age pottery groups. It emphasizes the ambiguous nature of pot marks, their typological similarities, and differences among non-regional parallels and suggests that their appearances in the Western Anatolian LBA settlements should be considered as singular cases for now.

Keywords: Late Bronze Age, Pot Marks, Akhisar, Hastane Höyük, Pottery..

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ÖZET

Geç Tunç Çağı Anadolusu'nda pişirim öncesi ve sonrasında çanak çömlek üzerine yapılan işaretlerin işlevi ve anlamı hakkında çeşitli hipotezler geliştirilmiştir. "Çömlekçi işaretleri" olarak tanımlanan bu işaretler ağırlıklı olarak idari sistemler-merkezi otoriteyle ilişkilendirilmekte ya da bölgelerarası asimetrik ekonomik ilişkilerin bir göstergesi olarak kabul edilmektedir. Fakat bu yorumlamalar; az sayıda yerleşimde ele geçen birkaç çömlekçi işareti, bölgedeki çanak çömlek geleneğinin ayırt edici nitelikleri ve kurumsallaşmış bölgelerarası ekonomik bağlantıların olmayışı sebebiyle Batı Anadolu için uygun değildir. Bu makale, Orta Batı Anadolu'da Thyateira-Hastane Höyüğü'nde bulunan bir grup çömlekçi işareti, Geç Tunç Çağı çanak çömlek buluntu gruplarına yönelik ön değerlendirmelerle birlikte sunmaktadır. Anlamı tam olarak çözülemeyen çömlekçi işaretlerinin, bölge dışı örneklerle olan tipolojik benzerlikleri ve farklılıkları üzerinde durmakta, Batı Anadolu'daki Geç Tunç Çağı yerleşimlerinde bulunmalarının şimdilik tekil vakalar olarak düşülmesi gerektiğini önermektedir.

Anahtar Kelimeler: Geç Tunç Çağı, Çömlekçi İşaretleri, Akhisar, Hastane Höyüğü, Çanak Çömlek.

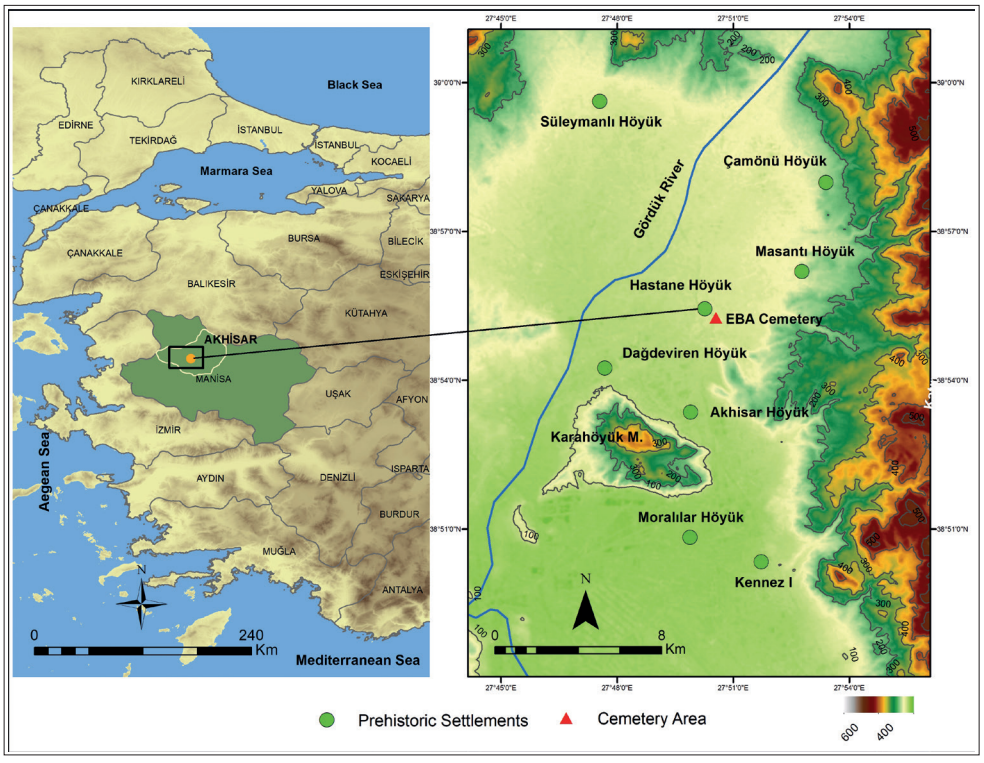


Figure 1. Map showing the location of Hastane Höyüğü and neighboring prehistoric settlements. / *Hastane Höyüğü ve çevresindeki prehistorik yerleşimleri gösteren harita*

INTRODUCTION

Pot marks is a generic term referring to various types of pre/post-firing marks incised on pottery closely associated with social and economic aspects of pottery production and consumption. They consistently occur in the Middle-Late Bronze Age (LBA) settlements of the Eastern Mediterranean world and show observable interregional differences and similarities (Astrom, 1967; Gallorini, 1998; Gates, 2001; Hirschfeld, 1999; Hirschfeld, 2002; Lindblom, 2001; Glatz, 2012). They have not been the subject of much scholarly interest in Western Anatolia because of their limited appearance in a few settlements. However, recently found pot-marked sherds from Hastane Höyüğü make a valuable contribution to enlarge the regional corpus. This article offers a brief overview of the distribution and use of LBA pot marks in Anatolia, highlights inconsistent interpretations about the purpose of pot marking from a critical perspective. After introducing the main groups of Hastane Höyüğü LBA pottery repertoire, it presents three LBA sherds with pre/post-firing pot marks. These finds are compared to other similar examples found in Western Anatolia, Central Anatolia, and Cilicia to discuss their function, pattern of distribution, and possible meaning.

HASTANE HÖYÜĞÜ: GEOGRAPHICAL SETTING AND EXVACATION BACKGROUND

Hastane Höyüğü is a mound settlement located in the town center of Akhisar district in Manisa province, western Turkey. The mound is in the residential area of the Hellenistic-Roman city of Thyateira, lies on the fertile alluvial plain of Akhisar, irrigated by Gördük (or Gürdük) River and small seasonal streams. It is bordered by mountainous terrain in the East, by Karahöyük Mountain in the South. Recent archaeological surveys in Akhisar Plain have provided valuable data on settlement patterns and land use around Hastane Höyüğü (Akdeniz, 2009; Akdeniz, 2011; Erön, 20191). (Fig 1.) However, continuous occupation and modern farming activites have caused significant damage to prehistoric settlements in the region. Notably, the central area of the Hastane Höyüğü, situated 110 m above sea level, was heavily damaged during antiquity and the construction of a state hospital in the 1950s (Akdeniz 2014, p.127). (Fig. 2) The prehistoric deposits of the mound were first identified by archaeologists from Manisa Museum during a salvage excavation, and E. Akdeniz started large-scale excavations within Thyateira Excavation Project in 2011.

[1] See French 1969 for previous surveys in the area.

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The excavations have revealed remains of a rectangular planned temple from the Roman Period surrounded by a Late-Middle Byzantine cemetery consisting of simple graves. Prehistoric artifacts, mainly pottery and lithics, have been found in the heavily disturbed central area of the mound. A number of the Late Neolithic-Early Chalcolithic sherds without proper context are the oldest prehistoric finds at the site. Many Early Bronze Age sherds typical for the central-west Anatolia found in the trenches around the temple area (Akdeniz, 2012; Akdeniz et all 2018; Akdeniz and Dinç, 2020; Akdeniz, 2020). Recently, a cemetery that



Figure 2. Aerial view of Hastane Höyüğü (Courtesy of Turkish Aeronautical Association) / *Hastane Höyüğü hava fotoğrafı*

contains burials with zoomorphic vessels discovered approximately 500 m. southeast of the mound during a rescue excavation conducted by Manisa Museum (not published). The abundance of EBA pottery and the extramural cemetery can be seen as an indication of settlement growth in the 3rd Millennium BC. No conclusive evidence has been discovered to reconstruct the spatial organization of the settlement and its development in the 2nd Millennium BC. However, considering scattered finds and the differences in elevation, it can be estimated that the mound covers an area of approximately 8 ha. Excavations so far have not produced a well-defined Late Bronze Age (LBA) stratigraphic sequence due to disturbed layers and poorly preserved structures. On the other hand, LBA pottery is abundant and has been unearthed from all the excavated areas. This rich pottery assemblage with typological variety provides valuable data about local pottery production and consumption patterns. It also yields the first examples of LBA pot marks from Central West Anatolia.

POT MARKS IN THE LATE BRONZE AGE ANATOLIA: A MULTI INTERPRETED SUBJECT

Simple signs in the shape of an arrowhead (or goosefoot), open-ended triangles, horizontal and short vertical lines marked on pottery found in the several LBA settlements in Central Anatolia, Cilicia, Southeast Anatolia, and North Syria. (Fig. 3) Their location varies, on or around the handle, neck, base, and body of a vessel. Glatz gives a convenient typology of 305 LBA pre-firing pot marks classified under 20 motifs in her meticulous study, with their size varies between 2-8 cm apart from some exceptions (Glatz, 2012, p.9). (Fig. 4) The pre-firing marks were incised on pottery, possibly by potters in the manufacturing stage, while potters, consumers, or other agents may have applied post-firing marks after the production. Various explanations have been proposed for the meaning of marking practice, such as addressing the destination of vessels and their recipients, hinting the quality of the vessel and its content, representing numerals and Luwian hieroglyphic signs related to the consumption or Exchange (Umurtak, 1996; Niemeier, 1998; Mielke, 2006; Zurbach, 2003). Beyond their simple applications, numerous hypotheses have been postulated to explain the more sophisticated use of both pre/post-firing marks due to their universal appearance in the Late Bronze Age Eastern Mediterranean (Gallorini, 1998; Hirschfeld, 1999; Gates, 2001; Budka 2015). However, pot marks' functional diversity does not show widely accepted homogeneous patterns as systematically investigated by Glatz (Glatz, 2012, p.32). Accordingly, sub-regional and intra-regional differences exist in the interpretations of published LBA Anatolian pot marks.

Pot marks are compared with Luwian Hieroglyphs in Central Anatolian LBA settlements such as Hattusa, Alacahöyük, and Kuşaklı (Koşay, 1965; Seidl, 1972; Mielke, 2006). Although plausible alternative explanations exist to explain their possible function or meaning, they remain in the background since there is the captivating opportunity to analogize pot marks with monumental inscriptions or seals. On the other hand, pot mark examples from Kinet, Soli Höyük, Alalakh, and several other settlements were either interpreted differently or just published without relevant explanatory frameworks. In her pioneering study, Gates discards the comparison of pot marks with hieroglyphs (particularly the REX sign) for the Kinet material; instead, she describes them as "a notational code whose meaning did not extend beyond the workshop and those overseeing its management (Gates, 2001, p.140)." Pot marks in Kinet were incised on the standardized pottery known as "Drab Ware" manufactured in all major "Hittite" settlements in the 14th and 13th centuries BC (Schoop, 2011, p.242-243; Glatz, 2009, p.129). Archaeological evidence

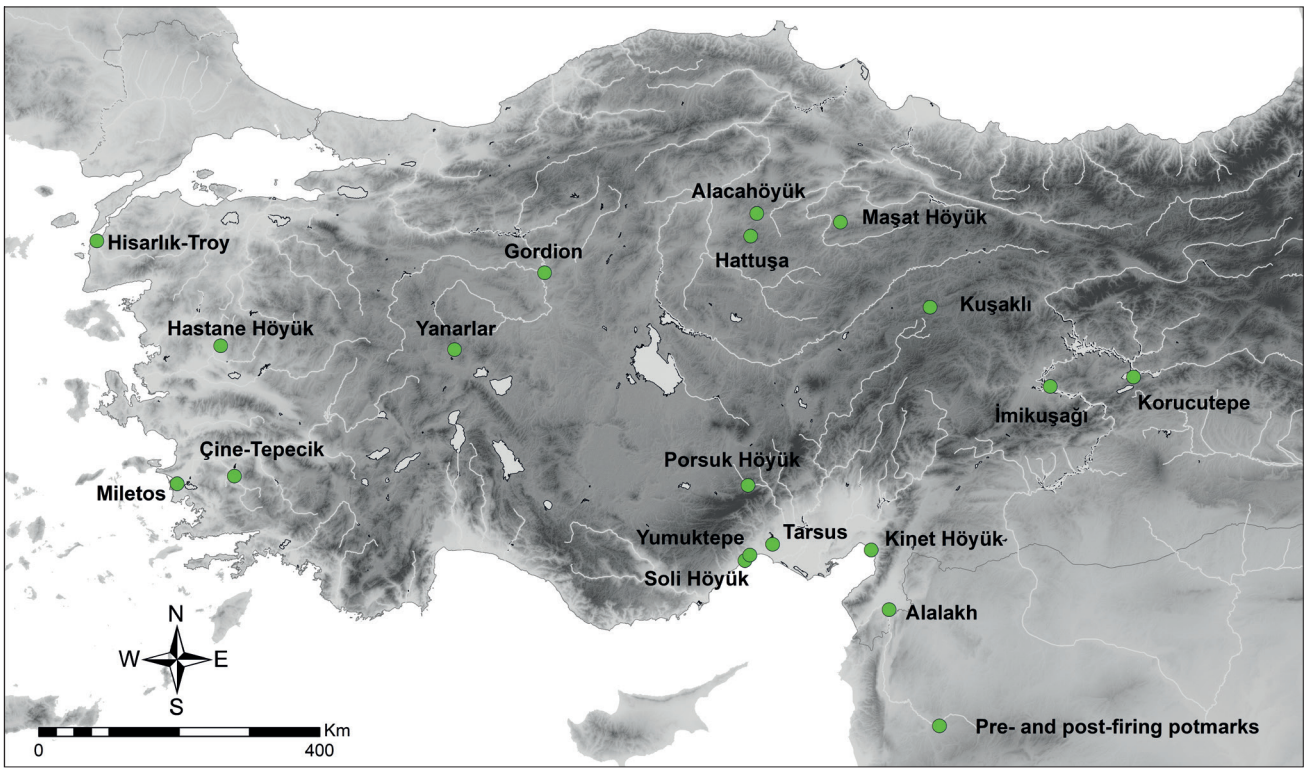


Figure 3. Map showing the distribution of LBA pre/post-firing pot marks (after Glatz 2012, Fig. 1) / *Geç Tunç Çağı pişirim öncesi ve sonrasında yapılan çömlekçi işaretlerinin dağılımını gösteren harita*

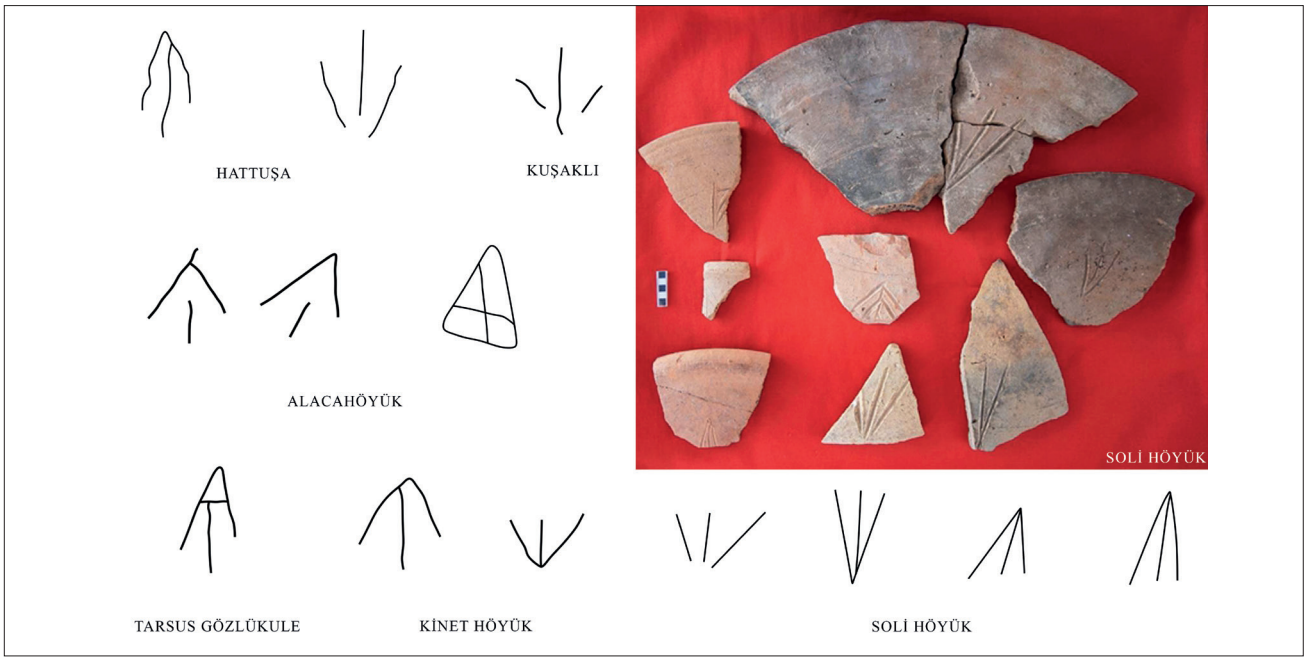


Figure 4. A selection of the LBA pot mark examples (Photo from Yağcı, 2010: Fig. 3) / *Geç Tunç Çağı çömlekçi işaretlerinden bir seçki*

from key settlements in Cilicia and historical records illustrates the establishment of the Hittite administration and the occurrence of central Anatolian material culture practices (Goldman, 1950; Garstang, 1953; Yağcı, 2007). Gates regards pot-marking as an element of this context and considers pottery production a local sector under the control of the Hittite political system (Gates, 2001, p.141). Thereby accepting pot marks as an instrument of the Hittite imperial strategy in peripheral regions, she overrates their importance and perceives them as an argument analogous to written documents that enlighten regional economic organization. Additionally, the

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contextual evidence is unconvincing to accept suggested interpretations since Kinet is not a pottery village and pot mark examples did not come from a workshop or pottery manufacturing area.

In Soli Höyük, pot marks are not directly linked with the pottery production environment as in Kinet but evaluated in the same historical and organizational context, emphasizing a possible role to the local authorities. A pot-marked plate was found inside a "grain jar" with barley (*Hordeum vulgare*) remains led Yağcı to assume pot marks functioned as measurement signs associated with a distribution system under local authorities (Yağcı, 2017, p.417). He formulates that incised open and closed vessels might be used to measure grains or liquids based on contextual data (Yağcı, 2017, p.425). The Soli case is more coherent than Kinet's since archaeological evidence allows the interpretation of pot marking practice. However, administrative institutions are archaeologically invisible in Soli Höyük; no evidence has been found for monumental buildings (palaces, elite houses), royal archives, and systematic use of writing. The absence of these typical material culture elements weakens the suggested link between pot marks and political actors or institutions.

In Alalakh, pot marks are incised on the pottery called "Simple Ware" which shows close similarities with drab wares, limited to the northwest Syria and Amuq region (Horowitz, 2016, p.164). The majority of pot marks are dated to LB I Period (1600-1400 BC), but unlike many other LBA settlements, marking practice decreased significantly towards the 14th and 13th centuries BC. According to Horowitz, the reason behind "the apparent disappearance of pot marks" is the establishment of the Hittite political administration that might have caused changes in the local pottery production (Horowitz, 2017, p.308). This assumption contradicts the observations made by Gates for the Kinet findings. The examples of Kinet, Soli, and Alalakh evidently demonstrate that inconsistent meanings have been attributed to pot marks within a peripheral area of the Hittite domain. It should also be emphasized that pot marks are interpreted intensively in LBA settlements of Cilicia and North Syria compared to other regions, following Gates's highly impacted study. They did not get special treatment in İmikuşağı, or Porsuk just published without further explanations about their meanings, possibly due to the limited examples of marked vessels (Pelon, 1992, p.344; Konyar, 1996, p.385). The uneven attention given to pot marks is more evident when it comes to Western Anatolia.

The archaeology and history of LBA Western Anatolia show distinctive features compare to the Hittite-influenced regions such as Cilicia, Southeast Anatolia, and North Syria. Material culture elements, particularly monumental architecture, pottery, seals, and tombs, display a heterogeneous character (Greaves, 2010; Pavúk, 2015); political history reflects the long-term military conflict between local polities and the Hittite Empire (Hawkins, 1998; Alpaslan, 2015; Ünal, 2018). Hence, Central Anatolian hegemony had never become dominant during the LBA, both in political and material culture realms in Western Anatolia. Because of these factors and the scarcity of pot-marked sherds, marking practice has not been the subject of much scholarly interest except for a few settlement-based considerations.

Pre/post-firing pot marks have been identified only in the Yanarlar Cemetery (Emre, 1978), Miletos (Niemeier, 1998; Niemeier, 2005), Troy (Zurbach, 2003; Hirschfeld, 2008), Çine-Tepecik (Unpublished), and Hastane Höyüğü. (Fig. 5) A marked sherd found at the mouth of a burial pithos in the Yanarlar Cemetery dated the 19-18 centuries BCE based on the typological comparison of the pithos. It is not clear whether the arrowhead-shaped motif on the vessel's shoulder was incised before or after

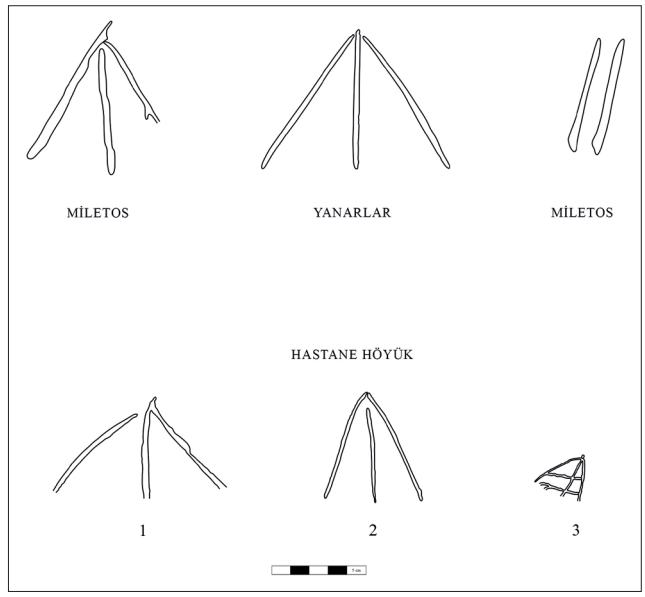


Figure 5. Published pot marks from Western Anatolian LBA Settlements / *GTÇ Batı Anadolu yerleşimlerinde bulunan yayını yapılmış çömlekçi işaretleri*

firing since no photograph and explicit information were given in the excavation monograph (Emre, 1978, p.32). (Fig. 101) Two pre-firing marks found in the Miletus VI Period (1300-1200 BC) graved on pithos fragments; one is an arrowhead-shaped motif well-known from the LBA Anatolian pot mark corpus the other consists of two simple strokes. Although W. D. Niemeier mentions the Hittite parallels of the first example, he considers both marks possible Linear B signs (Niemeier, 1998, p.37). (Fig. 13-14) Finally, 14 post-firing pot marks have been found in the LBA Troy since Schliemann's excavations.

Only one potsherd bears an arrowhead-shaped mark; the rest of the pot marks do not show typological similarities with well-known examples of the LBA Anatolian corpus (Zurbach, 2003, p.119-122). More importantly, the lack of contextual evidence prevents making concrete interpretive conclusions.

Glatz summarizes the chief interpretations of the LBA Anatolian pot mark corpus and scrutinizes them critically from a cross-cultural perspective through well-documented archaeological data combined with ethnoarchaeological insights. She defines pot marking practice as an act of the production routine in the co-production environments in which potters collaborate in order to supply particular demands from other settlements or work as "itinerant specialists (Glatz, 2012, p.116)". The following remarks clarify the currents authors' position on this multi-interpreted subject in harmony with Glatz's view. Pot marks are primarily meaningful for the potters and employees in the workshops. Despite some typological similarities, they are not standardized marks that play a principal role in pottery production-consumption context and exchange. They could have been used to convey some information regarding the manufactured pots or the goods inside. However, the archaeological and written evidence is imperfect to verify these uses in the LBA Anatolia. The present archaeological contexts from Cilicia and other regions do not provide sufficient direct evidence to support their use as an instrument of Hittite imperial policies in the peripheral areas. Adopting a minimalist perspective is much more suited to explain their spatial distribution and variety in form and meaning. Ultimately, the LBA pottery and pot marks of Hastane Höyüğü will be evaluated from this perspective.

THE LBA POTTERY AND POT MARKS OF HASTANE HÖYÜĞÜ

The LBA pottery of Hastane Höyüğü displays noticeable features in terms of production technique and typological similarities. The pottery sherds can be divided into two main groups considering physical characteristics. The fine wares are wheel-made, high-fired, mostly thin-walled vessels produced from fine clay. Slipping and polishing are frequently used, and mica content is abundant in the paste and slip. Carinated and S profile bowls, wide-mouth bowls with basket handles and jars with out-turned rims are the most common forms; dark and light grey, red-light red, and light brown are dominant surface colors. Examples of Anatolian Grey Wares (AGW) (Fig. 6), common in Northwest Anatolia, and Gold Wash Wares (GWW) (Fig. 7) are abundant. Potsherds belonging to both groups were collected from many settlements during the surveys conducted by E. Akdeniz demonstrate that



Figure 6. Anatolian Grey Wares (AGW) examples from Hastane Höyüğü / *Hastane Höyüğü Anadolu Gri Seramiği örnekleri*



Figure 7. Gold Wash Wares (GWW) examples from Hastane Höyüğü / *Hastane Höyüğü Altın-Mika Astarlı Seramik örnekleri*

these wares are the dominant elements in the regional pottery traditions (Akdeniz, 2009, p.255-2662). Thus, the pottery repertoire of Hastane Höyüğü fine wares shows close parallels with Panaztepe (Günel, 1999), Kaymakçı

[2] See French 1969, for previous surveys and brief information about the main pottery groups identified in the Akhisar Plain.

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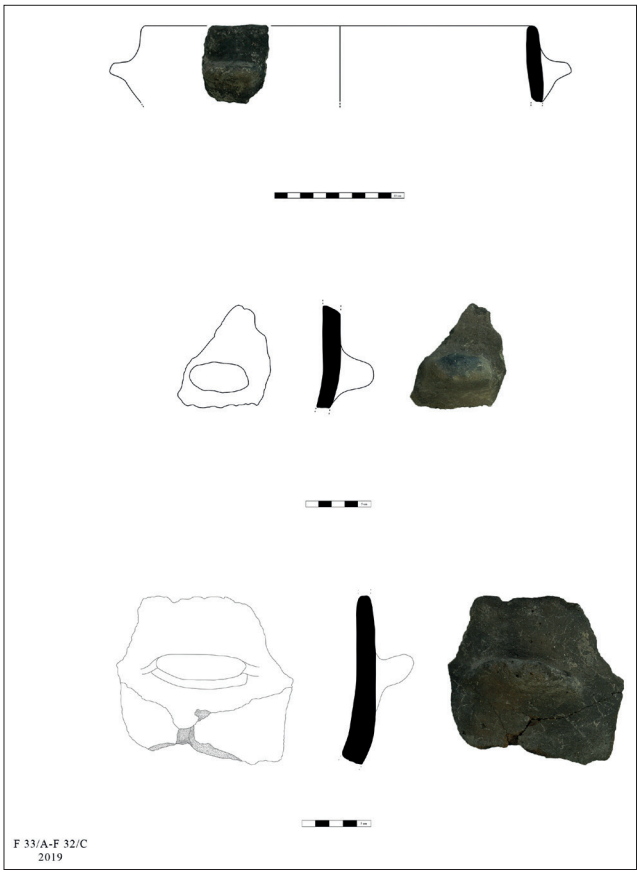


Figure 8. Hand-made LBA pottery examples of Hastane Höyüğü / *Hastane Höyüğü GTÇ el yapımı seramik örnekleri*

(Roosevelt et all 2018), Akırbey Çiftlik (French, 1969, p.47) or Dağdeviren Höyük, Sardis (Unpublished) and Hisarlık-Troy (Pavúk, 2014). However, technical and typological similarities with the neighboring Bakırçay Basin are limited. Pavúk and Horejs's study reveals that most sherds do not contain mica content in the paste and slip; GWW is strikingly absent in their study area (Pavúk and Horejs, 2018, p.471-478). These observations display intra-regional variability of raw materials and reflect the heavy use of mica inclusions as a chief aspect of pottery production in Hastane Höyüğü and neighboring settlements.

The second group consists of plain and coarse wares, primarily fragments of thick-walled flat-based jars with out-turned rims and thin-walled cooking pots. The paste contains sand grains of small and medium size, mixed with high amounts of mica. Surfaces are usually reddish-brown to dark brown and grey. Parallels are well known from Hisarlık-Troy (Pavúk, 2014), and Panaztepe (Günel, 1999). In addition to these wheel-made examples, there are poorly fired, hand-made vessels (jars with ledge handles, bowls) made of very coarse clay with small pebbles and mica inclusions. They show similar characteristics to Troy VIIb hand-made wares (Hnila, 2012) but do not have "the Balkanic" elements. These potsherds may indicate a degeneration in the production technique and the skill of potters or they may have been produced in a household setting rather than in professional workshops.

No studies have yet been conducted on the source and type of mica applied to the LBA pottery. However, the analysis of GWW from Kaymakçı, 35 km southeast of the Hastane Höyüğü, showed that muscovite and phlogopite are the primary mica types used on the surface treatment (Kaner, 2018). The LBA pottery of Hastane Höyüğü may have the same chemical composition given the typological-technical similarities and the proximity of Kaymakçı. Furthermore, a significant amount of the mica reserves in Turkey is located in Demirci and Gördes districts of Manisa (Atabek, 1943). Potters could have used these beds and possibly the mica-containing rocks near the LBA settlements. However, comprehensive investigations have not been carried out to show the relationships between the mica varieties in Demirci-Gördes beds and micaceous wares common in the LBA settlements in Manisa.

Radiocarbon samples from reliable contexts have not been collected because of the destructions noted previously. Therefore, the chronology of the Hastane Höyüğü LBA pottery depends on typological comparisons with the nearest LBA settlements. AGW and GWW shapes bear significant similarities to the LB 2 Phase of Kaymakçı (Roosevelt et al. 2018). (Fig. 18) Although Hastane Höyüğü AGW sherds and the AGW examples of Panaztepe (Günel, 1999) (the first half of the Second Millennium BCE) share a similar highly micaceous fabric, typological affinities are limited. However, certain types of Panaztepe local pottery shapes (bowls and jars) show close parallels (Günel, 1999: Fig. 32, 163). The LBA pottery from a deep sondage in Sardis has not been fully published yet, but their surface treatment and slip bear resemble Hastane Höyüğü GWW (Cahill, 2019). (Fig. 10-8) The closest parallel for the GWW finds come from Kennez I (French, 1969) (Fig. 5-11) and Dağdeviren Höyük (Akırbey Çiftlik). According to Gür, 'Mycenaean' potsherd found with the bulk of GWW pottery in Dağdeviren Höyük belong to the 14th Century BCE, LH IIIA2 (Gür, 2002). This connection with the general appearance of GWW in Western Anatolia provides a chronological range between the 16th-14th centuries BCE for the majority of Hastane Höyüğü material. Finally, hand-made plain and coarse wares can be dated to the 12th century with respect to Trojan tradition.

Only three pot mark examples have been identified in Hastane Höyüğü so far. The first piece is a handle fragment of reddish-brown (5 YR 5/4) probably belong to a jug, with mica and sand inclusions in fabric, bears



Figure 9. Hastane Höyüğü pot marks / *Hastane Höyüğü çömlekçi işaretleri*

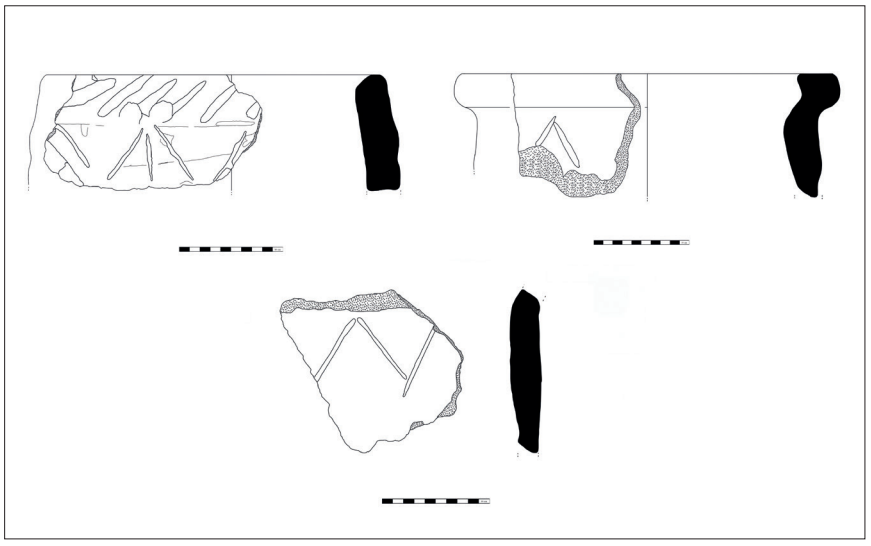


Figure 10. Incised motifs on the Hastane Höyüğü LBA pottery / *Hastane Höyüğü GTÇ seramikleri üzerinde yer alan kazıma bezemeler*

an arrow-shaped pot mark. The second piece is a jar fragment with basket handles, its micaceous light red (2.5 YR 6/8) surface marked with an arrow-shaped sign. The last piece is a red slipped (2.5 YR 5/6) handle that shows similar fabric features to the first two but bears a post-firing mark in the shape of a triangle divided into four parts by horizontal and vertical lines. (Fig. 9) This mark is smaller compared to other pot marks. Exact parallels of the arrow-shaped signs (Glatz Type 4) are known from Miletos (Niemeier, 1998), Yanarlar (Emre, 1978), Hattuša, Alacahöyük, Kuşaklı, Kinet Höyük and Soli Höyük (Glatz, 2012: see Fig. 2 with references). The closest parallel of the post-firing mark (Glatz Type 10) is coming from Alacahöyük (Koşay, 1965). In addition to these pre/post-firing marks, there are some incused motifs on three sherds.

However, arrow-shaped signs in a line on the neck of a pithos fragment and a line of chevrons on two sherds, seem to be used as decorative elements and can not be considered pot marks. (Fig. 10)

As mentioned above, AGW examples found with marked sherds exhibit close parallels to Kaymakçı LB 2 shapes. GWW and the majority of Hastane Höyüğü pottery assemblage may belong to a period between 16th and 14th centuries BCE. Therefore, Hastane Höyüğü pot marks can be dated within this chronological range.

A stratified archaeological context with radiocarbon dates is necessary for well-founded interpretations of archaeological records. However, the Hastane Höyüğü LBA material does not have such illuminating and well-dated context. The LBA finds are not associated with

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proper stratification, scattered around the foundation of the temple, and architectural remains are poorly preserved (Akdeniz, 2012). The excavations have not yet revealed any evidence for a monumental structure or a pottery workshop and related artifacts to investigate pottery production. Additionally, Hastane Höyüğü pot marks occur on the local pottery characterized by red to brown colors with fine-grained mica inclusion in the paste and slip. On the other hand, pot marks in Central Anatolia and Cilicia are largely incised on standardized, mass-produced, monochrome "drab wares," allowing inter-regional connections in terms of pottery production and spatial distribution. The absence of such essential informative elements and the different qualities of marked pottery in Central West Anatolia prevent interpreting the pot marks identically as in the other regions.

The arrow-shaped signs are typologically common in the LBA Eastern Mediterranean (Gallorini, 1998; Gates, 2001; Glatz, 2012), but this connection alone is insufficient to offer a convincing explanation for its use in Hastane Höyüğü. According to hittitologist Hasan Peker; the post-firing mark resembles the Luwian REX sign (Hasan Peker, personal communication). However, archaeological context does not provide plausible evidence to verify this suggestion. Except for the long-known Akpınar Monument, 50 km southwest of Hastane Höyüğü (Güterbock and Alexander, 1983, p.29-32; Poetto, 1988, p.171-176; Oreshko, 2013, p.368-371), Luwian hieroglyphic inscriptions are not discovered in the region yet. The literacy of the LBA population and the general use of a particular writing system in Central West Anatolia is an unlightened subject. Ongoing excavation projects have not produced any evidence for extensive use of writing for record keeping as previous archaeological investigations failed to accomplish. Accordingly, interpreting post-firing marks in a meaningful context is also inconvenient in the current state of knowledge.

There is no evidence to suggest pot marking practice as an organizational strategy by any foreign or local authority, as assumed in Kizzuwatna. Therefore, a text-based analysis about the function and meaning of pot marks can not be established. The Kingdom of Arzawa, under Tarhundaradu and his successors, was the chief militarily organized political entity in Western Anatolia in the 14th and 13th centuries, and constant clashes between Arzawa and Hatti eventually resolved as a result of Mursili's Arzawa campaign. After this well-known turning moment, political division deepens in the region; the chiefdom-like political organizations such as Mira, Šeha, and Hapalla were forced into vassalage (Hawkins, 1998; Alpaslan, 2015). The historical sources from Central Anatolia give biased information about the political landscape of Western Anatolia and provide no account of the existence of an economic organization under the Hittite control.

The archaeological evidence on the LBA political and economic institutions in Manisa and neighboring areas is extremely limited. Although the network of citadels around Marmara Lake presented as the core of Seha River Land with Kaymakçı as the regional capital (Roosevelt, 2010; Roosevelt and Luke, 2017), no archaeological data or written evidence has been discovered in the exvacations to support this suggestion so far. Archaeological researches and ongoing excavation projects in the region have just started providing reliable data, acquired through advanced technology-based new methods, to reconstruct various aspects of the social landscape in the LBA. The function of pot marking practice can be explained clearly after accumulating sufficient data on settlement-based pottery production environments, the nature of settlement hierarchies and political complexities, and the essential features of regional inter-settlement mobility.

CONCLUSIONS

The Hastane Höyüğü pot marks show different characteristics from the specimens found in Central Anatolia, Upper Euphrates, Cilicia, and Northern Syria regarding archaeological and historical context. The marked sherds belong to local pottery tradition with the highly micaceous fabric, while standardized, mass-produced pottery in the regions mentioned above bridges inter-regional connectivity. Except for typological similarities of pot marks, no connection can be made with contemporary examples. Also, the lack of contextual evidence and the inability of historical data for explanatory narratives create difficulties in understanding pot-marking practice.

Although pot marks are interpreted in relation to writing systems or imperial economic strategies, based on Hastane Höyüğü's material, it can be said that these explanation patterns are not suitable for Western Anatolia. Instead of approaches based on external political and economical ties, pre-firing marks should be associated with the organization and scale of production, as underlined by Glatz (Glatz, 2012, p.34). However, adequate evidence needs to be gathered to create hypotheses about whether potters use the pot-marking practice to separate the products they manufacture in communal areas or respond to a particular demand. Certain archaeological data such as excavating a pottery village or workshop and discovering written documents that might enlighten the organization of pottery production is necessary for more holistic assessments. Also, geochemical and petrographic analyses of LBA pottery uncovered in central-west Anatolia and the neighboring region are required to

accumulate more data about pottery production and consumption.

Nonetheless, the LBA pre-firing pot marks of Yanarlar, Miletos, and Hastane Höyüğü should be considered more of a singular case for the time being than the presence of a phenomenon seen throughout the region connected with external traditions. The Hastane Höyüğü finds are significant because they are the first LBA pot marks found in central-west Anatolia. Future results of excavations in Hastane Höyüğü, Kaymakçı, and Sardis, might bring new lights to the subject in terms of comparative materials and contextual evidence to explain their use in the region.

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