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THE LATE NEOLITHIC IN THE EASTERN AEGEAN

EXCAVATIONS AT GÜLPINAR IN THE TROAD

ABSTRACT

Recent archaeological excavations in 2004 and 2005 at Gülpınar, located on the southern coast of the Troad, shed new light on Late Neolithic life in the eastern Aegean world. The LN I material remains from Gülpınar display similarities with assemblages from sites in the eastern Aegean islands, the Cyclades, and the Balkans, confirming the existence of a large cultural interaction sphere during this period. Sites in the coastal Troad were clearly open to ideas from the Balkans at this time and also in contact, probably through trade, with the Aegean islands.

The site of Gülpınar, located in the southwestern corner of the Troad (Figs. 1, 2), has long been associated with the Graeco-Roman site of Chrysa and the Hellenistic sanctuary of Apollo Smintheus, a powerful inflictor and averter of plague first mentioned by Homer (*Il.* 1.37, 390, 431). A team from Ankara University under the direction of Coşkun Özgünel has been conducting archaeological excavations at the site since 1980, with work focusing on the Hellenistic sanctuary.[1] Archaeological soundings undertaken in 1982 roughly 200 m west of the sanctuary area yielded prehistoric remains dating to the first half of the 5th millennium B.C. These finds from the early soundings were subsequently synchronized with the Kumtepe 1a and Beşik-Sivritepe (Beşika Tepe) sequences of the Troad on the basis of their very similar material remains.[2] In this article, I report on the limited excavations undertaken at Gülpınar in 2004 and 2005.

The cultural horizon to which the assemblages from Gülpınar, Kumtepe 1a, and Beşik-Sivritepe were assigned dates to the first half of the 5th millennium B.C., corresponding to the poorly understood early or middle stages of the Late Chalcolithic in western Anatolia and the Late

1. Özgünel 2001, 2003. I am deeply grateful to Coşkun Özgünel for allowing me to investigate the prehistoric past of Gülpınar and entrusting me with the publication of the preliminary results of the first two seasons of prehistoric excavations, which were funded by the Institute for Aegean Prehistory. A five-year project is envisioned, with excavation ending in 2008. I would also like to thank the two anonymous *Hesperia* reviewers, whose comments and suggestions were very constructive and helpful. The photographs and drawings in this article are my own work.

2. Seeher 1987, p. 533.

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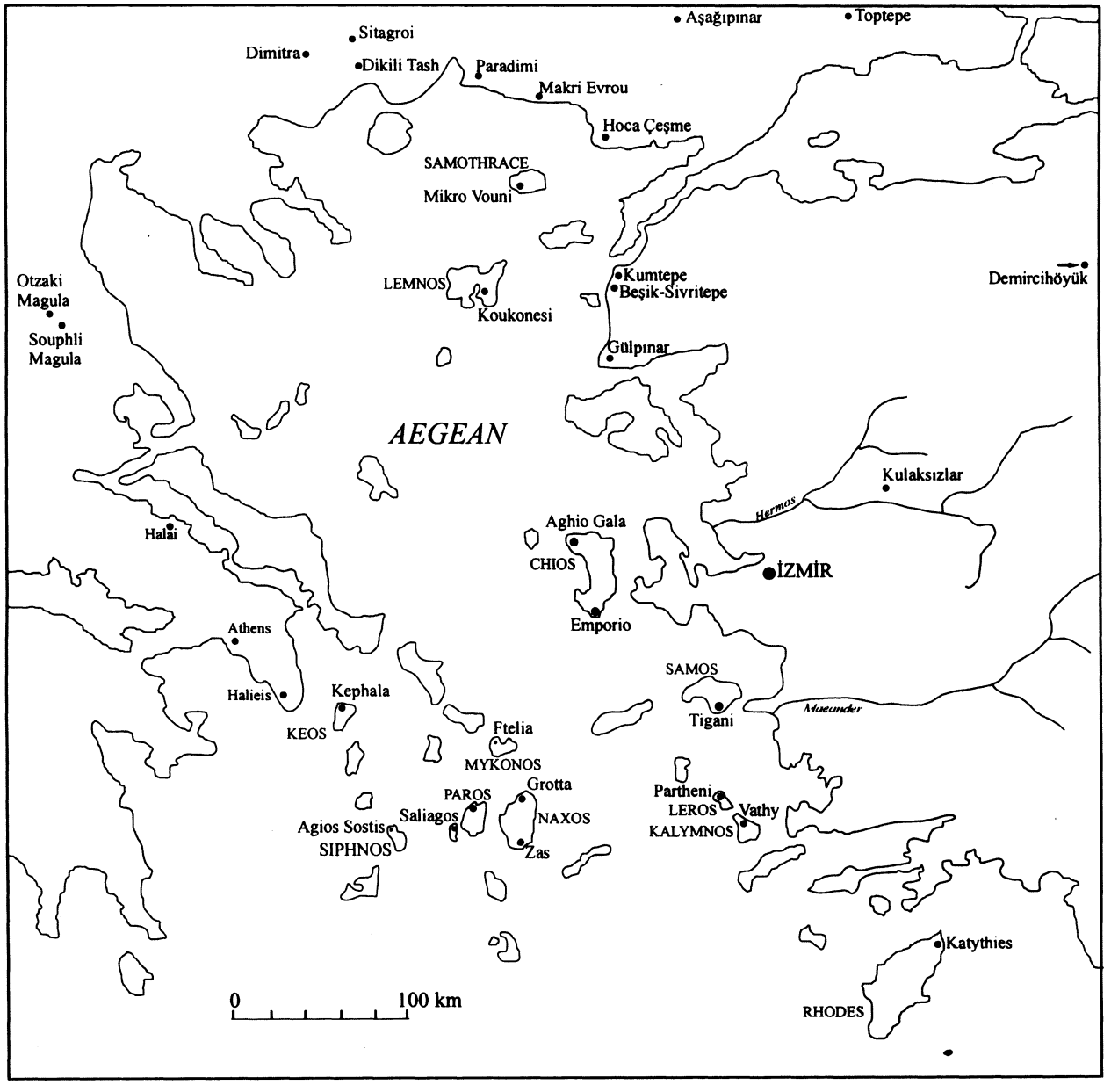


Figure 1. Map showing major sites mentioned in the text

Neolithic (LN) I in Greece. Despite this difference in chronological terminology, archaeologists investigating the pre–Bronze Age Troad have generally favored the term Neolithic over Chalcolithic when referring to the 5th-millennium sequences revealed at Kumtepe and Beşik-Sivritepe in the 1980s and 1990s.[3] The lack of uniform chronology in the Aegean Neolithic causes problems in establishing chronological terminology for the Troad.[4] The fact that the Troad is geographically situated within a liminal zone surrounded by western Anatolia, the Aegean islands, and the Balkans has further confused archaeologists attempting to establish the cultural and chronological affiliations of the region. Adamantios Sampson, in his quadripartite division of the Aegean Neolithic, included the coastal Troad in the northeastern Aegean cultural unit.[5] Indeed, the material remains

3. Gabriel 2000; Manfred Korfmann, pers. comm.

4. Coleman 1987; 1992, pp. 251–252.

5. Sampson 1984, p. 245; 2002, p. 162.

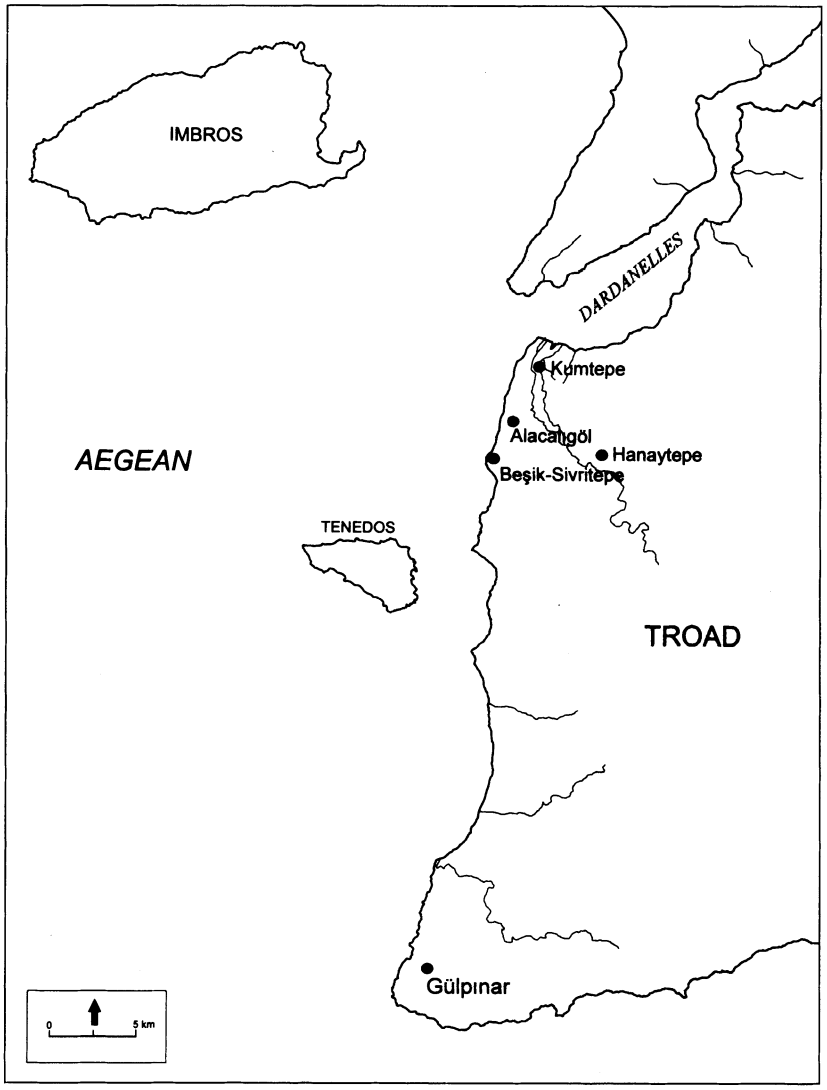


Figure 2. Map showing the location of Gülpınar in the Troad

from this coastal Troadic cultural horizon exhibit more links to the Aegean and Balkans than they do to Anatolia.

Previously, most of our knowledge about the Late Neolithic period in the eastern Aegean was derived from archaeological investigations carried out at Tigani on Samos, Emporio and Aghio Gala on Chios, and at sites in the Dodecanese.[6] Lesbos and Lemnos have so far been mute about this period, while recent finds from Mikro Vouni on Samothrace are yet to be published.[7] The picture for western Anatolia is far from complete. In addition to the excavations carried out at Kumtepe and Beşik-Sivritepe, geomorphological investigations in the plain of Troy recently identified a new site at Alacalıgöl, which also belongs to this 5th-millennium Troadic horizon.[8]

6. Heidenreich 1935–1936; Furness 1956; Hood 1981, 1982; Felsch 1988; Sampson 1984.

7. Davis 2001, p. 43. I thank Dimitri Matsas for kindly informing me about the early material from Mikro Vouni.

8. Sperling 1976; Seeher 1987; Gabriel 2000, 2001; Gabriel, Aslan, and Blum 2004.

Excavating Gülpınar is therefore important for two main reasons. First, western Anatolian sites of this period are difficult to detect since they are generally represented by thin cultural deposits on the surface rather than by mounds. The sudden appearance of these settlements with no apparent predecessors still poses a problem of interpretation. Thus, Gülpınar provides an opportunity to investigate the nature of settlement in this part of the Aegean during an obscure period. Second, analysis of remains from the site—pottery, stone artifacts, and architecture—can be utilized to reconstruct the external relations of the Troad. In particular, the pottery from Gülpınar finds parallels among the repertoires of sites in the Cyclades (e.g., Saliagos, Ftelia on Mykonos, Zas and Grotta on Naxos) and the eastern Aegean islands (e.g., Tigani I–II on Samos, Emporio X–VIII on Chios). This Troadic horizon also shows some links to the sites of Dikili Tash I, Sitagroi I–II, and Dimitra I–II in eastern Macedonia, and Paradimi I–II and parts of Karanovo III–IV in Bulgaria. Connections with the Aegean islands and Balkans can also be established on the basis of the distribution of marble conical rhyta. In terms of architecture, Gülpınar shares common features with Tigani and numerous sites in the Balkans, including Makri Evrou, Toptepe, Hoca Çeşme, and Aşağıpınar. The evidence from Gülpınar thus provides an opportunity to determine the place of the coastal Troad within the wider setting of the Neolithic Aegean.

THE SITE

The prehistoric site of Gülpınar is located on flat ground at an elevation of 60 masl, about a kilometer east of the seashore. The site was founded on the edge of a valley floor located between two Miocene low plateau ridges that extend east–west toward the Aegean (Fig. 3). This valley was originally a volcanic depression later filled by colluvial deposits and alluvium accumulated by the Külahlı stream and its numerous branches. During the Neolithic, sea level was lower and the coastline far more distant than today. Geomorphological investigations in the region indicate that the rising sea reached its present level nearly 6,000 years ago.[9]

The natural resources and topography of the area were probably the key factors that led the prehistoric inhabitants of Gülpınar to choose this locality. The natural environment presented opportunities for them to develop a self-sufficient, mixed economy. Today, freshwater springs in the area, the same ones that were presumably used for cultic purposes at the Hellenistic sanctuary of Apollo, offer a year-round supply of water. The natural environment of the site supported subsistence in other ways. The fertile alluvial and colluvial soils located on the flat and gently sloping hills retained water and were light enough to be tilled easily, making them suitable for agriculture. The shallow waters nearby were rich in various edible species of mollusks and oysters, enabling the inhabitants of Gülpınar to supplement their subsistence base with marine resources (see below).

9. Kayan 1988. I am grateful to İlhan Kayan for sharing the results of his geomorphological research in the region.

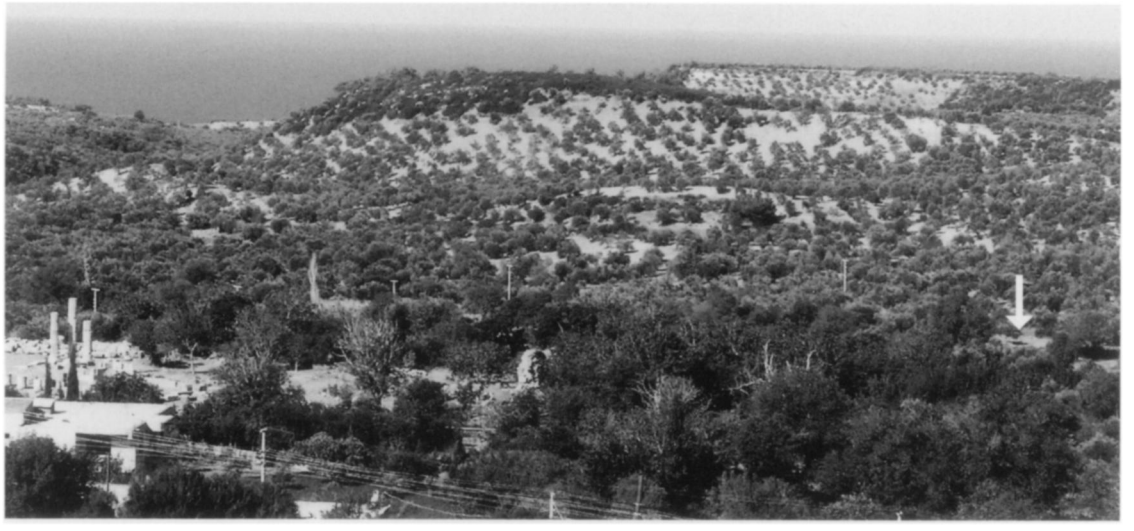


Figure 3. View of Gülpınar from the northwest. Arrow indicates the excavated area. Remains of the sanctuary of Apollo Smintheus are visible at the lower left.

A single 10 × 10 m area (trench C4) was excavated at Gülpınar in 2004 and 2005. Prehistoric cultural deposits ranged from 0.10 to 0.35 m in thickness at a depth of 0.75–1.10 m below the present surface (Figs. 4, 5). Prehistoric habitation levels rested upon an earth floor consisting of a yellowish marl, just below the remains of Late Roman structures. The prehistoric floor inclines slightly toward the north. It is likely that a perennial spring once flowed roughly 50 m north of the site. Late Roman activities in the area disturbed much of the prehistoric record. For instance, a north–south channel for water pipes cut into the prehistoric floor, disturbing pit D.

No prehistoric stone architectural remains were discovered over this earth floor to associate it with living units, though numerous closely spaced pits had been cut into the virgin soil. A later drainage channel crosses pit E before continuing north to cross pit G (Fig. 4). The pits range in diameter from 0.60 to 1.10 m, and in depth from 0.30 to 0.80 m, and are often covered with stones. Several postholes identified in the earth floor near pits C, E, F, and G are suggestive of flimsy dwellings, possibly with wooden superstructures. The function of these pits during the site's occupation is unclear. Finds from the pits include fragmentary and complete pots, bones from cattle, sheep, and goat, marine shells, chipped stone tools, one to four saddle querns, and plant remains. Whether these pits represent rubbish dumps or places of deliberate deposition of artifacts is hard to determine. Most of the pits were carefully covered with stones or saddle querns, which might suggest that they served a social function. Moreover, the scarcity of plant remains in the soil samples taken from these pits makes it seem less likely that they were storage pits. Similar examples identified at Makri Evrou in Aegean Thrace have been described as rubbish pits.[10] Comparable floors with pits and postholes have also been reported from level 1a at Kumtepe, levels I–III at Tigani, Aşağıpınar, Toptepe, and Hoca Çeşme.[11] This type of architecture was a common feature of Balkan settlements during this period, and its presence in the Troad and on Samos indicates that the same tradition also existed in the eastern Aegean.

10. Efstratiou 1996, p. 576.

11. Korfmann 1996, p. 50; Felsch 1988, p. 30; Özdoğan and Özbaşaran-Dede 1990, p. 20; see Özdoğan, Parzinger, and Karul 1997, p. 6; Parzinger and Özdoğan 1996, p. 27, fig. 16.

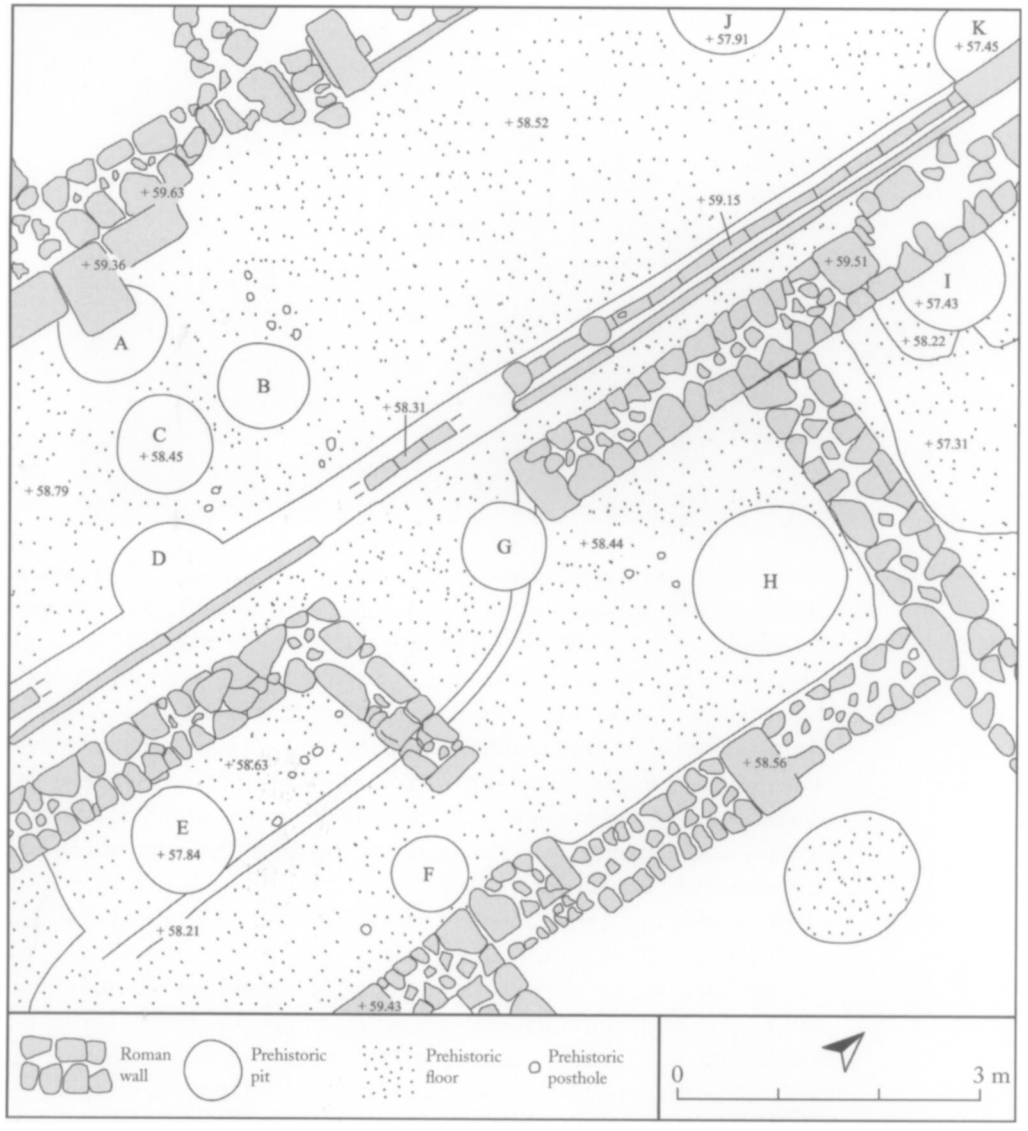


Figure 4. Plan of the prehistoric remains in trench C4 at Gülpınar



Figure 5. Trench C4, northwest quadrant. Prehistoric floor and pits A–D below a Late Roman street that continues to the sanctuary of Apollo Smintheus. View from the south.

THE POTTERY

About 1,200 potsherds were recovered from the excavated area during the course of the 2004 and 2005 seasons. The pottery from Gülpınar is handmade with an extremely uniform fabric. In general, it can be divided into two classes, burnished (Figs. 6–10) and coarse (Fig. 11), with the former occurring roughly three times as often as the latter. The surfaces of the burnished pots are often coated with a slip that is primarily black, brown-black, or the color of a horse chestnut, though it is sometimes difficult to distinguish among colors. The variation observed in surface color must have derived from the uncontrolled temperature of the firing. A shiny, attractive surface was obtained by rubbing a pointed implement back and forth over the surface of the pots before they were fired. Traces of such a burnishing implement with a pointed end can be seen on most pots as shiny lines contrasting with the matt surface. The surfaces of the coarse pottery, on the other hand, were left uncoated and unburnished.

Bowls with steep or slightly convex sides, with various types of handles, constitute the most common shape in the Gülpınar pottery assemblage (Figs. 6, 7). The majority of these bowls have simple rounded rims and flat bases. The most distinctive bowl type is that with uprising high handles. Stumps of such bowl handles with knobs were recovered in great quantity (**1–4**), although twisted (**5, 6**) and incised strap (**7, 8**) varieties are also evident at the site. Most of these large handles stood more or less upright above the rim, while some examples curved inward over the rims. The knobbed or twisted uprising high handles on bowls are strongly reminiscent of types found in the eastern Aegean islands, from periods X–VIII at Emporio on Chios, level II at Tigani on Samos, and Vathy Cave on Kalymnos, as well as in central western Anatolia, at Kulaksızlar.[12]

Another bowl type commonly attested in the Gülpınar pottery repertoire is the open bowl with knob and prong handles (**9–11**, Figs. 6, 8). These distinctive handles find close parallels in the Aegean and the Balkans; examples are known from Hanay Tepe in the Troad, Ftelia on Mykonos, Tigani II on Samos, Paradimi and Sitagroi in eastern Macedonia, and Karanovo in Bulgaria.[13] Open bowls with a single horned handle are also widely represented at Gülpınar (**12, 13**). Some horn-handled bowls have high ring feet (**14**); three nearly complete examples were found in pits B and G. The horned-handle bowl is also a prominent feature of this period at sites elsewhere in the Troad (Kumtepe 1a, Beşik-Sivritepe, and Hanaytepe) and in neighboring regions (Saliagos, Emporio, Tigani, and Kalymnos in the Aegean islands, Dikili Tash I in eastern Macedonia, and Hoca Çeşme I and Toptepe 1 in Turkish Thrace).[14]

Other bowls at Gülpınar have triangular-shaped horizontal arched handles (**15**, Fig. 8) attached to their sides, which are similar to examples

12. Takaoğlu 2004, p. 2, fig. 2:1–3; 2005, p. 19; Hood 1981, p. 278, fig. 134; Felsch 1988, pls. 47:2, 5; 74:5.

13. Sampson 2002, p. 102, no. 839, fig. 113; Lamb 1932, p. 115, fig. 2:15, 16; Felsch 1988, p. 55, no. 216; Keighley 1986, p. 375, fig. 11:6; Bakalakis and Sakellariou 1981, pl. 13; Nikolov 1997, pls. 22, 26, 27; 2002, p. 127, pl. IV.2:4, 5, 6, 10.

14. Lamb 1932, pp. 115, 127, figs. 2:17, 14:3; Heidenreich 1935–1936, pl. 48:6; Furness 1956, pp. 199, 204, 209, fig. 14:10; Evans and Renfrew 1968, p. 39; Seeher 1985, p. 178, fig. 18; Séfériadès 1983, p. 649, fig. 10; Keighley 1986, p. 375, fig. 11:6, 7; Özdoğan 1993, p. 183, fig. 3; Özdoğan and Özbaşaran-Dede 1990, p. 22, fig. 18, pl. 32:7, 8; Hood 1981, p. 284, nos. 335, 337, fig. 135.

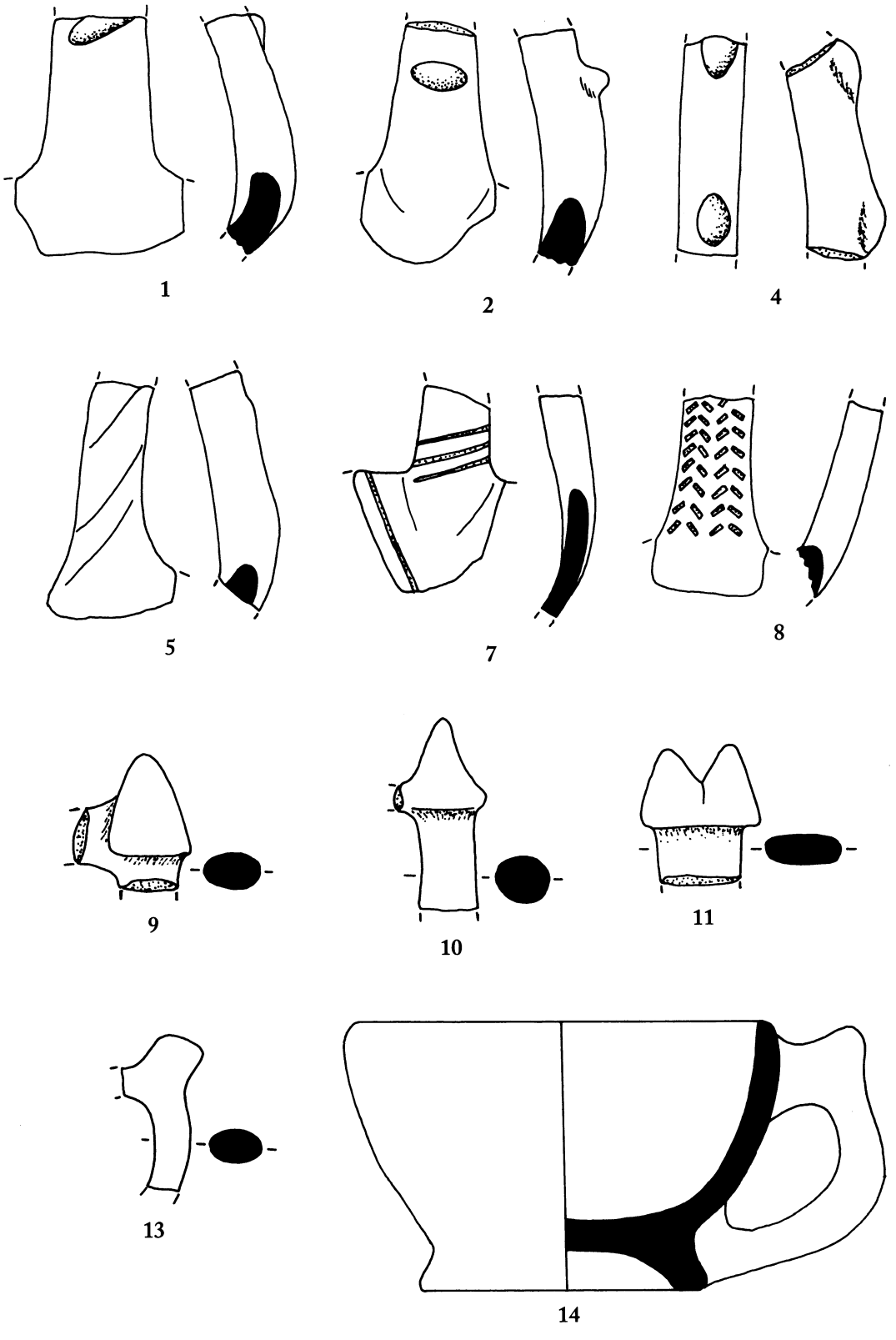


Figure 6. Burnished pottery: bowl handle fragments 1, 2, 4, 5, 7, 8; prong handles 9–11; horned handle 13; and one-handled bowl 14. Scale 1:2



Figure 7. Burnished pottery: handle fragments 1–3 (top row) and 4, 6–8 (bottom row). Scale 1:2

from Kumtepe 1a and Hanaytepe in the Troad, Aghio Gala Upper Cave, period IX at Emporio, and at Vathy Cave.[15] Bowls with tab handles rising from the rim (**16**) are sporadically documented at Gülpınar (Fig. 8) and are reminiscent of examples from Aghio Gala Upper Cave on Chios and Saliagos.[16]

Also characteristic of the Gülpınar assemblage are bowls with circular pellets (**17**) or semiperforated lugs (**18**) placed on top of or just below the rim (Fig. 9). Bowls with pellets placed just below the rim on the outside find parallels at Ftelia and Grotta in the Cyclades, Aghio Gala Upper Cave, and Emporio VIII.[17] Such knoblike projections also occasionally occur on top of the rim (**19**) or on the interior, just below the rim (**20**); an example of the former is attested at Alacalıgöl near Troy.[18]

The most characteristic pottery type at Gülpınar is probably the open bowl with pedestal base (**21**). Although pedestal bases are known from other Troadic sites such as Beşik-Sivritepe and Kumtepe 1a,[19] they are also present at Aşağıpınar 2–3 in Turkish Thrace, Paradimi and Sitagroi I in eastern Macedonia, and Karanovo III–IV in Bulgaria.[20] The pottery repertoire at Gülpınar also includes distinctive tripods with decoration combining incision and pointillé (**22**) or incised crosshatching (**23**).

Open and closed jars also occur commonly at Gülpınar. The bodies of the closed jars are ovoid, with necks differentiated from the shoulders.

15. Sperling 1976, p. 324, no. 215, pl. 73; Lamb 1932, p. 116, fig. 2:11; Furness 1956, pp. 190, 202, pls. 19:5, 22:9.

16. Hood 1981, p. 56, nos. 252, 255, fig. 40; Evans and Renfrew 1968, p. 39, fig. 58:3–10, pl. 31:a.

17. Sampson 2002, p. 100, fig. 111: 597, 598; Hadjianastasiou 1988, p. 17, fig. 3:1–3; Hood 1981, pp. 38, 269, nos. 97, 206, figs. 20, 128.

18. Gabriel, Aslan, and Blum 2004, p. 125, fig. 6:1.

19. Sperling 1976, p. 320, nos. 117, 118, fig. 8; Seeher 1985, p. 178, fig. 18.

20. Parzinger and Özdoğan 1996, p. 26, fig. 15:1, 2; Bakalakis and Sakellariou 1981, pl. 28:4; Keighley 1986, p. 379, fig. 11:10; Nikolov 2002, pls. IV.2:22, 23; IV.5:4, 6, 8.



Figure 8. Burnished pottery: handle fragments 10–12 (top row) and 15, 16 (bottom row). Scale 1:2

Some of the rims belonging to necked jars are inwardly sloping or almost upright. Handles of closed jars vary in shape. Jars with upright or slightly inwardly sloping collar necks often have a pair of small vertical strap handles joining the neck to the shoulder. Vertical side handles set on the belly represent another common variety. Wall fragments of jars sometimes bear crescent lugs, a feature known from Saliagos,[21] as well as Ftelia and Emporio IX.[22]

Pattern-burnished decoration, which was probably achieved by the potter rubbing a pointed implement back and forth over the surface of the pots before they were fired, is a distinctive characteristic of the Gülpınar pottery (Fig. 10). Forty potsherds with pattern-burnished decoration—representing only about 2% of the burnished pottery assemblage—were recovered from the site. At Gülpınar, pattern-burnishing appears on either one or both sides of bowls (**24–27**) and on the exterior of necked jars (**28, 29**). Fragment **24** preserves part of the rim of a highly burnished, large open bowl with a pattern-burnished interior. Various motifs are placed within alternating panels: horizontal zigzags, closely spaced, oblique parallel lines, and vertically arranged dots. In the case of **25**, a group of oblique parallel lines is confined to a narrow vertical panel between solidly burnished areas in the interior of a bowl. The top of this rim fragment is decorated with diagonal parallel incisions, a common feature attested on more than 50 bowl rims at Gülpınar. A similar incised pattern has been identified in significant numbers at Sitagroi I in eastern Macedonia and Karanovo III–IV in Bulgaria.[23]

Fragment **26** represents a comparable bowl with a simple rounded rim and pattern-burnishing on the interior that consists of a solid panel flanked by vertical panels of crosshatching and oblique parallel lines. Both sides of **27** are pattern-burnished: the exterior has a crosshatched pattern below a wide horizontal rim band, while the interior bears thin diagonal lines below a solid rim band. Pattern-burnishing on jars includes crosshatched

21. Evans and Renfrew 1968, p. 39, fig. 47.

22. Sampson 2002, p. 98, fig. 108; Hood 1981, p. 252, no. 78, fig. 121.

23. Keighley 1986, p. 347, fig. 11:4; Nikolov 1997, p. 129, pl. 6:3; 2002, pls. II.2:19; IV.7.

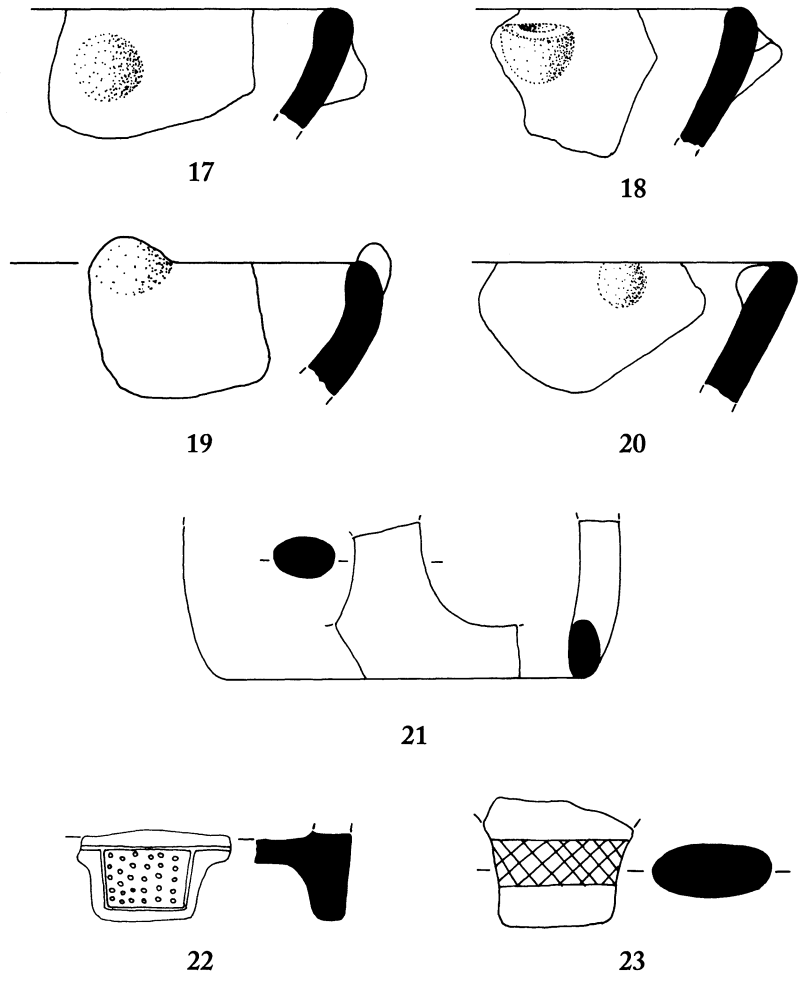


Figure 9. Burnished pottery: bowl rims with pellets 17–20; pedestal bowl fragment 21; and fragments of tripod vessels 22, 23. Scale 1:2

patterns on the rim and neck (**28**). Parallel lines abutting obliquely within chevrons formed by broader lines frequently appear on the body of necked jars (e.g., **29**).

The closest parallels for motifs represented in the pattern-burnished pottery of Gülpınar come from the Troadic site of Beşik-Sivritepe, which has also provided radiocarbon dates ranging from 4780 to 4500 B.C.[24] This is not to say that pattern-burnishing was a phenomenon limited to these centuries. Although it has generally been viewed as a trait of the LN II or Final Neolithic (FN) period in the Aegean, it has also been documented in the LN I period, indicating that it was used over a long period of time. Pattern-burnishing is known to us from various sites on the Aegean islands (e.g., Zas Cave, Ayios Sostis, Tharrounia, Paroikia, Tigani, Emporio, and Kephala) and the Greek mainland (e.g., Tsangli, Arapi-Magula, Athens, Halai, Franchthi Cave, Makrychori).[25]

24. Korfmann and Kromer 1993, p. 144, fig. 4; Kromer, Korfmann, and Jablonka 2003, p. 46.

25. Furness 1956, p. 187; Fischer 1967, p. 24, fig. 1; *Agora* XIII, pp. 4–7; Coleman 1977, pls. 40–43; Hood 1981, p. 294; Felsch 1988, pl. 78; Zachos 1999, p. 155; Gropengiesser 1987, pp. 34, 44; Overbeck 1989, p. 5; Davis et al. 2001, p. 80; Sampson 1992; Vasić 1936, figs. 100, 101; Hauptmann and Milojčić 1969, pp. 23–25; Gallis 1987, p. 155, fig. 7; Jacobsen 1973, p. 273.

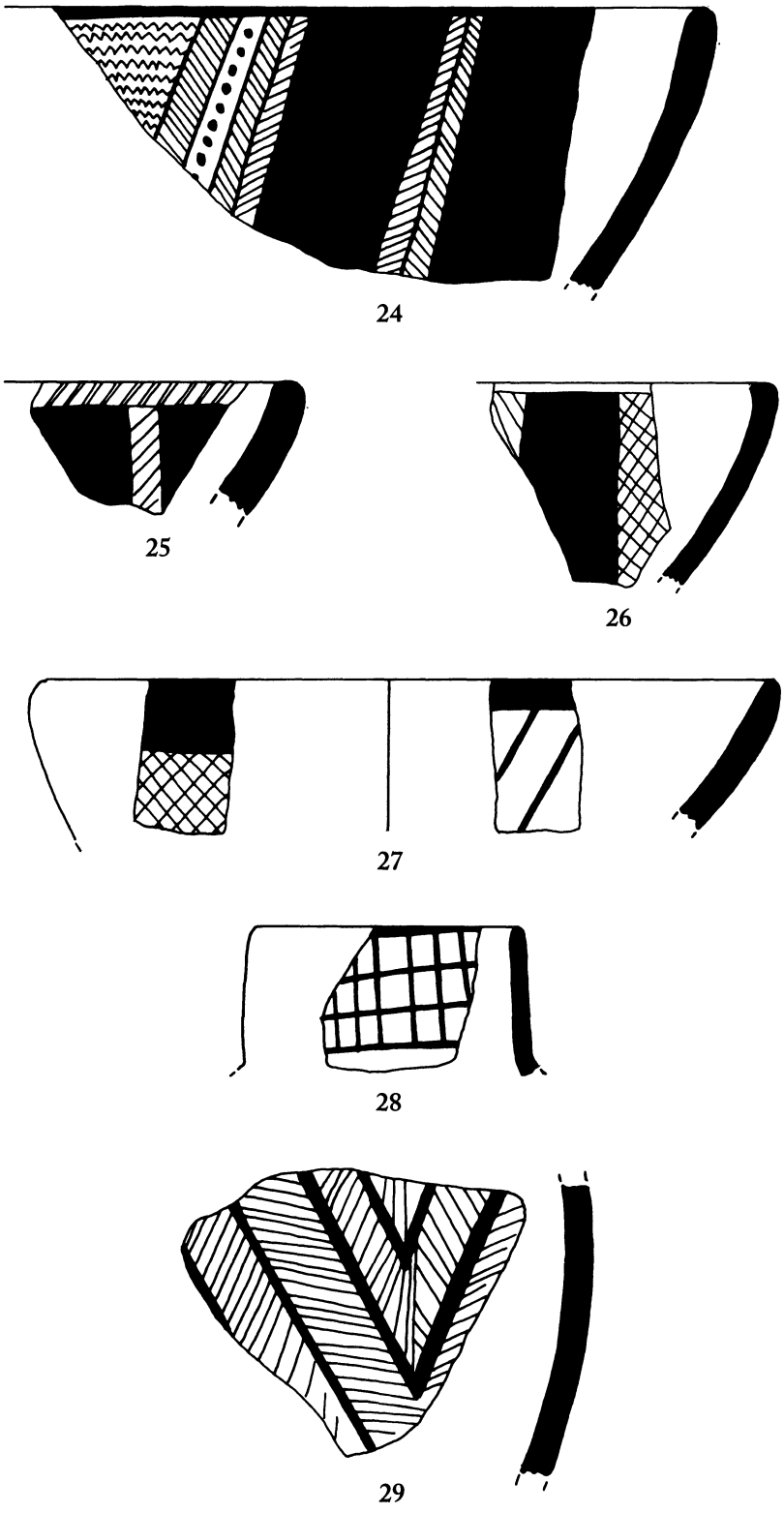


Figure 10. Burnished pottery: bowl and jar fragments with pattern-burnished decoration. Scale 1:4 (**24**) and 1:2 (**25–29**)

The discovery of pattern-burnished pottery along with Vınča A–B and Karanovo III–IV materials at Aşağıpınar and Hoca Çeşme in Turkish Thrace led Mehmet Özdoğan to modify the traditional view that Kumtepe 1a and 1b represent successive phases in the Troad.[26] He demonstrated that there was a gap of at least a millennium between the 1a and 1b phases at Kumtepe, thus pushing backward the date of Kumtepe 1a to the first half of the 5th millennium B.C. Indeed, Kumtepe 1a recently yielded radiocarbon dates ranging from 4805 to 4370 cal. B.C.,[27] which may indicate that Kumtepe 1a and Beşik-Sivritepe are not contemporary with the FN or LN II horizon in the Aegean, as has generally been believed. This suggestion invites a new look at the relationships between the Troad and the Aegean islands. Despite the use of pattern-burnishing over a long period of time in the Aegean Neolithic, the site of Tigani yields the closest parallels for the Gülpınar examples. In particular, crosshatched and zigzag patterns occurring on bowls from Gülpınar are widely attested on typologically comparable examples from Tigani I–II.[28] This similarity in pattern-burnishing suggests that these two eastern Aegean sites are closely contemporary, an inference further supported by similarities in their architecture.

Analyses of coarse wares from Gülpınar also confirm that the Aegean communities were in close cultural contact with the Troad. Large bowls with either one or two rows of finger-impressed dots on the rim (e.g., **30**) occur commonly (Fig. 11). This type also finds parallels at Saliagos and Grotta in the Cyclades and Tigani I and III on Samos, as well as at Paradimi and Dimitra in eastern Macedonia.[29] Open jars with raised bands with impressions placed at more or less regular intervals are also found at Gülpınar (e.g., **31**). Comparable plastic decoration applied below the rim or on the belly of jars has also been documented at the Troadic sites of Kumtepe 1b, Beşik-Sivritepe, and Alacalıgöl. They are also commonly attested at Saliagos, Paradimi, Dimitra, and at Karanovo III–IV.[30] There are also cases (e.g., **33**) in which these impressions were achieved with the help of a certain type of pointed tool.

External relations of Gülpınar can also be established on the basis of the so-called cheesepots, which are basically coarse multifunction shallow pans with a row of perforations below the rim (**32**). Wide-mouthed jars with inward-leaning rims also have similar perforations. These distinctive pots often have flat bases and rims ranging from 0.30 to 0.40 m in diameter. The clay is predominantly grayish-brown and the vessel surfaces are often poorly smoothed. The perforations were generally made from the exterior, although exceptions exist. Some of the sherds representing these pots have mat impressions on the exterior. Such cheesepots commonly occur over a long period of time and have been found at many sites in the Cyclades and Dodecanese, including Ftelia on Mykonos and Parheni on Leros, while they are sparsely represented at Emporio X–VIII and Aghio Gala Upper Cave on Chios.[31] Base fragments with multiple perforations (**34, 35**) from large coarse jars also point to the vessels' use in processing dairy products or cooking.

Although there are as many differences as there are similarities between the Gülpınar pottery and that from neighboring regions, the typological similarities are probably not fortuitous. As detailed above, many characteristic

26. Özdoğan 1993, p. 183. For the traditional view, see Lamb 1932, p. 128, fig. 13; Fischer 1967, p. 24, fig. 1; Sperling 1976, p. 316, pl. 72; Seeher 1985, p. 174, fig. 16; 1987, p. 544, fig. 6:1.

27. Kromer, Korfmann, and Jablonka 2003, p. 46.

28. Felsch 1988, pls. 19:5, 6; 27:2; 32:3, 5; 60; 64–67.

29. Evans and Renfrew 1968, pl. 26; Hadjianastasiou 1988, fig. 4:6, 9; Felsch 1988, pp. 43, 56, 65, nos. 120, 195, 377, pls. 18:4, 22:4, 68; Bakalakis and Sakellariou 1981, pl. 20:12; Grammenos 1997, no. 516, pl. 33.

30. Sperling 1976, pl. 74, no. 314; Seeher 1985, p. 178, fig. 18; Gabriel, Aslan, and Blum 2004, p. 127, fig. 11:1, 2; Evans and Renfrew 1968, pp. 42–43, figs. 42, 43; Nikolov 1997, pl. 6:17; Bakalakis and Sakellariou 1981, pls. 19, 20:1; Grammenos 1997, nos. 480, 510, pls. 31, 33.

31. Sampson 1987, p. 38, figs. 56–62; 1994, p. 243, fig. 4; Hood 1981, pp. 38, 247, figs. 20, 119.

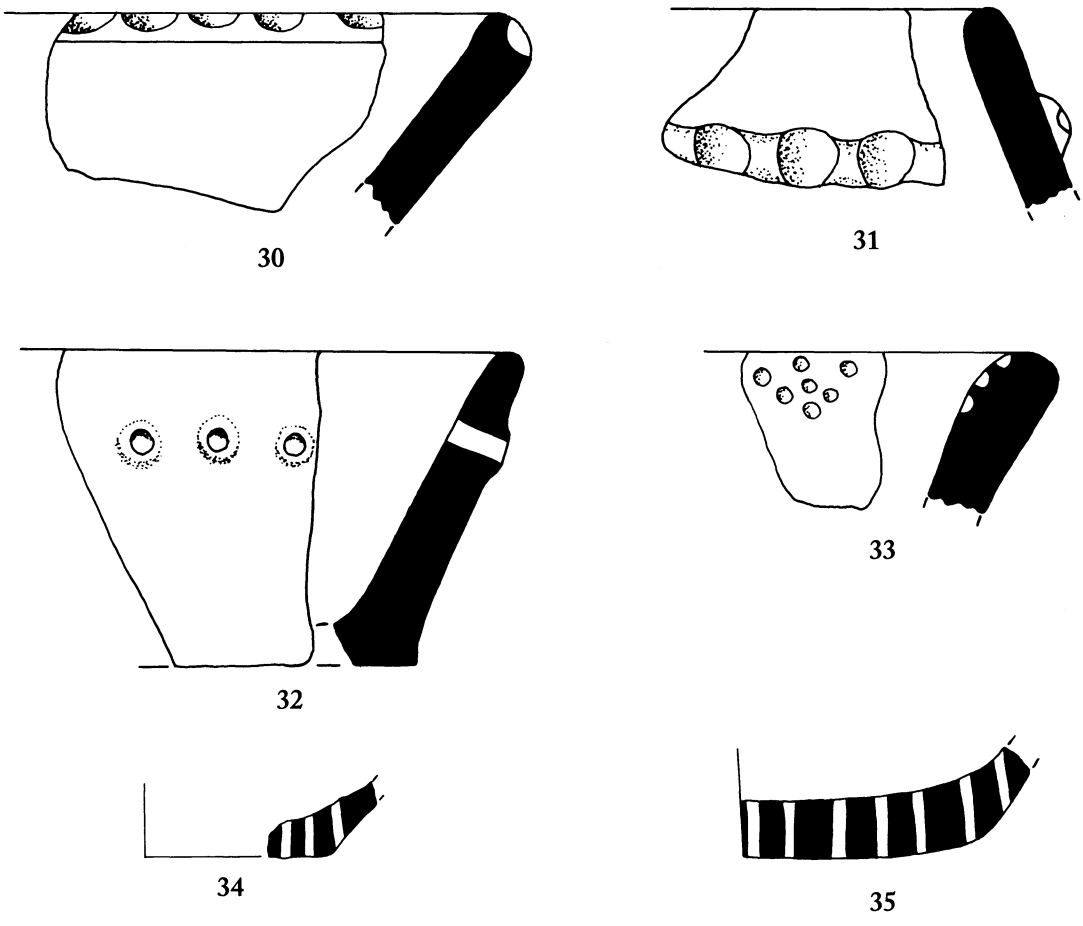


Figure 11. Coarse pottery. Scale 1:2

features of the Gülpınar pottery are represented at sites in the Aegean islands and Balkans, though features typical of these sites do not always occur at Gülpınar. Some of the vessel shapes showing links with the Balkans (e.g., pedestal bowls, knob and prong-handled vessels) clearly have prototypes in the earlier Neolithic phases there. Horn-handled bowls, which commonly occur in the Balkans, were also a feature of Anatolian sites at much earlier times.[32]

The similarities among the cultural assemblages of the Balkans and northwestern Anatolia have previously been explained with a model of interregional interaction: Özdoğan, for example, views northwestern Turkey, Turkish Thrace, and southeast Europe as part of a unified cultural formation zone that developed simultaneously under the same pressures; each subregion also employed unique strategies to meet those pressures.[33] One might similarly argue that while the potters of the Troad were open to influences from the Balkans, they also developed their own series of pottery shapes and decorative patterns. It is reasonable to posit that the Aegean islands were also linked to this cultural interaction sphere through seaborne trade. Because of their geographical situation, the Troadic sites such as Gülpınar, Kumtepe, and Beşik-Sivritepe probably played a role in the transmission of both imported elements from the Balkans and locally developed ones into the Aegean islands during this period.

32. Seeher 1985, p. 180.
33. Özdoğan 1993, p. 176.

Catalogue

1 Large bowl, rim and handle Figs. 6, 7

Pit A. P.H. 0.074, p.W. 0.052 m. Grayish-black clay brown-black coated surface, finely burnished. Diagonally placed elliptical pellet near base of handle.

2 Large bowl, rim and handle Figs. 6, 7

Pit A. P.H. 0.075, p.W. 0.043 m. Circular in section. Gray-black clay with brown coated surface, finely burnished. Circular pellet near base of handle.

3 Large bowl, rim and handle Fig. 7

Northwest quadrant. P.H. 0.082 m. Circular in section. Gray-black clay with olive-gray coated surface, finely burnished.

4 Large bowl, handle with two knobs Figs. 6, 7

Pit C. P.H. 0.069 m. Circular in section. Gray-black clay with brown coated surface, finely burnished.

5 Large bowl, rim and twisted handle Fig. 6

Northwest quadrant. P.H. 0.074, p.W. 0.041 m. Gray-black clay with brown coated exterior, burnished.

6 Large bowl, twisted handle Fig. 7

Pit B. P.H. 0.064 m. Gray-black clay with brown-black coated surface, lightly burnished.

7 Bowl, rim and handle Figs. 6, 7

Pit B. P.H. 0.066, p.W. 0.048 m. Elliptical in section. Gray-black clay with black coated surface, burnished. Three diagonal, parallel, incised lines on base of handle; one descending from rim.

8 Bowl, handle Figs. 6, 7

Pit C. P.H. 0.063, p.W. 0.037 m. Elliptical section. Grayish-black clay with black coated surface, finely smoothed. Alternating short oblique incised lines filled with white paste on exterior.

9 Bowl, knob and prong handle Fig. 6

Northeast quadrant. P.H. 0.043, p.W. 0.039 m. Gray-black clay with black coated exterior, finely burnished.

10 Bowl, knob and prong handle Figs. 6, 8

Northwest quadrant. P.H. 0.062, p.W. 0.029 m. Gray-black clay with black coated exterior, finely burnished.

11 Bowl, double knob and prong handle Figs. 6, 8

Northeast quadrant. P.H. 0.044, p.W. 0.038 m. Gray-black clay with black coated exterior, finely burnished.

12 Bowl, horned handle Fig. 8

Pit D. P.H. 0.052 m. Gray-black clay with brown coated surface, finely burnished.

13 Bowl, horned handle Fig. 6

Northwest quadrant. P.H. 0.049 m. Gray-black clay with brown coated surface, finely burnished.

14 One-handled bowl Fig. 6

Pit B. Diam. (rim) 0.133, Diam. (base) 0.079, H. 0.085 m. Horn-handled bowl with plain rim and high ring foot. Gray-black clay with brown-black coated surface, finely burnished.

15 Bowl, tab handle rising from rim Fig. 8

Pit F. Diam. (rim) 0.202, p.H. 0.066, p.W. 0.069 m. Gray-black clay with yellowish-brown coated surface, very finely burnished.

16 Bowl, pointed side handle Fig. 8

Pit F. H. 0.059, W. 0.088 m. Gray-black clay with brown-black coated surface, finely burnished.

17 Bowl, rim Fig. 9

Northwest quadrant. Diam. (rim) 0.284, p.H. 0.034, p.W. 0.052 m. Gray-black clay with brown coated surfaces, finely burnished. Circular lug just below rim.

18 Bowl, rim Fig. 9

Pit F. Diam. (rim) 0.260, p.H. 0.041, p.W. 0.043 m. Gray-black clay with brown-black coated exterior; both surfaces finely burnished. Circular lug just below rim.

19 Bowl, rim Fig. 9

Southwest quadrant. Diam. (rim) 0.251, p.H. 0.034, p.W. 0.036 m. Gray-black clay with brown coated surfaces, finely burnished. Circular knob above rim.

20 Bowl, rim Fig. 9

Southwest quadrant. Diam. (rim) 0.328, p.H. 0.036, p.W. 0.062 m. Gray-black clay with brown coated surface, finely burnished. Circular knob just below rim on the interior.

21 Bowl, pedestal base Fig. 9

Pit B. P.H. 0.046, Diam. (base) 0.102 m. Grayish black clay with brown-black coated surface, finely burnished. Base with flat bottom and convex sidewall, probably with four openings.

22 Tripod, base Fig. 9

Southeast quadrant. P.H. 0.025, p.W. 0.044 m. Elliptical in section. Brown-black clay with brown coated surface, lightly burnished. Exterior decorated with pointillé within an incised square border.

23 Tripod, foot Fig. 9

Southeast quadrant. P.H. 0.034, p.W. 0.044 m. Elliptical in section. Brown-black clay with brown coated surface, lightly burnished. Incised crosshatched band encircles the foot.

24 Large bowl, rim Fig. 10

Northeast quadrant. Diam. (rim) 0.284, p.H. 0.149, p.W. 0.077 m. Gray-

black clay with orange-brown coated surface, very finely burnished. Interior with pattern-burnished panels.

25 Bowl, rim Fig. 10

Pit F. Diam. (rim) 0.230, p.H. 0.034, p.W. 0.055 m. Gray-black clay with brown-black coated surface, finely burnished. Interior with pattern-burnished bands.

26 Large bowl, rim Fig. 10

Northeast quadrant. P.H. 0.056, p.W. 0.064 m. Gray-black clay with brown-black coated surface, the exterior finely burnished. Interior with pattern-burnished hatched and crosshatched panels.

27 Large bowl, rim Fig. 10

Northeast quadrant. Diam. (rim) 0.200, p.H. 0.024, p.W. 0.041 m. Gray-black clay with brown-black coated surface, both with pattern-burnishing.

28 Collar-necked jar, rim Fig. 10

Northwest quadrant. Diam. (rim) 0.074, p.H. 0.042, p.W. 0.043 m. Gray-black clay with gray-black coated surface, the exterior with crosshatched pattern-burnishing.

29 Jar, body Fig. 10

Pit C. P.H. 0.078, p.W. 0.096 m. Gray-black clay with brown-black coated surface, the exterior with pattern-burnished bands (nested chevrons?).

30 Open-mouthed jar or deep bowl, rim Fig. 11

Northeast quadrant. Diam. (rim) 0.350, p.H. 0.053, p.W. 0.089 m. Coarse brown clay with orange-brown coated surface, unburnished. Finger-impressed dots along top of rim.

31 Open-mouthed jar, rim Fig. 11

Northeast quadrant. Diam. (rim) 0.220, p.H. 0.048, p.W. 0.066 m. Coarse brown clay with brown coated surface, unburnished. Plastic decoration with impressed dots just below rim on exterior.

32 Shallow pan or cheesepot, rim Fig. 11

Northeast quadrant. Diam. (rim) 0.341, p.H. 0.084, p.W. 0.069 m. Coarse brown clay with unsmoothed surface, unburnished. A row of holes on the sidewalls.

33 Bowl, rim Fig. 11

Northeast quadrant. Diam. (rim) 0.280, p.H. 0.042, p.W. 0.046 m. Semicoarse brown clay with unsmoothed surface, unburnished. Impressed dots along top of the rim.

34 Bowl, base Fig. 11

Northeast quadrant. Diam. (base) 0.092 m. Coarse brown clay with blackened surface. Perforated by multiple holes through base.

35 Large bowl, base Fig. 11

Northeast quadrant. Diam. (base) 0.12 m. Coarse brown-clay with blackened surface. Perforated by multiple holes through both base and preserved sidewall.



Figure 12. Fragment of a figurine (36) possibly representing a mourner

CLAY FIGURINE

The Gülpınar excavations also yielded a fragment of a remarkable clay figurine (**36**, Fig. 12), recovered from above the flat stones laid on top of pit K. The piece constitutes the head and elongated neck of a figurine—the only one so far found at the site. The preserved fragment measures 0.078 m in height and consists of gray-black clay coated with a brownish black slip. It has been highly burnished, as is typical of the pottery from the site. The nose and sharp ridge of the eyebrows are modeled in relief, while the eyes are marked by deep wavy incisions added before firing. The maker of this figurine chose not to indicate the mouth. Most striking is the presence of two incised vertical strokes descending from the lower eyelids across the cheeks. It is likely that these strokes were intended to represent tears.

The portrayal of grief on figurines has not been previously attested for the Late Neolithic, though it has been noted in the Aegean Early Bronze Age.[34] Gail Hoffman has suggested that some Early Cycladic figures with painted or incised vertical stripes on their cheeks, indicating tears or scratches, might have represented mourners in a funerary ritual. She further hypothesizes that an important individual in the community could have been mourned through the display of such figurines during the funeral ceremony, followed by the deposition of the figurines in the deceased's grave.[35] This attractive theory may explain one way in which figurines functioned in the prehistoric Aegean. Although the function and meaning of such figurines have long been debated, the example from Gülpınar may

34. Hoffman 2002, p. 526; see also Hendrix 2003, p. 410.

35. Hoffman 2002, p. 526.

indicate that the idea of using figurines to represent mourners had deep roots in the Aegean.

It is unclear whether the context of discovery of this mourning figurine is significant. It was found over the fill of pit K, which contained three saddle querns, several sheep and goat bones, one marine shell, and a number of potsherds. This pit, like others at the site, appears to have been carefully covered with stones, which might suggest a social meaning for the figurine found above the cover stones. Had this figurine been found in association with a burial, we might have inferred that it played a role in funerary ritual at the site. We cannot confirm the subsequent deposition of the mourning figurines in burials after their visual display in either intramural or extramural funerary rituals, however, without archaeological demonstration. The single figurine from Gülpınar and its context, although intriguing, cannot at this point support more than speculation about the figure's function.

Catalogue

36 Clay figurine, head Fig. 12

Top of pit K. P.H. 0.078 m. Broken off at neck. Gray-black clay with brown-black coated surface, burnished. Due to uneven firing, partial mottling on its surface. Nose and eyebrows are applied in relief, and eyes are marked by deep incisions. Vertical incisions descend from the inner corners of the eyes, apparently representing tears.

TEXTILE IMPRESSIONS

Negative impressions of textiles appear on the bases of pots at Gülpınar. The most notable example is a one-handled miniature jug with concave spreading neck and carinated belly, the bottom of which bears the negative impressions of plain-cloth weave (**37**, Fig. 13). Similar impressions of evenly woven textiles appear on an additional 20 fragments of bowls and jars. The local potter apparently placed the newly shaped pots on a woven textile to dry before firing them. The 0.004-m-thick strands often twist in an S-direction. The textile that left its impression on these bases might have been linen *(Linum usitatissimum)*. The fineness and equal numbers of threads and the preference for the S-twist pattern point to the use of flax fibers. Archaeobotanical research at Kumtepe 1a has confirmed that flax was grown in the area during the period when Gülpınar was settled.[36]

Supporting evidence for weaving at Gülpınar comes from four clay spindle whorls identified at the site. Two of them (**38, 39**) have truncated conical shapes, while the remaining two (**40, 41**) are hemispherical. Comparable hemispherical clay spindle whorls are known from Emporio and Tigani.[37] Given the relatively scant evidence for weaving in the Neolithic Aegean,[38] the clay spindle whorls and negative impressions of cloth on pot bases at Gülpınar make a valuable contribution to our knowledge of prehistoric textiles.

36. Riehl 1999, p. 382.

37. Hood 1982, p. 637, fig. 287, group A, type 4; Felsch 1988, pl. 86.

38. Carington Smith 1977, p. 117; Barber 1991.

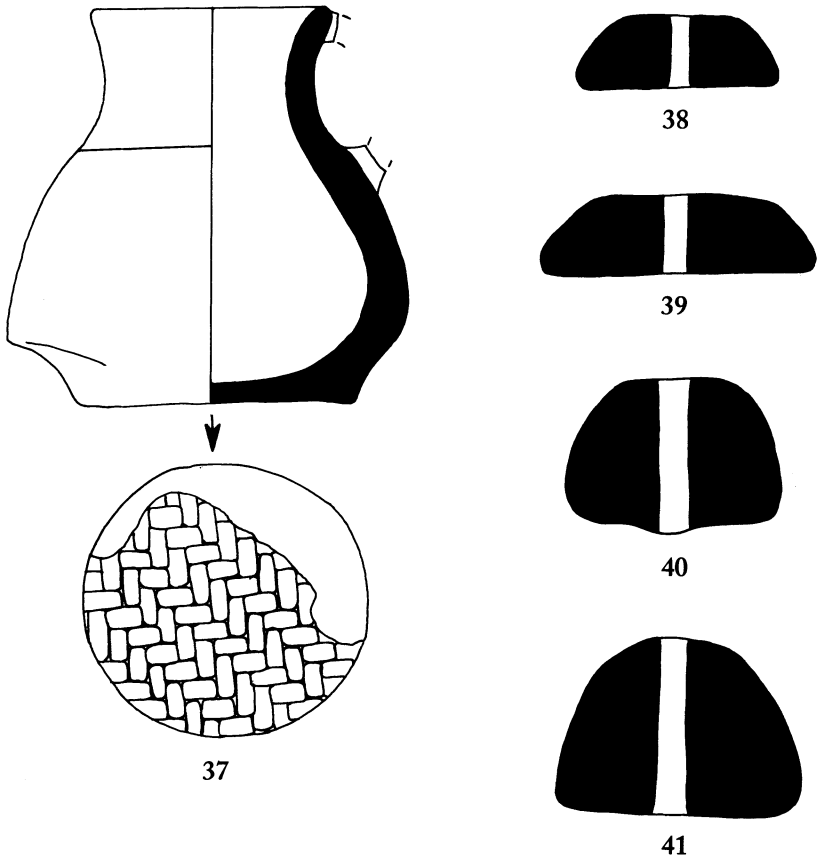


Figure 13. Miniature vessel with textile impression on its base (37); clay spindle whorls 38–41. Scale 2:3

Catalogue

37 Miniature one-handled jug Fig. 13

Pit G. Diam. (rim) 0.042, Diam. (base) 0.053, H. 0.078 m. Partial carination at belly. Gray-black clay with brown-black coated surface; the exterior is finely burnished. Negative impressions of textile visible on exterior base.

38 Clay spindle whorl Fig. 13

Northeast quadrant. Diam. 0.042, Th. 0.017 m. Truncated conical profile with vertical hole 0.004 m in diameter. Gray-brown clay with inclusions.

39 Clay spindle whorl Fig. 13

Northwest quadrant. Diam. 0.056, Th. 0.019 m. Truncated conical profile with vertical hole 0.005 m in diameter. Gray-brown clay with inclusions.

40 Clay spindle whorl Fig. 13

Northwest quadrant. Diam. 0.044, Th. 0.028 m. Hemispherical profile with vertical hole 0.005 m in diameter. Gray-brown clay with inclusions.

41 Clay spindle whorl Fig. 13

Northeast quadrant. Diam. 0.049, Th. 0.036 m. Conical profile with vertical hole 0.005 m in diameter. Gray-brown clay with inclusions.

STONE ARTIFACTS

Two fragments of marble conical rhyta (**42**, **43**, Fig. 14) represent the most notable pieces among the stone artifacts unearthed at Gülpınar. One is a rim (**42**) and the other a wall fragment from the lower part of another conical rhyton. The rim fragment is nearly identical to two specimens recovered from Beşik-Sivritepe.[39] A base fragment of a marble conical rhyton has also been reported from Kumtepe and another rim fragment from Demircihöyük.[40] Comparable marble conical rhyta dating to the LN II/FN period or the Early Bronze Age have been reported from Kephala on Keos, Tigani IV on Samos, Koukonesi on Lemnos, and Naxos.[41] Grave 41 at Varna in Bulgaria also yielded a complete marble conical rhyton with traces of pigment on its exterior.[42]

One production locus of such marble conical rhyta has already been identified at the site of Kulaksızlar in central-western Anatolia, nearly a hundred kilometers east of the province of Izmir.[43] The pottery from the Kulaksızlar marble workshop has provisionally been dated to the second quarter of the 5th millennium B.C. on the basis of similarities with comparable artifacts found in datable stratigraphic contexts. The Kulaksızlar pottery also shows strong similarities with that from Gülpınar. In light of the lack of other evidence for marble working, one may wonder whether or not the conical rhyta found at western Anatolian sites were manufactured at the Kulaksızlar workshop. It is likely that the Kulaksızlar examples served as prototypes for typologically comparable examples that have been found in other parts of the Aegean world and have been dated to subsequent periods, if these examples from the islands do not represent early examples handed down for generations as heirlooms. The presence of marble conical rhyta over a large geographical area can be accepted as evidence for the increase in trade of certain prestige objects. For example, the marble conical rhyton from the Varna cemetery might have been imported from Anatolia, since grave 41 also yielded an obsidian blade from central Anatolian sources.[44]

In addition to the two fragments of marble conical rhyta, a rim fragment of a marble bowl (**44**, Fig. 14) was also found at the site. It can be compared typologically to a nearly complete example found in burial R1 at Kumtepe 1a, as well as to examples from Saliagos and Tigani.[45]

Numerous flaked and nonflaked stone artifacts were recovered from trench C4, as well as 40 grinding and pounding implements fashioned from the locally available andesite, sandstone, and granite. Thirty of these objects are saddle querns with either elliptical or ovate shapes. The remaining implements can be classified as handstones, pestles, and mortars. These grinding implements were not found in situ, although each pit yielded one to three saddle querns.

39. I thank Jürgen Seeher and Utta Gabriel for providing me with information about these two rim fragments.

40. Sperling 1976, p. 322; Efe 1988, p. 79, pl. 37.

41. Coleman 1977, p. 106, pls. 23, 67; Felsch 1988, pp. 116–121, 221–228, pls. 48, 75; Renfrew 1972, p. 159, pl. 1:2; Getz-Gentle 1996, p. 286, n. 96, fig. 22:a, b; Devetzi 1997, p. 559, fig. 1; Broodbank 2000, p. 161, fig. 46.

42. Ivanov 1996, fig. 34.

43. Takaoğlu 2005, p. 37.

44. Dimitrov 2003, p. 32.

45. Sperling 1976, p. 322, no. 139, fig. 8; Evans and Renfrew 1968, p. 65, fig. 22; Felsch 1988, p. 84, no. V22, pl. 75.

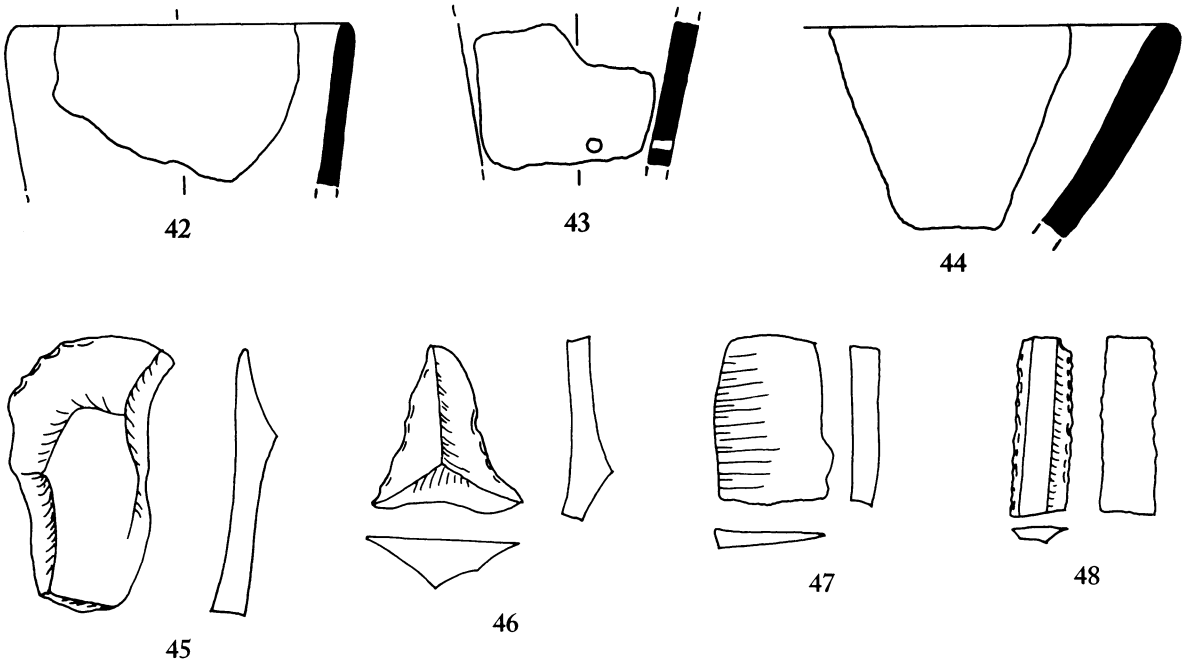


Figure 14. Marble vessel fragments 42–44; flint tools 45–48. Scale 1:2

The remaining stone artifacts at Gülpınar include a total of some 200 chipped stone tools, consisting mainly of blades, scrapers, points, waste flakes, and cores (e.g., **45–48**, Fig. 14). These knapped tools show no sign of standardization in manufacturing technique, owing mainly to the use of flints with different textures. Flint is the predominant raw material used in this assemblage; the majority of finds are irregularly shaped waste flakes. The lack of homogeneity in the physical properties and color of the flint artifacts suggests that the Gülpınar inhabitants did not depend on a single source of flint. Outcrops of the varieties of flint used have been observed around the site. The presence of cores among the flaked stones points to an on-site production strategy. The complete absence of obsidian is striking and is presumably related to a dependence on local sources of stone.

Catalogue

42 Conical marble rhyton, rim Fig. 14

Northeast quadrant. Diam. (rim) 0.093, p.H. 0.044, p.W. 0.068 m. Fine-grained, cream-colored marble. Slight traces of pointed tool marks on exterior.

43 Conical marble rhyton, body Fig. 14

Northwest quadrant. P.H. 0.036, p.W. 0.044 m. Fine-grained, grayish-white marble. Angle of profile suggests that fragment belonged to the lower part of vessel. Drilled hole at lower edge.

44 Marble bowl, rim Fig. 14

Northeast quadrant. Diam. (rim) 0.140, p.H. 0.053, p.W. 0.054 m. Fine-grained, grayish-white marble. Flaring walls.

45 Scraper Fig. 14

Northwest quadrant. L. 0.071, max.W. 0.043, Th. 0.011 m. Light brown flint. Use-wear evident on proximal working edge.

46 Awl Fig. 14

Northwest quadrant. L. 0.045, max. W. 0.039, Th. 0.009 m. Light brown flint. Use-wear evident on pointed edge.

47 Flake Fig. 14

Northwest quadrant. L. 0.044, W. 0.031, Th. 0.004 m. Brownish-white flint. Use-wear evident along cutting edge.

48 Blade Fig. 14

Pit G. L. 0.047, max. W. 0.015, Th. 0.004 m. Yellowish-brown flint, broken off at one end. Both cutting edges with traces of use-wear.

EVIDENCE FOR DIET

Various strands of evidence point to a modest, self-sufficient community with a mixed domestic economy based on crop cultivation, stock-raising, and marine resource exploitation. The ongoing analysis of excavated faunal remains at the zoology laboratories of Onsekizmart University in Çanakkale indicates that the inhabitants of Gülpınar reared small flocks of sheep and goats. The faunal assemblage consists of only 90 bones, most of which were recovered from the pits dug into the floor. They represent fragments mainly of metacarpal bones, pelvises, scapulae, vertebrae, limbs (humeri), and mandibles of cattle, sheep, and goats. A goat horn has also been identified. About 20 of the animal bones belong to immature mammals, confirming that sheep and goats were raised at the site. The faunal assemblage also includes two implements made from common fallow deer *(Dama dama)* antlers, including a twisted branch (**49**) used as a drill and a base (**50**) used as a soft hammer (Fig. 15). These tools imply that deer hunting was practiced by the villagers in the richly wooded areas around the site, as it was in other parts of the Troad.[46]

The analysis of plant remains from Gülpınar is still in its initial stage. Soil samples taken mainly from the pits and randomly chosen locations over the prehistoric floor were water-sieved by hand, with a 1-mm mesh sieve. Due to the small amount of soil selected for water-sieving and the primitive techniques used during the first two seasons of excavation, few botanical remains were recovered. Preliminary examination of about 120 seeds from the site indicated that einkorn wheat *(Triticum monoccum),* barley (*Hordeum vulgare),* and lentils (*Lens culinaris)* were the most common plants recovered. The 40 saddle querns recovered from trench C4 can probably be accepted as evidence for food preparation at the site, although such grinding implements are not invariably associated with grain milling.

The inhabitants of Gülpınar included oysters and mollusks as part of their subsistence base. Over 200 marine shells were identified in the cultural deposits of trench C4. The most numerous species represented are *Ostrea edulis, Murex trunculus, Murex brandaris, Cardium edule, Tapes decussatus, Pectunculus pilosa,* and *Patella vulgata.* With the exception of the murex varieties, the shells all represent edible species of oysters and mollusks found in the shallow waters located nearby. Several weights (with "waists") found at the site have been interpreted as fishnet sinkers.

46. Fabiš 2003, p. 263.

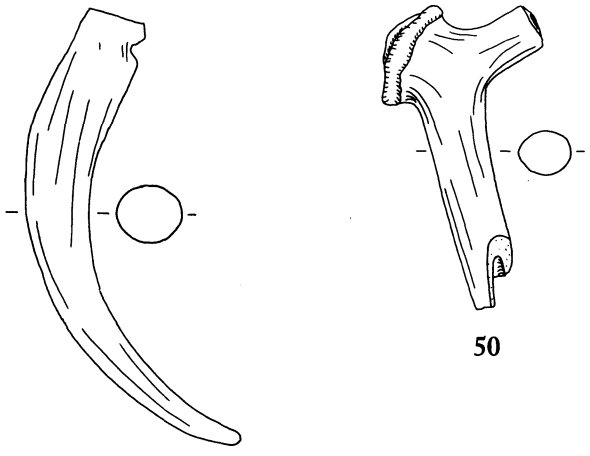


Figure 15. Antler tools. Scale 1:3

CATALOGUE

49 Bone drill Fig. 15

Pit F. L. 0.170 m. Branch of a deer antler. Rotary drilling marks on the tip.

50 Bone hammer Fig. 15

Pit F. L. 0.124 m. Base of a deer antler. Soft hammer.

CONCLUSIONS

Preliminary analyses of the material remains from Gülpınar indicate a self-sufficient village with a mixed economy based on animal herding, crop cultivation, hunting, and the exploitation of marine resources. The residents of Gülpınar developed a sophisticated pottery-making tradition, and weaving was also evidently practiced, as documented by the negative impressions of textiles on the bottoms of jars and bowls. Apart from the single clay figurine that perhaps represents a mourner, we are offered few clues about the ideology of the Gülpınar settlers.

The presence of exotic marble conical rhyta attests to the site's participation in the exchange networks that are already well known in the Late Neolithic Aegean. The cultural horizon to which Gülpınar belonged is more or less contemporary with LN I sites in the Aegean islands, including Saliagos and Ftelia. The appearance of these sites without predecessors in the eastern Aegean islands and the Cyclades (excluding islands such as Chios, Imbros, and Ayios Petros where Early Neolithic remains have been found) may be attributed to a set of factors, among which trade played a major role.

Close similarities in pottery and architecture attest to broad networks of contact. Among the 30 ceramic features identified at Gülpınar, some find close parallels in the Aegean (e.g., bowls with high knobbed or twisted handles, bowls with horizontal arched handles, crescent lugs, bowls with knobbed or incised rims) and others in the Balkan repertoires (e.g., pedestal-based bowls). Some features are common to the Troad, the Aegean

islands, and the Balkans (e.g., bowls with horned or prong handles, knobbed rims, pattern-burnished bowls and jars, finger-impressed rims, open jars with impressed bands, cheesepots). The architectural features attested at Gülpınar, including pits and postholes, together with the lack of stone walls, also point to Balkan influence.

Evaluation of the available evidence from Gülpınar thus indicates that the Aegean islands and coastal Troad were part of the same cultural interaction sphere, in which trade played an important role in the spread of ideas and artifacts. Given the paucity of information regarding this peripheral part of the Aegean, it is hoped that ongoing archaeological excavations at Gülpınar will shed more light on the Late Neolithic in the eastern Aegean.

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