The Middle Chalcolithic Cultural Sequence of the Troad (Northwest Anatolia): Chronological and Interregional Assessment

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Abstract: While the first half of the northwest Anatolian Middle Chalcolithic is comprehensively characterised by the artefact inventories of İlpinar, İkiztepe, Kumtepe IA and Beşik-Sivritepe the time between 4500 and 4250/4000 BC remains relatively unknown. All the more surprising is the cross-cultural comparison of mid-5th to early 4th millennium BC Anatolia with the contemporary southeast European Chalcolithic – as represented by Karanovo V/Marica and Kodžadermen/Gumelnița/Karanovo VI – with its huge burial mounds, rich grave offerings, highly developed metallurgy, and a hierarchically structured interregional interacting society. At Alacalıgöl, a comparatively small settlement located approximately 4 km west of Troy, a material complex was recorded which – although unmistakably Middle Chalcolithic in its general typological habits – can be dated later than those of other sites of the period concerned (e.g. Beşik-Sivritepe). Particularly the presence of early rolled rim bowls clearly indicates the transition to the northwest Anatolian Late Chalcolithic. On the basis of the finds from Alacalıgöl, the long existing gap in the chronological sequence of the Middle Chalcolithic can now be adequately closed and the cultural development of the Troad in the 5th and 4th millennia BC – and beyond that of western Anatolia and its neighboring regions (e.g. the Balkans, the Aegean, central and south Anatolia) – can finally be reconstructed without larger interruptions.

Keywords: Turkey, northwestern Anatolia, Troad, Alacalıgöl, Middle Chalcolithic, chronology, cultural sequence

Of all post-Neolithic periods in northwestern Anatolia the late Middle Chalcolithic is the least known. While the first half of the era is comprehensively characterized by the inventories of Aşağı Pınar 5–2, Hoca Çeşme I, Kumtepe IA, Beşik-Sivritepe and Gülpinar, the period between 4500 and 4000 BC still appears as a major chronological gap or lengthy occupational hiatus. A similar situation can be seen in the eastern contact zones, especially in central Anatolia; and since the few contemporary settlements in southeast Turkey share distinctive elements with those of the Syro-Mesopotamian cultural sphere, it seems that the vast Anatolian land-mass from Cilicia in the east to Turkish Thrace in the west was temporarily uninhabited (Fig. 1). All the more unexpected, therefore, is a cross-cultural comparison in the mid-5th – early 4th millennium BC between Anatolia and the Chalcolithic of southeast Europe – as represented by the complexes Karanovo V-Marica and Kodžadermen-Gumelnița-Karanovo VI, with their huge burial mounds, extremely rich graves, their high-level metallurgy and hierarchically structured societies. At Alacalıgöl, a comparatively small settlement located about 4km west of Troy, a material assemblage has been identified which, while unmistakably Middle Chalcolithic in its general typological habits, clearly belongs at the transition to the northwest Anatolian Late Chalcolithic of the type known from Barcin Höyük, İlpinar, and Kumtepe IB. On the basis of the finds from Alacalıgöl, the gap in the chronological sequence of the Middle Chalcolithic can now at last be closed. At the same time the cultural development of the Troad in the 5th and 4th millennia BC and, beyond it, of western

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2 Cf. Schoop 2011a, 157–165, fig. 7.3–4; Schoop 2011b, 29–32; Seeher 2012, 123.
Anatolia and its neighbouring regions (e.g. the Balkans, the Aegean, central and south Anatolia), can finally be reconstructed without major interruptions.

The Early Middle Chalcolithic in the Troad: Kumtepe IA and the ‘Beşik-Sivritepe Horizon’

In the Troad, there are so far seven sites which can be assigned with certainty to the Middle Chalcolithic, of which three have been at least partially excavated (Fig. 2).7 The beginning of the cultural sequence is marked by the early inventory of Kumtepe, a tell-site located at the southern exit of the Dardanelles about five kilometers west of Troy.8 The stratigraphic sequence observed...

7 Blum et al. 2014.
at Kumtepe is divided into four main phases. Layers IA and IB cover the early Middle and Late Chalcolithic, whereas units IC and II – corresponding to Troy I, II, and V – must be assigned to the Early Bronze Age and the beginning of the Middle Bronze Age.\(^9\) According to calibrated radiocarbon dates the initial habitation stage of Kumtepe started around 5000 BC and lasted for about 250 years.\(^{10}\) Within the chronological range of ca. 4750–4500 BC there follows the second phase of the early Middle Chalcolithic,\(^{11}\) as represented by the typologically slightly more developed


\(^{11}\) Cf. Schoop 2005, 262–263; Schoop 2011a, 157–161, fig. 7.1.
assemblages of Beşik-Sivriştepe, Limantepe (Larisa), Gülpinar, Çiplak, Kalafat, and possibly Hanay Tepe and Bozköy-Hanaytepe (Fig. 3).

In both chronological phases, bowls with steep or slightly convex sides, simple rounded rims, and flat bases constitute the most common shape (Fig. 4/1–7). Specimens with uprising high handles are most typical; fragments of such handles with decorative knobs were recovered in great quantity at sites contemporary with Beşik-Sivriştepe, e.g. Gülpinar, Limantepe (Larisa), and Çiplak (Fig. 5/1–6), although twisted and incised strap varieties are also present (Fig. 5/7–8). Knobbed or twisted uprising high handles on bowls are strongly reminiscient of types found in central western Anatolia, e. g. at Kulaksızlar, as well as in the eastern Aegean islands, e.g. on Chios (Emporio X–VIII), Samos (Tigani Level II), and Kalymnos (Vathy Cave). Another vessel type commonly attested in the pottery assemblages of the Beşik-Sivriştepe horizon is

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14 Gabriel 2014.
16 Blum et al. 2011, 120, 138; Blum et al. 2014.
18 Takaoglu 2006, 295 fig. 6.1–4.
19 Blum et al. 2014, pls. 16.9; 23, A0 434, 03.
20 E.g., Gabriel 2014, pls. 6, 8; cf. Takaoglu 2001, pl. 115; Takaoglu 2006, figs. 6.1–4; 7–8.
21 Takaoglu 2006, 295, figs. 6.5, 7; Blum et al. 2014, pls. 16.10; 23, A0 434.11.
23 E.g., Hood 1981, 278, fig. 134; Felsch 1988, figs. 47.2, 5; 74.5.
Fig. 4 Middle Chalcolithic bowls from (1–3) Beşik-Sivritepe and (4–7) Gülpinar. Scale 1:4 (Fig. 4.1–3 after Gabriel 2014, pl. 5.3–5; Fig. 4.4–7 after Takaoglu 2006, fig. 10.24–27).
Fig. 5  Knobbed, incised, twisted, and pronged handles from (1–4, 6, 8–11) Gülpinar and (5, 7) Limantepe (Larisa); pattern-burnished ceramic from (12–14) Kumtepe IA, (15) Gülpinar, and (16–22) Beşik-Sivriştepe. Scale 1:4 (Fig. 5.1–4, 6, 8, 9–11, 15 after Takaöglu 2006, figs. 6.1, 2, 4, 5, 7–11; 10.29; Fig. 5.5, 7 after Blum et al. 2012, pl. 16.9–10; Fig. 5.12–14 after Gabriel 2014, pl. 4.2, 4–5; Fig. 5.16–22 after Schoop 2005, pl. 158.16–22).
Fig. 6  Ring bases from (1, 3–4) Bıçık-Sivriptepe, (2) Çıplak, and (5) Gülponar; open jars with raised decorative bands from (6) Gülponar and (7–9) Bıçık-Sivriptepe; flaring bowls with decorated rims and encircling lines of holes from (10) Bıçık-Sivriptepe and (11–12) Limantepe (Larisa); cheese pots from (13) Gülponar and (14–16) Bıçık-Sivriptepe. Scale 1:4 (Fig. 6.1, 7, 10 after Schoop 2005, pls. 157,23, 27; 158.11; Fig. 6.2–4, 8–9, 14–16 after Gabriel 2014, pls. 8.2, 3, 5, 10–12; 9.2–3; 10.13; Fig. 6.5–6, 13 after Takaoglu 2006, figs. 9.21; 11.31–32; Fig. 6.11–12 after Blum et al. 2012, pl. 16.1–2).
the open bowl with pronged handles (Fig. 5.9–11). These forms suggest close parallels in the Aegean and the Balkans, for example at Tigani II on Samos, Ftelia on Mykonos, Paradimi and Sitagroi in eastern Macedonia, and Karanovo in Bulgaria. Pattern-burnished decoration, although a comparatively widespread phenomenon dating back to the Aegean Late Neolithic I, is certainly the most distinctive characteristic of the early Middle Chalcolithic pottery assemblages in the Troad (Fig. 5.12–22; cf. Fig. 4). Several of the recorded decorative motifs, e.g. from Beşik-Sivri tepe and Çıplak, have remarkably close parallels at Ulucak Hoyuk III in the İzmir region. Similar finds are known from Çine-Tepecik in central west Anatolia, Aşağı Pınar in the northwestern part of the country, from sites on the Aegean Islands such as Ayios Sostis, Thar rounia 3, Tigani II, Kalymnos, Ftelia, Emporio X–VIII, and Kephala, and as well as from the Greek mainland. Ring bases and pedestals occur frequently in the ceramic assemblages of the Troadian early Middle Chalcolithic (v. i.), just as prevalent are open jars with raised bands set below the rim, large flaring bowls with decorated rims and encircling lines of holes, and so-called cheese pots (Fig. 6.1–16).

The Late Middle Chalcolithic and the Transition to the Late Chalcolithic in the Troad: Alacalıgöl

Judging from the total lack of pattern-burnished decoration and a certain degree of typological distance, the material assemblage of Alacalıgöl is very likely to post-date the Beşik-Sivri tepe horizon. A comparison of the classified pieces with those of the late 5th-millennium Balkans points in the same direction, especially since several tool and vessel types have direct equivalents in the KGK VI-Complex.

The archaeological site was discovered in the course of geomorphological explorations in the Troad, undertaken by İlhak Kayan from İzmir University during the summer of 2003. It is located on the southwest of the Kesik Plain, which occupies an area of approximately one square kilometer on the eastern edge of the so-called Yeniköy ridge, a low and narrow plateau between the lower Karamenderes valley and the Aegean Sea (Fig. 7.1–2; Pl. 1). Rapid environmental changes took place here during the Holocene, and the geographical environment of Alacalıgöl in the initial stages of settlement must have been very different from how it appears now. Climatic changes caused the sea level to rise and to intrude into the lower Karamenderes valley, reaching its furthest extent in the middle Holocene around 5000 BC. From around 4000 BC, once the sea had ceased to rise, alluvial deposition and deltaic progradation transformed the southern part
of the Karamenderes valley into land. Between 3000 and 2000 BC the coastal zones of the delta reached the Kesik inlet. Thereafter it was cut off, and in the interior of the depression a new, and purely local, phase of sedimentation processes began. Fine-textured colluvial sediments from the surrounding slopes slowly filled the bottom of the divided Kesik depression so that the chalcolithic settlement area, which originally lay on the tip of a narrow and low-lying ridge about 4–5m above sea level, was gradually absorbed into the present-day plain (Pl. 2).36

The settlement lies immediately over bedrock and lacks topsoil (Fig. 8). The resulting infertility was a serious problem for the current land owner, which he tried in 2003 to solve by ploughing the surface to a depth of about 50 cm – apparently unaware of its archaeological significance.37 In the following years the area has been repeatedly ploughed and irrigated for agricultural use (Pl. 3.1–3). Today two to three acres of the surface area are covered by a thick layer of light colored sediment including particles of carbonised matter, with numerous potsherds, stone tools, and marine shells – generally large Cerostoderma, Ceridium and Ostrea (Fig. 9).38

Among the small finds collected, spindle whors, clay disks, blades (one made of obsidian), scrapers, hatchets, querns, grinders, pounders and hammerstones predominate (Pl. 4.1–12).39 The ceramic inventory of Alacalıgöl should be mainly seen as an eclectic continuation of the Middle Chalcolithic pottery production of the region. Several shapes and types of ware introduced in the preceding chronological horizons, that is Kumtepe IA and Beşik-Sivritepe, are still present.40 On the other hand, it also clearly anticipates the Late Chalcolithic, for example with the occurrence of early bowls with rolled rims. Ring bases and pedestals with slotted or oval openings (Pl. 5.1–3) are well-known from Kumtepe IA,41 as well as from Beşik-Sivritepe,42 Çıplak43 and Gülpinar (cf.

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36 Kayan 2009, 117, fig. 10.
37 Gabriel et al. 2004, 121, figs. 2–3; cf. Kayan 2009, 119, figs. 6, 8, 23.
38 Gabriel et al. 2004, figs. 3, 20; Kayan 2009, 119–120, figs. 8, 23.
41 E.g. Özdoğan 1970, Lev. 52, a-269, b-7, c-3; Sperling 1976, pl. 72.18.
42 E.g. Seeher 1985, fig. 18.LL83–43.4; Gabriel 2006, fig. 2.11; Gabriel 2014, pl. 9.1–6.
43 Gabriel 2014, pl. 10.12–13.
Fig. 8  Southwest–northeast cross-section of the Kesik plain (after Kayan 2009, fig. 15).

Fig. 9  Alacaligöl, surface artefact scatter in summer 2012 (photo: S. Blum).

Fig. 6.1–5); they also occur in Aşağı Pınar 2 to 3 in Turkish Thrace, at Sitagroi I and Paradimi in eastern Macedonia, Pevkakia-Magula in Thessaly and in Karanovo III–IV in Bulgaria. The same applies to eight fragments of so-called cheese pots, which are basically shallow pans with a row of perforations below the rim (Pl. 5.4–9). Cheese-pots were in use over a long period of time and have been found at various sites in the Cyclades and Dodecanese, e.g. Parbeni on Leros and Ftelia on Mykonos. They are also sparsely represented at Aghio Gala Upper Cave on Chios and Emporio X–VIII. The closest parallels for globular jars with cylindrical, collar- or outward-leaning necks and for wide-mouthed jars with inward-leaning rims (Pl. 6.1–8) come from Beşik-Sivritepe, Çiplak and Kumtepe IB. Open jars with raised bands set below the rim or on the body

44 Gabriel 2006, fig. 2.11–12; Takaöglu 2006, 297, fig. 9.21; Blum et al. 2011, 132.
46 Bakalakis – Sakellariou 1981, fig. 28.4; Keighley 1986, 379, fig. 11.10.
47 Weiβhaar 1989, 130.
49 Cf. Gabriel et al. 2004, fig. 8.1–2.
50 Sotirakopoulou 2008, 537–538, fig. 2.2. Cf. Schoop 2005, pls. 142.22; 145.25; 150.14; 157.9; Takaöglu 2006, 301, fig. 11.32, 34–35; Benzi 2008, 96, fig. 37–38; Sampson 2008, 506; Gabriel 2014. See also Weiβhaar 1989, 40, 130; Christmann 1996, pl. 139.19; Alram-Stern this volume.
52 Cf. Gabriel et al. 2004, fig. 12, 13.
and decorated with impressions placed at more or less regular intervals (Pl. 6.8)\textsuperscript{54} are also found at Gülpinar;\textsuperscript{55} Beşik-Sivritepe;\textsuperscript{56} Bozköy-Hanaytepe\textsuperscript{57} and Kumtepe IB (cf. Fig. 6.6–9).\textsuperscript{58} They are also present at Saliagos, Paradimi, Dimitra, Ağağın Pınar and at Karanovo III–IV.\textsuperscript{59} Decoration is otherwise rare at Alacalıgöl. Two cup-like vessels bear incised ornaments on their bodies and shoulders (Pl. 6.9–10);\textsuperscript{60} one bowl with very close parallels in the KGK VI-complex features a line of small notches running around it on the shoulder (Pl. 7.1);\textsuperscript{61} one handle is twisted and several have decorative knobs (Pl. 7.2–5);\textsuperscript{62} and two vertical handles are decorated with incised line motifs on their backs (Pl. 7.6–7). A single fragment made of fine black burnished ware with white-painted decoration stands out in the otherwise unpolished monochrome ceramic repertoire of Alacalıgöl (Pl. 7.10). Bowls with slightly convex or inverted sides, flat bases and various types of handles constitute the most common shape in the Alacalıgöl pottery assemblage (Pls. 8.1–8; 9.1–7); they clearly have prototypes in the earlier phases of the regional Middle Chalcolithic.

\textsuperscript{54} Cf. Gabriel et al. 2004, fig. 11.1–2.
\textsuperscript{55} Takaöğlu 2006, 301, fig. 11.31.
\textsuperscript{56} Seeher 1987, fig. 18.LL83-34.17.
\textsuperscript{57} Blum et al. 2011, 131, 138, pl. 3.4; cf. Seeher 1985, fig. 18.LL83-34.17; Gabriel et al. 2004, 129, fig. 11.1–2, 15; Takaöglu 2006, fig. 11.31.
\textsuperscript{58} Sperling 1976, fig. 16.314; cf. Özdoğan 1970, res. 94.
\textsuperscript{60} Gabriel et al. 2004, fig. 4.1; cf. Georgieva 1993, fig. 2.1.
\textsuperscript{61} Gabriel et al. 2004, fig. 4.6; cf. Parzinger 2005, pl. 23.6.
\textsuperscript{62} Cf. Gabriel et al. 2004, figs. 16–17.
since they are clearly observed at Çiplak,\(^{63}\) Beşik-Sivritepe\(^{64}\) and Gülpinar.\(^{65}\) The same applies to a group of relatively large flaring bowls with decorated rims and encircling lines of holes (Fig. 10; Pls. 10.1–4; 11.1–4);\(^{66}\) comparable pieces are known from Beşik-Sivritepe,\(^{67}\) Limantepe (Larisa),\(^{68}\) and Gülpinar (cf. Fig. 6.10–12).\(^ {69}\) Among the younger types of ceramic vessels in the Alacalıgöl repertoire are bowls with rolled rims (Pl. 12.7);\(^{70}\) they already foreshadow the regional Late Chalcolithic in which they have a defining status, for example, in phase Kumtepe IB.\(^{71}\) The occurrence of bowls with short rounded shoulders, pointy rims, and straight vertical to slightly inverted lips provides, however – at least at the moment – the strongest argument for dating the site in the chronological range of 4500 to 4000 BC (Fig. 11; Pl. 12.1–6). Typologically exact matches with motifs of graphite decoration are well attested in the Balkans, for example at Karanovo VI.1, where they constitute one of most characteristic vessel type in this horizon.\(^{72}\)

**Conclusion**

Although it is fundamentally northwest Anatolian in its character, the material assemblage of Alacalıgöl has unmistakable typological traits in common with those of the complexes Karanovo V-Marica and Kodžadermen-Gumelnița-Karanovo VI. The similarities are certainly not accidental since the cultural links between northwest Anatolia and the Balkans seem to have been already established in the early phases of the Middle Chalcolithic as attested, for example, by the occurrence of pedestal bowls and knob- and prong-handled vessels in both zones. Between 5000 and c. 4000 BC the Troad seems to have been part of a more or less unified cultural entity based on a system of several interacting sub-regions, i.e. northwest Anatolia, Turkish Thrace, and southeast Europe (Fig. 12).\(^{73}\) These sub-regions developed simultaneously and under comparable socio-economic

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63 Gabriel 2014, pl. 10.1–4.
64 E.g. Seeher 1985, figs. 16, figs. 16, LL 83-56, LL 83-65.2, PP 83-10.2; 17, LL 83-40.4, LL 83-34.14, LL 83-24.13, LL 83-14.8, LL 83-31.1; Körffmann 1989, 478, fig. 4; Gabriel 2014, pls. 5.1–5; 6.1–7.
66 Gabriel et al. 2004, 129 fig. 6.3–4; 7.1–6.
67 Körffmann 1989, fig. 4.
68 Blum et al. 2014, pl. 16.1–2.
69 Seeher 1987, 541, 546, fig. 4.6; Takaoglu 2006, 301, fig. 11.33.
70 Cf. Gabriel et al. 2004, fig. 5.1.
71 E.g. Koşay – Sperling 1936, 41; Özdögan 1970, Lev. 10, 11; Renfrew 1972, 122–123, 153–154, 161–163, fig. 10.1.2–16; pl. 4; Sperling 1976, 327, 330, 332–333, 338–339, 343; Körffmann et al. 1995, 240, figs. 29.2; 32.1; 37.4; 38.8; Schoop 2005, 269–270; Sotirakopoulou 2008, 538–539, fig. 2.3.
conditions. However, region-specific demands appear to have been met by the employment of unique strategies, for each sub-region developed its own set of types and decorative motifs despite being open to influences from the others. Consequently, there are as many similarities as there are differences between the Alacalıgöl inventory and those of the adjacent cultural spheres. Several significant features of the Alacalıgöl repertoire of pottery and small finds are represented at sites in southeastern Europe. Conversely elements typical of these Balkan sites can occur at Alacalıgöl but do not always do so.

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Fig. 12 Middle Chalcolithic Sites in Turkey, cultural affiliation (illustration: S. Blum).

74 Cf. Özdoğan 1993a, 177; Özdoğan 1993b, 154–156.
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Pl. 1 Northwestern Troad, Middle Chalcolithic settlements (NASA and IKONOS, Space Imaging Inc. 2001).
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Pl. 2 Palaeogeographical reconstruction (1) and geomorphological development of the Karamenderes (Seamander) plain (2) (after Kayan 2009, figs. 9–10).
Pl. 3 Alacalıgöl (photos: S. Blum).
Pl. 4 Alacaalıgöl (Scale 1:3) (drawings: S. Blum).
Pl. 5 Alacahgöl (Scale 1:3) (drawings: S. Blum).
Pl. 6 Alacalıgöl (Scale 1:3) (drawings: S. Blum).
Pl. 7 Alacalıgöl (no. 10 scale 1:2; otherwise scale 1:3) (drawings: S. Blum).
Pl. 8 Alacalıgöl (Scale 1:3) (drawings: S. Blum).
Pl. 9  Alacahgöl (Scale 1:3) (drawings: S. Blum).
Pl. 10  Alacalıgöl (Scale 1:3) (drawings: S. Blum).
Pl. 11  Alacalugöl (Scale 1:3) (drawings: S. Blum).
Pl. 12  Alacaligöl (Scale 1:3) (drawings: S. Blum).