

Past Stories – Modern Narratives: Cultural Dialogues between East Aegean Islands and the West Anatolian Mainland in the 4th Millennium BC

*Ourania Kouka*¹

Abstract: In relation to political and economic structures and social dynamics, the 3rd millennium BC on the north and east Aegean islands and in the western Anatolian littoral has been characterised as homogenous. This assessment has been established through extensive site-excavations on the islands of Lemnos (Poliochni and Myrina), Lesbos (Thermi), Samos (Heraion), excavations at Troy, Liman Tepe and Bakla Tepe, as well as through less extensively excavated sites, such as Mikro Vouni on Samothrace, Koukonissi on Lemnos, Emporio on Chios, Asomatos on Rhodes, Beşik-Yassı Tepe, Çeşme-Bağlararası, Çukuriçi Höyük, and Miletus. Therefore, this paper aims to selectively present older (Poliochni and Myrina on Lemnos, Tigani on Samos) and more recent (Heraion on Samos, Miletus) archaeological evidence of the 4th millennium BC, and discuss aspects of spatial organisation, economy (technological advances and trade networks) and society (social differentiation) within the wider cultural framework of the Aegean and western Anatolia in order to trace structures that may predate the emergence of 3rd millennium early urban structures in the aforementioned landscapes.

Keywords: Greece, Turkey, Aegean, western Anatolia, 4th millennium BC, architecture, technology, trade, emergence of urbanism, social stratification

The 3rd millennium BC on the north and east Aegean islands and the west Anatolian littoral is synonymous with the Early Bronze Age (henceforth EB)² and demonstrates a cultural uniformity in political and economic structures and social dynamics. Such a characterisation stems from extensively excavated sites, such as Poliochni and Myrina on Lemnos, Thermi on Lesbos, Heraion on Samos, Palamari on Skyros, Troy, Liman Tepe and Bakla Tepe, as well as less extensively excavated sites, such as Skala Sotiros and Limenaria on Thasos, Mikro Vouni on Samothrace, Koukonissi on Lemnos, Emporio on Chios, Asomatos on Rhodes, Beşik-Yassı Tepe, Yeşilova, Çeşme-Bağlararası, Çukuriçi Höyük, Miletus, Tavşan-Adası and Iasos (Fig. 1).³ Archaeological evidence from all aforementioned sites led to the recognition of a distinct cultural unit in this part of the Aegean that contributed to the formation of a cultural *koine* since the EB I.⁴ Despite the cultural uniformity, only certain sites reached the peak of prosperity in the long EB II period (2700–2200 BC). Such sites possess evidence for participation in land and sea trade networks

¹ Department of History and Archaeology, Archaeological Research Unit, University of Cyprus; email: ouraniak@ucy.ac.cy.

² See chronological maps: Kouka 2002, tab. 1; Manning 2010, tab. 2.2; Kouka 2013, 570, fig. 1.

³ Kouka 2002, 2–7, maps 1–2; Myrina: Dova 2003; Archontidou – Kokkinoforou 2004; Philaniotou 2010, 309–312, figs. 1–10; Heraion: Kouka 2013, 575–576; Palamari: Parlama 2007; Troy: Ünlüsoy 2006; Jablonka 2011; Liman Tepe: Erkanal 2008a; Erkanal 2011; Erkanal – Şahoğlu 2012a; Kouka 2013, 570–574; Kouka – Şahoğlu, in print; Bakla Tepe: Erkanal – Özkan 1999; Erkanal 2008b; Erkanal – Şahoğlu 2012b; Skala Sotiros: Koukouli-Chryssanthaki 2012; Limenaria: Papadopoulos – Malamidou 2012; Koukonissi: Boulotis 1997; Asomatos on Rhodes in the wider area of Ialysos: Marketou 1997; Marketou 2010, 775–776; Beşik-Yassı Tepe: Korfmann – Kromer 1993; Yeşilova: Derin 2007; Çeşme-Bağlararası: Sahoğlu 2012; Çukuriçi Höyük: Horejs et al. 2011; Miletus: Niemeier – Niemeier 1997; Niemeier 2005; Niemeier 2007; Tavşan-Adası: Bertemes – Hornung-Bertemes 2009; Iasos: Pecorella 1984.

⁴ Kouka 2002, 299.



Fig. 1 Map with the Late Chalcolithic and Early Bronze Age sites mentioned in the text.

(Anatolian Trade Network,⁵ Great Caravan Route⁶) related to tin-bronze technology and the exchange of prestige goods, new ceramic technologies, symbolism and ideas. Due to population increase, settlements like Troy IIa–g, Liman Tepe V, Bakla Tepe-EBII–III/early, Poliochni Green–Yellow, Myrina, Thermi IV–V, Heraion II–V and Palamari II–III were expanded following a new architectural plan. Such expansions may also be a result of the abandonment of smaller neighbouring settlements within their respective regions.⁷ These new settlements were reinforced with strong fortifications, creating landmarks within these micro-regions. Additionally they had communal buildings of economic or political character and indications for craft specialisation, social stratification, and personal and communal symbolism.⁸ These features were observed within the framework of a multi-criteria analysis,⁹ which led to the designation of the above mentioned sites as settlements with – *mutatis mutandis* – early urban features, or local centres in these respective micro-regions. Needless to say, they can by no means be compared to the early urban centres of Early Dynastic Mesopotamia (Uruk, Ur) whose landscape and the economic dynamics differed

⁵ Şahoğlu 2005.

⁶ Efe 2007.

⁷ Kouka 2002, 299–300.

⁸ Kouka 2011.

⁹ Kouka 2002, 11–13, 299.

entirely from the Aegean Sea. The cultural interaction and competition among the stronger island settlements of the east Aegean and those of the western Anatolian littoral led to the abandonment of some of the settlements (e.g. Thermi).¹⁰ However, others, due to their geographical location on crucial trade sea routes and also through their more or less active participation in the Minoan sea trade network prospered even more during the Middle Bronze Age through the Late Bronze Age I (henceforth MB, LB) (Troy V, Mikro Vouni, Koukonissi, Palamari IV, Liman Tepe IV, Heraion VI, Miletus III).¹¹

This paper aims to present evidence from the Late Chalcolithic (henceforth LCh), in particular from the 4th millennium BC, from selected previously excavated (Poliochni and Myrina on Lemnos and Tigani on Samos) and more recently excavated sites and studied material (Heraion on Samos and Miletus)¹² of the north and east Aegean and western Anatolia in order to investigate the LCh past of these glorious settlements of the 3rd millennium BC. Therefore, settlement patterns, architecture, arts and crafts, trade, and social symbolism in the selected sites will be briefly presented. Furthermore, this data will be juxtaposed within the wider cultural frame of the east Aegean and western Anatolian littoral and the rest of the Aegean.

Lemnos

On the island of Lemnos, LCh habitation is identified through surface finds from Myrina-Kastro, Vriokastro, Progomylos, Ayios Ermolaos, Koukonissi and Dermatas, as well as through stratified finds at Poliochni, on the east coast, and Myrina-Richa Nera, on the west coast of Lemnos.¹³ The location of these sites indicates an intensive use of the natural harbours of the island. Extensive and extremely fertile plains which occupy two thirds of the island surface form the economic basis. At least three large 3rd millennium BC (c. 6,000–15,500m²) densely populated, fortified harbour settlements organised in *insulae* emerged in the excavations of the LCh sites. These sites, Myrina in the west, Koukonissi in the middle and Poliochni in the eastern part of the island, were involved in bronze metallurgy and trade. In addition to the already well documented settlements, one can suspect the presence of many more small villages and farmsteads distributed over the fertile plains of the island. These small sites, all founded in the first half of the 4th millennium BC, could have acted as economic satellites of the three big harbour settlements.¹⁴

Poliochni, Black Period

Excavations conducted by the Scuola Archeologica Italiana di Atene in the 1930s and the 1950s¹⁵ in two deep trenches at the peninsula of Poliochni (15,300m²), as well as during the 1980s¹⁶ west of the EB settlement indicate that the LCh¹⁷ settlement, Poliochni Black Phase, was extensive consisting of free-standing, circular (2.80–4.5m in diameter), apsidal, and also rectangular stone

¹⁰ Kouka 2002, 300.

¹¹ Kouka 2013, 576.

¹² The results of the preliminary study of the material from Miletus and Heraion by the author will be presented for the first time in this short paper. The 4th and 3rd millennia materials derive from excavations directed by B. and W.-D. Niemeier. The 4th millennium BC materials from Heraion, Samos were excavated by the author in 2009–2013 (Kouka 2013, 575–576).

¹³ For habitation and settlement patterns on prehistoric Lemnos see Kouka 2002, 21–29, map 6; Dova 2003, fig. 10.

¹⁴ Kouka 2002, 28–29, maps 6–9.

¹⁵ Bernabò-Brea 1964, 45–114, figs. 25–30, 45–46. The evidence of Poliochni Black has been presented in detail by Kouka 2002, 34–45, plan 2.

¹⁶ Tinè 1997.

¹⁷ Contrary to the traditional use of the term Late Neolithic (LN) by colleagues working in the Aegean, I prefer to use the term Late Chalcolithic (LCh) for the east Aegean islands due to their cultural similarity with LCh settlements in western Anatolia (Yakar 2011, 60–61, 69–72, tabs. 4.2–4.5); Tuncel 2011, 125–126.

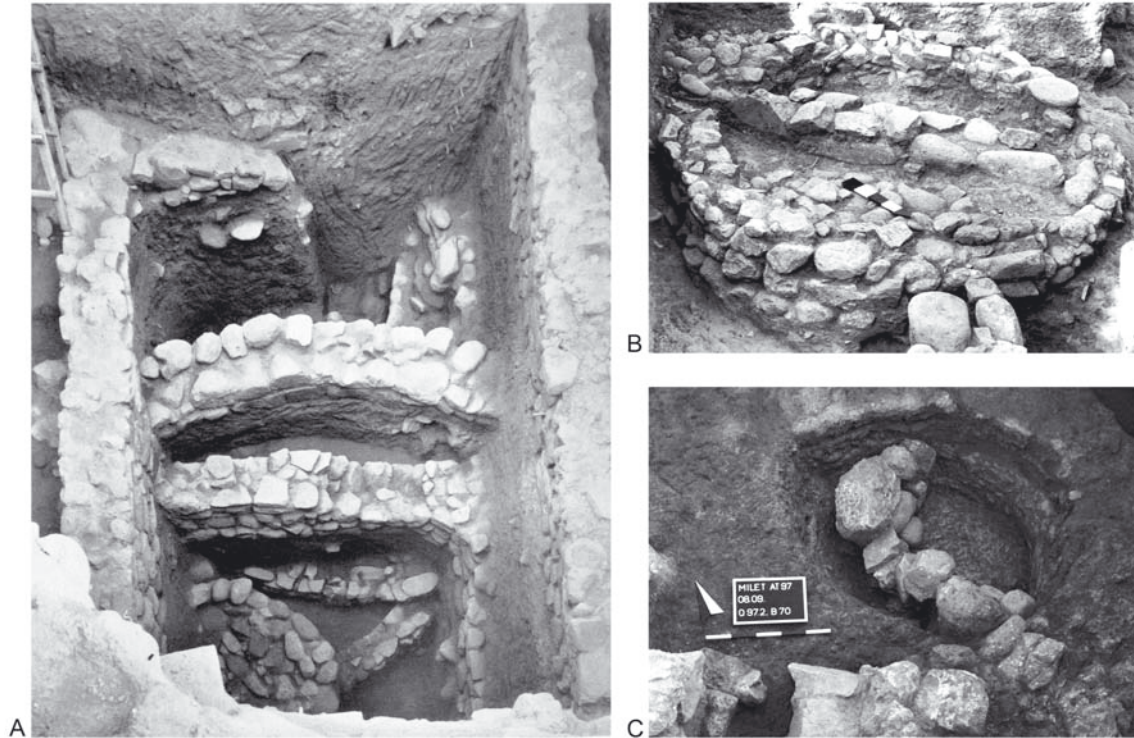


Fig. 2 A. Curvilinear houses and storage buildings from Poliochni Black (after Bernabò – Brea 1964, fig. 48); B. Myrina III (after Dova 1997, fig. 3); C. Miletus I (photo: W.-D. Niemeier).

buildings (c. 5 × 3m) towards the end of the LCh. They consisted of stone foundations and a superstructure of mudbrick.¹⁸ The discovery of three and seven successive architectural phases in the deep trenches beneath the EB I–II/late Megara 605 and 832 respectively, and the trenches east of the peninsula¹⁹ point to an active settlement with continuous use of a space with a diameter of c. 200m. The smaller one of the circular constructions most likely served for storage, like in Myrina and Miletus (Fig. 2A).

The pottery from these phases was homogeneous and comprises of coarse open storage jars with brown to red brown, light burnished surfaces, and medium coarse, dark, highly burnished, hemispherical cups with loop handles, shallow bowls, footed bowls, bowls with rolled rims and horizontal tubular handles, as well as jugs with white, linear painted decoration.²⁰ This ceramic assemblage, with the exception of the footed bowls which depict a local favourite, is similar to those of Myrina-Richa Nera,²¹ and also to further east Aegean island settlements (e.g. Emporio VII–VI, Tigani IV, Heraion–LCh), as well as to assemblages from sites on the western Anatolian coast (Kum Tepe IB/3–4, Liman Tepe VII, Bakla Tepe).²²

¹⁸ For a detailed presentation of the architecture of Poliochni Black see Kouka 2002, 34–41, plan 2.

¹⁹ Tinè 1997, 52, pl. IX.

²⁰ Bernabò-Brea 1964, pls. I–III.

²¹ Myrina-Richa Nera at Meteorologikos Stathmos, Phases I–III: Dova 1997, 289–292; in Dova 2003, 101–108, phases 1–2 are designated as FN and contemporary with Poliochni Black.

²² For comparative LCh pottery see: Emporio: Hood 1981, 300–350, figs. 144, 145, 148, 150, 153, 154, pls. 43–49; Kum Tepe IB: Sperling 1976; Liman Tepe VII: Şahoğlu – Sotirakopoulou 2011, 257, cat. nos. 77–78; Bakla Tepe: Erkanal – Özkan 1999, 135, fig. 198.

Myrina-Richa Nera

Habitation of the LCh period in the region of Leschi Axiomatikon, located on the rocky peninsula of Meteorologikos Stathmos in the bay of Richa Nera, was corroborated during the 1995 rescue excavations conducted by the 20th Ephorate of Prehistoric and Classical Antiquities.²³ The peninsula was inhabited in the Late/Final Neolithic (henceforth LN, FN) (Phase I or Phase 1),²⁴ in the FN (Phases II–III or Phase 2) and in the EB (Phase IV or Phase 3). During the EB, the settlement was extended from the peninsula (Phase IV or Phase 3)²⁵ up to the inland of Richa Nera (Phases 3–6²⁶ cf. Poliochni Phases Blue, Green, Red and Yellow) (3200–2200 BC) to form an area of c. 15,000m².²⁷

The FN/LCh Phase I habitation has been built on the bedrock and included long-wall stone foundations.²⁸ The LCh Phase II included free-standing, round and apsidal buildings (diameter 3.8–5.5m).²⁹ Phase III revealed parts of rectangular houses with stone foundations and two storage buildings. A stone-constructed, round storage building (internal diameter 1.50m, external 2.10m) was divided in two parts by a stone wall, and its floor was covered with stone slabs and pebbles (Fig. 2B).³⁰ The second storage building was rectangular (2.10 × 1.60m) and similar in construction to the round storage building.

The pottery production of Phase I includes dark burnished, rolled rim bowls, small pyxides with pressed bodies and tunnel lugs and baking pans (i.e. cheese pots), that are not known from Poliochni Black but known from Kum Tepe IB-3. The assemblage also contains bowls with vertical rims and carination, carinated bowls with out-turned rims and tunnel lugs that are well known from the earliest stage of Poliochni Black.³¹ The pottery of Phases II and III comprises coarse storage jars and jugs with red-burnished surfaces, dark-burnished shallow bowls with out-turned rims, carinated bodies and horizontally pierced lugs below the rim, footed bowls, rolled rim bowls with or without horizontal tubular handles, hemispherical cups with one or two loop handles, and jugs with white, linear painted decoration.³² Based on the architecture and pottery the habitation at Myrina is contemporary with Poliochni Black and points to homogeneity in material culture and economy that extends from the east to the west part of Lemnos.

Samos

Archaeological research on Samos so far has only revealed five prehistoric settlements located in the only extensive, fertile plain of Samos. This plain is located in the south part of this extremely

²³ Dova 1997, 289–292, drawing 2α–2γ. For a summary of old rescue excavations at Richa Nera with a bibliography see Kouka 2002, 21–22. In a more recent study the excavator undertook a new periodisation for the settlement at Richa Nera (Dova 2003, 101–108, figs. 1–2). According to this, Phase I comprises features earlier but also similar with the earliest Poliochni Black, and was renamed as Phase 1 (Dova 2003, 105–106). Phases II–III contain material similar with Poliochni Black and were renamed as Phase 2 (Dova 2003, 106–108).

²⁴ Dova 1997, 284–285, drawings 2α–2β, 3–6; Dova 2003, 101–108, figs. 3–4.

²⁵ Dova 1997, drawings 2α–2γ, 10, fig. 5–7. Dova 2003, 108–109, fig. 5 renamed this phase Phase 3. It is contemporary with Poliochni Blue (EB I).

²⁶ Dova 2003, 108–116.

²⁷ Dova 2003, 108–116, fig. 2; Archontidou – Kokkinoforou 2004, 12–13, 18–19, 20, 101; Philaniotou 2010, figs. 1, 4–10.

²⁸ Dova 1997, 284–289 figs. 2a–b, 3, drawings 3–6; Dova 2003, 101–103, fig. 3.

²⁹ Dova 1997, 289–290, drawings 2α, 2γ, 7–8.

³⁰ Dova 1997, 290–291, drawings 2α–2γ, 9, fig. 3. At least eleven EB I round storage buildings were found during rescue excavations at Androni, east of the peninsula of Meteorologikos Stathmos, and were dated to the Poliochni Blue Phase. However, coarse pottery and clay figurines of Poliochni Black were also noted within the same area (Acheilara 1999, 764, figs. 41–42).

³¹ Dova 2003, 101–102, fig. 3.

³² Dova 1997, 289–290, drawing 7 (Phase II), 291–292, drawing 9, fig. 4 (Phase III); Dova 2003, 106–108, fig. 4.

mountainous island.³³ According to this evidence prehistoric habitation on Samos dates back to the LN and FN or Ch as displayed by stratified levels on the Kastro-Tigani Peninsula at Pythagoreion (Ancient Samos).³⁴ New evidence north of the Sacred Road of the Sanctuary of Heraion, 7km west of Pythagoreion, shows that Tigani, at least during the LCh, was not the only settlement in the expansive plain of Pythagoreion, opposite of the Maeander Delta.³⁵

Kastro-Tigani

The LN I–Ch settlement at Kastro-Tigani (Phases I–IV) was excavated by W. Wrede (1928–1930), and U. Jantzen (1967–1968).³⁶ The material was studied systematically and published by R. Felsch.³⁷ Tigani I–III dates to the LN, while Tigani IV with subphases a–b to the LCh.³⁸

Tigani IV lacks architecture, but some stone paved areas and stone concentrations occur.³⁹ The pottery includes forms in coarse wares such as baking pans (cheese pots),⁴⁰ open storage jars,⁴¹ amphorae and tripod cooking pots with flat feet that are roughly rectangular at the ends.⁴² The latter ones typically comprise of a thick brown or red burnished slip. Besides burnishing, pots were decorated with white paint on a dark burnished surface, and less frequently with fine, densely arranged holes.⁴³ A specific type of amphora imitates the Early Cycladic I (henceforth EC) *kratiriskoi* that were also found at the cemetery of Iasos.⁴⁴ Tigani IVa included medium coarse, red polished bowls with an S–profile and out turned thickened rims with vertically, pierced lugs and bowls with black pattern burnished decoration.⁴⁵ In Tigani IVb brown polished conical bowls, wide mouthed jugs and amphorae with white, linear decoration dominated.⁴⁶ In this phase, beakers with flat bases and horizontally pierced vertical lugs make their appearance in clay⁴⁷ and marble,⁴⁸ apparently imitating EC I marble beakers found in EC I graves, as well as beakers found at the EB I cemetery at Iasos.⁴⁹ Furthermore, pointed marble beakers⁵⁰ that are mainly known from LCh Kephala on Keos and the marble workshop at Kulakzıslar near Izmir⁵¹ were also found. Similar conical beakers were also observed at the 4th millennium sites of coastal and inland western Anatolia (Liman Tepe VII, Kumtepe, Gülpınar, and Demircihöyük).⁵²

³³ For a catalogue of the so far known prehistoric sites and comments on settlement patterns of Samos see Kouka 2002, 280–284, maps 28–31.

³⁴ Felsch 1988.

³⁵ Kouka 2013, 575–576.

³⁶ Wrede 1935–1936; Jantzen 1968; Kouka 2002, 280.

³⁷ Felsch 1988.

³⁸ Felsch 1988, 38–40, 124–129, tab. 2. For Tigani and its cultural correlations with western Anatolia see also Schoop 2005, 238–241.

³⁹ Felsch 1988, pls. 8.5; 9.1.

⁴⁰ Felsch 1988, pl. 40.2–3.

⁴¹ Felsch 1988, pl. 33.1–2.

⁴² Felsch 1988, pls. 40.4 nos. 417, 419–420; 42.1–3, 5; 43.3–4; 60.

⁴³ Felsch 1988, pl. 40.4 no. 421.

⁴⁴ Felsch 1988, pls. 40.7; 43.5–6. Cf. Pecorella 1984, fig. 6.35–36; Şahoğlu – Sotirakopoulou 2011, 244 cat. no. 29.

⁴⁵ Felsch 1988, pls. 38.1–8; 68.359–368; 59.206, 209, 228.

⁴⁶ Felsch 1988, pls. 39, 41, 69.

⁴⁷ Felsch 1988, pls. 59, 70.427.

⁴⁸ Felsch 1988, pl. 75.V20, V22, V27, V28.

⁴⁹ Pecorella 1984, 55, fig. 10, pl. XXXVII.138; Şahoğlu – Sotirakopoulou 2011, 244, cat. no. 27 (Panayia, Paros), 286, cat. no. 187 (Iasos).

⁵⁰ Felsch 1988, pl. 75.V23, V24, V26.

⁵¹ Kephala and Kulaksızlar: Takaoğlu 2005, pl. 30/211, 213 (Kephala); Takaoğlu 2011, 158–160, figs. 3–4; Şahoğlu – Sotirakopoulou 2011, 283–285, cat. nos. 176–186.

⁵² Kouka 2009, fig. 5; Şahoğlu – Sotirakopoulou 2011, 282, cat. nos. 174–175 (Liman Tepe VII); Takaoğlu 2005, pl. 30/217 (Kumtepe), 30/218 (Gülpınar), 30/219 (Demircihöyük).

A Kiliya type marble figurine⁵³ is also of importance, a type that was produced among others at the marble workshop at Kulaksızlar.⁵⁴ A clay ring pendant,⁵⁵ a well-known type of the LN and FN on mainland Greece, the Cyclades and Crete⁵⁶ is also a significant find. Finally, blades and leaf-shaped arrowheads made of obsidian from Melos abundantly occur.⁵⁷

The aforementioned material chronologically corresponds with Emporio VII–VI, Liman Tepe VII–later phases,⁵⁸ Beysesultan LCh 2–4,⁵⁹ Attica–Kephala Culture and the early Rachmani Period.⁶⁰ While the pottery production is typical for the east Aegean, the marble vessels, the obsidian and the ring pendant indicate contacts with the neighbouring Cyclades. Moreover, the Kiliya figurine substantiates the cultural interaction with the western Anatolian coast, and was probably imported to Tigani due to its symbolic and prestigious value.⁶¹

In contrast to the majority of the LCh sites in the east Aegean and western Anatolia that were continuously inhabited though the 3rd millennium BC (EB) Tigani was abandoned before the end of the 4th millennium BC.

Heraion

Heraion was one of the most glorious sanctuaries of Ionia, dedicated to the goddess Hera, and located on the southern coast of Samos, which is the biggest, most fruitful and best watered plain of the island. Since 1911, excavations of the Deutsches Archäologisches Institut (DAI) have brought to light impressive buildings and votive offerings from the Sanctuary of Hera which date from the Early Iron Age through the Late Roman periods (1050 BC–400 AD).⁶²

Prehistoric Heraion extended on a flat area between the two main branches of the Imvrassos River encompassing 35,000m² and was the biggest EB island settlement in the east Aegean,⁶³ as published excavations in the 1950s by V. Miložčić⁶⁴ and unpublished ones by H. Walter⁶⁵ and the 1960's by H. Isler,⁶⁶ in the area of the Temple of Hera indicate. The EB phases Heraion I–V, as defined by Miložčić, were synchronous with Troy II–Troy IV (c. 2500–2000 BC).⁶⁷ Architecture dating to Heraion I and possibly even earlier was found beneath the Late Roman settlement north of the Sacred Road of Heraion in 1981 by H.-J. Weisshaar and is only known from a short preliminary report.⁶⁸ The latter finds led to systematic investigations of the prehistoric habitation north of the Sacred Road. Excavations were conducted by the University of Cyprus under the direction of the author, within the framework of a joint project with the DAI between 2009 and 2013.

⁵³ Felsch 1988, pls. 46.7–8; 85.V12.

⁵⁴ Takaoğlu 2005, pl. 37; Şahoğlu – Sotirakopoulou 2011, 286, cat. nos. 191–196; Takaoğlu 2011, 162, fig. 6.

⁵⁵ Felsch 1988, pl. 47.8.

⁵⁶ Zachos 2010, 88–89, figs. 4; 8γ–δ; 9.

⁵⁷ Felsch 1988, pls. 47.6; 87.1–2 (obsidian arrowheads); 88.68–73 (obsidian blades).

⁵⁸ Kouka 2009, 143–144, fig. 5.

⁵⁹ Lloyd – Mellaart 1962, 111, fig. P.2–P.13.

⁶⁰ For the Aegean LN–FN chronology see Papadimitriou – Tsirtsoni 2010, 14–15.

⁶¹ For prestige objects in the LN–FN in the Aegean and the existence of a symbolic code see Kouka 2008, 313–315, fig. 27.1.

⁶² Walter 1976; Tsakos 2003.

⁶³ Kouka 2002, 285, diagramme 2, plan 45; Kouka 2013, online open access image gallery fig. 1 on <<http://www.ajaonline.org/forum-article/1660>> (last access 20.11.2014).

⁶⁴ Miložčić 1961. A special study of the settlement of Heraion within the wider north and east Aegean see by Kouka 2002, 285–294, plans 45–55.

⁶⁵ Walter 1963, 286–289.

⁶⁶ Isler 1973.

⁶⁷ Miložčić 1961, 58, 64–67, fig. 3.

⁶⁸ Kyrieleis et al. 1985. The final publication will be undertaken by O. Kouka and S. Menelaou.

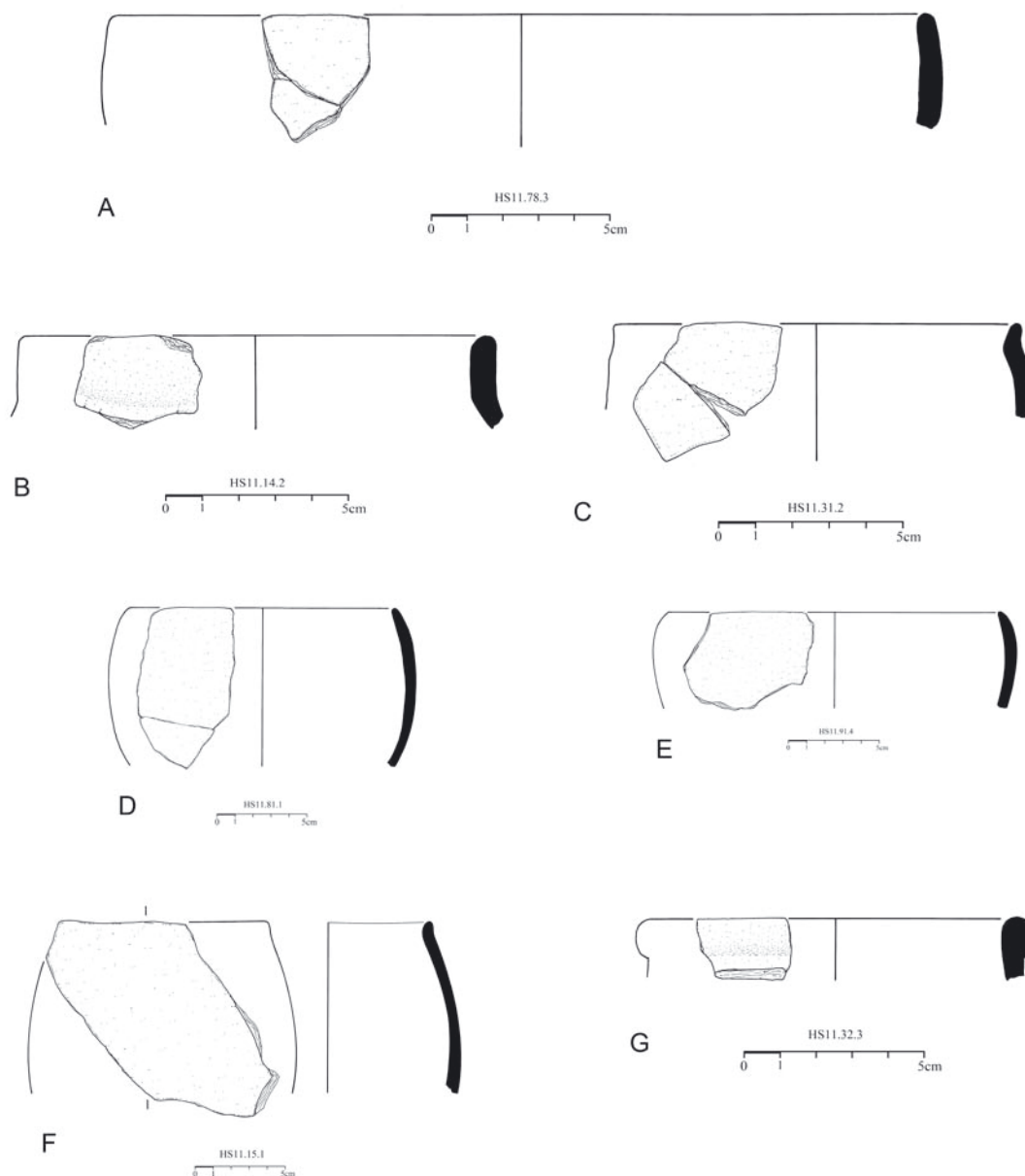


Fig. 3 Heraion. Open pots of the Late Chalcolithic period (drawings: A. Kontonis).

Heraion-Late Chalcolithic

In trenches excavated between 2009–2013, north of the Sacred Road, directly north of the 1981 excavation, stone foundations belonging to long-room rectangular houses with one to two rooms constituting five successive phases of the earliest, so far unknown settlement core of Heraion were exposed. Most of the architecture was located within the ground water level.⁶⁹ The foundations date to the Phase Heraion I and earlier, namely to the early EB II and EB I (EB 1–5) (c. 3200–2500 BC).⁷⁰ A sixth cultural level, dating to the LCh, located directly on sterile soil among

⁶⁹ Niemeier – Kouka 2011, 105; Niemeier – Kouka 2012, 100–101.

⁷⁰ Niemeier – Kouka 2010, 113, figs. 15–16; Niemeier – Kouka 2011, 104–105, figs. 17–18; Niemeier – Kouka 2012, 100–101, fig. 21; Kouka 2013, 575–576 and online open access image gallery fig. 1 on <<http://www.ajaonline.org/>

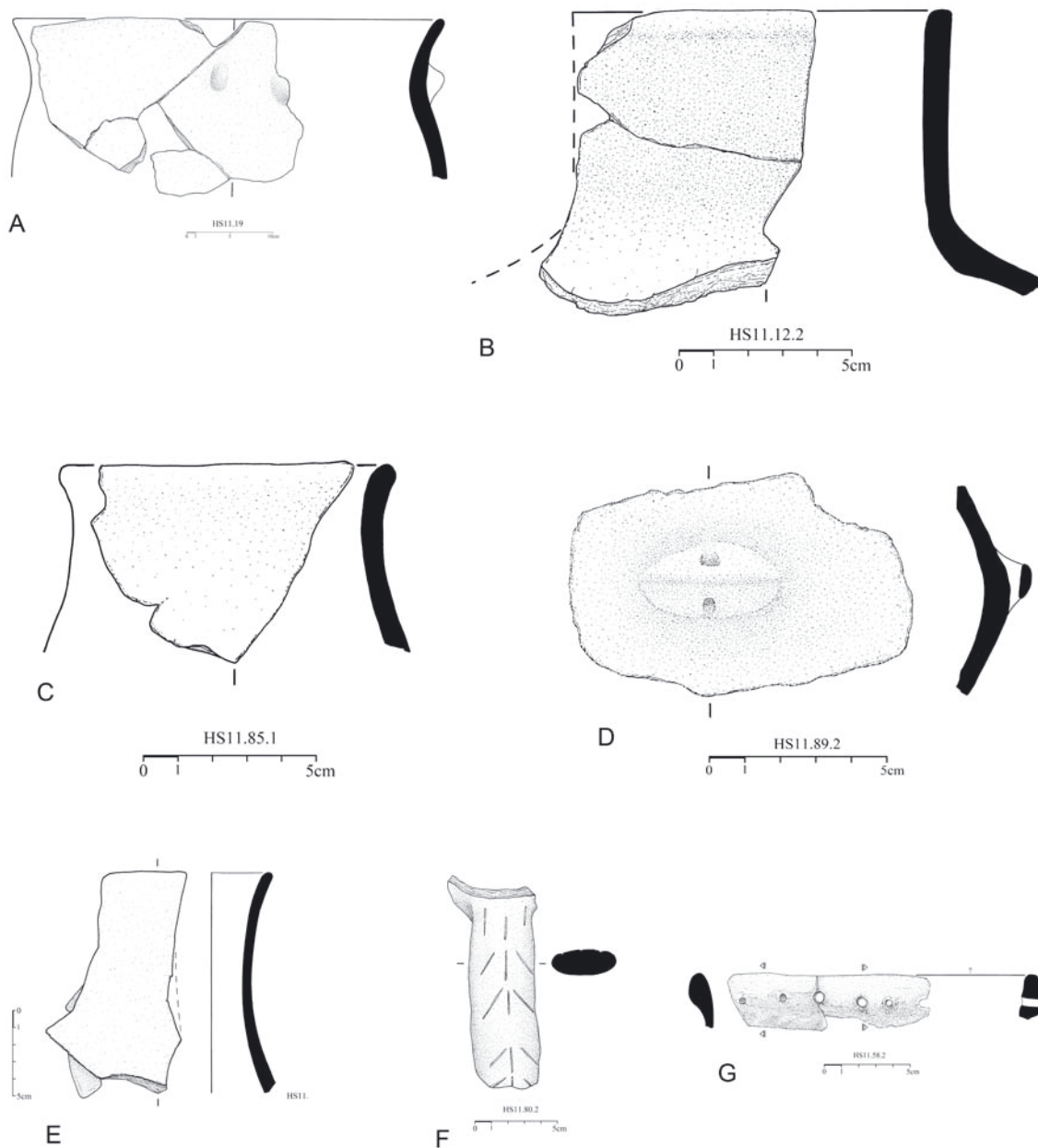


Fig. 4 Heraion. Closed pots and a baking pan of the Late Chalcolithic period (drawings: A. Kontonis).

and below the EB I–II walls (0.20m below sea level) was investigated in 2011.⁷¹ Further LCh finds were discovered in 2013 on the sterile soil (0.11 and 0.37m below sea level) on which the east part the EB III (Heraion V) and the MB (Heraion VI) stone enclosures/fortification walls were established, some meters north of the EB levels mentioned above. Based on the erection of stone enclosures/fortifications and the documentation of the periodically flooded east branch of the Imvrassos River we may assume that the LCh settlement was extending west of the river and directly to the coast.

forum-article/1660> (last access 20.11.2014). The description EB 1, 2 etc. displays the numbering of the successive architectural phases in these trenches and not their classification in the cultural phases EB I, II and III.

⁷¹ Niemeier –Kouka 2012, 100, fig. 21.

The LCh architecture was severely destroyed by the river floods and by the deep foundations of the EB I–II walls. As a result, no walls of the LCh were found, however house remains including roof clay and roof beams, as well as parts of floors made of fine sea pebbles or limestone slabs. Due to the rapid rise of ground water, excavation conditions were desperate – despite the continuous use of water pumps.

Pottery was in its vast majority produced by clay with organic and limestone and quartz inclusions.⁷² The assemblage includes orange, reddish brown to black coated and/or burnished hemispherical bowls with thickened rim, bowls with rolled rims, deep bowls with inverted or everted rims,⁷³ bowls or pyxides with vertically pierced lugs,⁷⁴ deep bowls (Fig. 3),⁷⁵ cut away spouted jugs – some also with incised decorated handles –,⁷⁶ collar-necked jars with narrow vertical or everted rims and unpierced lugs,⁷⁷ as well as tripod cooking pots⁷⁸ and cooking pans (cheese pots) (Fig. 4).⁷⁹ Observations on the surface treatment can be hardly made, because the pottery was waterlogged. Therefore, no pattern burnished or white painted decoration could be distinguished. However, the pottery is comparable with those found at the neighbouring settlement at Tigani IVb,⁸⁰ at Emporio VII–VI, Liman Tepe VII, Bakla Tepe and Miletus I.⁸¹

Among the few small finds some pierced rounded pottery sherds indicate weaving. The stone finds included two stone weights and chipped stone and obsidian blades and flakes. The obsidian could be macroscopically identified as Melian. Finally, the most important LCh small find, is a marble artefact, a stray find from the 1981 excavation. This marble artefact represents a schematic head for the body of a clay figurine (*Steckidol*),⁸² a well-known figurine type in the FN of Thessaly.⁸³

Habitation at Heraion, north of the Sacred Road, continued until the mid-3rd millennium BC. The 1981 and 2009–2013 excavations exposed parts of the EB settlement consisting of long rectangular houses and a communal storage facility.⁸⁴ The settlement was fortified with a stone-built fortification supported by a stone ramp; rectangular bastions flanked its gate.⁸⁵ This new settlement planning signifies new political, economic and social structures at the end of the LCh, as it was also the case at Poliochni and Myrina on Lemnos, Emporio on Chios, Liman Tepe and Bakla Tepe. In the mid-3rd millennium BC, the settlement became much larger and extended to the west up to the area of the Temple of Hera. It was also protected with a new fortification wall, included communal buildings and developed into a local centre in the south part of Samos opposite to the Maeander Delta.⁸⁶

⁷² Systematic study of the pottery is currently in progress. Therefore, these observations have a preliminary character. The material presented in this article was drawn by A. Kontonis and photographed by C. Papanikolopoulos.

⁷³ Felsch 1988, pls. 38.361; 45.5; 65.299; 67.352.

⁷⁴ Cf. Felsch 1988, pls. 69.398; 71.438.

⁷⁵ Cf. Felsch 1988, pl. 72.456–458.

⁷⁶ Cf. Hood 1981, pls. 50.811; 51.640–641.

⁷⁷ For the form of the neck cf. Felsch 1988, pl. 70.408–411.

⁷⁸ Cf. Felsch 1988, pl. 70.417.

⁷⁹ Cf. Felsch 1988, pls. 40.2–3; 70.424–425.

⁸⁰ Felsch 1988, pls. 59–60.

⁸¹ Şahoglu – Tuncel, this volume 65–82. For the pottery of Miletus I, see below 53–56.

⁸² Kyrieleis et al. 1985, fig. 42.1.

⁸³ Papadimitriou – Tsirtsoni 2010, 116, cat. no. 18; Treuil 2010, 60, fig. 8.

⁸⁴ A part of this building was excavated in 1981: Kyrieleis et al. 1985, 412, figs. 35–36 (Bauphase 2); Kouka 2002, 286. In 2009 and 2010 a further part of its destruction level was investigated: Niemeier – Kouka 2011, 104–105, figs. 17–18.

⁸⁵ Kyrieleis et al. 1985, 412–413, figs. 35–37a (Bauphasen 1, 3).

⁸⁶ Kouka 2002, 294, plans 50, 52, 54; Kouka 2013, 575–576 and online open access image gallery fig. 1 on <<http://www.ajaonline.org/forum-article/1660>> (last access 20.11.2014).

Miletus

Miletus is located on the mid coast of the western Anatolian littoral, at the delta of the Maeander River and opposite Samos Island. Palaeogeographic investigations undertaken by H. Brückner, from the Department of Geography of the University of Marburg, in the area of the Temple of Athena showed that during the LCh (3500–3200 calBC) the site was not covered by the sea, therefore, well suited for settlement activities.⁸⁷ Around 2500–2000 calBC, during the late EB II and the EB III, the local sea level in the Latmian Gulf reached its highest position (about 1.30m below sea level) and created an archipelago-like coastal landscape. A similar pattern is evident on the southern fringe of the Lion Harbour embayment, around the later Sanctuary of Apollo Delphinus, where shallow marine sediments cover cultural debris from the LCh.⁸⁸ Therefore, the habitation of the LCh was extended to two small islands located 300 to 400m from the coast.⁸⁹

Excavations in the area of the Temple of Athena, directed by B. and W.-D. Niemeier from 1994–2004, brought to light six successive architectural levels dating from the LCh through the LB.⁹⁰ Due to the high water table level excavation was only possible by using the Well-Point-System to pump the ground water out of the trenches. Miletus I dates to the LCh and Miletus II to the late EB II–III. Stray finds indicate that the LCh habitation was extending in the areas of Delphinion, under Heroon III and west of the Bouleuterion.⁹¹ Between 3000 and 2500 BC the LCh settlement in the area of the Athena Temple was flooded by the sea and people had to move to higher grounds during the EB I and the early EB II. The area of the Temple of Athena was resettled at 2500 BC, when this area turned into an island once more.

Athena Temple-Miletus I

The oldest excavated in situ finds from Miletus included only a stone-built circular storage structure divided in two parts (diam. 1.40m, 40cm deep) (Fig. 2C), with postholes cut into the bedrock and two terrace walls.⁹² Circular storage buildings are typical in the east Aegean, as noted above, in the case of Myrina and Liman Tepe VII,⁹³ as well as wattle-and-daub technique.⁹⁴ However, the distribution of pottery over the entire area of excavation indicates an intensive use of this area during the LCh.

Coarse wares include light brown to red coated, medium to hard fired pots, such as baking pans (cheese pots),⁹⁵ tripod cooking pots with legs with rectangular ends,⁹⁶ and *pithoi* (Fig. 5).⁹⁷ Medium coarse wares consist of light brown, red and black burnished, hard baked pots, such as shallow conical bowls with vertical lugs,⁹⁸ deep bowls with interiorly thickened rims (Fig. 6), spouted jugs and amphorae with band handles either plain or with plastic knobs.⁹⁹ Fine wares include red and grey, light polished bowls and little pyxides with vertical pierced lugs (Fig. 6G).¹⁰⁰

⁸⁷ Brückner et al. 2006, 70–71, figs. 1–3, tabs. 1–2.

⁸⁸ Brückner et al. 2006, 75–77.

⁸⁹ Niemeier 2000, 125.

⁹⁰ Niemeier – Niemeier 1997; Niemeier 2000; Niemeier 2007; Kouka 2013, 574–575.

⁹¹ Voigtländer 1981; Voigtländer 1982; Parzinger 1989; Niemeier 2000, 125.

⁹² Niemeier – Niemeier 1997, 241, fig. 81a; Niemeier 2000, 125–126, figs. 2–3; Niemeier 2007, 6–7, pl. 1.1–2.

⁹³ Myrina: Dova 1997, 290–291, drawing 2 α –2 γ , 9, fig. 3. Liman Tepe: Kouka 2009, 143; Şahoğlu – Tuncel, this volume 65–82.

⁹⁴ Şahoğlu – Tuncel, this volume 65–82.

⁹⁵ Cf. Felsch 198, pls. 31.280; 70.424.

⁹⁶ Cf. Felsch 1988, pl. 40.417–420.

⁹⁷ A petrographic and chemical analysis of the LCh–EB pottery is currently being conducted by C. Knappett and J. Hilditch.

⁹⁸ Cf. Felsch 1988, pl. 69.389–391.

⁹⁹ Cf. Liman Tepe: Şahoğlu – Tuncel, this volume 65–82, and Çine-Tepecik: Günel, this volume 83–104.

¹⁰⁰ Niemeier – Niemeier 1997, 241, fig. 81a.

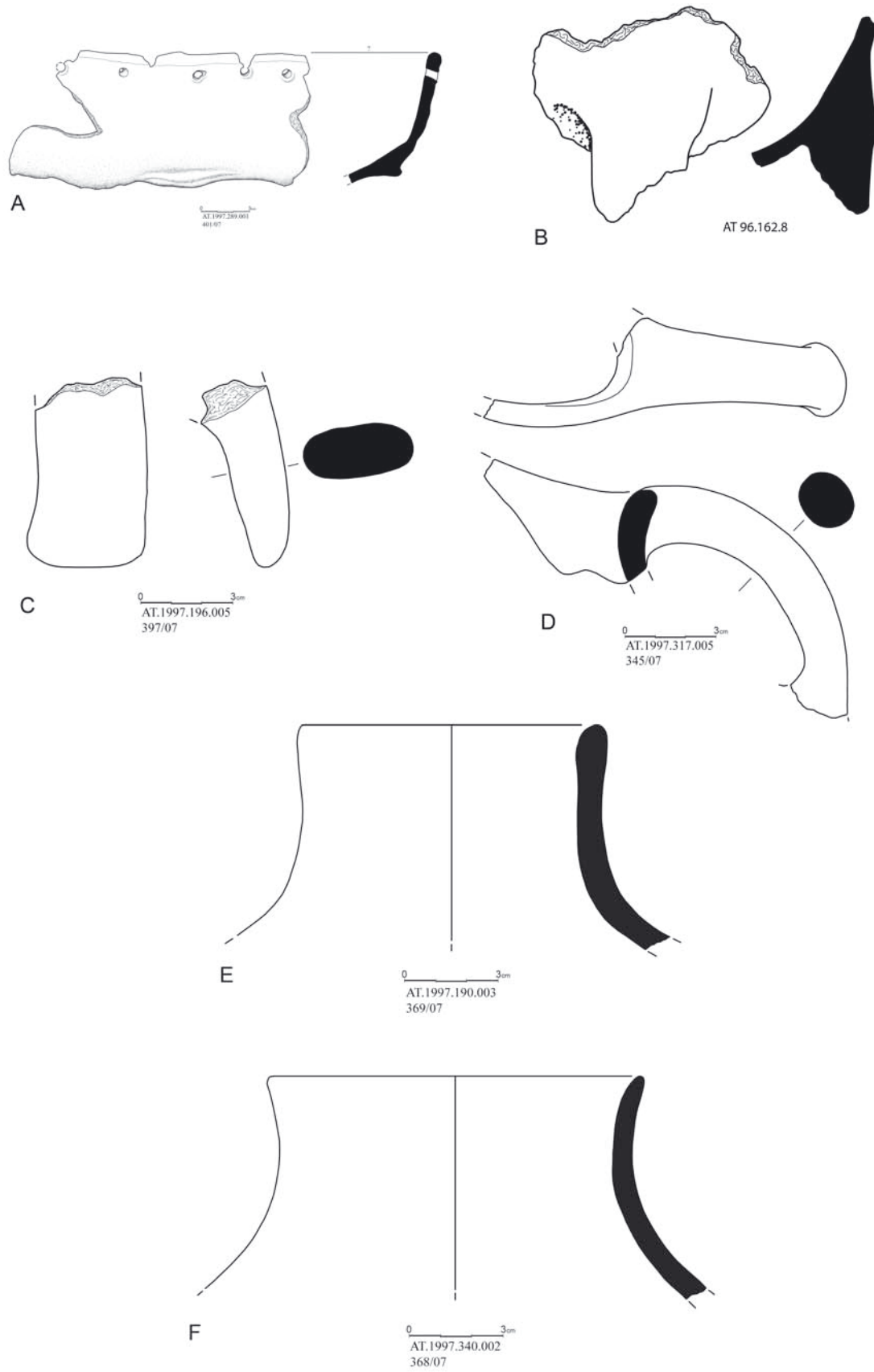


Fig. 5 Miletus I. Baking pan, tripod cooking pots, spouted jug and jars of the Late Chalcolithic period (drawings: D. Faulmann – B. Konnemann – E. Damaliti).

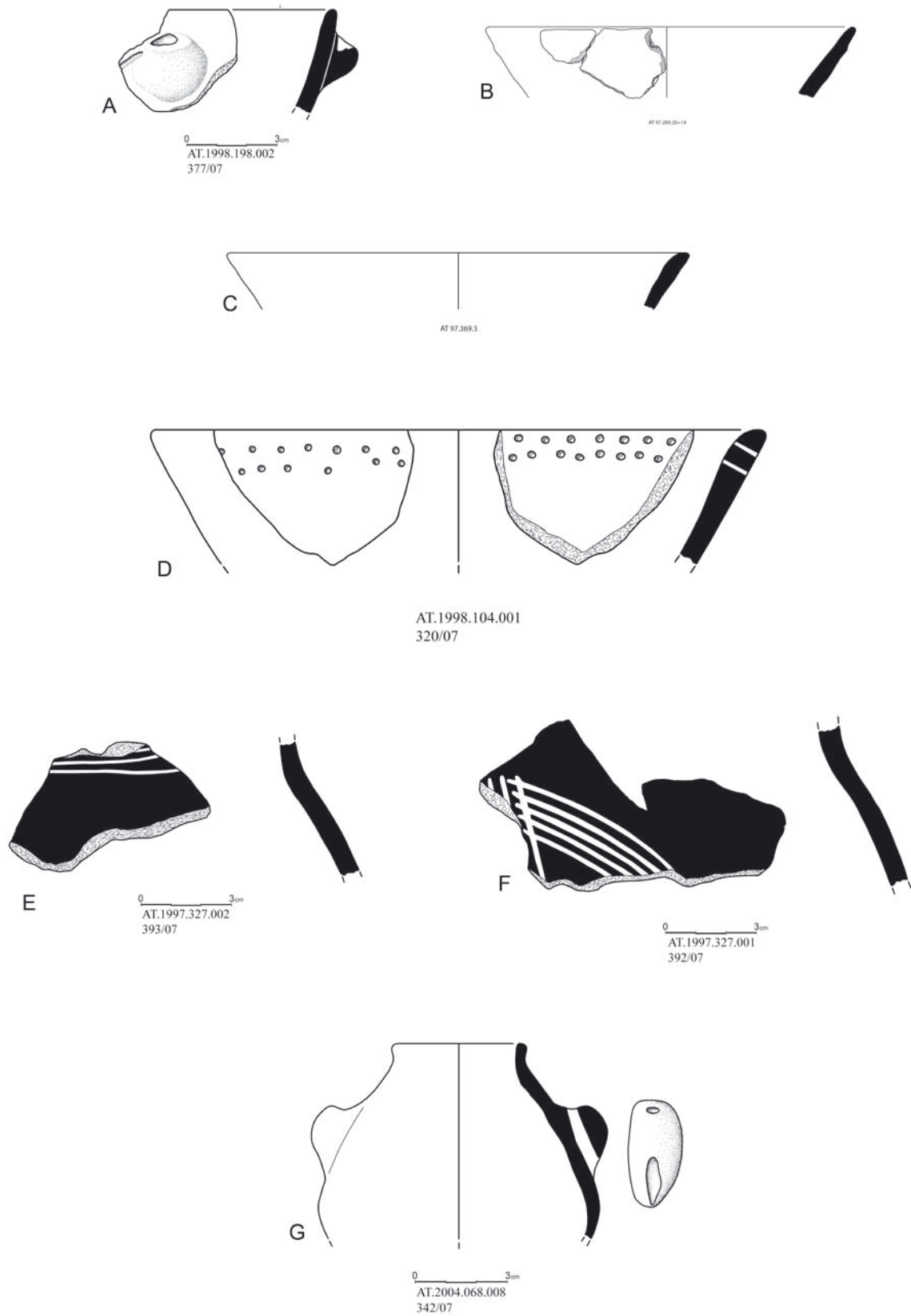


Fig. 6 Miletus I. Bowls, amphorae with white painted decoration and a pyxis of the Chalcolithic period (drawings: D. Faulmann – B. Konnemann – E. Damaliti).

Finally, decorated wares include coarse and fine wares with incised, pointed (also with multiple small holes) (Fig. 6D),¹⁰¹ as well as highly dark burnished jugs and amphorae with white painted linear patterns (Fig. 6E–F).¹⁰² The above presented ceramics, most of which are highly calcareous with organic inclusions, date Miletus I to the Anatolian LCh (Kum Tepe, Liman Tepe VII, Bakla Tepe) or to the final stage of the Aegean FN (Poliochni Black Phase, Tigani IV, Heraion-LCh).¹⁰³

Numerous Melian obsidian blades¹⁰⁴ indicate close contacts of Miletus I with the Cyclades.¹⁰⁵ Obsidian artefacts were also found in the area of Heroon III,¹⁰⁶ as well as in the wider vicinity of Miletus at Kiliktepe, Mengerevtepe (Assessos), Mersim Dere by Panormos and Altinkum Plaji.¹⁰⁷ Melian obsidian was found not only in the western Anatolian littoral, for example in Liman Tepe VII, Bakla Tepe¹⁰⁸ and Malkayası Cave,¹⁰⁹ but also inland, as LCh finds from Beycesultan, Aphrodisias,¹¹⁰ and more recently from Çine-Tepecik indicate.¹¹¹ The extremely high percentages of Melian obsidian in Aphrodisias and Beycesultan suggest that Miletus had a key role in the contacts between the Aegean and inland Anatolia during the LCh (but also in the EB),¹¹² and may well have been the main distributor of Melian obsidian at least in the valley of the Maeander. If so, Tigani and Heraion were apparently the last insular links in the obsidian trade from Melos to the inland of western Anatolia via Miletus.

The settlement of Miletus was located beyond the island of the Temple of Athena during the EB I–II/early. The area was resettled during the EB II/late–III.¹¹³ Despite the extremely limited evidence of Miletus II, ceramics of high quality, e.g. depas cups used by the local elites, Early Minoan II–III and Early Cycladic III imports, and a possible symbolic context with five Anatolian schematic marble figurines, and one of the early EC II Dhokathismata types,¹¹⁴ indicate the existence of a flourishing settlement with evolved social and economic structures between the Aegean and the Anatolian world in late EB II–III Miletus.¹¹⁵

Discussion and Conclusions

The archaeological evidence from the settlements at Poliochni, Myrina, Tigani, Heraion and Miletus and further data from older and previously published excavations in the east Aegean islands and western Anatolia,¹¹⁶ as well as data from more recent excavations presented in this volume display a good background for outlining the main cultural aspects of the 4th millennium BC.

On the islands there are coastal sites, located on either low peninsulae (Poliochni, Myrina, Tigani, Emporio) or coastal plains (Heraion). They are more (Poliochni Black, Myrina II–III,

¹⁰¹ Cf. Felsch 1988, pls. 40.421; 70.421.

¹⁰² Niemeier 2000, fig. 3. Cf. Felsch 1988, pls. 41.459–460; 69.390.

¹⁰³ For comparisons with Tigani IV and Heraion-LCh see above.

¹⁰⁴ The provenance of obsidian was identified by M. Bichler, Institute of Atomic and Subatomic Physics, University of Vienna. The obsidian artefacts were studied by Katja Focke, University of Mainz, whereas the obsidian is being furthermore analysed by Vassilis Kilikoglou, Demokritos Archaeometry Laboratory at Athens.

¹⁰⁵ Niemeier 2000, 126, 134, note 13.

¹⁰⁶ Parzinger 1989, 421–423, fig. 4.1–9.

¹⁰⁷ Niemeier 2000, 125, 134, notes 8–10.

¹⁰⁸ Horejs et al. 2011, 48–50, fig. 11; Kolankaya-Bostancı 2011, fig. 1B.

¹⁰⁹ Peschlow-Bindokat – Gerber 2012, 74–75, fig. 40.

¹¹⁰ M. J. Blackmann in Joukowsky 1986, 279–285, tabs 76, 78, 79, fig. 272 reports that in the LCh 1–2 the percentage of Melian obsidian in Aphrodisias was 57%, while in LCh 3 reached 100%.

¹¹¹ Çine-Tepecik: Günel, this volume 83–104.

¹¹² Parzinger 1989, 431; Niemeier 2000, 125–127.

¹¹³ Niemeier – Niemeier 1997, 241, fig. 82; Niemeier 2000, 127–130; Niemeier 2007, 7; Kouka 2013, 574–575, fig. 4.

¹¹⁴ Niemeier 2007, 8, pl. 1.3.

¹¹⁵ Kouka 2013, 574–575, fig. 4.

¹¹⁶ A reconstruction of the chronology of western Anatolia with Emporio and Tigani in the LCh see by Schoop 2005, 248–272, fig. 6.10–11.

Heraion-LCh) or less extensively (Emporio VII–VI, Tigani IVb) and intensively used settlements, based on agriculture and animal husbandry. They consist of successive phases of free-standing, stone or clay, circular, apsidal or rectangular houses and storage buildings (Fig. 2). Similar patterns are present in western Anatolia where small (Kum Tepe, Liman Tepe, Miletus) and big settlements (Bakla Tepe) usually show more than two successive architectural phases.¹¹⁷

Thus far, archaeological evidence does not indicate any communal buildings in the east Aegean island settlements, for example restricted and protected enclosures, as was the case on mainland Greece and the Cyclades.¹¹⁸ The erection of massive terrace walls in Emporio VII–VI that enclosed a street leading to the community well is the only indication of communal effort.¹¹⁹ On the contrary, Strofilas on the Cycladic island of Andros,¹²⁰ which was located on important sea routes for trading metals from Lavrion, Siphnos and Serifos, was fortified and exercised control over the area from Attica and south Euboea up to Siphnos and Paros.¹²¹

The pottery technology is similar in both the east Aegean islands and west Anatolia, as coarse, medium coarse and fine wares are present in both regions. Decorated pottery includes black burnished pottery that was initially decorated with pattern burnish and later with white painted linear patterns.¹²² Cooking pans (cheese pots), simple or tripod cooking pots, conical bowls with pierced lugs below rolled or everted rims, wide-mouthed jugs and amphorae occur in all settlements, despite some expected, local peculiarities.¹²³

Craft specialisation includes in situ specialised production of chipped stone and obsidian (e.g. Liman Tepe VII)¹²⁴ in the majority of the settlements. Melian obsidian was predominantly used, while obsidian from Yiali was used only in the Dodecanese. Unique to western Anatolia is the marble workshop of Kulaksızlar where marble conical beakers and Kiliya type figurines were produced.¹²⁵ Furthermore, in situ copper working thus far is only observed in a few settlements, namely at Yiali located near Nisyros,¹²⁶ at Bakla Tepe and Liman Tepe VII, in the form of crucibles, copper slags and some copper artefacts. Copper artefacts include flat axes, chisels, knives, daggers without rivet holes, miniature tools, and a casted flat axe (Bakla Tepe). Additionally, silver jewellery, i.e. two rings with hatched decoration, from Bakla Tepe and Beycesultan, makes its first appearance in western Anatolia.¹²⁷ The copper used at Bakla Tepe came from its metaliferous vicinity, which was rich in copper, silver, lead and gold. The copper used at Yiali derived from Lavrion in Attica.¹²⁸

There are active trade networks between the east Aegean islands and western Anatolia. Central and southeast Aegean islands, in particular Chios and Samos appear – primarily due to their location – to have been important links of an extensive obsidian sea trade network from the Cyclades to the western Anatolian littoral and its inland. Furthermore, obsidian finds from Emporio, Tigani, Heraion, Kulaksızlar, Liman Tepe, Bakla Tepe, Malkayasi Cave, Miletus, Çine-Tepecik, Beycesultan and Aphrodisias,¹²⁹ point to a well-established obsidian trade network.

¹¹⁷ Şahoğlu – Tuncel, this volume 65–82.

¹¹⁸ E.g. Strofilas on Andros, Palioskala in east Thessaly: see Kouka 2008, 312, fig. 27.1 with bibliography.

¹¹⁹ Hood 1981, 104–111, figs. 57–59, pl. 19.

¹²⁰ Televantou 2008.

¹²¹ Kouka 2008, 313–314.

¹²² For citations see above, under Poliochni, Tigani and Heraion.

¹²³ The same pottery tradition was traced from the north Aegean islands up to the Dodecanese: Sampson 1987, figs. 32–33; Sampson 2006, figs. 209–210 (Caves of Kalythies and Agios Georgios on Rhodes), 219–221 (Partheni on Leros), 226 (Alimnia), 236–237 (Yiali by Nisyros).

¹²⁴ Kouka 2009, 143 fig. 5; Şahoğlu – Tuncel, this volume 65–82. Cf. Kolankaya – Bostancı 2011.

¹²⁵ Takaoğlu 2005; Takaoğlu 2011.

¹²⁶ Sampson 2006, 235, fig. 239.

¹²⁷ Keskin 2011, 145; Şahoğlu – Sotirakopoulou 2011, cat. no. 157; D. Stronach in Lloyd – Mellaart 1962, 291, pls. 4.1; 5.1, 3–4.

¹²⁸ Sampson 2006, 235, fig. 239.

¹²⁹ For citations, see above, under Tigani and Miletus.

Local trade networks were enriched by Kiliya figurines (Tigani, Malkayasi Cave)¹³⁰ and marble conical beakers. Moreover, extensive trade networks brought to the east Aegean islands and western Anatolia conical beakers (Tigani, Liman Tepe), beakers with flat base made from clay and marble (Tigani) and leaf-shaped arrowheads from the Cyclades (Tigani, Heraion, Malkayasi Cave)¹³¹ as well as a marble schematic head of a *Steckidol* (Heraion) of Thessalian tradition and a clay ring-shaped pendant from Mainland Greece and the Cyclades (Tigani). The exceptional exchange and/or imitation of these artefacts may reflect a society with emerging social inequalities in the east Aegean and western Anatolia in the 4th millennium BC. A similar phenomenon was also observed from Macedonia to the Peloponnese and from the Cyclades up to Crete, where a symbolic code emerged in the late 5th and became more pronounced in the 4th millennium BC. This symbolic code is characterised by selected items, such as jewellery made of *Spondylus gaederopus*, clay, copper, gold and silver (e.g. ring-shaped pendants), copper tools,¹³² leaf-shaped arrowheads of Melian obsidian and marble figurines and conical beakers.¹³³

Based on the aforementioned interpretations we can conclude that in the 4th millennium BC a cultural *koine* was established in the east Aegean and western Anatolian littoral, predating the *koine* of the EB outlined at the beginning of this paper. The east Aegean-western Anatolian *koine* of the 4th millennium BC had an agricultural subsistence economy and was, also thanks to the development of ship building technology, in a vital cultural dialogue with the societies of the central and west Aegean. This dialogue fostered obsidian and metal trade, as well as exchange of prestige objects. The 4th millennium BC settlements in our study region began to display social inequalities and seem to have acted as ‘microcosms’, some of which, due to their location on important trade routes, emerged as political and economic micro-regional centres a while before the mid-3rd millennium BC (e.g. Poliochni, Myrina, Emporio, Heraion, Liman Tepe, Bakla Tepe, Miletus). Sea routes, established in the 4th millennium BC were further employed in the 3rd millennium BC and established a complicated net of cultural interaction spheres within the Aegean during this millennium (e.g. mainland Greece and northern Peloponnese with Attica in the EB I, Cyclades and Crete in the EB I/early EB II, west Aegean Cyclades and east Aegean in the EB II, Cyclades with southeast Aegean in the EB III).

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¹³⁰ Peschlow-Bindokat – Gerber 2012, 74, fig. 41 (left).

¹³¹ Peschlow-Bindokat – Gerber 2012, 74, fig. 40.

¹³² For the early metallurgy in the Aegean see Zachos 2010.

¹³³ Kouka 2008, 312–313.

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