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BRONZEZEITLICHER TRANSPORT

AKTEURE, MITTEL UND WEGE



Herausgeber

Bianka Nessel,
Daniel Neumann &
Martin Bartelheim

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Magda Pieniążek, Peter Pavúk, and Ekin Kozal

The Troad, South Aegean, and the Eastern Mediterranean

Long-Distance Connections during the Middle and Late Bronze Age

Keywords: Troy, exchange, communication routes, Anatolian Grey Ware, Cypriot pottery, prestige objects

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Summary

In the Late Bronze Age, Troy and its likely harbour at Beşik-Tepe on the north-eastern Aegean coast, were involved to varying degrees in interregional exchange networks in the Aegean and the eastern Mediterranean, as demonstrated by the imported materials at Troy as well as exported Trojan pottery found in the Levant and on Cyprus. In most cases, raw materials cannot be detected as objects in the archaeological record, and therefore only non-recycled and non-perishable materials are taken into consideration here.

Northern Aegean islands (Samothrace and Lemnos), central Greece, the Argolid, central and south-western Anatolia, Rhodes, and other areas all played important roles in the distribution of goods to Troy. The first detectable contacts started in the Middle Helladic (MH) II period and kept changing partners and character, but Troy definitely became an active agent within the interregional network at the beginning of the Late Helladic (LH) IIIA period (14th cent. BC).

The last part of the paper addresses the communication routes and the organisation of exchange in which the inhabitants of the Troad were involved. It is very likely that the local elites played a considerable role in the course of diplomatic



Fig. 1. Map of the Aegean and West Anatolian sites and regions mentioned in the text.

communication and commercial actions (or both), but the participation of freelance traders cannot be completely ruled out. However, the lack of written sources concerning the north-eastern Aegean hampers more specific assessment.

4. Introduction

Interregional connections and commercial organisation of 2nd mill. southern Aegean (Minoan and Mycenaean) and eastern Mediterranean trade have already been studied by many scholars (e.g. Sherratt/Sherratt 1991; Knapp/Cherry 1994; Mountjoy 1998; Parkinson/Galaty 2007; Pullen 2010; Burns 2010; Zukerman 2010; Tartaron 2013; Papadimitriou 2015). However, the 2nd mill. north-eastern Aegean has not received any thorough analysis from this perspective. In this respect, this paper is aimed at formulating the

crucial questions, highlighting important obstacles hindering the understanding of the correlations, and will put forward some possible hypotheses. First of all, a comprehensive summary of the evidence will be presented (such a collective summary does not exist so far, as the evidence is dispersed in various publications). Furthermore, we bring to the fore some unpublished new data. Contact further north with the Balkans is a separate topic and will not be discussed here (cf. Horejs 2009; Bozhinova et al. 2010).

Our main intention is not to discuss the place of manufacture of those goods, nor the distribution of their *comparanda*, since this has been done in previous studies and is mostly published (e.g. Zurbach 2003; Kozal 2006a; Guzowska 2009; Pavúk 2005; Mountjoy/Mommsen 2006; Pieniżek 2012b; Ludvik et al. 2015; Girella/Pavúk 2016; Pieniżek forthcoming). Instead, we will examine the exchange patterns and mechanisms of the

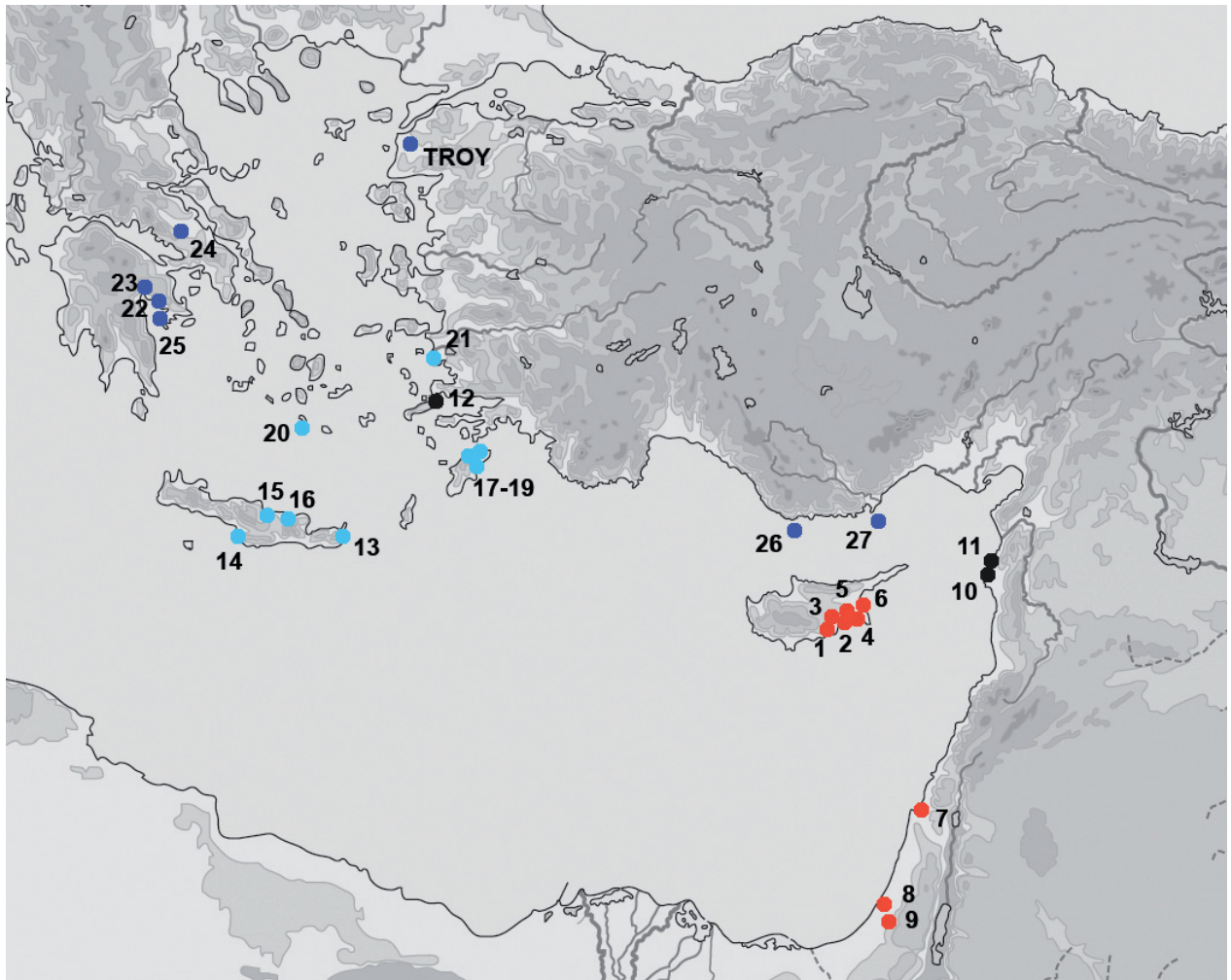


Fig. 2. Map of the Eastern Mediterranean: Anatolian Grey Ware from Troy found in Cyprus and on the Levantine coast (red: confirmed with NAA analysis, black: no NAA analysis/unclear provenance). Cyriot pottery in the Aegean and shipwrecks (light blue: LCI-II, dark blue: LC II). 1: Hala Sultan Tekke, 2: Kition Bambula, 3: Kition, 4: Pyla-Verghi, 5: Pyla-Kokkinokremos, 6: Enkomi, 7: Tel Abu Hawam, 8: Tel Miqne/Ekron, 9: Lachish, 10: Ras Shamra/Ugarit, 11: Minet el Beida, 12: Langada (Kos), 13: Kato Zakros, 14: Kommos, 15: Knossos, 16: Malia, 17: Koumelo Cave in Archangelos, 18: Trianda, 19: Ialysos, 20: Akrotiri, 21: Miletus, 22: Tiryns, 23: Mycenae, 24: Thebes, 25: Point Iria, 26: Uluburun, 27: Cape Gelidonya (background map courtesy of Richard Szydlak).

connections. In addition, the trade routes and the roles of the actors involved (producers, commercial agents, and recipients) will also be taken into consideration. Troy, with its harbour at Beşik-Tepe on the Aegean coast, is a good case study in this respect, as it is one of the largest sites in the region and has provided considerable information throughout its extensive excavation history.

In respect to external contacts, one can geographically identify three different levels: 1) contacts with the immediate hinterland, 2) contacts with the directly adjoining/nearby regions, and 3) long-distance connections. In this contribution, we shall focus on the contacts that led to the arrival of exotic foreign goods (besides the raw

materials) in the Troad, for which the origins are to be sought in the southern Aegean (*fig. 1*), the eastern Mediterranean (*fig. 2*), or even beyond. Therefore, the focus will be on medium and long-distance interactions.

We are aware that the meaning and function of ‘foreign goods’ are in constant flux on the way from the place of manufacture to the destination, during which the material undergoes a complex process of re-contextualisation (Girella/Pavúk 2015, 393; 2016; Pieniżek 2018). Furthermore, goods coming from distant lands were redressed, imitated and influenced the local culture in various ways. This aspect will, however, not be dealt with in the following text, since we want to focus

	Western Anatolia	Aegean High Chronology	Troy	Liman Tepe	Miletus	Cyprus	Central Anatolia
1200	LB 2B	LH IIIB	VIIa	II:2	VI	LC IIC	Hittite Empire Period
1300	LB 2A	LH IIIA	VI Late	II:3	V	LC IIB LC IIA	
1400	LB 1B	LH IIB	VI Middle	Disturbed		IVb	LC I
1500		LH IIA					
1600	LB 1A	LH I	VI Early	III:1-2	IVa	MC III	Old Kingdom
1700	MB 2	MH III		III:3			III
1800	MB 1	MH II	V	III:4	MC I	Ib	
1900				?	IV:1	↓	II (no tablets)

Fig. 3. Comparative chronology of the Aegean, Anatolia, and Cyprus in the 2nd mill. BC.



Fig. 4. Imported Minoan jug in Creamy Bordered Style found in a very early Troy VI context (courtesy Troia Projekt).

on ways and modes of communication, thus not on ‘foreign objects’ as such.

5. The Evidence from Troy and Beşik-Tepe

One can state without exaggeration that there were almost no ‘international’ contacts at the very beginning of the Middle Bronze Age with the north-eastern Aegean. Such trans-regional connections manifested themselves only around the 18th–17th cent. BC (e.g. Pavúk 2005; Kozal 2006a; Guzowska 2009; Pieniżek 2012a; 2012b; Girella/Pavúk 2015; 2016; Pavúk/Pieniżek 2016).

The situation becomes more dynamic during MH II (fig. 3),¹ when we can observe an interesting

¹ For clarity and to have one unified relative time scale, we shall always refer to the internal Trojan chronology (Troy VI Early [VIa, VIb/c], Middle [VI d, e, f], and Late [VIg, h], Troy VIIa and Troy VIIb), as well as to the chronological sequence on the Greek Mainland (Middle and Late Helladic, henceforth abbreviated as MH and LH). When it is appropriate, Cretan and Cypriot phasing is also used (Middle and Late Minoan, abbreviated as MM and LM, Late Cypriot abbreviated as LC). For the latest state of chronological research

rise in activities targeting the north-eastern Aegean. What we see is not a straightforward picture of contact between point A and point B, but a kind of criss-cross pattern. Whereas some sites have more contact with Crete, others are more ‘mainland’ bound and these preferences evolved and changed over time. We see differences island by island, but also site by site on the same island! In this respect, one aspect needs to be stressed: one can look at the contacts from the perspective of Cretans or Helladic mainlanders actively searching for their trade partners, but one can also turn it around and view active approaches by the north-eastern Aegean communities in selecting their overseas partners.

The next major change came in LH IIIA2, simultaneously with the rise of the Mycenaean palaces to full power along with the increasing importance of western Anatolian polities. We shall thus first discuss the evidence covering MH II to LH II/IIIA1 and then LH IIIA2 to LH IIIC Early, marking two major periods of trans-regional communication.

5.1 Troy VI Early and Middle (ca. MH II to LH II/IIIA1, ca. 18th–15th cent. BC)

It is interesting to observe that in many cases, the amounts and quality of ‘foreign’ goods found at Troy are incomparable with the evidence known from the same period on the nearby littoral islands, such as Samothrace and Lemnos, especially when we consider the dimensions of the excavated areas (Girella/Pavúk 2015). In order to paint a fuller picture, the evidence from these nearby islands needs to be very briefly mentioned here as well.

The Cretan Connection

Cretan interest in the northeast Aegean, which likely already existed in the Early Bronze Age (EBA I and II), but ceased towards the end of the

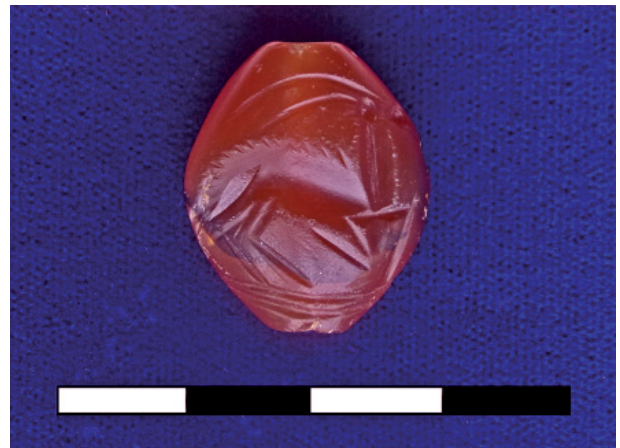


Fig. 5. Carnelian seal with the depiction of a wild goat, executed in ‘cut style’ (LM I–II), found at Troy in a VIIb1 context (Archaeological Museum in Çanakkale, photo M. Pieniżek).

EBA, became invigorated during MM II. It is best visible at Mikro Vouni on Samothrace (Matsas 1993; 2004), and was likely triggered by the protopalatial authorities in Knossos, but we may have hints of contacts between Lemnos and Kommos/Phaistos by the same period as well (van de Moortel 2010). The contacts further developed in MH III, and by LM IA seem to mainly have targeted Koukonisi on Lemnos. Singular finds are also known from the islands of Imbros and Tenedos (all evidence is summarised in Girella/Pavúk 2015; 2016).

The finds from Troy include a few Minoan vessels, both fine pottery (*fig. 4*) and containers (Pavúk 2005; 2014, 217 f.; Guzowska/Pavúk forthcoming), as well as fragments of at least two Minoan-type stone vases (a very typical ‘blossom bowl’ and one not so typical lamp, Warren 1969, 17, 55; Pieniżek 2016, 2, *fig. 1*), and finally one carnelian seal, which was manufactured during LH I–II most probably on Crete (*fig. 5*, CMS V Supplementum 3, No. 455; Pieniżek 2018). However, the stone vessels and the seal were found in later contexts, so that it is not clear when exactly they arrived at Troy. Beyond the finds from the islands and Troy, some new evidence has also come from the excavations at Maydos-Kilisetepé on the Gallipoli peninsula, such as the lid of a Minoan vessel made of serpentine, which seems to belong to exactly the same type as one known from Koukonisi (Boulotis 2009, *fig. 20a*; Sazcı/Mutlu 2018, 146, *fig. 9c–e*).

and the synchronisation between the Greek mainland and the island of Crete, see Manning (2010).



Fig. 6. Aiginetan type of local cooking pots found in the earliest levels of Troy VI (after Pavúk 2014, tab. 112, 114).

Furthermore, a distinctive group of five tall storage stirrup jars from Troy (phase VI_f) with clear Minoan features is datable to LM II–III A1 (Blegen et al. 1953, figs. 330, 408: 4, 7–8, 10–11; Mountjoy 1997, 283–285, fig. 6). The macroscopic analysis of clay and surface treatment and the decorative motifs (Popham et al. 1984, pls. 51a, 52f, 61d–e, 73a–b, d, 74b–c) suggest that the vases may have been imported from north-central or eastern Crete.

Mainland Greek Connections

Direct links with mainland Greece, in the strict sense of imports, are possibly fewer at first, but they are complemented by a far-reaching impact on the local Grey Ware, especially in terms of shapes. A crucial stop must have been again at Koukonisi on Lemnos, where there are examples of matt-painted Magnesia Polychrome Class vessels from southern coastal Thessaly (Maran 1997), along with matt-painted goblets that look akin to ones from Boeotia, as well as fragments of Grey Ware, which on typological grounds look more similar to mainland Greek examples than to Trojan ones (the range of Grey Ware shapes in western Anatolia is limited and very clearly defined). The contexts at Koukonisi range from MH III to LH I (Boulotis 2010).

At Troy, we may not have any identifiable direct imports, but there is evidence for mainland Greek ‘Minyan’ influence on Trojan Grey Ware. This influence can indeed be seen possibly already at the very end of MH II and is certainly present in MH III. It is represented by shapes such as the Lianokladi Goblets, the Pteleon Goblets and the semi-globular cups (deep rounded *kantharoi*?). Typologically, the represented profiles for the rims, handles, and bases of the goblets link the shape clearly not only to central Greece, but even more specifically to the regions of Lokris, Malis, and ancient Phthiotis. Although so far all the sampled pieces for Neutron Activation Analysis (NAA) show a local Trojan origin of production, the link with mainland Greece is undeniable and raises questions (Pavúk 2007; 2010). This link, however, seems to have lasted only a few generations, as by the final MH III phase (Troy VI_{b/c}) all the Aegean shapes in Trojan Grey Ware were replaced by local shapes typical of inland western Anatolia. Interestingly, we see a similar process on the Chalkidiki peninsula (Horejs 2007), as well as in the Izmir region (Günel 1999), which is also supported by the evidence from small pierced clay spools that seem to follow a similar geographical and temporal pattern of distribution, especially in the northern and eastern Aegean (Pavúk 2012).

Regarding the earliest Troy VI phase (VIa = MM III), a group of cooking pots showing surprising similarity to Aiginetan specimens (fig. 6), but with fabric that does not match the Aiginetan spectrum, must also be mentioned (Pavúk 2014, 326–328, fig. 129). While there are only one or two later fragments of Aiginetan Gold Mica Matt-painted pottery at Troy, at Liman Tepe near Izmir, excavations have revealed very good examples of the ware, dating quite early to MH II (Günel 2004).

There seems to have been a gap in contacts with the Greek mainland during LH I, which needs to be stressed, but by LH II, the first imports of Mycenaean pottery had arrived. At first, they are only known from Troy and are not very numerous: from 15 LH IIA fragments to ca. 50 LH IIB pieces and somewhat fewer in LH IIIA1 (all excavations counted, based on work by P. Mountjoy referred to in Pavúk 2014, 218–220). Shapes mostly belong to serving vessels (cups, Vapheio cups, goblets, *askoi*), though squat jugs and piriform jars also do occur. NAA for LH IIA and IIB (Mountjoy/Mommsen 2006, 99, 120) has shown the presence of imports from the Argolid (originally considered to have been produced at Troy), Thessaly, and Aegina. The analysis has, however, shown that Mycenaean pottery was also imitated locally (NAA Group D-Troy) already at this early stage (Mommsen et al. 2001). Importantly, very few pieces of such early Mycenaean pottery have been found along the western Anatolian coast, with the sole exception of Miletus (Mountjoy 1998; Raymond et al. 2016, 64).

Southeast Aegean Connection

Even though the southeast Aegean possibly played a role in the Cretan venture to the north, as the finds from Kos, Miletus, and Iasos illustrate well (Momigliano 2009; Raymond et al. 2016; Vitale 2016), the actual finds that one can link to this region started appearing at Troy on a more regular basis only in LH II (Troy VI Middle) and did not really continue into LH III (Troy VI Late and VII). There are principally two types of finds.

Most eye-catching is a variety of the so-called East Aegean Light on Dark and Dark on Light Wares, known mostly from Kos, but also a number



Fig. 7. East Aegean Light on Dark and Dark on Light pottery found in contexts of Troy VI Middle (after Pavúk 2014, tab. 110).

of other sites (Vitale 2007; Momigliano 2007). Kos must have been the main production centre, and the ware was relatively widely distributed with the most recent addition to the evidence found as far as Messenia (Davis 2015). Both old and new excavations at Troy have yielded some ten to 15 fragments (fig. 7; Pavúk 2014, 216 f.), with several recognisable fabrics, which almost certainly do not all originate on Kos.

Possibly less eye-catching, but better localised, is a pinkish fabric, often with thin whitish wash and very distinctive white accretions within pores visible on the surface, occasionally decorated in dull red paint. This can be almost securely linked with the site of Miletus or its hinterland (Kaiser 2009; Pavúk 2014, 211 f.; Guzowska/Pavúk forthcoming).

Northeast Aegean Connection

Unsurprisingly, the highest amount of imports to Troy stems from the nearby littoral islands. The first imports may date to Troy V (MH I–II); possibly all of the volute handles published by Carl Blegen



Fig. 8. Examples of so-called Island Ware found in the later part of Early Troy VI (after Pavúk 2014, tab. 112–113).

came from Poliochni on Lemnos (Blegen et al. 1951, fig. 249: 1–3, fig. 251: 19, 21; cf. Bernabò-Brea 1976). A distinctive incised and white incrustated ware points to Koukonisi on Lemnos (Blegen et al. 1951, fig. 248: 21; cf. Boulotis 2009). There is not much evidence for imports during MH III, but by LH I, both fine cups and bowls, as well as semi-coarse jugs, dinoi, and amphoroid jars had arrived (*fig. 8*) (Pavúk 2014, 187–192, 209–211, fig. 63, 65, 74a). These island products are represented in several fabrics: some were imports from Samothrace (verified by NAA), others came from a second source, not localised so far, but technologically clearly from the islands. Interestingly, there was also local Trojan production in shapes and techniques known from the islands (again verified through NAA). These imports and littoral island influence in general, started during Blegen’s architectural phase Troy VI b/c (roughly during LH I

or already at the end of MH III) and continued in LH IIA and IIB, when they were complemented by matt-painted pottery in similar fabrics (*fig. 9*). Again, we have not been able to localise these so far, but in terms of fabric and technology, they very closely match the fabrics known from the islands. The import of vessels made in these fabrics, be it matt-painted or undecorated, faded towards the end of Troy VI Middle (LH IIB; *fig. 10*), but there are occasional well-preserved examples even occurring in contexts as late as Troy VIh (LH IIIA2) (cf. Pavúk 2014, 60, fig. 12).

Other Evidence

Beyond the Minoan vessels mentioned above, some other small finds dating to Troy VI Early (MH III/LH I) testify to the presence of far-reaching

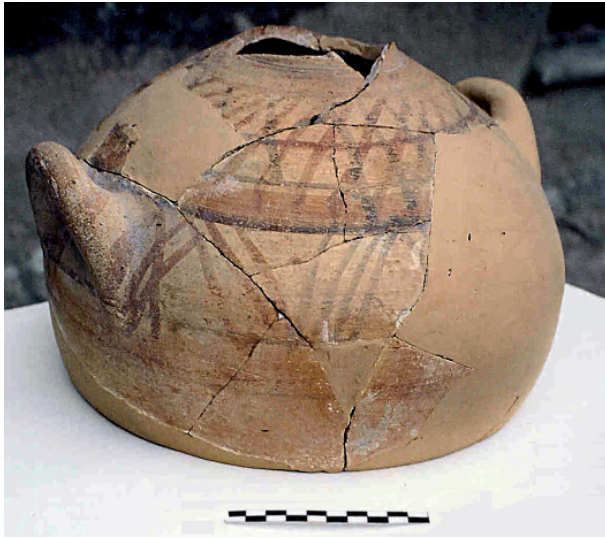


Fig. 9. Matt-painted imported jar found in a Troy VI Middle context, excavated by Blegen (after Pavúk 2014, Abb. 10).



Fig. 10. Imported spouted hybrid jar, likely from the nearby islands, found by Blegen on the floor of House VIF, end of Troy VI Middle (courtesy Troia Projekt).

connections: a dagger with an ivory pommel was found in a grave of an adult, as well as 261 beads made of blue faience, which were deposited together with gold and a rock crystal bead in a child's grave. Such beads were also found by Blegen; they must have come from a similar disturbed child's grave from the vicinity (Blegen et al. 1953, 352 f., pl. 304: 38–118; Easton/Weninger 1993, 55–57, fig. 18; Pieniżek 2012b, 206 f., fig. 1). These objects originated from the eastern Mediterranean or Crete, but the exact place of manufacture is not possible to define.

Singular faience and/or glass beads were found in Troy VI Middle (LH II) contexts, but non-local small finds are otherwise rare. This, however, must not reflect the actual absence of such finds during VI Middle, but rather the types of contexts that have been excavated. For neighbouring sub-periods of Troy VI Early and VI Late (LH IIIA), we have not only settlement finds, but also graves, and in the case of Troy VI Late/VIIa (LH IIIA/B) even one cult context (with numerous pieces of jewellery and other small finds), as well as elite houses within the citadel (with further luxury objects). In contrast, we do not have any similar 'special' contexts from Troy VI Middle, and most of the archaeological evidence comes from the settlement layers directly outside the citadel.

5.2 Troy VI Late–VIIa (ca. LH IIIA–B, 14th–13th cent. BC)

Aegean Connections

The second half of the Late Bronze Age (LH II–IA–B, Troy VI Late–VIIa, ca. 14th–13th cent. BC) brings about important changes. Even though the amounts of LH IIIA1 Mycenaean pottery from both old (Mountjoy 1997; 2008) and new excavations (Mountjoy/Mommsen 2006) is even less plentiful (ca. 30 fragments) than in the LH IIB phase, the range of shapes now includes a wider variety of serving vessels (cups, goblets, kylikes) as well as transport vessels (piriform jars, stirrup jars, alabastra, and small handleless jars). NAA shows again a preference for Argolid ceramics with some new input from Miletus as well (Mountjoy/Mommsen 2006, 99, 120). LH IIIA2 (Troy phase VIIh) is the period with the broadest spectrum of Mycenaean decorated pottery at Troy (*fig. 11*; Mountjoy 1999), with the ratio of decorated Mycenaean pottery reaching ca. 2–3% of all the pottery (based on the quantification in Blegen et al. 1953). The number of shapes increased and now included a large variety of open and closed vessels. Most of the imported pottery still belongs to the Mycenaean/Berbat chemical profile (A-Troy), with just a few identified imports from Boeotia or Central

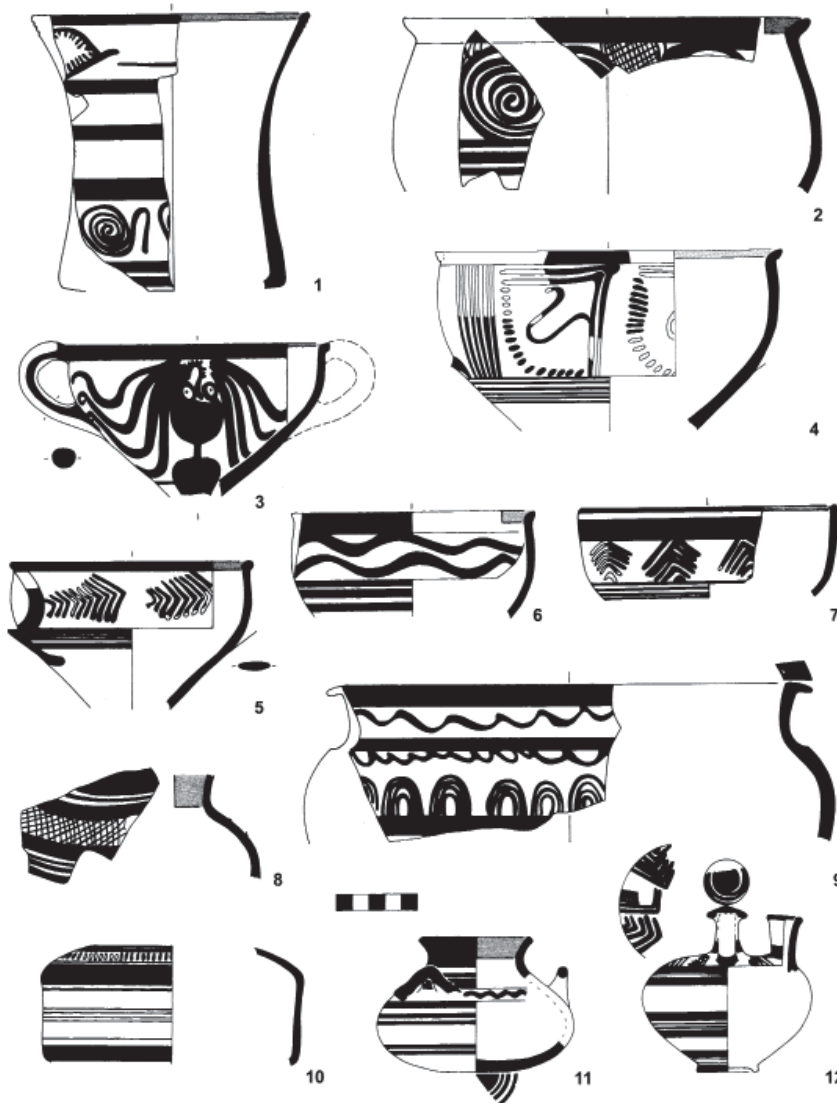


Fig. 11. Examples of LH IIIA2 decorated Mycenaean pottery from Troy (after Mountjoy 1999, fig. 2: 2.7.10; 7: 28; 8: 35; 9: 66.73.77; 12: 107.115.117; Mountjoy/Mommsen 2006, fig. 4: 27).

Greece (four sherds) (Mountjoy/Mommsen 2006, 99, 120). Moreover, Mycenaean pottery was also found in the cemetery of cinerary urns located at the edge of the Lower City (Blegen et al. 1953, 370–390; Mountjoy 1999, 284–288). Furthermore, the potters started imitating Mycenaean shapes in local Anatolian Grey (*fig. 12*) and Tan Wares. Most popular were semi-globular cups, goblets, and kylikes; less popular were shallow angular bowls, piriform jars, and stirrup jars (the biconical type). The ratio of such Mycenaean shapes was a little overestimated by Blegen, and lies, in reality, around 10%, but the exact numbers are not yet calculated (Blegen et al. 1953; Pavúk 2005, 273, pl. 66 top).

Furthermore, 41 Mycenaean decorated vessels (likely imports) were found at the Beşik-Tepe

cemetery (LH IIIA2 and LH IIIB1), located at a supposed harbour of Troy (Basedow 2000). Small amounts of Mycenaean pottery are also reported from Maydos-Kilisetep on the Gallipoli Peninsula (Sazcı/Mutlu 2018, 143), but no detailed information is available yet.

Cypriot Connections

During this time, a new material component appeared – ceramics from Cyprus. Troy's excavations yielded one of the largest assemblages of Late Cypriot II pottery in western Anatolia and in the Aegean, resulting from the extensive excavations at the site starting with Heinrich Schliemann (*fig. 13*, Kozal 2006a; 2006b; 2017). The earliest appearance



Fig. 12. ‘Champagne cups’ of Troy VI Late: Mycenaean shape in local Anatolian Grey Ware (courtesy Troia Projekt).

of Cypriot pottery dates to the Troy VI f phase (the end of VI Middle, LH IIB), but the amount is very small. However, a particular increase is detected in the later phases, especially during later Troy VI Late (VIh, LH IIIA2) and VIIa (LH IIIB).

Fragments of a total of 62 vessels have been identified, which belong to White Slip II, Base-ring II, Plain White Wheel-made, White Shaved, and Pithos Ware (*fig. 14*). Among these, White Slip II is the most common, whereas others are represented only by a few or single examples. There are also two subtypes of White Slip II; these are White Slip IIA and White Slip II Late (Kozal 2006b, cat. nos. 95–155). All the White Slip II vessels belong to bowls, indicating that these cannot be containers for some goods. All the other wares are very few in number and are represented by jugs, but there is no clear evidence that they were

used as transport vessels. Therefore, Late Cypriot II pottery at Troy can be regarded as a part of the exchange of luxury goods.

On the western Anatolian coast, besides Troy, Cypriot pottery has so far only been found at Miletus, where there is a single sherd of Proto White Slip Ware (Niemeier/Niemeier 1997, 234 f., fig. 66). No information about Cypriot pottery has yet been published from Panaztepe and Liman Tepe, although some finds found there may have come from Cyprus, such as golden funnel-shaped objects (Mellink 1988, 114; Kozal 2007, 126, no. 672; Mangaloğlu-Votruba 2015, 654). One from Liman Tepe (Mangaloğlu-Votruba 2015, 654, fig. 10) and one from Panaztepe, which is exhibited in the Archaeological Museum in Izmir, are very similar to the objects known from Cyprus, such as four funnel-shaped items from Tomb 11 in

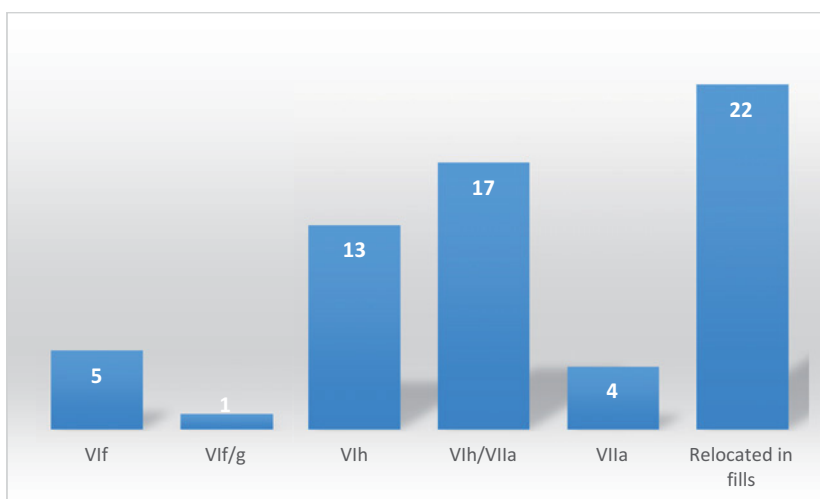


Fig. 13. Cypriot pottery at Troy: frequency throughout Late Bronze Age periods (after Kozal 2006a, 253, Abb. 1).

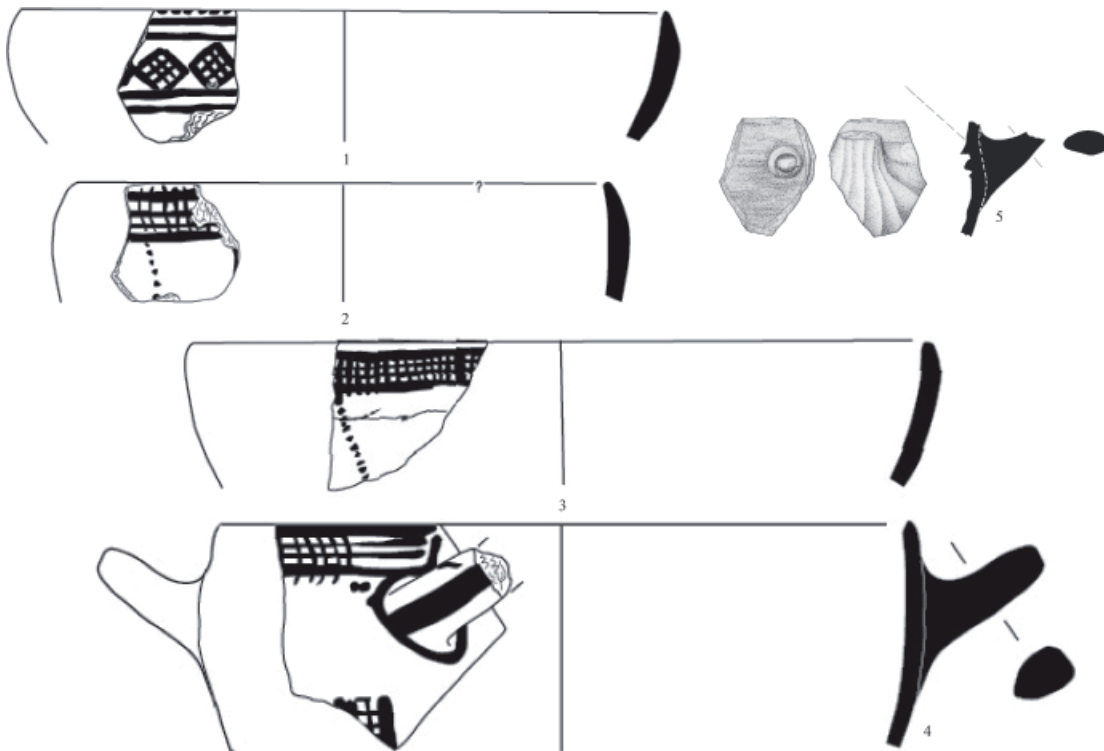


Fig. 14. Cypriot pottery from Troy (various contexts): 1–4: White Slip II, 5: White Shaved Ware, Scale 1:2 (after Kozal 2006b, 39–52).



Fig. 15. Base of a Canaanite amphora, Troy VIIa (courtesy Troia Projekt).

Kalavassos-Agios Dimitrios (e.g. Knapp 2008, 55 f., fig. 37). They are cylinder-shaped with an everted rim, whereas the ones from Panaztepe and Liman Tepe are also cylindrical, but have a conical head. Even with these differences, they definitively are the same kind of objects.

Comparison of Troy with the Aegean islands and the Greek mainland in terms of Cypriot pottery relies here on the studies of Eric Cline and others, who studied the imports in these areas in the Late Bronze Age (fig. 2; Cline 1994; Cadogan 1972; Manning 1999, 69–229; Girella 2005; Karantzali 2005; Cadogan 2005; Graziadio 2005). Cline's study demonstrated that the relations between Cyprus and the southern Aegean began in Late Cypriot I (Rhodes: Ialysos, Trianda, Koumelo Cave in Archangelos; Thera: Akrotiri; Crete: Knossos, Kommos, Malia, Kato Zakro). Therefore, the Proto White Slip I sherd of Miletus can be interpreted as part of these connections in the sphere of the southern Aegean.

In contrast to the southern Aegean, Late Cypriot I pottery is not found in central and northern Aegean. This means that the connections crossed

the line to the north later in the Late Cypriot II period (Cline 1994: Tiryns, Mycenae, Thebes). Since the Cypriot pottery from Troy dates to the Late Cypriot II period, connections between Cyprus and Troy accord well with the pattern seen in the central Aegean. In this way, a clear distinction is visible between the southern and central/northern Aegean. The Cypriot pottery from the western Anatolian coast parallels the chronological pattern of Cypriot connections in the Aegean.

Canaanite/Egyptian Connection

Even though not fully published yet, it needs to be stated here that there are fragments of pottery identified by Marta Guzowska as Egyptian Marl D fabric (ca. five examples), a base of an ‘Canaanite amphora’ (fig. 15; Rigter 2013, 184, tab. 85: 1), and a fragment of potential Chocolate on White Ware identified by Assaf Yasur-Landau, all stemming from Troy VIIa strata (Kozal 2006a, cat. no. 289; Guzowska/Pavúk forthcoming). Furthermore, one handle of a Canaanite amphora with an incised potter’s mark was found in a Troy VIIb (LH IIIC) context (Zurbach 2003, 121 f., fig. 26; Kozal 2006a, cat. no. 290).

Other Objects

The 14th–13th cent. BC is also the period of the most numerous ‘foreign’ objects other than ceramics found in the Troad during the 2nd mill. BC. The objects come from Troy (both settlement and the Lower Town cemetery) and from Beşik-Tepe (the cemetery). Combs made of ivory belong to the most interesting finds, two of which – one from Troy (fig. 16; Götze 1902, 399) and one from Beşik-Tepe (Basedow 2000, 143 f., pl. 100, 58: 7) – are decorated with the so-called basket pattern classified by Buchholz (1984/1985, 131 f., fig. 40) as ‘rosette-combs’. Rosette-combs are most characteristic for the LH IIIA period in the South Aegean. Combs with this basket pattern are known from the Argolid (Prosymna and Dendra) and from Baklatepe on the western Anatolian coast (Erkanal-Öktü/Erkanal 2015, 198 f., fig. 35, lower row, right



Fig. 16. Ivory comb from Troy (after Cobet/Borsdorf 1991, fig. 285, courtesy of Museum für Vor- und Frühgeschichte, Staatliche Museen zu Berlin – Preussischer Kulturbesitz, photo K. Göken).



Fig. 17. Steatite lentoid seal from Beşik-Tepe (LH IIIA2–B1), pithos grave 15-East, (CMS V Supplementum 1B 474, courtesy Troia Projekt and CMS Heidelberg).

corner). Good parallels in the Argolid can also be found for a small ivory plate from Troy decorated with an arch-pattern, which is probably a fragment of an ivory pyxis (Blegen et al. 1953, 263, fig. 304, no. 35–508; Poursat 1977). The origin of those objects cannot be determined with security, but some of them, for example the rosette-combs with non-figural decoration, are known predominantly from the Argolid and could have been manufactured there from imported raw material. Local production of ivories is well attested, for example, in the workshops in Mycenae (Poursat 1977; Tournavitou 1995, 123–206). Two steatite seals of the Mainland Popular Group – one from Beşik-Tepe (fig. 17) and a broken example from Troy (not published yet) – are also objects of clear Mycenaean origin. Five other seals of similar type made



Fig. 18. Carnelian beads from the cemetery in Beşik-Tepe (LH IIIA2-B1), pithos grave 68 (after Basedow 2000, 138, Archaeological Museum in Çanakkale, photo M. Pieniżek).



Fig. 19. Faience and glass beads, Troy VIIa (courtesy Troia Projekt).

of bone were found at Troy and Beşik-Tepe (Pini 1992; Basedow 2000, 132–134, 145–150, pl. 92), but they are local products and an excellent example

of appropriation of Mycenaean elements in western Anatolia (Pieniżek 2018, 124–129, fig. 4.).

Other objects point to the Levantine or eastern Mediterranean region or an even more exotic origin. More than 200 carnelian beads have been found in Troy and Beşik-Tepe, mostly small and roughly shaped (*fig. 18*), but amygdaloid and other bigger types are represented as well (Basedow 2000; Pieniżek 2012a; 2012b; Ludvik et al. 2015). Important are hundreds of glass and faience beads, mostly simple globular and cylindrical in shape (*fig. 19*), but melon-shaped (*fig. 20*) and ‘grain-of-wheat’ faience beads are also present. Furthermore, singular examples of other objects, such as ostrich-egg shells (‘several eggs certainly represented’, Blegen et al. 1953, 264), an ivory spindle, and a fragment of a faience vessel have also been found (Balfanz 1995; Pieniżek 2018, 124–129, fig. 4.).

One category of finds has not yet received the attention it deserves. From the cemetery at Troy came one pin with a pomegranate-shaped head (*fig. 21*), furthermore from the same grave (urn 14) as well as from Beşik-Tepe, so-called finials were discovered, meaning pomegranate/opium-poppy-shaped heads of composite pins (Blegen et al. 1953, 29; 373 f., fig. 346, no. 34–473d–e; Basedow 2000, 144, pl. 100, 1, no. 58: 8). Comparable finds are known from Cyprus and the Levant dating mainly to the 14th–13th/12th cent. BC (e.g. Karageorghis 1974, Kition, Tomb 9, upper level: 91 (c), pl. 87; 170, no. 60–62; 132; Ward 2003; Crewe 2009, no. U.198). They are usually bigger and at least some of them are made of ivory, whereas the ones from Troy and Beşik-Tepe are probably all bone (Blegen defined the material of the objects from the cemetery in Troy as ivory, but renewed inspection by Pieniżek revealed that the material is bone). Interestingly, the ones at Troy were found together with objects made of ivory or related materials (some of them may have been made of some kind of dental material, but this could be verified only with the help of scientific analysis, T. Schumacher, personal communication). The eastern Mediterranean parallels for the pin were already mentioned by Blegen et al. (1958, 380), but the function of the ‘finials’ was not recognised.



Fig. 20. Melon-shaped faience bead from the cemetery in Beşik-Tepe (LH IIIA2–B1), pithos grave 93 (after Basedow 2000, 137, tab. 98: 2e, Archaeological Museum in Çanakkale, photo M. Pieniżek).

5.3 The Other Way Around: Trojan Finds in the Eastern Mediterranean

In addition to this list of ‘foreign’ objects found in the Troad, there is also evidence for the movement of goods in the opposite direction. Sherds of burnished wheel-made grey ware, found in Cyprus and the Levant mostly in 13th–12th cent. BC (*fig. 22*) contexts, have long been recognised as something foreign, most probably Anatolian in origin. David French, Hans-Günter Buchholz, and Susan Heuck Allen carried out pioneering work and compiled lists of all known grey ware finds from the aforementioned areas, with the work of Allen being the most recent and most concise contribution (French 1969, 68–72; Buchholz 1973; Allen 1990, see also Allen 1991; 1994 and Schachner 1997). As a source, Troy has most often been suggested.

The results of the NAA carried out by the Chemistry Department of Manchester University proved the old hypothesis that the majority of the wheel-made burnished Grey Ware finds in the eastern Mediterranean did indeed come from the region of Troy and can be without any doubt termed as Anatolian Grey Ware (*fig. 2*, Mommsen/Pavúk 2007). The Grey Ware finds that cannot be shown to belong to this group require renewed visual inspection to tell whether they are local or simply do not fit the Trojan chemical profile. They may also be Anatolian Grey Ware (AGW) from some other Anatolian site. It would be surprising if other sites on the western Anatolian coast, such as Liman Tepe or Panaztepe, were not represented among the imports in the eastern Mediterranean.



Fig. 21. Pin with pomegranate-shaped head from the VI Late cemetery at Troy, excavated by Blegen, probably made of bone (after Blegen et al. 1953, fig. 346, no. 34-473d, Archaeological Museum in Istanbul, photo M. Pieniżek).

More sobering, however, was the revelation that three of the four supposed Tan Wares from Enkomi, reported as being Trojan, turned out to be a local light-faced fabric. Their krater shape and incised wavy lines do indeed remind one of Troy (Allen 1989, 86 f., nos. 1–3; Mommsen/Pavúk 2007, 28 f.), and therefore must be considered as evidence for Trojan influence on the local production. The one sample, which did turn out to be Trojan also in chemical terms (Allen 1989, 87, no. 4, *fig. 1: 4*; Mommsen/Pavúk 2007, 28 f.) was actually visibly different from the other three; it was burnished and the incised wavy lines were made with a comb or tool with multiple points. It is almost a mystery, why there is virtually no Tan Ware exported from Troy in this period, when it is even more common than Anatolian Grey Ware during phase Troy VIIa (Rigter 2013).

In any case, there is an interesting dynamic behind the spread of Trojan Grey wares in the eastern Mediterranean: whereas one tends to perceive Late Troy VI as the heyday of Trojan development (at least in terms of monumentality of preserved architecture), most of the Cypriot and Levantine Anatolian Grey Ware finds are actually associated with LH IIIB and LH IIIC (early-middle) pottery, which makes them roughly contemporary with Troy VIIa and the earlier part of Troy VIIb. The earliest known Grey ware in the Levant is at Tell Abu Hawam, with finds contemporary with Late Troy VI (ca. LH IIIA) (Artzy 2006, 55 *fig. 9: 6*), with other sites in the Levant and Cyprus having Grey ware only from later periods.

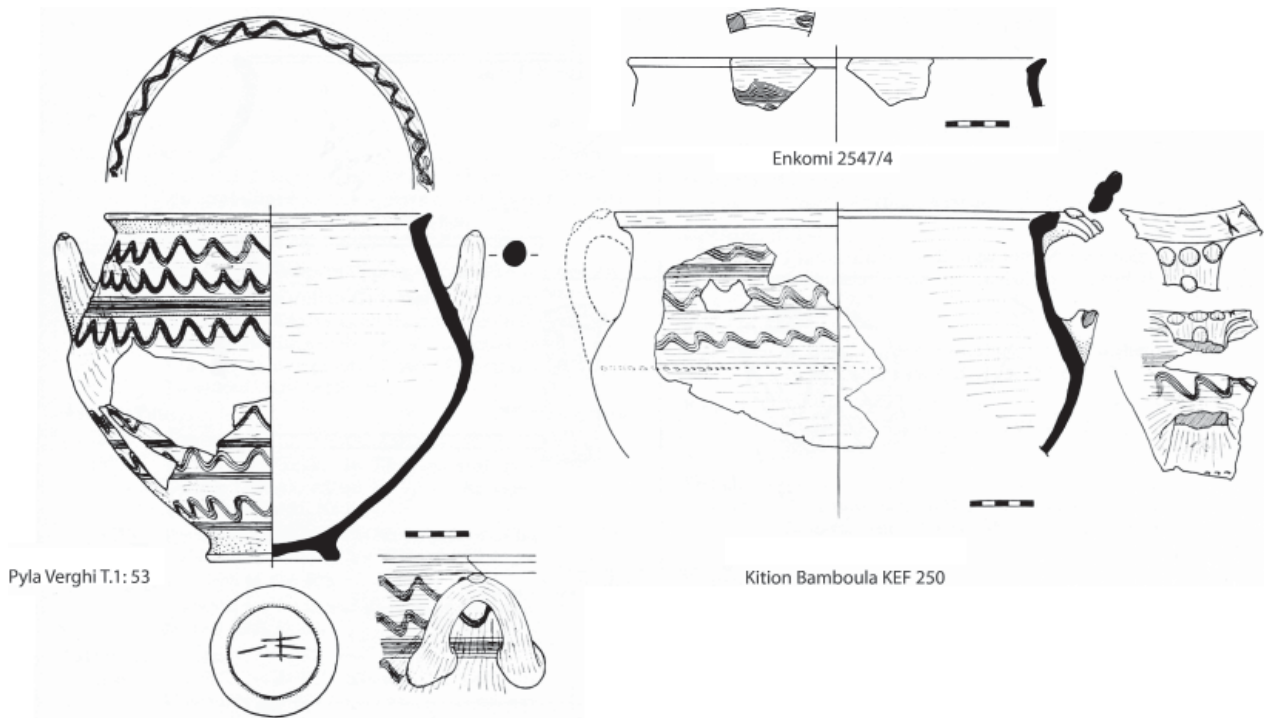


Fig. 22. Anatolian Grey and Tan Ware from Pyla Verghi, Kition Bamboula, and Enkomi (after Allen 1991, fig. 15: 8.a, d; 15: 9.d).

Grey Wares in small numbers are also reported from Chios, Samos, Kos, and Rhodes, but their origin has not yet been geochemically studied. Fragments dating to the earlier phase of the Late Bronze Age (LBA) are likely from the nearby Anatolian coast, but three complete pots uncovered from the cemeteries Eleona and Langada on Rhodes are quite likely to have come from Troy. Even though no chemical data exist to support the claim, the typology and their date rather speak for it (Allen 1990, 218–220 fig. 54: 1, 4, 6; Vitale/Trecarichi 2015, 320 fig. 1: a). The best example is a beautifully crafted, delicate trefoil-mouthed jug decorated with a series of incised wavy-lines that was found in Tomb Eleona 17, dated by the Mycenaean pottery to LH IIIA1, and which has the best parallels from Troy VIg (LH IIIA1; Rigter 2013, 185–187). The other two pots came from the Langada part of the same cemetery (Tombs 44 and 45) and can be dated by the accompanying pottery to LH IIIC (Morricone 1965/1966, 202, 212 f.; Vitale 2016, tab. 5.2).

Unfortunately, there is no other case of any object, or group of objects in the Aegean or Levant, which could be scientifically investigated and proven to be an ‘export’ from Troy. Consequently, we can only list some possibilities. One of

them is metal jewellery, which could theoretically have been exchanged for carnelian, glass, and faience coming from the south. Four Late Bronze Age moulds were found at Troy (fig. 23); they were used for the manufacture of rings, beads, and spacer beads, some of them most probably of gold (Nessel 2014, 235 f. fig. 28–29; Pavúk/Pieniżek 2016, 543, fig. 15). Other possible exports are textiles, indicated by the high numbers of textile tools and traces of purple-dye production found at the site (Becks/Guzowska 2004; Çakırlar/Becks 2009; Pavúk 2012; Guzowska et al. 2015). And, of course, other invisible items of exchange, such as horses and slaves, come into question as well. Some raw and perishable materials could have likewise arrived from the Balkans and were only transferred through Troy. Some on-going research may bring new evidence to this issue (Horejs 2009; Popov et al. 2015).

6. Discussion of Possible Communication Routes

The material from Troy and Beşik-Tepe summarised above speaks for various patterns of trans-regional communication (with changing

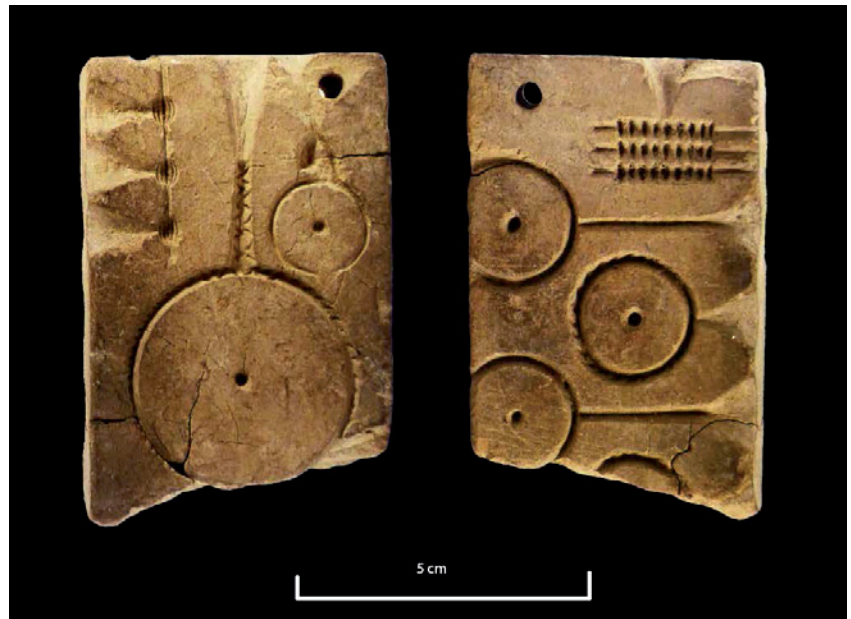


Fig. 23. Stone mould for production of metal jewellery, Troy VIIa (after Sazcı 2007, 365).

intensity) linking the northeastern Aegean with other regions: nearby northern Aegean islands, central Greece, the Argolid, along the western Anatolian coast, as well as Cyprus and the Levantine coast.

6.1 Maritime Connections

Across the Sea

The issue of early Trojan connections is especially indistinct. In this respect, the evidence coming from the nearby north Aegean islands in the time of MM II–LM I must be taken into consideration (fig. 24²). The fact that various Minoan sealings were found at Mikro Vouni on Samothrace clearly indicates that there must have been (even if only over a short period of time) a close relation between this island and the core area of the Minoan state/states. Since the impressions were done with various kinds of seals, including Minoan hard stone seals and gold signet rings and the images are typical for Minoan glyptic (Matsas 1993;

2004; CMS V, Suppl. 1B, no. 322–343), it can be excluded that the sealing praxis was ‘imported’ and appropriated locally on Samothrace. Especially the presence of roundels (a kind of external sealing) is a strong indication of direct communication between a palatial administration and its officer/officers away from the palace (Hallager 1990). The presence of objects, such as Minoan pottery, a fragment of a Minoan shell vase made of obsidian, and other stone vessels at Koukonisi (Lemnos), indicate that strong connections between Crete and north Aegean island continued until the LH I period (Boulotis 2009).

It seems to be rather unlikely that Troy had direct relations with the Minoan world at the end of the Middle Bronze Age and the very beginning of the Late Bronze Age. At this time Troy was a modest settlement of rather limited importance, and Minoan objects must have arrived via Samothrace and Lemnos. The same can be true in the case of Maydos-Kilisetepe on the Gallipoli peninsula, where the route could have led directly from Lemnos or over Imbros to the western coast of the peninsula. Sailing in this region was not always convenient, due to wind and current conditions surrounding the entrance to the Dardanelles (Guttandin et al. 2011; Jablonka 2014a, 239–251), but there is direct eye-contact between Samothrace, Imbros, and the Troad (on a very clear day, one can also see the Troad from Poliochni on Lemnos) and local, short distance

² Figs. 24–25 present a proposal for the most probable communication routes connecting the northeastern Aegean with other areas based on the evidence presented in the contribution. Well-evidenced routes are indicated in black, other possible routes are in grey. South Aegean networks are shown only as examples (with no attempt at completeness).

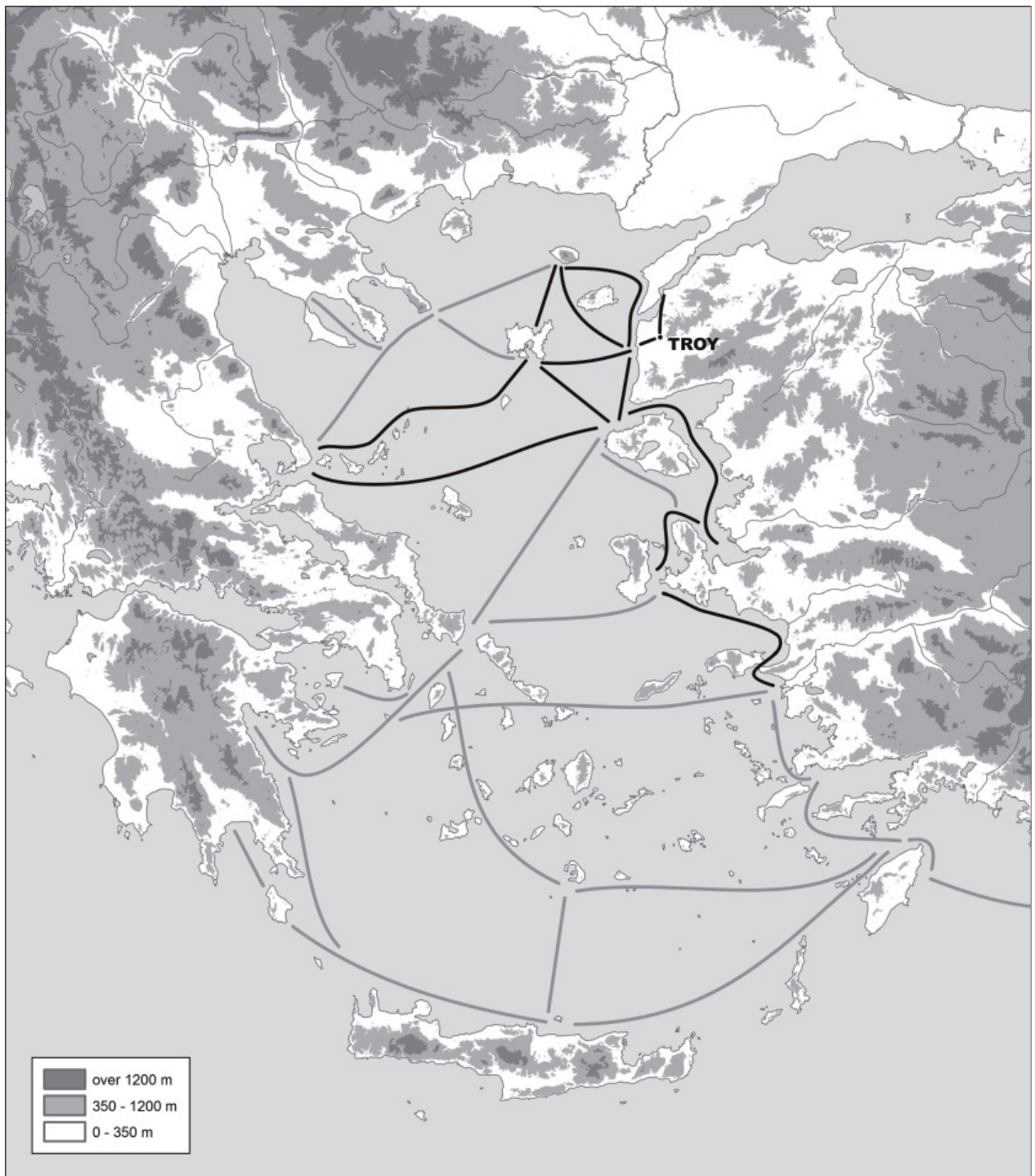


Fig. 24. MM II–LH II: Possible communication routes based on the evidence presented in the contribution. Well-evidenced routes are indicated in black, other possible routes are in grey. South Aegean networks are shown only as examples (with no attempt at completeness).

maritime contacts must have been something natural and omnipresent. These local interactions are also attested throughout prehistory, for example between Poliochni and Troy during the Early Bronze Age. During the period of Troy VI Early, these connections are clearly testified by the presence of pottery from the islands found

at Troy, both imports as well as local ‘hybrid’ production.

On the other hand, the links with the Greek mainland described above are also very well attested, and they seem to have crosscut the south-north direction of Cretan contacts, from west to east. There are no hints for any administrative

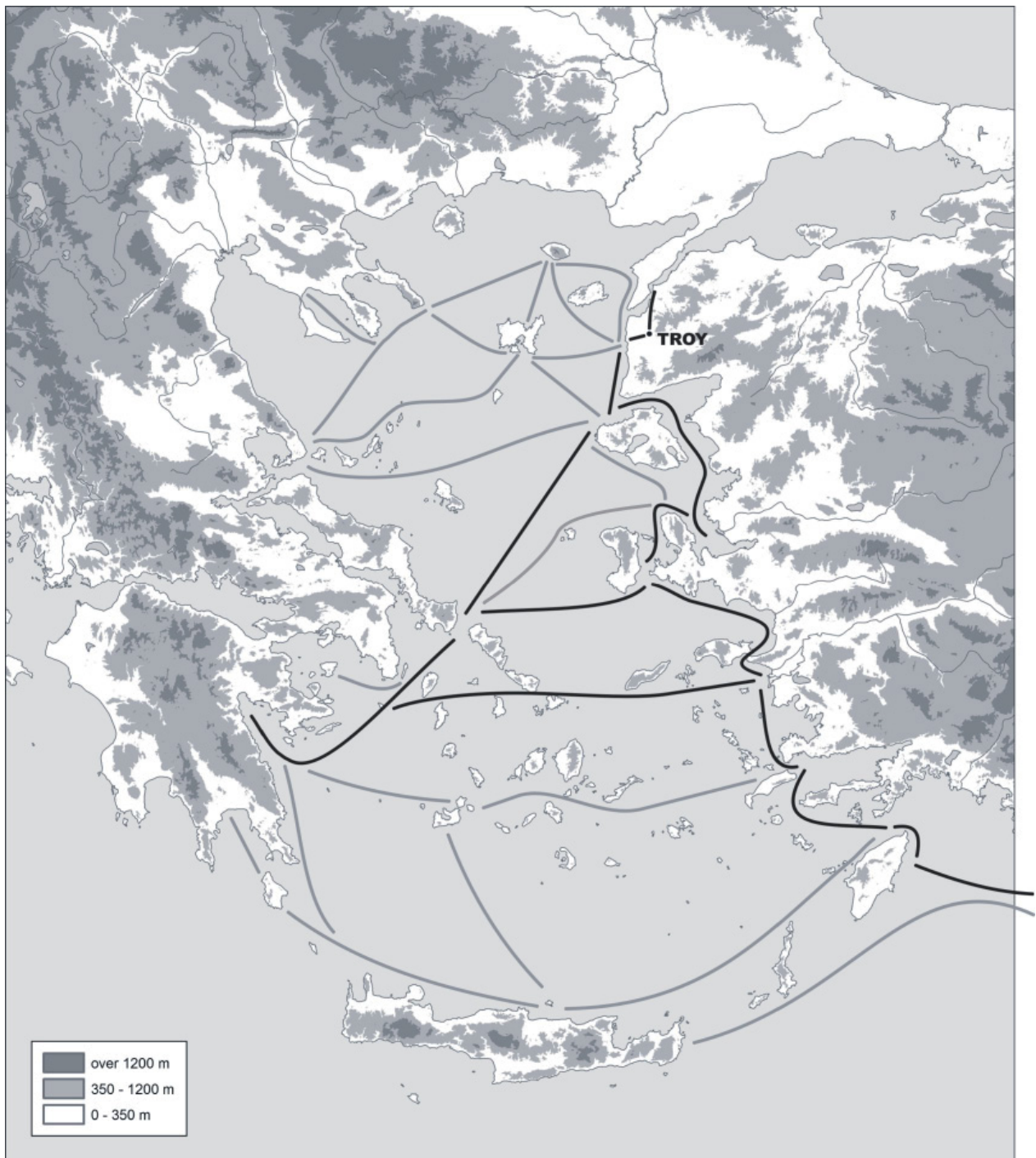


Fig. 25. LH II–LH IIIB: Possible communication routes based on the evidence presented in the contribution. Well-evidenced routes are indicated in black, other possible routes are in grey. South Aegean networks are shown only as examples (with no attempt at completeness).

activities that would be comparable with the evidence from Samothrace, which is not surprising since central Greek polities involved in these contacts were not organised in such a sophisticated way as contemporary Minoan Crete. When Blegen originally published his finds from Troy, he would have searched for most parallels in the Argolid,

which he considered the most likely partner. By now we know that it was not the inhabitants of the Argolid who were interested in the northeastern Aegean, but rather from Locris, Malis, and ancient Phthiotis. Maritime roads across the Aegean Sea were recently reconstructed for the Bronze Age by Guttandin et al. (2011, 14–23) based on the data

from the Hellenic Centre for Marine Research. This analysis demonstrated that a direct west-east communication route across the Aegean was possible, be it through the northern Sporades or the island of Skyros.

This trend continued during the following time of LH II (Troy VI Middle), but then new elements appeared as well. Some evidence attests to the development of exchange networks along the western Anatolian coast (the Milesian fabric and the East Aegean Light on Dark/Dark on Light fabrics). However, other data speak for emerging communication with the Argolid and the areas of Aigina, Central Greece, and Dimini (*fig. 25*).

In later periods (14th–13th cent. BC), the contacts with Mycenaean Greece continued and intensified, now especially with the Argolid. Surely these may have been indirect exchange networks, but the possibility of direct connections across the Aegean probably should not be completely rejected either. Theoretically speaking, it was possible to sail straight from Euboea to Troy during the 2nd mill. BC (Guttandin et al. 2011, 23), however, the indirect route from the Peloponnese across the sea towards Miletus or the Karaburun Peninsula, or a second possible route along northern Crete towards the Anatolian coast are other possible options. The presence of Aiginetan Matt Painted Ware in Liman Tepe (MH II) may indicate that the first connection was indeed in operation from early periods onwards (Günel 2004).

Along the Coast to the North

The finds from sites excavated during the last decades in the area of the Karaburun peninsula testify to the importance of this area for trans-regional exchange, especially maritime trade along the Anatolian coast and with southern Greece (*fig. 25*). Particularly the data coming from the settlement and cemetery at **Panaztepe** are informative, where the finds are clearly comparable with those known from bigger Mycenaean centres. Reported are over 5000 ornaments as well as weapons and other objects (Ersoy 1988; Erkanal-Öktü 2004; Çınardalı-Karaaslan 2012). Hundreds of carnelian, glass, and faience beads, Mycenaean pottery, various kinds of seals, two scarabs and amber and

amethyst beads prove that the site participated in Aegean and eastern Mediterranean networks. The location of Panaztepe is very convenient – during the 2nd mill. BC it was an island in front of the mouth of the Hermos, one of the biggest western Anatolian rivers. Consequently, it is tempting to see the site as a kind of ‘port of trade’ where land routes leading from inland Anatolia towards the Aegean and maritime routes crossed. However, it is currently impossible to prove this scenario. The new excavations at the Late Bronze Age citadel at Kaymakçı (inland, central western Anatolia) will hopefully help to answer those questions. The results of the first campaigns confirm the importance of the site (Roosevelt et al. 2016; Roosevelt et al. 2018).

Generally speaking, goods such as carnelian and faience beads must have travelled along the western Anatolian coast, possibly via Panaztepe to the northern Aegean. Due to the state of research, it is difficult to discuss possible inter-stations between Panaztepe and Troy. Further to the north, a number of coastal sites (Phokaia, Elaia, and Pitane) are claimed to have Mycenaean pottery, but often not enough is known or published and they also vary in date (cf. Kelder 2004/2005). Even further up, in the Kaikos valley, only one potential regional centre emerges, Değirmentepe, which might have been a meaningful player in the network. It is of possible interest that a survey in **Atarneus** has recently yielded a new Mycenaean kylix fragment (Pavúk/Horejs in print). If there was a coastal route, it must have continued towards the Edremit Plain and then turned left. However, sites on Lesbos and possibly also Lemnos might surely have played a crucial role in the transfer to the north. Maybe, like today, the boats would have travelled to Mitilini (just south of Bronze Age Thermi) and then circled the island from the east and north, bypassing Methymna and Antissa and continued towards Lemnos. Again, Methymna (on Lesbos) and Assos (on the Anatolian coast) are within visibility distance.

In the southern Troad, there are also several larger sites that could have been potential intermediate stops, especially **Asarlık-Polimedion** on the southern coast and Limantepe-Larissa on the western coast (Aslan et al. 2003; Pavúk/Schubert 2014). NAA studies have indeed revealed that

some pottery from Larissa travelled even as far north as **Maydos-Kilisetepe**, proving the existence of networks connecting not only Troy, but also the Aegean coast of the Troad with the Gallipoli peninsula. On the other hand, NAA also showed that the sites in the southernmost Troad had a chemical group of their own, which was recognisable also macroscopically, and it cannot be excluded that it was linked with northern Lesbos (Pavúk/Schubert 2014, 879).

As far as Troy is concerned, it was most probably **Beşik-Tepe** that played the role of its harbour (Basedow 2000, 158–165; Pavúk 2005, 274 f.; Pieniążek 2016, 522 f.). No special installations were found there, but the Beşik Bay is the last suitable place for anchorage before the Dardanelles. Since Beşik is not so close to Troy, the off-loaded commodities would have been re-filled into smaller, local containers and brought over to Troy (7–8km in a direct line). Maureen Basedow (2000, 62–64, 110–112) catalogued 35 *pithoi* in the cemetery in seven different pithos wares. Four wares are similar to Trojan examples, but there are three further wares (Types 5, 6, and 7), represented by four *pithoi* (18.1, 46.1, 97.I, 105.1), which do not fit the known wares from Troy. These are then, most probably, the off-loaded *pithoi* from abroad, used secondarily as containers for burials. Even though Basedow (2000, 63) pointed out similarities with *pithoi* from Thermi on Lesbos and Emporio on Chios for her Pithos Ware 5, their provenance is still unclear. The road from Beşik-Tepe to Troy must have gone across the Scamander valley, through the cemetery mentioned above, and towards the southern gate in the ditch surrounding the Lower Town. A gap between two areas of a cemetery outside Troy – one area excavated by Blegen (Blegen et al. 1953, 370–391) and one indicated by the concentration of Late Bronze Age pottery documented during the survey conducted by Peter Jablonka (2014b, 315–327, fig. 26; 34; 38) – indicates a path in this route.

Along the Coast to the South

Coming back to the Karaburun peninsula, it is very likely that the route in the southern direction went through **Miletus**, which is supported by

the presence of Milesian imports at Troy, and the presence of Cypriot pottery in Miletus. Another important inter-station was probably **Rhodes**. This island with its very strategic geographical position was postulated to have functioned as a kind of intermediary between the Mediterranean and Aegean; the abundance of carnelian, ivories, and other exotic objects (Benzi 1992; 2009), as well as Anatolian Grey Ware from Eleona and Langada speaks for it, even though clear proof for the importance of Rhodes in a political and economic sense is missing (Bachhuber 2006, 358).

The further continuation of the route towards Cyprus and the Levant cannot be discussed in this contribution (for maritime trade in the eastern Mediterranean during the 14th–13th cent. BC see for example: Sherratt/Sherratt 1991; Bachhuber 2006; Pulak 2008; Zukerman 2010). It is important to note that the repertoire of Cypriot pottery at Troy not only fits perfectly in the ‘exchange package’ known from other LH IIIA–B sites, but is also comparable to the assemblage in the Uluburun shipwreck. Lamps, a wall-bracket, and *bucchero* ware, which were on board, are not known from Troy, but all other types of Cypriot wares were also found on the Uluburun ship. Just like at Troy, White Slip II is also the largest group on Uluburun (34 examples), among which White Slip IIA was also found. In the Uluburun shipwreck these wares were stacked in *pithoi*, which clearly demonstrates the value of the Cypriot vessels as pottery and not as containers (Hirschfeld 2005).

It is possible that other kinds of goods mentioned above travelled along with pottery via or from Cyprus. However, usually their point of departure is not clear, since most of these objects were spread over the entire eastern Mediterranean, like most of the faience beads or ivory spindles. In fact, faience beads show a great diversity, and it is very likely that various areas specialised in different types, but this issue has never been systematically studied. ‘Finials’ and the pins with a pomegranate-shaped head are a special issue: they are most probably made not of ivory, but of bone, and can be local products and consequently demonstrate the appropriation of the foreign, rather than being imported objects. Nevertheless, they are definitively another proof for the existence of the above-mentioned Cypro/Levantine connection.

Carnelian probably originated from the Indus Valley or from Egypt, but sites in Syro-Palestine may have been the ‘reloading points’ for this kind of material (Ludvik et al. 2015). Recent studies demonstrated that Alalakh had a considerable production of carnelian beads, which is evidenced by the presence of semi-finished beads, wasters, carnelian chips, and pieces of raw material (Pieniżek in print).

6.2 Overland Connections?

Until now we have concentrated on maritime communication. The land routes were used intensively in Anatolia during the Early Bronze Age and one even speaks of the Great Caravan Route (Efe 2007; Massa 2016). The situation at the end of the EBA is not very clear, but pertinent evidence indicates the importance of land routes during the Middle Bronze Age as well. There was a crucial and intensively used ‘caravan’ route from central Anatolia, via Üç Höyük, passing through a suitable pass into the upper Meander Valley, bypassing Beycesultan and then eventually splitting into the Hermos Valley and the middle and lower Meander Valley. All we know is that it was fully functional in the 19th–18th cent. BC (Barjamovic 2011), when we have the evidence of the Old Assyrian tablets from Karum Kanesh, but no clear information exists concerning this route in the following periods.

However, based on the available data, it seems clear that the majority of the ‘foreign’ goods mentioned above from Troy, Beşik-Tepe, and other sites were transported with ships. There is also, so far, no evidence to suggest that goods such as Cypriot pottery or Anatolian Grey Ware were transported via the land route through Anatolia. The same must be true for other objects coming from Cyprus and the Levant. It does not mean that the land routes did not play a role during the 2nd mill. BC as well, and as was mentioned above, it is to be expected that the large western Anatolian rivers and their valleys, such as the Hermos or Menderes, were important avenues of communication (Pavúk 2015). The understanding of these routes is difficult due to the state of research in western Anatolia, and is especially hampered by the

scarcity of funerary evidence. Nevertheless, the finds from the East Shrine (level II) in Beycesultan demonstrate that faience, carnelian, and cowrie shells reached far into the hinterland also during the Late Bronze Age (Murray 1995, 125 f., pl. 26). The same is confirmed by the newest finds from Kaymakçı (Roosevelt et al. 2018, 682.).

In the context of overland communication, one non-appearance needs to be mentioned. Neither Hittite pottery nor other obvious Hittite objects have been found at Troy so far (Kozal 2006a; 2006b; 2017; Pavúk/Pieniżek 2016). The scarcity of central Anatolian finds during the Late Bronze Age seems to be a typical feature for the entire area of western Anatolia (Seeher 2005). This is intriguing especially because there is rich textual evidence for various kinds of communication (peaceful and violent) between western Anatolian polities and the Hittites (Bryce 2011; Hawkins 1998; 2015). There are also very few finds indicating contacts with the Balkans before the 12th cent. BC (Pieniżek 2015). This cannot mean, of course, that there was no exchange between these regions, but it highlights the fact that the 2nd mill. and especially the Late Bronze Age was a time when maritime communication dominated.

7. Conclusions

Available data on the regional and interregional connections of the Troad are still very patchy, partly because of missing evidence related to ‘invisible’ resources, such as copper, tin, gold, textiles or organic materials. The example of the Uluburun shipwreck teaches that the main component of trade could have been metal in the form of raw material, which is not usually found in settlement contexts. Compared to the metals in amount and value, goods such as Cypriot pottery seem to have been secondary material with lesser value. This situation raises the question about the meaning of the pottery on board and its relation to the main cargo. Could it be, for example, assumed that the metal cargo – copper being from Cyprus (Gale 2005) – and the Cypriot pottery are associated? If they are associated, should Cypriot copper be expected together with Cypriot pottery? Does Cypriot

pottery, which does not disappear like the metals from the archaeological record, indicate also the raw material transport? Although these questions cannot be answered, the meaning of imported pottery at a site should be considered from different viewpoints as Uluburun shows that there is more behind the pottery itself (cf. Tartaron 2013, 23–25, 34 f.).

Therefore, it is clear that pottery and other goods discussed in this contribution could only be a kind of supplement to the exchange of such resources. However, it is equally clear that: 1) luxury goods such as adornments made of semi-precious stones or ivory were exchanged because of their symbolic value and could have been independent driving forces for short as well as long distance communication and 2) raw-materials could have been exchanged without accompanying goods and consequently be non-detectable with conventional archaeological methods. Having these limitations in mind, in the text that follows, we will try to put forward some preliminary conclusions and ponder about their possible implications for modes and paths of communication.

Communication Routes

So, what do we have? There are links between central Greece and Lemnos in MH II/III. There are links between central Greece and Troy in MH III. There are MM II/III and LM IA links from Crete to Samothrace and to Lemnos. The mainland Greek ones stop at the end of MH III, the Cretan ones at the end of LM IA. Is it a coincidence that the Santorini volcano erupted at the end of LM IA and possibly disrupted some of the connection routes? Is it also a coincidence that Troy only started receiving imports from the southeastern Aegean in the following LM IB (LH IIA) period? Finally, from LH IIIA2 onwards everything seems to have been dominated by Mycenae, Cyprus, and Canaan. But is it so straightforward? Let us have a closer look.

It seems likely that the intermediation of the north-eastern Aegean islands, Samothrace and Lemnos, played a considerable role in the transmitting of goods from the south to the Troad at the turn of the Middle and Late Bronze Age. This was

not the only route, but probably the prevailing one.

As far as the route along the western Anatolian coast is concerned, it is important to keep the following facts in mind: this way of communication was already active during the time of LH II, when pottery from Miletos and Kos reached Troy for the first time. Cypriot pottery, jewellery from the eastern Mediterranean (faience, carnelian), and local imitations of Cypro-Levantine ivory objects appeared during LH IIIA, but Anatolian Grey Ware in Cyprus and Syro-Palestine only occurred ca. 100–150 years later. This chronological sequence may have various implications, like for example, that this communication was initiated from the South (southern Aegean or central western, south-western Anatolia), return gifts/goods were of an ‘invisible’ nature, and/or that the local elite of Troy became active agents in this network only at the end of the 14th and in the 13th cent. BC. The last possibility seems very likely since the 13th cent. was a time of important structural transformations at Troy (Pavúk et al. 2014; Pavúk/Pieniżek 2016). Nevertheless, it seems probable that the area between Panaztepe and Rhodes played a considerable role in transmitting ‘foreign’ goods to Troy.

If the goods did not arrive ‘directly’ along the southwestern Anatolian coast, the other option would be through mainland Greece, which could have functioned as a mediator. The central Greek connection, active especially between MH II and LH I, does not seem to have served this purpose. Things started changing in LH II, when Mycenaean decorated pottery from the Argolid started arriving to Troy and continued doing so during LH IIIA–B, accompanied by some other goods, such as rosette combs. Seals of the Mainland Popular Group may also speak for this connection. The problem is that we cannot say with security whether those goods travelled directly from the Argolid or whether they were transmitted through western Anatolian centres. On the one hand, it is clear that the power of Mycenae was growing and simultaneously its control over the Aegean and to a certain degree also over trans-regional trade was increasing (Burns 2010). However, central-western Anatolian polities must have had considerable aspirations in this field as well. In any case,

as mentioned above, direct trans-Aegean communication avoiding both western Anatolia and the Argolid would have been possible from a nautical point of view, but the rest is speculation.

The Organisation of Exchange

We indicated in the introduction that one of the most important questions that we intended to discuss in this contribution was the organisation of exchange discussed above: why did this communication take place, who was responsible for transport, and how could it have worked. No models or theoretical considerations exist that are specifically devoted to the northern Aegean. Analysis of the eastern Mediterranean or southern Aegean exchange systems, which are based on correspondence between kings, cargo of the Uluburun and other shipwrecks, Egyptian frescoes, finds from Ugarit, Enkomi, Knossos, or Mycenae can be only conditionally applied to the northern Aegean context. We can, however, use these studies as a point of departure for further discussion.

It goes without saying that ‘small scale’ trade existed anytime and everywhere, whenever people were able to go boating, use vehicles, or travel on foot from one village to another, but this kind of exchange is not relevant for our crucial questions and the form of evidence we decided to study.

In terms of long distance trade, the following types of exchange are usually put forward: 1) trade controlled by elites and undertaken directly between elites, 2) trade controlled by elites, but with intermediaries linking different nodes, 3) freelance trade and 4) gift exchange (e.g. Knapp/Cherry 1994; Burns 2010; Tartaron 2013, 23–45).

The crucial question is therefore whether we can speak about these kinds of exchange also in the context of the north-eastern Aegean. Although some important centres developed there during the 2nd mill. BC, such as Troy, Mikro Vouni, Koukonisi, and Maydos-Kilisetepe, it is difficult to estimate the true possibilities of the local elites. Troy was undoubtedly the central place whose elites manipulated the local resources, as well as foreign goods, but it was isolated in geographical

terms and surely much less interconnected than the sites in the southern Aegean or eastern Mediterranean. Its internal structure was hierarchically organised, but there are no clear indications for the development of a state administration. However, some changes in the economy and settlement structure point towards increasing central control over various activities at Troy itself and in the surrounding landscape during the 14th and especially during the 13th cent. BC (Pieniżek 2016; Pavúk/Pieniżek 2016).

But what could it mean in respect to our leading questions? We mostly agree that the exchange was surely at least partly undertaken and controlled by the local elites. The question is – how far could this direct control have reached? Small scale contacts surely took place during the time of Troy VI Early (ca. 18th–17th cent. BC), when Troy was a settlement of moderate size and architecture. Those would likely have been with the southern Troad and the adjacent islands, which then in turn could have delivered more exotic objects to Troy. What kind of communication exactly could it have been, is difficult to say, but trade as well as gift exchange between the local elites might come into question, for example, in the case of prestige objects such as Minoan ceramic and stone vessels. Prestige good exchange between the Great Kings in the eastern Mediterranean is a well known phenomenon and is demonstrated in royal correspondence and other written sources (Liverani 1990; Cochavi-Rainey/Lilyquist 1999), but it could have played an important role also in the areas dominated by smaller and less centralised polities, such as western Anatolian pre-state ones (Pavúk/Pieniżek 2016), which did not leave any written documents. Gift exchange belonged to social behaviours of the elite in all kinds of stratified societies (e.g. Frankenstein/Rowlands 1978; Earle 2002).

The situation started changing during the 14th–13th cent. BC, when larger numbers and a greater variety of objects appeared, showing connections to the southern Aegean and the eastern Mediterranean. But the organisation of this exchange is obscure. Troy/Wilusa is mentioned in the Hittite texts as a minor player in the political affairs between the Hittites, central western Anatolia, and Ahhiyawa (Hawkins 1998). Can we assume direct contacts such as commercial or ‘gift exchange’ between the

elites of such settlements, as for example Panaztepe, Limantepe or Kaymakçı, and Troy? Some kind of direct communication seems to be especially conceivable in the case of Troy/Beşik-Tepe and Panaztepe, as suggested already by Basedow (2000, 164). And what about the Mycenaean centres? When we look at the map, we see that the distance between Dimini and Troy was actually quite small. Direct sailing between central Greece and Troy across the Aegean Sea was possible during the 2nd mill. (and, as demonstrated above, may have been practiced already at the beginning of the Late Bronze Age), so that we do not have to assume that indirect communication must have been a rule. If the information about the alliances, confederacies, and treaties in western Anatolia (and with Ahhiyawa or the Hittites) are true, then we cannot rule out that gift exchange (diplomatic, bridal gifts etc.) accompanied the communication between the elites of those regions.

One of the most frequently asked questions is whether it is possible that the exchange of exotic and valuable goods or ‘invisible’ resources such as metals was partly organised by independent or semi-independent merchants. There is a considerable discussion about the role of free ‘entrepreneurial’ trade in the eastern Mediterranean, but the problem could not be solved yet (e.g. Knapp/Cherry 1994; Bachhuber 2006, 35; Zukerman 2010, 894 f.; Tartaron 2013). The situation in the Troad is, of course, very different. In comparison with Amarna, Ugarit, Babylon, or Mycenae, the central authority at Troy was less structured, had no access to certain strategies, the class of the officers and specialists must have been much weaker, and the central control did not reach to all spheres of social, political, or economic activity. But all this could have had different consequences: on one side some sectors, like for example some social groups involved in maritime trade, could have retained considerable independence; on the other side, the fact that the specialists/officers/artisans class was most probably not very established yet, could have generated a situation in which only the elites were able to sponsor any bigger enterprise.

Not only the identification of ‘initiators’, but also the identification of the ‘agents’ of trade connections is a topic in discussions on exchange in the eastern Mediterranean whereby the

involvement of merchants from Cyprus, Canaan, Aegean, and other areas is considered (e.g. Knapp/Cherry 1994; Sherratt 1999; Pulak 2008; Zukerman 2010; Tartaron 2013, 27–30; Papadimitriou 2015). In these discussions four main types of arguments are usually put forward: texts, finds from the cargo of Uluburun and Cape Gelidonya ships, other archaeological finds (‘imports’), and incised marks on pottery. These marks appear on Cypriot, Aegean, Canaanite jars, and some other Levantine vessels. Their function and context is still under discussion, but they were probably somehow related with trade activities. It is interesting to realise that people at Troy were familiar with these signs, in one way or another, since some of them appear on Anatolian Grey and Tan Ware, as well as on one locally made Mycenaean stirrup jar (Mommsen et al. 2001, 186 fig. 16: 24; Zurbach 2003; Hirschfeld 2008).

Can we imagine the ‘physical’ presence and involvement of foreign agents/officers in the Troad? One can ask if it is conceivable that some of the burials in Beşik-Tepe, especially the ones equipped with many ‘imports’, may have belonged to such agents or generally to people involved in trade in some way? It is, of course, impossible to prove (unless one does a Strontium analysis project). One can mention the seals of the Mycenaean Mainland Popular Group from Beşik-Tepe in this context. The purpose of such seals is not clear (Krzyszowska 2005, 274 f.), but one of the explanations argues that they could have been marks of distinction of palace officials or officers responsible, for example, for various regional transactions (Eder 2007, 92–95). These kinds of seals were used by Cemal Pulak as one of the arguments towards the identification of Mycenaeans on board the Uluburun ship (Pulak 2008, 300–303, cat. no. 241). In Beşik-Tepe we have indeed the situation that the richest grave, containing the largest amount of exotic imports (Mycenaean pottery, ivory combs, carnelian, gold, and glass beads) contained also three of the five seals known from the cemetery (*pithos* 58, Basedow 2000, 28, pl. 42, 58: 10, 11, 14). However, all were made of bone and represent locally made, therefore not Mycenaean but Mycenaeanising seals (Pieniżek 2018, 124–129, fig. 4). Furthermore, it is not clear whether the people buried with those seals could have been involved in

trans-regional exchange (be it locals or foreigners) or were simply representatives of the local elite. Therefore, the issue of the origin of the merchants involved in the trade between the Troad and the southern Aegean and eastern Mediterranean must stay unsolved.

The question of who was responsible for transport and exchange of Anatolian Grey Ware in the Levant is especially intriguing, but there are currently no hints to solve it as well. It is a bit more 'personalised' on Cyprus, where we find AGW also in graves, but in the Levant, it is usually 'just' sherds in settlement contexts, with no clear pattern behind it (Allen 1990; 1991; 1994). In any case, it is of potential interest that the imports seem to have continued also in LH IIIC Early, which would correspond to Troy VIIb1. This would either imply that the trade was organised not only by the elites, or vice versa, that some kind of elites had survived the destruction of Troy VIIa. There is certainly a lot of continuity in terms of local pottery production between Troy VIIa and VIIb1 (Blegen et al. 1958, 142 f.; Hnila 2012, 15).

Nevertheless, the enhancement of exchange networks was an overall phenomenon in the entire eastern Mediterranean during the 14th–13th cent. BC Aegean and is most probably the result of a kind of domino effect triggered by multiple and interwoven factors, such as an increase in demand for crucial resources and prestige objects, improvement of sailing technology, continuous joining of new participating centres, ports, and agents, as well as politically motivated actions. There can be no doubt that the Troad's position is on the periphery of the Mediterranean-Aegean exchange networks so that it is in no way surprising that not all of the objects belonging to the Aegean 'exchange packet' were found there. When we compare the repertoire of the exotic goods found at Troy and Beşik-Tepe with the cargo of the Uluburun ship or the spectrum of imports known from southern Aegean and eastern Mediterranean major centres, then the following issues become clear: the majority of exotic goods known from the Troad belong to groups of objects of lower value, which were more widely accessible: Cypriot and Mycenaean pottery or small carnelian, glass, and

faience beads. Surely the value of those items was bigger in the northern Aegean simply because they were rare and had to travel longer from the place of manufacture. It is probably not necessary to view them only as the matter of political actions of the rulers and the elites. The cargo of the small Cape Gelidonya shipwreck, considered to be a private rather than an elite/royal enterprise, contained, among other goods, Cypriot pottery, pieces of rock crystal, and glass beads (Bass 1967). Therefore, we cannot rule out the possibility that some amount of the pottery or beads travelled to the Troad down-the-line, exchanged between local elites, or even in the framework of smaller scale freelance trade.

However, among the foreign goods from Troy there are also some luxury objects that would not fit in such a modest scenario: ostrich eggs, a faience vessel, or ivory combs. Therefore, the exchange of high value goods, controlled by the ruling class, must have taken place as well, even if sporadically. One of the possibilities for this kind of trade could have been the gift exchange mentioned above, where the prestige objects, which first travelled somehow to the southern Aegean/central western Anatolia, were further transferred to the north as part of diplomatic relations.

At the very end we must conclude that although the amount of data grew enormously in the course of the last years, and we are equipped with various scientific analyses, we still know too little about the way in which the communication (or rather communications) with the Troad took place. The publication of Panaztepe, more excavations on the western Anatolian coast between Panaztepe and Beşik-Tepe, as well as exploration of inland western Anatolian centres such as Kaymakçı will help us to understand the mechanisms better. Although we are aware of the fact that our paper presents mainly questions and only very few extremely cautious answers or suggestions, we hope that it can at least serve as a point of departure for further discussion. It is certainly a first step in the direction of a holistic approach to this complex conundrum of objects, dates, contexts, routes, and agents.

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RESSOURCENKULTUREN 8

BRONZEZEITLICHER TRANSPORT

Weiträumige Kontaktnetzwerke sorgen für Verbreitung und Transfer von Wissen und Gütern sowie von kulturellen Werten. Der Transport von Lasten und Menschen kann als einer der wichtigsten Eckpfeiler solcher Austauschsysteme gesehen werden. Daher dürften die Suche nach Transportmöglichkeiten und die Entwicklung geeigneter Vehikel in der menschlichen Gedankenwelt seit jeher fest verankert sein. Die hier vorliegenden Beiträge basieren auf den Vorträgen der Tagung „Transporte, Transportwege und Transportstrukturen“ der Arbeitsgemeinschaft Bronzezeit und des Sonderforschungsbereiches 1070 **RESSOURCENKULTUREN**. Sie fassen im archäologischen Befund der Bronzezeit vorhandene Evidenzen zu Transportwegen und -fahrzeugen sowie Aussagen zu Infrastruktur nicht nur zusammen, sondern ergänzen diese um zahlreiche wissenswerte Aspekte.

Was können diese Befunde über die Transportvehikel und ihre Bedeutung aussagen? Welche Eigenschaften wiesen diese auf? Handelt es sich bei den Fundstücken um abgenutzte oder mutwillig zerstörte Fahrzeuge bzw. Teile von solchen? Welche Implikationen auf technologischer und sozialer Ebene lassen sich mit den Befunden verbinden? Wie muss man sich die bronzezeitliche Infrastruktur in unterschiedlichen Regionen vorstellen? Inwiefern bildeten Verkehrswege und Austausch eine Ressource? Der detaillierten Beantwortung dieser Fragen ist dieser Band gewidmet, woraus eine übergreifende Zusammenschau von Funden, Befunden und Theorien entstanden ist.



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