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## **Connecting crafting communities: reconstructing interactions between communities in and out of Cyprus in the early third millenium BC**

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# CHAPTER 7:

The image shows a microscopic view of a ceramic material. The background is a dark, textured matrix. Scattered throughout are numerous light-colored, irregularly shaped inclusions of varying sizes. Some of these inclusions appear to be small, circular particles with a distinct, possibly crystalline or fibrous internal structure. The overall appearance is that of a composite or a multi-phase ceramic material.

Circulation of Ceramics,  
Pottery Technology and  
Extra-Insular Interactions

## Chapter 7 — Circulation of Ceramics, Pottery Technology and Extra-Insular Interactions

This chapter aims to assess the degree and scale of interactions between Cyprus and Anatolia during the third millennium BC. To do so, an overview of the relevant literature, summarizing the known imported and exported objects during the Chalcolithic Period and the Philia Phase is presented. Subsequently, an assemblage of Early Bronze Age pottery from Tarsus-Gözlükule, Cilicia, is discussed. The reasons for selecting this specific dataset are twofold: first accessibility, and second the fact that it includes the only confirmed Cypriot Chalcolithic pottery found in Anatolia so far (Goldman, 1956; Mellink, 1991). In this study, the known Cypriot imports are assessed, and technological affinities between the Cilician pottery production and pottery production technologies in Cyprus during the Chalcolithic and the Philia Phase are evaluated. To do so, this assemblage has been studied macroscopically by the author and the observations were paired with publications (e.g. Goldman, 1956; Mellink, 1991; Ünlü, 2009; 2011), and petrographic data kindly provided by Dr. Elif Ünlü. Even though pottery from the Philia Phase has not been included in the petrographic and elemental study presented in Chapter 6, these data are included here in order to adequately assess the possible exchange of pottery technologies between the two regions, paired with publications on the Philia material culture (e.g. Dikomitou-Eliadou, 2012; Frankel & Webb, 1996; 2006; Bolger & Webb, 2013), and petrographic data kindly provided by Dr. Elif Ünlü.

### 7.1. Indications of Contacts between Cyprus and Anatolia up to the Philia Phase – A literature review

The relations between Cyprus and its neighbors in Prehistory have been heavily debated among scholars. The consensus is that the island was first colonized at the start of the Holocene somewhere between ca. 9000-7000 BC (Vigne *et al.*, 2012; Knapp, 2013; 2020). Subsequently, it gradually fell out of contact with nearby mainlands until another major colonization episode, that of the Philia Phase (ca. 2400-2350/2250 BC), signifying the beginning of the Bronze Age (Mellink, 1991; Webb & Frankel, 1999; Frankel, 2000; Bachhuber, 2015). This has been explained as the result of foreign populations looking for copper sources, refugees fleeing Anatolia or even shipping technology innovations (Broodbank, 2010, pp. 255-256; Knapp, 2018, p. 22). While the presence of Anatolian populations is largely agreed upon, how these groups interacted with local communities is still under investigation (for an overview see Chapter 2).

#### 7.1.1. The Chalcolithic

The Chalcolithic is considered a period with less contacts with the mainlands in comparison to both the preceding Neolithic and the following Philia Phase. However, new research suggests that contacts were more common than previously thought.

#### 7.1.1.1. Faience beads

To begin with, an undoubtedly imported artefact type are faience beads. Several faience beads have been recovered from Middle Chalcolithic contexts in Souskiou-*Vathyrkakas* and Souskiou-*Laona*, and from Late Chalcolithic contexts in *Kissonerga-Mosphilia* (Peltenburg 2006; Kassianidou & Charalambous, 2019; Croft *et al.*, 1998a, pp. 192-195). After analysing some of them with a handheld XRF, Kassianidou and Charalambous (2019) have concluded that at least five of them, which contain Tin (Sn) in their chemical composition, must have been imported. As far as provenance is concerned they might come from either the Levant or Anatolia (Peltenburg, 1987; Kassianidou & Charalambous, 2019; Dardeniz *et al.*, 2021). Therefore, these are not necessarily imported from Anatolia, as they could have been imported from Egypt or Mesopotamia.

#### 7.1.1.2. Metal objects

Similarly, several metal objects which have been retrieved from Chalcolithic contexts seem to have been made from non-Cypriot ores (Kassianidou & Charalambous, 2019; Düring *et al.*, 2021). Metallurgy flourishes in Cyprus during the Bronze Age, when the Cypriot copper is exploited systematically for the first time. However, the origin of metallurgy on the island before that has been disputed. Some decades ago, Gale (1991) analysed four Cypriot ores and several metal objects from Middle Chalcolithic contexts: two chisels and one hook from *Erimi-Pamboula*, a hook from *Kissonerga-Mylothkia*, and a chisel and a possible blade from *Lemba-Lakkous*. A copper axe from a Late Chalcolithic context from *Kissonerga-Mosphilia* was also included in Gale's dataset, even though its dating to the Chalcolithic was later questioned. These objects were analyzed with Instrumental Neutron Activation Analysis (INAA), while lead isotopes analysis was also conducted on two of these artefacts. Subsequently, the data obtained were compared with data from mines in Cyprus: the Troodos chromite mines, the Limni copper mine, and the Peristerka copper mine. Gale concluded that at least six of these objects were not made of Cypriot copper ores: "*We can be sure that none of the analysed Chalcolithic objects was made of native copper from the four Cypriot sources analysed... It is highly unlikely that there was even a source of native copper on Cyprus impure enough to match the Chalcolithic objects*" (Gale, 1991, pp. 50). Peltenburg (2011) contested these results and argued that crucibles and copper lumps were in fact evidence for indigenous metallurgy in Chalcolithic Cyprus. However, later, Kassianidou and Charalambous (2019, pp. 179-281) agreed with Gale and argued for technological differences between Middle Chalcolithic and Late Chalcolithic metal objects: Middle Chalcolithic metal objects, mainly ornaments, were made by cold working of copper wire and strip, while most of Late Chalcolithic objects seem to have been made of melted copper in moulds (Düring *et al.*, 2018).

More recently, lead isotope analysis on three metal objects from *Chlorakas-Palloures*, has shown that they were consistent with copper ores from the Taurus mountains in Anatolia (Düring *et al.*, 2021, pp. 677-680). Subsequently, the data resulting from the analysis of the objects from *Chlorakas-Palloures* were compared with the older data of lead isotope analyses on metal objects that were found in Pella (Jordan) and Agia Photia (Crete), and were previously thought to be of Cypriot origin. However, they showed the same composition as the *Chlorakas-Palloures* artefacts, showing the same provenance – the Taurus mountains in Anatolia (Philip *et al.*, 2003; Bourke, 2014; Düring *et al.*, 2021, pp. 678-680). An overview of the fifteen objects that have been found in Chalcolithic contexts and one of which can safely say that they were imported in Cyprus is presented below in Table 19 below.

Table 19: Overview of the possibly imported objects found in Chalcolithic contexts in Cyprus (created by Maria Hadjigavriel after the publications mentioned in the table)

IMPORTED OBJECTS FOUND IN CHALCOLITHIC CONTEXTS IN CYPRUS						
type of artefact	description	site	context-chronology	provenance	way of determining provenance	publication
Metal	Hook	Kissonerga- <i>Mylothkia</i>	MChal - Pit F8	Not Cypriot	INAA	Gale, 1991
Metal	Chisel	<i>Erimi-Pamboula</i>	MChal - depth 2.2- 2.4 m	Not Cypriot	INAA	Gale, 1991
Metal	Hook	<i>Erimi-Pamboula</i>	MChal - unknown contexts, found in museum dataset	Not Cypriot	INAA	Gale, 1991
Metal	Chisel	<i>Lemba-Lakkous</i>	MChal - Building 3	Not Cypriot	INAA	Gale, 1991
Metal	Blade?	<i>Lemba-Lakkous</i>	MChal - Building 3	Not Cypriot	INAA	Gale, 1991
Faience	Faience bead (SVP 29/32)	<i>Souskiou-Vathyrkakas</i>	MChal -T omb 29	Not Cypriot	hand-held XRF	Kassianidou & Charalambous, 2019
Faience	Faience bead (78/4)	<i>Souskiou-Vathyrkakas</i>	MChal - Tomb 78	Not Cypriot	hand-held XRF	Kassianidou & Charalambous, 2019
Faience	Faience bead (78/5)	<i>Souskiou-Vathyrkakas</i>	MChal - Tomb 78	Not Cypriot	hand-held XRF	Kassianidou & Charalambous, 2019
Faience	Faience bead (78/6)	<i>Souskiou-Vathyrkakas</i>	MChal - Tomb 78	Not Cypriot	hand-held XRF	Kassianidou & Charalambous, 2019
Faience	Faience bead (399-3.5 beads 1, 2, and 3)	<i>Souskiou-Laona</i>	MChal - Tomb 158	Not Cypriot	hand-held XRF	Kassianidou & Charalambous, 2019
Metal	copper spiral	<i>Chlorakas-Palloures</i>	Mixed MChal/LChal context - BQ09 - Unit 31 - Lot 857	Anatolia	hand-held XRF & lead isotope analysis	During et al., 2021
Metal	copper snake/ spiral iform pendant	<i>Chlorakas-Palloures</i>	Mixed MChal/LChal context - BV13 - Unit 9 - Lot 700	Anatolia	hand-held XRF & lead isotope analysis	During et al., 2021
Metal	copper axe/ adze	<i>Chlorakas-Palloures</i>	LChal -Building 5 BU12 - Unit 19 - Lot 571	Anatolia	hand-held XRF & lead isotope analysis	During et al., 2021
Metal	Chisel (KM 2174)	<i>Kissonerga-Mosphilia</i>	LChal - Building 834	Not Cypriot	hand-held XRF	Kassianidou & Charalambous, 2019
Metal	Axe (KM 457)	<i>Kissonerga-Mosphilia</i>	LChal - deposits above tumble of Building 86	Not Cypriot	INAA & lead isotope analysis	Gale, 1991

### 7.1.1.3. Spurred annular pendants, earrings, and picrolite figurines

Another type of artefact that has been argued to be influenced by its Anatolian counterpart are the spurred annular pendants. Specifically, Peltenburg (2018) has argued that spurred annular pendants and a spiral earring from Late Chalcolithic contexts in Kissonerga-*Mosphilia* are imitating Anatolian ones (Croft *et al.* 1998b, p. 245). Such pendants occur in Philia graves in larger quantities, in settlement contexts in Marki-*Alonia*, and they are made of either picrolite or shell (Dikaios, 1962, pp. 174-5; Stewart, 1962, pp. 259-62; Hennessy *et al.*, 1988, pp. 15, 17, 62 & 70; Swiny *et al.*, 2003, pp. 236, 254, 276 & 588; Frankel & Webb, 2006, pp. 75, 77 & figure 6.33). Researchers have suggested that these are Cypriot versions of the “ring idols” known from Anatolia, modern-day Greece and the Balkans (Zimmermann, 2007; Kouka, 2009, p. 35; Keskin, 2011). In these regions the pendants are often made of metal and are comprised of a perforated bar attached to a ring, while in Cyprus they are made of shell, bone, or picrolite, and they can be described as a spur attached to a ring, with the perforation on the opposite side (Peltenburg, 2018, p. 461). Similarly, spiral earrings have been found in Philia funerary contexts, like Nicosia-*Ayia Paraskevi*, Vasilia, Deneia and Philia, and are primarily made of copper (Dikaios, 1962, pp. 158-9; Hennessy *et al.*, 1988, pp. 14-5, 17, 62, 70; Nicolaou & Nicolaou, 1988, p. 105, figure 17; Swiny *et al.*, 2003, pp. 376-9 & 382; Frankel & Webb, 2006, pp. 186-7, figure 5.26; Mina, 2014). However, in Anatolian and Aegean contexts such as Baklatepe, Eskiyapar, Poliochni, and Troy, they are usually made of gold and with a series of parallel lobes (Massimino, 2019, plate 24). One should note that both of these types of artefacts occur almost exclusively in Philia contexts and the fact they occur in Late Chalcolithic contexts in Kissonerga-*Mosphilia* can be due to the possible existence of assemblages from both periods at the site, or overlap of the two periods (Peltenburg, 2018; Paraskeva, 2019).

It has also been argued that even three of the famous picrolite figurines might reproduce Anatolian types (Vagnetti, 1979; Winkelmann, 2020, p. 281). Specifically, these are three figurines made of picrolite, and seem to be mimicking Anatolian violin-shaped figurines, and have parallels at Beycesultan and Çiledir Höyük (Makowski, 2005; Türktüzün *et al.*, 2014; Tuncel & Şahoğlu, 2019; Sari, 2021).

### 7.1.1.4. Pottery

Finally, so far, no Anatolian or Levantine pottery has been found in Chalcolithic contexts. However, numerous studies have dealt with possible influences in pottery technology in the Late Chalcolithic, with an emphasis on the red and/or black burnished surfaces and relief decoration (e.g. Bolger, 2007; 2013; Peltenburg, 2007; 2018). Importantly, Middle Chalcolithic Cypriot pottery has been found in Tarsus-*Gözlükule*, in Cilicia: two sherds and a partial vessel identified as Red-on-White Ware (Goldman, 1956, pp. 20 & 130, figs. 263 & 347; Mellink, 1991, pp. 170-172). They were found in deposits dating to the EB II (ca. 2700-2400), which corresponds to the Late Chalcolithic on Cyprus.

### 7.1.2. The Philia Phase

In the subsequent Philia Phase metal artefacts are found in larger quantities, and in novel types including daggers, spearheads and ring ingots. Lead isotope analysis has showed that at least 15 metal objects from this period have been made by mixing metal from Cyprus, the Taurus mountains, and the Aegean, a practice that continues in the later periods as well (Stos-Gale & Gale, 2003; Webb *et al.*, 2006; pp. 271-3; Webb, 2018, pp. 10-11; Webb, 2022). Another type of imports from Anatolia during the Philia Phase are animals: new species of sheep and goats with twisted horns, probably wool-bearing, cattle, and donkey (Croft, 2006). It is believed that these animals were imported to facilitate new activities such as transport, ploughing or the production of wool, although the extent to which these activities were already taking place in the Philia Phase is contested. For example, as Düring (in press) maintains, even though it has been argued that ploughing started in the Philia Phase (Webb & Frankel, 2007), there is no evidence for this. On the contrary, the first iconographic evidence, from Vounous, dates about 400 years later, and the faunal evidence for traction are not conclusive, so this argument was later withdrawn (Croft, 2006, p. 271).

For Philia pottery production, the Anatolian influences are undisputed, and pottery characteristics have been considered one of the strongest indications for increased extra insular contacts. However, no Anatolian vessels have been recovered in Philia contexts so far, with the earliest imported ceramic, the so-called Vounous jar, dating to the Early Cypriot I/II (ca. 2350/2250-1850 BC) (Bolger, 2013, pp. 5-6). On the other hand, at least five Cypriot Black Slip and Combed Ware sherds and one jug with a cut-away spout dating to the Philia Phase have been recovered in Tarsus-*Gözlükule* (Goldman, 1956, pp. 20 & 130, figs. 263 & 347; Mellink, 1991, pp. 170-2; Webb & Frankel, 1999, p. 28). Just like the Cypriot Chalcolithic sherds found at this site, they belong to EB II contexts that cannot be dated safely, and they are analysed in detail later in this chapter. Finally, it should be noted that Philia pottery in EB sites in Anatolia has possibly been identified at Hacimusular Höyük, where a horned jar which resembles Philia White Painted jugs has been recovered from EB II levels (Özgen *et al.*, 2021, p. 628, fig. 21x). An overview of the Cypriot objects found in Anatolia in EB I-II contexts is presented in the Table 20 below.

Table 20: Overview of possibly Cypriot object found in Anatolia in contexts dating to EB I-II (created by Maria Hadjigavriel after the publications mentioned in the table)

CYPRIOT OBJECTS FOUND IN ANATOLIA IN CONTEXTS DATING TO EB I-EB II						
type of artefact	description	site	context-chronology	provenance	way of determining provenance	publication
Pottery	Red-on-White Ware sherd (MChal)	Tarsus-Gözlükule	Sherd number 2009.14.501 EB II deposits	Cyprus	Macroscopic analysis	Goldman, 1956 Mellink, 1991
Pottery	Red-on-White Ware sherd (MChal)	Tarsus-Gözlükule	Sherd number 2009.14.502 EB II deposits	Cyprus	Macroscopic analysis	Goldman, 1956 Mellink, 1991
Pottery	Red-on White Ware partial vessel (MChal)	Tarsus-Gözlükule	EB II deposits	Cyprus	Macroscopic analysis	Goldman, 1956 Mellink, 1991
Pottery	Black Slipped and Combed Ware sherd (Phila)	Tarsus-Gözlükule	Sherd number 2009.14.470 EB II deposits TAN, Room 107, Floor; Date: December 14, 1938; Meters: 16.11	Cyprus	Macroscopic analysis, ceramic petrography & XRD analysis	Goldman, 1956 Mellink, 1991 Ünlü, 2009
Pottery	Black Slipped and Combed Ware sherd (Phila)	Tarsus-Gözlükule	Sherd number 2009.14.471 EB II deposits Room 103, Floor; Date: December 10, 1938; Meters: 15.22 - 15.88	Cyprus	Macroscopic analysis, ceramic petrography & XRD analysis	Goldman, 1956 Mellink, 1991 Ünlü, 2009
Pottery	Black Slipped and Combed Ware sherd (Phila)	Tarsus-Gözlükule	Sherd number 2009.14.472 EB II deposits Meters: 14.40	Cyprus	Macroscopic analysis, ceramic petrography & XRD analysis	Goldman, 1956 Mellink, 1991 Ünlü, 2009
Pottery	Black Slipped and Combed Ware sherd (Phila)	Tarsus-Gözlükule	Sherd number 2009.14.473 EB II deposits Meters: 13.20	Cyprus	Macroscopic analysis, ceramic petrography & XRD analysis	Goldman, 1956 Mellink, 1991 Ünlü, 2009
Pottery	Black Slipped and Combed Ware sherd (Phila)	Tarsus-Gözlükule	Sherd number 2009.14.474 EB II deposits	Cyprus	Macroscopic analysis, ceramic petrography & XRD analysis	Goldman, 1956 Mellink, 1991 Ünlü, 2009
Pottery	Black Slipped and Combed Ware sherd (Phila)	Tarsus-Gözlükule	Sherd number 2009.14.475 EB II deposits TAL, Room 62, Floor; Date: April 20, 1938; Meters: 10.11	Cyprus	Macroscopic analysis, ceramic petrography & XRD analysis	Goldman, 1956 Mellink, 1991 Ünlü, 2009
Pottery	Philia jug with cut-away spout	Tarsus-Gözlükule	Pitcher 356 Sherd number 2009.14.506 EB II deposits	Cyprus	Macroscopic analysis	Goldman, 1956
Pottery	Horned jug	Hacımusular Höyük	EB II deposits	Cyprus	Macroscopic analysis	Özgen et al. 2021

## 7.2. The Tarsus-Gözlükule Assemblage – A Comparative Study to Assess Chalcolithic and Philia Connections

Tarsus-Gözlükule is a site close to modern-day Tarsus in Cilicia, south-eastern Turkey. It was first excavated by an American mission led by Hetty Goldman under the auspices of Bryn Mawr College in the 1930s and 1940s. The Bronze Age contexts were published in an edited volume in 1956, including a very detailed pottery catalogue compiled by Goldman, and an appendix on ceramic technology by Matson (Goldman, 1956; Matson, 1956). Since 2007, the site is being excavated by the Tarsus Regional Project led by Dr. Aslı Özyar of Boğaziçi University. However, these excavations have not worked on Early Bronze Age levels (Özyar *et al.*, 2010; 2017). Later on, the pottery unearthed during the American excavations was re-studied by Dr. Elif Ünlü during her PhD research (Ünlü, 2009). While Goldman categorized the pottery assemblage based on macroscopic observations of the clay matrix, surface treatment and shapes of the vessels, in Ünlü's work, mineralogical, morphological, and formal shape and decoration-related analyses were considered equally (Ünlü, 2009; 2011). The data presented here draw from Goldman's and Ünlü's work and do not include the findings of the current Tarsus Regional Project.

Hetty Goldman deposited the pottery reference collection from Tarsus-Gözlükule along with all the archives of her project to Bryn Mawr College. The Tarsus Archives is comprised of almost 2000 objects, including 450 sherds which are ascribed to the EB, and are stored in 33 boxes at the Special Collections of the Bryn Mawr College Library. For the purposes of this project the assemblage has been studied macroscopically in January 2023. For each sherd, when applicable, the following characteristics were recorded: Sherd number; Ware; Box; Provenance; Chronology; Context; Shape; Wall thickness; Diameter; Surface Treatment (exterior and interior); Hardness; Core; Fabric Colour; Feel; Texture; Macro-Traces; and Technique. The analysis of some of these sherds is presented in Appendix VIII. Subsequently, the sample's fabrics were studied macroscopically, using a 10x magnifying lens and a hand-held digital microscope. The aim of this analysis was to recognize and evaluate the Cypriot imports and obtain an understanding of the local pottery traditions in order to assess possible technological influences in Cyprus. The relevant wares for this study are the ones ascribed to the EB I and EB II, and represent 67.5% of the overall assemblage.

In the following sections the Cypriot imports are discussed, as well as some technological affinities of specific wares/sherds with Late Chalcolithic and Philia pottery from Cyprus. Before assessing technological similarities in pottery production between Tarsus-Gözlükule and Cyprus one must keep in mind the chronology and periodization of the two regions: the Middle and Late Chalcolithic periods in Cyprus correspond in part to EB I and EB II in Anatolia, while the Philia Phase corresponds to the beginning of EB III in Anatolia. However, one should always keep in mind that this collection comes from an old excavation and much of the material cannot be closely dated. Therefore, this study uses it to reflect on possibilities of exchange of material and pottery technologies between the two regions, and not as an absolute comparison.

### 7.2.1. Cypriot Imports

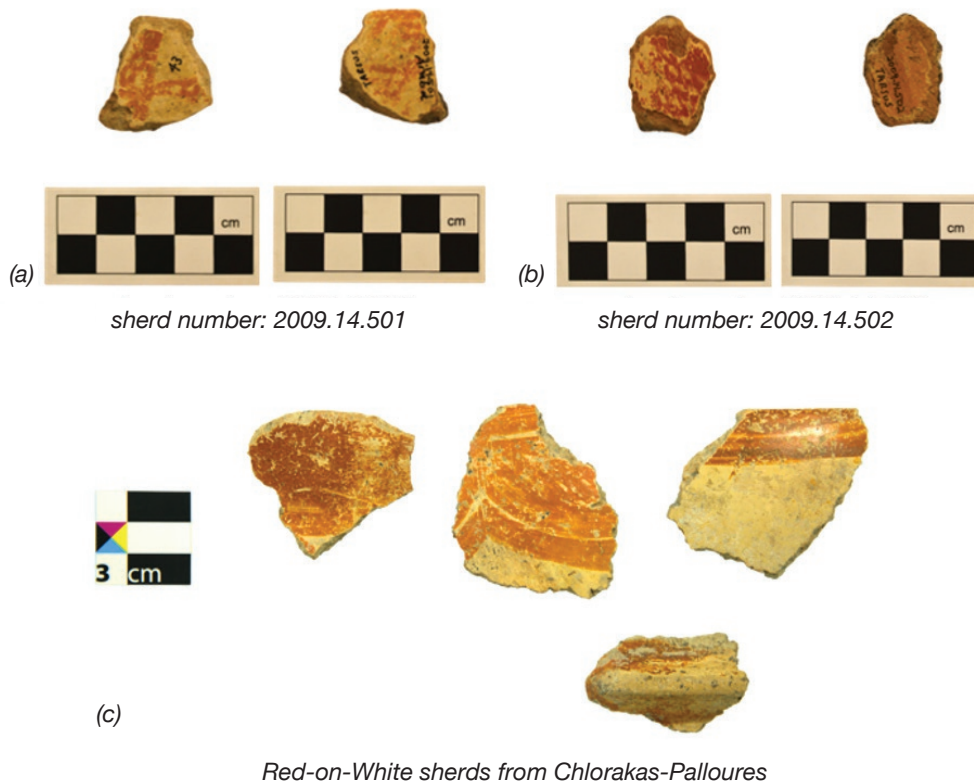
Tarsus-Gözlükule remains the only site in Anatolia where the presence of Cypriot Chalcolithic pottery is confirmed. As mentioned before, a possible Philia sherd has been recently recovered in Hacimusular Höyük (Özgen *et al.*, 2021, p. 628, fig. 21x). In Tarsus-Gözlükule, Goldman recognized two wares, the Middle Chalcolithic Red-on-White (RW) and the Philia Black Slip and Combed Ware (BSC), which in the publication is referred to as "Red and Black Streak-Burnished Ware", not to be confused with the Late Chalcolithic Red Black Stroked-Burnished Ware (RB/B) of the Paphos region (Goldman, 1956, p. 112-113).

### 7.2.1.1. Red-on-White (RW) Sherds

In the Bryn Mawr's reference collection, two sherds are classified as Cypriot Red-on-White ware. Both are open sherds, as they are painted on both sides, one is a body and one is a straight thinning rounded rim, which is however too small to deduct the diameter of the vessel. Their macroscopic fabric it is beige to light yellow, oxidized, with diffused core margins. Both come from EB II deposits, but no further information is given in regards to their contexts, as they come from fill deposits. Even though these sherds are very small, as far as macroscopic observations go, they are definitely Cypriot RW. This has also been stated by Peltenburg (1982, pp. 95-96), though he highlighted that their exact provenance within the island is difficult to be determined.

Indeed, Goldman had identified two RW sherds and one RW partial vessel: "*The red-on-white slip ware comes from Cyprus where it is known as Erimi ware (379-380). It is characteristically thick, rather crumbly white fabric. The recognizable shapes are jar and bowl*" (Goldman, 1956, p. 112). Similarly, Mellink (1991, p. 170) describes two RW sherds: one rim of a bowl with lattice pattern in and out, ca. 0.7 cm thick, and one open body sherd, latticed on the exterior and red in the interior. These are sherds 2009.14.501 and 2009.14.502 respectively (Figure 94, (a), (b)).

Figure 94: Red-on-White sherds from Tarsus-Gözlükule, 2009.14.501 (a) and 2009.14.502 (b), and from Chlorakas-Palloures (c) (photographs by Maria Hadjigavriel)



### 7.2.1.2. Philia Black Slip and Combed Ware (BSC) sherds

In the reference collection, there are six sherds that are categorized as Cypriot BSC of the Philia Phase (Figure 95). According to Goldman (1956, p. 112), BSC sherds in Tarsus have a dark fabric, quite heavy and highly burnished slip, and are black and red, with one or the other colour dominating. This surface treatment is characteristic of the ware, creating a burnished red-black streaked effect, although Goldman maintains that the burnishing is more irregular than that of sherds found in Cyprus (Goldman, 1956, p. 113). All of the six sherds here are body sherds, with five being of closed shapes and only one being an open body sherd. According to Goldman's (1956, p. 113) and Mellink's (1991, p. 171) observations regarding vessels shapes of BSC, with the most recognizable vessel shape is a long-necked bottle (about 15 sherds) and bowls occur less often (three or four sherds). All six sherds are quite thick, with the wall thickness ranging from 0.6 to 1.1 cm, and all have been fired in reduced atmosphere. They have all been recovered in EB II contexts, with many of them occurring around the second fortification wall, and the safest contexts being the floors of House 103-105-107, Level 15.22-15.88 (Goldman 1956, Plan 6, fig. 263:375-76; Mellink, 1991, p. 171). Even though it has been argued that BSC sherds from Tarsus might have affinities to the Late Chalcolithic RB/B (e.g. Mellink, 1991, p. 172), this is definitely not the case, at least when it comes to the six sherds studied here. On the contrary, they are extremely similar to BSC from sites Philia in northern Cyprus, like *Kyra-Alonia* (Figure 96).

Figure 95: BSC sherd from Tarsus-Gözlükule (photographs by Maria Hadjigavriel)



Figure 96: Reconstructed BSC bowls from Kyra-Alonia (photographs by Maria Hadjigavriel)



Ceramic thin section petrography data are available for these sherds, since Ünlü had sampled two BSC sherds from the Tarsus-*Gözlükule* assemblage (referred to as Samples 40 and 41 in Ünlü, 2009). Even though, as she notes the two samples differ from each other, they are both petrographically consistent with Cypriot clays at the time, as these were described by Frankel and Webb (1996, p. 175-180), especially Sample 41 (Ünlü, 2009, p. 125). Specifically, Sample 40 is comprised of sedimentary components while Sample 41 includes igneous rocks. For Sample 40, ceramic petrography has shown that the dominant inclusions are limestone, shell, mudstones and quartz. On the other hand, Sample 41 is dominated by large calcite and shell fragments, along with some shale fragments and some big basalt inclusions. There are also free feldspars and quartz, while mudstones with quartz component are also visible. Both of the samples are calcareous (Ünlü, 2009, 254-255). These observations are confirmed by the XRD analysis which showed that both samples contain plagioclase feldspars and pyroxenes, quartz and micas. Nevertheless, in Sample 41 a wider range in alkali feldspars and mica types occurs. ESEM analysis showed that both samples are calcareous and of iron-rich clay (Ünlü, 2009, pp. 125-126).

One must note that Ünlü maintains that even though these samples differ from each other to some extent, they could have been broadly categorised into her petrographic Local Fabric III. What distinguishes them is their typology, indicating their Cypriot provenance (Ünlü, 2009, p. 126). Therefore, what verifies the Cypriot origin of these sherds is their typological features.

#### 7.2.1.3. A Philia pitcher and Philia-like spout

Within the reference collection at Bryn Mawr, there is one spout which has been ascribed to the Red Slipped Polished Ware, a non-local ware. This spout type is quite common in the Philia vessel shapes repertoire. Additionally, a similar spout is observed on a pitcher mentioned in Goldman's publication, pitcher 356 which was ascribed to the Plain Red Burnished Ware of EB II but she noted that "*The pitcher (356) falls out of the general picture of Cilician shapes and is so close to the Cypriote style that it may very well be an imported piece*" (Goldman, 1956, p. 112). Even though we cannot verify the Cypriot origin of the pitcher or the spout, they are included here as possible Cypriot export (Figure 97).

Figure 97: Drawing of Philia Red Polished jugs from Agia Paraskevi (a), a Philia jug at the Metropolitan Museum of Art in New York (b), Pitcher 356 from Tarsus-Gözlükule (c) and sherd 2009.14.506 from Tarsus-Gözlükule (d) (after Bolger & Webb, 2013, p. 93 (a), [www.metmuseum.org](http://www.metmuseum.org) (b), Goldman, 1956, p. 262 (c) and photographs by Maria Hadjigavriel (d))



## 7.2.2. Pottery Technology Similarities between Cypriot Pottery and the Tarsus-Gözlükule Assemblage

This section focuses on broader similarities between Late Chalcolithic and Philia Cypriot pottery characteristics with wares and specific sherds included in the Tarsus-Gözlükule dataset under study. Once again, it is important to keep in mind that this collection originates from an old excavation, and much of the material cannot be precisely dated. Therefore, this study utilizes it to explore potential exchanges of materials and pottery technologies between the two regions rather than as an absolute basis for comparison.

### 7.2.2.1. Surface treatment similarities between Tarsus and Late Chalcolithic Cypriot wares: Burnishing and relief decoration

Red and/or black monochrome burnished wares, occasionally with relief decoration, are dominant in the Late Chalcolithic of Cyprus. Precisely these characteristics have been employed in previous studies as indicators of contacts with both Anatolia and the Levant (i.e. Bolger, 2007; 2013; Peltenburg, 2007; 2018).

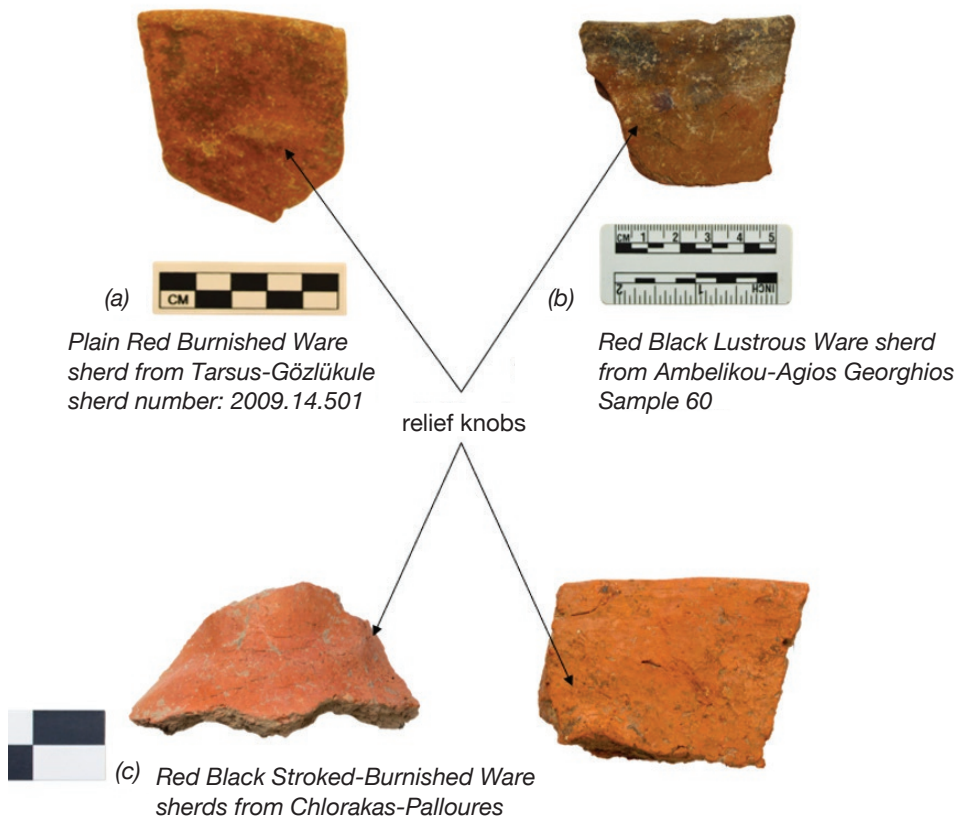
A ware from Tarsus-Gözlükule that has also these characteristics is the Plain Red Burnished Ware, a handmade calcareous ware which occurs in the EB I-II (Goldman, 1956, pp. 111-112; Matson, 1956, p. 354). Indeed, several sherds from the reference collection that have been ascribed to this

ware resemble Cypriot red monochrome Late Chalcolithic pottery. The common characteristics are red monochrome highly burnished surfaces, often with visible burnishing streaks, and occasionally randomly mottled surfaces, relatively thin walls (0.4-0.8 cm) and finer macroscopic fabrics. Additionally, these characteristics also occur in Red Gritty sherds (Figure 98). Notably, one Plain Red Burnished sherd has a slight relief knob on the exterior and random mottling, resembling both Red Black Stroke-Burnished sherds with relief decoration from the Ktima Lowlands sites and a Red Black Lustrous sherd with relief decoration from Ambelikou-Agios Georghios (Figure 99).

Figure 98: Plain Red Burnished Ware and Red Gritty Ware sherds from Tarsus- Gözlükule (left), and red burnished pottery from Late Chalcolithic Cyprus (right) (photographs by Maria Hadjigavriel)



Figure 99: Sherds with relief knob and/or mottled surface from Tarsus-Gözlükule (a), Ambelikou-Agios Georghios (b), and Chlorakas-Palloures (c and d) (photographs by Maria Hadjigavriel)



#### 7.2.2.2. Red Gritty Ware from Tarsus and Late Chalcolithic Spalled Ware from Cyprus: A possible influence

As already mentioned in previous chapters, Spalled Ware is a novel Late Chalcolithic pottery ware. Bolger (2019) attributes its beginning to the end of the Middle Chalcolithic. A thinly applied grey/black and/or beige slip covers the surfaces, which are often pock marked (spalled) and highly burnished with visible burnishing strokes. It is used primarily for closed vessels like jugs and jars (Bolger *et al.*, 1998; Bolger & Webb, 2013).

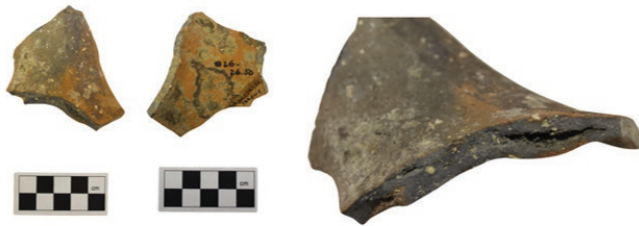
These characteristics are also evident in some Red Gritty Ware sherds in Bryn Mawr's reference collection: namely one Red Gritty Ware; two Red Gritty Ware-Fine; one Red Gritty Chevron Incised Ware; one Painted Red Gritty or Sandy Ware; and four Plain Red Gritty or Sandy 'Apricot' Ware. These sherds are all handmade, very hard, slipped on both sides when they are open vessels. The interior remains untreated for closed vessels (the majority of the sherds). All are body sherds apart from one straight constant rounded rim. Wall thickness varies from 0.2 to 0.6 cm. These are definitely not Cypriot imports, but do have some similarities in surface treatment: the thinly applied beige, red or grey slip and often "pocked" effect; macroscopic fabric: thoroughly fired grey core and visible large white inclusions; and general feel and high hardness (Figure 100).

Petrographically, the Red Gritty Ware sherds correspond to Ünlü's petrographic Local Fabric III, which is one of the main fabric groups of EB Tarsus. This is an iron-rich fabric, not very calcareous, with quartz and feldspars dominating the matrix. It also includes some metamorphic elements like schist and quartzite, while sandstones siltstones, mudstones and shale are also present. Volcanic inclusions

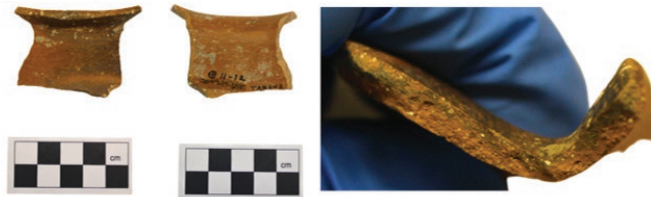
like basalt also occur (Ünlü, 2009, p. 81). It represents primarily handmade, utilitarian vessels, such as pitchers, pithoi, and cooking pots. All of the vessels belonging to this group are well-fired. Additionally, Ünlü has noted that “Given the standardization of fabric, vessel shapes, high percentage distribution within the settlement, and its wide-spread occurrence within the region and beyond, Local Fabric III production seems to fall under “community specialization” in terms of production organization” (Ünlü, 2009, p. 85). Here the term “community specialization” is used according to Costin, who defines it as “autonomous individual or household-based production units, aggregated within a single community, producing for unrestricted regional consumption” (Costin, 1991, p. 8).

The Cypriot Spalled Ware corresponds to petrographic Fabric III presented in this study (see Chapter 6 and Appendix VI). This is a fabric dominated by micritic limestone, chert and argillaceous inclusions, while sandstone, serpentinite, monocrystalline quartz and opaques are common, and a few fragments of polycrystalline quartz and basalt also occur. Therefore, these two petrographic fabrics are not similar or comparable to each other, with the only similarity in terms of clay properties being the fact that they both exhibit spalling at high temperatures. Therefore, these wares do not share petrographic fabrics and their similarities are only on a macroscopic basis. This indicates different clay sources and clay preparation processes, suggesting only possible mediated interactions between the crafting communities in question (Gosselain, 2018, pp. 9-12).

Figure 100: Red Gritty (Fine) Ware sherds from Tarsus-Gözlükule (a,b) and Spalled Ware sherds from Chlorakas-Palloures (photographs by Maria Hadjigavriel)



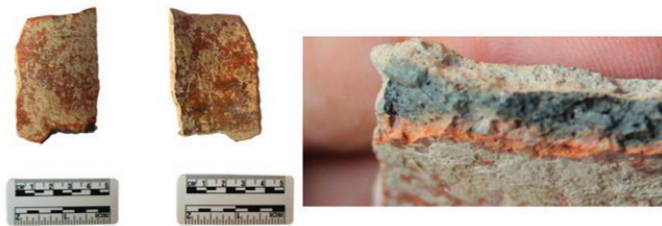
(a) Red Gritty Ware sherd from Tarsus-Gözlükule. Sherd number: 2009.14.442



(b) Red Gritty Fine Ware sherd from Tarsus-Gözlükule. Sherd number: 2009.14.655



(c) Spalled Ware sherd from Chlorakas-Palloures. Sample 37



(d) Spalled Ware sherd from Chlorakas-Palloures. Sample 36

### 7.2.2.3. Philia Red Polished Ware and pottery from Tarsus: Similarities in firing, surface treatment and forming techniques

As already mentioned in Chapter 3, the Philia Red Polished Ware is the most popular ware of the Philia Phase and its Anatolian influences have been characterized as apparent (Peltenburg, 1991c). It is distinguished by its smoothed red slipped evenly polished surfaces, occasionally with incised decoration that might be filled with white limestone paste or with black reduced surfaces, and its distinct yellow/brown fabric with thick grey core (Bolger & Webb, 2013, p.60).

Of the sherds within the Tarsus-Gözlükule assemblage that resemble this ware, six are ascribed to the Incised Red Burnished Ware, and one to the Red Slipped Polished Ware. The Incised Red Burnished Ware is a variant of the Plain Red Burnished Ware, characterized by its red slipped burnished surfaces, which vary from low burnish to very high lustrous. The incised variant is highly burnished and the slip is a light cherry-red colour. The bases stay untreated on both sides. According to Goldman, the incised decoration was done after the hardening of the clay and before the slipping and polishing, covering over the pattern. Often there are incised lines encircling the neck. Unlike its EB I variation and the Philia Red Polished Ware, there is no clear indication of white-filled decoration. The interior surfaces are left untreated. Interestingly, some sherds have traces of finger pressing on the interior surface (Figure 101).

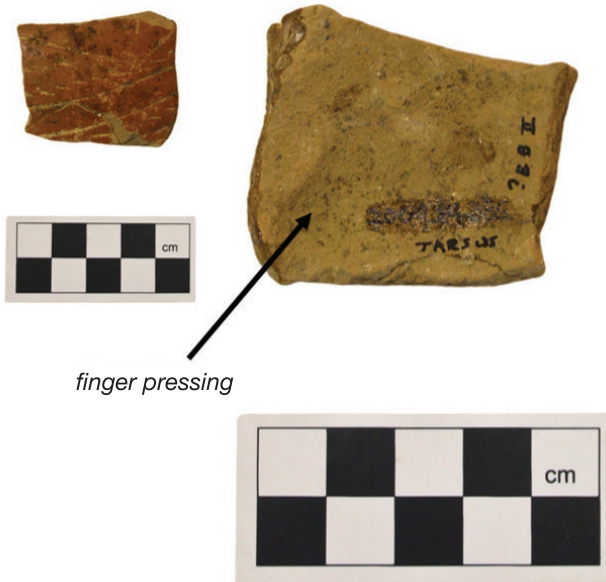


Figure 101: Sherd 2009.14.385, with evident finger pressing on the interior surface (photographs by Maria Hadjigavriel)

The macroscopic fabric of these sherds is soft, fine grained, and uniform in cross-section. They occur in pitchers that have pear-shaped or oval body, cylindrical neck, and profound trefoil spout. Only one open vessel, a bowl, has been ascribed to this ware (Goldman, 1956, p. 112). Of the six sherds ascribes to the Incised Red Burnished Ware, one is a handle of a closed vessel and the rest are closed body sherds (Figure 102). They all come from EB II contexts.

Figure 102: Incised Red Burnished Ware sherds from Tarsus-Gözlükule that resemble Philia pottery (photographs by Maria Hadjigavriel)



#### 7.2.2.4. Cooking pots in EBA Tarsus and Philia Cooking Pots Type A

Even though several innovations in Philia pottery production have been explained as influences from Anatolia, some remain unexplored. One of them is the emergence of cooking pots made in a calcareous fabric, a phenomenon that does not continue on Cyprus after the Philia. In Marki-*Alonia*, these cooking pots are referred to as Philia Cooking Pots Type A, and included in the Red Polished Coarse Philia Ware (RPCP) (Frankel & Webb, 2006, pp. 135; Dikomitou-Eliadou, 2012, p. 158).

In EB I Tarsus-*Gözlükule*, cooking pots occur in the Hard Cooking Pot Ware, the Soft Gritty Cooking Pot Ware, and the Light Slipped Cooking Pot Ware. Hard Gritty Cooking Pot Ware is handmade, not well fired, and its macroscopic fabric is reddish brown with grits, shell, limestone, sand, mica and some chaff. The surface is dull, slipped or smoothed, and usually brown. It occurs in hole-mouth jars, jars with everted rims and pans. This ware is largely abandoned after the EB I (Goldman, 1956, p. 96). Soft Gritty Cooking Pot Ware is handmade, not very well fired, even crumbly, with most of the core being dark, and it is usually slipped, sometimes burnished. Light Slipped Cooking Ware has the same macroscopic fabric as the Soft Gritty Cooking Pot Ware and it is always covered with a dull slip. These wares occur in amorphous types of casseroles and jars, and large one- or two-handled cups and bowls; and common kitchen pots, spoons and a thin-walled variety of jars with everted rims (Goldman, 1956, p. 97). In EB II these cooking pot wares merge into one ware, the Cooking Pot Ware, which occurs in bowls and casseroles with simple rims and horizontal or vertical handles (sometimes with ledge or lug handles), pitchers, small bowls and jars (Goldman, 1956, p. 110).

In Philia Phase Cyprus, cooking pots belong to the Red Polished Coarse (Philia) Ware. This is medium-hard to hard ware with brown fabric. The exterior surface can be red, brown, with a thin wash or matt or slightly lustrous slip, and sometimes a thick white coating, discoloured grey. Besides cooking pots, it also occurs in large storage jars and pithoi, and it is characterized by many small and medium white inclusions visible on both sides of the surface and in the macroscopic fabric (Bolger & Webb, 2013, p. 51).

##### 7.2.2.4.1. Clay recipe and preparation

Macroscopically, sherds that belong to the Cilician cooking pot wares of EB I and II present the same small white and grey inclusions evenly distributed across their section as the Philia Cooking Pots Type A. Petrographically, Ünlü (2009, p. 81) has ascribed several cooking pots to the Local Fabric III, which is a not very calcareous fabric dominated by quartz and feldspars, along with schist, quartzite, sandstones, siltstones, mudstones, shale and volcanic inclusions, like basalt. For example Sample 4, a sherd that belongs to the Soft Gritty Cooking Pot Ware, is dominated by large mudstones which contain quartz and fossil. The calcareous inclusions also contain quartz infilling while quartz is present in fine fraction as well (Ünlü, 2009, p. 220; Figure 103).

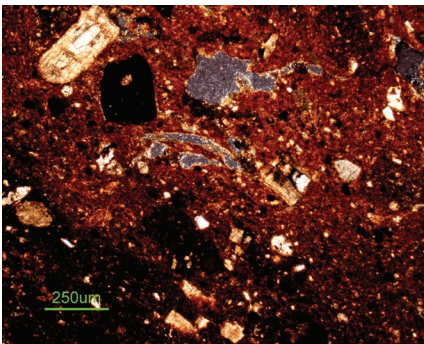


Figure 103: Sample 4 in Local Fabric III (photomicrograph taken under PPL, kindly provided by Dr. Elif Ünlü)

When assessing Philia pottery from Marki-*Alonia*, Dikomitou-Eliadou sampled thirty two cooking pots, which were exclusively ascribed to three petrographic fabrics: IV, V and VIII, indicating that only specific fabrics were preferred for their production. The majority of these samples (25) were ascribed to either Fabric IV or VIII, which are non-calcareous fabrics, rich in igneous inclusions such as biotite and monocrystalline and polycrystalline quartz and meta quartz (Dikomitou-Eliadou, 2012, p. 250-251). Interestingly, seven of these samples are made with fabric V, a calcareous fabric, dominated by micritic limestone, which is thought to have been added to the clay intentionally. However, in other regions, limestone or monocrystalline calcite are not commonly used in cooking pot fabrics (Arnold, 1985; Shoval *et al.*, 1993, p. 263, 271). This is because carbonate tempers don't have the optimal thermal properties for cooking pots, as they can cause defects and porosity (Shoval *et al.*, 1993, p. 269). On occasion, limestone would be used because it reduces the bulk thermal expansion of the vessel's body, and the porosity of calcareous fabrics (Tite & Kilikoglou, 2002, p. 1; Tite *et al.*, 2001, p. 322). All of the Cooking Pot Type A samples have been ascribed to calcareous fabric V, by Dikomitou-Eliadou (2012, p. 250), which is distinguished by their distinct small white and grey inclusions evenly distributed across their section.

Cooking pots made in fabric V are a unique Philia phenomenon since they ceased to be produced in the EC I-II period, and Dikomitou-Eliadou argued that this fabric was not locally made at Marki-*Alonia* but imported. In contrast, fabric IV was locally made and continued to be used for the production of cooking pots throughout the Early Cypriot and the Middle Cypriot, along with fabric VIII (Dikomitou-Eliadou, 2012, p. 255-256). So, for fabric V Dikomitou-Eliadou (2012, p. 251) wonders "*why then did the Philia potters use this relatively unsuitable temper material for cooking pot fabric Type A, and how did they manage to produce limestone enriched cooking pots that survived not only initial firing as part of their production sequence, but also repeated heating in later household activities?*". The latter part of this question can be answered by looking at technological solutions: Philia Cooking Pots of Type A seem to have been fired for at least six hours below 600°C, for the vessels to remain intact and to avoid decarbonising (Shoval *et al.*, 1993, p. 271). Other ways to restrain calcite decomposition, would be to quench the pot in cold water immediately after firing, or to wet the clay with sea water or to add salt (sodium chloride) to the clay (Rye, 1981, p. 33; Tite & Kilikoglou, 2002, p. 3; Tite *et al.*, 2001, p. 322). The latter would explain the white or grey coating on several cooking pots (Frankel & Webb, 2006, p. 101). It has been suggested that cooking pots were significantly standardised from the Early Cypriot III period onwards, but certain characteristics, such as the fact that the non- calcareous fabrics remain consistently dark coloured and coarse, remain the same from the Philia Phase (Frankel & Webb, 2006, p. 133; Dikomitou-Eliadou, 2012, p. 254). This is in accordance to the general assumption that non-calcareous volcanic clays have darker colours, and these colours aid at retaining heat, just like the carbon coating on the exterior surface of a vessel (Arnold, 1985, p. 23; Frankel & Webb, 2006, p. 135).

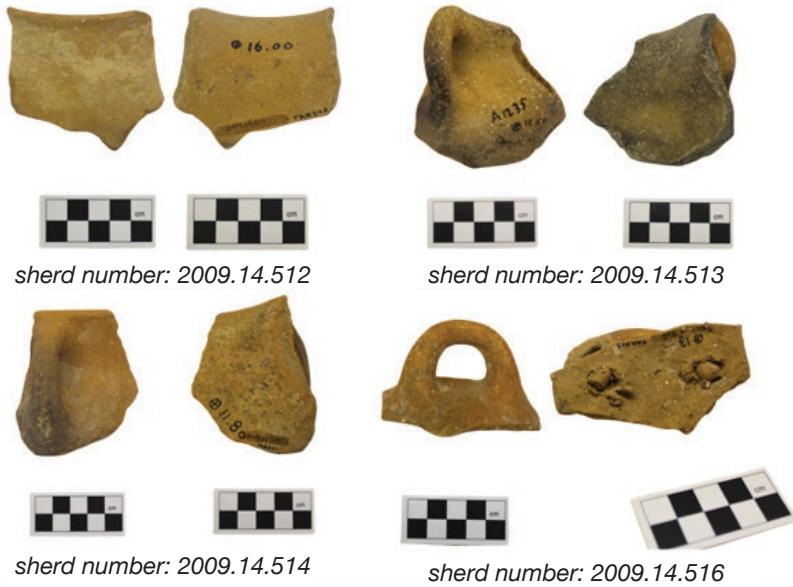
However, one explanation could also be that they Philia Cooking Pot Type A vessels are reproduced in a way similar to Anatolian cooking pots. Eleven sherds from the Tarsus-Gözlükule pottery reference collection at Bryn Mawr have been ascribed to cooking pot wares. Four of them are dated to the EB I: three are ascribed to the Light Slip Cooking Pot Ware and one to the Hard Gritty Cooking Pot Ware, a straight constant rounded rim of closed vessel. The rest are flaring thinning rounded rims of an open and a closed vessel, and one cut-away spout with the neck and handle of a jug. Two have completely untreated surfaces while two have a red/orange slip on the exterior surfaces. All of them are handmade and have an orange/light brown macroscopic fabric. The remaining seven sherds belong to EB II-III and have been ascribed to the general Cooking Pot category. Besides on closed body sherd, the rest are rims of five closed vessels, two of them with vertical handles, and one rim of an open vessel. The exterior is either untreated, reduced, or covered with an orange slip, and the interior is left untreated besides the one open vessel, whose interior surface is orange slipped. The diameter of all these vessels vary between 6-11 cm and the wall thickness between 0.4-1.3 cm. When examining the macroscopic fabric of these eleven sherds, three of them remind the Philia Cooking Pots Type A, with the distinct white and grey specs across the cross-section.

7.2.2.4.2. Surface treatment

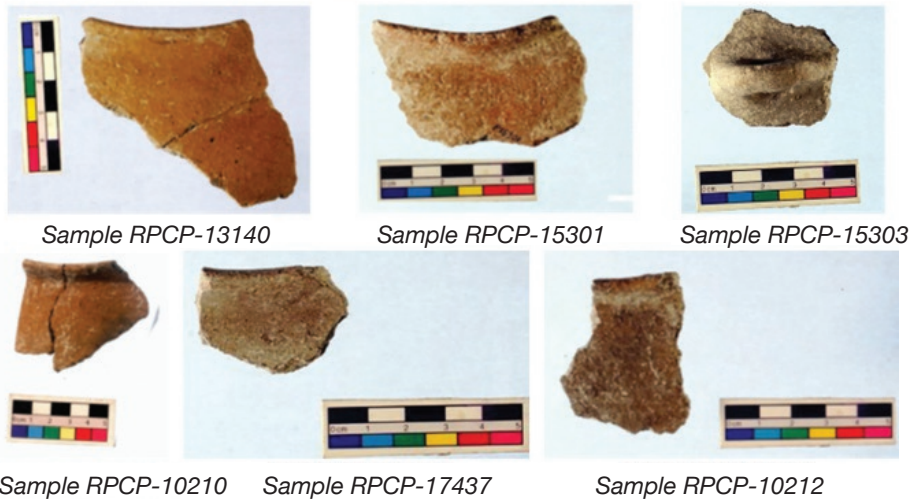
The surface treatment of eleven aforementioned Cooking Pot Wares sherds from Bryn Mawr's reference collection is either untreated, reduced, or covered with an orange slipped exterior surface. The interior is left untreated besides the one open vessel, whose interior surface is orange slipped like the exterior one. Interestingly, the six cooking pot sherds from Marki-Alonia ascribed by Dikomitou-Eliadou (2012) to her petrographic Fabric V have either untreated exterior surface, or are covered with a thin dull orange or beige slip (Figure 104). Moreover, the thick white coating with grey discoloration due to the exposure to carbon observed in Philia cooking pots can also be observed in cooking pots from Tarsus-Gözlükule.

Figure 104: Cooking Pots from Tarsus-Gözlükule (up), and Cooking Pots from Marki-Alonia (down) (photographs by Maria Hadjigavriel and after Dikomitou-Eliadou, 2012)

EB I-II Tarsus-Gözlükule



Philia Phase Marki-Alonia



#### 7.2.2.4.3. Forming techniques and vessel shapes repertoire of Cooking Pots

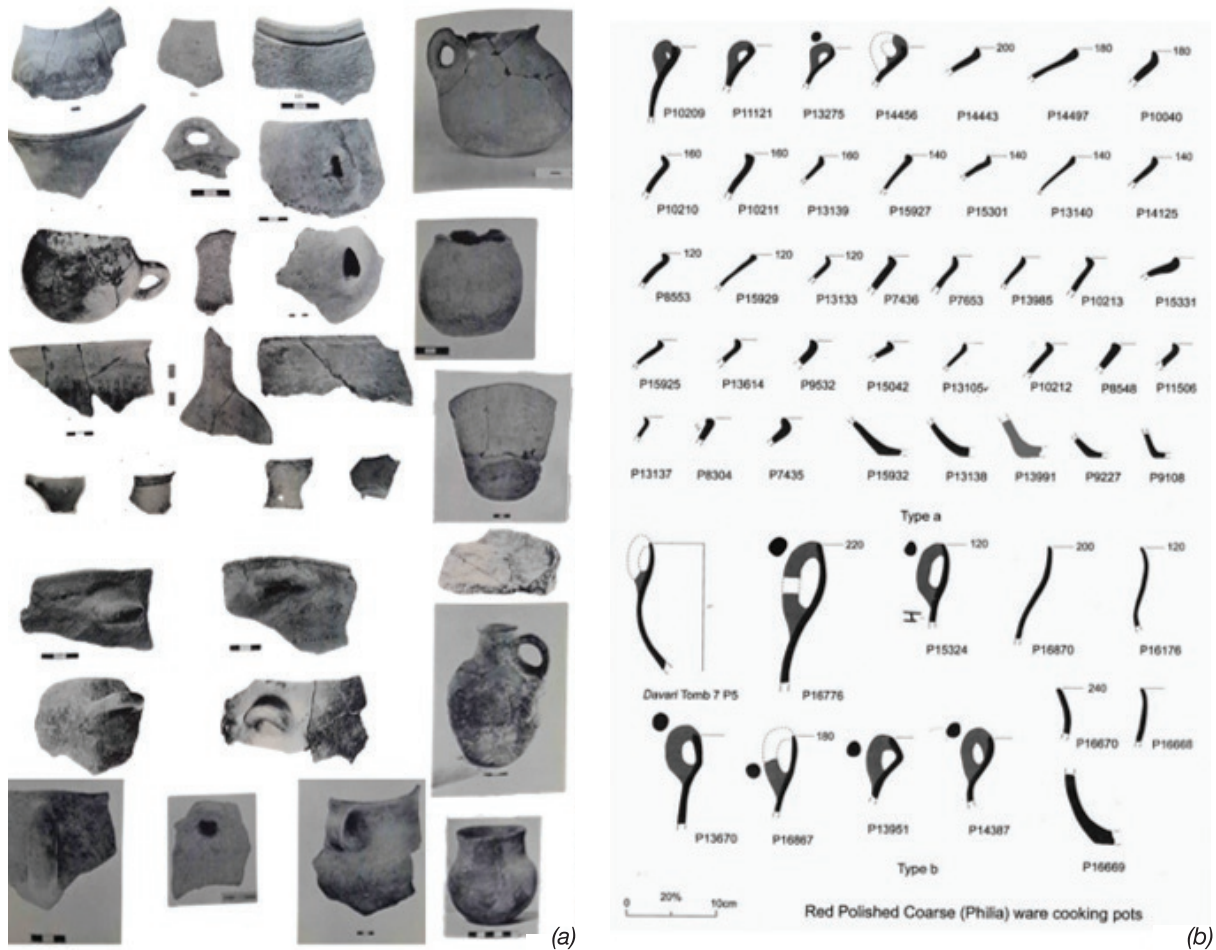
Among the pottery technology characteristics of the Philia wares, are the ‘plugged’ handles, a technique that is not present in the Late Chalcolithic (Bolger & Webb, 2013, p. 60; Bolger & Peltenburg, 2014, p. 189-190). Two sherds with ‘plugged’ handles are present in the Tarsus-Gözlükule assemblage at Bryn Mawr College: a Light Slip Cooking Pot Ware cut-away spout with the neck of the vessel and a vertical handle (2009.14.339), and a Cooking Pot closed body sherd with handle (2009.14.516) (Figure 105).



Figure 105: Sherds ascribed to Cooking Pot Wares from the Tarsus-Gözlükule assemblage whose forming techniques resemble Philia pottery forming techniques (photographs by Maria Hadjigavriel)

Finally, the vessel shape repertoire of Philia cooking pots and the Tarsus-Gözlükule assemblage are quite similar, with a clear preference to close jars with one or two handles, including hole-mouthed jars, jars with everted rims; and pans and a couple of two-handled cups and bowls in Tarsus (Goldman, 1956, pp. 96-97; Frankel & Webb, 2006, Fig. 4.10; Figure 106). As mentioned already, the calcareous cooking pots made in Fabric V are produced and imported at Marki-Alonia during the Philia Phase but after that they disappear. Given their similarities with the Tarsus-Gözlükule cooking pot wares, I argue that potters in Cyprus tried to reproduce those vessels using local clays, but were maybe lacking the know-how or the material to make these pots durable enough to withstand the repeated high temperatures. In fact, the cooking pots made with Fabric IV and VIII, which continue into the EC and MC at the site are petrographically much closer to Ünlü's Local Fabric III, with igneous components like feldspars dominating, even though, macroscopically the calcareous samples are more similar. So in time, the Cypriot communities saw that these fabrics were more durable and preferred them over Fabric V, while maintaining the shape repertoire and other techniques like the plugged handles.

Figure 106: Cooking pots shape repertoire in Tarsus-Gözlükule (a) and Marki-Alonia (b) (after Golman, 1956, pp. 243, 251-252 (a) and Frankel & Webb, 2006, Figure 4.10)



#### 7.2.2.5. Red Gritty Ware, Philia Cooking Pots and Spalled Ware: a possible continuum?

The similarities between the Red Gritty Ware from Tarsus-Gözlükule and the Late Chalcolithic Spalled Ware have been illustrated earlier in this chapter, namely the thinly applied beige, red or grey slip and often “pocked” effect; the thoroughly fired clay with a grey core and visible large white inclusions; and their general feel and hardness. Likewise, the affinities between Philia Cooking Pots Type A and Red Gritty Ware variants ascribed to cooking pots, have also been pointed out: visible white specs on the macroscopic fabric, the untreated exterior surface, or covered with a thin beige or red slip, and the similar forming techniques and vessel shapes repertoire. However, a possible affinity of the Spalled Ware with the Philia Cooking Pots has yet to be explored.

To begin with, a similarity between the Spalled Ware and Philia Cooking Pots Type A is the use of limestone in the clay. It is defining characteristic for both wares, accounting for the spalled “pock mark” effect on the surfaces, and the white specs of various sizes visible in the macroscopic fabric. When examining the Late Chalcolithic pottery from Politiko-Kokkinorotsos, Webb categorized Red Black Lustrous Ware sherds that were very hard and had visible white inclusions as Fabric

D, describing it as quite similar to the Spalled Ware: “a dense well levigated hard to very hard monochrome fabric with many small white and grey inclusions and small organics. Surfaces are well-smoothed, with a thin generally matt creamy–brown or pale red–brown slip” (Webb et al., 2009a, p. 199). Almost all of the Fabric D sherds sampled for this thesis have been ascribed to the petrographic Fabric V, with dominant presence of microfossils, micritic limestone and feldspars. In addition, feldspars, quartz polycrystalline and monocrystalline, and orthopyroxenes are present (see Chapter 5 and Appendix IV). The Spalled Wares sampled for this study, derive from the Ktima Lowlands sites, and were ascribed to the petrographic Fabric III, which is the hardest fabric of the sample and is dominated by the presence of micritic limestone and chert (see Chapter 5 and Appendix IV).

Interestingly, all of these inclusions are present in Dikomitou-Eliadou’s Fabric V, the fabric used for Philia Cooking Pots Type A at Marki-*Alonia*, even though in different frequencies and with the presence of chert (Dikomitou-Eliadou, 2012, pp. 462-463). Moreover, it is a very hard fabric: “*This fabric is the hardest of the Marki sample*” (Dikomitou-Eliadou, 2012, p. 463). Therefore, in all three cases, we have very hard fabrics that are dominated by the presence of limestone. In the case of the Cooking Pots Type A ascribed to Fabric V, Dikomitou-Eliadou has argued that the limestone seems to be added to the clay artificially based on the frequency, density, homogeneous distribution and standard size mode across the thin sections (Dikomitou-Eliadou, 2012, p. 174).

The Cooking Pots from Tarsus-*Gözlükule* already presented above can be linked to Ünlü’s petrographic Fabric III, which does not contain limestone. However, has similar properties with the macroscopic fabric, with visible white inclusions across the section, and it is very hard. I therefore argue that there is a possible connection between the Spalled Ware, the Fabric D of Politiko-*Kokkinorotsos*, and the Red Gritty Ware Cooking Pots from Tarsus-*Gözlükule*, as Cypriots tried to reproduce Anatolian Cooking Pots, using technologies of production they already had and adjusting their clays accordingly, as elaborated in the previous section.

### 7.3. Concluding Discussion: Consolidating Literature, Macroscopic Observations and Petrographic Data

The published data, in combination with the macroscopic analysis and the available petrographic data illuminate interactions between Cyprus and Anatolia in both the Late Chalcolithic and the Philia Phase. Even though Cypriot imports in Anatolia and vice versa are limited, they do occur, verifying the circulation of objects at some extent. Interestingly, in Cyprus these include mainly objects like ornaments and metal artefacts, while in Anatolia, they are utilitarian Cypriot pottery wares. This may be reflecting a lack of archaeological visibility, but it may also reflect what kind of objects people in these two regions were interested in exchanging. For example, faience and metal objects might have been considered as “exotic” or “prestige” objects by the Cypriots, while the presence of utilitarian pottery and mainly of closed vessels in Tarsus-*Gözlükule* might indicate that the inhabitants of the site were importing the content of these vessels. Indications regarding possible interactions in various aspects of pottery production processes, specifically in comparison to the pottery reference collection from Tarsus-*Gözlükule*, are summarised here.

#### 7.3.1. Clay Procurement and Preparation: Local Production and Exchange of Pottery between Communities

First, the presence of two Middle Chalcolithic Red-on-White Ware sherds and six Philia Black Slipped and Combed Ware sherds at Tarsus-*Gözlükule* has been confirmed. The macroscopic analysis leaves no doubt that these are indeed Cypriot imports, and in the case of two Philia Black

Slipped and Combed Ware sherds, this is further confirmed by petrographic analysis (Ünlü, 2009, pp. 125-126). In addition, in Goldman's publication a Red-on-White Ware vessel (Goldman, 1956, p. 112 Vessel 379) and a Philia pitcher (Goldman, 1956, p. 112, Vessel 356) are presented, but these are not included here since they are not part of the reference collection and have therefore not been studied by the author. However, one spout (sherd 2009.14.506) in the pottery reference collection that resembles typical Philia spouts could be a Cypriot import, and is therefore included. The confirmation of these Cypriot objects in Tarsus-Gözlükule confirms that Cyprus was in touch with the mainland already in the Chalcolithic, probably through trade routes which involved the northern communities of the island, as in the Philia Phase.

The available petrographic evidence does not indicate the transfer of clay preferences and preparation methods between the two regions. Earlier in this chapter, the similarities between the Red Gritty Ware from Tarsus-Gözlükule and the Late Chalcolithic Spalled Ware from Cyprus were outlined. These include features such as the thinly applied beige, red, or grey slip with a characteristic "pocked" effect, thoroughly fired clay with a grey core and noticeable large white inclusions, and their overall texture and high hardness. Similarly, connections between Philia Cooking Pots Type A and Red Gritty Ware variants identified as cooking pots from Tarsus-Gözlükule have been highlighted. These connections encompass visible white specs on the macroscopic fabric, the untreated exterior surface or a surface covered with a thin beige or red slip, and similarities in forming techniques and in the vessel shapes repertoire. An argument has been put forth here for a connection between these three wares, and Fabric D from Politiko-Kokkinorotsos, based not only on morphological characteristics but also on the preference for clays rich in limestone inclusions. Interestingly, Ünlü has noted that the dominant presence of limestone in the clays is a unique trait of the Red Gritty Ware, which in the past has been interpreted as an influence from the Levant. However, the evidence from Cyprus indicated that the matter merits further investigation (Ünlü after personal communication). Based on the evidence presented, I suggest that a connection exists between the Spalled Ware, Fabric D from Politiko-Kokkinorotsos, and the Red Gritty Ware Cooking Pots found in Tarsus-Gözlükule. It appears that Cypriots endeavoured to emulate Anatolian Cooking Pots, leveraging their existing production technologies and adapting their clays accordingly, as discussed in the preceding section. Additionally, I suggest that we should not assume for the interactions to be one-directional, with the small island being influenced by the large mainland: a reversal of the above suggestion is also possible, where the Anatolian Cooking Pots were influenced by the Cypriot wares and not the other way around.

### **7.3.2. Surface Treatment and Decoration, and Vessel Shapes: Mediated Interactions – People Circulating between Communities**

When it comes to surface treatment and decoration, several wares from Tarsus-Gözlükule have common characteristics with Cypriot wares. To start with, the distinct red monochrome highly burnished surfaces, with visible burnishing strokes and sometimes mottled surfaces of the Late Chalcolithic red monochrome pottery traditions are present in Cilician wares, such as the Plain Red Burnished Ware and its variants. The same goes for the occasional relief decoration, mostly in knobs.

Another Cypriot Late Chalcolithic ware which resembles a Cilician pottery type is the Spalled Ware, whose thinly applied beige, red or grey slip and "pocked" effect can be observed in some Red Gritty Ware sherds from Tarsus-Gözlükule. Both the macroscopic and petrographic similarities between the clays of the Late Chalcolithic Spalled Ware and Fabric D of Politiko-Kokkinorotsos, with the Philia Cooking Pots Type A of Marki-Alonia, and the Red Gritty Ware and Cooking Pots of Tarsus-Gözlükule, along with morphological similarities, suggest that people of these communities were in touch with each other, circulate and mimic aspects of each other's pottery production throughout the early third millennium BC.

Similarly, the smoothed red slipped and polished surfaces, with sometimes incised decoration that might be filled with limestone paste of the Philia Red Polished, can be observed on the Cilician Red Burnished and Red Polished wares. The same goes for the Cooking Pots of the Philia Phase, which find close parallels in terms of macroscopic fabric, surface treatment, forming techniques like the plugged handles, and vessel shapes repertoire in the Cilician Red Gritty Ware and Cooking Pots.

In conclusion, the similarities observed in surface treatment and decoration in the two regions examined in this study imply mediated interactions among the communities. It suggests that individuals and objects circulated throughout the island, contributing to the exchange of cultural practices and artistic influences.

### **7.3.3. Vessel Forming Techniques, Vessel Shapes, and Firing: Long-Term Interactions – People Moving and Living at Different Communities**

Similarities in vessel forming techniques are considered the most reliable indication of direct long-term interactions as they are learned after a long period of training, with the student mimicking and eventually adopting the motor habits of the teacher. With that in mind, the fact that Cilician forming techniques such as the “plugged” handles occur in Cyprus for the first time during the Philia Phase strengthens the argument for people moving and living long-term with different communities at this time.

This is also reflected in the vessel shapes repertoire of certain wares, like Cooking Pots occurring in hole-mouthed jars and jars with everted rims in both Cyprus and Tarsus-Gözlükule. Nonetheless, many typical Anatolian vessel types are missing from the Cypriot archaeological record, like the depas, the tankards and the Syrian bottles (Fidan *et al.*, 2015; Massa 2016; Novák *et al.*, 2017). Similarly, several Philia vessel shapes, like the bowls with downturned handles, neck juglets or deep spouted bowls, are not present in Anatolia. However, the deep spouted bowl is already produced in Cyprus during the Late Chalcolithic (Bolger & Webb, 2013; Düring, 2024). One of the most important differences in pottery production between the two regions is the absence of wheelmade pottery in Cyprus. As presented previously in this thesis, wheelmade pottery is present in Tarsus-Gözlükule already in the EB and it is employed for specific wares such the Light Clay Ware, coexisting with handmade pottery types. On the other hand, wheelmade pottery production is completely absent from Cyprus until the Late Bronze Age. Therefore, the technological knowledge of how to make wheelmade pottery either doesn't reach Cyprus earlier, or Cypriots make a deliberate choice to not use this new technology and insist on their handmade vessel forming techniques. Given that indications for contacts are established, I would argue for the latter.

Finally, regarding firing, there is no doubt that the Late Chalcolithic wares in Cyprus are fired at higher temperatures than in the Middle Chalcolithic, and that potters can control firing better achieving red and black surfaces, whether those are uniform or irregular (mottling). This bichrome appearance of Late Chalcolithic vessels has been put forward as a parallel with Anatolian and Levantine coeval wares, and as a prime indicator of interactions between the regions in question (e.g. Bolger, 2013; Hadjigavriel, 2019; Crewe, 2023). Similarities between the firing and the resulting appearance of pottery types from Tarsus-Gözlükule and Cypriot wares such as Spalled Ware from the Ktima Lowlands and Fabric D from Politiko-Kokkinorotsos have been illustrated in this chapter, indicating technological advancement when it comes to firing, as a result of possible influences and transfer of technological know-how from Anatolia to Cyprus.

## 7.4. Concluding Summary

To conclude, the discovery of Cypriot pottery in Tarsus-*Gözlükule* and other sites such as Hacimusular Höyük provides confirmation that Cyprus was interconnected with the mainland as early as the Chalcolithic period, likely facilitated by trade routes that involved the northern communities of the island, as seen in the Philia Phase. Furthermore, the observed similarities in surface treatment and decoration between the two regions examined in this study suggest mediated interactions among communities. It implies that individuals and objects moved between the two regions, facilitating the exchange of cultural practices and artistic influences. This interconnectedness likely played a significant role in shaping the material culture and artistic expressions of both regions during the examined period. Similarities are also observed in firing techniques. However, evidence for vessel forming techniques transferring from one region to the other are limited, with significant differences in the vessel shapes repertoire and a complete absence of wheelmade pottery on Cyprus.

I argue that the persistence of handmade pottery traditions and the differences in vessel shapes' repertoire contradicts the argument for a large scale Anatolian migration during the Philia Phase, as one would expect that migrant populations would bring all their technological know-how and not only parts of them. Even though migration has been argued, one cannot suggest that people migrate and bring their pottery production technologies with them intact. We do not see the exchange of a "package" but of specific technological traits, apparent in specific wares and assemblages. This is in accordance with Mellink's observation, that the Philia pottery assemblages are "*selectively Anatolianising, not Anatolian*" (Mellink, 1991, p. 173). Therefore, the transition from the Chalcolithic to the Philia Phase would be a long process, stimulated by continuous interactions with Anatolia and not a sudden surge of migration, and it would occur in a regional scale rather than as an island-wide phenomenon. This argument is developed further in the next Chapter, where the conclusions of this thesis are presented.