
Article:
Burke, C., Day, P.M. and Kossyva, A. (2020) Early Helladic I and Talioti pottery : is it just a phase we're going through? Oxford Journal of Archaeology, 39 (1). pp. 19-40. ISSN 0262-5253

https://doi.org/10.1111/ojoa.12182

Early Helladic I and Talioti Pottery: is it just a phase we're going through?

C. Burke[1,2], P.M. Day[1] and Angeliki Kossyva[3]

1: Department of Archaeology, Minalloy House, University of Sheffield, 10-16 Regent Street, Sheffield S1 3NJ, UK. p.m.day@sheffield.ac.uk
2: Institute for Oriental and European Archaeology of the Austrian Academy of Sciences, Hollandstraße 11-13, 1020 Vienna, Austria. Clare.Burke@oeaw.ac.at
3: Ephorate of Antiquities of Argolida, Syntagma Square, Nafplio 211 00, Greece. kossyva@students.phl.uoc.gr

Abstract

This paper discusses the analysis of Early Bronze Age 'Talioti' style ceramics found at sites in the Argolid and Corinthia, in the NE Peloponnese of mainland Greece. It presents the results of an integrated methodology that addresses questions relating to the potential sources of raw materials, the identification of potting practices, and the exchange of such vessels during the Early Bronze Age period. The work situates site-based results within a broader spatial and temporal context, specifically examining how this characteristic ceramic assemblage has been used as a chronological and cultural marker for the Early Bronze Age 1 (EBI) period in the NE Peloponnese of Greece. We argue that 'Talioti' pottery comprises the product of specific sets of knowledge, reputation and social practice in both its production and consumption, and that it is the determination of the location and method of production that allows an effective understanding of its chronological and spatial distribution. The case study is used to critically assess cultural and chronological interpretation of typological studies of ceramics, arguing that analytical understandings of provenance and technology are now fundamental to understanding both cultural identity and the passage of time.

Key words: Ceramic technology, Provenance, Chronology, Early Helladic, Ceramic petrography, Talioti, Early Bronze Age.

Introduction

Examining the degree of spatial and temporal variability within archaeological assemblages, and asking why particular patterns exist, is one of the primary approaches to understanding the role of material culture within past societies. To do this, we as archaeologists begin by organizing and classifying material through typologies, looking for comparative points of reference in other assemblages in order to build up a spatial and chronological overview of particular traits. The trends observed might then facilitate discussion of the distribution of shared pottery types as evidence of trade, or indeed the establishment of contemporaneity between sites, on the grounds of the presence or absence of specific items or sets of material culture.

Whilst it is widely acknowledged that cultural groups or periods of time cannot be defined or understood simplistically as bounded sets of material traits (Kotsakis 2008: 50), there is still a tendency to focus on, and perhaps over-emphasize, particular themes or features within the material record, in attempts to provide a broad overview of a period or a society. Unintentionally, this can mask the underlying nuances that result from the socially and temporally contingent processes that create that material record. This is especially apparent in approaches to the study of the Aegean Early Bronze Age period (EBA c. 3100-2000BC), and in the north-east Peloponnese of the Greek mainland (see Table 1 for chronological terminology. For the purposes of this paper chronological

periods of time will be denoted using the terms EB I, II and III, whilst stylistic material culture features associated with those periods will be discussed using relative chronological nomenclature of EH I, II, and III).

<Insert Table 1 Here>

Although forming the core region of study for much research into the mainland Bronze Age, the character of EB I society in the NE Peloponnese, and most notably its ceramic material culture, remains relatively enigmatic. This is due, in part, to a lack of excavation and publication of sites with the stratigraphic resolution necessary to understand the archaeology of this period and its posited transitional phases. It is also due to some persistent paradigms and conceptual frameworks popular in the study of the EBA generally, particularly the focus on its relationship to later periods, which has resulted in the concentration on specific epochs, sites, and material culture types. This is most clearly seen in how much we know, in comparison, about the EB II period in the region. Unlike EB I, EB II has long held scholarly attention with extensive publication and discussion of significant sites such as Lerna and Tiryns (Rutter 1995, Wiencke 2000, Weisshaar et al. 1990, Kilian et al. 1981), and discussion of migration and invasion associated with perceived EB II 'destruction' deposits found at such sites (Blegen 1928, Caskey 1968, Crosshall and Birchall 1973; cf. the convincing critique of Forsén 1992, suggesting some potential episodes of accidental destruction, rather than contemporaneous conflict and widespread violence). Additionally, there has been a fundamental and lasting impact on the way the EBA has been framed generally from Renfew's endogenous view of social change, in his seminal publication *The Emergence of Civilisation* (1972),

Following Renfrew's identification of EB II as a period of 'international spirit' and connectivity, which sees the appearance of features that developed into the 'complex' societies of the Middle and Late Bronze Age, subsequent research has placed emphasis on detailing and understanding the mid-3rd millennium in particular. More specifically, research has focused on the characteristics believed to provide insight into the trajectory of Bronze Age society and the emergence of 'palatial' elites, such as craft specialization, trade, evidence for centralised administration, urbanism, and monumental architecture (Attas 1982; Konsola 1984, Hägg and Konsola 1985, Cherry 1986, Attas et al. 1987; Parkinson and Pullen 2014). From such a perspective, examination of the EBA then becomes a task of comparing and contrasting different types of evidence with later periods in an attempt to trace the origins of particular societal developments, rather than examining period-specific phenomena (for notable exceptions, see Forsén 1992, Maran 1998, and Weiberg 2007). This results in the EBA Aegean rarely being seen in its own terms, whilst the apparent lack of features associated with complex society have resulted in the EB I period of the Greek mainland remaining a backwater, failing to attract extensive scholarly interest. This has remained the case, even with the widespread discussion of commensal politics, emerging inequality and the rise and fall of specialized and skilled production in the preceding Neolithic, which is no longer a 'background' period for later developments.

Significantly, the lack of well-defined EB I stratigraphy in the NE Peloponnese has meant that the period has continued to be poorly understood, whilst the challenge of trying to discriminate between a defined Final Neolithic and the beginning of the EBA, has sometimes resulted in an implicit assumption of strong continuity between the periods (Renfrew 1972: 451; Attas 1982: 7). This dearth of well-defined early stratigraphy at sites in the region, has also led to a difficulty in securing reference points for EB I pottery more generally. The situation has been compounded with the rise of surveys during the 1980s, where large volumes of ceramic material were collected, but without the

necessary stratigraphy to be sure of dating and chronological relationships, exacerbated by differences in survey methodology making comparison between projects problematic at times (Alcock and Cherry 2004: 3, Given 2004: 13).

Study of EB I has relied on a handful of excavated and published mainland sites, in particular Eutresis and Lake Vouliagmeni (Goldman 1931; Caskey and Caskey 1960; Fossey 1969), alongside the short overview and/or limited evidence for EH I pottery at Asea, Lerna, Asine, Korakou and Zygouries (Holmberg 1944; Rutter 1995; Wiencke 2000; Frodin et al. 1938; Blegen 1921, 1928). Other regions are not exempt from these problems (for Lakonia, see Cavanagh and Mee 2011), however, we suggest the specific difficulties with these NE Peloponnesian sites has been due to a number of factors:

1. Their utility is restricted by unclear EB I stratigraphy and/or only brief descriptions of the EH I pottery recovered. Many sites were excavated during the early 20th century, primarily to formulate the first chronologies and typological sequences. Older publications commonly focused on 'characteristic' or 'significant' pieces and ignored or discarded the wider assemblage. This resulted in a biased and partial understanding of EH I pottery types, whilst discard has made the reconstruction of such excavated assemblages impossible. Aspects considered basic to current ceramic study, such as an understanding of the proportions of the full repertoire of shapes and wares, are therefore rarely clear.
2. These sites have highlighted regional variation in EB I ceramic assemblages on the mainland, making it difficult for archaeologists to place material culture sets in their spatial and chronological context. With the key EH I type site of Eutresis lying over 100km north of many NE Peloponnesian sites, it is perhaps not surprising to find that assemblages in each area are not entirely consistent with each other. However, the meaning behind these differences has not been clearly established.
3. It has become increasingly clear from the mainland, and notably from Crete, that the activities that took place at different EBA sites varied substantially, even at this early time. With ceramic assemblages characterized as domestic, funerary, commensal or perhaps highlighting their role in the movement of goods, we should expect pottery to vary in ways much more complex than the passage of time.

As the petrographic and chemical analysis of ceramics has become more common, the ability to discriminate pottery according to its area of production has become increasingly important. This new source of information brings the expectation of discriminating centres of production and of detecting where their products are distributed or exchanged. It is this tracing of regionalism and exchange networks which will eventually have major implications for the very chronological schemes that we have been building up to now. This is the contention that lies behind our re-assessment of the subject of this paper: Talioti pottery.

The Talioti Pottery

In 1987 Angelika Dousougli published a report on material from small-scale excavations at Kephalari-Magoula, and survey data from Makrovouni and the Talioti Valley. Although the report included discussion of pottery from across the EBA period, it was particularly valuable in providing much needed detail about the appearance of EH I pottery from the Argolid region. In this important publication, Dousougli described a range of shapes found widely across the NE Peloponnese,

including small and large bowls, jugs, spoons or ladles, and jars (for full typological discussion and illustrations cf. Dousougli 1987). This provided details of a varied repertoire of shapes and noting, in particular, the prevalence of red or brown surface and body colours, often with a grey core (1987: 207, 208; correlates to Blegen 1921 pottery Class A). Aside from these features, Dousougli described a characteristic bowl type, with a wide, flaring rim and high pedestal base (refer to Figure 1), commonly with linear or circular incised patterns on the rim, one of the few EH I shapes to have such elaboration (1987: 207. Also noted by Pullen at Tsoungiza, who estimates their average size as 25-30cm high with a bowl rim diameter on average of 33cm 2011a: 65). Standing out from the rest of the assemblage, these pedestalled bowls or 'fruitstands' were seen as especially characteristic and diagnostic, with their presence at other sites forming part of her discussion about the distribution of EH I pottery (Dousougli 1987: 208-209).

< Insert Figure 1 here>

Whilst these vessel types and wares had already been noted at other sites across the Corinthia and the Argolid, it was Dousougli who provided some degree of stratigraphic context and a chronological framework to their occurrence. Based on the stratigraphic relationship at Kephalari-Magoula between this pottery and the overlying EH II types, she suggested that the assemblage represented late EH I (1987: 207). Unfortunately, the team was unable to fully excavate the earliest layers and, therefore, could not resolve the stratigraphic and typological relationship of the EBA to the Neolithic. In light of this lack of early stratigraphy, Maran has argued that such EH I vessel types may actually represent the EB I period as a whole rather than just the latter part, especially considering the absence of other assemblages or pottery types in the region that can be definitively classed as early EH I (1998: 9).

The work by Dousougli to establish an EH I pottery sequence for the Argolid was followed by a detailed report from Hans-Joachim Weisshaar who published the same type of pottery groups from surface collection along the Talioti Valley and surrounding area as part of the Tiryns excavations series (1990: 1). This work not only confirmed the presence of the ceramic groups identified by Dousougli, but also emphasised the prevalence of the assemblage in this area of the Argolid, noting its presence at several locations, as well as within exposed terraces throughout the Talioti Valley more generally. Weisshaar innovatively combined macroscopic technological and typological features to describe and explain different elements within the pottery he collected.

Like Dousougli, Weisshaar recorded the use of a solid red slip on many vessels, and the common presence of a reddish brown fabric, often with a grey core, containing mica or white inclusions, with examples of larger vessel types also containing vegetal matter, and/or what Weisshaar considered to be grog (1990: 2). Weisshaar also suggested that the presence of vessels with mottled coloration indicated problems during firing where the fuel and vessels slowly slipped into each other in the kiln, resulting in dark marks on the vessel surface (Weisshaar 1990: 2). Indeed, Weisshaar suggested that the abundance of the pottery in the Talioti Valley and surrounding area, combined with such flaws in the appearance of some vessels, could indicate local production of this assemblage (1990: 1). Going further, he considered incised symbols found on some vessels as possible potters marks, noting that two of the symbols were found several times, and that others such as a V or cross shape had correlations with marks found at Tiryns, Berbati and Kephalari-Magoula (1990: 4-5), using this as evidence of local distribution in the Argive region (1990: 5).

Finally, Weisshaar added a chronological element to his findings, considering the presence of mat impressed bases as evidence not only of how vessels were turned during forming and finishing but that these impressions were more commonly associated with EH I type vessels (1990: 3-4. Also noted by Pullen 2011a: 70). Taken together Dousougli and Weisshaar's typological and technological observations laid the primary foundations for our understanding of the Talioti style ceramics and enabled its identification at sites across the NE Peloponnese.

Typological, Chronological and Terminological Difficulties

Importantly, recent excavations at Tsoungiza in Nemea have confirmed Dousougli's stratigraphic relationship of this pottery group lying below distinctly EH II types (Pullen 2011a: 95) but, unfortunately, have been unable to clarify if Talioti pottery relates to the entire EB I or just its latter part (2011a: 95). Alongside such stratigraphical issues, inconsistencies over the identification, classification and description of Talioti pottery have muddied the waters. The association of ceramic features described by Dousougli and Weisshaar, in particular the fruitstand form, to the area of Talioti has resulted in the presence of this material in other assemblages being identified as 'Talioti ware' (Whitbread 2011: 156), or the 'Talioti assemblage' (Rutter 1993a: 761; Lindblom 2011: 57), and explicitly or implicitly linked with an origin in the area of the Argolid and Talioti, despite the absence of analysis to investigate provenance. However, the problem goes beyond one of the determination of source and into the realm of chronology. The presence of these vessel types has been used widely to denote a 'Talioti phase' of late EH I, following the dating proposed by Dousougli (Pullen 1995: 41, 2011a: 37; Mee 2009: 48), when there is as yet no clear stratigraphic definition of what these ceramics signify in chronological and typological terms. Indeed, there is still a lack of consensus on their date range (also discussed by Forsén and Forsén 2003: 167 and Cavanagh and Mee 2011: 47). Despite these fundamental difficulties, the presence and absence of such typological affinities in comparative assemblages has been used to discuss and delineate spheres of influence and changes in these affiliations over time (Pullen 1995: 41). In this way, despite limited stratigraphical information, the Talioti assemblage has risen to be an important source of chronological, spatial and social interpretation, sometimes based on an assumed location of origin in the area of Talioti, sometimes merely as an indicator of contemporaneity in a late EB I phase. It is suggested here that until these issues are addressed it still remains unclear if, for example, these red slipped fruitstands represent a chronological period, and/or a centre of production, and/or spheres of interaction between consuming communities.

This problem is not confined to the meaning behind the distribution of the 'Talioti' assemblage, but is part of a broader issue associated with the way in which Bronze Age Aegean archaeology has used and understood the meaning behind artifact typologies. As Rutter argued in considering the 'Cycladic Gap' of the EB III period (Rutter 1983, 1984), the degree of visibility of artefact types has impacted substantially on archaeological interpretation and understanding, with the presence or absence of artifact types being taken to correspond directly to chronological periods and cultural groups. It is this construction of stylistic chronologies, sometimes without reliable stratigraphy (e.g. Sotirakopoulou 1999), in some areas primarily from funerary contexts and usually without firm evidence for locations of production, which brings a range of problems.

Clearly social groups cannot be correlated directly to artifact types and yet the distribution of similar material culture sets guides us to general patterns, which are likely to have cultural meaning. Renfrew's system of cultural sequences and groups (1972, 135-221) accentuates this dual quality,

especially as he was dealing with material derived primarily from funerary contexts. Sherratt's perceptive and balanced evaluation of Cycladic chronology is fundamental to an understanding of how Renfrew's system might fare when faced with emerging new evidence from settlements (domestic pottery sequences) and when his seriation is merged with the dominant, and ostensibly irreplaceable, tripartite system (Sherratt 2000, 10-20). Crucially, she also suggests (2000, 18-19) that our understandings of the development and disruption of maritime connections will have a marked effect on the ceramic assemblage in any one place at a specific time. Of course the same warnings over contingency also pertain to the mainland and, since she wrote, our ability to trace such movement through ceramic petrography and chemical analysis has made great strides, bolstered by our confidence in the macroscopic study of ceramic fabric.

As such, our increased understanding of regionalism in EBA pottery styles demands that we acknowledge different scales in our analysis. Our perception of time and periodicity in diachronic study often strays from a reality that, ironically, we would easily recognize in our own lives. It is perhaps simpler to conceive of blocks of time with the co-terminal rise and fall of pottery styles, surface finishes and local idiosyncracies. Whilst we know that our lives and their entanglement with the material world are by no means simple, we expect the existence of pottery style in the past to obey the rules of our modern chronological systems, though they often do not. This leads to important dilemmas: does the presence of a ceramic type in other periods signify residuality in the stratigraphy or the continuation of that artefact's lifespan across our invented chronological boundaries (Cavanagh and Mee 2011: 40)? Despite our definition of periods, pottery production comprises a dynamic continuum which includes elements of change, but also those of continuity (see also Pullen 1985: 66-67).

So, two fields of information that derive from ceramic analysis are vital to our understanding; (a) We need to know where any given pottery style is manufactured *and* (b) we need to reconstruct these centres' production sequences: essentially their 'catalogues' of products over time. When we accept that not only is it vital to understand where the ceramic material itself is from, but also to reconstruct the stylistic sequence of that production centre whose pottery we find in a given location, then we will have a critical view of the ceramic sequences we study. One side of a Cycladic island, or one side of a mainland mountain range may be lacking a pottery style according to active or disrupted maritime or terrestrial trade routes, or through the demands of consumption, rather than some imagined adherence to a shared ceramic stylistic development across space and throughout neighbouring production centres. Subtle differences in style may not represent the passage of time, but the choice and nuances of distinction between contemporary production centres.

Hence, rather than presenting a stilted picture framed by our definition of time, we need to consider variability within artifact assemblages as the result of the choices and actions people undertake in the creation, consumption, and deposition of their material culture. This behaviour is embedded within a person's or a group's worldview and contexts of learning (cf. papers in Dobres and Hoffman 1999, Mauss [1934] 2009, Lemonnier 2002, Burke and Spencer-Wood 2018). In order to understand the meaning behind the variability and similarity we find in our assemblages, we need to begin by looking at how material culture is created and the potential locations of its production. It is from these foundations that we can progress to examine distribution and consumption trends and the potential meanings behind the presence or absence of particular objects.

The problems outlined above arise when we focus on the typological characteristics of ceramics, reducing the social, spatial and chronological meaning of material culture to details about shape and decoration. In essence, we separate these characteristics from the choices and actions that brought them into existence. Aesthetic features can be directly related to the social, cultural, economic and political contexts of use, and their development over time. However, their presence also reflects particular technological choices, skills and methodologies, which have been developed and practiced within the inherently cultural context of what is considered the right and wrong way to make and use a vessel, and what a vessel should look like (Dobres 2000, Lemonnier 2002: 2). In this way, the creation of ceramic material culture is the nexus where production and consumption knowledge come together. Not only do potters make vessels in a way that makes sense to them, but these objects also frame and direct consumption practices through their relationship to specific foodways and signaling what is appropriate dining behavior, for example the use of particular vessels for special occasions (Tomkins 2007: 177, Day and Wilson 2004: 45). Therefore, it is important to consider the presence of vessel types in assemblages as reflecting the choice by consumers to accept and use particular vessels in various places, at different times, related to specific understandings of what vessels are used for, as well as access to the products of particular potting centres. As such, typological characterization primarily detects consumption rather than production choices, however, the two are inherently interlinked.

As shown to some extent in the work of Weisshaar, we can use the technological aspects of ceramics to understand locations of production and distribution. However, to do this successfully requires instrumental analytical techniques that examine the raw materials used to make pottery, complemented by a conceptual framework that examines the central role of choice in the creation and consumption of material culture. With this in mind, this paper presents the results of an integrated programme of analysis on EH ceramics from the NE Peloponnese, mainland Greece, focusing on Talioti style ceramics in order to highlight the ways in which analysis can address some of the problems typological approaches face. The article will address three primary questions:

1. Do the vessels identified in the literature as 'Talioti' represent the products of a single centre or multiple sources?
2. Is it possible to identify the potential location(s) for production and subsequent distribution patterns of the Talioti style ceramics?
3. What is the significance of the spatial and chronological distribution identified for these ceramics?

Methodology

The specific methodology adopted here was key to enabling the emergence of a new perspective on Talioti pottery. Ceramics were examined from 13 sites in the Corinthia and the Argolid, covering EH I, EH II and EH III; petrographic analysis was undertaken on 159 samples assigned as EHI, 685 as EHII, and 39 as EHIII (refer to Figure 2 and Table 2). In addition, a wide range of contemporary EBA comparative samples were available from Attica, the Cyclades and Crete.

<Insert Figure 2 and Table 2 here>

At each site, the ceramic assemblage was examined initially in terms of four primary factors:

1. Chronological phase

2. Macroscopic fabric
3. Shape
4. Ware type/surface modification and finishing technique (e.g. presence/absence of slips, burnishing etc.)

The pottery was studied according to the stratigraphic/chronological sequence established by the excavators, targeting sealed deposits where possible and with a focus on defining the macroscopic fabrics in the assemblage based upon the methodology put forward in *The Study of Prehistoric Pottery* (P.C.R.G. 2010). By defining the assemblage in terms of macroscopic fabrics, it was possible to relate these to the shapes and surface modification techniques visible in the assemblage, across the chronological periods defined. This approach allowed the examination of technological, typological and chronological variability visible macroscopically in the assemblage. Sherds from a range of periods, and displaying a variety of characteristics, were then chosen for analysis by thin section petrography. Sampling in this way facilitates discussion about potential locations of production for a wide range of vessel types and wares, identifying elements of continuity and innovation or change. Importantly, this is achieved in relation to where and how vessels were made, along with their distribution, in a diachronic perspective. Although site-based analyses can provide important insights into the fabrics and technology of pottery in specific assemblages, it is only through comparative studies on the scale of the present one, that ceramic distribution and diachronic change can be fully contextualized and understood. We have reached the point where pottery studies of this sort *must* be carried out in a comparative fashion beyond the scale of individual sites.

Results

Stage 1: Macroscopic Results

The study area hosts a variety of macroscopic fabrics, many of which are confined to particular assemblages but including a small number that appear at multiple sites. One of the most characteristic macroscopic fabrics identified, with a wide distribution, shares many of the features detailed by Dousougli and Weisshaar in relation to Talioti material. This fabric has a purple-red-orange ceramic body (reddish yellow 5YR 6/8 – yellowish brown 10YR 4/6. Munsell 1975) with the common presence of a grey core (light grey 5YR-white 5Y 8/1). Inclusions are few and not always visible, but consistently include silver mica and the common presence of hard white-grey inclusions. Some larger vessel types also contain sub-angular, purple and brown inclusions similar to those noted as 'grog' by Weisshaar for coarse vessels (refer to Figure 3. Weisshaar 1990).

<Insert Figure 3 here>

This fabric has been noted by Pullen at Tsoungiza (Class 1), and recorded by the present authors at the sites of Talioti, Midea, Tiryns, Argos-Lempetzi and Spiliotakis in the Argive Plain, at Delpriza and Agios Pantelimon in the Southern Argolid, as well as at Apollo Maleatas-Epidavros, during macroscopic examination of assemblages. This suggests a wide distribution of the fabric across both the Argolid and at least some areas of Corinthia. It appears to be most common at sites in the area of the Argive Plain and Argolid region more generally, being most strongly associated with the fruitstand shape (also noted by Pullen 2011a). A softer, chalky, orange version of the fabric seems more commonly associated with later, EH II shapes.

Stage 2: Petrographic Results: Provenance, Typology and Chronology

Thin section analysis shows that the suspected Talioti macroscopic group comprises of a consistent petrographic fabric, characterized by the presence of sub-angular sandstone to low grade metamorphic rock fragments in a fine silicate rich groundmass (refer to Figure 4). Sometimes large vessels also have added mudstone which would account for the 'grog' noted by Weisshaar. A similar fabric was also noted by Whitbread in relation to Early Helladic pottery from the Berbati Valley correlating to what was termed 'Talioti ware' (Whitbread's 'Sandstone, siltstone and mudstone' fabric and 'Sandstone -sparse in very fine sand matrix' fabric 2011: 155-156).

<Insert Figure 4 here>

Significantly, all samples examined from the site of Talioti located in the Talioti Valley, belong to this fabric group. Furthermore, the sedimentary and low-grade metamorphic inclusions mirror the flysch deposits on the eastern side of the Talioti Valley, which host clay-rich layers with siltstone and mudstone. The rare serpentine and altered igneous rocks present in the fabric are likely to correlate to the occasional ophiolitic bodies present (Zaronikos et al. 1970) and currently exploited by quarrying in the valley. The Talioti Valley itself hosts large amounts of similar pottery spread across terraces of olive and citrus trees, alongside plentiful water sources. All this suggests that the Talioti EBA site may have been in close proximity to a site of production, if not a site of production itself (Burke et al. 2018).

Importantly, this petrographic group also includes vessels *not* originally suspected to be part of the Talioti group during macroscopic examination, highlighting the importance of microscopic analysis for further insights into raw materials and possible provenance. Whilst these results confirm Weisshaar's theory of a local provenance for the vessels he recorded, they also suggest trends that challenge the perceived relationship between 'Talioti' vessel types, their chronological definition and geographical distribution.

The sandstone to low-grade metamorphic fabric was most prevalent in Argolid assemblages, confirming the early macroscopic observation of abundance at these sites, and it is present in a wide range of both EH I and EH II vessel types, from large coarse jars to fine saucers and sauceboats. These results support Weisshaar's macroscopic observations by demonstrating that Argolid communities did obtain the majority of their pottery from the centre of production represented by this petrographic group, over a prolonged period of time. However, this fabric is also present in EH I and EH II pottery types at sites *outside* of the Argolid, demonstrating prolonged contact between different regions that extended beyond EB I, the period most traditionally associated with Talioti pottery. Importantly, the consumption of pottery from this centre at sites outside of the Argolid appears to have been on a smaller scale and restricted to a much narrower range of vessel types, confined to large bowls/basins, ladles, sauceboats, jars and fruitstands, all of which notably had a red slip or orange-red body colour.

The presence of ceramics from the area of Talioti in both EHI and EHII, and in a range of shapes, at sites within and outside of the Argolid, highlights the urgent need to reconsider the use of the terms 'Talioti phase', 'Talioti ware' and 'Talioti assemblage', especially when using these as shorthand for particular periods or ceramic features. By doing so, we may mask the presence in different assemblages of a variety of pottery types produced by this centre of production and thus obscure insights provided by a detailed understanding about the varied distribution of such vessels. This is

particularly clear from consideration of the 'Talioti' fruitstand, and shifts in table ware types and dining behavior between EB I and EB II.

Fruitstands

The vast majority of EB I fruitstands sampled from across the study area belonged to the sandstone to low-grade metamorphic fabric, suggesting that this area of production was known for making these vessel types (Burke et al. 2017, Burke et al. 2018). This confirms the strong correlation between the fruitstand form and the area of Talioti identified typologically by Dousougli and Wiesshaar, but an over-emphasis on this pattern in fact, has masked the consumption of a range of vessel types from this production area, during both EB I and EB II. As Talioti fruitstands have become emblematic of both a ceramic group and its role as a hypothesized late EB I type-fossil, the time-depth of continuity and breaks in distribution between this production area and consuming sites has not been fully understood.

The dominance of the Argive production of fruitstands sampled from across the Argolid and southern Corinthia is particularly conspicuous considering our identification of pottery production in close proximity to each of the sites we have examined across the NE Peloponnese, including the production of a range of red/orange slipped vessels. The widespread distribution of pottery production that includes red/orange slipped pottery, demonstrates the broad distribution of the skills and resources required to make such vessels. However, the specific fruitstand shape is either not produced, or never forms a significant component of local production, at sites outside of the Talioti area. It is also notable that even when some fruitstands exist that are *not* produced in the Argive sandstone to low-grade metamorphic fabric, they share a very similar outward appearance to the Talioti examples in terms of their morphology, slip colour and incised decoration (Figure 5).

<Insert Figure 5 here>

This high degree of similarity may have made it difficult for consumers to distinguish the rare, local examples from true Talioti fruitstands, and suggests that they were deliberate imitations of the Talioti types. Indeed it may have been that the aesthetic qualities of colour and decoration were important indicators on which consumers relied in their consideration of the most suitable products and the reputation of places of production (Burke et al. 2018; cf. Day in press).

During EB II, pedestal bowls continue, but on an apparently more limited scale with different finishes and includes larger examples such as that at Tiryns currently on display at the Archaeological Museum in Nauplio which is 55cm high with a rim diameter of 51 cm (Figure 6. Wiesshaar 1982).

<Insert Figure 6 here

One unusual example from Tsoungiza serves to demonstrate the broader changes in technology, finish and consumption and is most likely a product of Corinthian potters (Figure 7. Burke 2017). In the EBII period Corinthian potters produced very consistent, high quality iron reduction black surfaces including vessels with angled carinations which indicate the pervasive EB II fashion for the skeuomorphism of metal.

<Insert Figure 7 here>

The Argive-centric production of the fruitstand is also perplexing when we consider its widespread distribution across the NE Peloponnese. This broad distribution seems to indicate that it was an important element in EBA dining practices and thus greatly valued, whilst the evidence for repairs of broken fruitstands indicates perhaps they were not easily acquired (Pullen 2011a: 65). It is also notable that large basins and bowls found in EH I pottery could have served a similar function for communal consumption, suggesting that the consumption of the fruitstand in particular related to specific perceived needs of the consumers and that they were part of a required material culture set. As pottery production was a widespread activity, and the fruitstand was a central part of dining practices in most households, it is intriguing to consider why production seems so concentrated on the area of the Talioti Valley (also discussed in Burke et al. 2018).

It is suggested here that the production of such vessels was a specialized practice associated with a particular community of potters in the area of the Talioti Valley, for no ostensible 'practical' reason of the vessels' material properties, or the restriction of technological knowledge. Instead, we should look to social aspects of their production, their existence as a 'special product' (cf. Day et al. 2015) in the eyes of the producers and, through reputation, a desired product by consumers (Day in press, Burke et al. 2018). The historical contingency of such reputations may have great chronological depth. For example, the distinctive burnished finish of a thick red slip in pottery from Aegina, familiar in the EBA and MBA, can be seen already in the Neolithic in pottery imported from the island to Franchthi Cave, as such, should we also now look back in more detail at the plethora of pedestalled bowls from the Late Neolithic site of Aria (Dousougli 1993), a site on the Argive Plain immediately below the Talioti Valley? Are we looking at an even longer tradition? Indeed, a version of the sandstone to low-grade metamorphic fabric has been identified in Neolithic pottery from the site of Midea indicating potentially early pottery production in the area of Talioti (Alram-Stern et al. In press).

The concentrated nature of fruitstand production may even have been related to the use of specific raw materials. For example Boivin, investigating the use of particular coloured clays for house construction in India, found that the choice of different materials was intrinsically related to symbolism as particular raw materials were seen as being a sign of good fortune or associated with religious deities (Boivin 2008: 8-9). As such, it is important to remember that the creation of material culture may not have been considered by past populations in the same functional and technological terms with which we analyze it. There is a range of ethnographic evidence of technical acts being part of specific rituals or cultural conceptual frameworks, rather than being thought of as functional technological practices (Lemonnier 2012; McNaughton 1993; also discussed by Sterne 2003: 376). As such, the production of Talioti fruitstands may have had complex symbolic and social motivations that are difficult for us to understand.

Though some cultural motivations may be intangible to us today, it is notable that merely handling this pottery type reveals a consistency of colour and a density of the clay fabric, which has a distinctive 'ring' to it, leant by the usually high degree of vitrification of the body (Burke et al. 2018). The fruitstands are sturdy, with a smooth surface finish, although examples also have a characteristic mottling on the surface, due to localized reduction from mixed firing atmospheres and likely open or pit firing methods (Burke et al. 2018). The overall consistency of the sherds and their fabric shows the existence of a specific, repeated way of doing, perhaps reflecting a 'community of practice'. Yet these vessels are also special on account of their consumption.

The Act of Serving

Although the pedestalled bowl shape has been found in the Peloponnese dating from the Late Neolithic onwards (Mee 2007), the use and contents of such vessels remain unknown. Despite the name 'fruitstand', there is no reason to suggest these EH I vessels contained food rather than drink, and consideration of their potential use should be contextualized within the wider repertoire of EH I ceramic vessels. As noted by Dousougli (1987), Weisshaar (1990) and Pullen (2011a), fruitstands commonly display some form of decoration or elaboration of the rim and pedestal, in contrast to the majority of other EH I ceramic vessels which are comparatively plain. This elaboration would have made them stand out within the ceramic dining repertoire and suggest an element of display, with fruitstands acting as a focal point for a particular dining practice. As with Neolithic pedestal bowls, the comparatively large size of EB I fruitstands indicates that their contents were not intended only for an individual, but rather for a group of people. Their function was as a communal vessel, while smaller bowls commonly found in EH I assemblages may have been used for individual portions served from the fruitstand.

When taken together with the EH I ladle, some examples of which have quite deep bowls and steep angled handles (cf. Weisshaar 1990 and Pullen 2011a for typological discussion) it might be suggested that fruitstands could have held liquid-based contents that was dipped into or scooped. Of course, it is possible that the liquid based contents related to a stew or a broth, but also possibly to some form of drink.

Though we argue this to be a special product of Argive potters, pedestalled bowls and the smaller 'chalices' have a wide currency in the EB I Aegean and beyond. Haggis (1997) has discussed the Early Minoan I chalice, along with its parallels in the Cyclades, the Troad and beyond, whilst Wilson and Day (2000; 2004) have contrasted these relatively large, pedestalled shapes with smaller, individual goblets which are introduced during EB II throughout the Aegean, as the emphasis of commensal ceramic sets changes with the introduction of individual goblets, vessels that accentuated pouring/serving and individual plates/shallow bowls.

In the NE Peloponnese too, the decline in popularity of the fruitstand form between EB I and EB II is accompanied by the introduction and widespread use of small saucers alongside the sauceboat, commonly considered as belonging to a shared drinking assemblage for communal consumption contexts (Wiencke 2000, Pullen 2011a, 2011b). The morphology of the sauceboat with its elaborate neck and spout identify it as a pouring vessel (Day and Wilson 2004: 50), whilst the small size of saucers indicate the individual servings of liquid in small quantities, potentially due to its perceived value, or perhaps its effects on the drinker, if related to alcohol consumption. These trends demonstrate a shift between EB I and EB II from acts of dipping or scooping, to acts of pouring in communal consumption contexts which become more pronounced in late EB II through to the beginning of the MBA with a proliferation of drinking vessels. In Kea (Wilson 1999, 232-233) and Crete (Day and Wilson 2004) such changes have been argued to be linked to the use of ceramics on tables and the importance of hosting.

The introduction and widespread consumption of EB II pouring and drinking vessels coincides with the emergence of the extensive trade in collared jars/amphorae and their liquid contents (Day and Wilson 2016). So close, in fact, is the link between collared jars and sauceboats in some instances, that these shapes, coarse and fineware respectively, have similar surface finishes, almost acting as a

trademark of a specific region or island's products (Day and Wilson 2016). This pattern is seen across the Aegean and has been convincingly linked to the way in which the consumption of food and drink act as an arena for significant changes in social practices around the negotiation of identity and social competition (Day and Wilson 2004, Halstead 2012; Hamilakis 1999; Peperaki 2004).

If we consider the fruitstand as belonging to a specific communal dining practice, its strong association with and restricted production in the Argolid may also indicate that it related to Argive dining practices that spread to other areas. Participation of communities in such practices, and their ownership of vessels produced by the potting community in the area of Talioti may have signaled and cemented relationships to Argive communities. As such, it is interesting to consider the decline in consumption of vessels typologically identifiable as 'Talioti' between EB I and EB II, associated with a shift in tableware consumption, even though production and consumption of vessels from the Talioti area clearly continues in EB II.

During EB II, small vessels with light bodies and dark slips become popular in our study area, eventually dominating tableware repertoires from EB III onwards at sites across the NE Peloponnese. The traditional red fired and red slipped pottery that Talioti potters had been making no longer fit with consumer needs, and during this period we see the rise to prominence of probable Corinthian production associated with a tradition of producing fine buff, dark slipped tableware vessels (Burke et al. 2017, Burke 2017, Burke et al. 2018). The distribution of pottery now reflects an emphasis on this new tableware set and dining practices based around the act of pouring, with sauceboats and jars in particular (Burke 2017, Burke et al. 2017; Burke et al. 2018). Importantly, whilst we have evidence for the exchange of ceramics from the area of Talioti in EB II, these vessels are confined to the shapes that are moving generally at this time, rather than being explicitly related to a specialist product, such as the fruitstand. As such, the EB II vessels produced by this potting centre are less characteristic and therefore, more difficult to identify typologically in archaeological assemblages. This shift may suggest that links between different communities were maintained but the production centre associated with Talioti pottery declined as a centre of influence outside of the Argolid, whilst Corinth came to prominence as consumption tastes and practices changed.

'Ways of Doing': from Bronze Age pottery to modern archaeologists

The results of the work presented naturally have implications beyond the chronological and geographical scope discussed, with the meaning behind the presence or absence of pottery types being a key question at many sites. Whilst recent developments in ceramic analysis essentially illuminate two aspects of past pottery production, *where pottery is produced* and *the ways in which it is crafted*, our argument here is not that integrated analytical approaches simply provide spatial patterns where dots can be joined; although they can certainly contribute to such economic insights as spheres of distribution and trade networks. Nor are we referring solely to the reconstruction of technological practice and the identification of traditions, though the 'social turn' in the understanding of technology has brought substantial insights into material culture of the past and present.

Instead, it is contended that the integration of insights into provenance and technology are vital in the construction of two elements usually considered the domain of typology: the *identification of cultural groups and areas*, and the *construction of basic chronologies*. Provenance studies, especially the determination of specific locations of production, remind us that pottery is crafted in particular

locations, by resident communities who themselves have social and commercial ties based on previous practice, kinship, alliances and reputation. Not only that, but the other side of these patterns tell of choices made by those who access and consume the pottery. These are human relations and social actions, and so contemporary ceramic assemblages can vary markedly. Shapes that some would maintain should be type-fossils, quick guides to contemporaneity and sequences, are fundamentally social. When pots are seen as products of a location, a centre, or a community, we can no longer expect a blanket presence according to a cultural set at a specific time.

Hence, the presence or absence of a Talioti fruitstand does not denote simply whether a particular site 'belongs' culturally or chronologically. Macroscopic and petrographic examination of the 'Talioti assemblage' shows that most of these vessels examined in the Argolid and Corinthia were the products of a community of practice in the area of the Talioti Valley. That the 'Talioti' pottery examined comes from a single production area encourages us to re-examine what its presence or absence means in terms of chronology. In other words, if we find a site with EH I material in the Eastern Corinthia that does not have these characteristic fruitstands, would we say that it does not have evidence for the late EB I Talioti phase (or indeed simply EB I), or would we consider that it was not supplied from the production centre whose distinctive products have attracted our attention?

Clearly, the focus on specific shapes, features and periods of time using the terms 'Talioti assemblage', 'Talioti ware' and 'Talioti phase' mask a complex picture of vessel production and movement. The presence of vessels from the Talioti Valley in any one assemblage is a reflection of consumption choices related to broad trends for shared dining practices and changes in those practices over the EBA period. As such, the assignation of chronology based solely on such typological features, with the current lack of stratigraphical evidence in the study area, needs to be supported by the determination of provenance by petrographic and chemical means.

The formulation of ceramic typologies is part of a long and valuable tradition in Aegean archaeology, as researchers grapple with organizing the assemblages we are faced with, contextualizing them in relation to both space and time. It is clear that the use of these typologies as chronological and cultural markers has value in terms of identifying consumption trends by different communities. Here, however, we argue that to fully understand the meaning behind distribution patterns it is important to establish possible provenance through instrumental techniques, and to consider the creation and consumption of material culture as a dynamic process of choice and the negotiation of identity. In this way, we recognise communities of practice, be that technological practice or commensal practices, and that each influences the other. To understand where and why vessels appear in assemblages, we need to understand how they were used *and* where they were made.

Acknowledgments

We would like to thank everyone who granted access to ceramic material in their care and facilitated the work as part of our broader study: Katie Demakopoulou and Eva Alram-Stern (Midea), Joseph Maran (Tiryns), Daniel Pullen, James Wright, Jack Davis and John Cherry (Tsoungiza and NVAP 204), John Lavezzi, James Wiseman and John F. Cherry (Ancient Corinth), Ioulia Tzonou-Herbst (Korakou) and Anthi Theodorou-Mavrommatidi (Epidavros). We are especially indebted to the 4th Ephorate of Prehistoric and Classical Antiquities, Nauplio, specifically to its Director Alcestis Papadimitriou for generously offering material from recent rescue fieldwork at Talioti and comparative material from

other Ephorate excavations at sites in the Argolid. We are grateful to the Ephorates of Antiquities of Corinthia and Argolid, as well as to the Conservation Directorate of the Hellenic Ministry of Culture for permission to sample the pottery for analysis. Study of the material was facilitated by guards and conservators of the Corinth and Argolid Ephorates, Archondia Koukou, Kim Shelton, Elizabeth Langridge-Noti. Anno Hein, Vassilis Kilikoglou and Ian Whitbread have all discussed aspects of the analysis with us, though any idiosyncracies of interpretation remain our own.

Bibliography

Alcock S. E. and Cherry. J.F.' Introduction' In S. E. Alcock and J. F. Cherry (eds.). *Side-by-Side Survey: Comparative Regional Studies in the Mediterranean World*. 1-12. Oxford: Oxbow Books

Attas, M. 1982. *Regional Ceramic Trade in Early Bronze Age Greece: Evidence from Neutron Activation Analysis of Early Helladic Pottery from Argolis and Korinthia.* Unpublished PhD Thesis. McGill University

Attas, M., Fossey, J.M. and Yaffe, L. 1987. An Archaeometric Study of Early Bronze Age Pottery Production and Exchange in Argolis and Korinthia (Corinthia), Greece. *Journal of Field Archaeology.* 14(1), 77-90.

Blegen. C.W. 1928. *Zygouries: a prehistoric settlement in the valley of Cleonae.* Cambridge, Massachusetts: American School of classical studies Athens Harvard University Press.

Blegen. C.W. 1921. *Korakou: A Prehistoric Settlement Near Corinth*. New York: American School of Classical Studies at Athens.

Boivin. N. 2008. *Material Cultures, Material Minds* Cambridge: CUP

Alram-Stern, E., Burke, C., Demakopoulou, K., and Day, P.M. The Late-Final Neolithic and Early Helladic I pottery from Midea in the Argolid: Continuity and Change In Bennet, J., Cavanagh, W.G., Papadopoulous, A., Smith, D. (eds.), *The Wider Island of Pelops: a workshop on Prehistoric pottery in memory of Professor Christopher Mee, 18–19 September 2016.* Oxford: Archaeopress.

Burke, C., Day, P.M., Alram-Stern, E., Demakopoulou, K. Hein, A. 2018. Crafting and Consumption Choices: Neolithic – Early Helladic II Ceramic Production and Distribution, Midea and Tiryns, Mainland Greece. In Alram-Stern, E. and Horejs, B. (eds.) *Pottery Technologies and Sociocultural Connections Between the Aegean and Anatolia During the 3rd Millennium B.C.* Vienna: OREA. 145-159. Volume 10 of OREA series.

Burke, C., Day, P.M., and Pullen, D. 2017. The Contribution of Petrography to Understanding the Production and Consumption of Early Helladic Ceramics from Nemea, Mainland Greece. In Ownby, M., Kelly, S., Massucci, M., and Druc, I. (eds.), *Integrative Approaches in Ceramic Petrography*. 104-115. Salt Lake City: University of Utah Press.

Burke, C. 2017. *Crafting Continuity and Change: Ceramic Technology of the Early Helladic Peloponnese, Greece.* Unpublished PhD Thesis submitted to the University of Sheffield.

Burke, C. and Spencer-Wood, S. (eds.) 2018. *Crafting in the World. Materiality in the Making* New York: Springer.

Caskey, J. 1968. 'Lerna in the Early Bronze Age' *American Journal of Archaeology* 27(4), 313-316

Caskey, J.L., and E.G. Caskey. 1960. The Earliest Settlements at Eutresis Supplementary Excavations, 1958. *Hesperia* 29(2), 126-167.

Cavanagh, W.G., Mee, C, and Renard, J. 2016. Early Bronze Age Chronology of Mainland Greece: A Review with New Dates from the Excavations at Kouphovouno. *The Annual of the British School at Athens*, 111: 1-15

Cavanagh, W.G., Mee, C. 2011. 'Minding the Gaps in Early Helladic Laconia'. In W. Gauß, M. Lindblom, R. Angus, K. Smith and J.C. Wright (eds.) *Our Cups are Full: Pottery and Society in the Aegean Bronze Age*. 40-50. Oxford: Archaeopress.
Cherry, J.F. 1986. Polities and Palaces: Some Problems with Minoan State Formation. In Renfrew, C., and Cherry, J.F. (eds.) *Peer Polity Interaction and Socio-Political Change*. 19-45. Cambridge: Cambridge University Press.

Crossland, R.A., and Birchall, A. 1973. *Bronze Age Migrations in the Aegean: Archaeological and Linguistic Problems in Greek Prehistory.* London: Duckworth.

Day, P.M. in press. You can take the Potter out of the Plain, but you can't take the Plain out of the Potter. In Murphy, J., and Morrison, J. (eds.) Kleronomia: Legacy and Inheritance. Studies on the Aegean Bronze Age in Honor of Jeffrey S. Soles. Philadelphia: INSTAP Academic Press.

Day, P.M., Cau-Ontiveros, M.A., Mas-Florit, C. and N.S. Müller 2015. A contextual ethnography of cooking vessel production at Pòrtol, Mallorca (Balearic Islands), In Spataro, M., Villing, A., and Foxhall, L., (eds.) *Ceramics Cuisine and Culture, the Archaeology and Science of Kitchen Pottery in the Ancient Mediterranean World*. British Museum: London, 55-64.

Day, P.M. and Wilson, D.E. 2004. Ceramic change and the Practice of Eating and Drinking in Early Bronze Age Crete. In Halstead, P., and Barrett, J.C. (eds.) *Food, Cuisine and Society in Prehistoric Greece* Sheffield Studies in Aegean Archaeology. 45-62. Oxford: Oxbow.

Day, P.M. and Wilson, D.E. 2016. Dawn of the Amphora: the emergence of Maritime Transport Containers in the Early Bronze Age Aegean. In Demesticha, S., and Knapp, A.B. (eds.) *Maritime Transport Containers in the Bronze-Iron Age Aegean and Eastern Mediterranean*, Uppsala: Astroms forlag, 17-37

Dobres, M-A. 2000. Technology and Social Agency. Oxford: Blackwells.

Dobres, M-A and Hoffman, R. (eds.). 1999. *The Social Dynamics of Technology. Practice, Politics and World Views.* Washington and London: Smithsonian Institute.

Dousougli, A. 1987. Makrovouni-Kefalari Magoula-Talioti: Bemerkungen zu den Stufen FHI und II in der Argolis. *Praehistorische Zeitschrift* 62, 164-220.

Forsén, B., Forsén, J., 2003. The Asea Valley Survey. An Arcadian Mountain Valley from the Palaeolithic Period until Modern Times, Skrifter utgivna av svenska institutet i Athen, 4o, 51. Svenska institutet i Athen, Stockholm.

Forsén J. 1992. *Twilight of the Early Helladics: A study of the Disturbances in East-Central and Southern Greece Towards the End of the Early Bronze Age.* Sweden: Paul Åströms förlag.

Fossey, J.M. 1969. The Prehistoric settlement by Lake Vouliagmeni, Perachora. *The Annual of the British School at Athens* 64, 53-69.

Frodin, O., and Pearson A.W. 1938. *Asine: Results of the Swedish Excavations 1922-1930* Stockholm: GLAF

Given, M. 2004. Mapping and manuring: can we compare sherd density figures. In Alcock, S.E. and Cherry, J.F. (eds.). 2004. *Side-by-Side Survey: Comparative Regional Studies in the Mediterranean World*. 13-21. Oxford: Oxbow Books

Goldman, H. 1931. *Excavations at Eutresis in Boeotia*. Cambridge: Harvard University Press.

Hägg, R. and Konsola, D.N. (eds.). 1985. Early Helladic Architecture and Urbanization: Proceedings of a Seminar Held at the Swedish Institute in Athens, June 8, 1985. Göteborg: Ästrom.

Haggis, D.C. 1997. The Typology of the Early Minoan I Chalice and the Cultural Implications of Form and Style in Early Bronze Age Ceramics. In Laffineur, R., and Betancourt, P.P. (eds.), *TEXNH. Craftsmen, Craftswomen and Craftsmanship in the Aegean Bronze Age. Proceedings of the 6th International Aegean Conference, Philadelphia, Temple University, 18-21 April 1996, Vol. II*: Université de Liège and University of Texas at Austin, 291-299, CXI-CXIV.

Halstead, P. 2012. Feast, Food and Fodder in Neolithic-Bronze Age Greece: Commensality and the Construction of Value. In Pollock, S. (ed.), Between Feasts and Daily Meals: Toward an Archaeology of Commensal Spaces, *eTopoi. Journal for Ancient Studies*, Special Volume 2: 21-51.

Hamilakis, Y. 1999. Food Technologies/Technologies of the Body: The Social Context of Wine and Oil Production and Consumption in Bronze Age Crete. *World Archaeology*. 31, 38-54.

Holmberg, E. 1944. *The Swedish Excavations at Asea in Arcadia.* Goteborg: EBA

Kilian, K., C. Podzuweit, and H.-J. Weisshaar. 1981. Ausgrabungen in Tiryns 1978, 1979. *Archäologischer Anzeiger* 149-256.

Konsola, D. 1984. Η πρώιμη αστικοποίηση στους πρωτοελλαδικούς οικισμούς : συστηματική ανάλυση των χαρακτηριστικών της. Athens, n.p.

Kotsakis, K. 2008. A Sea of Agency: Crete in the Context of the Earliest Neolithic in Greece. In V. Isaakidou and P. Tomkins (eds.) *Escaping the Labyrinth: The Cretan Neolithic in Context.* 49-72. Oxford: Oxbow.

Lemonnier, P. 2012. *Mundane Objects: Materiality and Non-Verbal Communication*. UCL Institute of Archaeological Critical Cultural Heritage Series 10. California: Left Coast Press.

Lemonnier, P. (ed.). 2002. *Technological Choices: Transformation in Material Cultures Since the Neolithic* London: Routledge.

Lindblom, M. 2011. The Early Helladic Period. In M. Lindblom and B. Wells (eds.) *Mastos in the Berbati Valley: An Intensive Archaeological Survey.* 53-75. Stockholm: Eddy. se ab.

Manning, S. 1995. *The Absolute Chronology of the Aegean Early Bronze Age: Archaeology, Radiocarbon and History* Sheffield: Sheffield Academic Press.

Maran, J. 1998. *Kulturwandel auf dem griechischen Festland und den Kykladen im späten 3. Jahrtausend v. Chr.: Studien zu den kulturellen Verhältnissen in Südosteuropa und dem zentralen sowie östlichen Mittelmeerraum in der späten Kupfer- und frühen Bronzezeit*. Bonn: Dr. Rudolf Habelt GmbH. Vol. I. Universitätsforschungen zur prähistorischen Archäologie.

Mauss, M. 2009 [1934]. *Techniques, Technology and Civilisation,* edited and introduced by N. Schlanger. New York/Oxford: Durkheim Press/Berghahn Books.

McNaughton. P. R. 1993. The Mande Blacksmiths: Knowledge, Power, and Art in West Africa. Bloomington: Indiana University Press.

Mee, C. 2009. Interconnectivity in Early Helladic Laconia. In Cavanagh, W.G., Gallou, C., and Georgiadis, M. (eds.) *Sparta and Laconia from Prehistory to Pre-Modern.* 43-53. London: BSA.

Mee, C. 2007. The Production and Consumption of Pottery in the Neolithic Peloponnese. In Mee, C. and Renard, J. (eds.) Cooking Up the Past. Food and Culinary Practices in the Neolithic and Bronze Age Aegean. 200-224. Oxford: Oxbow Books.

Munsell Color (firm). 1975. *Munsell Soil Colour Chart.* Baltimore, Md: Munsell.

Parkinson, A. and Pullen, D.J. 2014. The Emergence of Craft Specialization on the Greek Mainland. In D. Nakassis, J. Gulizio, and S. A. James (eds.) *KE-RA-ME-JA: studies presented to Cynthia W. Shelmerdine*. 73-82. Philadelphia, Pennsylvania: INSTAP Academic Press.

Prehistoric Ceramic Research Group (PCRG). 2010. *The Study of Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication*. Occasional Papers No. 1 and 2, 3rd Edition.

Peperaki, O. 2004. The House of the Tiles at Lerna: Dimensions of 'Social Complexity'. In Barrett, J.C., and Halstead, P. (eds.) *The Emergence of Civilization Revisited.* Sheffield Studies in Aegean Archaeology 6. 214-231. Oxford: Oxbow.

Pullen, D.J. 2011a *The Early Bronze Age Village on Tsoungiza Hill.* Nemea Valley Archaeological Project 1. Princeton, New Jersey: The American School of Classical Studies at Athens.

Pullen, D.J. 2011b. Picking out Pots in Patterns: Feasting in Early Helladic Greece. In Gauß, W., Lindblom, M., Angus, R., Smith, K., and Wright, J.C. (eds.) *Our Cups are Full: Pottery and Society in the Aegean Bronze Age*. 217-226. Oxford: Archaeopress.

Pullen, D.J. 1995. The Pottery of the Neolithic, Early Helladic I, and Early Helladic II Periods. In Runnels, C., Pullen, D.J., and Langdon, S. (eds.) *Artifact and Assemblage: The Finds from a Regional Survey of the Southern Argolid, Greece.* 6-42. Stanford, California: Stanford University Press.

Pullen, D.J. 1985. *Social Organization in Early Bronze Age Greece: A Multi-Dimensional Approach* Unpublished PhD Thesis. Indiana University.

Renfrew, C. 1972. *The Emergence of Civilisation. The Cyclades and the Aegean in the Third Millennium B.C.* London: Methuen and Co Ltd.

Rutter, J.B. 1995. *Lerna: A Preclassical Site in the Argolid. Results of Excavations conducted by the American School at Athens Vol. III The Pottery of Lerna IV.* American School of Classical Studies at Athens: New Jersey.

Rutter, J.B. 1993a. {2000} 'Review of Aegean Prehistory II: The Prepalatial Bronze Age of the Southern and Central Greek Mainland' and 'Addendum 1993-1999', in Cullen, T. (ed.) *Aegean Prehistory: A Review* (American Journal of Archaeology Supplement 1.), Boston. Pp 95-155 {AJA 97 (1993), pp. 745-797).

Rutter, J.B. 1993b. Early Helladic Pottery: Inferences about exchange and production from style and clay composition. In Zerner, C., Zerner, P., and Winder, J. (eds.) *Wace and Blegen: Pottery as Evidence for Trade in the Aegean Bronze Age 1939-1989. Proceedings of the International Conference Held at the American School of Classical Studies at Athens, December 2-3, 1989.* 19-37. Amsterdam: Geiben.

Rutter, J.B. 1984. The Early Cycladic III Gap: What It Is and How To Go About Filling It Without Making It Go Away. In MacGillivray, J.A., and Barber, R.L.N. (eds.) *The Prehistoric Cyclades: Contributions to a Workshop on Cycladic Chronology*. 95–107. Edinburgh: Department of Archaeology, University of Edinburgh.

Rutter, J.B. 1983. Some Observations on the Cyclades in the Later Third and Early Second Millennia. *American Journal of Archaeology* 87(1), 69–76.

Sherratt, S. 2000. *Catalogue of Cycladic Antiquities in the Ashmolean Museum: The Captive Spirit*. 2 volumes. Oxford: Oxford University Press.

Sotirakopoulou, P.I. 1999. *Ακρωτήρι Θήρας: Η Νεολιθική και η Πρώιμη Εποχή του Χαλκού επί τη βάσει της Κεραμεικής*. Athens: Η εν Αθήναις Αρχαιολογικής Εταιρείας.

Sterne, J. 2003. Bourdieu, Technique and Technology. *Cultural Studies* 17(3), 367-389.

Tomkins, P. 2007. Communality and Competition: The Social Life of Food and containers at Aceramic and Early Neolithic Knossos, Crete. In Mee, C., and Renard, J. (eds) *Cooking up the Past: Food and Culinary Practices in the Neolithic and Bronze Age Aegean.* 174-199. Oxford: Oxbow Books.

Weiberg, E. 2007. Thinking the Bronze Age: Life & Death in Early Helladic Greece (Uppsala Studies in Ancient Mediterranean & Near Eastern Civilizations). Uppsala: Uppsala Universitet.

Weisshaar, H-J. 1990. Die Keramik von Talioti, in: Weisshaar, H-J., Weber-Hiden, I., von den Driesch, A., Boessneck, J., Rieger, A., and Böser, W. *Tiryns XI: Forschungen und Berichte*. 1-34. Germany: Philipp van Zabern.

Weisshaar, H-J. 1982. 'Bericht zur frühhelladischen Keramik. Ausgrabungen in Tiryns 1981', *Archäologischer Anzeiger:* 440-56.

Whitbread. I.K. 2011. Petrographic Analysis of Ceramics from the Berbati Valley. In Lindblom, M and Wells, B. (eds.) *Mastos in the Berbati Valley: An Intensive Archaeological Survey.* 143-176. Stockholm: Acta Instituti Atheniensis Regni Sueciae.

Weiberg, E., and Finné, M. 2013 Mind or Matter? People-Environment Interactions and the Demise of Early Helladic II Society in the Northeastern Peloponnese. *American Journal of Archaeology* 117(1):1-31.

Wiencke, M. 2000. *Lerna: A Preclassical Site in the Argolid. Results of Excavations conducted by the American School at Athens Vol. IV The Architecture, Stratification and Pottery of Lerna III*. New Jersey: American School of Classical Studies at Athens.

Wilson, D.E. 2013. 'Ayia Irini II-III, Kea: The Phasing and Relative Chronology of the Early Bronze Age II Settlement'. *Hesperia* Vol. 82: 3, pp 385-434.

Wilson, D.E and Day, P.M. 2000. EMI Chronology and social practice: pottery from the early palace tests at Knossos. *BSA* 95: 21-63.

Zaronikos, J.N., Tataris, A.A., Kallergisand, G.A., Kounis, G.D. 1970. Geological Map of Greece. 1:50,000. Nafplion. Athens: I.G.S.R.

Tables

Aegean Chronological Period	**Mainland Greece Relative Period (Adapted from Maran 1998 and Wilson 2013)**	**Absolute Dates B.C. (Adapted from Rutter 1993a, Manning 1995)**	**Revised Absolute Dates for Period Start B.C. (after Cavanagh at al. 2016)**	**Lerna Relative Chronology Phases (Adapted from Rutter 1995)**	**Tsoungiza Dating Phases (Adapted from Pullen 2011a)**
EBA I	EHI	c.3100/3000-2650	3579-2935	Unstratified sherd material	EHI
EBA II	EHII early	c.2650-2450/2350	3238-2566	III phase early A	EHII Initial
				III phases late A-C	EHII Developed
	EHII developed	c.2450/2350-2220/2150	2634-2376	III phase C	Hiatus
	EHII late			III phase D	
	EHII-III	c.2200/2150-2050/2000		Hiatus?	EHIII
EBA III	EHIII		2452-2324	IV	

Site	**No. of Definitively EHI Samples**	**No. of Definitively EHII Samples**	**No. of Definitively EHIII Samples**
Ancient Corinth (Keramidaki)	0	144	0
Korakou	0	34	0
Ancient Corinth (Lavezzi Material)	5	21	0
Tsoungiza	42	77	35
NVAP 204	14	28	0
Talioti	29	1	0
Epidavros Maleatas	12	31	2
Delpriza	22	33	0
Agios Pantelimon	15	42	0
Spiliotakis (Monopori)	0	59	0
Lempetzi (Argos)	0	19	0
Tiryns	1	118	2
Midea	19	79	0

Figure Captions-

Table 1: Table showing the chronological phases and terminology with concordance to key sites of reference.

Table 2: Sites, sample numbers and phases represented from Corinthia and the Argolid.

Figure 1: Illustration of an EHI fruitstand from Tsoungiza, Nemea. Courtesy of Daniel J. Pullen and the Nemea Valley Archaeology Project.

Figure 2: Map of sites examined in this research.

Figure 3: Images from the macroscopic examination of vessel breaks in the 'Talioti' fabric. A. TAL 11/3, an EHI fruitstand from Talioti; B. TSO 10/14, an EHI matt impressed, flat base bowl from Tsoungiza; C. TAL 11/28, an EHI jar from Talioti with purple-brown inclusions similar to those noted by Weisshaar as grog.

Figure 4: Micrographs of the sandstone to low grade metamorphic fabric. A. TSO 10/14, an EHI fruitstand, Tsoungiza; B. TAL 11/2, an EHI fruitstand, Talioti; C. MID 13/50 an EHII sauceboat, Midea; and D. EPI 12/6, an EHII jug/jar, Epidavros. All taken under crossed polars.

Figure 5: A. LAV 12/10, a fruitstand pedestal, Ancient Corinth. Micrograph of mudstone fabric, probably of local Corinthian provenance; compare to B. TSO10/42 fruitstand pedestal, Tsoungiza, sandstone fabric most likely produced in Talioti.

Figure 6: Photograph of an EHII pedestal bowl excavated from the site of Tiryns in the Argolid.

Figure 7: TSO10/26, dark slipped fruitstand from Tsoungiza, manufactured in a fine calcareous clay and a high quality black slip, characteristic of EBII production in Ancient Corinth.