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Journal of Greek Archaeology Volume 6: Editorial

Our latest volume maintains our goal to cover the broad chronological spread of Greek Archaeology, ranging from a new review of the Mesolithic occupation at Theopetra, one of the most important hunter-gatherer sites in Greece, to a detailed analysis of how the distribution of Middle Byzantine churches in the Peloponnese enlightens us into the evolution of human settlement and land use. Prehistory is richly represented in further articles, as we learn about Middle Bronze Age society on Lefkas, the dispute over exotic primates portrayed on the frescoes of Santorini, a new Minoan-style peak sanctuary on Naxos, and Post-Palatial settlement structure on Crete. Bridging prehistory to historical times, a detailed study rethinks the burial and settlement evidence for Early Iron Age Athens, then entering the Archaic period, an original article links textual analysis and material culture to investigate dedicatory behaviour in Ionian sanctuaries. As a special treat, that doyen of Greek plastic arts Andrew Stewart, asks us to look again at the evidence for the birth of the Classical Style in Greek sculpture. Greek theatres in Sicily are next contextualised into contemporary politics, while the sacred Classical landscape of the island of Salamis is explored with innovative GIS-techniques. For the seven-hundred years or so of Roman rule we are given an in-depth presentation of regional economics from Central Greece, and a thorough review of harbours and maritime navigation for Late Roman Crete. Finally we must mention a methodological article, deploying the rich data from the Nemea landscape survey, to tackle issues of changing land use and the sometimes controversial topic of ancient manuring.

John Bintliff
General Editor

Geographies, Institutions, and Agencies: Ceramic and Socio-Economic Regions and Regionality in (Late) Hellenistic-Late Roman Boeotia, Central Greece (*c.* 150 BC-AD 700)[1]

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'There is no single narrative;
dissonance is not the result of a lack of harmony within one song,
but rather due to the competing songs from the past all sounding at once'

Daniel Stewart on Roman Greece (2014: 120)

Introduction

It almost goes without saying that explorations of ancient economies developed significantly when one takes the studies by Michael Rostovtzeff and Moses Finley as points of departure.[2] Just as any work, their landmark studies are obviously a product of a certain time. Yet, especially in recent decades, it becomes more and more clear that we can hardly talk about 'the' or 'one' ancient (type of) economy, since variation and change, rather than homogeneity and stability, characterise the ever-growing archaeological datasets on the basis of which we can try to reconstruct ancient socio-economic systems and practice. Based on the quantity and quality of the currently available archaeological, epigraphic, and historical data, we cannot talk about a unified Mediterranean, Eastern Mediterranean, Aegean, Central Greek, or Boeotian economy. Instead, we should allow for temporal changes and need to accept the presence of a whole range of economies, 'some overlapping, some isolate, with constantly changing relations among them'.[3] By extension, as noted by John Davies, we should at least allow for the possibility that alternative modes of behaving economically 'can coexist within the same 'society' or the same 'economy', without any one mode predominating'.[4] This change in perspective is a reaction against speaking about 'the' or 'one' ancient economy and, as put in Finley's own words, against a certain tunnel vision 'on the dominant types, the characteristic modes of behaviour'.[5] Accepting that ancient economic systems are, also on lower spatial scales, characterised by their complexity and arguably possessed some properties of 'complex economic systems' (in the technical sense),[6] this means that we can

[1] This article presents a summary of some of the main lines of my recently completed Ph.D. research at the University of Cologne, entitled 'Shaping regionality in complex economic systems. Late Hellenistic-Late Roman pottery production, circulation, and consumption in Boeotia, Central Greece (c. 150 BCE-700 CE)'. This research was carried out within the framework of DFG Research Training Group 1878 'Archaeology of Pre-Modern Economies', based at the Universities of Cologne and Bonn. The thesis is currently in preparation to be published at Archaeopress (Peeters in preparation). I would like to thank my supervisors (Michael Heinzelmann, Martin Bentz, and John Bintliff) for their supervision and advice. I am very grateful to my colleagues Philip Bes and Jeroen Poblome for their invaluable mentoring, support, and the possibility to analyse some unpublished datasets from the Boeotia Project (to which they are the main contributors after the initial study of the pottery by John Hayes) in the framework of my thesis.
[2] Rostovtzeff 1926 and 1941; Finley 1985 [1973].
[3] Reger 1994: 49.
[4] Davies 2005: 132.
[5] Finley 1985 [1973]: 29 and 34.
[6] E.g. Bintliff 2012; Poblome 2015.

and should never look at such systems in isolation. That being said, socio-economic as well as -ecological interactions and practice were heavily rooted at something that we might call the 'local' or '(micro-)regional' scale, while 'cause and effect' and the shaping of socio-economic variety and change were far from mechanistic and simplistic in character. To better understand the emergence of this diversity, we should in some way revise causality and not only focus on processes that trickled down from higher levels in the system, or rippled out through 'horizontal interactions' between individual entities on the same level of a system. Instead, we should focus on a scale at which most actions, interactions and processes were anchored and within which micro-economic agents and communities were acting in certain institutionally- and socio-ecologically shaped and embedded spheres of action. In this way, the present research not only aims to contribute to how 'one valley might indeed be different from the next', from a socio-economic point of view, but also to better understand some of the underlying factors and processes that contributed to this identifiable diversity in space and time. Just as for the present day,[7] some main factors and processes that contributed to this variation can be grouped under the umbrellas 'geography', 'institutions' and 'historical contingencies'. Since we are working with past material culture that gained a meaning by usage that could have differed from place to place, context to context, person to person, and activity to activity, we can and should add 'aspects of agency' to the debate.

Hellenistic-Late Roman economies in Boeotia and Greece: a 'big picture'

After preaching for fluidity, change, the operation of many economies, the presence of a range of modes of solving economic problems, and (comparative and diachronic) analyses on the local/regional scale in the introduction to this article, it appears contradictory to introduce some general trends and models regarding the development of Hellenistic-Roman societies and economies. It will be clear that such models and general developments will simplify reality and not fully appreciate the complexity at hand. At least potentially, the ceramic analyses that are presented later in this article contribute to highlight some of this diversity. These ceramic data and patterns, however, need to be contextualised in some way, while detailed data on the local/(micro-)regional (i.e. 'intra-Boeotian') scale are lacking in terms of some of the general developments that are touched upon in this section. In this sense, it appears relevant to in some way 'set the scene', before jumping to the ceramic data and before discussing how, and what, such ceramic perspectives might add to such 'big pictures'.

When we summarize some main developments and properties of socio-economic systems in the Hellenistic-Late Roman world,[8] it is apparent that, starting in the Hellenistic period, networks of exchange and interaction seem to expand and flourish. These societal developments at least partly seem to result from the operation of systems of extraction by the ruling powers and a certain horizontal mobility. This increased mobility was, among other things, facilitated by the existence of Leagues or *koina* and inter-polis institutions, such as proxeny decrees and other expressions of honour with additional rights, such as the right to pay the same taxes as citizens (*isoteleia*), exemption from taxes (*ataleia*) or personal security in times of war and peace (*asphaleia*).[9] A *koinon* such as the Boeotian League facilitated citizens of any one polis in Boeotia (at least potentially) to have access to similar legal rights and the right to own property in a different polis of the League, while they also had the right to pay the same level of taxes as citizens of this other Boeotian

[7] See a giant debate in modern developmental economics on the processes that lead to diversity in economic performance and development that centres on the somehow connected roles of geography (Gallup *et al.* 1999; Sachs 2003), institutions (Acemoglu *et al.* 2005; Acemoglu and Robinson 2012), and history (Krugman 1999).

[8] See Peeters in preparation for a more extensive analysis and further references. It should be made explicit that the noted periods in this paragraph and the remainder of the article are 'ceramic chronologies', which are defined on the basis of a certain homogeneity and changes in ceramic material culture, rather than periods defined on the basis of a pure historical framework: Hellenistic – *c.* 325-1 BC; Early Roman Imperial – *c.* 1-200 AD; Mid Roman – *c.* 201-400 AD; Late Roman – *c.* 401-700 AD.

[9] Reger 2007a: 474-476; Migeotte 2009: 155; Müller 2016.

polis.[10] Proxeny decrees could further enhance this horizontal mobility beyond the borders of such *koina*. Grants of *proxenia*, which might be defined essentially as 'an institutionalized type of guest-friendship',[11] surely not only facilitated interactions that we might now define as highly 'economic'. Yet, at least potentially, commercial actions and transactions might have been eased by the actions of such 'guest-friends' that hosted and assisted 'foreigners' of the community that honoured the *proxenos* as a faraway friend. Whether being a delegate on an embassy or a businessman, one could face legal or personal disputes, insecurity, or other difficulties in other poleis than one's own. At least partly as a result of the existence of such inter-communal institutions, individuals were increasingly doing business beyond polis borders and holding property farther away from home. An interesting Boeotian case seems to be provide by the Thespian woman called Nikareta, who provided the polis of Orchomenos with a substantial loan around 223 BC: including interest, this polis was indebted to 18 833 drachmas.[12] Christel Müller proposes that the loan of such a sum to a polis other than her own, and the way by which Nikareta tried to secure her loan (and the additional interest), illustrate a 'business loan'.[13]

Hellenistic-Roman societies had some 'proto-capitalistic' tendencies,[14] meaning that there was increased investment, specialisation, and intensification in production and exchange. At least some in society were getting quite rich and running affairs. Especially in the period of the later Roman Republic and Empire, civic life is characterised by a certain 'oligarchisation', as certain 'dynasties' in the exercise of civic office can be reconstructed.[15] The filling of such offices was still in some way a democratic affair and such sentiments were certainly alive.[16] So elections were held, but civic life was dominated by a small pool of individuals and families, while cities also increasingly experienced difficulties to fill their offices. It was especially those belonging to this more prosperous class that were heavily concerned with establishing, maintaining, and enhancing relations with elites from other places and even with individuals near the top of the Hellenistic or Roman Imperial pyramids of power. Perhaps the prime Greek example of an individual in the 'supra-civic landowning class', who possessed landholdings in many places and had many such contacts, is provided for the Early Roman Imperial period in the person of Herodes Atticus. He owned land in (at least) five places in Attica, in the Peloponnese (Kynouria and Corinth), in Euboea, in Italy, in Egypt, and his family possibly possessed land on Keos and in Boeotia.[17] Herodes not only serves to illustrate 'horizontal mobility', but also some kind of 'vertical mobility' within the networks of the elite class, as he had a successful senatorial career, held prominent positions in Athens, became a friend of Hadrian, became consul, and later on the teacher of Marcus Aurelius and Lucius Verus.[18]

At least some of these individuals from elite social groups were not only holding prominent positions in civic life, but will probably have been (directly or indirectly) involved in many aspects of socio-economic life and might have had a relatively broad economic portfolio. In this sense, we should note the Roman 'men of business' (*negotiatores*) and other individuals from the 'West' that found in Thespiae a very popular destination. It is not clear which exact businesses most *negotiatores* were involved in (i.e. agricultural or industrial production, trade and shipping, money lending,

[10] Mackil 2013: 258-259; Müller 2016. Alongside facilitating horizontal mobility, the Boeotian Koinon took on other major roles that affected socio-political and -economic life, as its 'federal' government negotiated and settled legal disputes in terms of boundaries and debts, took measures in times of famine, and formed a military framework in which the Boeotians arranged a mutual defence against others. After its rise, Rome banned such *koina* (at least for a short span of time), after which they would return without much military and political power (Alcock 1993: 165; Müller 2014: 119. Pausanias, *Description of Greece*, 7.16.9).
[11] Whoolmer 2015: 78. See Mack 2015 for an extensive discussion of *proxenoi* in the Greek world.
[12] IG VII 3172.
[13] Müller 2010: 237.
[14] Bintliff 2013a.
[15] Müller 2010: 229.
[16] Heller and Van Nijf 2017: 7-9.
[17] Alcock 1993: 78 and 241. See Spawforth 1995 and Marzano 2012 for the quite speculative evidence that Herodes and/or his family (from his mother's side) was involved in fish farming in Boeotian lakes.
[18] See Ameling 1983 for a detailed biography of Herodes Atticus.

or the collection of taxes), but the presence of individuals with the nominus Castricus might be noted in this respect. Individuals of this gens were mainly active as bankers in many parts in the Mediterranean (including Rome, Campania, Delos, and possibly Asia Minor and Chalkis).[19] Thespiae traditionally had a relatively pro-Roman attitude during the conflicts of the Late Republican period and was, just as Tanagra (and later on Plataea), granted a 'free' status in the late Republican and imperial geography (probably from Sulla up till Diocletian's reign).[20] Such a favourable status probably included the privilege to levy (and keep) local taxes, such as import/export taxes, taxes on other transactions, harbour taxes, dues on the usage of official weighing machines, etc.[21] This pro-Roman atmosphere and preferential status is probably in some way related to the presence of such large numbers of Romans and businessmen in Thespiae (especially before the establishment of the colony at Corinth),[22] while Thespiae's central positioning in Boeotia, its port at Kreusis on the westward facing Gulf of Corinth, and the fertility of the landscape are seen as other probable factors affecting this presence.[23] These entrepreneurs probably had a relatively broad 'economic portfolio', which will probably have been dominated by one activity, such as money-lending, but might have included a range of investments and activities. Just as other elites, they will have had a network of freedmen and other trusted individuals that were acting on behalf of them in their enterprises and in larger networks of interaction and transaction.[24] The increasing presence of negotiatores and other Roman business- and tradesmen in the Adriatic and later on in mainland Greece, the Aegean, and the Eastern Mediterranean at large, probably expanded interactions and material exchanges in some way, involving maritime transport, as well as flows of capital.[25] This trend already developed from the 3rd c. BC onwards and it seems probably that also the presence of large armies in the Aegean and Western Anatolia 'and their demands for food and other supplies must have strained and reconfigured distribution systems'.[26]

The rise of Roman political power in Greece, the drawing of Greek communities into systematic forms of taxation, and a 'model of displaced prosperity' contributed to such reconfigurations and/or intensifications, already from an early stage, when 'one-off' exactions and contributions were requested (i.e. ordered).[27] For example, in 151/150 BC, the members of the Thessalian Koinon had to deliver a total of 430 000 *kophinoi* of grain, which is the equivalent of more than 4 000 000 litres(!), to be 'dispatched [and sold] to Rome for the Senate and people'. If they could not deliver they had to pay a fine and they had to organize and pay for these transports themselves.[28] The role of cities in the collection and distribution of especially taxes increased massively in time. Except for cities such as Thespiae and Tanagra ('free' communities that were probably not drawn into systematic taxation before Diocletian's time), the Greek cities were systematically taxed. The burden of tax-collection was after the turn towards the Empire more and more reassigned to cities and not (or less) carried out by *publicani* anymore. Basing ourselves on the evidence from other provinces, it appears that taxation will for the most part have been taken in cash (rather than kind), while levels of taxation appear to have been relatively low in the early Empire.[29] A tax in kind (the *annona*) became increasingly (but still not structurally) requisitioned from Septimus Severus' reign onwards and became the principal direct tax under Diocletian.[30] It was this latter

[19] Hatzfeld 1919: 41; Wilson 1966: 98; Müller 2017: 236-237.
[20] Pliny the Elder, *Natural History*, 4.25.1 and 4.26.7.
[21] See Jones 1940: 119; Bernhardt 1980; Tan 2015: 214 for some general discussions of what grants of 'freedom' meant for such communities.
[22] After the foundation of this colony many *negotiatores* moved to Corinth, while it is for prosopographic reasons suspected that at least some of them had their roots on Delos, which they left after its fall (Spawforth 1996: 172; Müller 2017: 236-237).
[23] Hatzfeld 1919: 27: 68-70; Wilson 1966: 148.
[24] Verboven 2011: 97; Millis 2014.
[25] Shipley 2018: 193-194.
[26] Reger 2007a: 482-483.
[27] See Bintliff 2013a: 286f for the model of displaced prosperity. See Bekker-Nielsen 1989 for a comparable model for Northwest Europe during Roman times.
[28] Garnsey *et al*. 1984; Bresson 2015: 398.
[29] Jones 1940: 138f; Hopkins 1980; Alcock 1993: 21; Migeotte 2009: 61-62.
[30] Jones 1940: 143; Hopkins 1980: 123; Pleket 1990: 149; Carrié 2005: 284-285.

emperor who attempted to make the collection of taxes and its monitoring more efficient. Taxes were mainly raised in grain to overcome the devaluation of currencies, and as such provide rations to civil administrators and the army (that grew massively in size under Diocletian).[31] The more systematic, intensified, and controlled assessments and collections of taxes were coupled with legislation. While the ancient texts from this period should not always be taken too literally, it appears that this increased systematic taxation (and possibly increasing levels of taxation) led to some financial troubles in Greece, since a law from AD 424 halved the taxes in the province of Macedonia and reduced the taxes in Achaea to one-third of what was previously raised 'for all future time'.[32] Two similar inscriptions from a couple of decades before this tax reduction (AD 401-402) illustrate where the Central Greek and Peloponnesian cities had to deliver their collected taxes.[33] The Boeotian, Euboean, and Aetolian cities had to deliver to the imperial *horrea* at Skarpheia (east of Thermopylae), while the Peloponnesian cities had to deliver to the ones at Corinth. Based on this text, we can infer that the cities were (at least at the time of these inscriptions) themselves responsible for the collection of taxes and the delivery and payment of the transport of goods to the specified depots. It is not clear which goods were expected to be delivered to the imperial depots, but this probably not only included grain, but also oil and possibly other goods.[34] It is also not clear where the exacted Boeotian goods ended up after being delivered to Skarpheia, but it seems probably that at least part of these shipments were redistributed up north towards Thessaloniki and beyond (including Constantinople).

In terms of something that is more recently commonly defined as the 'performance' of the economy in the Roman period, it should be stressed that Greece behaves somewhat differently from many other parts of the Empire: after the massacres of the Late Republican period and in the period of the *pax Romana,* Greece saw some economic hardship, instead of growth. Although this 'hardship' will certainly have differed across echelons of society, in some way from place to place, and in time, it appears clear that this was not the most flourishing period in Greek and Boeotian history. The historical sources for this period are obviously a bit biased, as one can taste that the ancient writers were in some way longing for the glorious Greek past. Nonetheless, Strabo's passage that the cities of Thespiae and Tanagra are 'the only one[s] to have maintained [their] existence among Boeotian cities; of the other ones are only left ruins and names'[35] illustrates that the Boeotians generally will have seen better times (while there thus also seems to have been some intra-Boeotian variation). Population levels and trends herein, which are in ancient studies seen as forming important proxy data for economic performance, contraction, or growth,[36] seem to strengthen this observation. It should be stressed from the outset that 'hard' population numbers do not exist, that demographic reconstructions are the result of a range of assumptions, and 'guesstimates' at best that are also highly influenced by the state and method of research of individual cities or areas. Nevertheless, it appears worth looking at some demographic reconstructions for the Classical-Late Roman period.

[31] Jones 1964: 64-67; Haldon 2015: 352-353.
[32] *Codex Theodosianus*, 11.1.33. Gregory 1984: 271; Trombley 1989: 218.
[33] IG VII 24 = SEG 40.402 (Megara), SEG 42.262 (Corinth).
[34] The 'type' of *horreum*, which is in this period increasingly specified on the basis of the goods stored in them, is not named in the inscription, leading to difficulties identifying which goods had to be delivered (see Ginalis 2014: 52-54 for an etymologically based discussion of six types of horreum for specific products). See Groag 1965: 24; Pritchett 1980: 225; Trombley 1989: 216; Alcock 1993: 219 for assuming grain as being the principal tax in kind that had to be delivered to Skarpheia and Corinth. See Rizos 2015 for oil. For some types of amphorae from this period, which were produced in several areas, the impression exists that they had some role in the provisioning of (military) sites on the Danubian limes and sites in the Aegean that seem to have had a distinct military character (Karagiorgou 2001: 149). Although we should allow for re-use of amphorae on some scale, these types are traditionally and by most scholars seen as amphorae containing wine (Late Roman Amphora 1) or oil (Late Roman Amphora 2), at least in their 'primary use phase' (see Peeters in preparation for discussion and further references on relating these (and other) amphora types to certain contents). Relatively early variants of the Late Roman Amphora 2 were produced in many areas in the Aegean and beyond, including Tanagra's port Delion on the Euboean Gulf (Gerousi 2014).
[35] Strabo, *Geography*, IX, 2.25.
[36] The underlying assumption is that economies should 'perform' to certain degrees to achieve that enough energy intake is available for consumption that can sustain certain population levels or increase them. Population growth could be achieved in more 'economic' ways (by increased productivity, specialisation, the playing out of comparative advantages, etc.) or 'institutional' ways (by formal and informal institutions stimulating cooperation, the distribution of resources, systems of socio-ecological interaction, etc.).

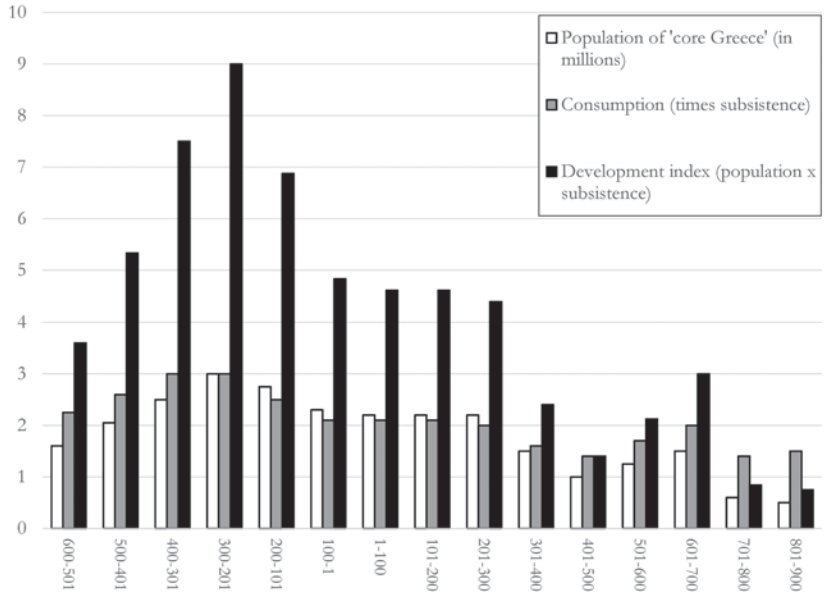

Figure 1. Ober's population and consumption estimates for 'core Greece' from 600 BC-AD 900 and the calculated development indexes per century (after Ober 2015, figures 1.1 and 4.3; Peeters in preparation).

Based on several major studies, Ober reconstructs in *The Rise and Fall of Classical Greece* that the population in 'core Greece' was in the order of 3 million (or perhaps more) by the 3rd c. BC.[37] Such population levels appear exceptional when compared to other spans of time (Figure 1). It should be noted in the context of Ober's methodology that these trends are largely originating from the comparatively large size of Late Classical(-Early Hellenistic) nucleated settlements with urban features. Yet, by consensus, 'rural Greece' also seems to have flourished in this period, with the presence of high densities of farms and other types of settlements and associated sites. Although the quality of the proxy data that are playing a central role in Ober's analysis is certainly less for the Early Hellenistic period onwards, we might continue our sketch of a 'big picture' regarding socio-economic development and performance for the Mid Hellenistic-Late Hellenistic period by looking at the population and consumption levels that are generated by Ober. In 'core Greece', population levels appear to have decreased in the course of the 3rd c. BC. When we turn to the Early Roman Imperial period, it appears best to only use Ober's calculated figures as a framework to depart from (because of these issues regarding the representativeness of the data for this span of time). Nonetheless, it appears realistic that demographic levels had become smaller,[38] after which they are reconstructed to more or less stabilise up till the 3rd c. AD. Ober not only offers demographic reconstructions, but also ambitiously provides 'median per capita consumption estimates' for the noted periods. It is heavily debatable if such consumption estimates can be approximated with much detail for the ancient world on the basis of the used proxies, such as building standards, the sizes of houses, the quality/quantity of household goods, the size/number of coin hoards, and the number of known personal names in Attica.[39] Looking at Ober's estimates might lead one to argue that consumption levels were around one-third smaller (but still 'two times subsistence') after the

[37] Ober 2015. Ober especially bases his population levels on the sizes of individual poleis that are provided in the *Inventory of Archaic and Classical Greek poleis* (Hansen and Nielsen 2004) and studies by Ian Morris (2004) and others. 'Core Greece' is defined as the area that was controlled by the Greek state between 1881 and 1912: the mainland from Thessaly south and the Ionian and Cycladic islands.

[38] As argued by Susan Alcock (and others), the period in which Roman colonies were established at Corinth, Patras, and Nicopolis will have led to substantial displacements of populations from other parts of Greece to these centres, making the postulated forms of population decline questionable (Alcock 1989: 99; Jones 1940: 65; Romano 2003; Rousset 2008: 315). Yet, see Karambinis 2018, on the basis of more recent data on the whole Roman province of Achaea (essentially all of southern Mainland Greece), for decreasing site-numbers and populations in both city and countryside, hinting at population decline, rather than displacement. The accumulated evidence from survey projects agrees with the urban picture in confirming a dramatic decline in many rural landscapes of Greece from Late Hellenistic through to Early Imperial times (Bintliff 2019).

[39] The underlying data are mostly published in Morris 2004.

Late Classical-Early Hellenistic period and even smaller during some points in time, such as the 4th-5th c. AD (Figure 1).

In terms of these demographic trends, it should be noted that also for Boeotia population figures are calculated for the Classical-Late Roman period. These are obviously also in some way influenced by the quality of the data (i.e. especially reconstructions of the sizes of individual cities, which is for some cities only postulated on the basis of surface evidence) and underlying assumptions and formulae (i.e. the percentage of cities that was 'domestic', the density of habitation per ha in urban and rural settings, etc.). Despite these observations, it is hard to escape the impression that population levels were highest in Late Classical-Early Hellenistic Boeotia and that they would shrink and stay low in the Late Hellenistic-Early Roman Imperial period (Figure 2). Importantly, however, at least the survey data from Boeotia illustrate that (rural) population levels and site numbers expanded (or one might say explode) in the last part of the Mid Roman period (in the course of the 4th c.) and/or in Late Roman times, which has long been viewed as a period of decline on the basis of the historical sources. This last rise mostly seems to be the result of an increasing population in the countryside, in which (agricultural) production flourished. This was probably a result of a change in focus of the elite social groups that expanded their role as landlords, which increasingly tied *coloni* (tenant farmers) to their lands. An illustrative Boeotian case in terms of these increasing rural populations is provided by the Valley of the Muses. This relatively fertile area appears largely deserted during the Early Roman Imperial period (seemingly except for the sanctuary at the end of the vale that hosted the Mouseia), but sees an explosion in the number of (middle- to large-sized) sites in Late Roman times, when also the *komopolis* Askra (i.e. a village with some urban properties) again reached its maximum extent of *c.* 11ha (Figure 2).[40] This Late Roman expansion will probably have been largely a result of increased (elite) investment in the area, but should not be seen in isolation from other societal developments, such as in the religious and cultic sphere. Importantly, the Sanctuary of the Muses will not have been active anymore in this period (and was replaced by a church), but this temple will probably have owned much land in the area before and its closure probably freed up land for 'private' ownership and investment.[41] One result of this increasing focus, investment, and occupation of the elite in rural areas, was that 'the revenues of the land were divorced from the support of local civic institutions and the landowners lost whatever interest they had in the local urban centers', where bishops took over as the most prominent individuals running affairs.[42] Late Antique Boeotian and other (Central) Greek cities are generally small from a diachronic perspective and the surviving Boeotian cities (or at least larger settlements with some urban characteristics and central-place functions) were largely confined to a relatively small fortified nucleus (*kastro*) with some extra-mural peri-urban zones of habitation or activity. Two of the larger surviving Boeotian cities appear to have been Tanagra and Thespiae, of which this first city still had a walled area of *c.* 30ha and this latter city had a *kastro* and peri-urban zones of habitation that totalled roughly the same area.

[40] Askra appears to have been largely deserted during much of the 1st and 2nd c. AD on the basis of the writings of Plutarch and Pausanias and the survey data (Plutarch, *Matters relating to customs and mores,* Fr. 82; Pausanias, *Description of Greece*, 9.29.2). See Bintliff *et al.* 2007: 162 for a preliminary analysis of the settlement patterning in the Valley of the Muses. See Knoepfler 1996: 155-156 and 166-167; Schachter 2012 for the development of the Mouseia and its sanctuary. This evidence for low intensities of habitation and activity in the Valley of the Muses in the Early Roman Imperial period does not stand on its own in Boeotia, as it is characteristic for rural zones (and especially those at some distance from urban centres) studied by the Boeotia Project. Further evidence of such a situation is provided for Thisbe, where much land appears to have been uncultivated and there were attempts to lease it out. The Roman authorities took some interest in this domain, as is evidenced by an epigraphically recorded *senatus consultum* (IG VII 2226-2227 = SIG 884). This edict states that the public (and sacred?) lands in Thisbe's territories are to be leased out in relatively small plots to the citizens of this town, which were thereby obliged to bring the lands under cultivation. This evidence from Boeotia is commonly discussed in the same light as the presence of uncultivated lands (*agri deserti*) elsewhere and other (legislative) measures by the Roman authorities to bring such lands (including uncultivated imperial estates in Africa) under cultivation from Hadrianic times onwards (Kehoe 1988, Quass 1996, and Rizakis 2004).

[41] See Kalliontzis 2020 for excavations illustrating the presence of a church built on top of the older altar. See Cosmopoulos 2001: 79 for a similar suggestion for increased activity in the Oropia after the closure of the Amphiareion.

[42] Gregory 1984: 270. See Liebeschuetz 2001, esp. 29-30: 137-153; Rapp 2005: 208-289 for the rise of the Church and specifically bishops in the Late Roman period.

Site	Late Classical-Early Hellenistic		Late Hellenistic-Early Roman Imperial		Mid-Late Roman		References
	Size	Population	Size	Population	Size	Population	
Thespiae (city)	ca. 72ha	ca. 9 072	ca. 34ha	ca. 4 250	ca. 30ha	ca. 3 750	Bintliff *et al.* 2017: 58
Askra (village)	ca. 11ha	ca. 1 250	-	-	ca. 11ha	ca. 1 250	Bintliff *et al.* 2007: 148; Bintliff 2013b: 196 and 200
Hyettos (city)	ca. 16ha	ca. 2 000	ca. 11-13ha	ca. 1 300- <1 600	ca. 13ha	ca. <1 600	Bintliff *et al.* forthcoming
Tanagra (city)	ca. 60ha (perhaps ca. 72ha)	ca. 7 500 (perhaps ca. 9 000)	unknown, perhaps close to ca. 30ha	perhaps similar to Mid-Late Roman: ca. 3 750	ca. 30ha	ca. 3 750	Bintliff 2019 for the specified sizes. See Peeters *et* al. (accepted a) for an extensive diachronic exploration of the ceramic distributions in Tanagra and an area to the north of the Late Roman city wall, which was previously encompassed in the Late Classical city fortifications. The population approximations for Tanagra in this table were carried out on the basis of the same assumptions and formulae applied in Bintliff *et al.* 2007, 2017, and in preparation. See Bintliff 1997 for this methodology

Figure 2. Reconstructions of the size and populations of some of the larger settlements surveyed by the Boeotia Project, of which the ceramic data are explored in this research.

As will be illustrated further on in this article, the Late Roman period was not only a period of substantial societal change that is highly visible in the archaeological record, but also a period of increasing diversity, for instance, in terms of the intensities in which Boeotian communities were linking into larger networks of interaction and (ceramic) exchange. These forms of change and diversity do not compare to the extreme changes that were present during the 7th c. and the subsequent Early Byzantine period. Although the Empire 'would not die', it decreased extremely in size, as much territory was lost during the reigns of Justinian's successors.[43] By the turn of the 9th c., the Mediterranean and 'post-Roman world' is argued to have been 'firmly a world of regional and sub-regional economies'.[44] Drawing on other synthetic studies for this span of time, such developments are not uncommonly framed in terms such as 'decline', 'fall', and 'collapse'. Outbreaks of the Great Plague, which returned in 18 waves between AD 541 and 750 and which might in Constantinople alone have resulted in around 244 000 deaths within a population of more than 500 000,[45] hit many aspects of society, including dramatically shrinking city populations and decreasing agricultural labour forces. To be sure, what was left of the Empire did not look and

[43] According to John Haldon and Arlene Rosen, the Empire of the 740s only comprised 25% of what it was in the early 630s. Based on this reconstruction, most of Boeotia, except for a small strip on the eastern coast (and Thebes?), was not formally part of the Empire during this span of time, but under Slav control (Haldon and Rosen 2018, fig 1a and b). Yet, see Vionis and Loizou 2017: 244 for a slightly different reconstruction, in which Boeotia was after administrative reforms put under the 'Theme of Hellas', which spanned the eastern portion of central and southern Greece, in the late 7th c. There is however a question whether the Empire actually controlled the hinterland of Central Greece, rather than claiming it. Seal evidence suggests that in Boeotia as elsewhere, the Emperors gave titles to local Slav leaders to try and neutralize their threat to areas actually controlled by the imperial fleet and army, which were the major towns and the coastlands (pers. comm. J. Bintliff).

[44] Wickham 2005: 820.

[45] See Hollingsworth 1969: 355-374 for such figures on the basis of a mathematical model and Procopius' descriptions. See Stathakopoulos 2004: 110-154 for extensive discussion of the sources regarding the Justinianic Plague.

function as it did in the centuries before. I do, however, believe that the image of diversity and change, which appears to become visible for the later 6th, 7th, and 8th c. should not be seen in a floodlight from a too negative aspect: surviving communities evidently kept on solving economic problems and also managed to sustain themselves in some way.[46]

Ceramics, regions and regionality

Although the previous section illustrated that we already know a lot about some general trends in socio-economic development from the Late Hellenistic-Late Roman period in (Central) Greece, there is still a lot to be sought-for. This is specifically the case in terms of highlighting and better understanding the diversity and change that become apparent in the archaeological record and divergent trajectories within the 'big pictures' that are presented above. One of the ways through which a better bottom-up perspective of some particular aspects of (local) economies, larger socio-economic networks, and developments in space and time can be reached, is through the detailed study of ceramic production, circulation, and consumption, and by coupling such analyses with a proper 'regional' approach.

Regions can be defined in the archaeological discourse as 'areas where the archaeology appears to have a degree of coherence, particularly if that coherence sets the area apart from its neighbours'.[47] Such archaeologically apparent regions can be heavily influenced by the state of research, or the properties that are selected to set one area off from another (which are not necessarily that meaningful), but they are certainly not 'hollow' units for analysis. To touch upon the full potential of the region requires us to go beyond seeing them as mere tools in the spatial sciences to group areas in a manner that is only useful for research purposes. Regions are shaped by the actions of humans and are 'social constructs reproduced in the particular, localised cultural practices of individuals embedded in social and natural relationships, and these practices are repeated over various spatio-temporal scales'.[48] In the present research, I adopted a certain theoretical stance towards approaching regions, which is coined as 'regionality'.[49] In the remainder of this paragraph, I will summarize some essential points of this position: Regions should be seen as 'fluid' and can take different forms, shapes, strengths, and are more than a scale in between 'local' and 'national' or 'inter-regional' (there is nothing 'fixed' about regions). Regions will, when they have been consciously or unconsciously perceived in the past, 'always [have been] 'more-than representational' [...] [they will have been] experienced, lived, performed and felt'.[50] Regions not only *reflect* certain actions and processes from the past, but will also have had *active properties* as a 'meeting place of social structure and human agency'.[51] As such, they will have had some agency aspects that at least potentially shaped behaviour and complex decision-making processes. Regions will have been 'in a process' and might have been materialized at some stages rather than others, some might have been institutionalized, and some regions will have disappeared or changed.[52] Other regions might not be recognizable as such in the archaeological record, but will have influenced past choices, actions, and processes. In short, regions are/were essentially shaped through, *and* shaped human actions/choices and social, societal, and socio-ecological interactions in their own right. Historical path-trajectories, (physical) geographies, and (formal and informal) institutions all came in some way together in regions, as well as in socio-economic actions and –processes.

[46] E.g. Gregory 1984; Wickham 2005; Poblome 2014; Haldon 2016.
[47] Cleary 2013: 9.
[48] Poblome 2015: 102.
[49] The term 'regionality' is increasingly occurring in archaeological studies, but is seldom defined, so it is essential to be clear about what is meant with this position in the present research. See Pitts 2005: 51; Wickham 2005: 481; Vlassopoulos 2011: 9; Cleary 2013: 9; Stewart 2014: 120; and Lund 2015: 236 for some archaeological and historical studies in which the term regionality features.
[50] Campbell 2016: 5.
[51] Thrift 1983: 38.
[52] Paasi 1986.

By turning to (ceramic) regions we can highlight diversity and change and somehow make sense of the huge amount of data on the ancient world that are available. Yet, we also must go further and try to better understand the socio-economic and -cultural aspects that contributed to the existence of such regions, which shed light on the workings of specific aspects of local economies and larger networks. In my opinion, ceramic-based research can contribute to identify and better understand two main types of meaningful regions. The first type is in Geography known as the 'functional region', which is characterized 'by the degree to which the component parts interact [...] interaction of components within a region is significant compared to interaction with other places'.[53] Such regions can vary considerably in size and can sometimes overlap. A particular sub-type of a functional region is a 'nodal region', which is by definition centring on a focal point in the area, near which activity and overlapping interactions are more intense and 'goes on diminishing towards the periphery'.[54] This might be archaeologically reflected by so-called 'fall-off curves' of material farther away from places of production or exchange,[55] although the higher transport or transaction costs that probably underlie most of such curves, should not necessarily reflect diminishing interactions or movements. Ceramics can contribute to highlight functional regions on a range of scales. Traditionally, ceramic-generated data play a large role in explorations of general and larger ebbs and flows of exchange, its accompanying structures, and the degrees of interaction (often specified as 'integration') of local communities in larger socio-economic systems. See, for instance, the role of pottery in reconstructing the (*annona*) supply from Northern Africa, in which amphorae are reflecting the distribution of (agricultural) produce (such as wine or oil) and in which data on the circulation of tablewares (a 'secondary' or 'tertiary good') act as quantifiable 'piggy-back' evidence that are seen to reflect the flows of 'primary goods' (such as grain), which do not survive the ages particularly well.[56] Although being a highly influential and reasonable model, it should be stressed that it is questionable to what extent quantified results on the large scale distribution of ceramics also reflect the *volume* of trade and exchange in perishable commodities (such as grain) between different areas. By extension, relatively high degrees of interaction between areas or sites close to each other or at some distance, which could hint at the presence of a functional region, should not necessarily be materialized or recognizable in the ceramic or archaeological record. Similarities in ceramic distributions and the quantities of goods should therefore not be seen as the *inevitable*, nor the *natural*, product of intense interactions between sites and areas. Specifically ceramics that were distributed over large distances are unprobably to have switched hands only a handful of times on their way from producer, to distributers and consumer, thereby blurring the distribution patterns that were generated by each step in the chain of distribution, thus making it harder to identify the exact interactions between individuals and areas that are materialized in the archaeological record (is it the interaction between distant producer A and consumer C?; the interaction between A and tradesman B?; the mobility of tradesman B?; the interaction between A and port-site D?; etc.). Ceramic exchange patterns between sites that are situated closer to each other might in fact be easier to 'dissect', although we can never exclude that goods were not first circulated to a different distant site before being distributed again more closely to its producer area. These last points should serve to illustrate that we should be critical about the representativeness of the (ceramic) proxies we use to illustrate interactions, and that reality will always have been more complex than can be reconstructed. However, what matters is that pottery was moved not by the wind, waves, or wild horses, but by people, which were acting in certain meaningful spatial spheres and had relations, contracts, preferences, and agencies that were socially-, institutionally-, and contextually embedded. It is in these interactions at a 'grass root level' within and between areas, that regions and regionality took shape. When trying to reconstruct interactions and intensities herein between areas or communities, it should be stressed that not only the movement of goods,

[53] Blair 1995: 16.
[54] Pandit 1990: 52. See also Wishart 2004: 306.
[55] E.g. Renfrew 1975: 46-51 for such curves.
[56] See Reynolds 1995: 127-129.

but also the spread of ideas and materialized fashions in the form of specific ceramic morphologies or styles are highly relevant when approaching forms of interaction. In Gary Reger's words, 'there are certain ineluctable conditions for fashions to emerge: there must be change; there must be social differentiation (so that it matters what you use); and there must absolutely be mechanisms whereby people come into contact'.[57]

The second type of region that appears relevant in terms of material culture studies is the 'perceptual region', which is more 'socio-cultural' in origin and builds upon previous notions in which ceramics held a certain 'meaning'. Perceptual regions are areas of which individuals feel themselves a part (or not) and they are 'perceived to exist by their inhabitants and other members of the population at large [...] [being] the product of the spatial perception of average people'.[58] In such regions, 'space' is not seen as neutral, but perhaps more as a 'place' with its own specifics and history that contributes to the socio-cultural identity of people and their actions. Material culture, such as pottery, that was part of the concrete world could have had an active role in making a 'space' a 'place', as it was potentially laden with a whole range of 'meanings' through usage and associations in specific contexts. A 'koine' in material culture, which is characterized as an abstraction of a certain commonness of the language or cultural attributes, also will have held a certain meaning in the past. This meaning could have differed from place to place, context to context, or person to person. It is exactly in such localized force-fields of tension between similarity and difference and in the context in which material culture was used, in which it gained its meaning.[59] This tension 'may be used by some groups to differentiate themselves from others and by other groups to assert greater cohesion' in 'a continuously negotiated, web of meanings, that [existed] in the relations between people'.[60] Poblome *et al.* discuss and illustrate in the context of Late Roman D tablewares how these were 'consciously different from other wares and could bind people together, feeding the notion of regionalism'.[61] In other words, such similarities and differences between one ceramic (tableware) vessel and the other are not only visible to us archaeologists, though they were also 'there' in the past, were (at least potentially) meaningful, were probably used to set oneself from others within communities in terms of socio-economic display, but could also articulate and contribute to the presence of perceptual regions in space and time. High degrees of interaction between areas could, for instance, have resulted in the presence of large quantities of imported good A in an area, but lesser numbers of import B, which could have made good B, which is similar in quality and perhaps price, more meaningful in terms of socio-economic display and differentiation in this local setting, which could have been different elsewhere.[62] In such a situation, 'choice' on the local tableware market was in some respects limited, but there was still some freedom of action in acquiring goods (for whatever reason), at least by the ones that could afford to make such choices. Just by being 'there' and by being part of the material world full of associations and meanings, ceramics could, just as perceptual regions, have held 'active' properties and some aspects of agency that influenced decision making processes.[63]

The ceramic data

In this research, the ceramic data from several ancient Boeotian cities (Thespiae, Hyettos, and Tanagra) and parts of their hinterlands are taken to explore spatiotemporal ceramic differences and similarities. Such patterns are considered to be in some way meaningful in terms of the

[57] Reger 2007b: 71.
[58] Jordan 1978: 293. See also Wishart 2004: 306.
[59] E.g. Poblome *et al.* 2017: 87.
[60] Winther-Jacobsen 2014: 103; Donnellan 2017: 47. See also Dietler 2017.
[61] Poblome *et al.* 2017: 89 and 97.
[62] See Van Oyen 2016: 124 for this argument in terms of the 'thin' distribution of pottery from the Rhineland in Britain, which 'would [therefore] been more easily associated or contrasted with other products in consumption'.
[63] Anderson and Harrison 2010. See especially the volume edited by Van Oyen and Pitts 2017 for archaeological studies along this line of thought.

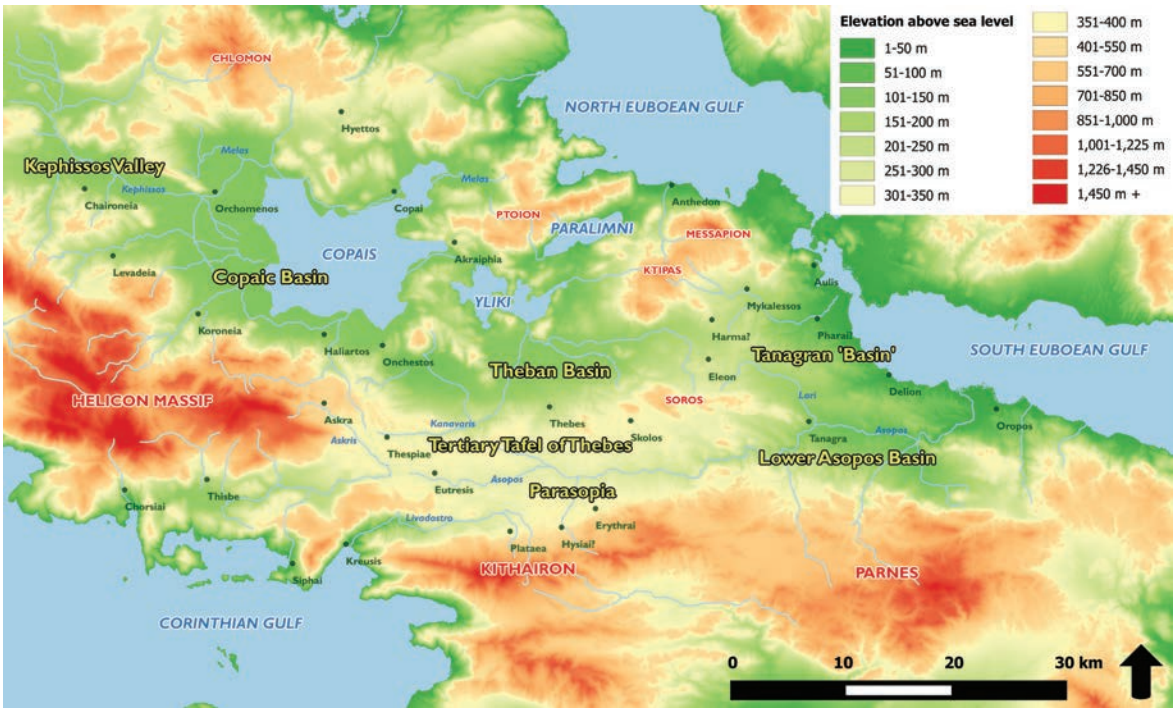

Figure 3. Topographical map of Boeotia. The maximum extent of Lake Copais is after Farinetti 2008. This elevation map is generated on the basis of version 1 of the ASTER EU-DEM raster dataset that provides elevation data on a resolution of c. 30m (Peeters in preparation).

operation of local economies, socio-economic actions that involved pottery, and the ways in which communities were linking into larger networks of exchange and interaction. On the basis of such ceramic variety and change we can define regions of certain types, ranging in scale from regions that span (parts of) Boeotia and surrounding areas to (micro-)regions that cover parts of individual city territories or *chorai*. The ceramic data that form the basis of this study were generated by the Boeotia Project, which is an intensive field survey project running since 1978, directed by Anthony Snodgrass and John Bintliff.[64] Since the pottery from these sites that are situated in different parts of Boeotia (Figure 3) was studied essentially on the basis of a similar ceramic methodology, they form a very interesting and solid base for comparative examinations, especially as the explored datasets are relatively large in size.[65] This ceramic methodology is centred on three fundamental building-blocks that can be identified during macroscopical examination: 'morphology' (shape), 'fabric' (processed clay), and 'style' (surface finish, decoration, etc.). On the basis of the combination of morphology, fabric, and style, individual sherds that were collected on the surface can be ascribed

[64] The survey collections from urban Thespiae, its 'close hinterland' (that were published in Bintliff *et al.* 2007), and the Valley of the Muses (that was in the past also formally part of Thespiae's *chora*) were initially studied by John Hayes in the 80s and 90s. Hayes was also responsible for the first study of the pottery from Hyettos and its hinterland. From 2008 onwards, a range of macroscopical ceramic restudies took place to catch up with more recent ceramic insights. The individuals responsible for the restudies from the (Late) Hellenistic to Late Roman pottery are listed below. The pottery from urban Thespiae was restudied between 2008 and 2011 by Jeroen Poblome and Philip Bes (published in Bes and Poblome 2017). In 2014 and 2015, Bes restudied the collected ceramics from Askra, while the other sites from the Valley of the Muses were re-examined by Bes and the author (both studies will be published in the Boeotia Project monograph for the Valley of the Muses). Urban Hyettos was restudied by Bes and Rinse Willet and the survey collections from its hinterland were revisited by Bes and the author over the course of 2013 and 2014 (and will be published in Bes forthcoming). These re-examinations were heavily influenced by the ceramic methodology that was introduced by Poblome and Bes during the first studies of the surface collected pottery from Tanagra and its hinterland between 2001 and 2008. Subsequent restudies of the city-assemblage and a representative sample of the rural sites and walked offsite transects were carried out by the author from 2012 till 2017 (these Tanagran collections will as well be published in a separate Boeotia Project monograph). I am very grateful to the Boeotia Project and the mentioned individuals for providing me with the opportunity to use these published and unpublished datasets as a basis for my Ph.D. research and the present article.

[65] The explored datasets total the following number of Hellenistic-Late Roman sherds: Urban Thespiae – 6 793; Valley of the Muses (including Askra) – 3 401; Hyettos and hinterland – 8 373; Tanagra and hinterland – 28 965. It should be stressed that this total number of sherds is heavily influenced by more intense collection strategies during the field-walking by the Boeotia Project over time.

a (broad or more detailed) provenance, chronology, and supposed primary functional use. When this information is in some way bundled for all sherds collected on individual sites or in individual areas, it can in turn be used to explore a range of interesting aspects from a socio-economic or -cultural point of view, alongside providing contextual information, for instance on the chronology of individual survey sites.

The comparative ceramic analyses, with observations and discussions in terms of the operation of (local) economies and regionality

Trends in local ceramic production, investment in artisanal activities, and the orientation of local economies

During the ceramic analyses of the Boeotia Project, local ceramic production was identified in/around Thespiae, Askra, Hyettos, Tanagra, and Koroneia.[66] The identification of these lines of ceramic production was based on the recurrence of certain macroscopically defined fabric groups in the surface collections from these areas, the presence of ceramic wasters, and shapes recurring in both the well-fired output and the collected wasters.[67] Subsequent geophysical examinations at Hyettos and Tanagra provided further indications for the presence of kilns in these urban/peri-urban settings,[68] (some of) which appear to have been kilns for the firing of ceramics, based on their size and shape. To date, no excavations of such structures have been carried out at Thespiae, Askra, Hyettos, or Tanagra, while it is not clear how many workshops were responsible for the macroscopically defined fabric groups associated with these sites/areas. Recent pXRF analyses, which were carried out in the framework of my PhD research, provide supporting evidence for a certain chemical homogeneity of the fabric groups associated with these sites/areas, on the basis of several major oxides and trace-elements.[69] The fabrics from Hyettos and Tanagra , based on these first archaeometrical explorations of the pottery collected by the Boeotia project, can be discriminated relatively well from the fabrics from Central-Western Boeotia (Thespiae, Askra, and Koroneia), that appear more similar in terms of their chemical 'fingerprints', as well as their fabrics to the naked eye, and in some respects also their morphological repertoire.

The presence of these local lines of ceramic production is the most recognizable and most easily quantifiable evidence of artisanal activity at Thespiae, Askra, Hyettos, Tanagra and their near surroundings. Although the investment needed to set up or expand a workshop are generally seen to have been small,[70] some input was needed in material and human capital. Without excavations of the exact workshops that were contributing to the output of the defined fabric groups or relatively unique epigraphic/historical evidence, it is hard to discuss the organisation of these productions, but it seems probably that we can suppose some involvement of individuals from elite social groups or their freedmen, in terms of these investments and/or the running of the workshops, based on documentation from other parts of the Empire.

When we look at the number of sherds that are associated with the above-mentioned sites/areas (Figure 4), the number of sherds ascribed to the fabric group from Tanagra and/or its surroundings seems especially impressive. Also the number of fragments that are linked to the

[66] The last-named ceramic production and the pottery from Koroneia are not analysed in detail in the present research, since the ceramic studies of the pottery from this urban center are still taking place.

[67] See Peeters in preparation for a discussion of this evidence. See Bes and Poblome 2017, Bes forthcoming, and the forthcoming monographs of the Valley of the Muses and Tanagra for characterisations of local production in/near the mentioned sites. See Willet 2012 for discussion and analyses of the tablewares produced by these Boeotian lines of production.

[68] See Bintliff 2006: 38; Slapšak 2012: 58; Bintliff 2016: 10 and Meyer *et al.* 2017 for Tanagra and Sarris 2015 for Hyettos.

[69] Peeters in preparation. The major oxides that were used to highlight this homo-/heterogeneity include SiO2, CaO, Al2O3, and K2O, while also the patterns in terms of the trace elements Sr, Zr, and Cr were relatively consistent. Although more detailed discrimination and proper 'sourcing' will probably be reached by the application of other lab-based archaeometrical methods, these 'semi-quantitative' pXRF analyses reinforce observations, on the basis of such methods, that the pottery from Boeotia is generally quite well distinguishable from a chemical point of view.

[70] Garnsey and Saller 1987: 43-44; Poblome 1996: 85.

Site	Number of sherds in Boeotia Project collections (urban Thespiae, Valley of the Muses-Askra, Hyettia, Tanagrike) in fabrics associated with local production	Functional characterisation of output in percentages of total sample				
		Tableware (bowl, dish, plate, etc.)	Storage vessel (jug, jar, (table-) amphora)	Basin/ lekane	Beehive	Lamp
Thespiae	260	60%	23%	11%	2%	0,4%
Askra	454	32%	42%	9%	10%	0%
Hyettos	160	11% (coarse bowls)	28%	52%	0%	0%
Tanagra	4 583	11%	74%	4%	8%	2%

Figure 4. Number of fragments in Boeotian fabric groups and a rough functional characterisation of the 'functional types' within these groups.

relatively short-lived ceramic production at Askra illustrates a flourishing ceramic industry. It should be stressed that this large number of sherds in fabrics associated with the Tanagra area, is heavily influenced by more intense collection strategies during the surveys of this city and its hinterland, while it is possible that a larger number of workshops in the area extracted roughly similar clays and prepared and fired them in a comparable way, making them hard to distinguish macroscopically and archaeometrically.[71] Similarly, the long tradition of ceramic manufacturing in Tanagra at least from the Classical period onwards, when the famous figurines started to be produced in large numbers and also other ceramics were made (possibly in comparable fabrics as the (Late) Hellenistic-Roman pottery), will possibly have contributed to the large number of sherds in this local fabric group.[72] On the basis of the chronologies ascribed to individual sherds and the application of the linear distribution method,[73] we can get a rough idea of the quantitative presence of fabric groups over time (Figure 5). As illustrated, the workshops active in/around Tanagra, Thespiae, and Askra all appear to have been most active in the Late Roman period. The reoccupation of Askra as a village to its maximum extend of *c.* 11ha in the (Mid-)Late Roman period was also accompanied by the setting up of ceramic workshops. The Early Roman Imperial period is the least recognisable in the local/Boeotian component in the Boeotia Project collections, while the output of the workshops in Hyettian fabrics seems to have been highest in pre-Roman times. I believe that it is a step too far to see these quantitative patterns and diachronic trends in artisanal production at face value, as proxies of economic development or the performance of the local economies in Boeotia. Nonetheless, these observations are in some way relevant and meaningful, at least in terms of getting a rough idea of the output of potters throughout Boeotia, as well as certain investments in a specific artisanal sector in local economies in space and time.

The relevance of these data and trends in terms of socio-economic aspects, seems to be underlined when we further explore the vessel types represented in these fabric groups, and make a step towards (rural) settlement patterning (Figures 4 and 6). Each of the analysed fabric groups has

[71] Alongside ceramic production in Tanagra or its near surroundings, we should account for the operation of a range of workshops in Tanagra's relatively large hinterland. Rescue-excavations prove the presence of ceramic production at Tanagra's port Delion (Hellenistic-Late Roman), Aulis (Roman) and a site called Mandri Danou (Late Roman) around 10km northwest of Tanagra (Gerousi 2014; Daux 1961: 751-753; Tsota *et al.* 2010). On the basis of a short study of the material from Delion by Philip Bes, that was kindly granted permission by E. Gerousi (General Directorate of Antiquities and Cultural Heritage) and A. Charami (9th Ephorate of Prehistoric and Classical Antiquities) It appears clear however, that the potters in Delion produced in a coarser fabric that is relatively easy to distinguish from Tanagra/Boeotian fabric.

[72] E.g. Schwedt *et al.* 2006: 1071; Sabetai 2012: 82. The famous Mycenaean clay coffins (larnakes) from the Tanagra district may indicate an even earlier distinct local production, as they are without parallel outside of Crete (Dakouri-Hild 2021).

[73] The underlying principle of the linear distribution method is that the probability is equal that sherds were produced for all the years spanned by its ascribed date-range. See Willet 2012 and Poblome *et al.* 2013 for extensive discussion and illustration of a range of statistical distribution methods to generate trends on the basis of ceramic/archaeological datasets.

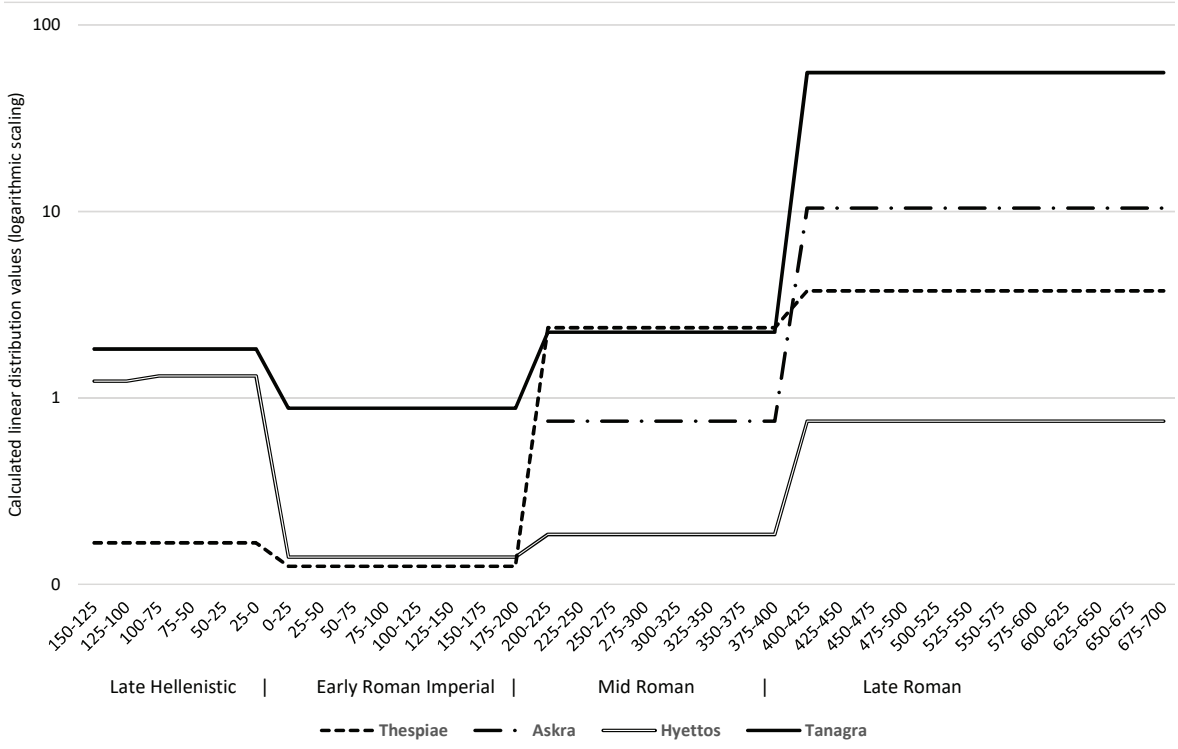

Figure 5. The linear chronological distribution of sherds in fabrics associated with Thespiae, Askra, Hyettos, and Tanagra (or their near surroundings) in the dataset from the Boeotia Project, with the summed up probability per 25 year interval on the Y-axis and chronology on the X-axis. This graph was made on the basis of all fragments in local fabrics that can be dated on/within 300 years of precision, and does show a composite picture of rough trends in the production of tablewares, storage vessels and other ceramics.

its own point of gravity in terms of its output. The Thespian fabrics, which were at least for some part produced in the city, are mostly represented by tableware sherds, but only a relatively small percentage of storage vessels or other types of ceramics. Since Askra and Thespiae were from ancient times onwards part of the same *chora* and only situated some 6km from each other, the difference in the functional types represented by the fabric groups associated with these sites appears meaningful. Although tablewares in specific shapes and styles were certainly important in the potters' repertoires from Askra, the workshops in this village were more geared towards catering to the needs of the booming number of agriculturalists living in the Valley of the Muses in the Mid-Late Roman period, by producing more storage vessels, which were relatively small in size, and mostly classified as jar, jug, or table-amphora (Figure 6e).[74] Additionally, ceramic beehives were produced in some quantities, which were less probably to have been set up in more urban settings. It appears possible that the production of honey in the Valley of the Muses, which is 'wine country par excellence', was in some way linked to the sweetening of local wines.[75] However, of the examined sites/areas, pride and place goes to the Tanagra area in terms of the production of storage vessels: roughly three-quarters of the sherds in Tanagra/Boeotian fabric are classified as a type of storage vessel. It is also the only fabric group in which 'proper' transport amphorae, alongside the dominating smaller storage vessels (Figure 6j), are represented in some number, which on the basis of their morphology at least date from Hellenistic to Late Roman times.[76] The

[74] See also Peeters (accepted). The hypothesis that the Askran potters were mostly catering to the needs of individuals close-by is based on the distribution pattern of these ceramics that did reach more distant destinations, but were found in large numbers in and around Askra (see below).

[75] See Bes and Poblome 2017: 338 for this suggestion. See Kosso 1993: 43 and Frazer 1898, V: 151 for ancient viticulture in the Valley of the Muses.

[76] See Schwedt *et al.* 2006: 1069 for archaeometrical links between the production of so-called Hellenistic 'Macedonian-type' amphorae and the Tanagra area. See Gerousi 2014 for the production of relatively early variants of Late Roman Amphorae 2 and carrot-shaped

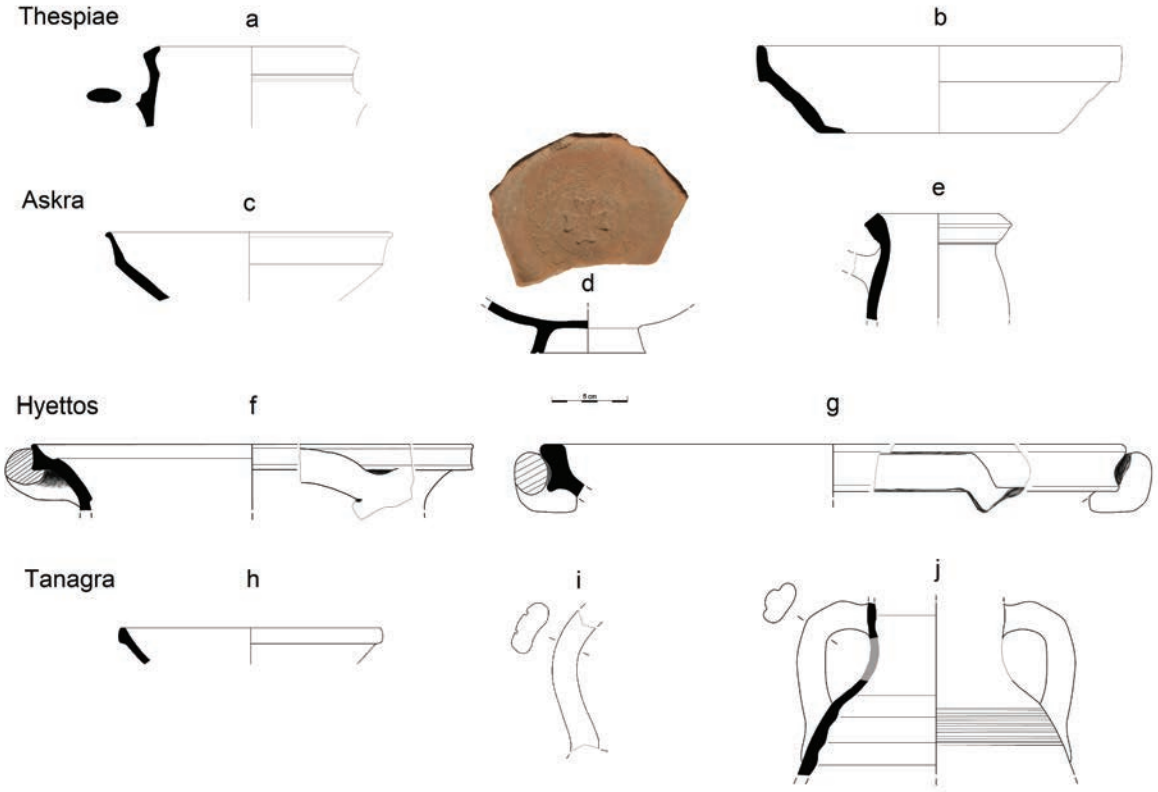

Figure 6. A small selection of vessels in fabrics associated with the mentioned sites (nearly all visualised fragments were tested by means of pXRF analyses, on the basis of which they have a comparable chemical composition as other tested fragments in these fabrics): *Thespiae* – a) 85.th.tr.2159.11: amphora/jar of Roman (Late Roman?) date in Thespian reduced fabric (Bes and Poblome 2017: figure 12a); b) 86.th.tr.182.1: red-slipped dish of Early Roman Imperial-Mid Roman date in Thespian oxidized fabric (Bes and Poblome 2017: figure 12.2d); *Askra* – c) bowl of Mid-Late Roman date in Askran fabric (from Thespiae; Bes and Poblome 2017: figure 12.3a); d) 82.as.f1.sa.1.5: bowl of Late Roman date with stamped/incised decoration in Askran fabric; e) as.85.f78.gs1.58: (amphora/)jar of Late Roman date in Askran(?) fabric; *Hyettos* – f) hy.90.sa39.20: basin/lekane of Hellenistic date in Hyettian fabric; g) cn91.hy.734.7: basin/lekane of Roman date in Hyettian fabric; *Tanagra* – h) ta0.055.s1.003: bowl of Late Roman date in Tanagra/Boeotian fabric (Willet 2012: 87); i) ta0.044.e2.4: recurring handle shape of a amphora/jug of Late Roman date in Tanagra/Boeotian fabric; j) ta0.021.i1.3: (table)amphora of Late Roman date in Tanagra/Boeotian fabric.

earlier discussed 'highpoint' of ceramic production in the Late Roman period, during which also some relatively typical table-amphorae with deeply incised handles were seemingly produced in large numbers in the Tanagra area,[77] coincides with the increasing number of middle-large rural sites in even distant zones in Tanagra's hinterland. The substantial agricultural basis of this fertile area in southeast Boeotia, and the increasing habitation and agricultural specialization/intensification in Tanagra's hinterland, seem to be hard to view in isolation from these trends in local ceramic production. Without information on the circulation of Tanagran pottery outside of Boeotia, the following is speculation, but it can be imagined that the ancient Tanagrans not only produced ceramics and agricultural produce (such as wine and oil) stored for consumption in the area, but probably also to some degree for export (especially in the Mid-Late Roman period, when taxes were predominantly raised in kind). When we get back to the ceramic patterning at hand, it deserves notice that ceramic production in/around Hyettos seems to be very characteristic,

amphorae at Delion. In the survey collections from Tanagra and its hinterland, small numbers of double-barreled handles were identified in local fabrics that, if they share their chronology with Dressel 2-4/5 amphorae, were probably produced in Late Hellenistic-Early Roman Imperial times.

[77] See Chamilaki 2010: 584-586 and 594-594 for excavated Late Roman grave-assemblages from Delion, in which roughly similar vessels with deeply incised and ridged handles are occurring (cf. figures 6i-j). These specimens also seem to come quite close to the Tanagra/Boeotian fabric group, based on the provided fabric descriptions.

as around half the fragments in the coarse Hyettian fabrics is constituted by sherds of relatively heavy and large basins (Figure 6f-g). The local presence of haematite in the soil, which was added as a temper to the clay, probably gave the clay more 'teeth', allowing for the production of such large vessels that were likely multifunctional, but might have had a role in the processing of food or resources.[78] Despite this heavy focus on the production of basins, a relatively small number of storage vessels was also produced, some of which can probably be dated to the Roman period based on morphological aspects.

Ceramic circulation and networks of exchange and interaction

In terms of the direction, the intensity of interaction/movement, and the operation of larger networks of exchange, the ceramic data from the Boeotia Project provide many interesting quantifiable and diachronic patterns. When looking at the findspots of ceramics in fabric-groups that can be linked to a certain (broad or more precise) provenance, we can try to reconstruct ceramic exchange, movements, and interaction in larger networks (in a rough and simplified manner). As stressed earlier on in this article, we should always ask ourselves which kind of interaction we are highlighting as being materialised in the archaeological/ceramic record (and which ones perhaps not as much). By extension, we should stress that the patterns at hand in the survey data are formed over long periods and more incidental ceramic exchanges and other more detailed developments will probably be blurred, unidentifiable, or unrecognised in the surface record. Nonetheless, the number of local versus non-local ceramics of certain types, as well as the presence/absence of ceramic goods of a certain provenance, and/or chronology, are in some way meaningful. When coupled with other kinds of data indicating movement and interaction, we can try to reconstruct regions and specifically regions of the functional type.

As a start to this exploration, I would like to discuss some 'negative' evidence that deserves to be explained in some way. Although traditionally the Boeotian cities and areas see high intensities of interaction and cooperation, *inter alia* by the functioning of the Boeotian League, the ceramic data for the Hellenistic to Late Roman period seem to illustrate relatively limited numbers of recognisable ceramic exchanges. This seems both true for tableware- and storage vessels (Figures 7 and 8). As circulation out of the area is even harder to trace, most of the locally produced pottery, for the moment, seems to have been consumed roughly in the same sphere in which it was produced.[79] I would like to shortly discuss two Boeotian examples of wider/more common exchanges out of their production areas. The first of these concerns the pottery produced in Koroneia, which ended up the most visible in the collections from the other surveyed areas and especially in Hyettos and its hinterland:[80] in the collections from the Hyettia, 163 tableware sherds and 294 fragments of smaller storage vessels in Koroneian fabrics were identified. This circulation to Hyettos at least seems to span from Hellenistic to Late Roman times (as illustrated by the presence of Hellenistic mouldmade bowls and Late Roman tableware shapes in Koroneian fabrics), but seems to have been most common in Mid-Late Roman times. There thus seems to have been more than incidental ceramic exchange between these areas on both sides of the Copaic basin. Also exchanges between Askra and other Boeotian sites, as well as Corinth and Athens, are ceramologically identifiable for the Late Roman period, especially on the basis of the tablewares that are not rare in their wider circulation. It appears interesting that both Askra and Koroneia are situated in inland Boeotia and these production centres seem to have initiated (Askra) or possibly intensified production and/

[78] In fact, also most sherds (mostly bodysherds) in such fabrics that were identified as (coarse) 'bowls' during the ceramic studies were probably part of such basins (although such sherds did not have any recognizable handles, which are one of the main features in distinguishing these vessel types). See Rotroff 2006: 108 for a discussion of this problem.

[79] Probably, ceramic exchanges between, for instance, Askra and Thespiae will have been more common than can, for the moment, be macroscopically- and chemically traced, but this uncertainty, which might be cleared on the basis of future research (including excavations, more detailed archaeometrical methods, and other datasets from Boeotia), probably does not change the main patterns noted.

[80] Bes and Poblome 2017: 325; Bes forthcoming.

or circulation over larger distances (Koroneia) (perhaps there was also intensified production in Thespiae – where the Late Roman kastro produced many signs of ceramic production), at a period when tableware imports from Northern Africa and Western Anatolia were relatively rare in this part of Boeotia.[81] The decreasing presence of such imports might both have been one of the causes and results of these trends in local production, and here it should be remembered that at least Askran workshops were also heavily involved in the production of closed vessels for the storage, serving, or transport of agricultural produce.

The reasons why the ceramics of most Boeotian production sites did not circulate in large quantities beyond their production area, might have differed for product to product, period to period, or area to area. However, it can be imagined that the presence of many lines of ceramic production at relatively short distances from each other, and perhaps also the wider availability of good clays in the area (a resource for this production), played a role in this. It should be remembered that most ceramics will have been relatively cheap goods in the period and area under examination (with amphorae that were filled with more expensive contents as a probable exception). The price of such cheaper goods for exchange or acquisition, could rise substantially, as a result of transport- and transaction costs, making the price rise disproportional for cheaper goods, but perhaps still

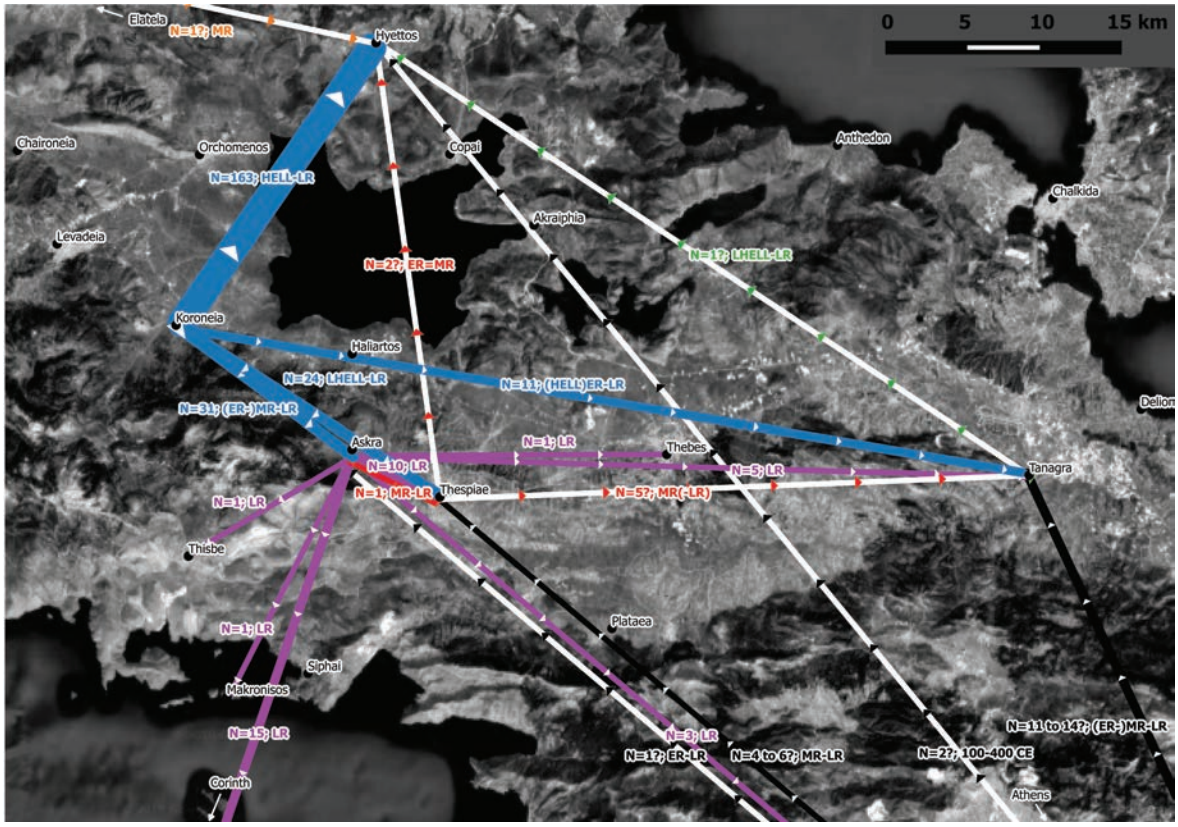

Figure 7. The identified circulation of Boeotian and Central Greek tablewares, on the basis of the studies by the Boeotia Project and published evidence from Thebes (Vroom 2003: 139), Makronisos (Gregory 1986: 295), Athens (Hayes 2008a: 255), and Corinth (Slane and Sanders 2005: 262 and 270; Hammond 2015: 192; Hammond 2018: 683-684). The number of fragments that identifiably moved in some way from one place to the other, as well as the chronological range of the ceramics in question, are specified near the respective flows (HELL – Hellenistic; LHELL – Late Hellenistic; ER – Early Roman Imperial; MR – Mid Roman; LR – Late Roman). Less certain identifications of provenance (e.g. the datasets from the Hyettia comprise one tableware sherd of a possible Tanagran provenance) are visualised with white lines (Peeters in preparation).

[81] See Willet 2012: 124 and Bes 2015: 150 for such notions for the tableware imports, on the basis of a preliminary dataset for urban Koroneia. See Peeters 2016: 16 (cf. Peeters *et al.* accepted b) for the decreasing presence of North African tablewares in Thespiae.

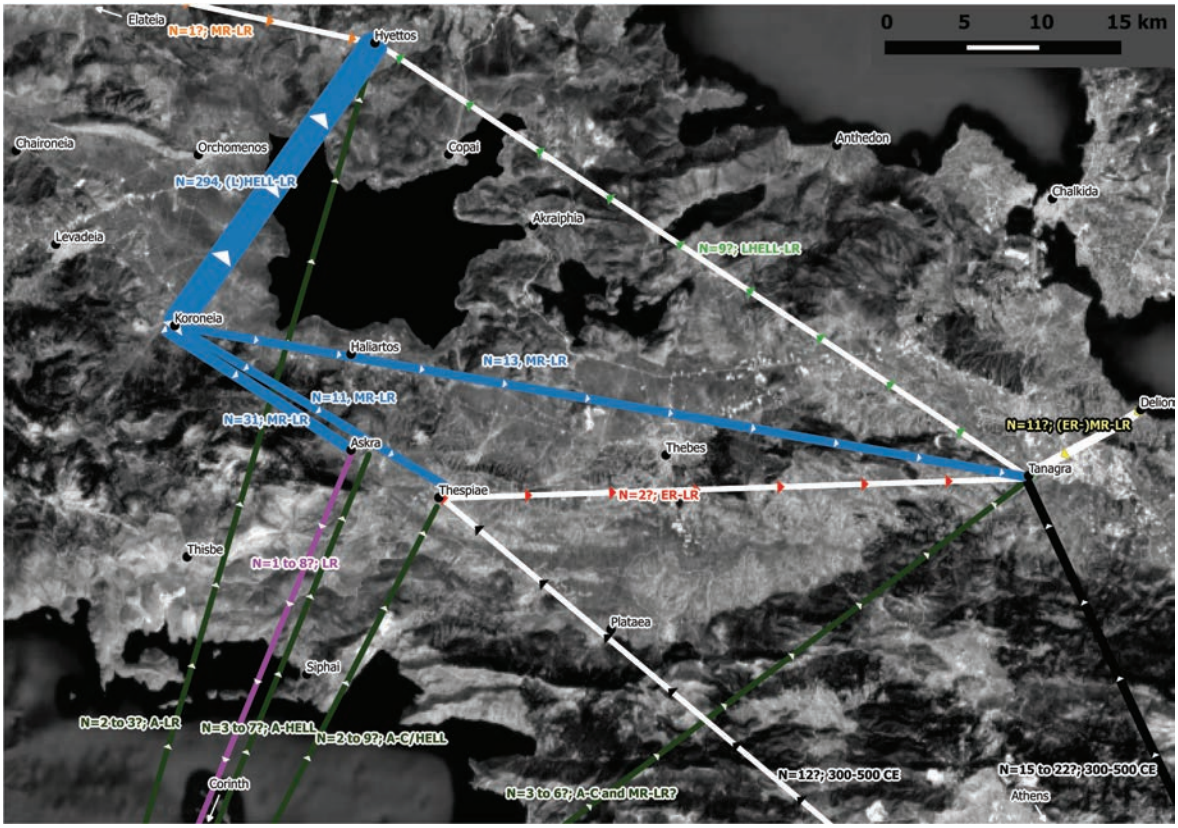

Figure 8. The identified circulation of Boeotian and Central Greek storage vessels, on the basis of the studies by the Boeotia Project and published evidence from Corinth (Hammond 2015). The number of fragments that identifiably moved in some way from one place to the other, as well as the chronological range of the ceramics in question, are specified near the respective flows (A – Archaic; C – Classical; HELL – Hellenistic; LHELL – Late Hellenistic; ER – Early Roman Imperial; MR – Mid Roman; LR – Late Roman). Less certain identifications of provenance (e.g. the datasets from the Hyettia comprise one tableware sherd of a possible Tanagran provenance) are visualised with white lines (Peeters in preparation).

within certain limits for more expensive goods. It was probably because of such factors that the ceramic production landscape in Boeotia (and other places in the ancient world) mostly show signals of a model of 'incomplete regional specialisation', rather than complete specialisation, in which comparative advantages between areas/communities would have played out more fully, so that areas/communities would only produce goods in which they had a comparative advantage and would acquire other goods through exchange. Perhaps the ancient Hyettians found a different balance in this than other Boeotian communities, as the Hyettian workshops produced a relatively limited range of products and they seem to have acquired a relatively large number of non-local (and specifically Koroneian) ceramic goods. It is probable that these two patterns are in some way related, but stay at the time of writing a bit of a 'chicken and egg' causality dilemma.[82] For some reason, the most convincing evidence for a more 'regionally specialised' production that dominated certain ceramic goods in circulation/consumption throughout Boeotia comes from the cooking wares. In all survey collections, Late Hellenistic-Late Roman cooking ware sherds are mostly encountered in a typical red- or grey gritty fabric, which is represented by a relatively characteristic ensemble of morphologies, classified by Philip Bes on the basis of the survey pottery

[82] Did the Hyettian potters only produce this select range of products because there was a lot of other Boeotian (and possibly cheaper) supply of other ceramic products (?), did the Hyettian potters consciously choose or were forced to specialise in producing these products (for whatever reason), so that Koroneian workshops and traders active in the area saw a certain gap to fill and opportunity to earn money on the other side of Lake Copais (?), or perhaps other factors, dynamics, and agencies were at work. The apparent absence of high quality clay deposits in the Hyettos area may well be a significant factor compared to the areas in which the other cities here under study lay. The geology of the Hyettos district is quite distinct from that dominating the landscapes of Thespiae, Koroneia and Tanagra (see Bintliff *et al.* forthcoming).

from Koroneia. Perhaps, the production of these pots, which had to be heat resistant, might have focused in a yet to be determined area, after which they were circulated and put on many stoves in Boeotia.[83]

The ceramic data generated by the Boeotia Project provide very interesting insights in terms of certain skews in the presence of imported (i.e. 'non-Boeotian') pottery. Especially in the Late Hellenistic-Early Roman Imperial period, pottery from the 'West' (including Italic terra sigillata and Campanian and Baetican amphorae) generally seems present in larger proportions in Western Boeotia and specifically Thespiae (Figure 10).[84] In later Roman times, this skew in the distribution of 'western' ceramics (e.g. African Red Slip Ware) is less focused on Thespiae and its surroundings, probably being in some way influenced by the increasing importance of the maritime routes up north through the Aegean and the Euboean Gulf, which were the routes through which, among other things, the civic and military annona supply was shipped in the Late Roman period to Constantinople and the Danube limes.[85] Ceramic goods from the 'East', however, to a notable extent seem to be better represented in Eastern Boeotia in both Hellenistic-Early Roman Imperial and Mid-Late Roman times.[86] This pattern is most clear for the identified classes of Early Roman Imperial-Late Roman tablewares from Western Anatolia (Eastern Sigillata B, Eastern Sigillata C/Çandarlı ware, and Phocaean Red Slip Ware-Late Roman C) and the Northern Levant (Late Hellenistic-Early Roman Imperial Eastern Sigillata A), which are represented in highest proportions in the Tanagra area and are also more common in Hyettos, than in Thespiae and its surroundings (Figures 9 and 10). Compared to the skews in the distribution of tableware imports in Boeotia, the patterns regarding the circulation of Aegean and eastern amphora types/fabrics sketches a less uniform image. Whilst the presence of some classes of 'eastern' amphorae (and some other specific goods) is heavily skewed towards Tanagra and/or Hyettos,[87] the spatial distribution of other types/fabrics is more divergent.[88]

It should be emphasized that each (ceramic) good will have had its own dynamics in terms of circulation and consumption, of which we can only see some kind of materialized patterning (that will have been formed at least over a couple of generations and probably longer). Nonetheless, the general trends in the quantitative and diachronic representation of imports of specific provenances seem meaningful in terms of reconstructing a certain direction/orientation of interactions in larger socio-economic networks, and in the dynamics on the basis of which we can

[83] See Slane 2014: 96-97 for the suggestion of a similar scenario in the production of Roman-period cooking wares from Argos, Nemea, Corinth, Isthmia, and Kenchreai, which share the same fabric and morphological repertoire, leading to the hypothesis that a single source/group of workshops supplied these sites. In any case, the situation in Boeotia seems radically different from the one in Athens, where the cooking pots in post-Tiberian deposits are 'almost all non-local' and mostly produced in Western Anatolia (Hayes 2008b: 439).

[84] Here it should be noted that nearly all classes of ceramic imports are found in the largest (absolute) numbers in Tanagra and its hinterland. Yet, as illustrated when put in proportional representation (i.e. the number of fragments of a certain fabric group/type divided by the total number of sherds that can be dated with some precision over the chronological range of the fabric group/type in question), this is for some fabrics/types at least partly a result of the more intense sampling strategy during the Tanagra survey (compare Figure 9 with 10).

[85] Abadie-Reynal 1989.

[86] See also Bes and Poblome 2017: 326 for this East-West patterning in Boeotia.

[87] The presence of the following types is quite heavily skewed towards the survey collections from the Tanagra area: Mid-Late Roman Amphora 3 from the Meander Valley and/or the surroundings of Ephesus, Hellenistic-Early Roman Imperial amphorae from Kos, Hellenistic-Late Roman amphorae in fabrics that are probably produced in the Black Sea area, and Cilician amphorae, including the Agora M54 and Late Roman Amphora 1 types. The collections from the Hyettia are, in their turn, characterized by comparatively larger proportions of (Roman) amphorae in Cretan fabrics and the occurrence of the very large Early Roman Imperial-Mid Roman amphora type known as Zeest 80/Knossos Type 39 (Bes forthcoming) that was probably produced in the Eastern Aegean (the Black Sea area is proposed as another possible production source for this latter type; Reynolds 2010: 90). Alongside these patterns in the circulation of amphorae, it deserves notice that also (Eastern) Aegean cooking wares are present in larger numbers in Tanagra and Hyettos, than in Thespiae and the Valley of the Muses. See Peeters in preparation for this (quantitative) evidence and further analyses of the non-tableware data.

[88] Although it should be noted that Late Roman Amphora 2s are present in several fabrics in the survey collections from Boeotia, hinting at a range of provenances in Central Greece and the Aegean (and possibly beyond), this type is represented strongest in the collections from Hyettos and Tanagra, but also commonly occurs in the collections from urban Thespiae and the Valley of the Muses (see Bes and Poblome 2017: 329 for first impressions of different LRA2 fabrics from Thespiae and other sites in Boeotia). The distribution of (Hellenistic-Early Roman Imperial) Knidian amphorae appears the most curious in the context of this general patterning, as they are represented very well in urban Thespiae and the Hyettia, but not in as high proportions in Tanagra and its hinterland.

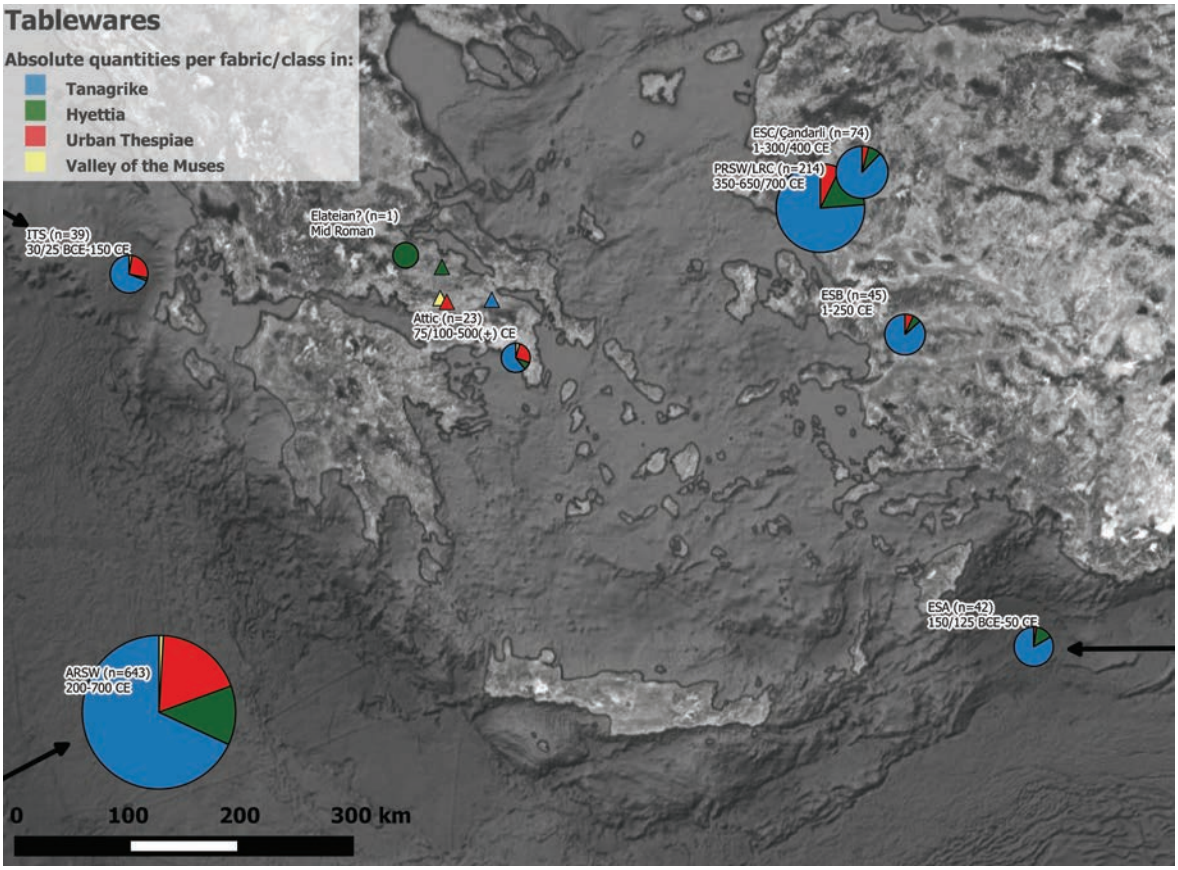

Figure 9. The (absolute) number of tableware imports per fabric/class broken down by the explored collections from the Boeotia Project (the diagrams are logarithmically scaled). The total sample of specimens in the databases of the Boeotia Project is specified in parenthesis (e.g. 39 sherds of Italian terra sigillata (ITS) are present in the datasets) and the rough chronology of circulation in Boeotia is mentioned below (e.g. ITS mainly seems to have circulated between *c.* 30/25 BC and AD 150 in Boeotia). The diagrams are placed over the archaeologically attested or postulated place of production of each visualised category, while the coloured triangles highlight the respective locations of the Tanagrike, the Hyettia, urban Thespiae, and the Valley of the Muses.

try to understand functional regions. Each of the discussed survey assemblages seems to possess its own characteristics, but it appears clear that Late Hellenistic-Early Roman Imperial goods from the West ended up most visibly in Thespiae, which had its port Kreusis on the westward-facing Gulf of Corinth, whilst the Tanagrans and Hyettians in eastern Boeotia were seemingly linking more often into Aegean and eastern networks of exchange and interaction through the Euboean Gulf. It appears hard to not see this patterning, which can in some ways also be identified elsewhere near Boeotia,[89] at least partly as a result of the geographical positioning of communities and some of the major flows of interaction, material exchange, and commerce in the area. Depending on their positioning, communities had access to networks in which products of some origins were in circulation, but others much less.

Geography will probably have mattered in many ways, but it should be stressed that, since ceramics were produced, moved, and consumed by people, also other factors and processes, which we can group under the umbrella 'institutions', will have influenced these ceramic trends

[89] See Peeters in preparation for a discussion of published ceramic data from Euboea, Attica, the Northeast Peloponnese, and Phocis in terms of the skewed presence of imports of different provenances. See Pettegrew 2016: 150-160 for interesting poles in the distribution of western and eastern ceramics respectively in and around Corinth and its eastern territory, including Isthmia. Preliminary data from the excavations of the Roman Bath at this latter site, for instance, show that 'some 97.2 percent of identified imported ER [i.e. Early Roman] amphoras and 97.0 percent of ER fine wares originated east of Corinth' (p. 160), while pottery from the Central Mediterranean or farther west is quite common in this Early Roman Imperial capital of Achaea (see Slane 2000: 307-309 and 2003: 327-330).

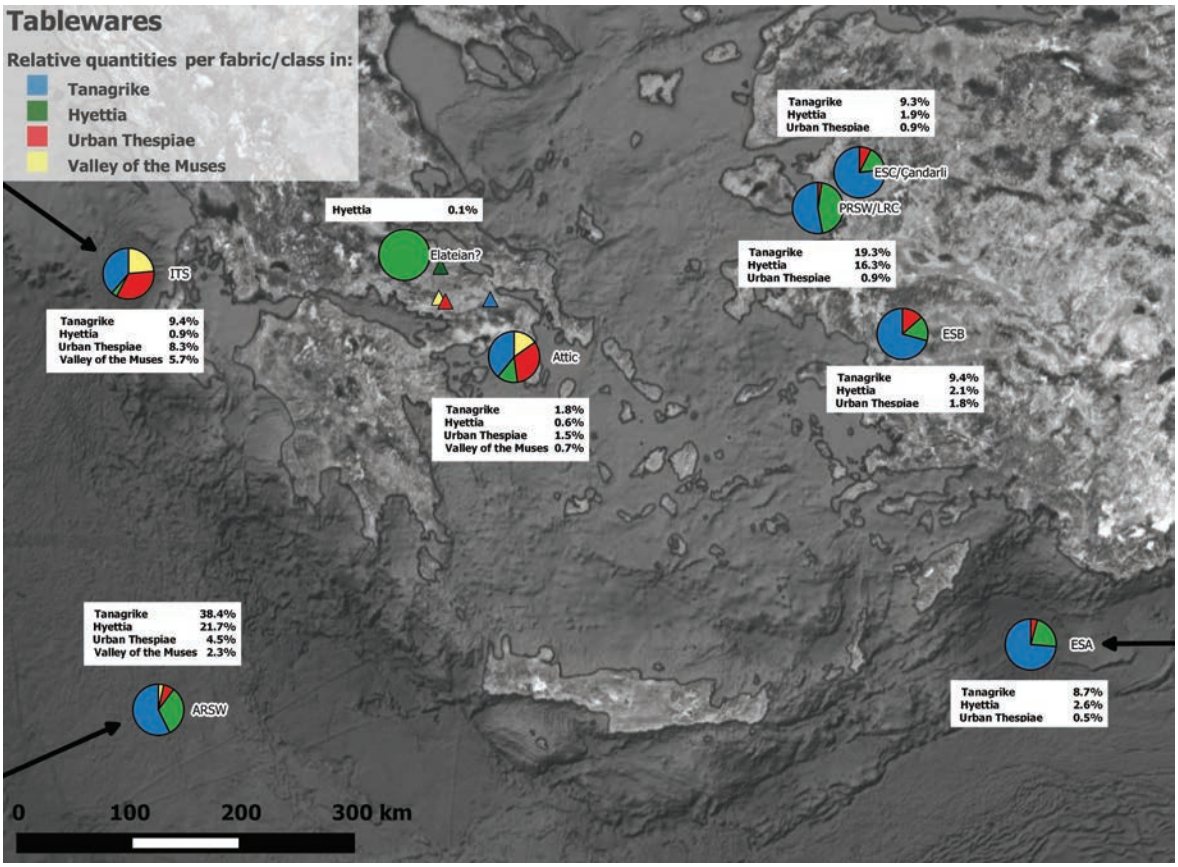

Figure 10. The proportional presence of imported tableware fabrics compared, between the studied collections from the Boeotia Project. The percentages were generated and have to be read as follows: For urban Thespiae, around 8.3% of all the tablewares that were ascribed dates (partly) covering the period of circulation of ITS in Boeotia (c. 30/25 BC-150 AD) are constituted by ITS, while around 9.4% of the tableware body from Tanagra that was (partly) dated to the timeframe 30/25 BC-AD 150 comprise ITS. The diagrams compare the percentages listed for each of these tableware fabric groups, in order to better visualise the trends at hand.

and the supplies/choices of individuals on market places in the area. In this respect, it appears worthwhile to explore other data for the ancient world in terms of the presence of well-connected individuals and formalised/institutionalised links in networks of exchange and interaction, which could limit transaction costs, by for instance providing access to local laws and by generating trust. Decrees in which the earlier mentioned *proxenoi* were honoured (which were at least for some sites often inscribed in stone) can form a starting point for exploration for the Hellenistic period, to evaluate if these skews in the distribution of ceramic goods of different provenances find any parallels in other types of data. In the online database *Proxeny Networks of the Ancient World*,[90] we find that Tanagra and Thespiae both set up at least 29 proxeny decrees that were inscribed in stone.[91] An interesting difference between these two Boeotian cities, in terms of the specification of additional rights in these inscriptions, is observable for the bestowal of *isoteleia* (the right to pay the same level of taxes as citizens): this grant is documented in 18 inscriptions from Tanagra, but

[90] This database was developed with the support of the Universities of Oxford and Birmingham (http://proxenies.csad.ox.ac.uk), visited on 02-04-2019.

[91] No proxeny decrees from Hyettos or decrees noting that Hyettians were acting as such are included in the aforementioned database, which possibly illustrates a different 'epigraphic habit': such decrees might for many reasons, including the costs of such expressions of honour, not be set up in stone so often in Hyettos. In this respect it deserves noting that generally the number of civic decrees is small in this city, as only two such decrees are preserved and they both date from the Late Hellenistic period (*c.* 150-125 BC; Müller forthcoming). Since the Valley of the Muses was part of Thespiae's *chora*, we should not expect to find proxeny decrees from this area or decrees mentioning Askraeans, as they were formally citizens of Thespiae.

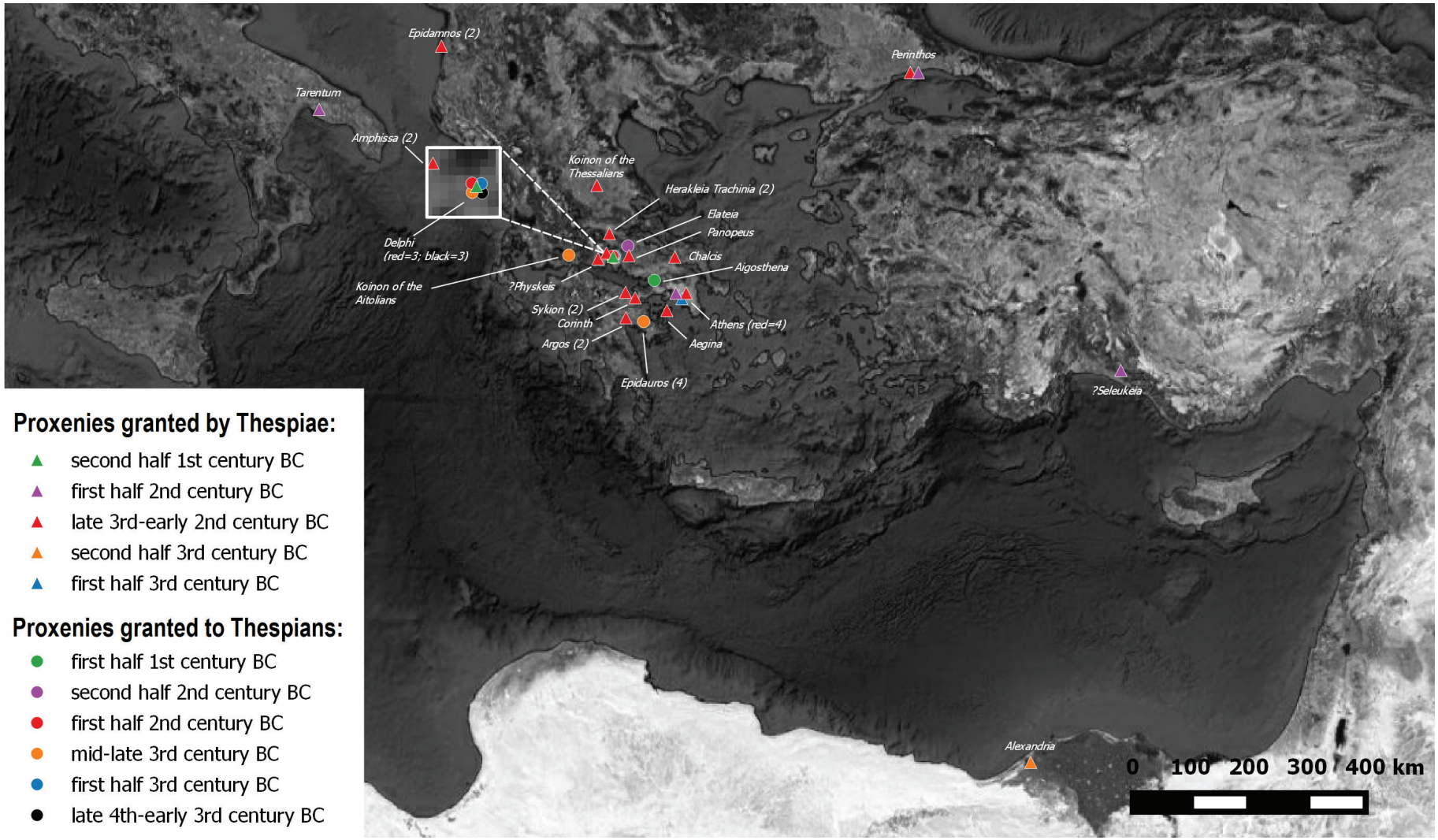

Figure 11. The specified ethnics of the persons to which Thespiae granted proxeny decrees (triangles) and the poleis that granted such honours to Thespians (circles). The symbols are colour-coded based on their chronology, while the numbers in parentheses note the number of individuals that were granted a status in the respective period.

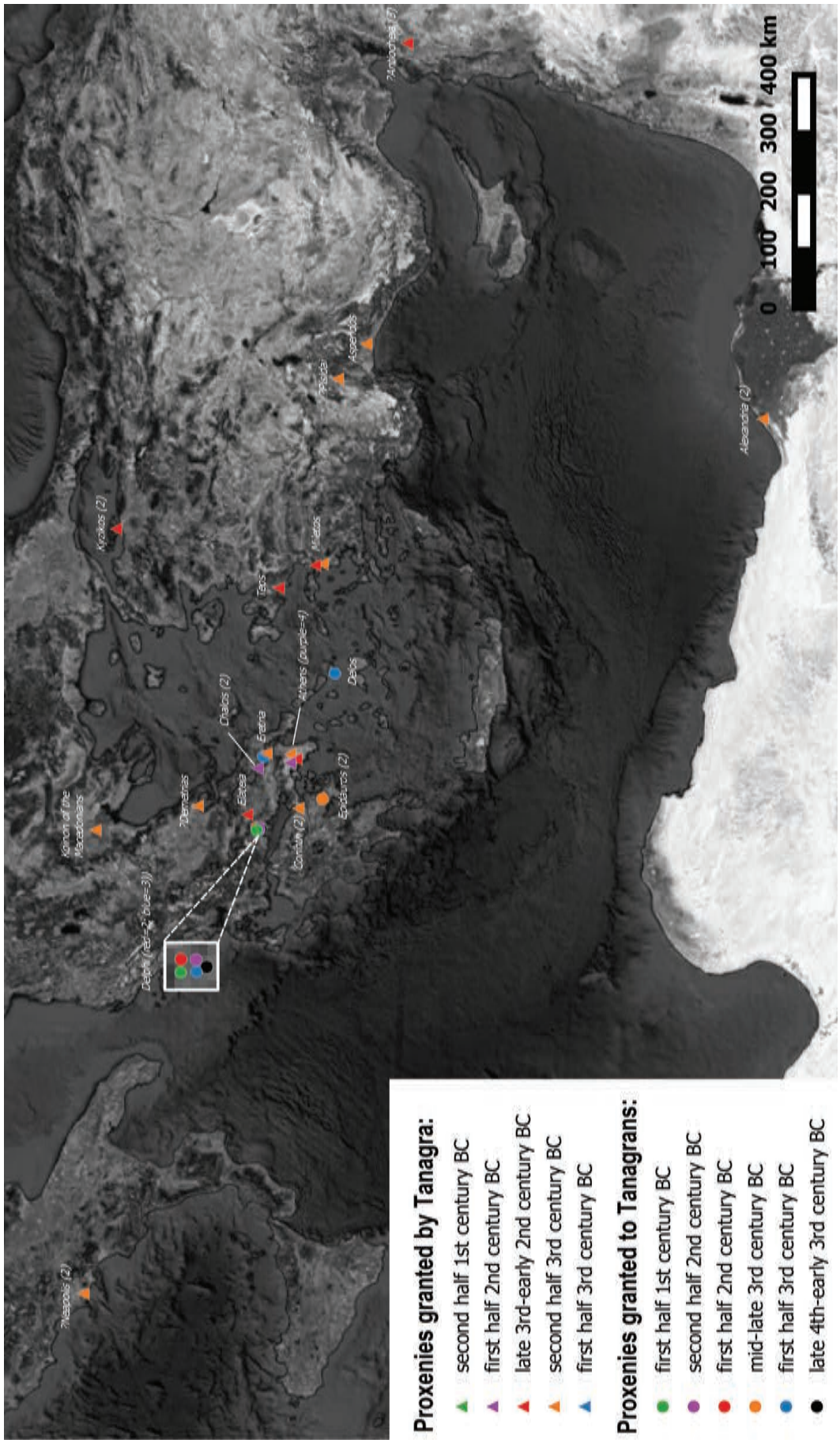

Figure 12. The specified ethnics of the persons to which Tanagra granted proxeny decrees (triangles) and the poleis that granted such honours to Tanagrans (circles).

only in three inscriptions from Thespiae. The number of inscriptions that are documenting the bestowal of *proxenia* to citizens of Thespiae is 12, while 14 inscriptions note that Tanagrans were made 'guest-friends'. To further explore the orientations of socio-economic networks beyond the polis level, it is worthwhile to analyse the geographical distribution of the communities where the individuals that were made *proxenos* by Thespiae or Tanagra held citizenship. Although most of these communities were situated relatively close to Boeotia, the quantity and distribution of the origins of *proxenoi* from farther afield seems to show some interesting differences (Figures 11 and 12). Tanagra honoured 15 citizens from communities that were situated more than 200km away as *proxenoi*, while they were more often (than in the epigraphic record from Thespiae) citizens from *poleis* in the Eastern Aegean and Eastern Mediterranean, than from the West. Especially the number of 'guest-friends' from Western Anatolia seems comparatively small for Thespiae. On some level, specifically the distribution of communities farther away from Thespiae and Tanagra, this seems to reinforce the ceramologically traceable interactions of goods, in some way illustrating the fact that the ancients did not rely purely on geography, but made use of it to create positive relations and formal links in networks, amongst other things, to acquire (ceramic) goods.

Although pre-existing networks and ancestral trading links might also have mattered in the Roman period, we should not extrapolate these findings too far beyond the (Late) Hellenistic period, after which the bestowal of such honours to act as a *proxenos* largely ceased to exist. There is for Boeotia no comparable source of evidence available that can be used to explore the orientation, institutionalisation, and articulation of networks (quantitatively) on 'the polis/communal level' into the Roman period in a similarly detailed way. Nonetheless, it is clear that, among the Boeotians, the Thespians especially seem to have kept their eyes on the West and kept close ties with Roman citizens (including *negotiatores* and their freedmen, which probably held some important roles and agencies in exchanges/interactions in larger networks).[92] There is no hard evidence that any of these epigraphically/historically documented *negotiatores* (or their affiliates) were directly involved in the production or exchange of agricultural goods and/or ceramics, but it seems probable that at least the transfer of some goods was organised through the same networks in which these entrepreneurs were participating. In particular, the settling of a thriving community of Romans, including such 'men of business', in Thespiae is noteworthy from a Boeotian perspective, while the Thespians had close and continuing relationships with sites to their south-west such as Corinth: after the foundation of the colony, many (Thespian) *negotiatores* moved there, resulting in some strong and personal links between sites in highly stratified networks of trust. These larger networks will have been characterised by their complexity, which will always remain hard to uncover on the basis of archaeological, historical, or epigraphic data, and in their absence it is difficult to explore further how things developed in a concrete way over the course of the Roman period. Nonetheless, at least the ceramic evidence does not seem to illustrate a clear reorientation of pre-existing networks in this period, except for some afore-mentioned developments in terms of some larger flows of exchange in the Late Roman period. These latter may, as already noted, be linked to increasing inter-regional movement, exchange, and interaction in the area after the foundation of the capital at Constantinople and the increasing supply of armies along the Eastern *limnes*. Potentially a whole range of functional regions might not have been materialised in the archaeological/ceramological record, but the highlighted ceramic and other spatial patterning at least seem to reflect a certain direction, orientation, and perhaps intensity of interactions between areas.

It appears probable that at least some functional regions with high degrees of interaction will have been 'perceived' as such by the ancients, which would make them regions of the perceptual type, that could actively influence past actions in their own right. It will be more challenging to find hard

[92] The fact that Thespiae alone of all the Boeotian cities, remained loyal to Rome in the Mithridatic War in Greece, is significant, and would have presented the city as 'Roman-friendly' to further social and economic ties.

ceramological evidence for such regions, which are characterised by a 'sense of place' in ancient Boeotia. Nonetheless, some ancient sources might be interesting in this sense, as they provide some kind of 'emic' perspective on the ancient world. For instance, although Herakleides Kritikos' work from the first half of the 3rd c. BC is marked by certain degrees of humour, his observation that Tanagra was 'the safest city in Boeotia for foreigners to spend time in' might have reflected a perception that was shared more commonly by the ancients (including 'foreign' individuals that had some role in the distribution/exchange of ceramics).[93] Perhaps the quite common bestowal of 'the right to pay the same taxes as citizens' by Tanagra to their *proxenoi* might have played a role in the creation of such a hospitable atmosphere.

Ceramic production, circulation, and consumption and aspects of agency

What has been lacking so far in this article, and what often are presented as only having a minor role in economic studies, are consumer preferences and aspects of agency. Although I believe the surface survey data from Boeotia are not very well geared to touch upon these aspects in very much detail, choice and agency play a very important role in the act of producing pottery in a certain way, in moving it from one place to the other, in acquiring it (because it looks good, is qualitatively best, or the cheapest one available) and in consumption (potentially in a range of contexts, from the dinner table to the grave). Choice in local shops will not have been totally 'free' and will in some respects have been limited, for instance on the basis of the range of products that was produced by a community's potters, or by a certain availability on the market places (where some products in some styles of some provenances turned up, but others less). Here we should again note the increasing evidence for elites being active in a range of sectors by setting up businesses, having contacts abroad, and organizing shipments of goods and products. This probably involved some ceramic material culture getting 'pushed' and 'pulled' into areas in which such businessmen were active or areas near important routes of exchange towards more distant destinations. However, in order to be produced (or circulated/consumed), also some kind of demand was needed for products. This demand was not as much only a 'functional' need to solve a specific economic problem by acquiring, for instance, a bowl with a certain utility (e.g. for serving fruits), but was also influenced by certain 'immaterial' wants and desires (e.g. such a bowl should look good and should impress guests). In this latter respect, the potters had some artistic freedom, but the potters would mostly produce ceramics in shapes and styles for which there existed a certain demand, so that they could keep their ventures in operation. In this sense, we should not only look at geographies, institutions and aspects of 'supply' to explain patterns in ceramic circulation (and in the end consumption), but also at the consumer's side of the coin, which had a certain demand and perhaps (localised) preferences for certain styles, that will in one way or the other have shaped ceramic production and circulation.[94]

Rinse Willet's study of several tablewares from the Eastern Mediterranean, including the ones from Boeotia, has illustrated that each of the Boeotian lines of tableware production produced 'signature products', but at the same time styles and shapes that were popular in widely distributed tableware imports (such as Eastern Sigillata B, African Red Slip Ware, and Phocaean Red Slip Ware/ Late Roman C) and also found some similarities in products from Central Greece, such as Attica.[95]

[93] Herakleides Kritikos, *On Greek Cities*, 1.8-1.9. Herakleides also praised the Tanagrans, as they 'fully observe justice, trustworthiness, and hospitality' and 'they offer what they have and share it freely' with 'the needy among their own citizens and to wanderers from elsewhere'. In Herakleides' view, this was in some contrast with the atmosphere in nearby Oropos: 'Oropos is a nest of hucksters. The greed of the custom-house officers here is unsurpassed, their roguery inveterate and bred in the bone' (1.6-1.7). It should be remembered that Herakleides wrote for an Athenian audience and that this probably coloured the characterisation of Oropos (and other passages of his work), as this city was in the period that this text was written, at least for some time, not in the Athenian sphere of power, but a member of the Boeotian League. However, the rather positive atmosphere in Tanagra should not necessarily be downplayed by such observations.

[94] As put by Martin Pitts, 'mass-produced and standardized objects in motion, require both cultural demand and economic imperative to achieve pan-regional distribution', making 'supply versus choice an entirely false dichotomy' (2017: 64).

[95] Willet 2012. See figure 6b for a bowl/dish in Thespian fabric that roughly resembles Hayes ESB Form 60 and figure 6h for a rim

By producing these more popular or fashionable shapes and styles, the potters were linking into a certain ceramic koine that might have spanned 'Boeotia, eastern Phocis (Delphi, Elateia), Corinth and Athens, possibly stretching as far west as Brindisi'.[96] How this koine came into being and by which exact interactions it proliferated is hard to reconstruct. It is, however, evident that a certain similarity in ceramic styles or fashions did spread and was adapted, which hints at certain interactions.[97] Within such an area of a certain similarity of material culture, there will have existed a certain tension in which differences will also (and perhaps especially) have held meaning. The evidence from Boeotia seems to provide snapshots of such dynamics and a certain degree of diversity in terms of styles recurring in local production and/or in tableware imports, which might have formed a source of inspiration.[98] Such similarities and differences will probably have been (consciously or unconsciously) perceived by the ancients. Ceramics were part of the 'material world', through which perceptual regions could be exhibited and perceived, which could in its turn influence and shape future action in its own right. In this respect, ceramics (in a similar way as perceptual regions, to which they potentially contributed) possessed a certain (material) 'agency' and will also have had 'active properties'.[99]

The ceramic data generated by the Boeotia Project provide various examples in which we might recognize certain more localised consumer preferences in the area and/or potential effects of a certain material agency, which influenced dynamics of demand/supply and/or socio-economic or -cultural action. In terms of consumer preferences, we might note the presence/absence of specific shapes in imports on the level of communities or sites, alongside stylistic differences in local ceramic production (that will, as argued, also have been influenced by a certain demand/consumer preferences). For instance, on a communal level, the relatively small number of Mid-Late Roman jugs/mugs with gouged decoration in the Hyettia (n=18), which were quite popular elsewhere in Boeotia (notably Thespiae; n=120) and were produced in several places in Central Greece in this span of time (Athens, Koroneia, probably Thespiae, and also other sites),[100] perhaps illustrates that such vessels were not as much appreciated by the Hyettians, although many products from Koroneian potters (that thus also had these products in their repertoires) reached Hyettos and its surroundings. Although excavations are needed to get a more solid idea of consumer practices and preferences in smaller units of analysis (such as sites), we might note that also some rural sites in certain areas appear to exhibit their own 'profiles' in terms of the ceramics that are present in the survey collections, which might at least partly originate out of certain consumer preferences.

fragment of a bowl in Tanagra/Boeotian fabric finding parallels in Hayes ARSW Form 99. Both fragments were tested by means of pXRF measurements and have a comparable chemical composition as other fragments in these respective fabrics.

[96] Bes and Poblome 2017: 325.

[97] Cf. Reger 2007b: 71.

[98] As concluded by Willet, the production of comparatively large numbers of shapes that were common in African Red Slip Ware by Tanagran potters, seems to be related to the circulation of large quantities of these vessels in the Tanagrike (at least until the early 7th c. AD; cf. Peeters *et al.* accepted b), but seems not to have led to the production of substantial numbers of vessels resembling Hayes ARSW Form 50. In Thespiae, vessels in this latter morphology were produced in large numbers, while such shapes were also very common in the Tunisian imports that reached the site. In contrast, for Koroneia, preliminary ceramic analyses seem to reveal that the production in shapes that were popular elsewhere does not seem to have been accompanied by the import of large cargoes of vessels in such shapes (Willet 2012: 64-136). Another Boeotian case that, to some degree, comes close to the Koroneian scenario is provided by Askra. In Askra, vessels in shapes that resemble Hayes ARSW Form 99 and 104 (that are not identified in any of the collections from the Valley of the Muses) were produced in relatively small numbers, alongside tableware shapes and styles that appear quite typical for Askra. Although these similarities/differences in local production, and the imports identified at the noted sites, provide some kind of insights in contextualized and local tensions between similarity and difference in material culture, it should be stressed that only one 'prototype' (that is easily missed in archaeology), could have been enough for inspiration, while it appears probably that the Koroneian and/or Askran potters were also inspired by other Boeotian products (from which they probably knew that they were part of a more widely spread fashion or 'language' in material culture).

[99] See especially Van Oyen 2016: 1 and 70 (original emphasis): 'material culture does not only *tell* us about processes, events, and associations, it also actively *does* things. It enables, constraints, shapes, affects, acts, or forces' and 'constituted the world and the possibilities for action in it'. In other words, material culture is, on the one hand, the materialised product of socio-economic practice and is in this respect a meaningful and archaeologically identifiable layer of evidence that *reflects* how active, productive, and continually weaving structuring structures were shaping the world around it. On the other hand, however, the production, distribution, or consumption of material culture also constitute arenas for action that can take many forms and initiate a 'path' that is *actively shaping* the course of history and the world around it by its material presence and accompanying messages and meanings.

[100] See Bes and Poblome 2017: 323 for Boeotia and Hayes 2008b: 442 for a short characterisation of this production in Athens.

Worthy of note appears to be the presence of a handful of spiral-painted fragments of 4th-5th c. AD Athenian/Attic red- or dark-slipped 'flanged rim/high keel' bowls, but not African Red Sip Ware or Phocaean Red Slip Ware, on site LSE7 (near Thespiae), while especially these North African tableware imports were retrieved on a range of (urban and rural) sites in this area in this span of time.[101]

I would like to present two examples in which we might see certain other kinds of (material) agencies at work, which possibly find parallel scenarios in other parts of the Roman Empire. As the imported tablewares appear to exhibit the most variation (probably because they can be dated relatively precisely on the basis of stylistic cross-references and/or can more often be ascribed a more precise provenance), this class of ceramics again forms the most illuminating form of evidence. The first example concerns the circulation/consumption of the Early Roman Imperial tablewares Italian terra sigillata and Eastern Sigillata B (from the Meander Valley/Ephesus), which share some stylistic elements (including certain shapes, Greek and Latin stamps and a certain shininess).[102] Compared to other tableware imports, they are found much more-often and almost exclusively in the urban collections from Thespiae, Hyettos and Tanagra, while they are largely absent in rural settings: only two fragments of Italian terra sigillata and Eastern Sigillata B are identified in collections from rural sites surveyed by the Boeotia Project, both on rural sites relatively close to Tanagra (within 1.5km from the city).[103] These distribution patterns at least partly reflect the history of rural settlement, as during the Early Roman Imperial period (when these tablewares were in circulation in Boeotia) especially those rural sites farther away from urban centres became abandoned. Nevertheless, the only incidental identification of single fragments of ITS and ESB on sites in rural settings is striking and possibly illustrates that the consumption of these vessels was part of a more 'urban' style of consumption in the studied areas. In contexts from the Western Mediterranean, sigillatae are not uncommonly argued to be possible media through which 'city life' was perceived and shaped, so that these observations from Early Roman Imperial Boeotia might shed some light on the local context in the East (that admittedly deserve further examination in and beyond Boeotia).[104] In any case, it appears probable that circulation of these imports was already to some degree skewed towards larger centres of nucleation (for instance, because of the presence of larger populations and/or the presence of regular markets at the *agorai*), but that such a potential role of these specific sigillatae in an 'urban style of consumption' in the Early Roman Imperial period might have further contributed to such a focal distribution.

A second example comes from Thespiae's hinterland and also potentially touches upon the role of certain tableware imports in socio-economic display/differentiation. Close to this urban centre, African Red Slip Ware is found on almost all sites during the 3rd-5th centuries AD (and also on sites that do not seem to possess material indications for 'status').[105] Yet, farther away in Thespiae's hinterland, in the Valley of the Muses, African Red Slip Ware is not common in this period, and found on several sites where material culture was found that seems to reflect a certain architectural investment that was not probably made by individuals in the poorer echelons of society.[106] Again it should be stressed that excavations are needed to clarify further details of the type of site we are

[101] Cf. Peeters accepted and Peeters *et al.* accepted b.
[102] Hayes 1973: 468; Zabehlicky-Scheffenegger 1995: 222f.
[103] TS7: Italian terra sigillata; TS9: Eastern Sigillata B.
[104] See van Oyen 2015: 287-291 for sigillatae and 'urban life'. See Lawson 1996: 123 for a similar observation that imported tablewares are absent in rural Laconia during the Roman period, but consumed in large quantities in urban Sparta. See also Fulford *et al.* 2017: 289 for the skewed distribution of 'Samian' ware to urban sites in Roman Britain.
[105] Peeters *et al.* accepted b.
[106] Worked slaps of marble and a fragment of a *tegula mammata*, which is not uncommonly retrieved in baths or as a means of insolation, were found on site VM21. In the collections from VM29, Hayes identified a small ceramic cube as a probably fragment of *opus figlinum*, which is a technique to set floors with flat squares of terracotta in a comparable way to a mosaic floor (Dunbabin 1999: 102). On VM63 and VM88, where African Red Slip Ware was also retrieved, only very small samples of ceramics from this span of time could be dated within the limits of 200-500 AD (when these African tablewares were present in larger numbers in the Thespike), however in contrast these sites do not seem to show signs of 'status' on the basis of the surface record.

talking about and also to test the ceramic patterning at hand. Nonetheless, we can see a certain fall-off in terms of the presence of this pottery farther away from Thespiae, and it seems possible that these imported tablewares from Tunisia were in such more distant zones (where this material culture was rarer) more often consumed by wealthier inhabitants, possibly to set oneself off from others. Whether being originating out of 'supply' or 'choice' (or both), it should be accepted that the same kind of material culture had different meanings to the ancients in different functional contexts (i.e. the table or the grave) and probably also in terms of its availability in specific settings. In a similar way as argued by Astrid van Oyen for ceramics from the German Rhineland in Britain,[107] these Tunisian tablewares could (as any other type of material culture) have exhibited material agencies and active properties that influenced socio-economic and –cultural practices and processes in their own right in some contexts, but not as much in others.

Conclusions

Based on some of the ceramic patterns presented and spatio-temporal differences, we can identify a range of regions that shed interesting and meaningful insights on past socio-economic actions and processes. These regions are of a range of sizes, of different types, and help to better understand some aspects of local economies, as well as larger networks of interaction and exchange.

When drawing on a certain morphological/stylistic similarity in local ceramic production, as well as some aspects in consumption, we might identify a region on the basis of the ceramic koine that has been defined by Bes and Poblome to span Boeotia and a range of surrounding areas in Central Greece.[108] These degrees of similarity are also accompanied by differences on a smaller scale, also within Boeotia. It is up for debate if such a region would be one of a functional type (that would characterize a certain degree to which areas, communities, and/or agents in this region interact), or a perceptual region (that was perceived to exist by the ancients in the immaterial and material world to which ceramic material culture contributed, which also actively influenced socio-economic and –cultural actions in its own right). Reality will probably lie somewhere in the middle, although it appears easier to study and highlight the interactions that contributed to functional regions in a more concrete and quantifiable way (at least when basing ourselves on ceramic data). In any case the spread of certain more broadly appreciated fashions seems evident and will in some way be meaningful.

Alongside such large regions that are characterized by a certain ceramic similarity, which is greater within regions, than between them, this study proves that comparative ceramic analyses can also and perhaps especially contribute to the mapping and a better understanding of regions at lower spatial scales. The Boeotian case-studies presented illustrate the fact that geographical factors, institutions, as well as agency, will in many ways have contributed to economic and ceramic differences in space and time (in the past and present). Especially the identified 'East-West' skews in the distribution of the specified ceramic imports in Boeotia, which are most clear when comparing the datasets from Tanagra and Thespiae with each other (but can also to some degree be identified elsewhere in Boeotia and its surroundings), come to mind as illustrative examples, to highlight the different orientation of networks of interaction and (ceramic) exchange. Other archaeological, epigraphic, and historical data further contribute to these findings, providing a better understanding of how such regions were shaped and what they might reflect.

[107] As noted earlier, Van Oyen (2016: 124) argues that the 'reliance [of 'Rhenish' ware] on local ties in production created a distribution pattern skewed towards its immediate locality of production. The resulting thin scatter of 'Rhenish' ware pots in Britain in turn itself set certain conditions for how it could be consumed. This is material culture at work as a history-maker! Because there were few of them, 'Rhenish' ware pots would have been more easily associated or contrasted with other products in consumption'.
[108] Bes and Poblome 2017: 325.

The mere presence of (ceramic) differences between sites or areas (whether originating out of the operation of networks in which elites with broad business portfolios played an important role, or from the dynamics of 'supply', or matters of 'choice and agency', or both), will have created a situation in which perceived differences probably generated enhanced differentiation. In other words, regions and (ceramic) material culture, which constituted a part of the material world and will have held a certain 'meaning', could/will have held some active properties and will not only have been shaped by actions and processes, but will also have shaped them. In line with examples presented by Van Oyen elsewhere,[109] the ceramic data from the Boeotia Project seem to illustrate some interesting snapshots in this respect: some classes of imports seem to have been consumed differently in settings/areas where they were more common, than in settings/areas in which they were, for whatever reason, rarer. It seems probable that less common and/or more valuable commodities had a more prominent role in socio-economic differentiation within communities, than goods that were more common. That being said, it should be admitted and emphasized that these observations from Boeotia need more data and testing by other methods of research (notably excavation), as the limits of the survey data, which often do not provide much detailed chronological- and no stratigraphical information, are easily reached when attempting to address such themes.

Some of the settings/areas in which ceramics at least potentially had different meanings, in which ceramics were as such consumed differently, and in which ceramics will thus also have possessed some kind of material agency, might be identified as (micro-)regions. Some of these appear to be smaller than the hinterland of individual cities. *Chorai* can be characterised as formal/administrative regions, in which civic life was traditionally centring on an urban centre. Interestingly, the ceramic data from Boeotia seem to illustrate a certain focus on these centres in terms of the presence of non-local goods, since they generally seem to be present in larger numbers and in a larger variety than in rural zones. This might have been a result of the presence of larger populations and/or the presence of regular exchanges of goods at their market place, so that such a pattern exhibits characteristics of a specific type of functional region (a nodal region). However, when accepting such a model in terms of the presence/distribution of non-local ceramics in Boeotia, it should be emphasized that variety *within* such regions was still present. For instance, at least for the 4th-5th c. AD onwards, when the Valley of the Muses and Askra were repopulated, this area seems to show its own ceramic profile in terms of local production, ceramic circulation of non-local goods, and possibly also the highlighted differences in the consumption of Tunisian tablewares between sites in this vale. In this respect, the ceramic assemblages from Askra and the Valley of the Muses show some differences with the published datasets from Thespiae's near hinterland and its urban center, on which civic life in the area was, at least traditionally, centring.

The stance coined as 'regionality' that is accepted in this study preaches for a fluid concept of regions, which can be of different forms, shapes, strengths, and types. As illustrated, we can identify a range of regions for Boeotia on the basis of ceramic variety and difference in space and time. Some of these regions are small, others considerably larger, while they often also seem to overlap in some way, somewhat hindering the drawing of hard lines between regions. These findings from Boeotia find parallels in other studies in the Aegean and Eastern Mediterranean. For instance, John Lund concludes, on the basis of his largely ceramic-based exploration of Cyprus during from the 3rd c. BC till the 3rd c. AD, that ceramic regions, which are in his study mostly defined on the basis of patterns in ceramic circulation, in some cases more or less overlap with regions defined on the basis of burial practices, the local production of limestone sculptures, *cippi*, and terracotta, though evidently do not always. He further observes that ceramic regions 'do not in any event correlate with a linguistic grouping' and 'do not in any case coincide with the civic territorial boundaries'.[110]

[109] E.g. Van Oyen 2015 and 2016.
[110] Lund 2015: 234. See Reger 2013: 125 and Lawall 2015: 494 for the respective statements that 'a region constructed for one purpose

On the basis of such archaeological patterns and specifically the fluidity of regions that is argued for, we should not be dissatisfied by notions that regions are indeed no 'self-contained entit[ies] that will suffice for all analytical purposes'.[111] This is exactly what regionality is about, as there is nothing 'fixed and knowable' about regions and we should escape 'a containment of doctrines, principles, orders about regions, a misplaced concreteness'.[112] We should realise that regions are the result of (and are, at the same time, actively contributing to) the existence and materialisation of the 'dynamic processes' that we try to study, which are essential to better understand ancient economies and landscapes of action and interaction. Instead of jumping directly to identifying 'economic regions' (which might mean not much more than discriminating an 'industrial region' from an area that sees less industrial activity), we need a more bottom up way to identify and understand regions, which potentially worked, developed, and shaped past (socio-economic or other) activity and interaction in their own ways. Regions developed on the local scale and became materialised through repeated actions that were contextually-, socially-, and societally embedded, and it is from this sphere that we should also start to better understand Hellenistic-Roman and other past economies. This research illustrated that we are certainly not 'there' yet for Boeotia and other places, but, at least, that this is within reach and that we are working in the right direction.

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Book Reviews

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Prehistory and Protohistory

Sarah C. Murray, *The Collapse of the Mycenaean Economy. Imports, Trade and Institutions 1300–700 BCE*. pp. xiv + 354, 16 ills, 10 maps, 42 tbls. Cambridge: Cambridge University Press, 2017. ISBN 978-1-107-18637-8, hardcover £94.99.

This book derives from a PhD dissertation defended at Stanford University in 2013, added to by further research in following years. It treats a topic of considerable importance in any discussion of the degree of continuity between the civilisations of the Aegean Bronze Age and that of the early Greeks, which was becoming well established in the eighth century BC (all dates cited subsequently are BC), and the reality or otherwise of an intervening 'dark age'. A common view has suggested that, following the collapse of the Bronze Age civilisations, the Aegean became largely cut off from external contacts, especially with the Near East, and these only revived in the ninth and eighth centuries. As stated in the first part of her Introduction, Murray aims to consider whether this view is acceptable, with three specific aims (p. 3): to synthesize the existing evidence from Greece for long-distance trade over the transition from Late Bronze Age (LBA) to Early Iron Age (EIA); to investigate whether the archaeological evidence can be relied on to provide clues to the underlying patterns of change; and to show that there were indeed major changes in the scale and structure of the 'Greek trade economy (and the economy overall) after the LB IIIB period', i.e. after the thirteenth century.

Murray has taken on a topic that is fundamental to the whole study of the civilisations of the Aegean, historical as well as prehistoric, for trade was one of the essential foundations of development. The Aegean had few natural resources of value, and if its communities were to obtain commodities that were not available widely, if at all, in the Aegean, most of them had to produce commodities of their own to exchange for these, whether plant products, animal products, or derivatives from these like liquids or cloth. That even in the LBA quite simple products might play a role in exchange is demonstrated by a reference not picked up by Murray, that an important merchant of Ugarit, Sinaranu, was granted the right to bring grain, beer and (olive) oil by ship from Kapturi, probably Crete, without providing any (as tax, presumably) to the palace.[1] Since these products could all have been obtained from much closer sources to Ugarit than Crete, it seems likely that Sinaranu had discovered that he could get them more cheaply in Crete and thus make a profit marketing them in Ugarit or other Syrian centres. Despite Murray's scepticism (pp. 244, 268, referring principally to the EIA periods), it must seem likely that agricultural and natural products were items of trade throughout the period considered, for what else did many parts of Greece have to offer? In this respect, it is noteworthy that amphorae, most probably containing olive oil or wine, were among the earliest Protogeometric (PG) vases appearing in the Near East and were traded widely around the north Aegean, as far south as central Greece, including Lefkandi.[2] That these pieces do not appear in any great number suggests that in the north Aegean they were the results of cabotage, the small-scale local exchange that forms part of the 'connectivity' considered typical of the Mediterranean in Horden and Purcell 2000,[3] while examples in the Near East could reflect either Greek or Phoenician enterprise.

Murray has gathered a lot of material together and discussed it in an analytical manner. But the overall effect is diminished by the quite frequent appearance of errors and omissions, big and small. The reviewer gets the impression that it was prepared in something of a hurry, so that the text was imperfectly checked, and that it was not closely checked in proof stage either. How else to explain the fact that on Maps 1.1 (p. 2) and 2.1 (p. 118), also on pp. 7 and 354, Teichos Dymaion is misspelled, although on pp. 83 and 353 it is spelled correctly, and also that on Map 1.1 Nichoria is badly misplaced, although more or less correctly on Map 5.4? In p. 32, fn. 5, Dickinson 1994: 73–86, is on a quite different subject from what the list of references supposedly concerns. On the Ahhiyawa texts, p. 37,[4] AhT 27B was not sent by the Hittite king but by a chief scribe,[5] and its recipient was the same as for AhT 27A, Hammurabi king of Ugarit, so not the famous Babylonian Hammurabi!

Such errors might be dismissed as the sort of thing that can get through the checking process, but there are more serious problems. The reviewer feels that Murray is not fully informed or up to date on the

[1] Cline 2009: 120 gives text and translation.

[2] Knapp and Demesticha 2017: 134–135; the quantity of ?Euboean PG material from Tyre, listed in Lemos 2002: 228, is not noticed by Murray, whose only reference to Tyre (p. 202, n. 211) is strange – Tyre was a Phoenician city!

[3] Part Two, Ch. V.

[4] NB that two of the sources discussing the Ahhiyawa texts cited in fn. 26, by Lackenbacher and Malbran-Labat, are not to be found in the list of Works Cited.

[5] Beckman *et al.* 2011: 258.

material and ideas when it comes to the Aegean LBA, and the text is sprinkled with questionable statements and traditional but outdated interpretations. To give some examples (1) to state that at the beginning of the Mycenaean period new ruling groups were established at a series of mainland sites 'occupying building complexes ... known as palatial centers' (p. 5) is the reverse of the truth; it is precisely the virtual absence of such building complexes (there are some traces at Pylos), in contrast with contemporary Crete, that is one of the most remarkable features of the early Mycenaean development. (2) The identification of the kilts painted on Keftiu offering-bearers in the Tomb of Rekhmire as 'Mycenaean' (p. 153, with fn. 45) was disproved by Rehak long ago.[6] (3) Many specialists will balk at the flat statement, with a minimum of qualification, that the bulk of the Knossos Linear B tablets date to the thirteenth century (p. 32, fn. 1). (4) There is a general tendency to think in terms of migration and colonisation (e.g. pp. 198–200, 260, 268), without any examination of the value or applicability of these concepts. (5) In a notably traditional account of the twelfth century collapse on p. 6, the phrase 'Tiryns limped on' seems to shows no knowledge of the evidence now available for major building activity in the Lower Town in LH IIIC. (6) Also on p. 6, the many new settlements established in the hillier regions of Crete at the time of the collapse are described as 'refuge settlements', concerned primarily with defence. While Wallace's publications are cited, no specific reference is made to her most extensive study of the topic, which takes a much less simplistic approach, let alone to her striking suggestion that this large-scale movement of population was *planned*, i.e. organised by some kind of authority.[7]

But perhaps the most unsettling feature is the decision to omit any detailed coverage of the islands of the Aegean, apart from Crete. Not only have these traditionally been seen as the stepping stones along the natural maritime routes between the Greek mainland, Crete, and Anatolia, leading ultimately to the east Mediterranean; the Cyclades and Dodecanese, by LH IIIB, may be considered as 'Mycenaean' as anywhere on the mainland (and more so than Crete, in the reviewer's opinion). The evidence that the still enigmatic state of Ahhiyawa, widely believed to be part of the Mycenaean world, controlled some of the islands and the Miletus region, for at least a period in the thirteenth century, is relevant here, and the well-known late thirteenth century treaty between a Hittite king, very probably Tudhaliya IV, and Shaushga-muwa, king of Amurru, also has relevance. In the treaty the king of Amurru is required to ensure that no ship of Ahhiyawa should 'go to' the king of Assyria, the Hittite king's enemy.[8] Whatever the precise significance of this, it is surely proof that, contrary to a theory that Murray seems to favour (p. 193), ships from the Aegean did indeed travel beyond Cyprus to the Syro-Palestinian coast.

The significance of the islands is quite evident in the postpalatial period, as Desborough pointed out long ago,[9] identifying a network that extended from the Dodecanese to Crete, Naxos, Perati in Attica, and probably other eastern mainland sites, and surely played a major role in connections with the east Mediterranean. Similar patterns of interconnection can be traced in the EIA, starting with the distribution of Attic PG pottery in the Aegean,[10] and incorporating evidently independent Euboean activity in the north and central Aegean, surely linked to the involvement with Tyre noted above (fn. 2). In the north Aegean a local network that extended at least to Lefkandi, also noted above, was well established by PG times. To sum up, giving so little attention to the islands means omitting much material extremely relevant to trade.

To consider the book in more detail: the main part of Murray's Introduction, after her statement of aims and summary account of the period to be considered, is taken up by a series of discussions of previous scholarship in various relevant fields. The most significant of these, given the overall approach, are those which relate to the 'quantitative archaeological record' and the use of the material evidence in approaches to ancient trade. There follow five chapters that consider in turn the evidence of potentially relevant textual material; the direct evidence for early long-distance trade; the problems inherent in using the archaeological record to assess quantitative change; the trade in commodities; and the relevance of changes in the demography and domestic economy of Greece. All these, as is stated at the beginning of the sixth chapter, are intended to establish a firm quantitative basis for understanding the changes in the Greek trade economy over the period, as is emphasised by the large number of tables as opposed to other illustrations. The picture that emerges is summarised in the sixth chapter, entitled 'Snapshots of a trade system in flux', followed by a short final statement of conclusions.

[6] Rehak 1998.
[7] Wallace 2010: 54–68; the idea that the move was planned appears on p. 66.
[8] Beckman *et al.* 2011: 63.
[9] Desborough 1964: 228–229.
[10] Catling 1998, erroneously attributed on p. 290 to H.W. Catling.

The reviewer has no problem with much of the discussion in these chapters, nor with the basic conclusions (summarised pp. 276-277), that Greece did indeed suffer a period of crisis over the LBA-EIA transition, from which it had recovered by the eighth century with a new social order, and that demographic change caused a weak domestic economy, which was responsible for the observed decline in imported exotica in the postpalatial twelfth and eleventh centuries. More specifically, Murray argues that her survey of the evidence contradicts notions that have commonly appeared in the discussion, that identified imports can be a useful index of the intensity of trade, that long-distance connections were controlled from the administrative centres of LB states, and that at one time Greece was cut off from long-distance trade connections.

This all seems well argued and reasonable enough; the point on the likely economic effects of severe population decline is well made, and exotica were surely never the primary purpose of trade, but only a sporadic by-product. But the reviewer feels considerable unease about the emphasis laid on quantification of the data. He feels that even for the thirteenth century, where the material evidence is richest, the state of the data (too often published only preliminarily if at all) is such that it can hardly be treated as a secure basis for the kind of statistics that M. tries to create. This is particularly evident in the attempt to establish a 'benchmark population' for the Aegean (or rather, the Mycenaean mainland and Crete) in the thirteenth century (pp. 232–236). At every step in the calculations, serious objections can be raised. Why choose the notably high figure of 200 per hectare of occupied settlement area as a base? Is this because not merely the supposed 15 palatial centres, but the 284 settlements with evidence of occupation in LH/LM IIIB, are identified as 'urban', as opposed to the 592 'artifact scatters', thought of as evidence of the rural population? To the reviewer this has the potential to be seriously misleading. The vast majority of excavated settlements on the mainland show no urban features whatever, and are best described as villages. Most of the 'palatial' sites are far smaller than seems to be suggested (Mycenae, at an estimated 32 ha, is exceptional; in contrast, the newly identified centre at Ayios Vasileios south of Sparta has been estimated by survey to cover only 5–6 ha), and are unlikely to have been very sophisticated in plan, although Dhimini (perhaps around 10 ha) does have a clearly townlike centre similar to those of earlier Cretan and island sites. As for the 'artifact scatters', we have no real knowledge of what these represent, and their dating can hardly be more precise than 'somewhere in the LH/LM IIIA-B period',[11] so anywhere in a range of 1½-2 centuries. They get marked on distribution maps as settlement sites, and so are often imagined to have been in occupation at the time of the 'Collapse' at the end of IIIB, and their apparent disappearance thereafter is taken to signify a dramatic decrease in the general population. But this involves major assumptions; an alternative possibility deserves consideration, that they were small farmsteads or hamlets occupied for only a generation or two, part of a fluctuating pattern of rural settlement that may be particular to Messenia, and few might have been in occupation by the time of the 'Collapse'. Overall, the reviewer has no faith in the methods by which an estimate of about 600,000 has been reached, and feels considerable scepticism about the estimations of the scale of decline in the postpalatial and EIA periods.

A feature of Murray's discussion of the period 1200–700 is that it is divided into just three phases – postpalatial/final Mycenaean, Protogeometric and Geometric (G) – each of which is assigned over a century (G more like 2) in the standard chronology. This has the effect of grouping together material that actually spreads over periods corresponding to several human generations, and so gives misleading impressions of more abundant material (as on the Chapter 5 maps of PG sites) and a greater degree of continuity over the EIA than the evidence actually warrants. The reviewer feels that more emphasis should be placed on the extremely narrow and biased distribution of the data base, which is such a marked feature that any general impressions can be radically affected by a single major new find, or the investigation of a hitherto neglected area (as in Lokris and Aetolia). In particular, there is a dearth of cemetery evidence over the eleventh to ninth centuries; few substantial cemeteries have been excavated and even fewer published. This matters, because until the eighth century cemeteries are predominantly the sources of the foreign exotica which have been so prominent in the discussion, and also of most of the evidence for the general availability of metals. Now that settlement sites have begun to be excavated on some scale outside Crete, evidence from sites like Asine and Nichoria has improved the picture. But it is difficult to have any faith in attempts to calculate the amount of bronze in circulation, as in Chapter 4, when there are so many imponderables, and this says very little about the increasing demand for iron, as it became the standard material for tools and weapons, and would also have to be obtained by trade by most communities.

[11] Cf. Hope Simpson and Dickinson 1979: 9.

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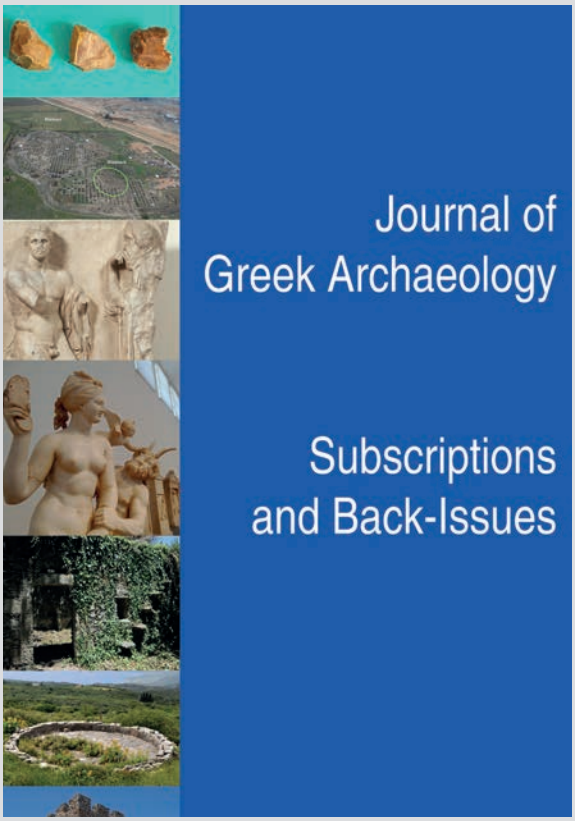

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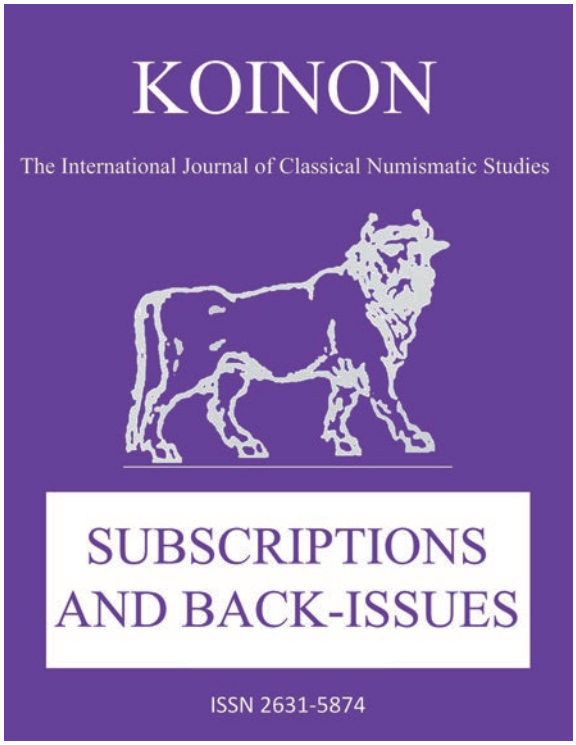

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