

VII. Regional Economies at the Dawn of Accountancy and Metrology: Tracing Local, Regional, and Supra-Regional Exchanges from the Archaeological Records at Çukuriçi Höyük

‘To be sure, throughout history, there have always been some societies that have resisted change; but to resist is already to change. And many forms of resistance have not managed to prevent change.’
Maurice Godelier¹³³⁵

Introduction

This chapter elaborates the central thesis that since the Neolithic, households have been not only embedded in the so-called domestic economies but simultaneously in regional and inter- and supra-regional economies. This claim is supported by looking at three spheres of exchange evident at Çukuriçi Höyük. These three spheres of exchange comprise the local sphere through on-site exchange between households, regional exchange within the Aegean basin, and long-distance, supra-regional trade with the Near East. Based on these three different scales of analysis, it can be concluded that at Çukuriçi Höyük gift exchange, barter within a wider region, and occasional trade with distant Mesopotamian polities coexisted. But whereas dwellers at Çukuriçi Höyük relied heavily on obsidian from Melos, other regional sites established stronger contacts to the eastern polities, which can be seen from the higher amount of central Anatolian obsidian at those sites. The later sites flourished during the EBA 2 period as the major trading ports, whereas Çukuriçi Höyük was abandoned at the end of the EBA 1 period. Dwellers at Çukuriçi Höyük were seemingly cut off from these exchange networks as well as from the emulation of chiefly elites to the east and west. Instead, they resisted the accumulation of goods or knowledge within a certain household until dwellers abandoned the site. Resistance to elite-emulation in the Aegean at the dawn of the EBA 1 was, therefore, a strength but also a weakness for dwellers at Çukuriçi Höyük that detached them from this site and its lands, fields, and houses that were the arenas of daily practices, knowledge, and local symbolic thought.

VII.1. Prioritizing Transaction over Transmission

In the first section of this chapter, the importance of *bartering*, *giving*, and *keeping* is not only stressed as an economic practice but as a combination of three (socio-economic) processes that bring societies into being. However, within the literature on the prehistoric Aegean, the discourse mainly follows the emergence of prestige goods and regional connectivity in pursuit of a 1970s tradition.¹³³⁶ Interest in connectivity and supra-regional exchange in the Aegean have persisted since then. This can be easily demonstrated through obsidian, metal, and

¹³³⁵ Godelier 2018.

¹³³⁶ Friedman – Rowlands 1977.

pottery exchange. In this chapter, I follow that trend to discuss the evidence for exchange on the local, regional and supra-regional scale, with the hindsight of the importance of keeping and transmission. By prioritizing transaction over transmission in this chapter, I also try to highlight practices of keeping and transmission, to complement this trend. It is, furthermore, important to note that bartering, giving, and keeping do not occur only in the communal sphere. On the contrary, it is a practice that sprouts bottom-up, within and between households, as highlighted in this chapter's first section.

The political economies of non-state societies, studied through either ethnographic or archaeological methods, are based around the transaction of prestige goods. Within socio-cultural anthropology, the exchange of prestige goods has been a topic of study since Malinowski's *Argonauts of the Western Pacific*¹³³⁷ and Mauss's *The Gift*.¹³³⁸ Within prehistoric archaeology, the *prestige goods economy* model, developed by the anthropologist Johnathan Friedman and the archaeologist Michael Rowlands,¹³³⁹ modified for archaeological purposes, had a considerable impact on our understanding of Bronze Age political economies in the Mediterranean and temperate Europe.¹³⁴⁰ In general, ceremonial exchanges of prestige objects as gifts – such as *kula* (a reciprocal network of delayed gift exchanges that operated between Trobriand Island chiefs) or the notion of *hau* among the Maori – enjoyed significantly more academic attention than *gimwali* – the non-ceremonial exchange of everyday goods between neighbouring coastal and hinterland Trobriand villages (barter). In the past, anthropologists even argued for a distinction between societies based primarily on gift-giving or a prestige goods economy on the one hand, and societies with commodity exchange on the other. However, follow-up studies showed that both gift giving and barter or commodity exchange coexisted in the majority of non-state tribal societies,¹³⁴¹ and in fact continue to coexist in societies primarily dependent on market economies.

Although gift and commodity exchange, as two ideal types of exchange, intersect and diverge in many ways,¹³⁴² for the purposes of this study it is important to note the primary distinction between them: 'gift exchange establishes a relation between the transactors, while commodity exchange establishes a relation between the objects transacted'.¹³⁴³ This implies that in the case of gift exchange, the two parties involved are in a state of reciprocal interdependence,¹³⁴⁴ whereas in commodity exchange, they are in a state of reciprocal independence. A delayed exchange of the same objects or the simultaneous exchange of different gift objects within a ceremonial setting creates moral and social indebtedness between the two transacting groups, which can be recognized by an appropriate return at a later date.¹³⁴⁵ An external measure of weight or volume in gift exchanges is, therefore, neither necessary nor desirable. Both parties involved in this exchange rely on indebtedness and the social bonds that link them through giving, receiving, and reciprocating.¹³⁴⁶

The absence of an external measure may also apply to commodity exchange: usually different types of objects or services are exchanged for one another through an internal balance, without money or any external criterion for mediating value.¹³⁴⁷ However, in this type of exchange, goods can also be compared beyond their utility for receivers, such as in terms of

¹³³⁷ Malinowski 1922.

¹³³⁸ Mauss 1990 [1925].

¹³³⁹ Friedman – Rowlands 1977.

¹³⁴⁰ Barrett 2012; Galaty 2018.

¹³⁴¹ Firth 1967; Godelier 1972; Carrier 1992.

¹³⁴² Appadurai 1986, 3–63.

¹³⁴³ Gregory 1982, 42.

¹³⁴⁴ Strathern 1988.

¹³⁴⁵ Gregory 1982, 47.

¹³⁴⁶ Mauss 2006 [1915].

¹³⁴⁷ Humphrey – Hugh-Jones 1992, 8; Gingrich – Schweitzer 2014, 28.

Commodity	
Production focused approach Marx 1867	Objects are produced in order to sell them in market transactions (production for exchange) rather than in order to consume them (production for use) Market economy and a substantial division of labor is a necessary precondition
Transaction focused approach Mauss 1990 [1925] Gregory 1980; Gregory 1982 Appadurai 1986 Strathern 1988 Carrier 1995	Impersonal transaction between strangers Lack of enduring relations between the transactors (producer and receiver, possible middleman) A commodity may become a gift and a gift may become a commodity (depending on the social relations between transactors)
Consumption focused approach Miller 1987	Objects are produced in order to sell them in market transactions Commodity production is impersonal Consumers ascribe meanings to objects based on the social relationships in which the commodities are consumed

Tab. 20 Different understandings of commodity exchange within socio-cultural anthropology (after Carrier 2018)

volume (e.g. baskets, pots) or other predefined quantities through production (e.g., the size of an oven determines the size of a salt bar). Barter or commodity transaction is possible only when two parties agree to exchange. Apart from *silent exchange* – a type of commodity exchange in which trading partners avoid each other at all costs but barter goods through mutual agreement, which has been observed among mobile hunter-gatherer groups – face-to-face interaction is necessary, either with or without a middleman, between transacting partners for all more or less sedentary groups. An important commonality between the two types of exchange, then, is that in both cases (i.e. gift or barter exchanges), among more or less sedentary trading partners, transacting groups necessarily engage in face-to-face relations. Given that the term commodity can be used in at least three different ways within the anthropological literature, here commodity is understood through a transaction-focused approach.¹³⁴⁸ In this case, commodity refers to an impersonal transaction between strangers, with a lack of enduring relations between transactors, and an understanding that the same items can be exchanged as either gifts or commodities: yet this depends on the social relations between the parties to the transaction (see Tab. 20).

More recently, a large body of anthropological literature has questioned the sharp theoretical differences between gift exchange and barter/commodity exchange,¹³⁴⁹ since such a distinction cannot always be clear-cut on empirical grounds.¹³⁵⁰ However, it seems necessary to make use of established conceptual and analytical distinctions between gift and barter/commodity,¹³⁵¹ and even more nuanced understandings of the exchange of objects or services, such as *generalized*, *balanced* and *negative* reciprocity,¹³⁵² for analytical purposes within prehistoric archaeology, where both the social organization and the economic system can often be inferred from a rather restricted data set.

In the recently published volume on *Regional Approaches to Society and Complexity: Studies in Honor of John F. Cherry*, the prehistoric archaeologist Michael L. Galaty favoured the use of comparative ethnoarchaeological analogies to prehistoric archaeological cases, by summarizing a changing approach in research on prestige goods within archaeology:

¹³⁴⁸ Gregory 1982; Appadurai 1986; Mauss 1990 [1925]; Mauss 2006 [1915].

¹³⁴⁹ Appadurai 1986; Humphrey – Hugh-Jones 1992; Angé 2018.

¹³⁵⁰ Humphrey – Hugh-Jones 1992; Angé 2018.

¹³⁵¹ Gregory 1982; Humphrey – Hugh-Jones 1992; Gingrich – Schweitzer 2014; Carrier 2018.

¹³⁵² Sahlins 1972.

‘Prestige goods have a checkered history in archaeology. Once they were in ... and now they are out ... , and the term was never very well defined ... What constitutes a prestige good? Answering this question depends to some large degree on whether or not we can determine how particular goods were valued by an archaeological society ... and what symbolic meanings they might have carried.’¹³⁵³

The majority of archaeologists would agree that in the archaeological record, prestige goods are usually those objects acquired from afar through long-distance trade,¹³⁵⁴ or valuable goods produced locally by specialists attached to chieftains.¹³⁵⁵ However, understanding the particular meaning of foreign prestige goods – found outside their place of origin or within a receiving community – remains a challenge if based on prehistoric data.¹³⁵⁶ In particular, the meaning of prestige objects, or what an anthropologist would call the ‘social life of things’¹³⁵⁷ may vary between the two communities.¹³⁵⁸ Opinions about whether prestige goods are a useful analytical tool therefore remain mixed. Whereas some maintain that ‘the application of the model of a prestige goods economy in the analysis of Bronze Age political structures applied to so much of temperate Europe might usefully be abandoned’,¹³⁵⁹ others continue to argue that a ‘careful study of extant prestige-goods exchange systems ... can elucidate features of archaeological prestige-goods exchange systems ... by circumscribing issues of theoretical importance.’¹³⁶⁰ Both these arguments are valid. However, to continue to use the analytical tool of prestige goods usefully within prehistoric archaeology, there are some theoretical implications to be addressed. Prestige goods are not always coterminous with gifts, and cannot be classified as only those objects produced by specialists. Objects that circulate within a village or between kinsmen as gifts could be transacted as a commodity with distant kin or non-related trading partners.¹³⁶¹ Further, prestige goods can be differentiated from so-called *precious objects*,¹³⁶² which are not limited to centralized chiefdoms but likewise exist in big man and great man societies. In the latter case, precious objects, such as salt bars among the Baruya, were not associated with conspicuous consumption and signatures of different rank or status: they were precious because salt was scarce, yet essential for human existence, and it had a ritual significance and exchange value.¹³⁶³

By returning to the study of *kula* in the Trobriand Islands, Annette Weiner highlighted the importance not only of movable objects of prestige, but equally the concept of *inalienable possessions*, through the principle of keeping-while-giving. Recently, Godelier argued that in all societies, which includes prestige goods economies, commodity and gift exchange neither produces society nor reproduces political economy:

‘Three bases and three principles must be combined. There must be certain things that are given; others that are sold or bartered; and still others that must be kept for ever ... It is because these three operations – selling, giving and keeping – are not the same that objects in these contexts are presented respectively as alienable and alienated (commodities), as inalienable but alienated (gift objects), and as inalienable and unalienated (sacred objects).’¹³⁶⁴

¹³⁵³ Galaty 2018, 75.

¹³⁵⁴ Friedman – Rowlands 1977; Earle 2002, 294–297; Galaty 2018.

¹³⁵⁵ Earle 2002, 296.

¹³⁵⁶ Galaty 2018, 75.

¹³⁵⁷ Appadurai 1986.

¹³⁵⁸ Galaty 2018.

¹³⁵⁹ Barrett 2012, 14.

¹³⁶⁰ Galaty 2018, 89.

¹³⁶¹ Bohannan 1959; Godelier 1972; Carrier 1992.

¹³⁶² Godelier 1972.

¹³⁶³ Godelier 1998, 422.

¹³⁶⁴ Godelier 2011, 193.

By shifting the focus away from objects of exchange, Godelier maintains that these three principles – selling/bartering, giving, and keeping – are not particular to tribal societies, such as the Baruya, but are also common within market economies, where not all things are for sale (e.g. a family album, or a main cathedral).¹³⁶⁵ Godelier traces the anthropological tendency to underplay the importance of transmission (of sacred objects) to the popularization of *The Gift*. However, from Boas's ethnographic accounts of the Kwakwaka'wakw sedentary hunter-gatherer-fisher society Mauss understood that the Kwakwaka'wakw distinguished between two types of copper objects, ones to give and others to keep:

'It would seem that among the Kwakiutl¹³⁶⁶ there were two kinds of copper objects: the more important ones that do not go out of the family and that can only be broken to be recast, and certain others that circulate intact, that are of less value, and that seem to serve as satellites for the first kind. The possession of this secondary kind of copper object doubtless corresponds among the Kwakiutl to that of the titles of nobility and second-order ranks with whom they travel, passing from chief to chief, from family to family, between the generations and the sexes. It appears that the great titles and the great copper objects at the very least remain unchanged (stationary) within the clans and tribes.'¹³⁶⁷

Such a distinction between things to give, sell, and keep, although not analysed as such, was also described for Trobriand chiefdoms. At Omarakana, a hinterland village on Kiriwina Island, yields from the same household plots were separated into three categories. Larger yams were used as ceremonial gifts for chiefs and kinsmen, smaller ones for household consumption and to barter for fish, and some were kept for the future harvest.¹³⁶⁸ This indicates that an interplay between political economy and nature dictated the necessary distinction between different bodies of goods produced within a single Trobriand household. Adopting the substantivist language of Polanyi's disciple Dalton,¹³⁶⁹ Timothy Earle also referred to prestige goods as primitive valuables¹³⁷⁰ or primitive wealth, which in non-state societies can be used as a means of payment and a store of value. These objects have included pig tusks and large stones in lowland Papua New Guinea, salt in the Papua New Guinea highlands; copper shields among Kwakwaka'wakw; cows in East Africa;¹³⁷¹ shell necklaces and armbands transacted through the *kula*, as well as ceremonially transmitted yams in the Trobriand islands,¹³⁷² and ibex horns in South Arabia.¹³⁷³ However, these prestige objects can be divided into prestige goods and precious objects or primitive valuables with reference to the political economy. Both types of objects can be exchanged either as gifts or commodities – in which commodity is understood through a transaction-focused approach¹³⁷⁴ – or can be kept and transmitted within a household.¹³⁷⁵ This is the analytical background for posing a question: what social relations, which always codepend on the social distance between trading partners, can be inferred on a local, regional, and supra-regional scale from the archaeological records at Çukuriçi Höyük?¹³⁷⁶

¹³⁶⁵ Godelier 2011, 419.

¹³⁶⁶ Kwakiutl is the common name for the Kwakwaka'wakw in socio-anthropological literature. The Kwakwaka'wakw resided on Vancouver Island in British Columbia, today part of Canada. They spoke the Kwak'waka language and belonged to different tribal groups at the time of European contact in 1786.

¹³⁶⁷ Mauss 1990 [1925], 165; Godelier 2011, 419.

¹³⁶⁸ Malinowski 1935, 67.

¹³⁶⁹ Dalton 1982.

¹³⁷⁰ For a detailed overview of such primitive valuables in pre-state societies, see Earle 2002, chapter 2.

¹³⁷¹ Evans-Pritchard 1940.

¹³⁷² Malinowski 1922; Malinowski 1935.

¹³⁷³ Gingrich 2017a.

¹³⁷⁴ Gregory 1982; Appadurai 1986; Mauss 2006 [1915].

¹³⁷⁵ Godelier 1972.

¹³⁷⁶ The debate here refers only to Çukuriçi Höyük as the record at Platia Magoula Zarkou has not pointed towards any links to the Near East. For regional and supra-regional exchange at Platia Magoula Zarkou, see Chapter VI.

To tackle such questions, this chapter separates the data into three distinct scales of analysis – local, regional, and supra-regional. The indicators of exchange will be analysed in the given order. The local scale refers to indicators of exchange and sharing on site, geographically limited to several rooms at Çukuriçi Höyük and its immediate landscape. The regional scale refers to a geographically extended region, including coastal and hinterland sites in western Anatolia, contemporary to EBA 1 at Çukuriçi Höyük. The supra-regional scale refers to indicators of trade beyond western Anatolia, dealing with indicators of trade with early Near Eastern states, found at Çukuriçi Höyük. For analytical reasons, these scales are determined geographically, which vaguely corresponds to a recent scale classification defined by stone tool specialists.¹³⁷⁷ However, in terms of social relations, we can distinguish between three different forms of interactions corresponding to the geographic scales: 1) overall face-to-face relations on-site, between dwellers at the site on a local scale; 2) limited regional face-to-face interaction, confined to a few persons on a regional scale; and 3) even more restricted face-to-face interaction on a supra-regional scale, in which groups may not come into any direct contact but may acquire goods from far away through down-the-line trade and, most likely, through intermediaries such as merchants.

Questions such as what things were *given* between close partners, *bartered* between strangers, and necessarily *kept* within households for reproduction, and what kind of social relations can be inferred from those transactions or transmission practices at the dawn of EBA 1 in the Aegean basin, will guide the current analysis. If, and how, did the emergence of early states in the Near East influence smaller societies on the fringes of Aegean basin at the time when an ‘*Age of Accountancy and Metrology* had started’?¹³⁷⁸

VII.2. The Local, On-Site Exchange at Çukuriçi Höyük

In this chapter, sharing between households at Çukuriçi Höyük is addressed through zooarchaeological data. This section shows that households at Çukuriçi Höyük shared the meat of large animals, such as beef and venison through generalized reciprocity, through which members could reinforce kinship and other social ties with other members at the site. Based on this outcome, it could be concluded that households at Çukuriçi Höyük may have been equal to each other not only in terms of metalworking as a ubiquitous domestic craft but also in terms of food consumption and access to meat from large animals such as cattle. As the second part of this section highlights, there is no reason that such ‘egalitarian’ social relations were also maintained within households. In this case, I draw from a detailed description of the Telefomin, a great man society in Papua New Guinea, where differences in diet between men and women were enormous. Applying this insight to the archaeological record indicating equal, *generalized reciprocity* of meat at Çukuriçi Höyük, it remains important to highlight that enormous inequalities regarding meat consumption may have existed during the Early Bronze Age at Çukuriçi Höyük.

Drawing on the analysis in previous chapters, Çukuriçi Höyük can be understood as a face-to-face village community, comprising no more than about 400 members, who within a wider region of western Anatolia specialized in arsenic copper production. I have already argued in Chapter IV that these metalworking craftspersons of a *generalized craft integration* type were, at the same time, farmers and artisans, possibly both male and female. This implies that metalworking, like farming, was an integral part of the DMP during the EBA at the site. In the absence of a central – let alone monumental – building, metal was produced within homes scattered across the site. Metalworking was not detached from, but was integrated into

¹³⁷⁷ Kandel et al. 2016; Schwall et al. 2020.

¹³⁷⁸ Rahmstorf 2016, 258.

other everyday practices. Most likely this unfolded on a seasonal, part-time basis, and only some minor differentiation between households could be observed regarding metal production and consumption at Çukuriçi Höyük. For the discussion of on-site economic activities, in this section I focus on the consumption of meat. In non-state societies meat was necessary for a group's reproduction, but was also an important indicator of distinction, possibly linked to conspicuous consumption or *haute cuisine*.¹³⁷⁹ Below, I will discuss whether and to what degree food, in particular meat, was shared between households at the site.

For an understanding of meat-sharing practices at Çukuriçi Höyük, I draw on the analysis of animal bones.¹³⁸⁰ According to Emra,¹³⁸¹ two distinct EBA archaeological phases at Çukuriçi Höyük – Phase IV and Phase III – showed remarkably similar statistical results when compared to each other. A total number of identified specimens (NISP) of 20,609 at Çukuriçi Höyük comprises the assemblage, which is rich in molluscs, domestic animals, and game. More than 50% of the NISP are molluscs, which provided less calorie intake than mammals. Among identified mammals, caprines are best represented in the NISP (64.2%), followed by cattle (13.3%), deer (12.6%), and domestic pig (4.5%). Among caprines, goats outnumber sheep in a ratio of 10:16 (sheep: n=152, goats: n=243).¹³⁸²

Comparative analyses of animal bones recovered from different rooms point to an intriguing conclusion for Çukuriçi Höyük: there is no significant statistical difference in the proportion of species between samples from different rooms, or between the overall assemblage from Phase IV to Phase III.¹³⁸³ Based on these analyses, none of the households could be identified as 'elite' households or households differentiated from others in terms of their conspicuous consumption of beef, pork, mutton, seafood, or venison, although room 43 provided a larger proportion of venison in comparison to other rooms. Culling profiles analysed in different rooms, including room 53 discussed below, and the overall patterns of butchering also seem to resemble each other. Most of the caprines at Çukuriçi Höyük were slaughtered between the ages of 2–6 months (approximately 35%), a significant proportion between 1–2 years of age (approximately 30%), and a negligible proportion at 0–2 months of age (approximately 12%), while less than a quarter of all domestic animals were slaughtered above 2 years of age (approximately 24%) (see Figs. 32 and 33). This implies that caprines at Çukuriçi Höyük were mainly killed for meat, and that the carcasses were butchered on-site, as all animal bones (including skulls and hoofs) were largely preserved on-site. The small size of caprines slaughtered at a young age indicates an established household-based meat consumption of roughly 6–10 people.¹³⁸⁴ Although a preference for tender meat-age among individuals is commonly understood with elite foods within zooarchaeology, Emra showed that slaughtering young animals was a by-product of a household-based consumption and herd management strategy, shared across the settlement. This practice of domestic animal slaughter overlaps with the 'Meat Type A' profile, which 'could correspond to domestic consumption, at the level of the family or 'household''.¹³⁸⁵

The record does not support the intensification of the local production of caprines, kept until old age, as an indicator of a family's status or competition between households, such as in the case of Melanesian big man societies. Competitive big man societies of Melanesia slaughtered older pigs in a communal ceremonial setting and tended not to slaughter younger pigs, to increase household wealth. This was practised to such an extent that ethnographers reported protein deficiency among big man groups. By contrast, the record of meat consumption

¹³⁷⁹ Goody 2000; Goody 2006.

¹³⁸⁰ The analysis of EBA animal bones was conducted by my Doc-team colleague, Stephanie Emra.

¹³⁸¹ St. Emra, pers. comm. 2019.

¹³⁸² Emra et al. 2020.

¹³⁸³ Emra et al. 2020.

¹³⁸⁴ After Halstead 2007, 28; Emra et al. 2020.

¹³⁸⁵ Helmer et al. 2007, 49.

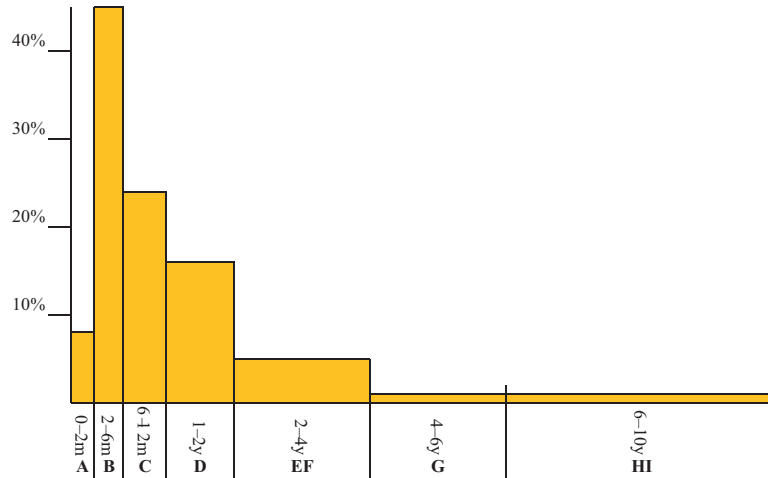


Fig. 32 Total caprine culling profile of EBA Çukuriçi Höyük MNI=34 (S. Emra)

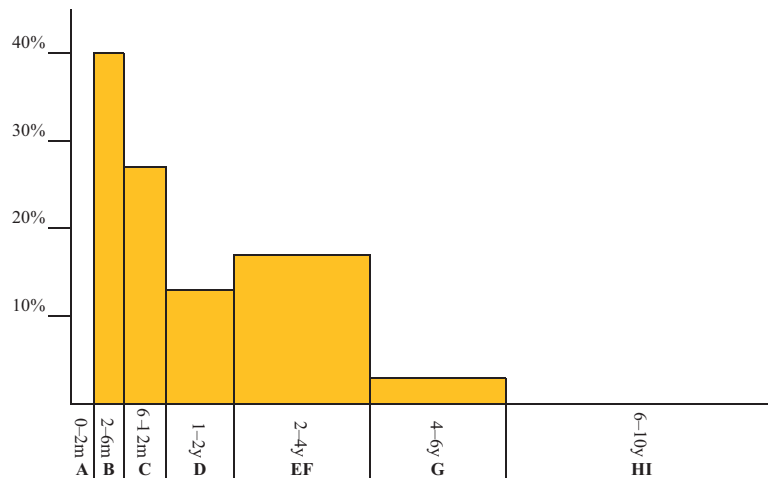


Fig. 33 Culling profile of Room 53, MNI=8 (after Emra et al. 2020)

at Çukuriçi Höyük resembles the practice reported among the Baruya, who distinguished two types of slaughter: *household slaughtering* for household consumption and the *communal ceremonial slaughtering* of pigs,¹³⁸⁶ without any intentional aging of animals. The fact that sheep were not commonly kept until old age at Çukuriçi Höyük implies that wool or woollen products at the site must have been acquired from elsewhere and not produced locally, which was also confirmed through analysis of textile technologies.¹³⁸⁷ This could establish a possible sphere for regional exchange.

Households at Çukuriçi Höyük were, however, not entirely dependent on the consumption of domestic animals: they also consumed game.¹³⁸⁸ According to zooarchaeological analysis, the remains of meaty bones, as well as antlers and hoofs, were also more or less homogeneously distributed throughout the site (see Fig. 34). Nevertheless, room 43 provided a larger assemblage of venison in comparison to other rooms, where its consumption was rather minimal.

¹³⁸⁶ Godelier 1986a.

¹³⁸⁷ Britsch 2018.

¹³⁸⁸ Emra et al. 2020.

Although room 43 appears to differ from other rooms in terms of venison consumption, neither its architecture nor its internal arrangements differ from the others. Within room 43 a central, superimposed hearth was found in two different use horizons. Close to the central hearth, metal objects were found (a needle, awl, metal fragment, and a wire), pointing towards metal production at the centre of the room. In the southwestern corner, another hearth was found in close proximity to a spindle whorl, which points towards textile production. In the northeastern corner of room 43, loom weights and a spindle whorl were found, again pointing towards textile production.¹³⁸⁹ In proximity to the hearths, tripod cooking pots were also found and most of the pottery finds consist of shallow bowls. Therefore, room 43 was interpreted as a multifunctional room with evidence for cooking (oven 48 and the shell pit), metal production (central ovens and metal objects) as well as textile production in the northeastern part of the room.¹³⁹⁰

Importantly, the higher amount of venison in room 43 does not overlap with differentiated architecture, which was observed for room 18. Room 18 was the only room with antae (the elongated front walls of the room) documented at Çukuriçi Höyük, which also provided evidence for metal and textile working as well as food preparation and consumption.¹³⁹¹ This result further supports a rather heterarchical organization at Çukuriçi Höyük, in which the successful hunter's household might have enjoyed more venison than other households, yet the hunter's success did not translate into other spheres (e.g. architecture, internal organization of the room), which could provide further evidence of on-site hereditary differentiation between households at Çukuriçi Höyük. This evidence corresponds to Maurice Godelier's concept of a 'great hunter' – based on talent and meritocracy – ethnographically observed among great man societies, rather than a redistributive economy and the seat of a chief.

Moreover, dwellers at Çukuriçi Höyük were not only prone to consuming hunted animals. They also transformed wild animal bones into useful bone tools, albeit in small numbers, and kept unworked antlers within houses, which was interpreted as being linked to ritual events.¹³⁹² According to anthropological literature, keeping antlers and other wild animal items could also signify hunters' special powers and, possibly, a sort of dominance of men over women. Given the deciduous nature of antlers,¹³⁹³ the latter could have been collected already shed and therefore not only display a hunter's success but also have a closer association with ritual practices or gender relations rather than solely social hunting ritual.

By referring to wider anthropological interpretations of domestic economies, we can derive further insights about on-site consumption at Çukuriçi Höyük. Firstly, let us examine the 'homogeneous assemblage' of animal consumption indicators on-site. On the one hand, this record indicates that stocks of animals were most likely owned by households, as well as butchered, prepared, and consumed on a household level. On the other hand, this implies that the meat of larger animals, which cannot be immediately consumed within a household (such as beef and venison) was necessarily shared between households on-site. Excessive amounts of cattle or deer remains, however, were not identified in any particular room. This could be due to established sharing between households, following a *generalized reciprocity* principle, which 'refers to transactions that are putatively altruistic, the transaction on the line of assistance given and, if possible and necessary, assistance returned', or what Malinowski called a *free gift*.¹³⁹⁴ Usually, this type of 'voluntary food-sharing among near kinsmen'¹³⁹⁵ can be observed within a hunter-gatherer camp or between households among more or less

¹³⁸⁹ Britsch 2018.

¹³⁹⁰ M. Röcklinger, pers. comm. 2019.

¹³⁹¹ Horejs et al. 2017.

¹³⁹² Horejs – Galik 2016.

¹³⁹³ Deer grow new antlers each spring and drop them in the autumn.

¹³⁹⁴ Sahlins 1972, 193–194.

¹³⁹⁵ Sahlins 1972, 194.

sedentary societies. *Sharing* between members of a camp or the same household creates a feeling of indebtedness with the receiver; however, the need for return is never implied, but is socially inscribed. The assemblage at Çukuriçi Höyük therefore implies with some certainty that the *generalized reciprocity* of hunted game, e.g. sharing venison, raising large domestic animals and sharing their meat, was established between households – most likely between close relatives.

As Sahlins noted, *generalized reciprocity* or *pure gift* was not limited to the ‘egalitarian’ hunter-gatherers, but was also common among big man societies such as the Siuai, as well as the Tikopia and Trobriand chiefdoms, since ‘chiefly redistribution is not different in principle from kinship-rank reciprocity’.¹³⁹⁶ For example, Malinowski understood from the Kiriwinans that *urigubu*¹³⁹⁷ refers to three things: i) a marriage gift (from a husband to his sister’s husband), ii) a piece of land cultivated for *urigubu*, and iii) a piece of land cultivated for tribute to a chief, who is not necessarily a kinsman. In this case *urigubu* was one of the potential socially inscribed practices of *generalized reciprocity*, reflected in social and material terms, including the organization of land.

Among Trobriand Islanders, *urigubu* was the annual practice of distributing yams as gifts after the harvest. Yams were given from a husband to his sister’s husband as a gift, based on local rules of matrilineality. *Urigubu* created a chain network of horizontal one-sided gift-giving, as each family (a wife, husband, and children) gifted a portion of their surplus in tubers to the husband’s sister’s household after every harvest. While not being given anything in return from the yam-receiving household, the yam-giving household in turn received a number of yams from the wife’s brother. Although the number of yams given could vary, persons were morally obliged to give as many yams as possible. Trobriand chiefs accumulated their wealth through *urigubu*, as polygamous marriage was permitted for chiefs, who thus accumulated a considerably larger number of tubers through *urigubu* (from several wives’ brothers) than anyone else in the village or on the island. The practice of *urigubu* was based on the principle of matrilineal descent, yet dwellers at Çukuriçi Höyük were most likely not organized in matrilineal descent groups, as has already been discussed in Chapter III. Transactions such as *urigubu* using either domestic or wild animals do not seem to point to the existence of elite or chiefly dwellings at the site, since there were no rooms in which evidence of excess animal food or game – either stored (e.g. dried and salted meat) or consumed – was found. This also indicates a lack of *haute cuisine* at Çukuriçi Höyük. What, then, could be another possible explanation for dwellers at Çukuriçi Höyük sharing food beyond a household and the neighbourhood?

According to a comparative cross-cultural sample, food sharing among societies based on a subsistence economy is a cultural universal, but may vary considerably with the degree of environmental stress.¹³⁹⁸ Firstly, the comparative analyses of these economies have shown that households facing a major environmental catastrophe tend to pool resources within the household, rather than sharing them beyond the household.¹³⁹⁹ This does not apply to Çukuriçi Höyük, as the pooling of goods solely within the household would necessarily result in the unequal distribution of game and large domestic animals across different households at the site, which was not observed. Secondly, the same study also argued that medium variability in food between households, in the absence of environmental stress, appears to be common,¹⁴⁰⁰ which, again, is not applicable to Çukuriçi Höyük. This may also indicate that environmental stress was not the reason for the abandonment of this site at the end of EBA 1. Thirdly, the cross-

¹³⁹⁶ Sahlins 1972, 209.

¹³⁹⁷ Malinowski 1935.

¹³⁹⁸ Ember et al. 2018.

¹³⁹⁹ Ember et al. 2018.

¹⁴⁰⁰ Ember et al. 2018.

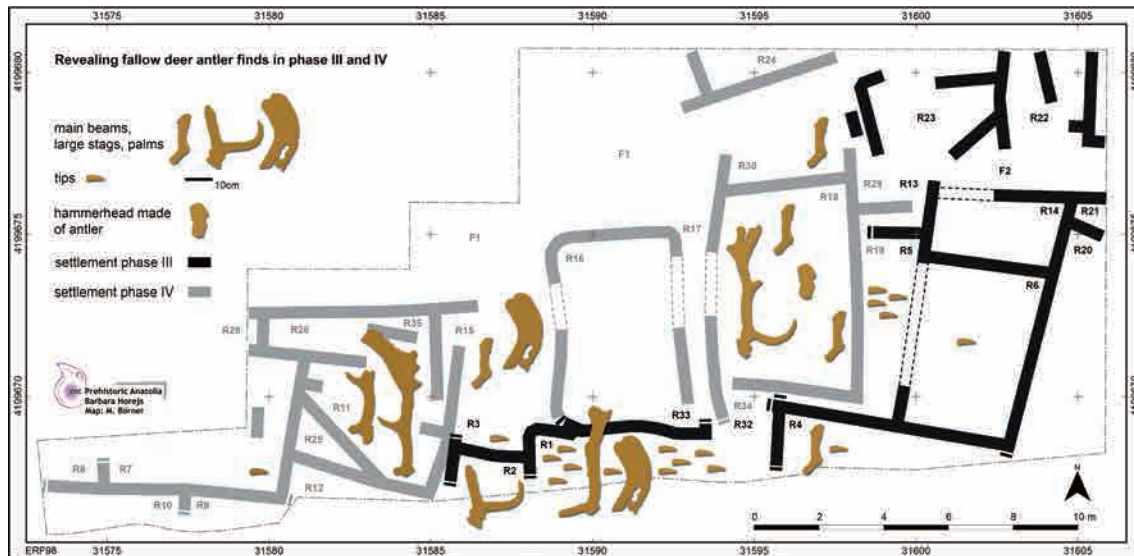


Fig. 34 Distribution of unworked deer antlers and a hammer made from an antler at Çukuriçi Höyük (Horejs – Galik 2016, pl. XCVIIIa)

cultural sample suggested that the largely homogeneous distribution of food (indicating an established practice of food sharing between households, such as was observed for Çukuriçi Höyük) is more common among societies in which frequent but non-hazardous environmental stress is common.¹⁴⁰¹ Scholars have previously argued that recurrent seasonal droughts must have also been common in prehistory within the Mediterranean basin,¹⁴⁰² which could then be understood as one among several possible motivations for the established, long-term practice of food sharing between households at Çukuriçi Höyük.

On the one hand, the homogeneous record of food sharing between households at Çukuriçi Höyük may indicate the occurrence of frequent yet non-hazardous environmental stress at the site during the EBA. On the other hand, environmental stress cannot be assumed to be the main and only reason for food sharing between households at Çukuriçi Höyük. Instead, the assemblage indicates that dwellers at Çukuriçi Höyük formed overlapping and cross-cutting networks of long-lasting social ties on a local scale, between households in the same village. The evidence shows that they practised *generalized reciprocity* (based on mutual agreement, e.g. ‘we give whenever we have – you give whenever you have’) of big game and large domestic animals, such as deer and cattle, though repetitive processes of gift-giving, a period of indebtedness, and reciprocity. These practices occurred both within and between households. Food sharing at Çukuriçi Höyük was most likely of high moral value, and did not result in the accumulation of wealth within a particular household. However, antlers were generally kept and possibly displayed within rooms (see Fig. 34), which may signify an inalienable trophy or token of ‘a great hunter’. Moreover, these items could also indicate differences between junior and senior and male and female members of a household. Yet, if food sharing between households at Çukuriçi Höyük was a norm during the EBA, what can be said about food sharing within households?

An archaeologically less visible but important point of departure for the analysis of the diet of dwellers at Çukuriçi Höyük concerns the possible variability of consumption within households. Numerous ethnographic cases report differentiated consumption practices according

¹⁴⁰¹ Ember et al. 2018.

¹⁴⁰² Halstead 1995.

Telefolmin A type of great man society in highlands Papua New Guinea						
	Young women (uninitiated)	Adult women (initiated, married)	Old women (initiated, married or widowed)	Young men (uninitiated)	Adult men (initiated, married)	Old men (initiated, married or widowed)
Cassowaries				x	x	x
Wild pigs					x	x
Terrestrial cuscus						x
Most marsupials	x	x	x	x		
Domestic pork						
Pandanus						x
Red yams					x	x
White yams			x			
Red bananas					x	x
Other types of bananas	x	x	x		x	x
Sugar cane						
Tobacco					x	x

Tab. 21 Differentiated consumption of game, domestic pork, and some vegetables among the Telefolmin (after Jorgensen 1991, 264–265)

to the season, but also between seniors, adult men or women, and children.¹⁴⁰³ Food taboos also appear to be common among most sedentary tribal societies, regardless of political (de) centralization.¹⁴⁰⁴ One example are the Telefolmin, a highland Papua New Guinean great man society, where the greatness of men was emphasized through initiation and warfare, but also gardening and hunting.¹⁴⁰⁵ Among the Telefolmin, the distribution of game depended on taboos associated with their consumption. All women, regardless of their age, were prohibited from consuming cassowaries and wild pigs, as well as all types of red vegetables and fruits (see Tab. 21). Rights to hunting were restricted to men due to local beliefs that menstrual pollution would cause the inability to see game if women were to participate in the hunt.¹⁴⁰⁶ Differences in food taboos were established among the Telefolmin along two lines: gender (male/female) and age set (young/adult/old), which corresponded to other life events such as initiation and marriage.

Due to the limitations of the available archaeological data, the actual differences in consumption within households at Çukuriçi Höyük cannot be analysed. However, statistically homogeneous on-site consumption of meat between households certainly generates biased results when compared to the ethnographic literature, which has shown that differences within households are universally present among most sedentary, non-state tribal groups. For this reason, inequalities of meat or vegetable consumption within the household, linked to local taboos, should remain a serious possibility for Çukuriçi Höyük at the dawn of the Bronze Age, when sharing between households was morally implied. Yet, in this regard, the archaeological

¹⁴⁰³ Godelier 1986a; Jorgensen 1991.

¹⁴⁰⁴ Leach 1976.

¹⁴⁰⁵ Jorgensen 1991, 264.

¹⁴⁰⁶ Jorgensen 1991, 264.

data may blur an understanding of certain inequalities regarding food consumption within each household at the site. Although the inequalities of food consumption within households cannot be addressed through zooarchaeological methods, it would be possible to look at this through isotopic analyses,¹⁴⁰⁷ which, due to the lack of human bones at Çukuriçi Höyük, is currently not possible.

VII.3. Regional Exchange in Western Anatolia

To better understand the off-site, regional system of exchange in EBA 1 western Anatolia, this section focuses on obsidian, which, due to its volcanic origin, is limited to a few sites within the Aegean basin and is therefore one of the best indicators of regional trade (see Fig. 35). This multi-purpose volcanic glass, used for the production of stone tools and weapons, was necessary for the group's reproduction. It is the best attested material exchanged over long distances across the Aegean basin between the Palaeolithic and the Bronze Age. Obsidian from the Cycladic island of Melos was recovered in high quantities from the EBA settlement of Çukuriçi Höyük. At this site, 60–70% of stone tools were made from Melian obsidian, which is also the best represented source of obsidian at Çukuriçi Höyük throughout its history, from the Neolithic to the EBA.¹⁴⁰⁸ This is of particular importance, since the 151km² Cycladic island of Melos is located approximately 280km west of Çukuriçi Höyük. In comparison, obsidian from Gyalı, located on a small island of that name approximately 80km south of Çukuriçi Höyük, was marginally (two pieces) attested at Çukuriçi Höyük.¹⁴⁰⁹ The record does not suggest that Çukuriçi Höyük was a Gyalı outlier: most of the obsidian used within the Aegean basin throughout prehistory in fact originated from two different sources at Melos,¹⁴¹⁰ whereas Gyalı obsidian was not widely attested.¹⁴¹¹ This was also the case for other coastal EBA western Anatolian sites, such as Bakla Tepe,¹⁴¹² Liman Tepe,¹⁴¹³ and Troy.¹⁴¹⁴ Explanations for such a dissemination are often confined to the physical qualities of sources: scholars argued that the obsidian from Gyalı was not pure – and therefore not of sufficient quality for the production of obsidian tools – whereas Melian obsidian was.¹⁴¹⁵

¹⁴⁰⁷ Human and animal bone remains were recently studied through the isotope analyses of carbon ($\delta^{13}\text{C}$), nitrogen ($\delta^{15}\text{N}$), and sulphur ($\delta^{34}\text{S}$) in bone collagen from over 200 individuals from Early Bronze Age layers in Anatolia (Irvine et al. 2019). However, this study does not take into the account the possibility that dwellers could have maintained a different diet despite the fact that they were born and grew up in a similar environment. Instead, different ratios of carbon ($\delta^{13}\text{C}$), nitrogen ($\delta^{15}\text{N}$), or sulphur ($\delta^{34}\text{S}$) are taken solely as markers of the different origins of the individuals examined and as the only possible explanation. The samples from these individuals are only compared to site averages rather than gendered or age ratios, which, I suggest here, is needed, since both gender and age may significantly influence dietary practices in non-state societies. For example: 'There are two individuals (both female) with clear outlying $\delta^{34}\text{S}$ values; one from Bademağacı, and one from Bakla Tepe. The female from Bademağacı has a $\delta^{34}\text{S}$ value of 11.9‰ which is 3.1‰ greater than the site average. The local range of $\delta^{34}\text{S}$ at the site has been estimated to be ca. 7–9‰ using the site mean and faunal values which plot close to the human mean values. This suggests that *she came from a region either closer to the coast, or one with sulphur enriched geology* (Vika, 2009). The female from Bakla Tepe has a $\delta^{34}\text{S}$ value of 7.4‰ which is 3.4‰ lower than the site average, suggesting a *potential origin further inland or from a sulphur depleted geological region* (Nehlich, 2015)' (Irvine et al. 2019, 261, emphasis mine).

¹⁴⁰⁸ Knitter et al. 2012; Knitter et al. 2013.

¹⁴⁰⁹ Milić 2018.

¹⁴¹⁰ Georgiadis 2008; Bergner et al. 2009.

¹⁴¹¹ Bergner et al. 2009.

¹⁴¹² Kolankaya-Bostancı 2016.

¹⁴¹³ Kolankaya-Bostancı 2016.

¹⁴¹⁴ Gatsov – Nedelcheva 2016.

¹⁴¹⁵ Matzanas 2000, 2; Georgiadis 2008.

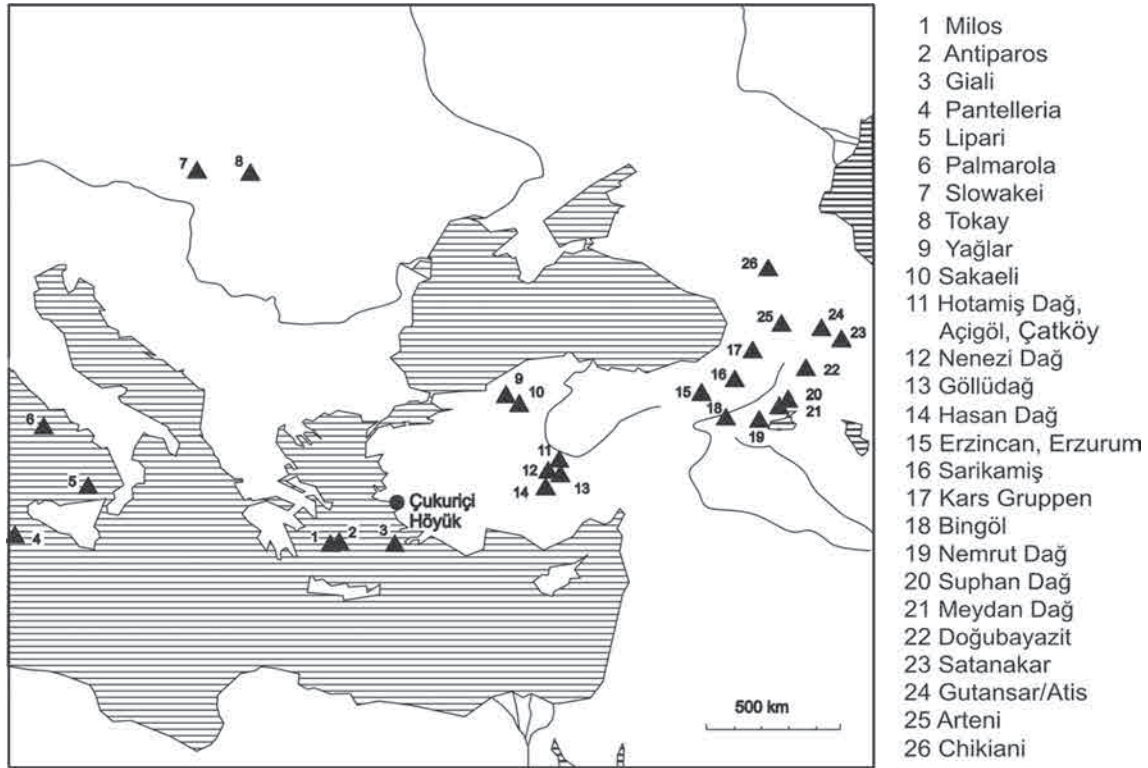


Fig. 35 Sources of obsidian within the eastern Mediterranean region (Bergner et al. 2009, Abb. 3)

In this section, the argument supports the contention that within the east Aegean and western Anatolian EBA 1 ‘cultural koine’, the evidence based on obsidian also supports the varying involvement of sites in the regional exchange of obsidian. Therefore, it remains important to stress the fact that households at these sites were also involved in the exchange of obsidian to different degrees. This section contextualizes the evidence relating to three different obsidian sources: Gyalı obsidian, Melian obsidian, and central Anatolian obsidian. Based on the insights into the distribution of Gyalı obsidian, it can be concluded that neither of these sites played a significant role in the exchange or procurement of Gyalı obsidian. Whilst this relates to the most localized resource among the three, proximity to obsidian sources was not a main criterion. Moreover, most of the other nearby regional EBA 1 sites in this ‘cultural koine’ relied on the Aegean obsidian exchange. However, their involvement in these exchanges varies starkly. During the EBA 1 period, Melian obsidian underwent a major transformation from a precious good to a prestige one. This transformation can be seen from other island sites within the koine, yet cannot be proven for Çukuriçi Höyük, where households shared access to obsidian across the site. The third and most significant piece of evidence that distinguishes Çukuriçi Höyük from other regional sites is the small amount of central Anatolian obsidian. Whereas at other regional sites such as Liman Tepe, Bakla Tepe, and Troy, central Anatolian obsidian was widely attested, this was not the case at Çukuriçi Höyük. This indicates that compared to other sites, Çukuriçi Höyük was more dependent on only one source of obsidian, the Melian obsidian. By contrast, other sites were already involved in multiple exchange networks of obsidian, in particular from the east in central Anatolia, complementing the Melian objects. In my conclusion, this is one of the main distinguishing features between Çukuriçi Höyük and other regional sites, and is a factor in the other regional sites’ longevity compared to the abandonment of Çukuriçi Höyük after the EBA 1 period. If households at other sites opened up towards the east, members of Çukuriçi Höyük households did not. But that only applies for obsidian, since evidence for trading with Near Eastern sites exists at Çukuriçi Höyük and will be discussed in the final section of this chapter.

A recent comparison between the wide distribution of Melian obsidian in contrast to the limited distribution of obsidian from Gyali in the Aegean basin offered an alternative interpretation beyond the physical characteristics of the two volcanic stone sources. Gyali resources, located on a small island with a surface area of 6km², could be easily defended by a local community, and therefore direct procurement of this obsidian was unlikely. By contrast, obsidian resources at Melos, an island with an area of 150km², was harder to defend. Therefore, for most of the Neolithic and until the beginning of the Bronze Age, obsidian sources at Melos were uncontrolled, and were more likely to be accessed by several non-local groups.¹⁴¹⁶ If this was the case, then what social relations between trading groups can be inferred from the assemblage at Çukuriçi Höyük?

Firstly, we can make several inferences based on the regional distribution of Melian obsidian in coastal and hinterland western Anatolia. Çukuriçi Höyük has already been identified as one of the *gateway communities* of the Melian obsidian trade. At this site, 60–70% of all stone tools recovered from Late Chalcolithic and EBA deposits were made of Melian obsidian, whereas the percentage declined at other contemporaneous, hinterland western Anatolian sites (e.g. Aphrodisias and Beycesultan).¹⁴¹⁷ At Bakla Tepe, obsidian first appears in Late Chalcolithic layers, most of it originating from Melos, whereas some pieces recovered originated from central Anatolian¹⁴¹⁸ sources at Göllüdağ.¹⁴¹⁹ However, at Bakla Tepe and Liman Tepe, unlike at Çukuriçi Höyük, flint stone tools predominated within the Late Chalcolithic and EBA 1 archaeological layers.¹⁴²⁰ At Bakla Tepe, less Melian than central Anatolian obsidian was found in the Late Chalcolithic layers, whereas the ratio of Melian obsidian compared to central Anatolian obsidian increased steadily during EBA 1. Authors have argued that, ‘It seems that in the wider Izmir region, central Anatolian obsidian was imported more in the Neolithic and Chalcolithic phases and less in the Early Bronze Age, but during the Early Bronze II period there was a sharp increase in central Anatolian obsidian again.’¹⁴²¹

The assemblage from Çukuriçi, however, does not support this claim, and indicates that even within the Izmir region, the level of embeddedness of different sites within obsidian exchange networks differed between sites during the Late Chalcolithic as well as the EBA. Çukuriçi Höyük, unlike other sites in the Izmir region, relied heavily on Melian sources during the Late Chalcolithic and EBA 1, whereas at Late Chalcolithic and EBA 2 Bakla Tepe, more central Anatolian than Melian obsidian was found. This implies that, in contrast to other sites, dwellers at Çukuriçi Höyük maintained special relations with the Cycladic island of Melos, be that direct or indirect, throughout the Late Chalcolithic and EBA 1 period.

Within the Aegean basin, proximal point analyses¹⁴²² suggest two possible maritime routes linking western Anatolia (Izmir region) with Melos.¹⁴²³ Due to an absence of sailboats before 2500 BC, Broodbank proposed that voyagers with rowing boats could travel distances of up to 20km per day, and therefore the two routes, inferred from the geographical proximity of the islands between Melos and the western Anatolian coast, are the most probable ones.¹⁴²⁴ Although the direct procurement of Melian obsidian remains an option, it appears more likely

¹⁴¹⁶ Georgiadis 2008.

¹⁴¹⁷ Knitter et al. 2012; Knitter et al. 2013.

¹⁴¹⁸ Central Anatolian obsidian can be interchangeably referred to as Cappadocian obsidian due to its provenance close to the modern town of Cappadocia.

¹⁴¹⁹ Kolankaya-Bostancı 2016.

¹⁴²⁰ Kolankaya-Bostancı 2016.

¹⁴²¹ Kolankaya-Bostancı 2016, 369.

¹⁴²² Proximal point analyses within the Aegean basin assigned the Cycladic Islands as nodes and the shortest distances between them as edges. This kind of analysis is based only on geographical proximity, and serves as a possible model for discussing the archaeological distribution of obsidian.

¹⁴²³ Agouridis 1997 in Broodbank 2000.

¹⁴²⁴ Broodbank 2000.

that trade of Melian obsidian during the EBA ‘was probably carried out by intermediaries, possibly through a systematic regular exchange network, rather than involving direct procurement from sources’.¹⁴²⁵ Given that the main point of interest here is not the precise models to explain the exchange of Melian obsidian but an understanding of social relations between dwellers at Çukuriçi Höyük and other regional communities, I will discuss further the type of regional transactions in which obsidian was involved.

Anthropological Contextualization of Obsidian Exchange

Like any other material or object transacted on a regional scale, obsidian cannot be understood as a *one-way transaction* if inspected through the lens of anthropological knowledge of regional inter-group transactions.¹⁴²⁶ Instead, it can only be understood through (minimally) *two-way* (though not necessarily symmetrical) *transactions*, including simultaneous reverse processes – be that gift or barter exchange of obsidian for another good. A similar factor was proposed by Goody for the exchange of early metals. He observed that ‘one of the difficulties with discussions of ‘exchange’ is that they often neglect this reverse process, but even the content of the transaction in favour of an abstraction privileging a notional symmetry, as suggested by Marcel Mauss.’¹⁴²⁷

Therefore, before proceeding to an analysis of the regional implications of obsidian exchange at Çukuriçi Höyük, I propose that the exchange of obsidian cannot be understood through an analytical analysis of obsidian on its own. Instead, it must be understood as part of a broader range of potential ‘exchange goods’, which may or may not have included key features of ‘primitive money’ as a more or less generalized means of exchange, due to its limited but enduring distribution as a highly desirable material across the prehistoric Aegean basin.

I do not agree with the argument that ‘the distribution of obsidian in western Anatolia indicates an interaction and procurement system like the other archaeological items, particularly pottery and metal’.¹⁴²⁸ At Çukuriçi Höyük, for example, copper/arsenical copper production¹⁴²⁹ and pottery¹⁴³⁰ were produced in situ from locally available raw materials, indicating less off-site connectivity and dependence on other sites. The reverse is true for obsidian. At Çukuriçi Höyük this was not available locally, and therefore dwellers at this site necessarily relied on supplies of raw or finished obsidian material from afar, either by procurement or exchange, implying a stronger dependence on regional economies. We can therefore draw an important analytical distinction between metal and pottery on the one hand, and the obsidian exchange at Çukuriçi Höyük on the other. In this case, obsidian should be considered as a non-local material acquired through down-the-line or long-distance exchange, in contrast to metals and pottery, which at Çukuriçi Höyük were produced from local sources in situ. Therefore, the exchange of obsidian through interaction and procurement systems cannot be regarded as analogous with metals and pottery at western Anatolian sites. Unlike pottery and metals (in particular arsenical copper) that could be produced locally at various sites, obsidian is geographically much more limited and therefore destined to follow different procurement strategies than pottery and metals.

The fact must be taken into account that by the beginning of the Bronze Age at Çukuriçi Höyük and other sites in the wider region, metal tools and weapons had not yet replaced the stone, bone, and wooden tools. Obsidian thus continued to be a necessary and highly desirable

¹⁴²⁵ Kolankaya-Bostancı 2016, 371.

¹⁴²⁶ Polanyi 1944; Sahlins 1972; Appadurai 1986; Mauss 2006 [1915].

¹⁴²⁷ Goody 2012, 7.

¹⁴²⁸ Kolankaya-Bostancı 2016, 231.

¹⁴²⁹ Mehofer 2014; Mehofer 2016.

¹⁴³⁰ Peloschek 2017.

material during the EBA.¹⁴³¹ Whether obsidian was treated as a prestige good during EBA 1 is questionable. Here, however, I argue that its distant origin (approximately 280km from Çukuriçi Höyük) and the reduced need for reproduction (obsidian is more durable than either copper or bone tools) qualify it to be classified – in some cases at least – as a prestige good. Moreover, it was certainly a *precious raw/finished material*. This argument can be supported with evidence from other regional sites, since the presence of Melian obsidian increased in the subsequent EBA 2 period at Bakla Tepe and Liman Tepe, whereas Çukuriçi Höyük was abandoned at the end of the EBA 1 period. Though a group of merchants from Çukuriçi Höyük could have travelled to Melos to procure the obsidian – which was technologically and geographically possible – it is more likely that dwellers at Çukuriçi Höyük relied on other groups to obtain obsidian, for which they needed to reciprocate in kind or services, i.e. in a *balanced or negative reciprocity* type of social relation.¹⁴³²

Although the inference of services remains challenging based on the available archaeological record, there is ample evidence that within the regional setting, dwellers at Çukuriçi Höyük possessed skills and items that could be exchanged for Melian obsidian. At Çukuriçi Höyük, these were copper objects made by specialized metalworkers – a skill that remained limited at other sites. Generalized village specialization in metalworking was a particularity of Çukuriçi Höyük, hence locally produced metal tools and weapons could be exchanged for obsidian from afar.

At least for Çukuriçi Höyük, the obsidian exchange does not resemble the *kula* network type of reciprocal gift-giving exchange through regional circles between chiefs in the Trobriand Islands.¹⁴³³ Firstly, objects exchanged within the Aegean basin were not exclusively non-utilitarian prestige goods (such as bracelets or necklaces within the *kula*) but were objects simultaneously necessary for everyday life, being, in fact, vital for the procurement of material conditions. Secondly, the distribution of either obsidian or metal objects was not limited to a particular room, but was scattered across the settlement. This stands in clear contrast to the distribution of *kula* valuables, which were limited to the chief's group. It appears that at Çukuriçi Höyük, households could exchange goods independently from any central authority, such as a chief (within *kula*, only chiefs could publicly wear exchanged prestige objects). Thirdly, unlike the established differences in the storage of food (the lion's share being owned by the Trobriand chief), local differences between households – linked to conspicuous consumption of meat or game as well as storage – were not confirmed at Çukuriçi Höyük: therefore, a central chiefly figure cannot be confirmed from the available archaeological record. Instead, the system of exchange at Çukuriçi Höyük resembles the long-distance trade network of stone adzes between the islands of Western Melanesia, documented at the beginning of the previous century:

‘Before the white men came to British New Guinea, stone adze blades were taken to the Gulf as articles of trade. The Motu got them from Koiari, and the Koiari are said to have got them from people further inland, and these from somebody else, but nobody here knows where they came from originally. The value of a large stone adze was equal to the value of a large toia. The Motu people have an amusing tradition of the origin of stone adzes. They say that only certain men among the tribe from whence they came were able

¹⁴³¹ Knitter et al. 2012, 362.

¹⁴³² Sahlins 1972, 194–196.

¹⁴³³ To some of my colleagues within socio-cultural anthropology, this might come as a surprise. During my participation at a PhD seminar at the University of Vienna's Socio-cultural Anthropology Department, my colleagues commonly regarded the long-distance redistribution of obsidian as of necessity being a *kula* type of transaction, linked with supra-regional trade and prestige. Among this audience, the *kula* type may be the most well-known type of such transactions, though it is not the only possibility for the wide distribution of ecologically circumscribed materials or objects.

to procure the adze blades. The way they procured them was by wading in the streams with a hand-net like a bushman's fishing-net. The stone adzes, ready-made, swam like fish, and they caught them in their nets. The Motu say that they have heard that it was easy to know a helaga stone adze catcher, because his legs were always covered with scars inflicted by the stone adzes when these were trying to evade the net.¹⁴³⁴

Amusing as the Motu story may be, it confirms the likelihood that the Motu did not need to travel to acquire green stone adzes. Instead, finished goods reached them through Gulf and Waima traders with whom the Motu needed to exchange a large *toia* – a valuable ornament – that served as primitive money between Melanesian islands. For example, Seligman reported that for a good canoe one would need to exchange 3–4 *toias*, whereas for a dugout it was two *toias*.¹⁴³⁵ Although the green stone adzes were not a marker of rank or status in the Melanesian islands, which was the case for ceremonial *kula* exchanges, adzes nevertheless travelled over long distances, without central chiefly control of the trade. The ratio between a *toia* and an adze being 1:1 implies that for the Motu both the non-utilitarian ornament and the utilitarian adze were equally desirable items. Drawing on this insight, it can be implied that during EBA 1, Aegean basin obsidian or metal should not be treated as a prestige good, but rather primarily as a utilitarian precious good. These utilitarian precious goods, such as obsidian and metal, took on the function of primitive money rather than being a marker of rank; the implications of this will become clearer from the ethnographic case of salt bars described below.

Salt Bar as a Gift, Salt Bar for a Stone Tool

A suitable ethnographic analogy for the regional exchange of obsidian, applicable to Çukuriçi Höyük at the dawn of the EBA, can be drawn from the exchange of salt bars between the tribal societies of the Baruya and their neighbours in the Papua New Guinea highlands. The Baruya are a sedentary group of about 2200 members (in 1979), scattered among 17 permanently occupied villages and hamlets of approximately 130 residents each, along two valleys at an altitude of between 1600 and 2300m.¹⁴³⁶ In terms of social organization, language, and material culture, the Baruya belong to a cluster of *Anga*-speaking groups, *Anga* as a term being used by linguists and anthropologists to differentiate them from other Melanesian language groups which are linguistically unrelated. Among all *Anga*-speaking groups, the term 'anga' signifies a 'house'¹⁴³⁷ (see Fig. 36).

Until shortly before Godelier's ethnographic present, the Baruya largely based their subsistence on Stone Age technology and were mostly dependent on local horticultural production of primarily sweet potato and taro, grown in forest clearings and irrigated gardens. They also raised domesticated pigs, gathered plants, and hunted for subsistence but also for politico-religious purposes. Unlike other tribes in the region, the Baruya specialized in the production of salt bars, processed from certain plants unique to their region. These bars of plant salt were a principal item of exchange with neighbouring tribes, through which the Baruya acquired items not available locally but vital for their own material conditions. None of the small tribal territories' residents in the New Guinea Highlands and their fringe were able to provide locally for all goods necessary for social reproduction. Goods local to the Baruya such as salt were non-local to neighbouring tribes, and vice versa. Hence they traded with each other. The Baruya, like other tribes in the region, were thus dependent on a 'full-blown regional economy'¹⁴³⁸ through which tribes could acquire items not available on their own territory but

¹⁴³⁴ Seligman 1910, 115.

¹⁴³⁵ Seligman 1910, 93.

¹⁴³⁶ Godelier 1986a, 1.

¹⁴³⁷ Godelier 1986a, 1.

¹⁴³⁸ Godelier 1986a, 12.

was much greater than within a tribe, since all villages belonging to the same tribe would have access to the same types of goods. Godelier noticed that ‘material necessity forced tribes into a trading network, and in turn imposed certain forms and limitations on political relations and warfare between the tribes’.¹⁴⁴⁰ These inter-tribal relations, based on regional exchange, differed fundamentally from those described elsewhere for others, such as the Nuer in southern Sudan. The Nuer were in a state of perpetual war with their tribal neighbours (the Dinka), in order to acquire new land and water for pasture for their cattle.¹⁴⁴¹ The Baruya, some of whom descended from refugees after some land was seized from the Andje a few generations prior to ethnographic observation, ‘found themselves at the centre of an extensive network of oppositions and alliances with their neighbours’¹⁴⁴² (see Fig. 37). Godelier describes these networks of relations as revolving around two poles:

‘On the one hand, they had permanent enemies, the Andje, whom they had driven from their territory and who represented the fixed negative pole in their intertribal relations. On the other hand, they maintained permanent relations of friendship and economic, and sometimes even military, cooperation, with the Yooundouye, a tribe not belonging to the Anga culture ... between these two opposing poles, we find all the tribes immediately adjacent to the Baruya, all of which belonged to the Anga culture, and which were all, at one time or another, either allies or enemies of the Baruya.’¹⁴⁴³

This interplay of hostile and friendly relations with neighbouring tribes not only shaped regional exchange, but also perpetuated the ‘greatness’ of Baruya men, who were initiated into the status of ‘great warriors’ that defended Baruya territory. Salt bars, which were produced communally within Baruya villages, represented a means of primitive money, which was at the same time a commodity (that could be exchanged for another commodity, without ritual significance), a gift (between kinsmen of the Baruya tribe), and a *currency* (having exchange value, which was agreed upon locally and regionally).¹⁴⁴⁴ Godelier argued that ‘*Very often* the precious objects we encounter in primitive societies have a *dual nature*: they are both goods and non-goods, ‘money’ and gifts, according to whether they are bartered between groups or circulate within the group.’¹⁴⁴⁵ Within Baruya villages (between neighbours and kinsmen) and between Baruya villages (between consanguine relatives or allies residing in different villages), salt was exchanged as a gift or a means of ritual exchange at birth, marriage, and death. These were established social principles, which could not be avoided since ‘the Baruya take great care to give back what they have received, not in order to expunge their debts, but in order to counterbalance the debts of others toward them’.¹⁴⁴⁶ With their trading partners residing

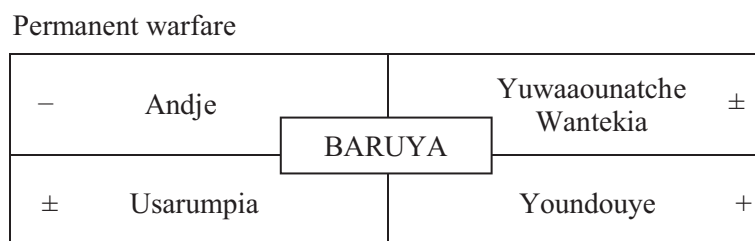


Fig. 37 Politico-military relations between the Baruya and neighbouring tribes (Godelier 1986a, fig. 9)

¹⁴⁴⁰ Godelier 1986a, 12.

¹⁴⁴¹ Evans-Pritchard 1940.

¹⁴⁴² Godelier 1986a, 104.

¹⁴⁴³ Godelier 1986a, 104–105.

¹⁴⁴⁴ Godelier 1972.

¹⁴⁴⁵ Godelier 1998, 399.

¹⁴⁴⁶ Godelier 1986a, 173.

outside Baruya tribal territory, the Baruya exchanged salt in commodity or barter transactions, in which a mutually agreed quantity of salt was exchanged for stone tools, feathers, shells, and other items that were necessary for the reproduction of each group involved in this commodity transaction. From this it is evident that salt, which among the Baruya had ritual importance as even its production required a sort of a ritual specialist, entered a new ‘social life’¹⁴⁴⁷ – a commodity phase – once transferred outside their own territory.

Despite its local production by collective means, among the Baruya salt was treated as a *precious item* and not a prestige good. Some of it was *kept* within houses and stored, some of it *gifted*, and the rest *bartered*. Seen as a *precious item* and a sacred object locally, among the Baruya salt

‘Is dear because it is a ‘luxury’ product and its production requires knowledge of technique and magic which other neighboring tribes do not possess. What the Baruya ask for and what their partners normally agree to pay for, is the *monopoly of a double rarity* – product and know-how.’¹⁴⁴⁸

Therefore, unlike the *kula* prestige objects, which at Kiriwina were non-locally produced goods that became intra- and inter-island signifiers of chiefly status rather than being crucial objects for daily subsistence reproduction, among the Baruya salt was a prestige good without signifying rank: it was a precious object, as Godelier defined it, for the following four reasons:

- 1) A precious object, because of a particular kind, because it enters, along with pigs, into the category of things ‘good to eat, yet scarce and essential’, i.e. meat and salt.
- 2) A precious object, because it is consumed exclusively during vital moments of social life: birth, initiation, marriage, i.e. within the framework of ceremonies and rites ‘celebrating’ them.
- 3) A precious product because its manufacture cannot be effected without the art of specialists who possess both technical skills and magical know-how in order to bring about its crystallization. In short, it is to the salt maker’s magical powers that salt-filled owners must turn if they wish to get that ‘white and heavy’ salt which other tribes covet and are ready to ‘pay’ a good price for.
- 4) A precious product, because, thanks to it, the Baruya can procure all that they lack, and which to them is necessary for subsisting (stone axes), protection from the cold (bark cloaks), adornment and finery (feathers, pearls), compensation for murder, initiation of their daughters and warriors (magic nuts), arming themselves, etc. Salt is therefore precious, because it allows the Baruya to overcome the limits of their resources, limits imposed by their ecology and economy.’¹⁴⁴⁹

The Regional Exchange of Obsidian within the Aegean Basin and its Hinterland

Taking the Baruya salt exchange as a loose blueprint for an analysis of obsidian and metal exchange at Çukuriçi Höyük, it is possible to outline an important similarity between the two spatially and chronologically distant contexts. Like the salt plants, which were geographically limited to the Baruya tribal territory, obsidian was also limited to a few specific locations within the Aegean region (see Fig. 35). Communities residing at either Melos or Gyali, as well as other places close to obsidian sources, could make immediate use of this raw material. These communities had the power to make informed decisions about with whom and how obsidian would be exchanged, even if procurement at Melos appears to have been less controlled than

¹⁴⁴⁷ Appadurai 1986.

¹⁴⁴⁸ Godelier 1998, 419.

¹⁴⁴⁹ Godelier 1998, 422.

at Gyalı.¹⁴⁵⁰ Given that Melian obsidian reached both ends of the Aegean Sea – the eastern Aegean coast to the west and the western Anatolian coast to the east – during the Palaeolithic, it can be seen that obsidian was also a rare commodity outside these locations during the Late Chalcolithic and the EBA, a time when many of the Cycladic islands were already colonized. The same also holds true for central Anatolian obsidian.

As most of the Cycladic islands were already settled by the beginning of the Bronze Age, this implies that reciprocal, down-the-line exchange of obsidian was very likely. Although some scholars argued that ‘the advantage held by people at key locations on the fringes of the Aegean who could intercept and control exotica entering the region must have become increasingly apparent through the course of the third millennium BC,’¹⁴⁵¹ this interpretation underplays the wide distribution of Melian obsidian prior to this period. Thinking of obsidian as a precious raw material or items outside as well as within its points of origin, which were traded in *key locations*¹⁴⁵² or *gateway communities*,¹⁴⁵³ generates an analytical value. Through such analyses, the key nodal points of an obsidian exchange network can be identified. Alongside this understanding, however, scholars should also consider that these gateway communities could only acquire obsidian through the reciprocal exchange of goods that were locally produced. These reciprocal exchanges of local goods for non-local objects then stimulated a long-lasting system of regional exchange within the Aegean basin.

Çukuriçi Höyük has already been identified as such a gateway community for Melian obsidian trade since 60–70% of all chipped stone tools were made of Melian obsidian.¹⁴⁵⁴ The rest of the stone tools at Çukuriçi Höyük were made of locally available chert, which was of inferior quality compared to Melian obsidian.¹⁴⁵⁵ Throughout the Neolithic, Late Chalcolithic and Bronze Age periods, approximately two thirds of obsidian identified at Çukuriçi Höyük originated from Melos Demenegaki, and a third from the Melos Adamas source.¹⁴⁵⁶ Although central Anatolian obsidian from two different sources (Nenezi and Göllüdağ) – located 640km to the east – was found at Çukuriçi Höyük in each archaeological layer after 6500 BC, the presence of central Anatolian obsidian at this site was extremely rare from the Neolithic to the Bronze Age.¹⁴⁵⁷ This indicates that dwellers at Çukuriçi Höyük largely depended on the maritime exchange of Melian obsidian throughout their history and only occasionally received ready-made products in the form of fragmented blades and flakes from the central Anatolian obsidian sources.¹⁴⁵⁸

In order to differentiate between the sites of origin, gateway communities, and other ‘receiving’ centres of obsidian, scholars draw a distinction based on the quantity of obsidian present at a site. In contrast to EBA gateway communities such as Liman Tepe and Çukuriçi Höyük on the western Anatolian coast, which are identified as having an abundant assemblage of Melian obsidian, scholars identified other primarily receiving ‘centres’ of Melian obsidian in the western Anatolian hinterland. Two of those hinterland sites are Aphrodisias and Beycesultan, with a comparatively scarce assemblage of Melian obsidian, which was interpreted as an indicator of lesser involvement in the Aegean obsidian exchange network.¹⁴⁵⁹

¹⁴⁵⁰ Georgiadis 2008.

¹⁴⁵¹ Broodbank 2000, 286.

¹⁴⁵² E.g. Broodbank 2000.

¹⁴⁵³ E.g. Knitter et al. 2012; Knitter et al. 2013.

¹⁴⁵⁴ Knitter et al. 2012; Knitter et al. 2013.

¹⁴⁵⁵ Bergner et al. 2009.

¹⁴⁵⁶ Bergner et al. 2009.

¹⁴⁵⁷ Milić 2018; Milić 2019.

¹⁴⁵⁸ Milić 2018; Milić 2019.

¹⁴⁵⁹ Knitter et al. 2012; Knitter et al. 2013.

Unlike Çukuriçi Höyük, where between 60 and 70% of stone tools in all occupation phases were made of Melian obsidian,¹⁴⁶⁰ stone tools at Aphrodisias were predominantly made of local flint and chert, found in the Dandalas River valley close to the site.¹⁴⁶¹ The assemblage from Aphrodisias indicates that during the Late Chalcolithic and the EBA (4360–2909 BC), when Çukuriçi Höyük mostly relied on Melian obsidian sources, this site shows an entirely different situation. Aphrodisias, understood as a ‘receiving’ centre of Melian obsidian through network analyses,¹⁴⁶² in fact participated in several exchange networks, not limited to the Aegean basin. During all phases of Late Chalcolithic and EBA occupation, Aphrodisias received obsidian from Melos (400km west), Gyalı (180km southwest), and central Anatolia (520km east).¹⁴⁶³ Fifty per cent of the obsidian originated from both sources at Melos (Melos Demenegaki and Melos Adamas), slightly less than 50% from all four sources in central Anatolia (Çatköy, Boğazköy, Hotamış Dağ, and Nenezi Dağ) and only a few pieces were attested to have come from Gyalı.¹⁴⁶⁴ Obviously, the network model of Melian obsidian exchange excluded these non-Aegean sources, and instead argued for the centrality of western Anatolian coastal sites, abundant in obsidian from Melos,¹⁴⁶⁵ downplaying the equal relevance of all obsidian sources.

At other coastal western Anatolian sites in the Izmir region (Bakla Tepe, Liman Tepe) as well as further north in western Marmara (Troy), local flint stone tools predominate within the EBA 1 archaeological record. Unlike at Çukuriçi Höyük, where central Anatolian obsidian represented an extremely rare resource,¹⁴⁶⁶ at Bakla Tepe more central Anatolian than Melian obsidian was found in the Late Chalcolithic layers, which changed in EBA 1. During the earliest phase of EBA 1, Melian sources of obsidian are better represented at all western Anatolian coastal sites (Çukuriçi Höyük, Bakla Tepe, Liman Tepe and Troy),¹⁴⁶⁷ whereas during EBA 2, central Anatolian obsidian predominates at Bakla Tepe, Liman Tepe, and Troy,¹⁴⁶⁸ while the site of Çukuriçi Höyük was already abandoned.

This implies that dependence on a single source or network versus active involvement in different exchange networks is a more important issue than either geographical or political centrality. Among all these sites, both coastal and hinterland, Çukuriçi Höyük was the only place to be abandoned at the end of the EBA 1 period. Whereas dwellers at Çukuriçi Höyük exclusively maintained stronger reciprocal relations with other maritime sites to the west for the procurement of Melian obsidian, dwellers at Aphrodisias, Bakla Tepe, Liman Tepe, and Troy also established strong reciprocal connections through an extensive land-based network to the east (central Anatolia), and a rather tenuous one to the southwestern Anatolian coast (Gyalı) during the EBA 1 period. The other sites, except for Çukuriçi Höyük, already relied on two distinctive (albeit overlapping) obsidian networks during EBA 1 – maritime networks to the west and the land-based networks to the east. Therefore, it seems reasonable to conclude that reliance on multiple sources for obsidian was one among other distinctive features of the continuously occupied western Anatolian sites between EBA 1 and EBA 2, while others, such as Çukuriçi Höyük, did not have such multiple sources. Given that central Anatolian obsidian reached Çukuriçi Höyük only at the dawn of the Bronze Age and in limited quantities, and the fact that exchange networks always depend on the social distance between transactors, this calls for an alternative interpretation beyond the centrality of a site within an exchange network.

¹⁴⁶⁰ Bergner et al. 2009; Knitter et al. 2012.

¹⁴⁶¹ Leurquin 1986.

¹⁴⁶² Knitter et al. 2012.

¹⁴⁶³ Leurquin 1986.

¹⁴⁶⁴ Leurquin 1986.

¹⁴⁶⁵ Knitter et al. 2012.

¹⁴⁶⁶ Milić 2018; Milić 2019.

¹⁴⁶⁷ Knitter et al. 2012; Gatsov – Nedelcheva 2016; Kolankaya-Bostancı 2016.

¹⁴⁶⁸ Gatsov – Nedelcheva 2016; Kolankaya-Bostancı 2016.

From the perspective of the east Aegean and the coastal western Anatolian EBA 1 ‘cultural koine’,¹⁴⁶⁹ including the architectural plans and the distribution of Melian obsidian, Çukuriçi Höyük appears to be well embedded into the ‘Aegean World’. However, this Aegean connectivity is not limited to the ‘cultural koine’ and the coastal sites alone. Within the same ‘cultural koine’, trading relations and consequently social relations appear dissimilar. Whereas the EBA 1 sites such as Liman Tepe, Bakla Tepe, and Troy established and maintained trading links to the east through which they acquired central Anatolian obsidian, the record from Çukuriçi Höyük reveals a stronger dependence on Melian obsidian alone. The sites that do not fall into the category of the east Aegean and coastal western Anatolian EBA 1 ‘cultural koine’,¹⁴⁷⁰ such as Aphrodisias, were embedded into multiple exchange relations with communities to the west, through which they acquired Melian obsidian at least from the Late Chalcolithic (4360 BC), in addition to central Anatolian obsidian from the east.

As I showed above, obsidian distribution not only varied among sites within the EBA 1 eastern Aegean and western Anatolian ‘cultural koine’ but also among western Anatolian gateway communities for Melian obsidian trade. Whereas most of the archaeologists would interpret the reliance on Melian obsidian at Çukuriçi Höyük as an advantage, indicating a strong and reliable trading network or self-procurement of obsidian from Melos, which made Çukuriçi Höyük an important gateway community for Melian obsidian exchange,¹⁴⁷¹ this is only one way of interpreting it. Conversely, if we use the Melian obsidian as a proxy for social relations and wider social networks, the same context can be seen as a disadvantage, since dwellers at EBA 1 Çukuriçi Höyük put ‘all their eggs in one basket’ by relying solely on one social network, with little or no alternative. By contrast, other western Anatolian sites relied on multiple social and exchange networks for obsidian already during EBA 1 and the Late Chalcolithic, which could be seen as an advantage since dwellers at these sites secured multiple alternatives. This does not imply that a weakening of links or social networks between Çukuriçi Höyük and Melos would be the reason for the abandonment of the site, as the inhabitants had access to local flint and stored raw Melian obsidian material. However, if they encountered another socio-political difficulty on-site or within the region, the reliance on a single obsidian exchange network at Çukuriçi compared to other regional sites relying on multiple networks, would make Çukuriçi Höyük weaker, lacking diversity of social networks and available alternatives. Consequently we should recognize both the advantages and the disadvantages of reliance on single vs. multiple exchange or social networks.

The regional obsidian network assemblage also demonstrates that regional obsidian exchange networks were situational, based on social rather than only the geographical proximity of resources and trading sites. As different trading networks also overlapped, the assemblage supports the argument that Çukuriçi Höyük was indeed a *gateway community* of Melian obsidian trade (among other western Anatolian coastal sites) located at the eye of a needle passage,¹⁴⁷² yet different from other regional Melian obsidian gateway communities to the north, such as Liman Tepe and Bakla Tepe, which relied on multiple social and exchange networks and had more available alternatives than Çukuriçi Höyük.

An analogous situation has been observed among the Baruya. Baruya salt was known beyond their own tribal frontiers. It was well-known in Anga-speaking territories, which stretched approximately 170km southwest–northeast (between Ihu and Mumeng) and 150km northwest–southeast (between Fore and Kerema) (see Fig. 36). Baruya salt was also greatly valued among the local tribal groups of Mumeng, outside Anga territory, which no Baruya had ever visited personally. Mumeng groups acquired Baruya salt through exchange

¹⁴⁶⁹ Kouka 2002; Kouka 2016a.

¹⁴⁷⁰ Kouka 2002 Kouka 2016a.

¹⁴⁷¹ Knitter et al. 2012.

¹⁴⁷² Gingrich 2017b.

with the ‘middleman’ Bakia tribal group, who acquired it from the Baruya.¹⁴⁷³ Although the Mumeng could acquire salt through the riverine route at Huon Gulf, they preferred Baruya salt, traded to the steep East Papuan mountains and valleys in the highlands through a land-based exchange network. The case of the Aegean basin appears to be similar. Dwellers at Çukuriçi Höyük traded for obsidian with the island sites to the west, between Melos and western Anatolia, whereas the obsidian from Gyalı – which is geographically closer to Çukuriçi Höyük than Melian obsidian – and central Anatolian obsidian did not play an important role during EBA 1.

On the one hand, this assemblage demonstrates the existence of regional obsidian exchange networks that were situational, based on the social rather than the geographical proximity of resources and trading sites. As different trading networks also overlapped, the assemblage supports the argument that Çukuriçi Höyük was indeed a *gateway community* of the Melian obsidian trade (among other western Anatolian coastal sites) located at the eye of a needle, unavoidable passage¹⁴⁷⁴ for obsidian trade into Anatolian hinterland. However, the evidence does not support the interpretation that Çukuriçi Höyük was a *gateway community* in the central Anatolian obsidian exchange network. The latter becomes more obvious once the assemblage from Çukuriçi Höyük is compared to the hinterland site of Aphrodisias as well as other western Anatolian coastal sites which participated in networks to both the east and the west, although most of the stone tools at Aphrodisias and other sites were made of local flint. Therefore, we should think of obsidian at Çukuriçi Höyük – although this does not apply to Aphrodisias,¹⁴⁷⁵ Liman Tepe, Bakla Tepe,¹⁴⁷⁶ and Troy¹⁴⁷⁷ where the majority of stone tools were made of local flint and chert – as a precious material, similar to stone axes among the Baruya, which they lacked locally, but which were necessary for subsistence and to defend their territory. Like the exchange of salt for stone axes among the Baruya, at Çukuriçi Höyük Melian obsidian could have been exchanged for locally produced metal tools. Dwellers at the hinterland site of Aphrodisias and other western coastal sites, on the other hand, benefitted from the local flint resources, on which they mostly relied for stone tools: therefore, flint and chert (rather than obsidian) were possibly more of a precious, desirable, and even sacred material at these sites. Nevertheless, during EBA 1, dwellers at Aphrodisias, Bakla Tepe, Liman Tepe, and Troy participated in wide-ranging exchange networks of obsidian to the east and the west, and must have understood that black obsidian was not only useful for the production of stone tools but could also be used as primitive money, which, on a regional scale, the local brown, grey or white local flint could not.

An increase in central Anatolian obsidian supplies to the EBA 2 western Anatolian sites in comparison to a somewhat stronger reliance on Melian obsidian during EBA 1 can be taken as a proxy for other changes within the region. Writing from the ‘Trojan’ point of view, Ünlüsoy argues that ‘the Trojan community experienced a sudden and major breakthrough after contacts were intensified with the communities to the east. The changes affected all spheres of daily living at Troy. The social and economic as well as political organization were transformed drastically.’¹⁴⁷⁸ Whereas these trading networks benefitted a few people at Troy, Liman Tepe, and Bakla Tepe, the intensification of the land-based networks from western Anatolia to Cilicia coincided with the obvious material changes in EBA 2, but also detachment of people from their land, such as observed at Çukuriçi Höyük.

¹⁴⁷³ Godelier 1986a.

¹⁴⁷⁴ Gingrich 2017b.

¹⁴⁷⁵ Leurquin 1986.

¹⁴⁷⁶ Kolankaya-Bostancı 2016.

¹⁴⁷⁷ Gatsov – Nedelcheva 2016.

¹⁴⁷⁸ Ünlüsoy 2016, 402.

VII.4. Supra-Regional Exchange and Near Eastern Weights¹⁴⁷⁹

In this section, I look at a ‘specific’ type of evidence pointing to a link to commodity exchange, including, with a very high probability, the exchange of metals or other specialized goods from Çukuriçi Höyük. This evidence comprises five stone balance weights that have been excavated from the EBA 1 Çukuriçi Höyük site in close proximity to metallurgical workshops within a domestic context. In this case the introduction of stone weights is discussed in ethnographic terms through a case study of the Akkan, to whom the metrology of the *mitkal* was introduced by Arab traders. As I argue in this section, Arab traders and the Akan can be structurally compared with the Near Eastern merchants and communities in western Anatolia. In these cases, their motivation for trade was not through gift or barter, commonly leading to lasting social relations between transacting groups. Instead, through the use of weights and metrology, these two groups conducted pure commodity exchanges that could occur whilst maintaining some social distance between the partners involved in such a transaction. This would allow the two partners to terminate trading contacts at any point in time. While the evidence for metrology and external measures of value such as weights is still limited in western Anatolia, it remains possible that, as commodity items transacted between the Near Eastern merchants and western Anatolian communities, metals were circulated as items of gift and item exchanges in the Aegean, although an emulation of elites in the eastern Aegean islands through the long-distance exchange of these objects cannot be excluded. Also, based on the evidence of obsidian and metal exchanges in the wider region of western Anatolia during EBA 1, this section concludes that multiple modes of exchange and socio-political organization coexisted in time and space. Internal heterogeneity rather than socio-political homogeneity characterized this ‘cultural koine’ at the dawn of the Early Bronze Age.

To discuss supra-regional economies, I return to metals, as the set of metal or associated small finds point towards some kind of supra-regional connections. The gateway community model, previously inferred for Melian obsidian, has been further extended by the inclusion of metal exchange, transmission of metalworking knowledge, and manufacturing techniques at Çukuriçi Höyük.¹⁴⁸⁰ In this case, modes of transaction can be further addressed through indirect evidence for the exchange of metals through stone balance weights identified at the site. These point towards an influence from the Near East and the adoption of weighing at the coastal sites of western Anatolia during EBA 1, when ‘the *Age of Accountancy and Metrology* had started’.¹⁴⁸¹

Finds at Çukuriçi Höyük included five stone balance weights dating to ÇuHö IV and III (2900–2850/2800 BC) (see Fig. 38). The first was found in a metallurgical workshop, the second in a storage room linked to a metallurgical workshop, and the third in mixed layers close to an oven that was likely used for metalworking. Two of the weights could not be assigned to a precise context¹⁴⁸² (see Fig. 39). The close connection of these balance weights to metalworking contexts at the site, along with their light weight (approx. 4–40g), leaves no doubt that these objects facilitated metal exchange, most likely for silver and gold.¹⁴⁸³ This holds true despite previously raised doubts about the spool-shaped weights being used as grinders, since they do not bear any marks.¹⁴⁸⁴ Considering the ethnographic record, geometric

¹⁴⁷⁹ An earlier version of this section has been published in Cveček 2020.

¹⁴⁸⁰ Mehofer 2016.

¹⁴⁸¹ Rahmstorf 2016, 258.

¹⁴⁸² Horejs 2016b.

¹⁴⁸³ Rahmstorf 2015; Rahmstorf 2016; Horejs 2016b; Massa 2016; Massa et al. 2017.

¹⁴⁸⁴ Haas-Lebegyev – Renfrew 2013.

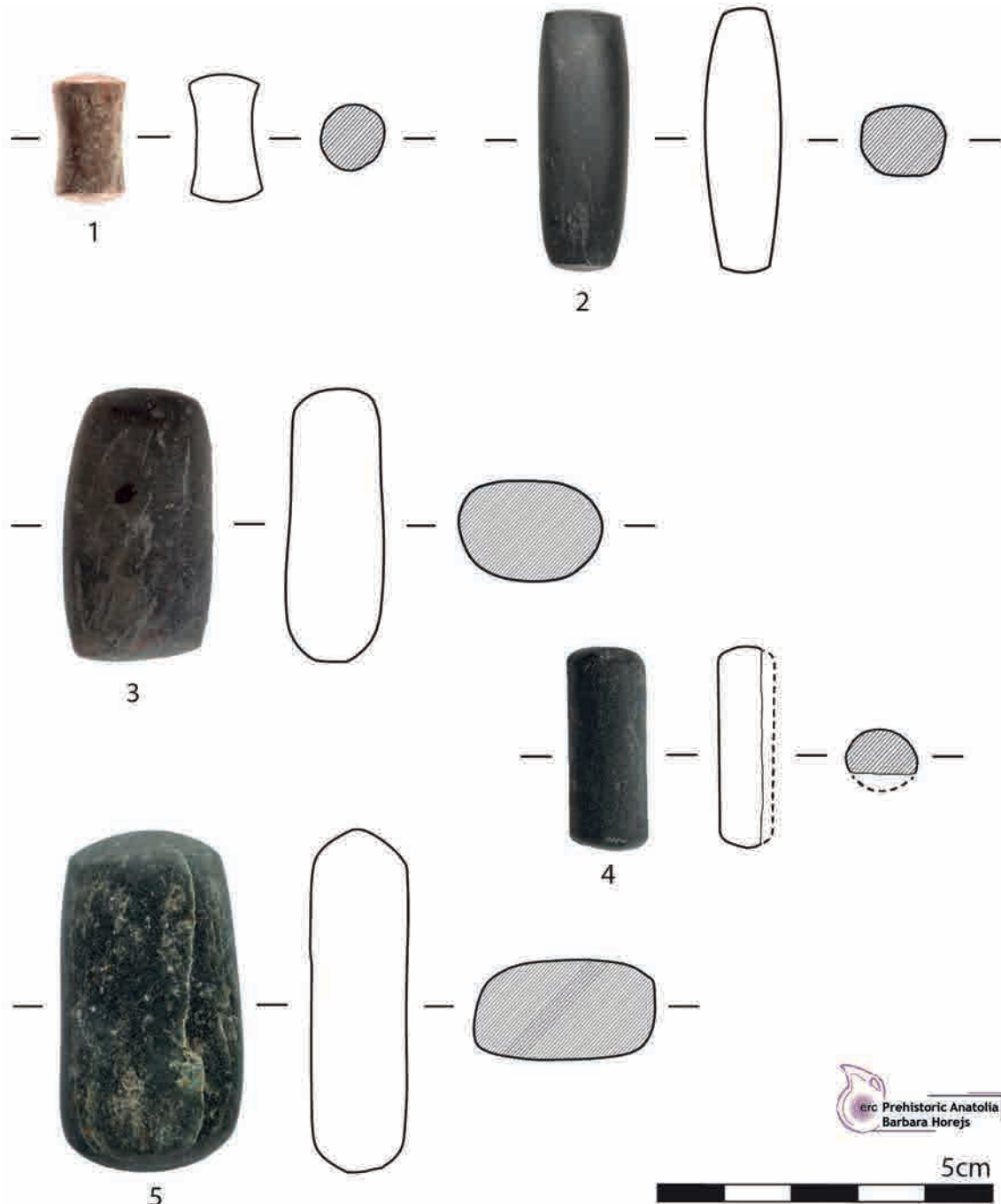


Fig. 38 1. 09/986/3/1, phase ÇuHö IV, 3.78g; 2. 08/520/3/7, phase ÇuHö III, basalt, 15.67g; 3. 11/1200/3/22, phase ÇuHö I, marble, 31.2g; 4. 12/5001/3/59, phase ÇuHö I; slate, 5.2g; 5. 13/5110/3/2, phase ÇuHö IV, slightly serpentinized peridotite, 39.79g (Horejs 2016b, fig. 4)

stone weights without incision marks are not an exception limited to prehistory, as they were reported as being in use in West Africa in the last century.¹⁴⁸⁵ Regarding the use of light balance weights, these may not necessarily be restricted to metal exchange. Transactions involving rare specialized goods, where small variations in size and weight matter and where no

¹⁴⁸⁵ Garrard 1972; Garrard 1980.

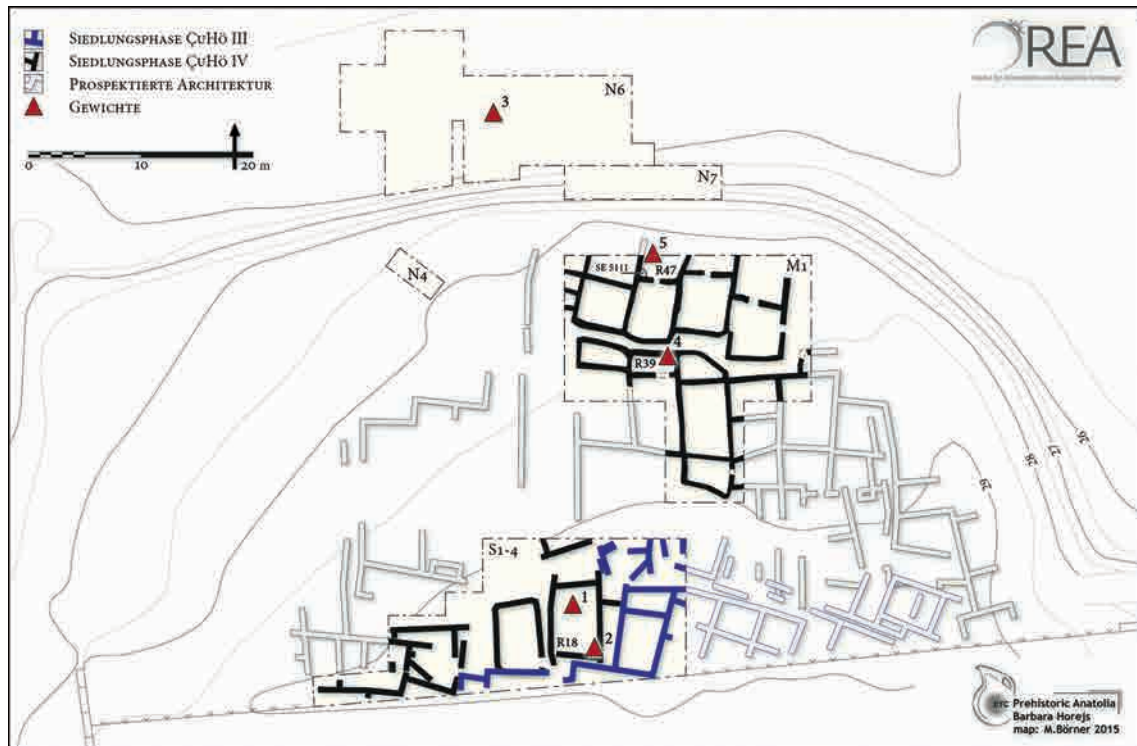


Fig. 39 Distribution of weights in the Early Bronze Age settlement phases ÇuHö IV und III (Horejs 2016b, fig. 7)

pre-defined forms of transportation exist, including pigments, spices, or *materia medica*, may be subjected to weighing.

Two of the four balance weights identified in a metalworking context at the contemporaneous island site of Poliochni (Lemnos) can be compared to those of Çukuriçi Höyük.¹⁴⁸⁶ A set of oblong dark stone weights (hematite) at Poliochni Blue and another at Çukuriçi Höyük show a strong similarity in their shape, material, and weight to the Near Eastern types of weights found at the EBA site of Ebla,¹⁴⁸⁷ known as one of the earliest kingdoms in Syria. Sets of spool-shaped balance weights found at both sites point to a possible local adaptation of weighing practices particular to the eastern Aegean islands and coastal western Anatolia, as there is no comparative Near Eastern form. Rahmstorf¹⁴⁸⁸ interprets these as indicators of a shared Aegean weighing practice, and maintains that this metric system was introduced to the Aegean from Syro-Mesopotamia at the beginning of the 3rd millennium BC.

Rahmstorf's comprehensive analysis of prehistoric stone weights expanded our understanding of EBA 1 exchange practices in western Anatolia and proved that long-distance exchange between the east and west facilitated the transfer of goods and knowledge of unique measuring techniques.¹⁴⁸⁹ Nevertheless, the scarcity of balance weights available for EBA 1 western Anatolia calls not only for comparison with contemporaneous sites in Mesopotamia and Egypt (where data is equally lacking for this period), but also beyond archaeological contexts. How did weighing and long-distance trade between Mesopotamia and western Anatolia influence the social lives of exchanged objects and the daily lives of dwellers at Çukuriçi Höyük in particular?

¹⁴⁸⁶ Rahmstorf 2016; Rahmstorf 2018b.

¹⁴⁸⁷ Rahmstorf 2016.

¹⁴⁸⁸ Rahmstorf 2016.

¹⁴⁸⁹ Rahmstorf 2016, 258.

Ethnographic Example of Weighing Practices and Long-Distance Exchange

To address the question above, I turn to an ethnographic example from Akan.¹⁴⁹⁰ This ethnographic case of gold trade and weighing practices from Ghana is relevant for two reasons. Firstly, it addresses the introduction of new weighing techniques to a non-state society, within which gold and silver were not perceived as (luxury) commodities prior to the intensification of long-distance trade. Secondly, the case highlights a time lag between the primary changes in the economic system and the secondary changes in material culture that they led to.

Naturally, colonial encounters have fundamentally transformed West African metallurgical societies. Yet these societies were not operating in a vacuum before the arrival of Europeans, and hence remain relevant for discussing prehistoric weighing practices. The same is applicable for societies in EBA 1 western Anatolia, where recent research¹⁴⁹¹ points towards external influences and calls into question the independent development of a metric system. Considering the limited similarities between the modern example from Akan and the empirical example from prehistoric western Anatolia, the approach applied here understands weights not only as spatially bounded material objects, but as a proxy for a type of practice that is culturally transmitted.¹⁴⁹² The archaeological analysis of EBA 1 Near Eastern weights in western Anatolia indeed raises questions about how and why weights were adopted. In order to obtain a complete picture, the archaeological investigations must be complemented with both theories of exchange developed within economic anthropology, and ethnographic observations.

Several Akan chiefdoms in what is now Ghana were involved in the metal trade before European colonization. Prior to establishing contacts with Arab traders, the Akan did not use gold as a medium for exchange, but rather produced it for personal use and adornment.¹⁴⁹³ Although the Akan used iron pieces for barter outside their cultural sphere, similar to the salt bars of the Baruya,¹⁴⁹⁴ iron pieces were also exchanged as gifts within the Akan villages. In a rich ethnographic study, supported by a multilingual historical analysis of Akan weights, Garrard¹⁴⁹⁵ argued that weights were introduced into Akan society from the north, through the trans-Saharan gold trade, in the 17th century CE. The Arab traders who traded gold between Ghana and Morocco introduced two types of ‘Islamic weights’: *mitkal* for weighing gold (4.3–4.7g) and *wakia* for weighing silver (26–30g). Following early colonial encounters, the Europeans introduced two additional sets of weights to Akan: the Portuguese in c. 1500 CE, and the Dutch in c. 1650 CE.¹⁴⁹⁶

A large variety of weights made of different materials such as brass, silver, gold, seeds, pottery, and stone are reported to have been in use in varying proportions across different Akan regions and periods. The shapes of these form two broad groups – geometric (made of stone, without incision marks) and figurative (made of gold, brass, or clay). The introduction of weights to the Fantera village of Debibi in western Ghana, approximately 400km to the north of the Cape Coast, was recalled by one of the village elders:

‘The Mande were using stone and metal weights for trading among themselves. They came to trade here. My late grandfather Sanango told me this. We made some of our weights to the same weight as the Mande. And we made some to the same as Europeans. The Elminas and Fantis were coming here to buy gold from the Fanteras and

¹⁴⁹⁰ The present text discusses only one example in detail, rather than a discussion on a more abstract level based on several examples that are available in the ethnographic literature.

¹⁴⁹¹ E.g. Horejs 2016b; Rahmstorf 2016; Massa et al. 2017; Massa – Palmisano 2018; Rahmstorf 2018b.

¹⁴⁹² Bourdieu 1976.

¹⁴⁹³ Garrard 1980.

¹⁴⁹⁴ Godelier 1972.

¹⁴⁹⁵ Garrard 1980.

¹⁴⁹⁶ Garrard 1972.

they brought European weights to the market in Beho [Begho] where they sold them. During the great market of Beho we bought these. We know that they are European weights.’¹⁴⁹⁷

The interlocutor then shows his set of Dutch troy weights to the researcher, demonstrating Akan keenness for adopting foreign weights. The reason for this becomes evident from an explanation of the weights’ importance provided by an old woman from Njau village:

‘In the old days we had stones as weights, also metal weights and seeds. There used to be quite a lot of stone weights but they are now lost since Njau was burned. Some were square, and others like pebbles. The metal and stone weights were of equivalent weight. If you didn’t have weights you couldn’t trade in gold; you can’t know the price of anything unless you have weights. The Kramo (Muslims) also had both stone and metal weights. They weighed the same as ours. Kramo metal weights looked the same as ours but were not so ‘stylish’. I can’t tell if we or the Kramo had weights first, but our weights were the same.’¹⁴⁹⁸

This quote implies that in Akan society weights were privately owned and served as a standard unit for the exchange value of products. It was not unusual for a person to own many weights (up to 100 weights), as these were accumulated over several generations. Two distinct types of weighing have been described. Double weighing was practised between strangers at markets, where both the seller and the buyer would weigh gold with their own scales. In this case, sellers would tend to use slightly heavier weights than buyers, so that sellers would tend to sell, and thus charge, more. The variability of weights, and therefore a disagreement over the value of goods in transmission, would either lead to a consensus through bargaining or a visit from a local smith or chief – the two referents for the accuracy of the weights. This case shows that negative reciprocity, in which the two distant parties involved in an exchange aim to ‘maximize utility at the other’s expense’,¹⁴⁹⁹ was practised despite the use of weights as a standard of value and a means of translation for exchange ratios or price. Another weighing practice was described for the Akan, when the two parties involved in the exchange were linked by previous obligations. In this case, ‘the gold would be weighed only once, on the scales of the recipient’:¹⁵⁰⁰ a chief’s scales would be used for weighing gold for the payment of fines, and a lender’s scales for the repayment of debt.

The impact of long-distance trade among the Akan resulted in several technological and socio-political changes that can be traced archaeologically. In addition to the introduction of weighing practices, which accompanied and may even have triggered the commodification of gold, the Akan derived new architectural forms from Middle Niger and adopted several new pottery styles as well as the use of ivory side-blown trumpets. The intensification in the gold trade had an extensive impact on Akan social and economic organization, which led to greater craft specialization, intensive gold mining, and a greater demand for slave labour.¹⁵⁰¹ While changes in material culture (including domestic architecture) were gradual, long-distance exchange and weighing practices had an immediate effect on established economic practices and labour organization.

¹⁴⁹⁷ Garrard 1980, 5.

¹⁴⁹⁸ Garrard 1980, 30.

¹⁴⁹⁹ Sahlins 1972, 195.

¹⁵⁰⁰ Garrard 1980, 174.

¹⁵⁰¹ Garrard 1980.

Exchanges of Commodities are conducted through Commodity Relations

How can we use the Akan gold trade to better understand transactions involving weights at Çukuriçi Höyük? Considering that commodity exchange begins at the boundaries of ‘primitive communities’,¹⁵⁰² this implies that the owners of such objects were willing to alienate them voluntarily, since the demand for these things came from outside rather than from inside their community. Although commodity exchange might at first be accidental, its repetition leads to the emergence of and distinction between use and exchange values¹⁵⁰³ (see Tab. 20). However, the emergence of such a distinction does not necessarily imply that the exchange value becomes the dominant factor from the outset. In most cases, ‘negotiations’ will decide their relative weight to each other, i.e. of the exchange value versus the use value. Negotiations of this kind are the key element of barter as defined by economic anthropology. From this perspective, standardized weights signify a somewhat different situation of exchange when, for various reasons, the quantity has taken over in determining the exchange ratios. Given the fact that some local communities within EBA 1 western Anatolia used weights for specific goods, this certainly does not support any prevalence of gift exchange. Hence, we cannot classify these as solely gift-giving systems. The objects were measured against each other based on external criteria: a common practice when the exchange is conducted regularly, and each time in larger quantities, between strangers. Equally, the possibility of weights as an indicator of simple barter trade between distinct western Anatolian and Mesopotamian groups does not seem to be the case. In barter exchange, as described in the last paragraph, the objects or services are exchanged for one another through an internal negotiating balance, without money or any external criteria for mediating value.¹⁵⁰⁴ Since balance weights in the western Anatolian context certainly served as a medium of exchange, this calls for an alternative explanation.

Western Anatolian weights indicate contact between Mesopotamian polities and western Anatolia via maritime routes. Whether it was in search of silver – the proto-currency of Mesopotamia by the mid-3rd millennium¹⁵⁰⁵ – or for some other reason, Mesopotamian merchants reached out to the periphery, and the archaeological record illustrates considerable differences between the two cultural systems. Without secure evidence for a counter-transaction, money does not seem to be of importance in these transactions, yet the value of specified goods was nevertheless compared using weights to determine a quantitative exchange ratio. The use of weights for the exchange of metal, without a monetary transaction, was documented in reports from the 15th century CE, when Egyptian merchants supplied caravans of copper to Sudan in return for gold.¹⁵⁰⁶ In this vein, weights found at western Anatolian sites can be regarded as ‘boundary objects’, in which they

‘Are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. They are weakly structured in common use, and become strongly structured in individual-site use. These objects may be abstract or concrete. They have different meanings in different social worlds but their structure is common enough to more than one world to make them recognizable, a means of translation. The creation and management of boundary objects is a key process in developing and maintaining coherence across intersecting social worlds.’¹⁵⁰⁷

¹⁵⁰² Marx 1970; Gregory 1982; Gingrich 1984.

¹⁵⁰³ Marx 1970, 50.

¹⁵⁰⁴ Humphrey – Hugh-Jones 1992, 8; Gingrich – Schweitzer 2014, 28.

¹⁵⁰⁵ Broodbank 2013, 337.

¹⁵⁰⁶ Garrard 1980.

¹⁵⁰⁷ Star – Griesemer 1989, 393.

Considered as boundary objects, weights were introduced to western Anatolia in the earliest phases of EBA 1, either by strangers (Mesopotamian merchants) or possibly by kinsmen or trading partners, along with the coastal trading and overlapping kin network between western Anatolia and Cilicia. Therefore, the existence of weights at western Anatolian sites provides an exceptional context ‘for the commoditization of things that are otherwise protected from commoditization’.¹⁵⁰⁸ In EBA 1 western Anatolia, archaeological records do not point to gold or silver as being common luxury commodities, and so we cannot *a priori* assume that every society perceives all metals as status symbols.¹⁵⁰⁹ Gold in EBA 1 western Anatolia was meant for personal use – as adornment in extremely small quantities – which recalls the Akan case study prior to encounters with Arab traders triggering the commodification of gold among the Akan. The role of Arab traders is thus comparable to that of the Mesopotamian merchants or interactions with other trading partners. In the western Anatolian EBA 1, the existence of these specialized tools for identifying exchange rates for commodities is therefore a strong indicator for the accompanying social existence of interregional trade specialists. These middlemen already practised weighing during EBA 1 in western Anatolia, demanding its acceptance from their trading partners who had not yet adopted weights, thus creating dependency and asymmetric relations between trading partners.

Mesopotamian encounters in their western Anatolian periphery are understood as having introduced weights and created a demand for gold and silver, thus facilitating western Anatolian non-commodified goods (gold, silver, and other specified goods) to enter a new social life: a commodity phase in circulation to Mesopotamia. Like the Akan, the dwellers at Çukuriçi Höyük adopted standardized weighing practices¹⁵¹⁰ to facilitate exchanges with merchants or groups from outside their regional and/or tribal territory, to more easily acquire goods from outside. In exchange for adopting weights, showcasing their compliance with pre-existing terms and conditions of trade introduced from outside, the trading partners necessarily had to offer something in exchange that was highly desired among the dwellers at Çukuriçi Höyük. Some possible items could be wool or woollen objects, not locally produced at Çukuriçi Höyük, or even central Anatolian obsidian, which reached Çukuriçi Höyük only during EBA 1 – and not earlier, as was the case for Bakla Tepe, Liman Tepe, and Troy. With reference to the Akan and the Baruya, commodities such as gold, silver, and copper, as well as wool and obsidian, could then, on the one hand be transmitted as *commodities* between strangers (Mesopotamian merchants and dwellers at Çukuriçi Höyük) and kinfolk trading partners (a trading partner outside Çukuriçi Höyük’s territory, possibly a close or distant relative or a relative of a relative). On the other hand, the same goods could have remained in circulation as *gifts* between kin or allies within the Aegean basin or as *precious items* with an exchange value traded with neighbouring territories.¹⁵¹¹ At the same time, the local development of the Aegean spool weights found in the EBA 1 layers at Çukuriçi Höyük and Poliochni (which remained in use across the region during EBA 2) further indicates that the commodification of these specified items was not limited to the Near East, but was also introduced to the Aegean basin. There, however, the values, demands, and ratios were adapted to the local standards of the Aegean basin.

¹⁵⁰⁸ Appadurai 1986, 15.

¹⁵⁰⁹ For a different opinion, see e.g. Şahoğlu 2005, 341.

¹⁵¹⁰ Horejs 2016b.

¹⁵¹¹ For discussion of product exchange and discontinuous stages of commodification processes in the 3rd and 2nd millennium BC eastern Mediterranean, often not involving market exchange, see Jung 2021.

Chapter Summary and Conclusion

Despite the evidence of long-distance commodity exchange during the earliest phases of EBA 1, differentiated settlement plans – clearly indicating rigid hierarchical differences within and between residential units in western Anatolia – only appear around 2600 BC. At Çukuriçi Höyük, there is no evidence of a central building associated with a permanent central authority during EBA 1. Moreover, metal production was not limited to a specific workshop, but regularly distributed around the settlement, as are the weights found.¹⁵¹² This leads to two possible conclusions:

First, the EBA 1 maritime-based long-distance exchange between Mesopotamia and the coastal sites of western Anatolia might have been a rare, rather than a well-established, practice. This could be a case of mere coincidence at the boundaries of community, in which boundary objects such as weights played a key role in translating exchange value without the importance of money. These boundary objects facilitated the transformation between the non-commodity phase (in western Anatolia) and the commodity phase (in Mesopotamia, outside western Anatolia) for the social lives of specific goods exchanged between strangers. So far, only rare evidence of weights has been identified in western Anatolia for this period. A comparison with the abundance of weights among the Akan, which facilitated long-distance trade, further supports this conclusion.

Second, the maritime-based long-distance exchange between Mesopotamia and the coastal sites of western Anatolia might have been a well-established practice that was purely ‘economic in character’, in which the balance of weights could translate the value of goods. As seen from the example of the Akan gold trade, such a system of commodity exchange may not have been capable of preventing fraud between strangers. This does not imply that goods produced at Çukuriçi Höyük were intentionally produced for exchange, but, as seen from the Akan, commodity exchange is still possible, even in the absence of such intent. The seemingly voluntary commodity transaction between the dwellers at Çukuriçi Höyük and the Mesopotamian merchants also implies that both parties involved were free to trade or cease to trade at any time. The exchange of commodities, unlike that of gifts, is completed after the transaction occurs, and does not lead to durable social relations based on some kind of continuing reciprocity. Therefore, such commodity exchange networks should be perceived as less durable than gift transactions within the given prehistoric setting.

In either case, the EBA 1 site of Çukuriçi Höyük is an example of an economic system in which gift exchange and barter within a village and a region, as well as the occasional commodity exchange of specified goods with distant Mesopotamian polities, coexisted. The adoption of weights during EBA 1 shaped asymmetric relations, in which an external trading partner defined a condition and standard values for trade to which dwellers at Çukuriçi Höyük necessarily agreed, reproducing the same weighing standards and developing an alternative one for trade within the Aegean basin. Unlike the violent colonial encounters between different social spheres, based on the archaeology, the introduction of weighing and metrology does not appear to have been a violent act, since there is no evidence for group-organized violence during the EBA 1 period in western Anatolia, whereas it peaked during EBA 2. However, the non-violent introduction of weights and trading standards does not imply symmetrical relations between trading partners.

It is likely that the differences between the two distant social spheres – Mesopotamia and western Anatolia – were maintained during EBA 1. Metals could be circulated as commodities between western Anatolia and Mesopotamia, whereas within the Aegean basin, the same objects could be transferred as gifts, commodities, or precious objects, depending on the social distance between transactors. Yet, Çukuriçi Höyük is by no means representative of all EBA 1

¹⁵¹² Horejs 2016b.

sites in western Anatolia. Unlike Poliochni, Troy, Demircihöyük, and other EBA 2 trade centres based on chiefdom social organization, the site of Çukuriçi Höyük was abandoned at the end of EBA 1.

As I suggested in this chapter, it seems that the main difference between Çukuriçi Höyük and other regional sites was not the site's geographical or political centrality in the Melian obsidian network, but the stronger reliance on imported obsidian at Çukuriçi Höyük in comparison to the mostly locally produced stone tools found at other sites. This difference between western Anatolian EBA 1 sites coincided with the reliance on a single obsidian exchange network (from Melos) at Çukuriçi Höyük, whereas other sites relied on multiple trading connections (Melian, central Anatolian, and Gyali obsidian). Reliance on a single obsidian exchange network (at Çukuriçi Höyük) versus reliance on multiple exchange networks (at Liman Tepe, Bakla Tepe, Aphrodisias, Troy) for the procurement of objects necessary for a society's reproduction seems to be one of the key reasons for the site's subsequent abandonment. In this case, it was not so much a monopoly but the lack of diversity in obsidian trading networks at Çukuriçi Höyük which made dwellers at this site more dependent and vulnerable in that regard. Although dwellers at Çukuriçi Höyük ostensibly established a provisional trading network to the east at the dawn of the Bronze Age, which can be observed from the adoption of Near Eastern weights, these networks did not benefit the site to such an extent that it proved advantageous to the dwellers at Çukuriçi Höyük. Moreover, as seen from the Akan case, it is possible that dwellers at Çukuriçi Höyük adopted the Near Eastern weights as easily as the Akan did, since it is likely that the dwellers at Çukuriçi Höyük utilized other measures of weight – such as seeds, round pottery discs, stones, and moulds – possibly even before the Bronze Age. Weights being attested at Çukuriçi Höyük, may provide evidence that weights were not only translators of value, but possibly also a unit of accounting. In this case, dwellers at Çukuriçi Höyük may have agreed to produce a certain amount of metal before the merchant returned. If suppliers (dwellers at Çukuriçi Höyük) could not meet the demand (Mesopotamian merchants), then the broken agreement could result in irreversible changes, such as the selling of labour and abandonment of the site.

In the introduction to this chapter, I emphasized the importance of prestige goods and the tripartite composition of economies – selling/bartering, giving, and keeping – crucial for the reproduction of any society. With reference to the EBA 1 assemblage, it seems that in western Anatolia the EBA 1 period was not only a time of emerging accountancy and metrology. In addition, it was also the period during which the obsidian from either Melos or central Anatolia went through a key transformation – from being a sacred item to becoming a prestige good. This transformation, however, has not been observed at Çukuriçi Höyük, where metal, like obsidian, was scattered across the site. Neither metal nor obsidian was found in greater amounts or together with other possible prestige goods within one particular household on the site, which was the case at Poliochni, Thermi, Bakla Tepe, and Liman Tepe. It appears that during this period, the emerging elites in the eastern Aegean islands and some parts of coastal western Anatolia may have created chiefly alliances through emulation with polities to the east and west. The dwellers at Çukuriçi Höyük were seemingly cut off from this and instead emphasized the sharing of food as well as other goods between households, on-site. This homogeneous sharing practice at Çukuriçi Höyük, however, downplayed intra-household inequalities, possibly in terms of food as well as decision-making powers, which has been well attested ethnographically.