

IV. Copper Smiths, Homes, and Economies at the Dawn of the ‘Long 3rd Millennium BC’ in Western Anatolia

‘When the barbarian, advancing step by step, had discovered the native metals, and learned to melt them in the crucible and to cast them in molds; when he had alloyed native copper with tin and produced bronze; and, finally, when by a still greater effort of thought he had invented the furnace, and produced iron from the ore, nine-tenths of the battle for civilisation was gained.’

Lewis Henry Morgan⁸⁰⁷

Introduction

Soon after I joined the Çukuriçi Höyük research team in 2016, one of the main insights archaeologists provided about the EBA settlement is that Çukuriçi Höyük was an EBA 1 metal production centre in western Anatolia. But what does that mean? Did inhabitants at this site produce metals mainly for exchange with people in the wider region or for the local inhabitants themselves? Is there an evident separation between households at Çukuriçi Höyük and metalworking workshops? Or, to rephrase the last question: was metalworking at EBA 1 Çukuriçi Höyük a household activity performed within homes or was it conducted within workshops of unrelated, specialized individuals? All these questions occupied my mind and cycled repeatedly while I was reading the archaeological reports. These reports included both evidence from Çukuriçi Höyük and also from contemporary sites in the wider region, where metalworking workshops had already been interpreted as the seats of chiefs. Based on these archaeological conclusions, I have reached my own: metalworking as a craft may be a good proxy for contextualizing not only households at Çukuriçi Höyük, but also for addressing the heterogeneity of socio-political organization in the wider Aegean – more particularly in this case, within the eastern Aegean and western Anatolian ‘cultural koine’.⁸⁰⁸

The following chapter therefore looks at the part-time and full-time specialization of metalworking at Çukuriçi Höyük. It shows that metalworking at this site was organized alongside *generalized craft integration*, as a part-time activity, embedded in the DMP.⁸⁰⁹ Metalworking at Çukuriçi Höyük took place within households, through the participation of men, women, and children in this craft. As households at Çukuriçi Höyük shared metals and metalworking knowledge between themselves, it appears that this record supports the kinship-based organization of metal production and consumption. Kinship-based organization of households at Çukuriçi Höyük has been further supported through anthropological contextualization of the architectural development of the EBA 1 settlement. Regarding household organization, it can be seen that households at this site may have primarily pooled resources and goods within and among local households but they also participated in exchange between households and other groups. Also, metalworking knowledge in this regard was transmitted within households, yet also exchanged and shared between households at the site during EBA 1. This evidence differs starkly from other regional metalworking sites, where metalworking knowledge and the

⁸⁰⁷ Morgan 1877, 45.

⁸⁰⁸ Kouka 2002.

⁸⁰⁹ Sahlins 1972.

associated exotica were pooled and transmitted over generations within the same house, not being shared widely among houses at these other sites. Before I proceed, let me elaborate on the citation from Lewis Henry Morgan above that I chose for the opening to this chapter.

More than a century ago, Morgan argued that the development of what he termed ‘civilisation’ would not have been possible without knowledge of iron smelting.⁸¹⁰ By contrast, it is now known that the emergence of civilization in Mesopotamia and Egypt, which was characterized by the invention of the plough, writing, and the earliest politically and economically centralized cities, preceded knowledge of iron smelting. In fact, the earliest Bronze Age civilisations that emerged at the beginning of the 3rd millennium BC in the Near East lacked the abundance of local sources of copper, tin, and lead ores crucial for smelting copper or bronze and, more importantly, silver, which, by the mid-3rd millennium BC, had become a currency in Mesopotamia. Consequently, the early Near Eastern early states needed to reach out beyond the boundaries of their civilization in search of metals, if such a boundary ever existed.

The ‘long 3rd millennium BC’,⁸¹¹ a label inspired by Wallerstein’s World System Theory, was a time of sweeping changes, transforming societies not only in the Near East but also those within the Mediterranean Basin and along the Indus Valley. These changes consisted of i) the shift towards a drier climate; ii) the expansion of the first large-scale societies (Egypt and Mesopotamia); iii) the development of smaller, but no less novel, societies over the northern half of the Mediterranean Basin; and iv) a dramatic expansion in long-range activities, especially by sea.⁸¹² New human phenomena, namely the emergence of early urban centres with record keeping and writing, metrology, and currency, emerged at the beginning of the 3rd millennium BC in southwestern Asia. Most of these changes did not affect Çukuriçi Höyük, a site two hectares in area located on the western Anatolian coast, close to the modern town of Selçuk. Çukuriçi Höyük’s small settlement size should be understood in comparison to Near Eastern urban sites of over ten hectares. Taking into account the absence of a monumental central building and the absence of record keeping and writing at Çukuriçi Höyük, these comprise some of the major differences between the Near Eastern early state sites and the western Anatolian small-scale sites. However, Broodbank was right to acknowledge that these small societies on the fringes of the Mediterranean were no less novel than those in the Near East in the EBA.⁸¹³ At the dawn of the EBA, Çukuriçi Höyük was an arsenical copper production centre, as is evident from the presence of a large number of metalworking tools and smelting debris corresponding to all the production steps necessary to create various metal objects.⁸¹⁴ The coppersmiths at Çukuriçi Höyük were specialists, but their workshops can reveal many interesting details.

The distribution of metal objects within western Anatolia has been extensively studied from burial and settlement records dating to the EBA 2 period (2700–2400 BC). This period is marked by both the hoarding of metals within monumental public buildings and the concentration of metals in a limited number of graves. The social inequalities apparent in settlement organization largely correspond to those in the burial records. However, for the EBA 1 period (3000–2700 BC), few burial grounds within the region have been extensively excavated. Therefore, EBA 1 social organization at Çukuriçi Höyük and other sites in the region can only be studied through settlement organization. Given that during the EBA 2 metals were associated with elite graves and monumental buildings, the organization of metalworking and the possession of metal objects within an EBA 1 settlement is here taken as the main proxy for

⁸¹⁰ Morgan 1877.

⁸¹¹ Broodbank 2013.

⁸¹² Broodbank 2013.

⁸¹³ Efe 1988; Blum 2016.

⁸¹⁴ Horejs – Mehofer 2015.

assessing differences and social distance – not only between houses and households within a particular village settlement, but also on a regional scale.

In this chapter, I examine the extent to which a house society model fits the record at Çukuriçi Höyük. Firstly, this chapter outlines different anthropological approaches for addressing the material remains of domestic space, followed by a consideration of anthropological and archaeological methods of studying house societies. Secondly, the chapter contextualizes the architectural changes between the Late Chalcolithic and the EBA settlement with respect to ethnographic studies. Thirdly, the chapter addresses the organization of craft specialization, in particular metalworking, at Çukuriçi Höyük through archaeological theories and ethnographic evidence. The final section of this chapter discusses whether metalworking at Çukuriçi Höyük was a specialized craft – practised by a particular group of specialists that could be traced to a specific workshop – or whether copper working was an integral part of the DMP. Comparing the assemblage from Çukuriçi Höyük with other regional EBA 1 sites specifically addresses the question of whether the 'periphery' at the dawn of the 3rd millennium BC in western Anatolia can be seen as a homogenous socio-political unit, or whether superficial similarities in settlement organization blur actual socio-economic differences between the sites.

IV.1. Anthropological and Archaeological Approaches to Studying Domestic Space

To address the questions regarding metalworking raised above, this chapter starts with a diachronic outline of studying houses within socio-cultural anthropology. As will become evident in the course of this chapter, ethnographic studies of houses raised two important issues: gender⁸¹⁵ and kinship.⁸¹⁶ By outlining the developments within socio-cultural anthropology, this first section raises doubts about the direct translation of gender and kinship into archaeology. This will create an understanding for further sections of this chapter, where I address houses at Çukuriçi Höyük as both loci for kinship, craft specialization, and finally, gender. To explore the issue of gender, I am interested in whether the archaeological record at Çukuriçi Höyük supports any clustering of metalworking within male and female spaces of a house, as would be expected following Bourdieu's insights,⁸¹⁷ by which we could support the argument that metalworking at Çukuriçi Höyük might have been an exclusively male skill.⁸¹⁸ Are houses and homes organized according to their gendered composition? This question is in line with the attempt to highlight gender when visualizing units such as prehistoric households.⁸¹⁹ To explore the issue of kinship, I pose the question of whether houses at Çukuriçi Höyük support the house society social organization. I have not included house societies as an ideal type of non-state social organization in Chapter II, but will instead dwell upon a correspondence between house societies and great man societies, as elaborated in more detail below.

An analytical and comparative study of houses developed along with early writings in socio-cultural anthropology. Morgan's *House and House Life of the American Aborigines*⁸²⁰

⁸¹⁵ Bourdieu 1962.

⁸¹⁶ Levi Strauss 1982; Carsten – Hugh-Jones 1995.

⁸¹⁷ Bourdieu 1962.

⁸¹⁸ Metalworking as a male expertise has been statistically supported through a cross-cultural comparison (Murdock – Provost 1973). Based on the cross-cultural sample, the study showed that (Murdock – White 1979) males tend to work hard and tough materials, whereas females commonly work raw materials that are soft and pliable (Murdock – Provost 1973). Therefore, male crafts include metalworking, working with wood, the manufacture of musical instruments, stone working, and working in horn, bone, or shell. By contrast, women are the common producers of leather products, baskets, mats, textiles, and pottery (Murdock – Provost 1973, 211–212).

⁸¹⁹ Tringham 1991.

⁸²⁰ Morgan 1881.

presented the ‘gradual development’ of North and South American houses, corresponding to the three stages of social evolution (savagery – a hut; barbarism – a communal house; civilization – a single family house). One of the main outcomes of his study was the idea that kinship and property relations determine the form and spatial organization of a house: ‘to a very great extent communism in living was a necessary result of the condition of the Indian tribes. It entered into their own plan of life and determined the character of their houses.’⁸²¹ However, with the rise of historical particularism at the beginning of the 20th century, Morgan’s methods and theories sank into oblivion. Even Marcel Mauss, who was certainly not opposed to large-scale comparative approaches in principle, argued in this regard against superfluous evolutionary classification, and proposed studying a local variety of houses:

‘The researcher should not start by looking for the typical house: each house has its own sense. It is absurd to classify a society by a unique mode of dwelling; account must be taken of all the models found in the society, with all their variations, both individual and local: houses for general or specific purposes, for human or for non-human use. Only when such a study has been completed can the notion of a typical house be abstracted without running the risk of confusing houses of rich and poor men.’⁸²²

In socio-cultural anthropology, ‘a house’ was generally understood as a material component of the household as a social unit, but rarely analysed through its material form. Instead, a cross-cultural comparison of houses was addressed by an architect, who argued that a combination of culture, human behaviour, and environment determine the house form.⁸²³ Based on the Human Relations Area Files (HRAF), anthropologists showed that the floor area of a house in matrilineal societies is typically much larger than in patrilineal societies,⁸²⁴ as mentioned in Chapter II. Archaeologists have not adopted such markers, despite house sizes being easily measured through archaeological data. Instead, they have focused on cross-cultural studies to build hypotheses rather than interpreting material data.⁸²⁵

Bourdieu’s study of the Kabyle house, one of the most frequently cited investigations of domestic space by anthropologists and archaeologists alike, argues that a house is an ‘*opus operatum*’⁸²⁶ in which the material and the social collide. Among Berber societies, principles of opposition are indefinitely repeated in all areas of existence, including in the spatial organization of a house.⁸²⁷ In analysing how a house’s material oppositions parallel immaterial equivalences (e.g. outside : inside, light : dark, male : female), Bourdieu concluded that ostensibly technical material solutions among Berbers are simultaneously a symbolic as well as a social necessity.⁸²⁸ Although Bourdieu had little respect for discussions of the house form within evolutionary models, like Morgan and Mauss, he understood houses as central features of thought and social organization. The house and village are places in all societies where children embody the practices that structure their existence; just like houses, practices are not static but prone to change.⁸²⁹

The persistent tendency to address symbolism and cosmology rather than discussing processual changes reflecting economic strategies through architecture led to Carolyn

⁸²¹ Morgan 1881, 63.

⁸²² Mauss 2006 [1915], 130.

⁸²³ Rapoport 1969.

⁸²⁴ Ember 1973, Divale 1977.

⁸²⁵ Ensor 2013.

⁸²⁶ Bourdieu 1976, 90.

⁸²⁷ Bourdieu 1970.

⁸²⁸ Bourdieu avoids generalization by pointing out that ‘the dependence of the mythico-ritual system in relation to other systems does not always have the same force and the same form in every society’ (Bourdieu 1970, 153).

⁸²⁹ Bourdieu 1976.

Humphrey's claim that there is 'no place like home in anthropology'.⁸³⁰ Research projects studying houses as objects of ethnographic analysis of visual and material culture⁸³¹ have recently been labelled as 'studies *of*, rather than *with* architecture'.⁸³² 'Studies of architecture', or 'homes' for that matter, give priority to the social and symbolic meanings of the spatial organization of houses, following Bourdieu, rather than their processual character. Understanding all homes as homes-in-the-making – that is to say, homes as never-completed, consumption-driven projects – has recently attracted the attention of ethnographers and designers.⁸³³

Recently, Buchli⁸³⁴ unjustly claimed that archaeologists remain heavily inspired by Morgan's evolutionary perspective of house forms. In addition to the widely cited example of the Kabyle house and Ingold's dwelling perspective, some archaeologists agree that 'there is much more to the house than meets the eye'.⁸³⁵ They have recently called for the study of homes and place-making among hunter-gatherer societies⁸³⁶ and argued that house societies, a model developed by Lévi-Strauss, were a common type of social organization in European prehistory.⁸³⁷

House Societies

In the 1980s, through a systematic restudy of ethnographic material, Lévi-Strauss solved the enigma of Kwakwaka'wakw social organization with the concept of houses. This study, however, was not based on a study of or on a study with a house. The Kwakwaka'wakw, with matrilineal neighbours to the north and patrilineal ones to the south, were located on the islands and mainland northwest of Vancouver, and their social organization puzzled Boas throughout his life. The Kwakwaka'wakw combined contradictory practices, not complying with either matrilineal or patrilineal classification. On the one hand, Kwakwaka'wakw were generally patrilocal with a male head of the family, but on the other hand, the elite households practiced matrilocality and transmission of property, including the name, along the female line.⁸³⁸ Boas understood that the Kwakwaka'wakw had 'a type of structure without equivalent in the archives of ethnology',⁸³⁹ and proposed that the Kwakwaka'wakw developed from a patrilineal to matrilineal society – a line of development unacceptable to Durkheim, Mauss, and Murdock, and many later anthropologists. More than half a century later, Lévi-Strauss revisited Boas' Kwakwaka'wakw data and Kroeber's analysis of the Yurok, whom Kroeber thought had no society as such and no social organization.⁸⁴⁰ However, Lévi-Strauss arrived at a different conclusion:

'In reality, the institutions that support Yurok society do exist: they are, first of all, the fifty-four 'towns' among which the population distributed itself; and, above all, within each town, the 'houses'. At least, the word is out; the same word, as a matter of fact, as the Yurok use to designate these, in principle perpetual, establishments, each bearing a descriptive name and inspired by the location, the topography of the area, the decoration of the façade, the ceremonial function – the name from which is derived that of the one

⁸³⁰ Humphrey 1988, 16.

⁸³¹ Blier 1987; Coote – Shelton 1992; Carsten – Hugh-Jones 1995; Waterson 1997; Fox 1999.

⁸³² Ingold 2013, 10.

⁸³³ Pink et al. 2017.

⁸³⁴ Buchli 2013.

⁸³⁵ Kuijt 2018, 585.

⁸³⁶ Maher – Conkey 2019.

⁸³⁷ Chesson 2003; Borić 2008; Brami et al. 2016; González-Ruibal – Ruiz-Gálvez 2016; Kuijt 2018.

⁸³⁸ Lévi-Strauss 1982.

⁸³⁹ Lévi-Strauss 1982, 170.

⁸⁴⁰ Lévi-Strauss 1982.

or several owners...in this case, as in all those with which the text abound, it is not the individuals or the families that act, it is houses, which are the only subjects of rights and duties.’⁸⁴¹

Based on his study of the Yurok, Lévi-Strauss proposed a concept of ‘houses’ as a socio-economic or kinship unit, which he claimed had long been neglected within anthropology. He named this concept ‘*sociétés à maison*’ (house society) and argued that the Kwakwaka’wakw and Yurok were no exception to the rule: house societies had existed in medieval Europe, Japan in the Heian period, and ancient Greece. In all of these cases, the house cuts across all incompatible categories (or ‘logical oppositions’ as Lévi-Strauss understood them) such as patrilineal : matrilineal, patrilocal : matrilocal, endogamous : exogamous categories of descent, postmarital residence, and marriage patterns. Lévi-Strauss defined a house as:

‘A corporate body holding an estate made up of both material and immaterial wealth, which perpetuates itself through the transmission of its name, its goods, and its titles down a real or imaginary line, considered legitimate as long as this continuity can express itself in the language of kinship or of affinity and, most often, of both.’⁸⁴²

Importantly, Lévi-Strauss⁸⁴³ maintained that the house society type of social organization can be ascribed to societies which are strictly hierarchical and in which exogamy and endogamy are not mutually exclusive: the exogamous marriage ensures that new titles can be acquired, and endogamous marriage their maintenance. As house societies could be simultaneously hierarchical but also based on alliance and blood ties, Lévi-Strauss placed the hybrid form of this social organization model along a developmental – if not an evolutionary – scale, between kin-based and class-based societies.

Subsequent studies of house societies have inspired anthropologists working in Southeast Asia since the ‘house’ in this region is also used as an important emic expression of kinship as well as a political-ritual entity.⁸⁴⁴ Outside this geographic area, the Arabic term *bayt* also refers to both a house and a family, but in addition, also to origins and honour.⁸⁴⁵ However, by testing the applicability of the house society model in seven case studies in Southeast Asia and three case studies from Amerindian societies, scholars maintain that the concept of house societies ‘raises as many problems as it solves’.⁸⁴⁶ The contributors to *About the House: Lévi-Strauss and Beyond*,⁸⁴⁷ the proceedings of a symposium on house societies, arrived at two important conclusions. Firstly, they discarded house societies as a type of social organization that complemented traditional kinship theory as being too broad, too inclusive, and inherently evolutionist. Secondly, they welcomed the attempt by Lévi-Strauss to consider a more holistic conception of the house, including its architectural, symbolic, and social importance. Therefore, house societies should be taken as a starting point for future contributions to the emerging body of literature on the anthropology of architecture and, consequently, the home.⁸⁴⁸

Meanwhile, anthropologists working in Melanesia since the 1980s have partially solved the problems Lévi-Strauss⁸⁴⁹ raised in *The Way of the Masks*.⁸⁵⁰ What Lévi-Strauss previously saw as logical oppositions or paradoxical features, since a society can either prioritize descent

⁸⁴¹ Lévi-Strauss 1982, 172–173.

⁸⁴² Lévi-Strauss 1982, 174.

⁸⁴³ Lévi-Strauss 1982.

⁸⁴⁴ Fox 1980; Carsten – Hugh-Jones 1995.

⁸⁴⁵ Gingrich 2012b, 152.

⁸⁴⁶ Carsten – Hugh-Jones 1995, 19.

⁸⁴⁷ Carsten – Hugh-Jones 1995.

⁸⁴⁸ Carsten – Hugh-Jones 1995.

⁸⁴⁹ Lévi-Strauss 1982.

⁸⁵⁰ Godelier 2018.

(genealogy) or alliance (exchange), has proven not to be the case. In Melanesian societies; by contrast, basic units of social organization are an outcome of descent and alliance (and also, to some extent, residence).⁸⁵¹ Godelier noticed that in discussing house societies, Lévi-Strauss repeated the mistake from the *Elementary Structures of Kinship*, in that he prioritized exchange over descent. Instead, Godelier emphasized that in house society systems, alliances were in fact made between houses for the *reproduction and maintenance of the house* (including its material and immaterial wealth), which then demonstrates that descent and alliance played equally important roles among house society systems.⁸⁵² However, the same emphasis on descent and alliance as among the Kwakwaka'wakw, medieval Europeans or Japanese in the Heian period – the examples of house societies listed by Lévi-Strauss – led to different systems of social organization in Melanesia. Today, at least within socio-cultural anthropology, we refer to these not as *house societies* but as *big man* and *great man* models of social organization.

The development of new types, following the house society social structure proposed by Lévi-Strauss, was described in detail by Godelier for Melanesia⁸⁵³ and more specifically for Oro Province in Papua New Guinea by Schwimmer.⁸⁵⁴ The following is a short summary of these developments:

'At the time, though, Lévi-Strauss could not know that Melanesian societies can be divided into two groups: those in which power is exercised by great men – great warriors and masters of the initiation rituals – and 'big-men' societies, where power rests on the accumulation of material wealth (pigs, shells, bird-of-paradise plumes, ceremonial axes, etc.) and women by the headman of certain lineages in their clans ... but in none of those were 'houses' found – let alone in great-men societies.'⁸⁵⁵

Although Lévi-Strauss's initial interpretation that Melanesian ethnographic cases represent house society systems of social organization was erroneous, I agree with Schwimmer's comment that 'Lévi-Strauss has given part of the answer, by inviting us to look at paradoxical features, and that Godelier has given us another part of the answer, by exploring particular paradoxes related to equality and inequality.'⁸⁵⁶

By contrast, the archaeological community has embraced the concept of house societies as originally proposed by Lévi-Strauss.⁸⁵⁷ This concept filled the gap in archaeological kinship studies, which had been largely abandoned after the Schneiderian intervention discarding kinship as ideology, instead promoting the importance of non-kin-based corporate groups, which are easily traceable archaeologically.⁸⁵⁸ Gillespie⁸⁵⁹ explained that the enthusiasm for this approach went so far that young archaeologists would regularly approach her claiming they had identified a house society within the excavated remains of domestic structures.

Although this is an extreme, informed studies of house societies up to this day, at least in the Old World, do not question their existence. They treat house society as a formal analytic model of social organization (despite having been previously rejected by socio-cultural anthropologists, except for a few cases) and provide several bodies of evidence for house societies across long time spans and vast regions. Some scholars argue that the first house societies emerged in Mesolithic Europe, and that the 'house society remained a deeply rooted form of

⁸⁵¹ Schwimmer 1991; Godelier 2018.

⁸⁵² Godelier 2018.

⁸⁵³ Godelier 2018; see Chapter V.

⁸⁵⁴ Schwimmer 1991.

⁸⁵⁵ Godelier 2018, 191–192.

⁸⁵⁶ Schwimmer 1991, 155.

⁸⁵⁷ Joyce – Gillespie 2000; González-Ruibal 2005; Gillespie 2007; Borić 2008; Bami et al. 2016; González-Ruibal – Ruiz-Gálvez 2016; Kuijt 2018.

⁸⁵⁸ Ensor 2011, 2013.

⁸⁵⁹ Gillespie 2007.

social organization through European prehistory'.⁸⁶⁰ Others place the origin of house societies within the Aegean in the Late Neolithic period and claim that this form of social organization persisted into the Iron Age.⁸⁶¹

Unsynchronized classifications of the emergence of house societies correspond to differences in the interpretation of Lévi-Strauss' model, which caused several difficulties in archaeological investigations. Scholars called for the differentiation of house society as a social organization model from house-centred archaeological investigation,⁸⁶² the abolition of house societies as a stage in social evolution (initially proposed by Lévi-Strauss),⁸⁶³ and a clear distinction from other concepts, such as Hodder's domus, a chiefdom, or urbanism.⁸⁶⁴

Unlike defined archaeological correlations for chiefdoms or tribes,⁸⁶⁵ house societies have not been prescribed by material correlates based on ethnographic data. Despite recognizing houses' material and moral importance, Lévi-Strauss himself had not investigated either Kwakwaka'wakw or Yurok houses. A recent textual and material study of house societies in the Ancient Mediterranean has proposed treating house societies as heterarchically organized (despite Lévi-Strauss's claim that they are hierarchical), in which case 'certain houses become more powerful than others, attain a certain degree of centralization and then vanish before their accumulated power manages to produce a truly monarchic, territorial state'.⁸⁶⁶ With an emphasis on houses in the 'plural',⁸⁶⁷ this highlights competition between houses for wealth and prestige.

Importantly, theoretically well-informed archaeological literature on house societies⁸⁶⁸ and numerous empirical cases of house societies in European prehistory⁸⁶⁹ entirely dismiss the literature on big man and great man societies. In none of these contributions are there any references to the Papua New Guinea and wider Melanesian literature that expanded the original concept of house societies for non-state constellations without a permanent, centralized, and hereditary authority. Instead, the most archaeologists remained 'faithful' to Lévi-Strauss⁸⁷⁰ while socio-cultural anthropologists have highlighted his mistakes and improved his typology.

Before moving on to the next section, I briefly discuss the paradoxical features, observed by Lévi-Strauss, which were the basis for the development of a concept of house society, but which were only seen as paradoxical or logical oppositions because of his structuralist point of view. This is of particular importance since, like Lévi-Strauss, archaeologists discussing house societies have taken logical or paradoxical contradictions within the house society model for granted, although there are other ways to understand them, as shown by Melanesian anthropologists and Louis Dumont. These scholars emphasized the need to look at structural oppositions (e.g. egalitarianism vs. hierarchy, elementary vs. complex kinship systems, endogamy

⁸⁶⁰ Borić 2008, 133.

⁸⁶¹ González-Ruibal – Ruiz-Gálvez 2016.

⁸⁶² Gillespie 2007.

⁸⁶³ González-Ruibal – Ruiz-Gálvez 2016.

⁸⁶⁴ González-Ruibal – Ruiz-Gálvez 2016.

⁸⁶⁵ Service 1962; Sahlins 1968; Renfrew et al. 1974; Earle 2002.

⁸⁶⁶ González-Ruibal – Ruiz-Gálvez 2016, 385–386.

⁸⁶⁷ Gillespie 2007; González-Ruibal – Ruiz-Gálvez 2016; Relaki – Driessen 2020.

⁸⁶⁸ E.g. Gillespie 2007; González-Ruibal – Ruiz-Gálvez 2016. In this discussion, I exclude the discussion of households as analytical units or household archaeology (e.g. Souvatzi 2014; Souvatzi 2008; Müller 2015; Pfälzner 2015). In particular, Stella Souvatzi's work on Neolithic households had an important impact on the study of households in Aegean prehistory as she showed that the bottom-up studies of the household need to be 'fully and genuinely taken into account' for understanding long-term socio-economic changes (Souvatzi 2014, 247). Here, I exclusively focus on those archaeological studies which established the use of the house society as an ideal type of social organization in European prehistory rather than households as analytical units.

⁸⁶⁹ González-Ruibal 2005; Borić 2008; Bami et al. 2016; González-Ruibal – Ruiz-Gálvez 2016; Kuijt 2018.

⁸⁷⁰ For an innovative perspective on the House (with a capital H), by moving away from the original Lévi-Strauss's definition of 'sociétés à maison' (house society), see Letesson – Driessen 2020.

vs. exogamy, woman vs. man) not as *complementary oppositions*, which are mutually exclusive, but instead as *hierarchical oppositions*, present in both non-state and state societies.⁸⁷¹

Following Dumont, an important distinction can be made between how hierarchy is perceived among 'non-modern' pre-Enlightenment societies and 'modern' ones. Dumont showed that whereas non-modern societies accept hierarchy as self-evident and unquestionable, most modern ideologies regard hierarchy as unnecessary and undesirable. Despite the fact that in both cases the ideology may be built upon more or less 'egalitarian' values, some sort of hierarchy always exists in those societies in practice, building upon a dialectic axiom that any form of distinction (e.g. man vs. woman, male vs. female) is a hierarchical opposition.⁸⁷² Or, as Parkin has excellently paraphrased Dumont's thinking:

'The fact that equality is presented as a value does not mean that hierarchy is absent in other, perhaps non- or less ideal aspects of the culture. In fact, it will almost certainly be present somewhere ... on a lower level of the ideology, where it may well occur as a matter of practice.'⁸⁷³

Dumont's thinking inspired the recent volume *Hierarchy and Value*,⁸⁷⁴ one section of which provides a thorough review by Robert Parkin of Dumont's thinking and its implications within socio-cultural anthropology.⁸⁷⁵ In his concluding remarks, Parkin summarized Dumont's understanding of hierarchy:

'It should be obvious that Dumont's insistence on the necessity of hierarchy is purely intellectual and relates to the invariant structure of his chosen model; it is in this sense that he thinks that hierarchy is unavoidable. His critics notwithstanding, nowhere to my knowledge does he put forward hierarchy as a prescription for the organization of society, express a personal preference for it, or advocate the perpetuation of social inequalities.'⁸⁷⁶

Regarding more or less 'egalitarian' societies, the coexistence of hierarchy between houses (e.g. in terms of prestige or affluence) but also within houses (e.g. age and gender differences) have already been highlighted in the case of southwestern Saudi Arabia,⁸⁷⁷ great man societies in the highlands of Papua New Guinea,⁸⁷⁸ Melanesian big man societies,⁸⁷⁹ Pacific Northwest Coast foragers,⁸⁸⁰ and complex hunter-gatherer and more sedentary tribal groups in South-eastern Asia and the Pacific Northwest Coast.⁸⁸¹ Although none of these contributions were studying house society systems of social organization *per se*, scholars have understood that hierarchies (e.g. men's control of women), as well as competition and cooperation between houses, do also exist within more or less 'egalitarian' sedentary societies.

Following this discussion of the archaeological markers of house societies⁸⁸² and the anthropological understanding of big man and great man societies, I now present an archaeological case study. If the plurality of houses competing for higher status is the main characteristic

⁸⁷¹ Dumont 1980.

⁸⁷² Dumont 1980.

⁸⁷³ Parkin 2003, 44.

⁸⁷⁴ Hickel – Haynes 2018.

⁸⁷⁵ Parkin 2003.

⁸⁷⁶ Parkin 2003, 220.

⁸⁷⁷ Gingrich 2012b; Gingrich 2015a.

⁸⁷⁸ Godelier 1986a; Godelier 1991.

⁸⁷⁹ Godelier 1991.

⁸⁸⁰ Wengrow – Graeber 2018.

⁸⁸¹ Hayden 1995; Hayden 2011.

⁸⁸² González-Ruibal – Ruiz-Gálvez 2016.

of acquiring and maintaining differences in status in house societies,⁸⁸³ then differentiated access to copper production and consumption will here be taken as the main proxy for discussing the socio-economic differences between houses at Çukuriçi Höyük.

IV.2. Continuity and Change among Houses at Çukuriçi Höyük

By looking into the houses at Çukuriçi Höyük in a diachronic manner, from the Late Chalcolithic to the EBA 1 period, the main motivation behind this section is to address change and continuity in dwelling between and within the two periods. Did houses and households maintain the same internal or external organization of space during the Late Chalcolithic and the EBA 1 period? Were they used in the same way? What was the logic behind the agglutination of the Çukuriçi Höyük settlement at the dawn of the Bronze Age? What can we possibly say about the kinship system at Çukuriçi Höyük, this time not based on subsistence (e.g. cattle breeding might support patrilineal descent as proposed in Chapter III) but based on the development of the settlement pattern at the site, considering that the architecture might be ‘itself a kind of code – one of the cognitive registers on which people draw to represent kinship structures to themselves’.⁸⁸⁴ In this section, the development of the EBA 1 settlement at Çukuriçi Höyük supports a patrilineal kinship structure based on considerable architectural and structural similarities to the two villages studied ethnographically.

The EBA 1 site of Çukuriçi Höyük was built upon the earlier Late Chalcolithic settlement. During the preceding Late Chalcolithic period (ÇuHö VII–Vb: 3350–3050 calBC) the architecture is dominated by freestanding buildings and installations. In the earliest phase ÇuHö VII, a ditch was detected. In the subsequent phase ÇuHö VI, remains of a stone-row-structure and presumably freestanding architecture, indicated by linear wall sections, were built upon the filled ditch in sub-phase VIb. Remains of a rectangular building and a stone-row-structure were discovered in sub-phase VIa. In phase ÇuHö VI, stone-row structures found attached to architectural remains were used as drying platforms. In phase ÇuHö V the outline of the excavated area changed despite these installations remained in use in context of an area used for food processing and storage activities. In both sub-phases ÇuHö Vb and Va the platforms were found next to small round buildings (for changes in settlement planning see Tab. 7). The destruction by fire in all settlements is attested to have spread across the excavated area at the end of all five Late Chalcolithic settlement (sub-)phases (ÇuHö VII–V), including the open and closed spaces. The reasons for the destruction of the settlement are not entirely clear, but the explanation that an attack or ritual burning rather than an accident caused the fire seems more feasible. A number of sling bullets found within the burnt layers and the widespread nature of the fire throughout the settlement support the former interpretations.⁸⁸⁵

The Late Chalcolithic architecture at Çukuriçi Höyük generally corresponded to the building trends in contemporary eastern Aegean islands and western Anatolian coastal sites. Within this region, a combination of freestanding rectangular, apsidal, and round houses has been recorded at other Late Chalcolithic sites. By contrast, the hinterland sites in western Anatolia during the Late Chalcolithic period were composed solely of rectangular houses, a feature that became the norm in EBA 1 western Anatolian coastal sites.⁸⁸⁶ During the Late Chalcolithic period, the settlers at Çukuriçi Höyük relied on mixed subsistence, based on the cultivation of domestic crops such as wheat and pulses and herding domestic animals, predominantly

⁸⁸³ Gillespie 2007; González-Ruibal – Ruiz-Gálvez 2016.

⁸⁸⁴ Healy – Sołtysek 2017.

⁸⁸⁵ For a complete and detailed overview of Late Chalcolithic settlements at Çukuriçi Höyük and their interior/exterior structure, see Schwall 2018, 164–167.

⁸⁸⁶ Horejs – Schwall 2015.

Date	Phase	Description
Early Bronze Age 1 2850–2800/2750 calBCE	ÇuHö III	Agglutinated settlement of rectangular structures sharing lateral walls
Early Bronze Age 1 2950/2900–2850 calBCE	ÇuHö IV	Freestanding rectangular structures become agglutinated by sharing lateral walls
Early Bronze Age 1 3050–2950 calBCE	ÇuHö Va	Freestanding round building; stone-row-structure; the settlement was destroyed by fire
Late Chalcolithic 3110–3050 calBCE	ÇuHö Vb	Freestanding round building; stone-row-structures; the settlement was destroyed by fire
Late Chalcolithic 3270–3110 calBCE	ÇuHö VI	ÇuHö VIa: Remains of a rectangular building and a stone-row-structure; the settlement was destroyed by fire ÇuHö VIb: The former ditch was built over with presumably freestanding architecture indicated by linear wall sections and a stone-row structure; the settlement was destroyed by fire
Late Chalcolithic 3350–3270 calBCE	ÇuHö VII	A ditch; the settlement was destroyed by fire

Tab. 7 Changes in domestic architecture from the Late Chalcolithic to EBA 1 at Çukuriçi Höyük

sheep and goats. The settlers also relied on the hunting of large and small game, fishing, and collecting shells and wild plants. Their pots were handmade and of local origin, and the dwellers at Çukuriçi Höyük were already familiar with smelting copper. While their subsistence strategy largely remained the same as in the EBA 1 period, this cannot be said for their house architecture.

Over the course of the EBA 1 phase ÇuHö IV, which lasted approximately 100 years, the burnt settlement belonging to ÇuHö Va phase was levelled and a new dwelling pattern was developed. In Phase ÇuHö IV, free-standing rectangular houses replaced the free-standing round ones belonging to ÇuHö Va. However, the characteristic free-standing buildings that were common throughout the Late Chalcolithic, over a period of around 400 years, lasted only for about 25 years during EBA 1. Four building phases point towards the gradual development of the agglutinated EBA 1 village through the multiplication of houses. The previous open spaces between the dwellings gradually became enclosed, following a particular pattern (see Fig. 18). The newly erected houses were not 'free-standing', but were always laterally attached to a pre-existing house.⁸⁸⁷

If we are to seriously consider that the residents of a particular village or settlement in most cases follow the pattern that is already established when erecting a new house, that residence rules may correspond to a kinship system,⁸⁸⁸ or that in some cases it is in 'living and consuming together in houses that people become complete persons – that is, kin',⁸⁸⁹ then it becomes undeniable that coresidence, commensality and living on the same land are some of the common ways of establishing kinship.⁸⁹⁰ If this understanding is applied to the EBA settlement pattern

⁸⁸⁷ For a detailed archaeological publication of the EBA architecture at Çukuriçi Höyük, see Grasböck et al. in press.

⁸⁸⁸ Fox 1999.

⁸⁸⁹ Carsten 2004.

⁸⁹⁰ Practices of establishing kinship relations can be divided into those which are more or less commonly shared. Thus, coresidence, commensality, living on the same land, and friendship can be classified among the more commonly shared means. Examples of less commonly shared practices of becoming kin include the following: being born on the same day, following the same taboos, surviving a dangerous sea or ice voyage, or having a shared name (Sahlins 2013, 68).



Fig. 18 The EBA 1 settlement pattern at Çukuriçi Höyük and the adjustment of room 42 (R42), (red dots = ovens) (ERC Prehistoric Anatolia/OeAI, M. Börner, B. Horejs)

at Çukuriçi Höyük, then we can postulate that the processual (dis)continuities in settlement patterns, such as the construction of walls, the agglutination of houses, and the narrowing of open areas, are the material artefacts of boundary making within and between social groups and persons who resided within those houses over a period of 100 years. Although kinship or relatedness cannot be traced through material remains alone, the established residence rule of constructing new houses next to pre-existing ones is not unique to Çukuriçi Höyük. Similar residence patterns have been observed ethnographically among sedentary farming groups in moderate and tropical zones, which will here serve as a means of contextualization of the EBA architectural developments at Çukuriçi Höyük.

A detailed ethnoarchaeological study of thirty-seven small-scale agricultural villages was conducted in the 1970s in Khar o Tauran, in northeastern Iran.⁸⁹¹ Particular to this study was not only its documentation of a static settlement pattern within a village, commonly recorded by socio-cultural anthropologists,⁸⁹² or snapshots of settlement patterns and their design or size compared to each other by prehistoric archaeologists.⁸⁹³ Instead, Horne⁸⁹⁴ documented the diachronic reconstruction of agglutination processes and diachronic social relations between the dwellers at these sites. In Tauran villages, once a single rectangular house or a group of free-standing rectangular houses had been constructed, all subsequent houses were built in relation to the pre-existing ones, by repeating the previous orientation. The repeated orientation of houses can also be observed from the circular settlement pattern of the matrilineal Omarakana village in the Trobriand Islands⁸⁹⁵ or the patrilineal Matautu village among the Tikopia.⁸⁹⁶ In the case of the Omarakana village, houses were built in two concentric circles with doors facing the central open dancing and burial ground, the chief's dwelling, and his storage house. At Matautu, the longer sides of the rectangular houses, built in a grid-like pattern, followed the shoreline with doors facing the shore.⁸⁹⁷ In the latter two cases, the rectangular dwellings

⁸⁹¹ Horne 1994.

⁸⁹² Malinowski 1929, 8; Firth 1959, 188; Firth 1983, 49; Mosko 2013.

⁸⁹³ Renfrew 1972, 225–264; Fidan et al. 2015; Naiboğlu 2019.

⁸⁹⁴ Horne 1994.

⁸⁹⁵ Malinowski 1929, 8.

⁸⁹⁶ Firth 1959, 188; Firth 1983, 49.

⁸⁹⁷ For a diachronic study of the abandonment of old houses and the construction of new ones at Tikopia following a hurricane, see Firth 1959.

were free-standing, but in Tauran, as at Çukuriçi Höyük, the new houses were instead attached to the pre-existing ones.⁸⁹⁸

Villagers in Tauran associated the erection of new houses with marriage since a newlywed couple usually set up a new household close to the groom's parents. Based on the repeated and well-established pattern of post-marital patrilocal residence, the spatial proximity between households within a particular Tauran village corresponded to kinship distance between domestic groups. As these villages were located in the plains and lacked enclosures, the reason for agglutination cannot be ascribed to a circumscribed area within the enclosure walls. In addition, warfare or defence purposes were not responsible or partly responsible for this form of village nucleation. Horne, in his ethnoarchaeological study focusing on the histories of persons and houses, argued that building decisions in Khar o Tauran are 'bound by the past (*via inheritance, field holdings, and kinship*), and new building takes account of existing (or forecast) structures and *social relationships*'.⁸⁹⁹ Horne⁹⁰⁰ showed that the ostensibly unplanned and irregular design of these villages was the outcome of marriage and social relations, and these building practices were transmitted across the generations. The spatial proximity between households of close kin (father-son) encouraged cooperation, which was of specific economic importance in Tauran (see Fig. 19). The villagers practised mixed farming, combining agriculture with transhumance, in which different but closely related households pooled their labour for subsistence. In addition to these socio-economic reasons, the agglutinated pattern was well adapted to the local climate, as the closely built houses generated more shade in the summer and served as a windbreak in the winter. Horne claims in connection with these environmental reasons for the agglutinated village structure that 'those benefits seem to be by-products of social and economic goals rather than goals in themselves'.⁹⁰¹ The current villagers could not recall ceramic and copper production in Khar o Tauran, but these settlements were located close to shallow copper mines and clay resources in the alluvial plains that were exploited in prehistory.⁹⁰²

The correspondence between spatial proximity and kin distance was also confirmed by a recent interdisciplinary study of 51 rural Thai villages in the Nang Rong district that had been settled 50 years prior to the investigation. These villages displayed a similar pattern as that recorded in Khar o Tauran. In Nang Rong, the members of a new generation that remained in the village aimed to construct a new building close to their parents or their in-laws. Kin and spatial proximity clearly overlapped in the village formation phases, but the correspondence became harder to trace once the empty space between the houses had been filled.⁹⁰³ An extended family group, residing in a multiple-room dwelling, sharing food and pooling labour, was also reported among agricultural villages in Arabia and the Levant.⁹⁰⁴ In addition to these studies, anthropologists have argued that domestic architecture necessarily reflects a group's social organization⁹⁰⁵ and symbolic structuring principles.⁹⁰⁶ Understood in this way, these changes in domestic architecture in non-state societies ought to correspond to changes in social organization. A close relationship between the two was observed by Raymond Firth during his long-term ethnographic fieldwork among the Tikopia:

⁸⁹⁸ For an archaeological reconstruction of architectural patterns and the corresponding residence patterns, see Ensor 2013.

⁸⁹⁹ Horne 1994, 120, italics mine.

⁹⁰⁰ Horne 1994.

⁹⁰¹ Horne 1994, 120.

⁹⁰² Horne 1994.

⁹⁰³ Verderya et al. 2012.

⁹⁰⁴ Kramer 1982; Heiss 2006.

⁹⁰⁵ Morgan 1881.

⁹⁰⁶ Bourdieu 1970.

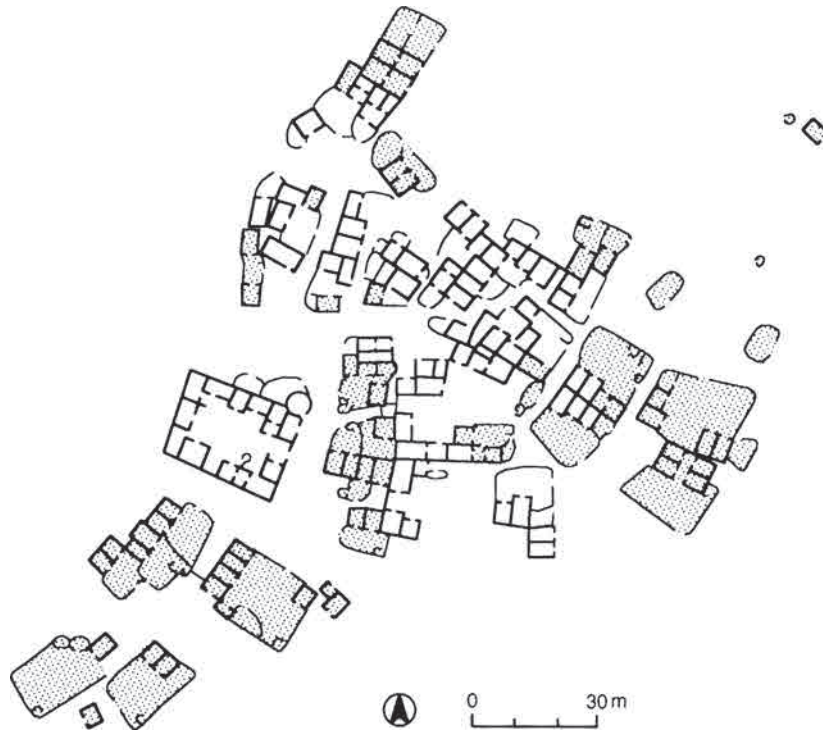


Fig. 19 Settlement organization and the process of expansion at Khar o Tauran (Horne 1994, fig. 17)

‘Change of dwelling place is not simply a material change. It reflects structural considerations, and personal choices. It may be related to principles of descent and inheritance; it may mean change in size or constitution of residential kin groups; it may have repercussions on relations with neighbors. In short, physical movement may relate to the concept of what makes up a proper social unit.’⁹⁰⁷

By considering a close material change in domestic organization to reflect social organization, we can return to the case study of Çukuriçi Höyük. Before and after the fire burnt down the Late Chalcolithic village, the settlers used local materials for house construction; houses had one-metre-tall stone foundations built from two rows of quarry stones which were supplemented with mudbrick walls and a wooden roof.⁹⁰⁸ Like metal smelting, which was identified in both phases, building techniques were transmitted through the generations. The settlement pattern, however, changed dramatically after the fire episode. Previously free-standing Late Chalcolithic round houses disappeared in the transition into the EBA. In comparison to Late Chalcolithic round houses, the EBA house sizes shrank, and an agglutinated village pattern replaced a somewhat dispersed one. While Late Chalcolithic metalworking was located in open areas, during the EBA metal production moved into the houses. This partial uprooting of material culture linked to domestic structures after the fire episode remains difficult to understand. It could be due to several reasons such as a communal decision to change the settlement pattern,

⁹⁰⁷ Firth 1959, 183. A correspondence between the fission of domestic groups, the transmission of property, and changes in domestic architecture was also documented among the LoDagaa (Goody 1971 [1958]b). Among the Baruya, changes in house architecture derived from new contacts established with ‘neighbours’. After the coming of the white people, the Baruya learned how to weave pieces of bamboo together and they substituted round walls made of bark with walls made of bamboo. After ten years or so, they started to build rectangular houses divided into two or three rooms to copy the houses of the white people who settled in the valley under Australian colonization (M. Godelier, pers. comm. 2019).

⁹⁰⁸ Grasböck 2013.

a partial change in population after an attack, or borrowing from neighbouring groups. In all possible cases, change in social organization between the Late Chalcolithic and EBA 1 was inevitable. Given that 'in oral societies the cultural tradition is transmitted almost entirely by face-to-face communication; and changes in its content are accompanied by the homeostatic process of forgetting or transforming those parts of the tradition that cease to be either necessary or relevant,'⁹⁰⁹ the EBA 1 settlers at Çukuriçi Höyük needed to 're-invent' themselves. They abandoned round houses but retained the same building techniques. They remained the gatekeepers of metal smelting knowledge but shifted its production inside their houses. They abolished the Late Chalcolithic installations for drying wild fruits in the open areas but continued to collect and consume them during EBA 1. Apart from the first building phase, none of the subsequent newly built rooms were designed as free-standing, but were instead attached to the pre-existing houses. Considering the similarities with the two ethnographic studies from Tauran and Nang Rong, it is evident that this pattern is neither unique to Çukuriçi Höyük nor to prehistory. Although this type of domestic pattern was based on patrilocal residence and patrilineal descent in both cases, scholars remain critical of the imposition of descent rules onto limited archaeological data.⁹¹⁰ However, based on the small settlement size at Çukuriçi Höyük (not exceeding two hectares) we can also draw some comparative insights.

The settlement size and village population can be further inferred through ethno-archaeological examples. The study of Tauran villages in northeastern Iran showed that the settlement size correlated with the number of residents. A village size between 0.5 and 2.23 hectares never accommodated more than 200 residents⁹¹¹ (see Tab. 8), and the rather small resident population can be explained through the functionality of these structures. Half of the buildings in Tauran villages were houses for human habitation, whereas the other half were animal sheds – sheltering mainly sheep and goats, as well as agricultural equipment.⁹¹² Given that the settlement of Çukuriçi Höyük was limited to an anthropogenic mound of 2 hectares, then even if all the structures were built for domestic use, the residential group could hardly exceed 400 residents. However, intermarriage within a group smaller than 500 individuals may have had problematic implications and therefore most village groups of similar size are partially exogamous,⁹¹³ which was also the case in Tauran. Considering that marriage in non-state societies serves as a means of alliance,⁹¹⁴ creating peace between different groups,⁹¹⁵ then cooperation between villages for the exchange of goods and marriage partners may result in some homogenizing behaviour across different sites.⁹¹⁶

Cultural homogeneity between the coastal EBA 1 western Anatolian sites has previously been inferred from the visible connectivity between sites (the exchange of obsidian and metal tools) but also shared house architecture (agglutinated settlement). The regional homogeneity (except for Çukuriçi Höyük) includes the presence of enclosure walls during EBA 1, which may partly explain settlement agglutination, but cannot be seen as the main reason for it. These shared cultural traits across the region led scholars to argue for the existence of an

⁹⁰⁹ Goody – Watt 1963, 344.

⁹¹⁰ For Çukuriçi Höyük, a patrilineal kinship structure has been proposed based on subsistence (see Chapter III) and the small size of domestic structures (see Chapter II). The gradual agglutination of the EBA settlement at Çukuriçi Höyük furthermore supports the patrilineal kinship structure, based on considerable architectural/structural similarities with Khar o Tauran (Horne 1994) and Nang Rong (Verderya et al. 2012) villages.

⁹¹¹ Kramer 1982, 59, tab. 2.

⁹¹² Kramer 1982.

⁹¹³ Wobst 1974; Wobst 1976.

⁹¹⁴ Lévi-Strauss 1969.

⁹¹⁵ Sahlins 1968.

⁹¹⁶ Bintliff 2010.

TABLE 2: POPULATIONS, AREAS, AND DENSITIES OF CENTRAL TAURAN VILLAGES

Village	Population	Area (ha)	Density
Baghestan	148	1.89	78.31
Barm	124	1.56	79.49
Eshqvan	174	2.23	78.03
Faridar	80	1.06	75.47
Jafarabad	82	1.09	75.23
Kariz	104	1.24	83.87
Nahar	39	0.76	51.32
Nauva	36	1.15	31.30
Salehabad	112	1.94	57.73
Trghmar	27	0.39	69.23
Zamanabad	178	1.86	95.70
Hojjaj	82	1.06	77.36
Talkhab	49	0.97	50.52

Sources: For the villages of Hojjaj, Ravazanag, Talkhab, and Zivar: aerial photographs, 1956 series and 1969 series, supplied by the National Geographic Centre, Teheran. For the rest, aerial photographs, 1969 series, supplied by the National Geographic Centre, Tehran, and Iran 1973a.

Note: Mean village population, 95.0 persons; mean village area, 1.32 hectares; mean density, 69.50 persons/hectare. For correlation between population and area, Pearson's product-moment correlation coefficient $r = .905$, $r^2 = .82$. $p \leq .0001$

- a. Column 3 indicates all space within the village perimeter, including courtyards and unroofed areas.

Tab. 8 Correspondence between settlement size and population at Khar o Tauran (after Horne 1994, tab. 2)

EBA 1 Eastern Aegean and western Anatolian 'cultural koine'.⁹¹⁷ Although shared house architecture may emerge due to borrowing between neighbouring groups, it seems more likely that the circulation of material objects – such as obsidian and metals – was complemented by the circulation of people between sites. Regarding demographic factors, commonly shared small settlement size (below 2 hectares) corresponding to a small number of village members (below 400 individuals) necessarily implies the recruitment of marriageable partners beyond a single settlement in ensuring smooth social reproduction across the generations throughout the EBA 1 of western Anatolia.

Cooperation at Çukuriçi Höyük

Within the excavated area at Çukuriçi Höyük, the village agglutination during EBA 1 created two blocks, separated by a street running east–west (see Fig. 18). Given the ethnographic

⁹¹⁷ Kouka 2002; Kouka 2016a. The term 'cultural koine' has so far not been contested within the archaeological literature, despite being borrowed from linguistics, where it denotes a standard language or dialect that has arisen as a result of contact between two groups speaking different dialects of the same language.

parallels from Khan o Tauran and Nang Rong showing that kin distance and spatial proximity may correspond, closer cooperation between groups on each side would be expected. Yet, cooperation was not spatially or socially bounded within the two blocks of building. The neighbourhoods⁹¹⁸ on each side of the street needed to cooperate in order to allocate the previously open space and to navigate the construction of shared walls.⁹¹⁹ This can best be observed from the final building phase. In order to attach room 49 to room 54, the residents across the street needed to compromise over the northeastern corner of room 42 to ensure that the east–west-running path remained open (see Fig. 18, R49, R43, R42). This resulted in the trapezoid shape of room 42, a design that shows no similarity to any other building in the settlement. By thinking 'outside the box' and reshaping room 42 from rectangular to trapezoid, the two parties on the opposite sides reached a compromise. In fact, this compromise resulted in the loss of some land for the residents of room 42, but this dwelling group (room 42 and room 43) compensated for this with the attachment of a new room, room 55, south of room 43 (see Fig. 18 right, R42, R43, R55). Reciprocal cooperation between houses not only benefitted the two parties involved, but all members of the village. They could continue to use the pre-existing infrastructure, namely the path, enabling continuous and undisturbed communication and mobility between the east and west of the village settlement.

The same case also highlights an emic understanding of the 'age groups' of houses. The older House 54 was built during the first building phase, whereas the younger House 42 was attached to the pre-existing one only during the third building phase. It was the latest of the two houses that compromised a corner of its room to allow House 54 to expand and become a house consisting of two rooms, an arrangement that became the norm at Çukuriçi Höyük during the third building phase. Therefore, both cooperation and age-groups associated with houses may have existed at Çukuriçi Höyük during EBA 1. Following Firth and Goody, who argued that the reorganization of houses also reflects a group's standard domestic unit, a house consisting of at least two rooms did become the norm over the course of 100 years at Çukuriçi Höyük.⁹²⁰

Behind the Walls: Metalworking at Çukuriçi Höyük

Çukuriçi Höyük was an EBA 1 copper-smelting production site.⁹²¹ How was copper working organized within this settlement? Were the coppersmiths associated with a particular house during the EBA? How did they access the necessary resources for smelting? Finally, was there a visible distinction between the houses of metal producers and those of metal consumers? As a fire installation is an integral part of a metalworking toolkit, the distribution of fireplaces within the settlement may reflect the spatial organization of metalworking. From both EBA 1 phases (ÇuHö III and IV), a total of 49 fire installations have been excavated, of which 26 were classified as bowl- and shoe-shaped furnaces used for metalworking and other household activities (see Fig. 18).⁹²² Most of the fireplaces were found inside houses and not in the open areas (see Fig. 18). The ovens are of two types, bowl- and horseshoe-shaped, but none of the ovens could be exclusively linked to copper production as the same ovens were also used to cook food. Items linked with metal production (including clay tuyères, moulds, slag,

⁹¹⁸ Within Near Eastern ethnographic accounts, neighbourhoods are commonly referred to as *mahalle* (Turkish), *ماحلة* *maḥallā* (Arabic), or *ماحلة* *maḥallā* (Persian). During the Ottoman Empire, *mahalle* was the smallest administrative unit.

⁹¹⁹ Spatial proximity, including sharing common walls or courtyards, certainly enhances cooperation but can also frequently lead to conflict. Conflicts regarding spatial organization and claims of land have been well documented within a densely built Sicilian town (Schneider 1969; Schneider 1971).

⁹²⁰ A house consisting of two or three rooms also became typical at other contemporaneous sites during EBA 1.

⁹²¹ Horejs 2009; Horejs et al. 2010; Mehofer 2014; Horejs – Mehofer 2015; Mehofer 2016; Horejs 2016b; Horejs et al. 2017.

⁹²² Horejs – Mehofer 2015.

unfinished and finished metal items), but also grinding stones, tripod cooking pots, and bone stirring spoons linked to food preparation were commonly found close to the ovens.⁹²³ Apart from cooking and metalworking, the ovens were also used for the disposal of food waste, namely fish bones and molluscs.⁹²⁴

The 33 fire installations within Phase IV were not all contemporaneous. Within the rooms, hearths were mostly located in the centre and rebuilt in the same spot after the floor had been replastered. Apart from the fire installations located in the centre, hearths and ovens were also found in the corners of the rooms. Two or more fireplaces could be in use contemporaneously, but their position moved within the use-life of a single house, and does not indicate a strict continuity in either the location or number of fireplaces transmitted through generations.

Like the fireplaces, single rooms do not indicate any specialized use. Food storage, food preparation, the consumption of meals, the disposal of food as well as craft production such as textile, leather, and metalworking, can all be traced within a single room at Çukuriçi Höyük. From the data analysed so far, it remains difficult to trace the boundaries of a single household unit. What is evident from the assemblage at Çukuriçi Höyük is that metal production, food consumption, and small-scale craft activities overlapped spatially and coexisted temporally within houses. Metalworking at this site was not confined to a single workshop, but was scattered across the settlement, associated with other domestic activities that took place simultaneously.

Regarding the distinction between houses involved in metal production and those in consumption, there is likewise no sharp line dividing the two. Although the production and consumption of metal coexisted within the same house, some houses show less involvement in metal production than others during a particular building phase. Even those houses lacking evidence of metal production within a particular phase contained metal finds. This implies that members of those houses, at times not involved in metal production, had access to metal tools.

At Çukuriçi Höyük, arsenical copper alloys represent three-quarters of the assemblage found (an axe, chisels, pins, needles, metal bars, daggers, an arrowhead (see Fig. 20). A small number of metal pieces consisted of pure copper alloys, whereas tin bronze was of negligible importance. Among precious metals, two broken silver-copper rings and gold beads were found close to the oven in the open area. According to geological analysis, copper, silver, lead, and gold ores existed in the vicinity of the site, but tin needed to be imported.⁹²⁵ Since the most important items produced at the site were arsenical copper, dwellers at Çukuriçi Höyük were largely not dependent on ores from outside. Tin sources may have been imported from the Troad region, which implies a loose regional interdependency between the sites. It is possible that finished objects from Çukuriçi Höyük may have been bartered for tin with Troy, since the excavations at Troy do not indicate substantial metal production during EBA 1, though the types and metal composition of metal objects at Troy overlap with those at Çukuriçi Höyük. Troy appears to have largely benefitted from the control of tin and trade of other goods during EBA 2, whereas the settlement of Çukuriçi Höyük was abandoned at that time.

IV.3. Contexts of Metal Production in Western Anatolia during EBA 1

Following the on-site discussion of architecture as a code of kinship at Çukuriçi Höyük is providing additional indications that Çukuriçi Höyük may have been organized according to patrilineal descent lines. This next section looks in particular at the on-site and regional evidence of metalworking for two reasons: first, because Çukuriçi Höyük has already been interpreted as the EBA 1 metal production centre without much further contextualization, and

⁹²³ Horejs et al. 2017.

⁹²⁴ Emra et al. 2020.

⁹²⁵ Horejs – Mehofer 2015.



Fig. 20 The EBA 1 assemblage of moulds, clay tuyères, crucibles, and arsenical copper items from Çukuriçi Höyük (Mehofer 2014, fig. 1)

second because metalworking has been postulated to be the main driver towards centralized, chiefdom social organization in the Aegean. But to fully understand metalworking at Çukuriçi Höyük, the chapter starts with the most common archaeological model for interpreting craft activities developed by Cathy Lynne Costin.⁹²⁶ Based on the evidence from EBA 1 western Anatolia combined with socio-cultural anthropological insights, I propose some changes to the contextualization of crafts embedded into the Domestic Mode of Production. Within what Costin has initially identified as *independent specialists* embedded into the DMP, I propose distinguishing two further types of craft specialization: *generalized craft integration*, as seen from metalworking at EBA 1 Çukuriçi Höyük, and *restricted craft integration*, as seen from metalworking at other EBA 1 regional sites in western Anatolia.

The most commonly used distinction between specialists in prehistory is the differentiation between *attached* and *independent* specialists.⁹²⁷ According to Costin, attached specialists usually exist in complex societies, working full-time and producing specialized goods for the elite. By contrast, simple societies without elites integrate independent specialists, who work part-time, producing utilitarian goods for wider distribution. Costin⁹²⁸ argues that specialization is not an absolute state but a relative one, which can only be understood through a comparative approach. By analysing four parameters within the archaeological record – context, concentration, scale, and the intensity of production – it is possible to understand how production is organized (see Tab. 9). Her model has already been scrutinized at length by Christopher Britsch in his recent study of Neolithic and Bronze Age textile technologies in

⁹²⁶ Costin 1991.

⁹²⁷ Costin 1991. For ways of analysing 'specialist' production on a site-based and regional scale, based on ethnographic and archaeological cases, see Costin 1991. For a recent critique of the latter, see Britsch 2018, 35–40.

⁹²⁸ Costin 1991.

	Independent specialists	Attached specialists
Context	Production associated with domestic architecture	Production within a specialist workshop associated with elite markers (seals, stamps)
Concentration	<i>Dispersed production</i> Production for local consumption – the same type of craft identified in each community	<i>Nucleated production</i> Production for regional consumption – artisans limited to a particular site within a region
Scale	Family production units	Workshops of unrelated individuals
Intensity of production	Part-time specialists	Full-time specialists

Tab. 9 Archaeological classification of craft specialization (after Earle 1989; Costin 1991)

Aegean-Anatolian World.⁹²⁹ He showed that Costin's model assumes the *Pompeii Premise*⁹³⁰ type of archaeological record, a natural path from part-time to full-time specialists, and a lack of advice on how to count and measure the archaeological remains of craft specialization.⁹³¹

By contrast, within the anthropological literature, a primary distinction concerning crafts within semi-sedentary, non-state societies is between i) *domestic crafts*, a concept that refers to part-time specialists, which includes both genders (e.g. female part-time weavers) and ii) *local/regional specialists*, which refers to seemingly full-time specialists (e.g. male wood-carvers, tanners). The two groups of specialists – producers of *domestic crafts* and *local/regional specialists* – can coreside with non-specialist households, or may coreside with each other in specialists' villages. In both cases, these constellations are not elite-dependent, but organized from below. The specialized villages are also known as *handwork centres*,⁹³² with reference to Dār al-Makārimah, an 'Asīr village (southwestern Saudi Arabia) and a centre of carpentry work, which supplied joinery products to the upland 'Asīr villages. Dwellers and carpentry specialists at Dār al-Makārimah were originally refugees from Zaidi groups. They had established a new village 40 years prior to ethnographic observation.⁹³³ For centuries, such carpenter-specialists from a few nucleated settlements had represented a minority, low-status group within the wider region.⁹³⁴ They worked on commission either based in their own settlement (for clients nearby) or along seasonal routes of regional migration (for clients in the wider region).

These insights may be productively used for an analysis of the archaeological record in question. In coastal western Anatolia and the eastern Aegean islands, all of the excavated sites indicate some sort of metalworking. Two metalworking workshops were identified at Poliochni and a metalworking quarter at Thermi. At Poliochni, the two workshops were attached to houses, but the metalworking workshops differed in the 'exotica' – the imported Aegean objects found there –, which indicated the higher status of metalworking families.⁹³⁵ A piece of indirect evidence for copper working within a domestic context was attested at Troy, at Emporio in house VI, and at Heraion linked to a domestic space. At Liman Tepe, continuous

⁹²⁹ Britsch 2018, 35–40.

⁹³⁰ *Pompeii premise*: 'a methodological tenet of the New Archaeology, is that one can analyse house-floor assemblages as if they were systemic inventories – unmodified by formation processes', instead of acknowledging that 'artifacts can come into floor contact through many processes and that a variety of cultural formation processes can cause de facto refuse assemblages to be 'depleted' relative to systematic inventories' (Schiffer 1985, 38).

⁹³¹ Britsch 2018, 35–40.

⁹³² Dostal 1983a, 51.

⁹³³ Dostal 1983a, 55.

⁹³⁴ Gingrich 2015a.

⁹³⁵ Kouka 2002.

metalworking was recorded within house 2, and at Bakla Tepe metalworking was also linked to a domestic setting.⁹³⁶ At Çukuriçi Höyük, metalworking was not restricted to a particular house or quarter, but was found within a domestic context. In none of these cases was metalworking associated with elite domestic structures, but was instead found within the living quarters. At Çukuriçi Höyük, a fragment of what was possibly a Cycladic decorative vessel was found in room 43, which was also involved in metal production. However, the interpretation that this household was of a higher economic status cannot be confirmed based on a single find.

In comparison to widely attested metalworking at coastal sites, the sites located in the hinterland of western Anatolia lack evidence of metal production. Demircihöyük was located close to metal sources, but does not show any signs of metalworking, although a small number of metal pins were recovered from the settlement. Metalworking at this site was either conducted outside the settlement or objects were acquired through the exchange of ores, controlled by the dwellers at Demircihöyük. Küllüoba and Karataş, two chiefly centres in the hinterland of western Anatolia, also lack evidence of smelting and metalworking within the two settlements. Metal objects at these sites were relatively scarce and were not hoarded within the central chiefly complexes. Therefore, based on the archaeological evidence for metal production, it is possible to distinguish between the western Anatolian hinterland sites where metalworking was used but not produced, and those coastal sites where it was evidently produced and used within the same village settlement.

In the case of Çukuriçi Höyük, metalworking took place within houses, and metal production was associated with other household-based activities such as textile production, food storage, preparation, and consumption. Regarding architecture and the associated finds at the site, none of the excavated buildings could be referred to as elite structures. House construction, the layout, and the organization of interior spaces were largely homogeneous. Independent production for local but most likely also regional use could therefore be the case at Çukuriçi Höyük. The lack of administrative artefacts such as seals and stamps argues against any intended production for elite centres. It is therefore reasonable to argue that in addition to its mixed subsistence *cum* exchange-oriented economy, Çukuriçi Höyük also served as a regional craft specialists' centre for copper production.⁹³⁷ For the distribution of metalworking in an EBA 1 western Anatolian settlement (see Fig. 21).

However, three Near Eastern balance weights were also identified at the site. This testifies to the adoption of Near Eastern weighing techniques at the beginning of the 3rd millennium in western Anatolia.⁹³⁸ These weights therefore indicate long-distance trade between Çukuriçi Höyük and the early urban centres, facilitated by Mesopotamian merchants who traded with the peripheries for gold and silver – a proto-currency by the middle of the 3rd millennium BC in Mesopotamia.⁹³⁹ It can thus be concluded that Çukuriçi Höyük simultaneously produced metals for local consumption, for regional gift or barter exchange, and for long-distance commodity exchange.⁹⁴⁰

Despite the different organization of metalworking at Poliochni and Çukuriçi Höyük, there is a striking similarity between them regarding the existence of long-distance trade within the early Near Eastern states. A set of oblong dark stone weights, close parallels in material, shape and weight to Near Eastern ones, was found at each site.⁹⁴¹ Weighing practices do not seem to

⁹³⁶ Erkanal 2011.

⁹³⁷ Horejs – Mehofer 2015; Mehofer 2016.

⁹³⁸ Horejs 2009; Horejs 2016b; Rahmstorf 2016.

⁹³⁹ Broodbank 2013.

⁹⁴⁰ Here, the terms commodity and production for exchange do not follow Marx's understanding of commodity but Mauss', in which a commodity is understood through transactions and relations between individuals rather than production for the market.

⁹⁴¹ Rahmstorf 2016.



Fig. 21 Distribution of metalworking in EBA 1 western Anatolian settlements (OeAI-OeAW, M. Börner, C. Schwall)

have been simply adopted, but were also adapted to local needs, since the earliest type of spool weights that were more common in EBA 2 were found within the EBA 1 layers at Çukuriçi Höyük and Poliochni. This implies that during EBA 1, metals were circulated within the Aegean basin not only as gifts or barter but also as commodity exchange items, measured by means of external supra-local criteria, in the absence of money. Although metalworking was attested in several EBA 1 excavated sites in western Anatolia, weights were only identified at two of them: Çukuriçi Höyük, and Poliochni.⁹⁴²

⁹⁴² For further discussion of weighing and long-distance exchange between western Anatolia and the Near East, see Chapter VII.

The Scale of Metal Production

If workshop size and the number of producers are correlated, then metal production across western Anatolian sites was produced within small groups. The so-called 'smithing workshops' at Thermi, Poliochni, and Emporio did not differ in size from other domestic structures, and were not separated from the living quarters but attached to other houses. These workshops were unlikely to have been run by unrelated individuals, and producers were certainly not dependent on wage labour. Metalworking was not located on the fringes of the settlement, as is often reported from ethnographic cases of African ironsmiths. In the latter case, smelting activities were located at some distance from villages for health reasons, but also to keep women and sorcerers away. Such an arrangement is not evident from the archaeological record of EBA 1 in western Anatolia. Copper smelting and working sites are located within villages, which suggests that although copper working may have been, but was not necessarily, gendered,⁹⁴³ producers were less concerned about isolating these activities from domestic spaces used by women, men, and children. This implies that metalworking cut across gender and age and took place within multi-gendered and multi-generational households at the dawn of 3rd millennium BC in the Aegean basin. Small family production units operating adjacent to their domestic space was the case for settlements such as Poliochni and Çukuriçi Höyük, as well as other regional sites where arsenic copper working took place.

Larger ovens, a feature that has been archaeologically recorded in a metallurgical workshop at the EBA site of Arisman in west central Iran,⁹⁴⁴ are missing within the assemblage in western Anatolia. An exceptionally large oven specialized for metal smelting has not been found at either Poliochni, where metalworking was limited to two workshops, nor at Çukuriçi Höyük, where metalworking was dispersed. Therefore, large-scale production cannot be proven in western Anatolia, as the metal smelting was conducted in ovens of a similar size to domestic hearths.

The Intensity of Metal Production

The intensity of metal production is entirely absent from the literature on metalworking in western Anatolia. Kouka refers to metalworkers as specialists at Poliochni and Thermi,⁹⁴⁵ who were not only smiths but also rich traders involved in supra-regional exchange. The question of whether specialists at Poliochni were detached from the production of staple goods by relying on the agricultural production of others has not been addressed. By contrast, at Çukuriçi Höyük cooking pots and small finds such as spindle whorls and awls indicating textile production were located within the same space as the 'metallurgical workshops'. Large-scale deforestation, possibly linked to the production of charcoal, was not attested at Çukuriçi Höyük.⁹⁴⁶ For these reasons, metalworking at Çukuriçi Höyük is understood to have been a part-time occupation, performed in less busy times during the agricultural cycle. This does not imply that everyone at the site was involved in metal production. A division of labour within the household certainly existed, but cannot be confirmed with the material record at hand. The small metal-producing groups overlapped with the commensality 'that consecrates group as a group'.⁹⁴⁷ The households at Çukuriçi Höyük were production and consumption units, a household type that is particular to groups relying on the DMP.

⁹⁴³ For a challenge to traditional assumptions of gendered labour in archaeology, see a recent volume edited by Kelly – Arden 2016.

⁹⁴⁴ Boscher 2016.

⁹⁴⁵ Kouka 2002; Kouka 2014; Kouka 2016a.

⁹⁴⁶ Stock et al. 2015.

⁹⁴⁷ Sahlins 1972, 94.

Metalworking and the Domestic Mode of Production

The DMP, as envisioned by Sahlins, refers to Neolithic societies in which the production and consumption of food and other material goods are not separated and take place simultaneously within domestic units. They are not growth-oriented but aim at meeting their needs,⁹⁴⁸ which does not necessarily exclude small-scale competition for prestige and honour. Households of the DMP type may accommodate specialists, but these can only be part-time rather than full-time specialists, which makes the households ostensibly self-sufficient. Specialists of the DMP type may be potters, stone knappers or butchers, but they would also engage in hunting or farming to meet their subsistence needs. For Sahlins, a ‘small labour force differentiated by sex, simple technology, and finite production objectives’ is crucial for the DMP, which is an ‘anti-surplus system’⁹⁴⁹ that can only be sustained with Neolithic or Stone Age technology.

However, the assemblage at Çukuriçi Höyük poses a problem. On the one hand, the material evidence at this site speaks for a DMP metal production context. On the other hand, Sahlins argued that the DMP can only be sustained with Stone Age technology, since metal tools would increase productivity beyond a household’s needs.⁹⁵⁰ The role of metals has puzzled anthropologists and archaeologists alike, and the notion of social complexity is commonly perceived as being inherently linked with the emergence of new technology, especially metals, which could contribute to the generation of greater agricultural surpluses. At the end of the 19th century, Morgan associated copper and bronze smelting with the middle, and iron working with the upper stages of barbarism. He referred to these two ‘stages’ as still being based on ‘gentile organization’ or kinship rather than the territorial or political organization associated with civilization.⁹⁵¹ Inspired by the work of Morgan, Childe assessed the role of metals from an archaeological perspective and argued that:

‘The first smiths were perhaps the first independent craftsmen. Any hunter or farmer could make a flint knife or arrow-head and grind out a stone axe-head in his spare time. His wife could stitch together robes of skins, even spin and weave, and mould and fire clay pots. The art of the smith was so complicated that prolonged apprenticeship was required. His labour was so long and exacting that it could not be performed just in odd moments of leisure; it was essentially a fulltime job ... In a Bronze Age village we often find one hut, but never more, that was obviously the smithy.’⁹⁵²

In addition to Bronze Age smiths being full-time specialists, Childe also argued that they were also the first to abandon kinship relations. The ‘emancipation from kinship ties’⁹⁵³ was a consequence of itinerant smiths travelling from village to village, producing metals in exchange for food.

In EBA western Anatolia, metalworking has commonly been seen as the main driver of social change and increasing social complexity, leading towards the establishment of the first chiefdoms in the region.⁹⁵⁴ This idea has remained unchanged since Childe, who cemented the perception of metalworking as a full-time craft. According to Renfrew, the emergence of the redistributive economy of wheat, grapes, and wine, the so-called *Mediterranean polyculture* headed by a chief, was the economic basis for supporting the EBA full-time metallurgist within the Aegean basin.⁹⁵⁵ However, follow-up studies have rejected the existence of a redis-

⁹⁴⁸ Sahlins 1972.

⁹⁴⁹ Sahlins 1972, 82.

⁹⁵⁰ Sahlins 1972, 17.

⁹⁵¹ Morgan 1877.

⁹⁵² Childe 1930, 4–5.

⁹⁵³ Childe 1950, 7.

⁹⁵⁴ Renfrew 1972; Şahoğlu 2005; Şahoğlu 2016.

⁹⁵⁵ Renfrew 1972.

tributive economy of these three staple crops before the 2nd millennium BC within the northern Aegean.⁹⁵⁶ Instead, proponents of the chiefdom social organization model for EBA 1 western Anatolia have returned to metal production and long-distance exchange as the main triggers for the socio-political integration of numerous village societies since Earle showed that a distributive economy was not necessary for the emergence of chiefdoms.⁹⁵⁷

The assemblage in EBA 1 western Anatolia indicates that metal tools and weapons were relatively scarce in comparison to stone tools (let alone those made from bones and wood), indicating little change in agricultural production.⁹⁵⁸ The metal assemblage is comprised of metal pins, fishing hooks, a rather limited number of daggers and stone axes, whereas sickles, hoes, and other agricultural implements are mostly absent from the record. The latter tools continued to be made from obsidian or flint, and 'there is no evidence for a declining obsidian industry in the Early Bronze Age despite obviously metal resources'⁹⁵⁹ at Çukuriçi Höyük. It is apparent that, as regards the technology used in subsistence activities, metal tools had not replaced stone and bone tools during EBA 1. As a result of the widespread scarcity of metal tools in EBA 1 western Anatolia, people relied on Stone Age rather than Bronze Age technology.

IV.4. Metalworkers: Part-Time or Full-Time Specialists?

The last section of this chapter looks in particular at the intensity of metalworking, specifically with regard to ethnographic or archaeological support for full-time or part-time metalworking specialists. As I will show, there is no need to postulate itinerant smiths based on a single metalworking unit/household or workshop per site. Based on insights from Walter Dostal,⁹⁶⁰ it can be shown that metalworking, carpentry, or basket production can be integrated differently into regional village settlements, without full-time specialization. As this chapter shows, metalworking at Çukuriçi Höyük was indeed a part-time occupation, which is also applicable to other regional EBA 1 sites. Metalworking in this region was not necessarily cut off from local kinship ties. Instead, as becomes evident from Çukuriçi Höyük, metalworking reinforced kinship ties between houses. By contrast, metalworking possibly disrupted social ties between metalworking and non-metalworking households at other contemporaneous sites, hinting at the possibility of metalworking as part of a chiefdom's socio-political integration with conical clan descent patterns.

Çukuriçi Höyük being a regional production centre, as described by archaeologists, may trigger scholarly associations with heightened prestige, hence suggesting possible interpretations about some kind of elevated status in the region, or even of metalworkers' or smiths' superiority in comparison to other non-metalworking sites or non-metalworking workshops. On the contrary, this chapter shows that metalworkers may not have exclusively had a special privileged status, such as metalworker-chiefs, but that they could also be relegated to marginal and/or inferior social status.⁹⁶¹ This is very likely for metalworkers at Çukuriçi Höyük, whose 'fame' for arsenical copper production within this production centre did not afford them undisturbed local social reproduction here, but rather resulted in them being uprooted at the end of the EBA 1 period. Regarding the issue of gender, the chapter concludes that we cannot postulate that metalworking was exclusively a male craft at Çukuriçi Höyük since it took place within houses and homes, without an obvious gendered pattern, at the same hearths used for cooking. Regarding kinship, metalworking at Çukuriçi Höyük did not disrupt

⁹⁵⁶ Hansen 1988; Alram-Stern 2004; Halstead 2011; Hansen 2014.

⁹⁵⁷ Earle 2002.

⁹⁵⁸ Copper and bronze tools, however, are not particularly useful for agricultural work.

⁹⁵⁹ Knitter et al. 2012, 362.

⁹⁶⁰ Dostal 1983a.

⁹⁶¹ Dostal 1983a, 50.

kinship ties within and between households but reinforced them. Çukuriçi Höyük's households depended on arsenical copper production through sharing materials and knowledge between houses but also transmitting knowledge of metalworking within houses until the settlement was abandoned.

Ethnographic accounts of metalworking societies have shown a strong correlation between metalworking and descent groups. Smiths are commonly known for their superior technical and supernatural skills.⁹⁶² They can be highly appreciated but at the same time feared, especially by the chief, if the local social organization is centralized.⁹⁶³ In the tribal contexts of western and southern Asian contemporary ethnography, smiths may also be relegated to marginal and/or inferior social status.⁹⁶⁴ Smiths can be differently integrated into local communities, and therefore metalworking cannot be *a priori* associated with any particular model of social organization.⁹⁶⁵ Rowlands⁹⁶⁶ distinguished between two types of metalworking specialization: i) individual specialists, and ii) group specialists. While *individual smiths* could be integrated into smaller or larger polities and *group specialists* may be found in different interdependent villages, both types could be sustained by a subsistence economy. In the case of group specialists, metalworking groups in each of the interdependent villages may produce different type of tools or weapons, forming an economic unit through the exchange. Rowlands noted that

‘These are examples where specialization encourages the development of occupation groups, allowing higher production with greater economic security without being accompanied by major changes in settlement size or socio-political organization.’⁹⁶⁷

Other ethnographic accounts from African metallurgical societies also emphasize seasonality and further support the existence of both politically centralized and decentralized metalworking societies. In unstratified societies metalworkers are usually part-time specialists operating on a seasonal basis.⁹⁶⁸ They cultivate fields in the summer months alongside metalworking in the winter for their own use, on demand, and for exchange.⁹⁶⁹ These part-time specialists are usually members of a specific clan and, as manpower is scarce, the smiths demand labour from their customers (e.g. blowing the bellows). They may reside in the same village and fission⁹⁷⁰ when the competition is too high.⁹⁷¹ In stratified societies metalworkers are usually full-time specialists. However, they are often occupation-endogamous, i.e. restricted to marrying the son or daughter of another blacksmith rather than a farmer. Full-time specialists also maintain a strong gendered division of labour, in which women are potters and men are metallurgists.⁹⁷²

⁹⁶² The association between metalworking and magic might be perceived as a potential cultural universal among metalworking societies. Blacksmiths have inspired a number of folk songs, tales, and other orally transmitted culture. A recent linguistic study even claims that ‘the Smith and the Devil’ is one of the oldest Indo-European folk tales, transmitted through the dispersal of the Indo-European language into Europe (da Silva – Tehrani 2016). An association with magic has been widely documented in the ethnographic record, as blacksmiths can turn stone into metal.

⁹⁶³ Rowlands 1971; Richards 1981.

⁹⁶⁴ Dostal 1983a, 50.

⁹⁶⁵ Rowlands 1971.

⁹⁶⁶ Rowlands 1971.

⁹⁶⁷ Rowlands 1971, 219. The same type of village specialization could be compared with the case of the Baruya, who specialized in salt production. Salt ‘money’ served as a medium of exchange between different groups. Importantly, the seasonal specialized production of salt from the local salt sites did not result in political centralization, despite differences in salt production expertise between Baruya men (Godelier 1972, 1991).

⁹⁶⁸ Childs – Killick 1993.

⁹⁶⁹ Rowlands 1971; Childs – Killick 1993.

⁹⁷⁰ Here, fission does not refer to seasonal fission-fusion societies (e.g. Eskimo) but the permanent breakaway of a segment of a village, which then establishes a new residential group or may peacefully or forcefully join another one.

⁹⁷¹ Childs – Killick 1993.

⁹⁷² Childs – Killick 1993.

The relationship between a smith and their customer is often one of dependency. In many metalworking societies, a smith is in charge of the metal production but the customer supplies raw materials, labour or fuel.⁹⁷³ Kuku blacksmiths barter their metal tools for high-quality food such as chicken, goat, cowpea soup, peanut butter, millet or sorghum flour.⁹⁷⁴ As they do not cultivate their own gardens, but the wealth in Kuku society is measured in agricultural goods, they are perceived as lazy.⁹⁷⁵

Regarding subsistence practices at Çukuriçi Höyük,⁹⁷⁶ the EBA 1 dwellers mainly relied on domesticated plants and animals. Animal herding was small-scale. Domestic animals were kept off the mound, near the site, all year round. Sheep and goats were milked or slaughtered, primarily for meat rather than for secondary products (e.g. wool). Plant cultivation remained human labour-intensive: lentils, which require more human labour than cereals,⁹⁷⁷ are better represented in the record. Ploughing has not been confirmed by the zooarchaeological analysis. The cattle bones at Çukuriçi Höyük do not display traction pathologies which could indicate the exploitation of animal labour. The diet of domestic animals and plants was supplemented by hunting large and small game, fish, and a variety of maritime shellfish. Overall, it has been demonstrated that subsistence practices at Çukuriçi Höyük indicate mixed farming,⁹⁷⁸ in which human labour still played a significant role.

If we combine subsistence practices, the complex material record of the whole *chaîne opératoire* (which includes metal extraction, melting, smelting, alloying, forming, and repairing finished objects)⁹⁷⁹ at Çukuriçi Höyük and ethnographic accounts of metalworking societies, it is possible to draw some conclusions about crafts organization at Çukuriçi Höyük as well as the wider regional setting. In comparison to other sites on the eastern Aegean islands and in western Anatolia, where a few local specialists were identified per settlement, metalworking at Çukuriçi Höyük was a vital village-wide skill, of the handwork centre⁹⁸⁰ type. Metalworking knowledge, access to raw materials and metal objects were widely shared between the households at Çukuriçi Höyük, and not hoarded or limited to a particular room or dwelling.

In other cases, the sites belonging to the eastern Aegean and western Anatolian 'cultural koine', metal production was instead limited to a specific domestic group and not widely shared across the settlement. A lack of large-scale workshops indicating production for elites does not support the existence of attached specialists. Also, at these sites, bronze or arsenic copper tools had not replaced stone and bone tools. As shown through the ethnographic cases, a few specialists within a village may not necessarily be full-time specialists. Therefore, full-time specialization of a single household involved in metalworking at EBA 1 western Anatolian sites other than Çukuriçi Höyük does not necessarily imply a full-time specialization here. Ivanova, who re-examined the assemblage of Troy, pointed out that rooms there were similar in size and construction, and were also very similar in internal organization and domestic activities, indicating an 'egalitarian' social organization at Troy I.⁹⁸¹ Ivanova does not refer to a broken fragment of a spear or dagger mould found within a house wall at Troy I,⁹⁸² since the

⁹⁷³ Rowlands 1971; Childs – Killick 1993.

⁹⁷⁴ Interview with D. Jale 2002 cited in Poggo 2006.

⁹⁷⁵ Poggo 2006.

⁹⁷⁶ For a detailed discussion of subsistence practices at Çukuriçi Höyük, see Chapter III.

⁹⁷⁷ Halstead 1987.

⁹⁷⁸ Halstead 2011.

⁹⁷⁹ Mehofer 2015.

⁹⁸⁰ Dostal 1983a, 51.

⁹⁸¹ Ivanova 2013; Ivanova 2016.

⁹⁸² Blegen et al. 1950, 38, 150.

mould was not recovered from the location of its active position.⁹⁸³ The example from Troy further supports the interpretation that a small group of specialists within a site can be integrated into the DMP model. This evidence, then, requires a certain modification of Costin's (attached vs. independent specialists) and Sahlins's (DMP) models regarding craft specialization.

Scholars have previously questioned the necessary full-time specialization of smiths, proposed by Gordon Childe,⁹⁸⁴ and inherently technological explanations of prehistoric metalworkers, without recognition of the magic and ritual often linked with metalworking.⁹⁸⁵ Sahlins's argument that the DMP may only be sustained by a society based on Stone Age technology may be a good explanation of why the analysis of the domestic economy within metalworking societies is usually centred on elites. In the literature on the earliest chiefdoms within western Anatolia⁹⁸⁶ and also central Europe and prehistoric Denmark,⁹⁸⁷ researchers commonly agree that the elite political institutions controlled either craft production or long-distance exchange, which inevitably led to increasing social complexity. Unlike the 'Stone Age chiefdoms' of Polynesia, relying on distributive economies of staple goods, these authors commonly argue that societies in prehistoric Europe were mobilized and politically centralized through the production and restricted accumulation of prestige goods, especially metals, decorative pottery, or other exotica. Exchange of exotica was controlled by the political elite, which turned it into wealth. Yet, elites were usually not involved in the production of particular exotica, and therefore the socio-political models of these prehistoric societies are largely built top-down, from the elite perspective rather than from the perspective of producers.⁹⁸⁸ As I have shown in this chapter, Bronze Age technology did not replace but rather complemented Stone Age technology during EBA 1 in coastal western Anatolia, and accordingly, a large-scale agricultural surplus is not visible from the record considered here.

In contrast to the chiefdoms in prehistoric Denmark, Islamic and medieval examples in Arabia (e.g. the Fertile Crescent, Yemen, and Hijaz) showcase a different integration of craftspeople into regional economies. In the latter case, metalworking (like woodcarving) was embedded in rural tribal economies. Crafting skills were transmitted through the patrilineal line of descent over generations, which resulted in the emergence of craftspeople's⁹⁸⁹ occupational groups within a predominantly farming community.⁹⁹⁰ Apart from two regional handwork centres, one specialized in woodworking and the other in metalworking, a regional village integration of sedentary, part-time metalworkers was far from being homogeneous (see Figs. 22–23). Whereas woodcarvers were often itinerant and worked on demand, outside the handwork centre, metalworkers were integrated in various ways into semi-sedentary villages, which resembled the differentiated regional integration of metalworkers in western Anatolia during the Early Bronze Age.

The material record from the eastern Aegean islands and western Anatolia disproves the notion of full-time itinerant smiths, and points towards two different kinds of smiths' integration into the DMP, since metal producers were not detached from metal consumption

⁹⁸³ The archaeological *terminus technicus* of 'active position' or 'in situ' refers to objects 'found on the same spot where they were originally used' (Pfälzner 2015, 37).

⁹⁸⁴ Rowlands 1971; Budd – Taylor 1995; Goody 2012, 45.

⁹⁸⁵ Budd – Taylor 1995; Chirikuer 2015.

⁹⁸⁶ Renfrew 1972; Pullen 1985.

⁹⁸⁷ Earle 1987; Earle 1998b; Earle 2002.

⁹⁸⁸ Whereas the elite production is widely attested in the following EBA phase (EBA 2), when production of tin bronzes intensified and overlapped with the establishment of large urban centres in the region, starting around 2600 BC (Şahoğlu 2005; Şahoğlu 2008), the primary focus of this discussion is centred around the EBA 1 period in western Anatolia.

⁹⁸⁹ In this case the metalworking and woodworking craftspeople were exclusively male.

⁹⁹⁰ Dostal 1983a. Within these areas, only minting coins and making specialized weapons were based on centralized production, controlled by urban elites.

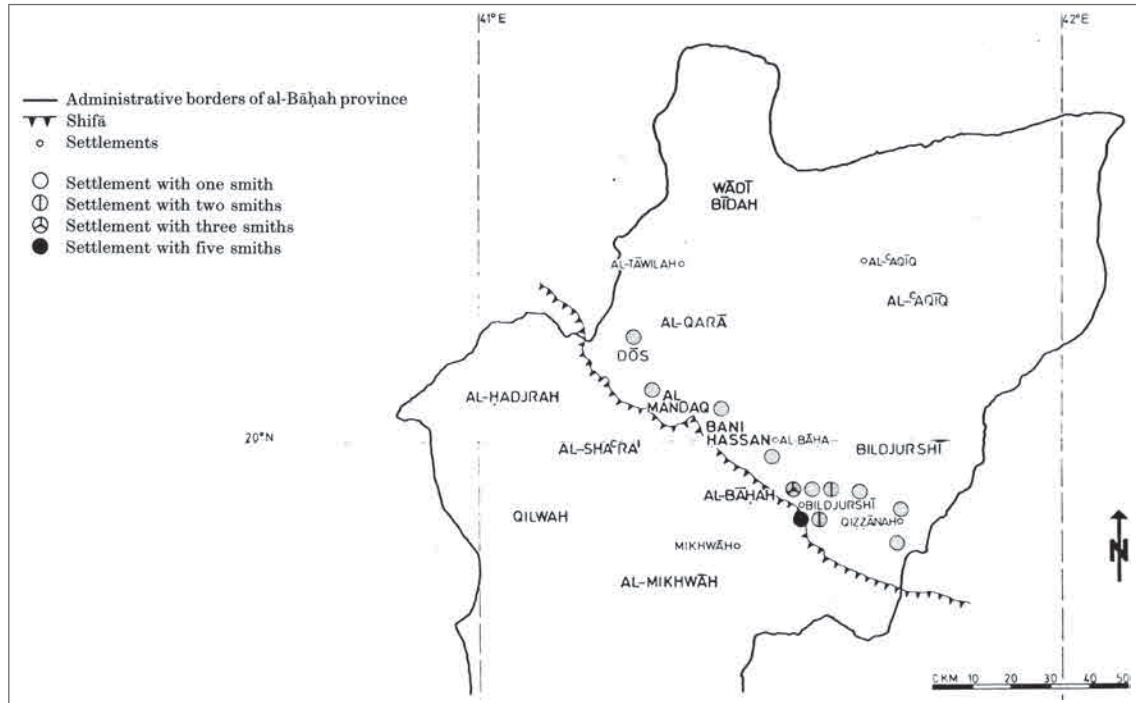


Fig. 22 Regional distribution of blacksmiths in 'Asir (Dostal 1983a, map 3)

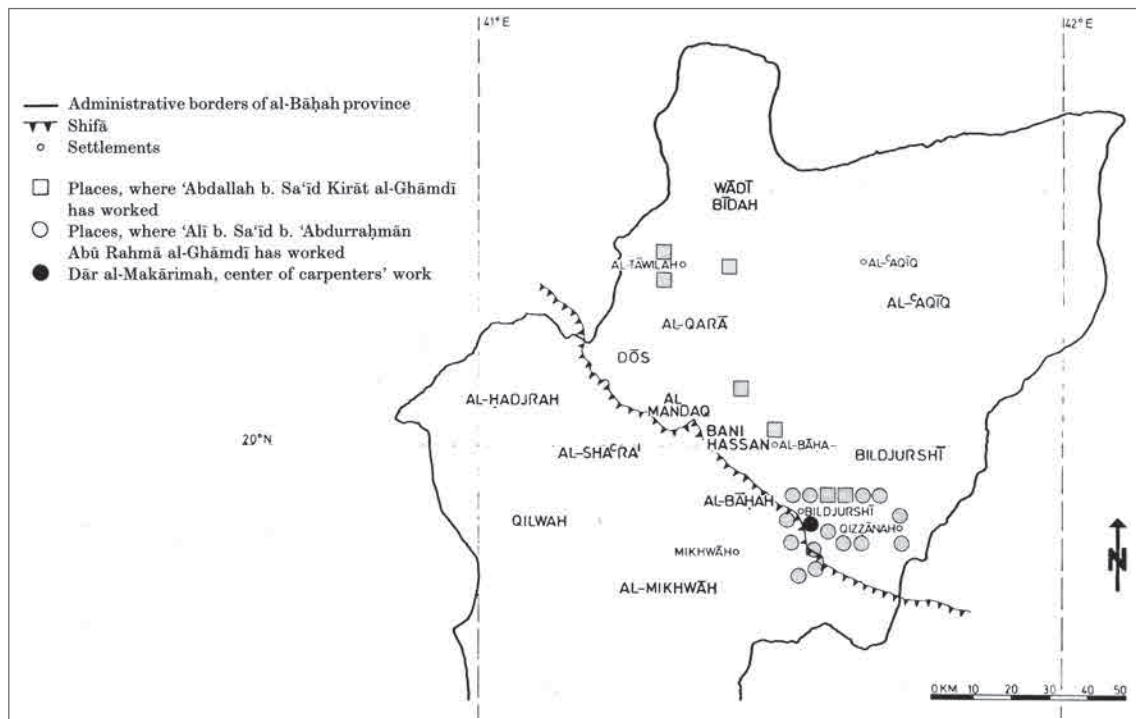


Fig. 23 Working places of two carpenters in 'Asir (Dostal 1983a, map 2)

and trading. Considering the ethnographic record, a 'minority' group within a village may specialize in metalworking but at the same time, these specialists may not be detached from subsistence production (such as human labour-intensive farming, hunting, or animal herding). Thus, metalworking, even if confined to a particular household within a village, or a

small number of them, may not necessarily be a full-time occupation.⁹⁹¹ Instead, in this case a metalworker is a part-time specialist, working metals on a seasonal basis during less busy agricultural times, producing for their own domestic group, the local village and possibly on demand.⁹⁹² The metalworking expertise may be passed on through descent lines but also shared with those who ask, through apprenticeship. On a village level, I refer to this type of integration as *restricted craft integration* (see Tab. 10) which does not downplay the smiths' abilities, whether technological, magical or ritual, but importantly recognizes that these 'specialized households' were equally involved in subsistence production. This type of village specialization applies in the eastern Aegean islands and in some sites in western Anatolia.

I draw the second type of specialists' integration into a village from the material record at Çukuriçi Höyük. In this case, each household engaged in metalworking for use but also for exchange, as indicated by the moulds for rod ingots. This, however, could imply that some households were only the traders whereas others were involved in the raw material procurement, the melting and smelting procedures, or performed the final work on tools. Different steps of complex metalworking technology – melting, smelting, alloying, forming, and repairing finished objects⁹⁹³ – for the production of standardized alloys of arsenical copper was widely shared across the community and transmitted through the generations. I interpret the specialization on a village level as a *generalized craft integration* (see Tab. 10). This type of village specialist integration has been documented among pottery makers in southern Mexico, Barundi potting communities in eastern Africa,⁹⁹⁴ Baruya salt producers,⁹⁹⁵ and a blacksmith village or handwork centre in 'Asīr.⁹⁹⁶ In those cases, most of the households within a community were involved in *generalized craft integration* for two reasons: because it was materially possible (local sources of clay, obsidian, and metal ores), but also because every household could then acquire desired objects from external sources through trade. *Generalized craft integration* played an important role in regional economies – pots, salt, and metal tools from the ethnographic cases of *generalized craft integration* in fact served as the equivalent of primitive money, and were used for bartering goods on a regional scale. Importantly, specialists embedded in *generalized craft integration* worked the land and produced for their own household, but also for local and regional consumption. In this case production for use and production for exchange should not be treated as binary opposites, since:

'The households of primitive communities are not usually self-sufficient, producing all they need and needing all they produce. Certainly, there is exchange. Even aside from the presents given and received under inescapable social obligations, the people may work for a frankly utilitarian trade, thus indirectly getting what they need.'⁹⁹⁷

Linked to subsistence practice, the assemblage from Çukuriçi Höyük differs from other sites in another important way. Whereas at other western Anatolian hinterland sites cattle and sheep had gained in importance, dwellers at Çukuriçi Höyük largely relied on goats, followed by sheep and cattle for subsistence. Since cattle, wool, and metals are well-known stores of value, these three goods (among others) may have emerged as primitive money during EBA 1 in western Anatolia, linking the villages of *generalized craft integration* with other sedentary or mobile cattle breeders.

⁹⁹¹ For a different opinion, see Childe 1930; Renfrew 1972; Childe 2002; Şahoğlu 2005; Şahoğlu 2008.

⁹⁹² This holds true for pre-iron communities, but may not be applicable for societies with iron tools.

⁹⁹³ Mehofer 2015.

⁹⁹⁴ Meyer – Handzik 1916.

⁹⁹⁵ Godelier 1972; Godelier 1991. Goody also questioned the full-time specialization of early metallurgists, labelling the full-time specialization of metalworkers as 'a red-herring in such an economy' (Goody 2012, 44).

⁹⁹⁶ Dostal 1983a.

⁹⁹⁷ Sahlins 1972, 83.

Independent Specialists (as part of DMP)	
Restricted Craft Integration	Generalized Craft Integration
A few specialists per settlement	Craft as a village expertise
Production associated with domestic architecture	Production associated with domestic architecture
<i>Nucleated production</i> Production for local and regional consumption	<i>Dispersed production</i> Production for local and regional consumption
Family production units	Family production units
Part-time specialists	Part-time specialists

Tab. 10 Restricted and generalized craft integration as a part-time expertise

Chapter Summary and Conclusion

In the introduction to this chapter, I posed the question of whether a 'periphery' on the fringes of the Mediterranean basin was indeed a homogeneous unit. Previously, an east Aegean and western Anatolian EBA 1 'cultural koine'⁹⁹⁸ was inferred from enclosed sites, two-roomed houses, agglutinating settlement patterns, and connectivity between sites through the exchange of obsidian and metal during EBA 1. A shared *opus operatum* blurred the division between the 'chiefly' and 'commoner' houses in coastal western Anatolia during EBA 1, whereas the earliest chiefdoms can be traced in the hinterland. At a time when metals were gaining in importance but had not yet replaced stone and bone tools, the differentiation between settlements, especially in metalworking, appears evident on a regional scale. The proposed eastern Aegean and western Anatolian 'cultural koine' during EBA 1⁹⁹⁹ inferred from shared house architecture and connectivity between the sites therefore downplays significant differences between the sites' socio-economic organization. This does not deny the possible validity of some koine for this region and period, but argues that such a notion only makes sense if, and as long as, it also integrates local and regional socio-political and economic diversity.

A multiplicity of houses competing for status does not appear to be applicable to the eastern Aegean and most parts of western Anatolia. The restricted integration of metalworkers in the eastern Aegean islands indicates a limited craft specialization that may have differentiated 'specialized households' from 'non-specialized households' on the basis of access to exotica. Within those settlements, it was not the case that a number of houses competed for status, as would be expected from a house society model. On the contrary, the possession of knowledge of metal smelting and possibly magic allowed a particular household to gain in 'prestige' and strengthen ties with people beyond the village. During EBA 1, this did not lead to a monopolization of power as these households were not detached from agricultural production, and metals were not hoarded within metalworking households. However, the absence of exotica in houses without metal production indicates possible intra-site social differentiation.

In turn, at Çukuriçi Höyük, the division between the metalworking and non-metalworking households is rather blurred, in a generalized integration of copper producers. However, the rather 'egalitarian' sharing of metalworking knowledge and households' codependence on its production does not mean that internal inequalities within metalworking households – differences in possession of magic knowledge, artisan skills, age and sex differentiation, and hunting prestige – did not exist. Although a house society model may remain valid for other archaeological cases, in the case of Çukuriçi Höyük, I have shown that kinship-based organization

⁹⁹⁸ Kouka 2002.

⁹⁹⁹ Kouka 2002; Kouka 2016a.

of production, consumption, and residence played a more important role in organizing the everyday life of dwellers at this site than the transmission of titles and internal competition for status between houses. Household-based economies at Çukuriçi Höyük were simultaneously embedded into regional economies. Without these the dwellers at Çukuriçi Höyük would not have been able to reproduce themselves as a community, nor would they have been able to transmit houses, in which metalworking was kept alive alongside other household-based activities, from one generation to another.

Most of the features of civilization in the Near East, such as record keeping and writing, the wheel, and the plough, did not reach the periphery sites in western Anatolia during EBA 1. However, the imposition and adoption of Near Eastern weights in western Anatolia during EBA 1 speaks for fluid boundaries between the urban and the rural, written and oral, consumers and producers. At the dawn of the 'long 3rd millennium BC', metals, metrology, and merchants were able to cross these boundaries, but a long-distance exchange between the Levant and western Anatolia, which intensified during EBA 2, benefitted a chiefly few. At the turn of the EBA 2 period (2700 BC), when the elites at Troy, Poliochni, Liman Tepe and other flourishing trading posts in western Anatolia dwelled behind doubly enclosed compounds, the houses at Çukuriçi Höyük were left empty for millennia to come.