THE KURA-ARAXES CULTURE IN AZERBAIJAN AND ITS WIDER REGIONAL CONTEXT IN THE CAUCASUS

Two Volumes

Volume I

by

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ABSTRACT

The Kura-Araxes Culture (hereafter KAC) is one of the most distinctive and long-lived archaeological complexes of the ancient Near East, which existed roughly between 3500-2500 BC, covering an astonishingly wide geographical areas during the Early Bronze Age (hereafter EBA). Despite increasing investigations and studies of the KAC communities in the Caucasus region, our knowledge of Azerbaijan is still fragmentary. The primary objective of this study was to focus, for the first time, on the comprehensive study of the case study area, Azerbaijan, in order to develop a deep understanding of the life of KAC communities during the EBA. The second objective was to evaluate Azerbaijan's place in the broader picture of the KAC and to develop a wider interpretation of the culture that will be interrogated and reconsidered broadly in the Caucasus and in the wider extent of the 'KAC world' for future research. To meet these objectives, a comprehensive Gazetteer was created to provide a detailed account of every known KAC site in the contemporary borders of Azerbaijan. This will enable scholars to engage with material previously inaccessible. More importantly, this comprehensive study of the KAC in English will be widely available as an international resource for the scholars of Azerbaijan and beyond.

The understanding of the life of KAC communities in the region is mainly restricted to ceramic assemblages. This study addresses this gap and is the first to examine existing fragmented records surrounding the settlement pattern and the nature of settlement structures, funerary practices, and building tradition in Azerbaijan. This work interrogates the notion of KAC within this wider dataset contrary to general statements asserted by earlier scholars. This data approach was used to understand the narrative method of the chronological development of the culture, through the implication of homogeneity-heterogeneity features, traditional peculiarities of local variants, and the values and worldviews of these communities.

This study contributes to the understanding of a broader picture of the culture and presents a more representative narrative of KAC communities in Azerbaijan. The research found that KAC in Azerbaijan had a sense of unity, as demonstrated by some shared collection of artefacts and features, to the rest of the KAC regions in the Caucasus. Interestingly, it was also found

that alongside a similar set of commonalities, there are some distinctive traits that are unique to these communities living in the region.

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DEDICATION

All praises and gratitude are dedicated to Allah SWT for his all blessings so that I can accomplish this thesis!

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LIST OF ABBREVIATIONS

AP	**Antiquity Period**
ANAS	**Azerbaijan National Academy of Sciences**
BBW	**Black Burnished Ware**
CFW	**Chaff- Faced Ware**
CMP	**Circumpontic Metallurgical Province**
EBA	**Early Bronze Age**
EC	**Early Chalcolithic**
EK	**Early Kurgan Culture**
ETC	**Early Trans-Caucasian**
IA	**Iron Age**
KAC	**Kura-Araxes Culture**
KKW	**Khirbet Kerak Ware**
LBA	**Late Bronze Age**
LC	**Late Chalcolithic**
MBA	**Middle Bronze Age**
MC	**Middle Chalcolithic**
MP	**Medieval Period**
MW	**Monochrome Ware**
N	**Neolithic**
RBBW	**Red Black Burnished Ware**

‘Prehistory and history do indeed show how culture grows more and more diversified through the differentiation of societies in response to special stimuli – geographical, technical, or ideological. What is, however, even more striking is the growth of intercourse and interchange between societies. If the streams of cultural tradition go on multiplying they nonetheless tend to converge more and more, and to flow into a single river. A main stream with ever-growing emphasis dominates the whole drainage system to canalize the waters of fresh springs. Cultures are tending to merge into culture’ (Childe 1964:28-29, as cited in Kohl 2007:260)

CHAPTER ONE: INTRODUCTION

1.1. Research Statement

The Kura-Araxes Culture is one of the most distinctive and long-lived archaeological complexes of the ancient Near East, which existed roughly from 3500 to 2500 BC during the Early Bronze Age. The main feature that makes this culture stands out is the similarity in pottery, architecture, mortuary practices and metallurgical tradition that draw together an astonishingly wide geographical zone from the Southern Caucasus to the Republic of Dagestan, the Iranian plateau, Eastern Anatolia and the Southern Levant (Figure 1.1). Recent fieldwork has revealed the further dispersal of the Kura-Araxes material culture to the east, across the central Iranian Plateau and to Cyprus, which drives forward more local varieties of the culture (Kohl 2009:260, Sagona 2018:224). Geographically, the Kura-Araxes heartland extends from the main orographic backbones, the slopes of the Greater Caucasus to the north and Lesser Caucasus to the south, through the Kura and Araxes valley, spreading to the shores of lakes Van and Urmia, and finally reaching the Taurus mountains in the south (Connor and Kvavadze 2014).

Despite the challenges to determine precisely such a large and unprecedented distribution of the KAC, there is an emerging body of research attempting to understand different elements of the culture (Kohl 2007, Sagona 2018). However, the KAC in Azerbaijan remains highly under-studied compared to neighbouring regions (Schachner 2011, Lyonnet 2014, Sagona 2018). This thesis stems from the requirement for new investigation and reassessment of the research on the KAC during the EBA in Azerbaijan. The thesis has two principal objectives. First, to conduct a comprehensive analysis, a first of its kind, of the case study area, Azerbaijan, that elucidates an understanding of the life of KAC communities living during the EBA. Second, to interrogate and reconsider the broader interpretation of KAC in the Caucasus and the wider extent of the 'KAC world' through evidence-based data evaluation, analysis and interpretation. In that light, a comprehensive Gazetteer will be created to provide a detailed account of every known KAC site in the contemporary borders of Azerbaijan. This will enable scholars to engage with material that was previously inaccessible. More importantly, this comprehensive study of the KAC in English will be widely available as an international resource for the scholars of Azerbaijan.

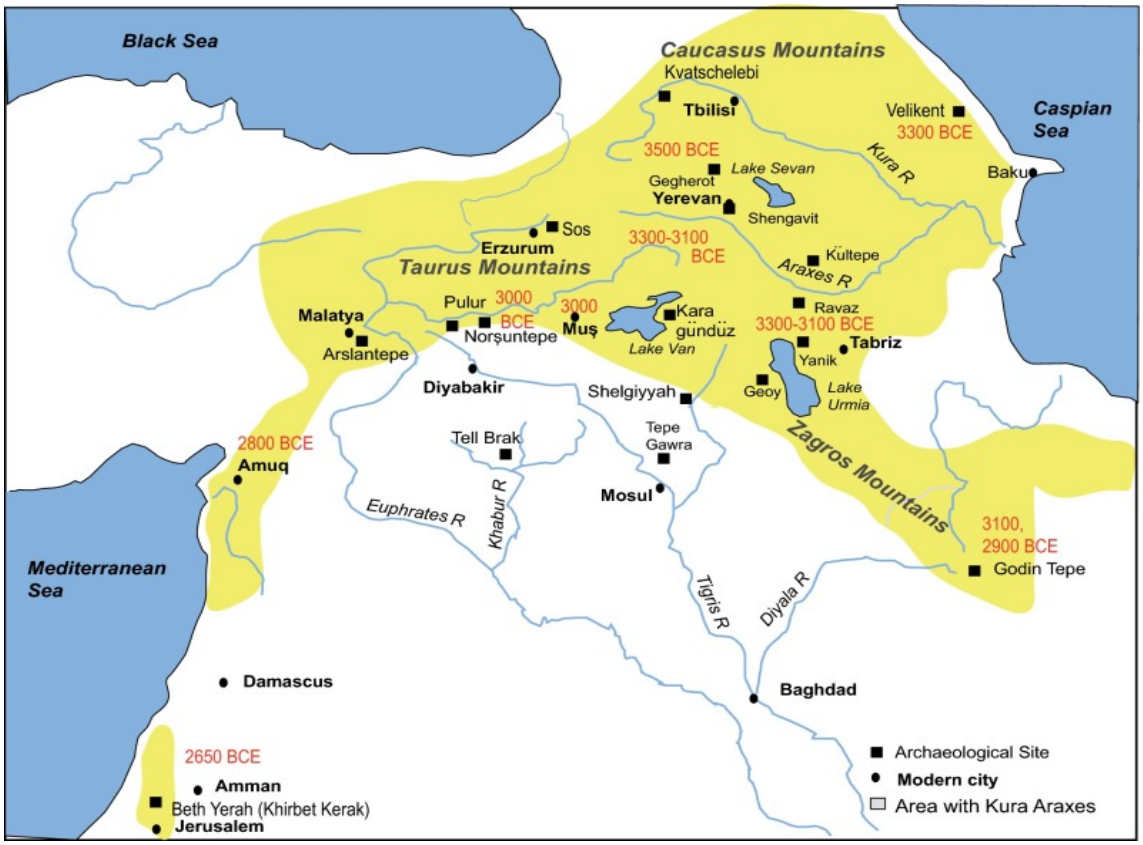


Figure 1.1. Distribution of Kura-Araxes cultural tradition (Rothman 2015a: fig 1)

Scholarship on KAC has long been dominated by the distribution of its material culture, mainly, studies of ceramics, which limits the overall understanding of the life of KAC communities in the region. Scholars (Kohl 2009, Batiuk 2013, Palumbi 2016, Rothman 2016) believe that the depiction of the KAC should not be based on ceramic types alone but rather encompass a wider perspective on behavioural and material repertories, practices and modes of cultural expression that have existed for thousands of years. Limiting the cultural traditions of the KAC people by over-reliance on the ceramic tradition rather than searching for the whole cultural value of that phenomenon, the scholarship becomes at risk of being descriptive (Murray 1999, as cited in Palumbi 2016). This study addresses these critical gaps and for the first time examines existing fragmented records surrounding the settlement pattern and the nature of settlement structures, funerary practices, and building tradition in Azerbaijan. This work interrogates the notion of KAC within a wider dataset contrary to a general statement for the whole KAC proposed by earlier scholars. In doing so, it focuses on the inter-regional comparison to evaluate Azerbaijan's place in the broader picture of the KAC.

1.1.1. Why Kura-Araxes Culture in Azerbaijan?

The Kura-Araxes culture term was coined by Boris Kuftin in the 1940s. He proposed that the valley of the rivers Kura and Araxes are the heartland of this culture complex (Kuftin 2012). However, research on the KAC has been dispersed and fragmented for decades, primarily due to modern political borders. As a result, local and regional studies were conducted in different countries, using various languages, terminologies, and chronological divisions. Isikli (2015a, 2015b) claims that despite its one hundred years of research history, sub-regions of the KAC are still enigmatic, and for the KAC to be better understood, there is a need for more regional projects. According to Smith (Kaplan and Karny 2000, as quoted in Smith 2005:231), archaeologists and historians face a challenge because they tend to focus on studying the ancient world of the Caucasus separately within different political contexts rather than situating it in a complex ancient Caucasian place definition. With today's political borders, the culture spans almost across ten modern countries, making it difficult to understand, and remains fragmented and lacking coherence as noted by Kohl (2009). Thus, we need more regional projects for the KAC to be better understood.

In that light, our case study area delineates modern Azerbaijani borders, covering areas extending from the Greater Caucasus to Lesser Caucasus Mountain ranges, Kur-Araz lowland river basins, Mughan (Lankaran) steppe to Middle Araz (Nakhchivan) valley territories (fig 1.2). Azerbaijan lies in the southeastern part of the Caucasus and occupies an area around the foothills of the Caucasus Mountains. It shares boundaries with Russia to the north, Iran to the south, Armenia to the west and in the northwest with Georgia, and to the southwest with Turkey where the Caspian Sea marks the eastern border. There are two exclave and enclave areas entirely within the borders of Azerbaijan: the Nakhichevan Autonomous Republic, which is separated from the rest of Azerbaijan by a strip of Armenian territory, and the Armenian enclave of Nagorno-Karabakh (fig 1.2).

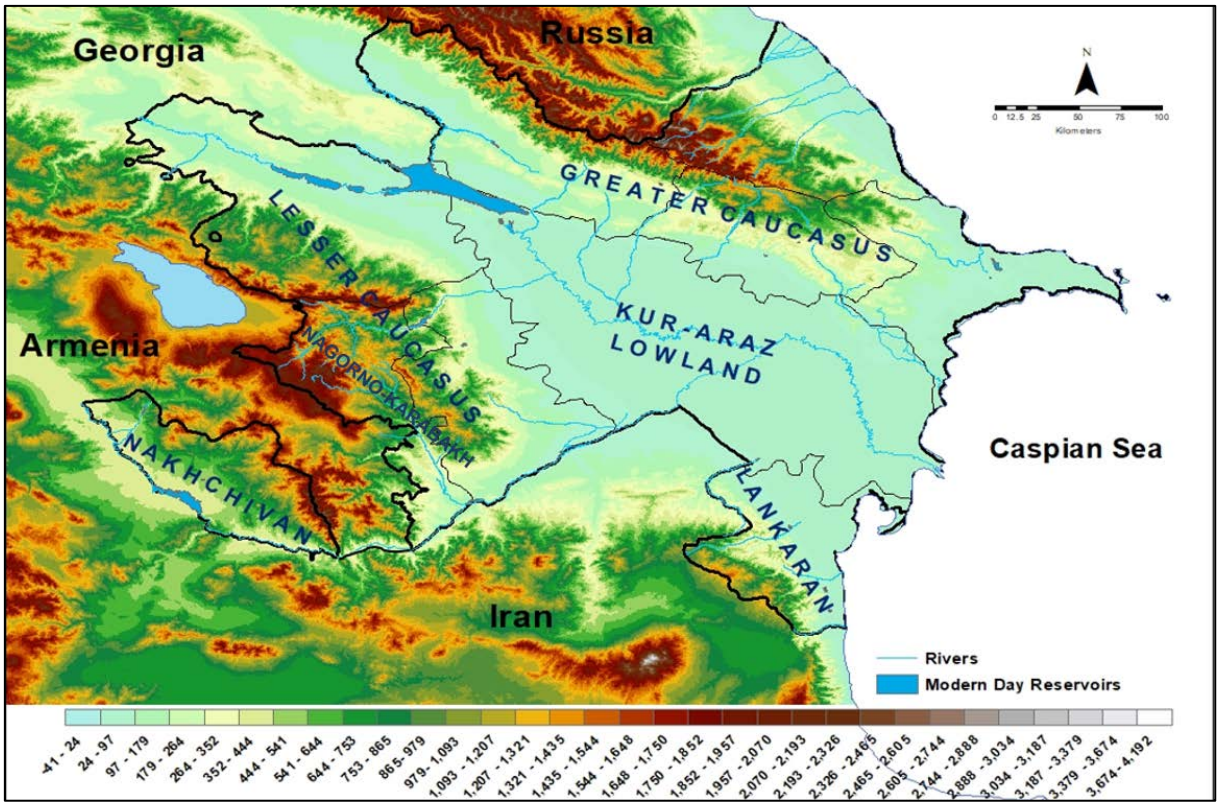


Figure 1.2. Study area, the physical map of Azerbaijan (created by the author, Ismayilova)

1.1.2. Challenges in studying the Caucasus region

Several factors have hampered the progress of archaeological study in the Caucasus since the time of the Soviet Union. It is believed that 'understanding the contours of scholarship on the South Caucasus requires context about the region, which has long been treated as an "unknowable" periphery' (Grant and Yalcin-Heckmann 2007:1-20, as cited in Fabian 2017). This lack of international attention was partly due to the political isolation of the Soviet Union during the years 1960-1990. For example, Trifonov and Dolukhanov (2005) claim that the integration of Soviet archaeological data into the international database counted as a problem because Soviet archaeology remained isolated from the international scientific community. Undoubtedly, this school of archaeology has suffered from a lack of recording, utilising and effectively processing a comprehensive archaeological database. Avetisyan and Bobokhyan (2012) point out that during the Soviet Empire, there was a deep collaboration among Caucasian archaeologists, including Georgian, Armenian and Azerbaijani, but almost no relationship with Western, Iranian or Turkish specialists. Eventually, the emergence of the Caucasus from the

Soviet cloud paved the way for European and American scholars to contribute more to Caucasian archaeology.

Furthermore, major archaeological reports were published in well-presented Soviet journals and books exclusively in Russian, which unfortunately prevented a broader understanding of the synoptic of the entire area, explicitly creating a barrier for Anglophone researchers interested in undertaking Kura-Araxes Culture studies (Kohl 1992, Knauss 2005, Schachner 2011, Fabian 2017). Beyond this, one of the reasons for Azerbaijan being poorly understood is a result of decades of study integrated within other neighbouring regions. Scholars (Smith 2005:233, Schachner 2011, Lyonnet 2014) believe that the modern Republic of Azerbaijan has not been studied in detail and that research into this area was mostly conflated with that into the adjacent lowlands of eastern Dagestan and North-western Iran. Knauss (2005:216) and Lyonnet (2014:115) claim that a large part of the region remains 'archaeological terra incognita'. Similarly, Ristvet et al. (2011:4) argue that despite Azerbaijan having the most significant land area compared to other Caucasus states, it is one of the least documented countries in the region.

1.2. KAC: Key issues and theoretical frameworks

This section provides a brief account of previous approaches to the study and interpretation of the Kura-Araxes culture during the EBA. It outlines current research themes and debates in Kura-Araxes studies and notable gaps in knowledge and understanding as a basis for the following research aims and method section. First, to comprehend the social and historical factors that shaped the Caucasus and neighbouring regions in the 4th millennium BC, it is crucial to describe the contrasting lifestyles that coexisted during that time in terms of sharing different geographies and chronology. The Caucasus has served as a bridge for human-place interactions, in which scholars constantly looked at the region from the point of 'frontier and boundary' approaches throughout its history (Kiguradze and Sagona 2003:38, Sagona 2018). The EBA period was characterised by the processes of divergent development, alongside societies highlighted with a level of technology, social organisation, the continuous circulation of materials, technological innovations, and the circulation of ideas over long distance (Kohl 2007). For instance, communities living along Eurasian steppes relied on the intensive agriculture of cereals, cattle herding economy, mining technologies and metal working

throughout fourth and third millennium BC (Kohl 2007: 245). In many cases, on one level, the traces of inhabitants from the highlands generally is less evident on the landscape, with instability in occupation and alongside with the small size of settlements. However, on another level, a high degree of communal work on monumental funerary barrows and the accumulation of precious and exotic materials indicates some level of social complexity in these communities (Rova 2020b:7).

Scholars (Palumbi 2008, Sagona 2011, Rothman 2015b) believe that among other complex cultural units, the highland society of KAC communities remained isolated and developed their own distinctive cultural identity. Rothman (2015a:9190) claims that 'this tradition represented an adaptive regime and a symbolically encoded common identity spread over a broad area'. In a similar vein, Palumbi (2016:4) claims that communities of the Southern Caucasus emerged in the second half of the fourth millennium BC as centres of elaboration of an absolutely original social and cultural model that was radically different to the Mesopotamian 'Uruk' culture and 'Maikop' North Caucasian models. 'A strong social-moral system allowed KAC members to reject contemporary alternatives: the 'big-man' chiefdoms of Maikop, the collectivization of the Uruk and the commercialism of the Early Bronze urbanism' (Wilkinson 2014a:224) (fig 1.3). In contrast to these models, the KAC cultural tradition represents a horizontal social order, characterised as settled, non-hierarchical, agro-pastoral societies located in small villages (Kiguradze and Sagona 2003, Palumbi 2008, Smith 2015, Rothman 2018). For further details on the understanding of the essence of this cultural complex, refer to Chapter 2.

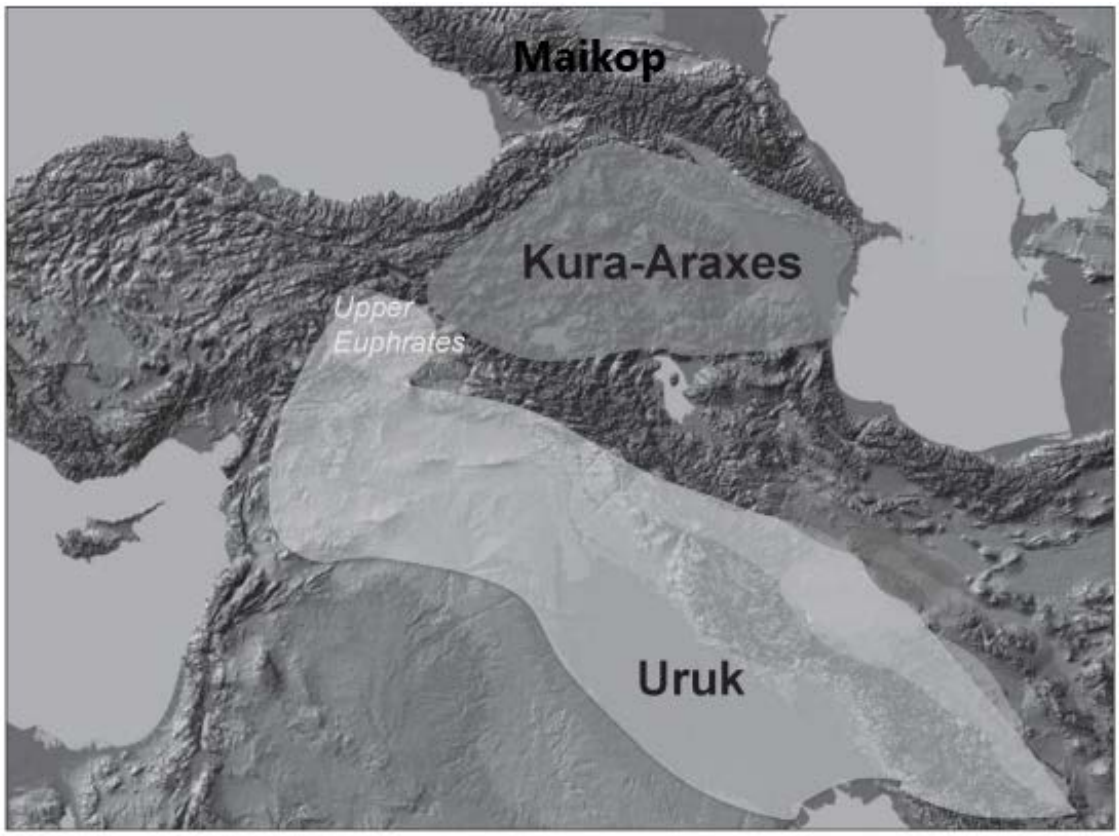


Figure 1.3. Map showing the Uruk, Kura-Araxes and Maikop cultures (adapted from Palumbi 2017:114, fig 1)

The chronology of the KAC and its periodisation remains the most confounding problem among archaeologists. The available evidence mainly comes from relative chronology due to insufficient absolute chronology data in the region. While there have been different schemes of periodisation based on different material culture elements, pottery is still considered as the main diagnostic element to track the cultural developmental phases of the KAC in the Caucasus (Palumbi 2008, Palumbi and Chataigner 2014:24, Sagona 2018) (fig 1.4). Therefore, based on Palumbi's (2008:319) pottery classification, a commonly accepted lifespan for the KAC is between 3500-2500 BC.

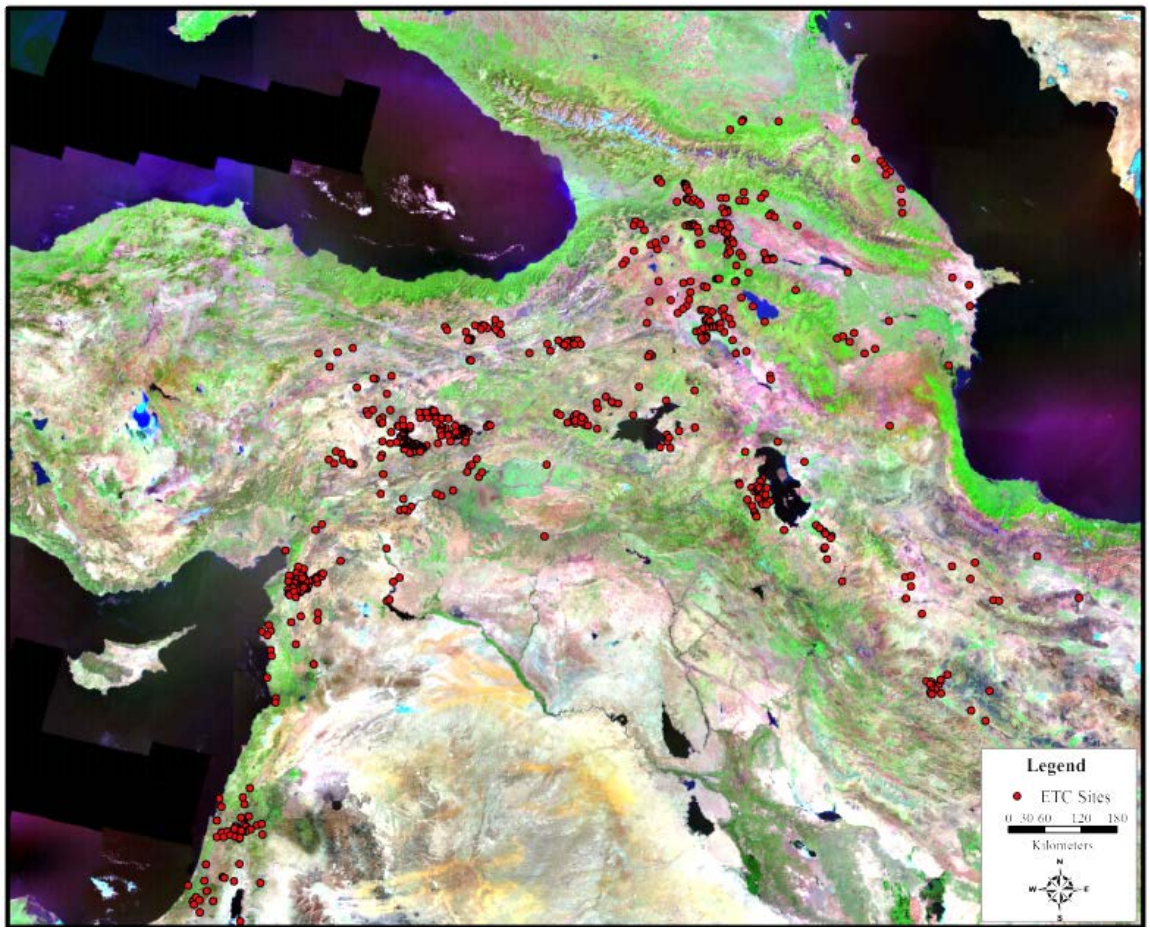


Figure 1.4. Kura-Araxes cultural-geographic zone: showing the distribution of sites with Kura-Araxes related wares. (ETC (hereafter Early Trans-Caucasian), is defined as a 'cultural flip-side' of the term KAC) (Batiuk 2005: fig 2)

There are numerous questions for scholars to answer, such as how such a conservative culture could preserve its cultural homogeneity over large geographical areas. Where does the unity of the Kura-Araxes end? Where and when does its diversity begin? What kind of factors led to simultaneous changes? In that sense, there has been tenacious adherence among scholars to following specific fundamental standards to divide the culture. In other words, the KAC I, II and III tripartite chronological framework, have widely employed by archaeologists to trace cultural development along the general path of the KAC (Burney and Lang 1971, Sagona 1984, Palumbi 2008, Palumbi and Chataigner 2014, Alizadeh 2015, Isikli 2015b). However, it has been a problematic model with its flexible nature, liable to change and adaptation in different KAC areas, and subject to divergent chronological and diachronic developments. This framework also confronted the origin of the culture, questioning whether the Kura-Araxes

material assemblage shows an identifiable beginning and an original set of traits or represents a continuation of the same tradition of the Late Chalcolithic (hereafter LC) period.

Based on the usage of the general and narrative method of a tripartite division, Kura-Araxes stage I represents the birth and formation of the culture, during which KA communities shared a set of key material elements which coalesce into a recognisable unity. This notion developed rapidly after Kiguradze and Sagona's suggestion (2003:38) to address the components of the KAC assemblage or 'cultural package', which occurred collectively over an astonishingly wide geographical zone. The emergence of the 'cultural package' model brought to the problem of origin of the culture and the challenges of dealing with the pre-KAC phase, alongside reinforcing ideas to be explored further, such as the construction of cultural identity, homeland, a sense of unity, and a sense of belonging.

Some of these cultural assemblage elements are listed below:
Hand-built burnished Pottery- are varied based in their shape and stylistic differences (fig 1.5)
Domestic buildings – are in circular and rectangular shapes, made from stone or wattle-and-daub (fig 1.6)
Hearth stands or andirons- are fixed, simple (cylindrical), as well as elaborate, multi-lobed hearths, installed on the floors of domestic buildings and portable hearths in zoomorphic, anthropomorphic shapes (fig 1.7)
Sophisticated bone implements - are bone spindle whorls and awls; (fig 1.7)
Horned animal figures- are built from clay showing standardised manufacture (fig 1.7)
Metal artefacts- are made of an arsenical bronze and other metal contents, and clay moulds for casting metal (fig 1.7)
Lithic assemblages- are tools, such as made of obsidian (fig 1.7)



Figure 1.5. Sample of Kura-Araxes pottery styles from different KAC regions (adapted from Rothman 2015a: fig 2)

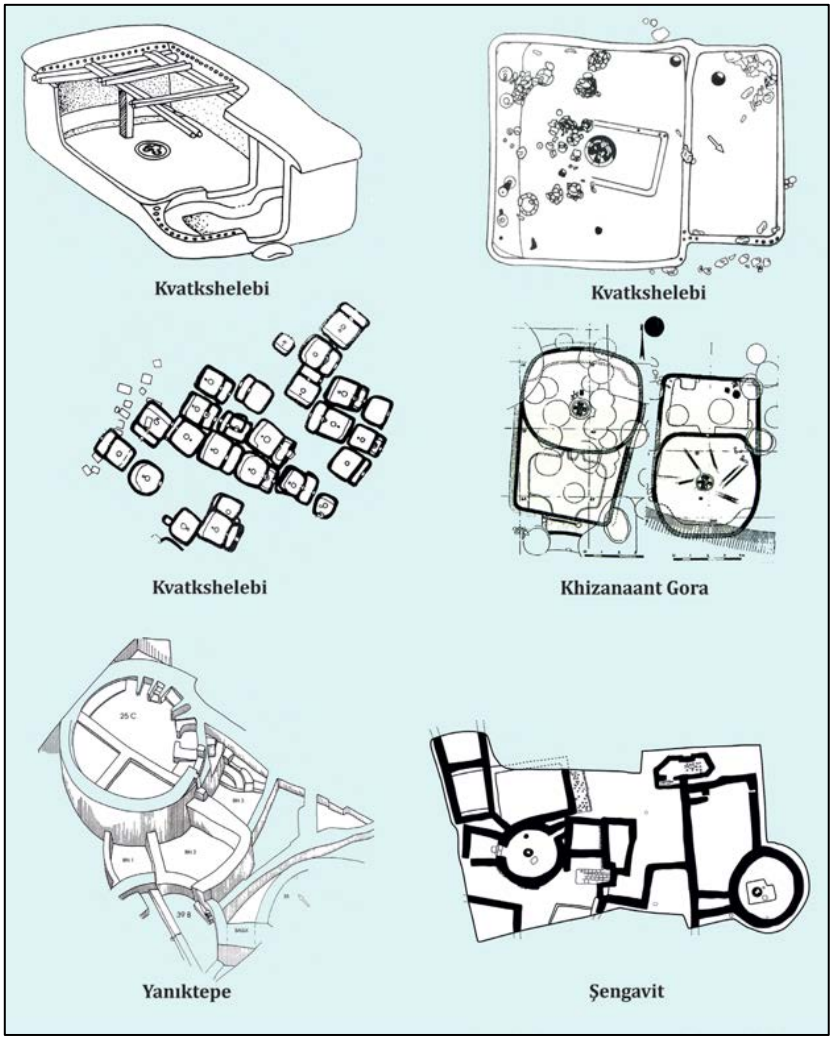


Figure 1.6. The different architectural features of the Kura-Araxes Culture buildings (Isikli and Ergurer 2017: fig 3)



Figure 1.7. Selection of typical characteristic KAC artefacts. Clockwise from top-left: zoomorphic figurines, spindle whorls, model wheels, obsidian tools, a hearth stand, a clay mould for casting metal (see site Kultepe I, Gazetteer N 43, p 90) (Azerbaijan National Academy of Sciences (ANAS) Institute of Archaeology, Ethnography and Anthropology, photos taken by the author, Ismayilova)

KAC II stage brings more interesting interpretations as the most perplexing puzzle about the culture starts to appear during 3300-2800 BC. Scholars studying this phase are trying to find common ground between the contradiction of the extreme uniformity of the culture and diverse regionalism. Passerini et al. (2018b) believe that due to the regional variability, it is difficult to identify a clear cut-off point within each development phase. After the formation phase, KAC

regions experienced the traditional process that can be determined as the ‘Traditional Kura-Araxes culture’, during which either significant or slight differences appeared in pottery, architectural and funeral traditions, while this phase also incorporated the simultaneous expansion of the cultural traditions beyond the borders of the Caucasus (Isikli 2015a:62). Thus, significant regional variations have led archaeologists to propose different terminologies, such as 'Shengavit culture' (based on KAC sites in Armenia), 'Early Transcaucasian Culture' (hereafter ETC, 'Karaz' (based on KAC sites in Eastern Anatolia in Turkey), 'Yanik Culture' (KAC sites in Iran), 'Khirbet-Kerak culture' (KAC sites in present-day Syria (Amuq plain), ‘Dagestan-Palestinian Archaeocultural Area’. These regional diversities throughout their development demonstrated self-conscious sets of regional sentiment and values, which further spread the richness of the KAC to different geographies (Smith 2015).

During the late phases of the culture, regionalisation and diverse alterations continued to be dominant in KAC regions. The culture also started to emerge in the wider areas, in the Amuq Plain and coastal Syria, as well as in the farthest extent of KAC culture, the Southern Levant roughly around 2900-2600 BC, and finally coming to an end around 2500 BC (Palumbi 2008, Alizadeh et al. 2018). The decline of settlements and the disappearance of the culture still remains one of the tantalizing subjects for KAC scholars.

This last phase also comprises a range of 'coexistences' created by the adjacent cultural complexes, such as Trialeti, Bedeni and Martkopi, towards the beginning of the Middle Bronze Age (Bedianashvili 2021, Rova 2022). In fact, it was characterised by the emergence of the elite expression and impressive wealth accumulation in burial kurgans which seems to underlie the demise of the already older and smaller-scale KAC networks around 2600-2500 BC. The intriguing longevity of the thousand-year culture and the period of its expansion stimulated debate among scholars, which is discussed in Chapter 2, section 2.4.

The regional diversity brought to light a critical element on the Kura-Araxes identity and social world. However, very few attempts have been made to establish a baseline for this horizontally defined society. There is still a considerable debate about whether these highland people should be defined as ‘Kura-Araxes society’ or ‘Kura-Araxes societies’ (Simonyan and Rothman 2015:5). It directly links to the problem of the interpreting the spread of the Kura-Araxes Culture, whether this cultural horizon represents one culture with regional variants, or multiple

interacting groups with separate ethnocultural identities (Rothman 2015b). Sagona (2018:215, as cited in Smith 2005:258) claims that there was a strong perception of complex hybrid identities created as a result of accepting shared values and behaviours. In that sense, the KAC communities rigorously preserved both the cultural cohesion and heterogeneity of their material culture. Chapter 2, section 2.2 will further explore the KAC identity.

Different cultural variations also arise with the differences in subsistence strategies, demonstrating an argument for different lifestyles (Alizadeh et al. 2015, Sagona 2018). Smith (2005:259) claims that Kura-Araxes populations are sedentary, characterized by well-established habitats such that '…strong evidence of Kura-Araxes nomadism is quite hard to come by and the archaeological record of the Early Bronze Age in the South Caucasia is dominated by sizable, stable villages that appear to have hosted communities invested in both agricultural and pastoral production'. Whereas Rothman (2003) and Palumbi (2008) argue for increasingly mobile lifestyles in the Early Bronze Age. Later research on archaeobotanical and faunal data indicates that 'KAC communities were leading a settled type of lifestyle founded on an integrated agro-pastoral economy' (Herrscher et al. 2021:153). However, research on these group identities should be studied in relation to a complex combination of migration, interaction and cultural assimilation. For overview on the agriculture and food economy of the KAC see Chapter 4, section 4.4.

Despite all these contrasting claims, scholars collectively agree that the social world of the Kura-Araxes was a largely undifferentiated and homogeneous space which almost lacked a clear hierarchy in social order (Smith 2005, Palumbi 2016, Greenberg, 2021). In addition, the absence of social hierarchy is also reflected in the burials. Yet, some scholars (Kushnareva 1997, Alizadeh 2015, Alizadeh et al. 2015, Areshian 2007) claim that there is some level of ranking among KAC communities, especially in relation to communal or public buildings. Also, there is some degree of specialized production and defensible areas in some settlements that urges us to look at the culture from another slant. More details on the social organisation of the KAC people see Chapter 2, section 2.2.3.

1.3. Challenges in the methodology of the KAC in Azerbaijan

As discussed above, one of the objectives of this study is to understand KAC in Azerbaijan on a bigger scale based on a wide dataset. It would be worthwhile to outline some of the current main challenges the scholarly community faces. Turning to various trajectories on research of Kura-Araxes studies in Azerbaijan, we can observe two contradictory narratives: one representing the Soviet tradition, and the other describing international research relying on different methodological and interpretative approaches. Today the archaeology of Azerbaijan is mainly characterised by an apparent absence of scientific methods and archaeological theory approaches, lack of familiarity with the many branches of archaeology, and the absence of multi-disciplinary research strategies (Batiuk 2005:83, Lyonnet et al. 2012, Chataigner 2016:1). There has been some sporadic multinational collaboration, but due to their short-term and unpredictable nature, there have not been significant outcomes compared with neighbouring regions (Sagona 2010). Further information on regional and international collaborative research is outlined in Chapter 4 and information about the history of research of each KAC site can be accessed in the relevant Gazetteer entry.

While collaborations between local and foreign researchers continue to make contribution to methodologies and trajectories, Russian archaeological practice is still regarded as an essential methodological tool in Azerbaijan. For example, there is a long-established tendency among local archaeologists in Azerbaijan to focus on one 'great' site or on one region for a long time. This approach limits them from engaging with inter-regional comparison throughout the country and adds to the one-sidedness of their data (Trigger 1989, Smith et al. 2009). Therefore, there is an urgent need for comparative research assessing regions of this cultural zone in order to put forward a worthwhile theory of KAC in Azerbaijan. In addition, the independent research of the KAC areas and limited collaboration among scholars has led to difficulties in devising a unique sub-region division for the KAC areas in Azerbaijan.

These aforesaid points are to an extent treasured by the Soviet school of approaches, such as 'molecular versus atomic levels of research' (Bulkin et al. 1982:289). In other words, Soviet archaeology is being distinguished by a less-dense trajectory of research, adhered a 'coarse-grained' approach to the large-scale archaeological units (Bulkin et al. 1982:289). Bulkin et al. (1982:289) claim that the 'molecular' level of research is characterised by a lower density of excavations being dispersed over a much larger area, while the 'atomic' level revealed varities

in the material culture of relatively small groupings of sites. In the light of these limitations, research aims and methods will be outlined in the next section. For details on the methodological approaches to the KAC studies in Azerbaijan, follow Chapter 2, section 2.5.1.

1.4. Research aims and methods

As discussed above, the first objective of this thesis is to undertake a comprehensive study of the KAC in Azerbaijan. The principal method to achieve this goal is by creating a Gazetteer of all-known KAC sites in Azerbaijan during the EBA. One of the necessities of this study is to present a mass of archaeological material, largely recovered by archaeologists working within the former Soviet Union, and to make this rich database more accessible. Since the beginning of the twentieth century, numerous KAC sites have been surveyed and excavated in the territory of the Republic of Azerbaijan. However, the data collected from these excavations have not been presented in the form of archaeological maps, atlases and catalogues, neither in chronological nor geographical order. In that light, the Kura-Araxes Culture Gazetteer developed as part of this study, is a valuable resource to provide an easily accessible and up-to-date listing of archaeological investigations carried out in Azerbaijan. It will enable us to utilise the available data more thoroughly, enhancing understanding of the broader chronological and geographical development of the KAC in the region. For further detail of the history of the study of the Gazetteer, see Appendix I page 3.

The second objective of this thesis is to explore the current knowledge of the KAC in Azerbaijan. Scholars face problems when defining a single and unique explanation for this culture. The narrative method of the chronological development of the culture, the implication of homogeneity-heterogeneity features, traditional peculiarities of local variants, and the self-conscious set of networks, values and worldviews is still perplexing when trying to understand the culture. ‘These two faces of the Kura-Araxes- similarity and diversity- still pose a challenge for researchers’, posits Sagona (2018:213). Thus, the overall aim is to use these conceptual frameworks against the settlement pattern and structure, architecture and mortuary practices, to determine the applicability of these frameworks in relation to Azerbaijani evidence. For further details on the assessment and interrogation of all those ideas, see Chapter 2.

As this study is the first critical evaluation of different chronological frameworks by KAC scholars working in Azerbaijan, the second aim is to propose a single chronological framework to apply to all KAC sites in Azerbaijan. Related research questions to achieve this aim will be:
-What kind of chronological frameworks will be useful to refer while building a single chronology?
-How will the single chronology help us understand KAC development stages?
To determine variation across regions, in addition to pottery typology, it is essential to consider the changes in other elements of the culture throughout the KAC phases. The chronological framework thus focuses primarily on the period between 3500-2450 BC, in which the relative tripartite system is adopted: KAC I (ca 3500-3000), KAC II (ca 3000-2800/2700), KAC III (ca 2700-2450). This chronological approach will help us analyse the data and explore all interpretative ideas more deeply. Further details on the methods of organising this chronological framework follows in Chapter 3. Please note that each analysis chapter contains specific methodology and data collection sections.

The third aim of the study is to enhance an understanding of the settlement distribution of the EBA in Azerbaijan while simultaneously identifying temporal settlement change at a broader scale. Related research questions to achieve this aim will be:
-How are KAC settlements distributed spatially?
-Do they exhibit any temporal variations in their regional distribution?
Data on 124 KAC known sites were collected (89 settlements and 35 funerary sites (individual 73 graves) in Azerbaijan to introduce a general distribution of KAC settlements over the wide region and to identify settlement changes at a broader scale, sites were mapped, georeferenced and incorporated in the current study to form a Gazetteer entry (fig 1.8). For more details on the methodological procedures of the mapping, see the method section of Chapter 4.

The fourth aim of the study is to understand the lifestyle of KAC people by examining the nature of settlement structure in Azerbaijan, identifying the changes in settlement layouts, and their spatial-temporal organisation. Related research questions to achieve this aim will be:
-What kind of settlement layout characteristic of KAC tradition is the consistent spatial pattern?
-Is there any evidence for patterns of variation among KAC settlement layouts that indicate some different social or other categories?

-How do KAC settlements exhibit architectural variation in relation to regional building traditions over time?

The method was presented in the form of graphic drawings of site plans, comparative graphs, and photographic images of excavated sites. The next aim of the chapter is to understand chronological change in architectural plans in Azerbaijan during the EBA. For further detail on method section, see Chapter 5.

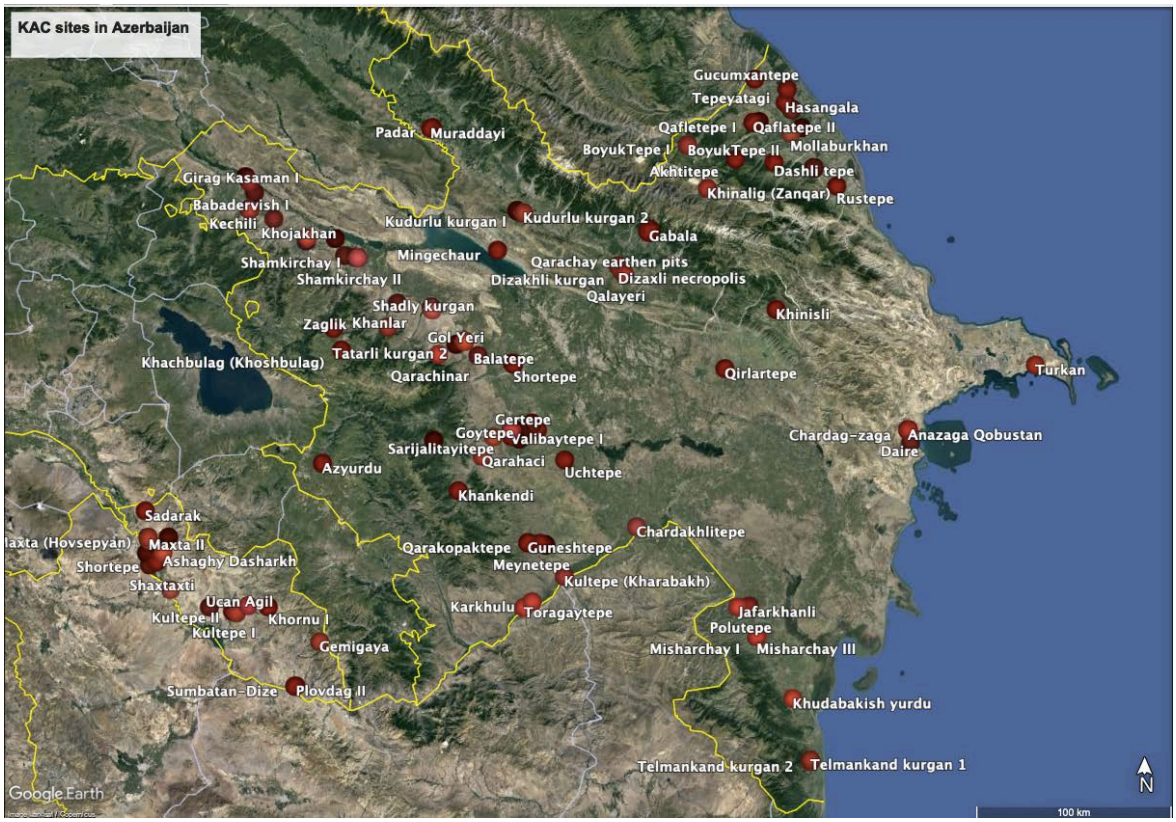


Figure 1.8. General distribution of all KAC sites in Azerbaijan (created by the author, Ismayilova)

The fifth aim of the study is to explore the socio-cultural life of KAC communities by examining the nature of building traditions in Azerbaijan. Related research questions to achieve this aim will be:

-Are all KAC houses function socially and economically in the same way over time?

-Is there any evidence for patterns of variation among KAC houses that indicates different status, wealth, social categories or cultural complexity?

-What social practices are identifiable in and around KAC houses in terms of built-in infrastructure like hearths, ovens, material culture, and residues of social activities?

Through a wide-ranging dataset via exploring different categories, such as building shapes, sizes, doorways and other built-in features across 139 KAC buildings, I aimed to trace whether there is a strong sense of unity or a sense of differences in the architectural traditions throughout KAC stages. For method section see Chapter 6.

The final aim of this study is to develop an understanding of the nature of the mortuary practices of the KAC funerary sites during the EBA. Particular attention is given to demonstrating a general distribution of the KAC funerary sites and examining the complexity and diversity of grave architecture to explore regional variations and similarities in the funerary tradition more comprehensively and comparatively in Azerbaijan. Related research questions to achieve this aim will be:

- How are KAC funerary sites distributed spatially across wide regions?

-How are typical KAC graves built, and do they exhibit any architectural variation with regional tradition?

-Is there any evidence for patterns of variation among grave architecture?

-Are kurgans linked to different social groups or considered 'classical' Kura-Araxes tradition indicating other social categories?

For this purpose, a single typology was created for all KAC graves, which gave us an insight into the pattern of different burial activities in Azerbaijan during the EBA. In addition, 35 KAC funerary sites (individual 73 graves) known in Azerbaijan, were mapped and geo-referenced using GIS program. For method section, see Chapter 6.

1.5. Data collection

The work adopts a mixed-methods approach to exploit the available data fully to help us understand the broader chronological and geographical development of the KAC in Azerbaijan. The data was compiled over a period of three-year (2016-2019) from the archaeological reports from the archive of the Azerbaijan National Academy of Sciences Institute of Archaeology, Ethnography and Anthropology (Azərbaycan Milli Elmlər Akademiyasının Arxeologiya, Etnoqrafiya və Antropologiya İnstitutu) and the National Museum of History of Azerbaijan (Azərbaycan Milli Tarix Muzeyi). These archives hold official reports submitted at the end of each season of fieldwork conducted in Azerbaijan. Being from Azerbaijan and familiar with the location of the collections has helped me to conduct further research and gather all the

necessary data easily. Moreover, my familiarity with the working procedures of institutions in Azerbaijan has also been beneficial in facilitating the research process.

The collected data comes from unpublished materials, such as archaeological reports and archaeological artefacts and from secondary sources, such as published excavation reports and academic journal articles. During field visits to Azerbaijan, I examined approximately 73 major archaeological reports and 11 sites' worth of materials dated back to the EBA (Please refer to Gazetteer to see each site entry). The Gazetteer database contains any site that is associated with the KAC, from those yielding isolated finds to those with numerous materials. For example, there are a few sites in Azerbaijan, such as Kultepe II (Bakhshaliyev et al. 2009), Ovchular Tepesi (Marro et al. 2014) and Kultepe I (Bakhshaliyev et al. 2017) dated to the EBA which have been intensively excavated, recorded and published over the period. In contrast, there are many small sites where only few excavations or surveys have been carried out, and they perhaps assist us with more descriptive rather than interpretative explanation. For further detail on the methodology procedure adopted for creating this database see Appendix I, section Introduction to the Gazetteer.

1.6. Limitations

There are still many limitations which make it challenging to study the KAC in Azerbaijan comprehensively. Such challenges include a lack of well-stratified settlements, few dated excavations of many sites, limited precise stratigraphy, or full publication of materials (Lyonnet 2014:127-128). Some challenges generally exist for researchers dealing more extensively with the data from former Soviet republics. This data, including the interpretation of literature and the conservation of material, remains a stagnant and unchangeable resource for scholarship. This will be discussed in sections below. Specific limitations related to data analysis are outlined in their respective chapters.

1.6.1. Modern political borders

As mentioned above, Caucasian archaeology is still fragmented by national borders, imperial powers, and traditional boundaries. Fabian (2017:n.p) fairly argues that 'the modern geopolitical liminality of the South Caucasus has fragmented archaeological datasets along myriad geographic, linguistic and historical axes.' For instance, one constraint that limits

scholars' scope of research is the border conflict between Azerbaijan and Armenia. The excavations in Karabakh region, a significant part of southwestern Azerbaijan, have been interrupted due to the Armenia–Azerbaijan Nagorno-Karabakh conflict since 1988. Despite an armistice between two countries in 1994, Nagorno-Karabakh and seven adjacent regions, were entirely inaccessible to Azerbaijani scholars, making it impossible to undertake any research in these territories until Second Karabakh War of 2020 (fig 1.9). Regrettably, many areas have not yet been undergone archaeological investigations, and a significant number of sites have not been satisfactorily dated and interpreted since the conflict began. However, the study of the region before the conflict will be included in the thesis and Gazetteer, as it is considered an internationally recognised land within the modern border of Azerbaijan.



Figure 1.9. The controlled territories by the Republic of Armenia prior to the Second Karabakh War 2020 (Chisinau 2016)

1.6.2. Site Location

While I was able to gather data for most sites, around 60 sites had limited information with only the region and the site name identified. Defining the transition between the Chalcolithic and EBA and the EBA and MBA was also challenging. As we are unsure about the reliability of these sites, they are listed separately in the appendices of the Gazetteer. Unfortunately, most KAC sites in Azerbaijan do not have exact GPS coordinates. For sites where GPS coordinates

were not available, coordinates of the villages located near the sites are used. One of the constraints of identifying GPS locations is that scholars are reluctant to disclose the exact location of some sites for security and protection purposes, resulting in ambiguity with one site having two or three coordinates in different publications. Therefore, accuracy varies greatly within the dataset, and the coordinates assigned to each site should be seen as an approximation, with accuracy ranging from a few meters to as much as a few kilometres in some cases. Furthermore, evidence for most settlements has been destroyed due to ploughing or modern development, particularly in lowland areas. Other challenges in accessing data and using GIS are discussed in the method section of Chapter 4.

1.6.3. Conservation of material (site archive/museum collection)

The post-discovery life of the archaeological assemblage in Azerbaijan still lacks appropriate attention. There is still a lack of organization, classification and structure in the archaeological collections of the different institutions and museums. There is a disparity as a result of not having a single place for all these archaeological materials throughout the decades. In the last 35 years, the ANAS, Institute of Archaeology, Ethnography and Anthropology basement storage has been moved several times and archaeological materials and documents stored in the recesses of archaeological depots of different buildings (Jabiyev 2018). For many years, materials recovered by both national and international archaeological expeditions have been stored in various locations under different circumstances resulting in improper handling and preservation techniques. Due to the changes in storage locations, there is a possibility of items being misplaced and mislabelled in respect of their periods and excavation sites. For example, reports from sites that were excavated up until the 1950s are currently kept at the National Museum of History of Azerbaijan, whereas the reports from the1960s onwards are under the patronage of the Institute of Archaeology, Ethnography and Anthropology. There are also other cases in which site materials have been preserved in the same provinces where they were discovered. Therefore, it is important to note that unintentional errors in data analysis are likely due to missing or unrelated objects mixing in different boxes.

1.6.4. Literature interpretation

Surveys and excavations conducted in Azerbaijan during the Soviet Empire are primarily written in Russian and Azerbaijani. My language proficiency in Azerbaijani and Russian

enabled me to navigate the resources and understand the content smoothly. Alongside this, being an Azerbaijani national enabled me to have knowledge of the region's archaeological history, and understand its geography and historical context. Also, I had familiarity with the KAC terminology. Despite this, it is also important to emphasise that the style of the Russian and local Caucasus publications written during the Soviet empire and afterwards is vastly different from western traditional archaeological thought and practice. Thus, it took considerable time to translate archaeological reports to understand and improve text quality.

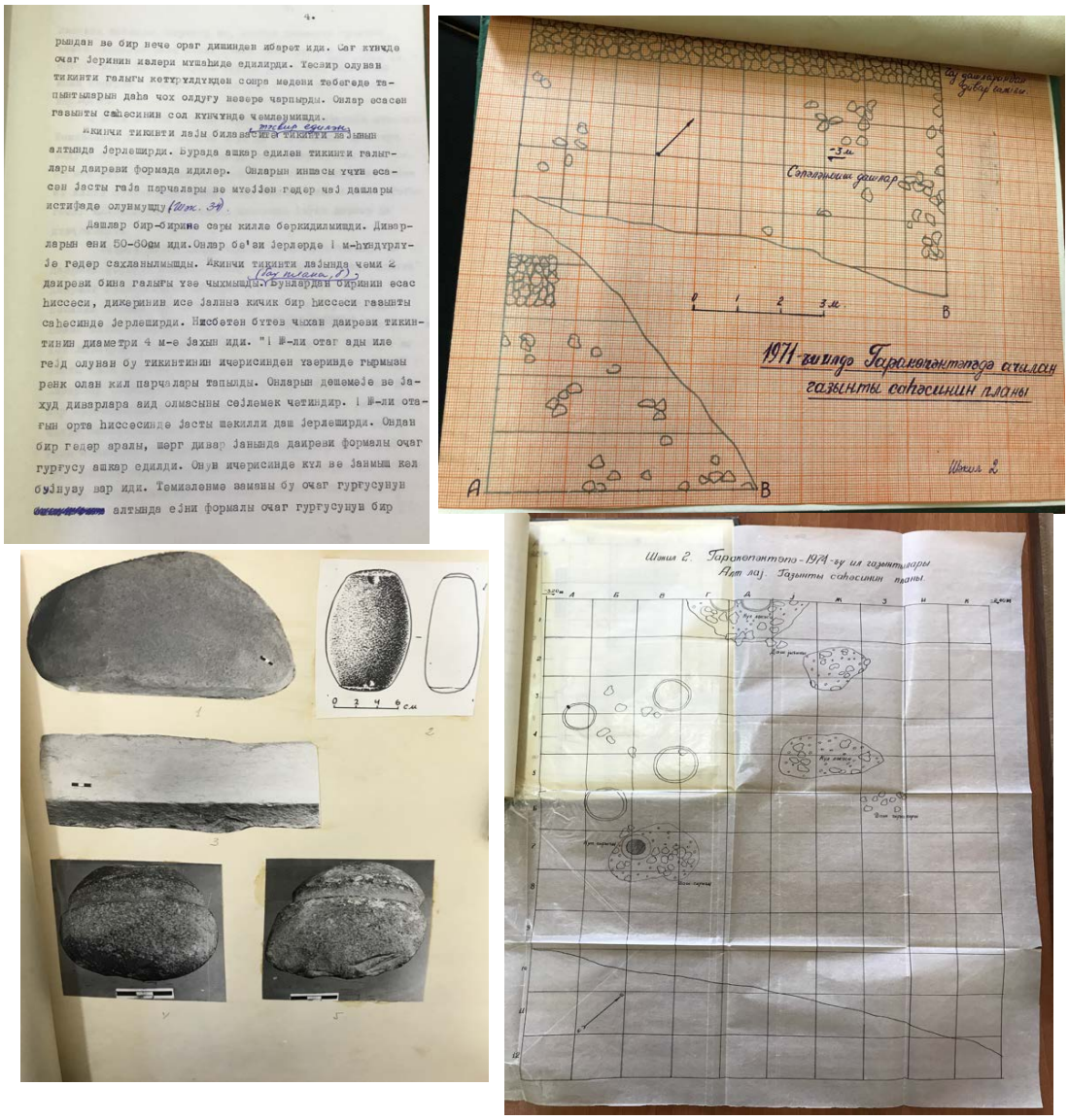


Figure 1.10. Samples from archaeological reports preserved in the ANAS, Institute of Archaeology and Ethnography. Clockwise from top-left (Ismailov 1970, Ismailov 1975, Khalilov and Kasamanli 1970, Ismailov and Danielyan 1974)

Archaeological assemblages were discussed almost cursorily, and often settlements were described without site plans and maps. Archaeological reports written during the Soviet Period are an 'interesting genre of archaeological writing, neither rough-and-ready field notes nor fully digested final publications' (Fabian 2017, n.p). The reports consulted are less interpretative and only seem to play a role in recording sites. Similarly, Rova (2020a) claims that referring to different ambiguous periodisation, chronologies and terminologies, the Caucasian archaeology represents a constant source of confusion and misunderstanding, specifically for younger scholars and for specialists of the neighbouring regions unfamiliar with this field of studies. Over time, I developed a better understanding of publication style and constructed a specific terminology for the targeted audience in English.

Furthermore, conceptual frameworks sharply differ in Western and Soviet archaeological thought and practice. 'There is little framing of the data either theoretically or practically, the language is both technical and opaque' (Fabian 2017, n.p). Part of this critique explicitly depicts that the Soviet archaeological practice explains cultural development purely based on the descriptive approach, in the form of 'naked artefactology' (Klejn 2012:23, as cited in Fabian 2017) or 'descriptive archaeology' (Bulkin et al. 1982: 282) (fig 1.10). As a result, this trend which was prevalent method during excavations, did not tend to rely on solid evidence but rather facilitated strict description of material culture. For more details on the challenges and limitations on the Soviet data, follow Chapter 2, section 2.5.1.

1.7. Outline of thesis chapters

This thesis is divided into nine chapters, including Introduction and Conclusion. The Gazetteer has been placed in the Appendices. The rest of the thesis is structured as following:

Chapter 2, *Understanding the Kura Araxes Culture: current interpretative frameworks and debates,* facilitates an account of previous approaches to the study and interpretation of the Kura-Araxes Culture. There will be a discussion of previous interpretations, a review of theoretical approaches to Kura-Araxes studies, and the implication of current KAC research themes and debates in Azerbaijan.

Chapter 3, *Kura-Araxes Culture Chronology*, attempts to review different chronological frameworks examined by KAC scholars. As a result, this chapter proposes a single chronology which will be applied to the majority of KAC sites in Azerbaijan. The suggested chronological framework helps to interrogate the data analysis.

In Chapter 4, *Early Bronze Age (Kura-Araxes Culture) settlement patterns in Azerbaijan,* the settlement patterns of the KAC sites in Azerbaijan are examined together with the landscape usage over time during the EBA. To achieve this goal, the Gazetteer is created for all KAC sites including mapped GPS location of these sites, contributing to a better understanding of the KAC settlement pattern.

Chapter 5, *The nature of Kura-Araxes Culture settlement structure in Azerbaijan,* examines the settlement organisation and layout structure more broadly in Azerbaijan. The study focuses on an examination of the layout of buildings, building compounds, and their spatial organisation within settlements during the EBA.

Chapter 6, *The Nature of Kura-Araxes Culture buildings in Azerbaijan,* is an in-depth exploration of the nature of KAC buildings in Azerbaijan. The main aim of the chapter is to understand whether there is a strong sense of variability or unity in the architectural traditions throughout KAC stages. This chapter outlines a comprehensive and comparative analysis of the nature of KAC buildings.

Chapter 7, *Kura-Araxes Culture mortuary practices in Azerbaijan,* explores the funerary traditions of the KAC people in Azerbaijan. The research aim is to develop an overall picture of the complex and diachronic nature of the KAC funerary sites during the EBA. Particular attention is given to examine the homogenous and heterogenous features in funerary practices, considering the research aims of the overall thesis.

Chapter 8, *Discussion chapter: Azerbaijan in the context of a broader picture of the Kura-Araxes Culture,* comparatively brings together all findings and results from data analysis by interpreting them according to KAC stages using theoretical frameworks and approaches.

Finally, Chapter 9, *the Conclusion chapter,* summarises the main findings and reflects on the aims and objectives of this research. The thesis concludes with the working hypothesis for future research directions on KAC culture in Azerbaijan.

CHAPTER TWO: UNDERSTANDING KURA-ARAXES CULTURE: CURRENT INTERPRETATIVE FRAMEWORKS AND DEBATES

2.1. Introduction

The development of the KAC has often been characterised by different perspectives and interpretations owing to various archaeological approaches and research methodologies. Archaeological remains are interpreted using varying methodologies, mentions Sagona (2010), which has led to diverse trajectories in developing cultural histories for different countries. Rothman (2018) posits that with some high-quality data being collected in the last few years, there is a need to investigate potential models to understand the social, political, and economic organisation of the KAC, as well as the cultural practices and beliefs of its communities. Sagona (2018:280) has highlighted four salient aspects that need further exploration for a better understanding of the KAC complex. First is the 'cultural package', which unites multi-ethnic societies under one umbrella with their broad similarities despite vast geographical distances; the second is the sense of place, which attaches the identity of these communities to social and physical landscapes. The third aspect is the concept of house and household. Finally, Sagona (2018:280) highlights the fourth aspect; the shift between the EBA Kura-Araxes Culture and Late Chalcolithic communities, which needs further exploration. This is because for the former, a central concept was unity and homogeneity, which was not strong in the latter one. In that light, examining those ideas will be at the core of our discussion throughout the chapter.

This chapter, therefore aims to facilitate a better understanding of the KAC by engaging with various concepts, theoretical and interpretative approaches, current research themes and debates around the EBA in the Caucasus. The chapter reviews several concepts, such as ethnocultural identity, ethnicity ('cultural package' arguments) and the social organisation of these communities, which has challenged scholars for decades. Further it follows with the discussion of the origin ('homeland' arguments), and of heterogeneity and integration models, and is finally followed by discussion of the spread of the culture, and movement of KA communities

further south. The second part of the chapter focuses on the case-study area, Azerbaijan. It examines the ongoing historical debates of the Kura-Araxes studies by considering methodological and theoretical similarities and differences comparatively with other adjacent regions. The chapter elaborates on theories and models, which may facilitate a better understanding of the traits of the KAC in Azerbaijan in a broader context.

2.2. Ethnocultural Identity Revisited: Legacy of Culture History and Processual Archaeology

2.2.1. 'Cultural identity' of KAC

Significant regional variations have led scholars to question whether Kura-Araxes communities should be considered as a single socio-economic unit across its entire extent or whether they were different societies with widely shared variations (Simonyan and Rothman 2015). There were some factors that made scholars think differently on the cultural identity of these communities, such as their stylistic differences in pottery, diverse environmental conditions, and communities with various subsistence economies, such as settled and mobile (Munchayev 1975, Kushnareva 1997, Palumbi 2008). Thus, this section explores the cultural and ethnic identities of KAC communities, especially their self-identification of both differences and internal consistency through homogeneous cultural boundaries.

From a broader perspective, societies often form in particular environmental zones (Rothman 2015a). For instance, the Caucasus region is characterised by a mosaic of environments combined with altitudes. During the EBA, natural and climatic conditions allowed human groups to occupy various environmental niches, providing all necessary resources (Akhundov 1999, Sagona 2018). Rothman (Sing 2000/2001, as cited in Rothman, 2016: 234) believes that ecology, identity, and culture are interconnected, constantly evolving and influencing one another. Thus, there is a recognition that environmental processes are diverse and complex and can be understood as contributing to a sense of identity expressed through cultural artefacts, politics, the economy, and more.

Rothman (Anthony 2007: as cited in Rothman 2015a:9191) asserts that shared identities through pottery styles, architecture and burial ceremonies closely correlate with regional ‘languages and dialects’, which he calls ‘Material-Culture Frontiers’. In other words, as an

ethnic group, KAC communities maintained their identity through a common structure of social activities and common design patterns. However, when these ethnic groups migrated and became assimilated into new environments, they were influenced by local material traditions, forming a new identity with local variations (Greenberg 2021). So, although they still maintained a connection with 'homeland' through the main 'language', they were influenced by the new environment, creating a new 'dialect' (Rothman 2015a).

There is a consensus that ceramics in Kura-Araxes communities are a pertinent marker in establishing cultural identity (Sagona 1984, Kushnareva and Markovin 1994). Labelling these societies as 'ceramic societies', suggests that ceramics act as identity markers for similar ethnic groups (Smith 2005:258). Despite numerous sub-groups with varying assemblages that represent the KAC, the importance of the culture lays in its shared cultural procedures, particularly, its consistency in manufacturing methods (Kiguradze and Sagona 2003). The development of the Kura-Araxes I ceramic traditions can plausibly be characterised as more homogenous from the point of view of techniques, morphology and decoration than the Kura-Araxes II phase, which played a role in the diversification of regional factors from the third millennium onwards (Palumbi and Chataigner 2014). Starting from the KAC II phase, the dynamic geographic expansion of the KAC was, therefore, an impetus for variability, stylistic creativity, and shifting world views.

Another cultural marker of the society is technical conservatism, throught the pottery technology and '*chaine operatoire'*, including against the usage of a potter's wheel with resistance, which further highlights a response to behavioural reinforcement (Palumbi 2008, Iserlis 2018, Wilkinson 2014a). The nature of KAC pottery differed from the Chalcolithic vessels as time and labour-intensive treatments made potters process clays in new ways, enhancing the container's aesthetic qualities and durability (Palumbi 2008). For example, different firing processes were in use, such as red-black firing techniques, where the exterior surface is usually dark, and the interior is oxidised to red. Also post-firing incisions with the presence of both symbolic and figurative decorations were a useful diagnostic tool for identifying regional styles during the EBA (Palumbi 2008, Sagona 2014a).

Subsistence is another factor that impacts the development, transformation and disappearance of ethnocultural formations (Akhundov and Almamedov 2009). Recent analysis of dietary

choices at the individual and population levels confirms that KAC communities demonstrated a ‘strong cultural identity’ in food practices as well (Herrscher et al. 2021). Recent data on isotopic differences measured on individuals and plant remains depict that the dietary practices of the KAC populations show extensive consumption of cereals, mainly barley (Herrscher et al. 2021:168). Thus, despite being located at different altitudes, these societies focused on homogeneous subsistence strategies.

Cooking and food play a symbolic role in the expression of social and cultural realities, and ‘KAC houses featured a recurrent set of principles related to the activities carried out in their interiors’ (Herrscher et al. 2021:153). Cooking appliances, such as fireplaces, hearths, andirons and fire installations can provide a glimpse of possible diets. Furthermore, subsistence strategies are significant in understanding everyday religious rituals. Therefore, a deeper exploration of socioeconomic circumstances of technological knowledge, behaviours and values is urgently needed through zooarchaeological, botanical and other evidence in KAC society. This again poses a question about what makes communities and culture ‘Kura-Araxes’ in the first place.



Figure 2.1. The Royal Tomb at Arslantepe (Isikli 2011: Res. 28 A, as cited in Altunkaynak et al. 2018:83, fig 6)

While ethnicity is the construct of a common identity, it can also be dynamic over time (Batiuk 2013, Burmeister 2017). For example, towards the later stages of the culture, when developments did not occur in parallel in each cultural province, the replacement of KAC populations by another society or societies is also an interesting aspect to examine (Edens 1995, Alizadeh et al. 2018). Trade, diffusion, and migration are the predominant elements of ethnicity, particularly pertinent in 'diaspora' regions. In this light, the same cultural identity perhaps changed within the diaspora, as in the Elazig-Malatya region, at sites, such as Norsuntepe, Arslantepe and even as far as the Levant, different societal attributes are evident in public, administrative, religious and domestic buildings (Palumbi 2021). For example, the evidence of interaction comes from long and extensively excavated sequence of occupation at the

Arslantepe VIA phase in the Malatya plain of Eastern Anatolia. This is characterized by the construction of a monumental public complex, replete with administrative, economic and specialised craft activities (Greenberg and Palumbi 2015). The most striking finding was the high-status wealthy burial, Arslantepe 'Royal Tomb', which witnessed the emergence of new funerary traditions (the stone-cist) associated with lavish concentrations of metals dating back to 3100 BC (Palumbi 2012, Palumbi 2021) (fig 2.1). The tomb testifies to a highly hybridised cultural environment, resulting from a mix of local and Kura-Araxes traditions, and different cultural components that coexisted in the grave goods of this tomb (Palumbi 2021:248). For further details on movement and migration of KAC communities, see sections 2.4.1 and 2.4.2.

2.2.2. 'Cultural package' model

Understanding the cultural ethnicity of KAC involves a crucial consideration of the notion of a 'cultural package,' as proposed by Sagona and Zimansky (2009). Sagona (2014:27) describes a 'cultural package' as a 'collection of artefacts and features displaying a distinctive cultural behaviour' which helped create a sense of belonging over a vast geographical setting. This section defines some cultural package elements encompassing the 'cultural identity' concept. It is crucial to remind the reader that the Kura-Araxes stage I is a period of cultural development characterised by the emergence of shared material elements and a sense of unity among Kura-Araxes communities (Palumbi 2008, Sagona 2018). By repeatedly recurring in simultaneous assemblages, these elements shared a high-level mutual affinity over an astonishingly wide geographical zone (fig 2.2).

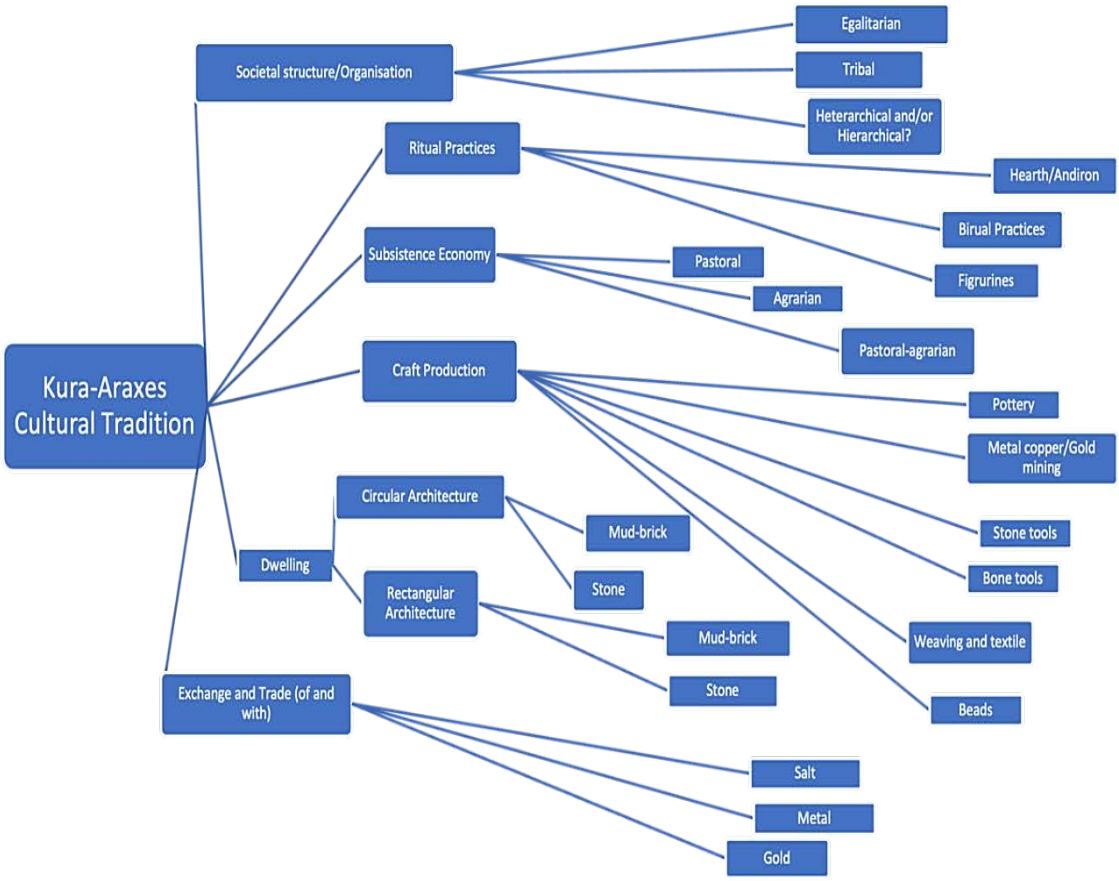


Figure 2.2. Kura-Araxes Culture components demonstrating homogeneous and heterogeneous features (Adapted from Maziar 2022)

Smith (2005:257) argues that 'the Kura-Araxes is a monolithic package, assembled perhaps from different elements, but ultimately attaining a material orthodoxy'. In other words, KAC becomes a vast, monolithic and homogenous area packed with similar material culture defined by metal, ceramic, lithics, architecture and more. However, it also demonstrates a heterogenous array of social orders, technical practices, political regimes and cultural identities, ultimately attaining a material orthodoxy. Similarly, Sagona (2018:215) argues that a remarkably high degree of singularity made Kura-Araxes communities strive to preserve their 'common social identity'. In other words, after the KAC was embraced by indigenous populations in the Southern Caucasus, KAC people resisted change to keep the unity of the culture (Sagona 2018:227). From another angle, Summers (2014:167) questions that how such a conservative culture could preserve its cultural homogeneity over wider geographical regions without apparently developing territorial states and the apparatus for ruling them. However, internal

changes or fluctuations in social systems do not consistently occur linearly. Instead, these shifts occur in a non-linear way owing to local circumstances (Sagona 2018:224). In this light, the following section discusses the social organisation of the culture.

2.2.3. Kura-Araxes Social World

This section explores the social world of the Kura-Araxes communities and tries to understand the structure of their social forms. Scholars have long debated whether these communities can be classified as equal or unequal societies, which mostly have a consensus over the absence of hierarchy in KAC communities, calling these societies more horizontal egalitarian systems (Palumbi 2016, Sagona 2018, Simonyan and Rothman 2022). However, it is also generally accepted that some level of social change happened throughout KAC stages, especially, from the second phase of the culture. For example, Rothman (2020) argues that the KAC I stage has all the signs of a horizontal egalitarian society. Based on the data from his long-term excavation at the Shengavit site in Armenia, he defined some key societal structure elements related to each KAC stage (Rothman 2020). KAC I phase is characterised as egalitarian, carrying a homogeneous cultural tradition, random layouts of small and equally sized furnished buildings with equal distribution of materials and capital, with consensual decision-making prevailing. In addition, the common usage of space, storehouses, and rituals seem to be a shared feature whilst no clear distinctions appear in mortuary practices. While the basic organisation continued to be homogeneous, some changes emerged during the later phases of KAC phase I. After 3000 BC, we can see size difference in some settlements alongside equal distribution with some central access, while also buildings with functional spaces start to appear (Sagona 2018). During this stage, there was an increase in domestic production, not specialised but rather based on local exchange zones. Also social change indicated itself in defensive walls, irrigation canals and some degree of specialisation in the production of grain stores at Shengavit (Rothman 2020). This stage also features a new development of workshop production or improvement of the mining methods, such as at the Sakdrisi gold mine in Georgia or the ancient salt mine of Duzdagi in Azerbaijan (Bakhshaliyev et al. 2012, Stöllner et al. 2014, Wilkinson 2014b).

As more light is shed on the societal structure of the KAC communities, researchers have raised more questions about the economic organisation of the culture. In other words, the multi-dimensional character in the society, driven by specific conditions like the natural environment,

technology and intercultural interaction, appears to make a difference to the social organisation of Kura-Araxes communities (Areshian 2007:28). As a whole, KAC communities which occupied different environmental zones in the broader region probably practiced a subsistence economy based on the exploitation of various sources, which turned into cooperation between different groups. Similarly, Alizadeh et al. (2015) and Sagona (2018) support the idea that despite the Kura-Araxes communities practicing different subsistence economies, 'the social world of the Kura-Araxes was as a largely undifferentiated and homogeneous social space' (Smith 2005:258). Kelly-Buccellati (2018:107) posits that ‘the core values of the Kura-Araxes culture are seen as a fundamental driver for the long continuity of the culture and allowed them to successfully negotiate their interactions with other cultural environments and social groups’. Consequently, within a variety of societal and cultural frameworks shaped by intricate influences, a robust social-moral system allowed KAC members to reject contemporary neighbours, exhibit resilience and preserve their beliefs and ideas over the vast region (Sagona 1993, Rothman 2003, Palumbi 2008, Kohl 2009).

Similarly, Frangipane (2007:163-164) brings up another interesting point about ‘horizontal egalitarian societies’, where she argues that these communities tend to remain unchanged. She demonstrates that they fought against a demographic increase that created more complex societies. In doing so, they either created segments by building new villages or integrating into different societies to maintain their unity and identity (Frangipane 2007). The literature depicts the societal structure of the Kura-Araxes homeland as not largely egalitarian but quite complex, like any other societal unit. Rothman (2020:165) claims that ‘across the homeland itself and certainly across the diaspora, a common symbolic thread kept alive by recurring practices defined the identity of these people. However, their societal structures represented adaptations to a variety of cultural, political, and natural contexts’. In other words, even though these communities tried to remain unchanged, migration facilitated interaction between different cultural components. This debate is taken on further to explore the ‘homeland’ concept.

2.3. The origin of KAC cultural repertoires and ways of life

2.3.1. 'Homeland' concept of the culture

This section summarises interpretations and debates concerning geographical and chronological dimensions of the KAC origin. It navigates through ethnogenesis as a process,

such as the ‘homeland’ argument versus more instrumentalist approaches to how ethnocultural identities came into being. The most intriguing question is where this enduring cultural tradition topic began across most of the South Caucasus. This has long been a subject of contention (Kiguradze and Sagona 2003). Scholars (Brown 1951, Burney and Lang 1971, Sagona 1984, Kushnareva 1997, Sagona and Zimansky 2009) have mainly been interested in questions concerning whether this culture emanated from a single point of origin and thence spread rapidly throughout the highlands or the 'package' of traits came together through active communication between neighbouring communities.

Problems of interpretation of the culture are further exacerbated by the adaptation of the term ‘homeland’ by some scholars to define the origin of the culture (heartland) specific to geographical regions and their historical connections and developments, explicitly over a broad origin area (Sagona 2018, Rothman 2020, Batiuk et al. 2022). It is generally accepted that the Caucasus is the origin land (homeland) of the Kura-Araxes Culture (Abibullayev 1982, Kohl 2009, Kuftin 2012). However, the debates around the origin and formation of the culture remain uncertain, and scholars are still in the dark when it comes to identify the precise borders of this ‘homeland’ area (fig 2.3). Furthermore, each modern-day KAC region is striving to assert the validity of their own assertions of being the ‘homeland’ of the culture (pers. comm Rova 2018).

In its earliest explanation, the ethnocultural definition became an increasingly powerful paradigm in Soviet archaeological literature, intensifying the concept of ‘ethnogenesis’. In other words, ‘elements of a cultural group recovered outside the established geographic “cultural-homeland” were viewed as evidence of either a demographic colonisation or a material (e.g., genetic) blending process with aboriginal or other shifting groups’ (Formozov 1959; Gamkrelidze and Ivanov 1985, as cited in Frachetti 2011:198). Soviet material-historians presented artifact assemblages and the correlation between demographic communities, and ethno-linguistic identity as the historical process of ‘ethnogenesis’ (Trigger 1989:230).

Scholars like Kohl are justifiably cautious about using the concept of homeland by defining it:

> The concept usually implies original or at least genuine ownership of a given territory; subsequent historical developments, such as the arrival of new peoples or the annexation or expropriation of the territory by external forces, do not weaken this primordial claim; they are

simply ignored or deemed insignificant. Homelands are conceived as possessions held forever, a romantic idea with dangerous consequences (Kohl 2012:156).

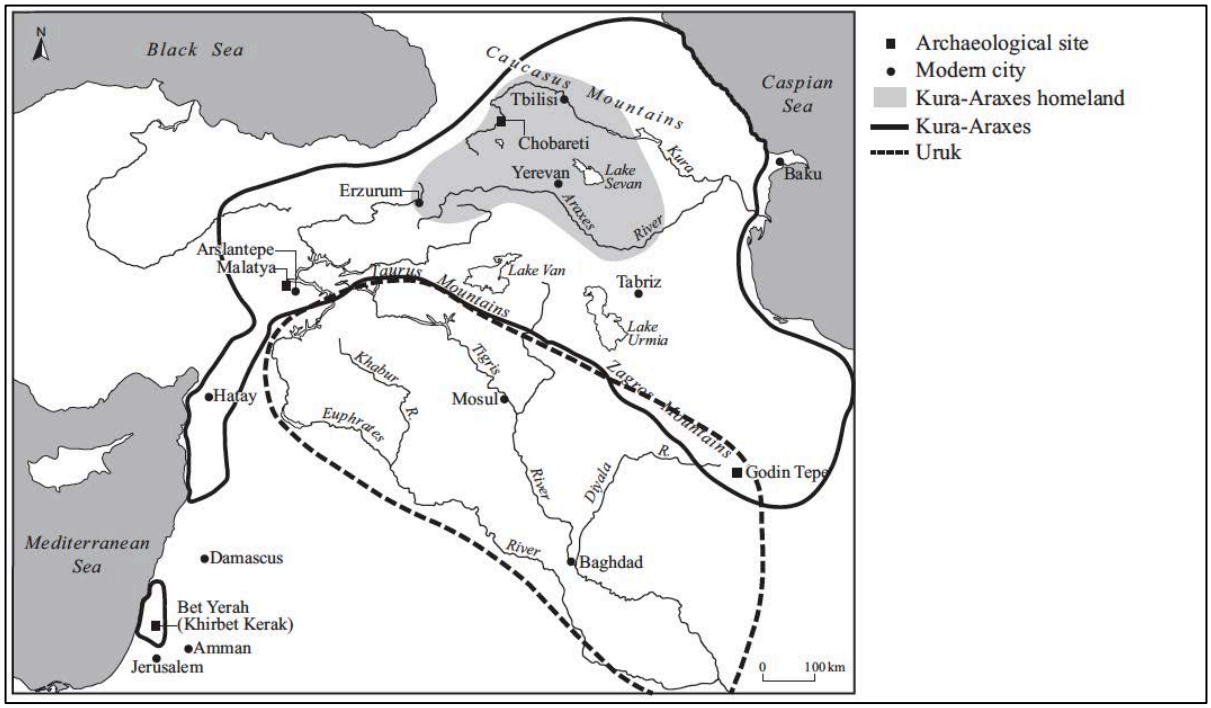


Figure 2.3. Map showing the full extent of the Kura-Araxes complex alongside its heartland (Sagona 2018:214, fig 5.1)

Kohl (2009:252) argues that there is no single well-demarcated area of origin which can be pinpointed precisely. Instead, the author suggests using the term ‘cultural-historical community’ (Kohl 2007:89). Kohl (2007:96) asserts that multiple interacting areas within broadly defined chronological and geographical contexts existed, constituting the original core area where the Kura-Araxes 'cultural-historical community' emerged. These comprised northeastern Anatolia, Erzurum, the catchment area drained by the Upper Middle Kura and Araxes River in Transcaucasia and the Caspian corridor and adjacent mountainous regions in northeastern Azerbaijan and southeastern Dagestan.

Conversely, Batiuk et al. (2022) explain the notion of a homeland with the ‘package’ of cultural practices distinct to the Kura-Araxes populations. The term ‘homeland’ adds value as a concept of ‘pure culture’ presenting unity or polity within certain areas within homogeneous features of specific cultural elements, such as pottery style, technology, building, rituals and subsistence adaptations (Batiuk et al. 2022). However, considering many different landscape variations,

Batiuk et al. (2022:59) divided the idea of homeland into three distinct provinces with their identifiably distinct forms of traditions: a ‘Lower Province’ centred on the Araxes River in Armenia, Turkey, and parts of Azerbaijan and Iran; an ‘Upper Province’ in Georgia and parts of Azerbaijan focused on the Kura River; and the area along the Araxes River north of Lake Urmia in the Caspian Sea lowlands (fig 2.4).

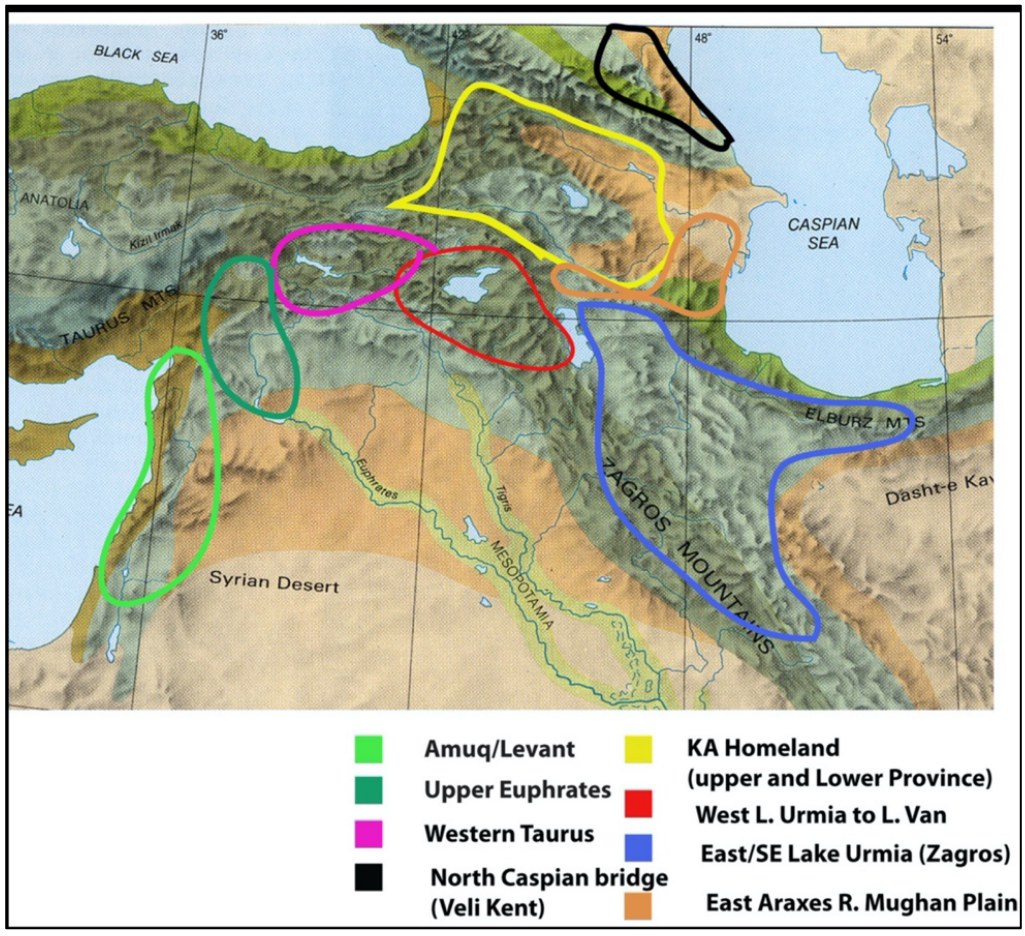


Figure 2.4. Map showing the KAC homeland (Upper and Lower Province) (highlighted in yellow) and other regional distribution (Rothman 2022)

The variations that emerged from the developmental changes of certain cultural package elements and the resultant hybridisation, may have been the foundation for the new ‘diaspora’ community (Batiuk et al. 2022:19). The diaspora can also be subdivided into several regions defined by pottery style, environmental conditions, and interactions outside the homeland. Thus, the ’Diaspora’ represents the earliest ‘expansion’ of the homeland around 3300-3200 BC, particularly in Eastern Anatolia, as well as in Dagestan and Iran around the Urmia Lake (fig 2.4). The nature of each package element in each region is fascinating in relation to their

organisation and change over time and space (Batiuk et al. 2022:4). More details on the definition of Diaspora see section 2.5.1.

The concept of homeland also emphasises the connection to the land and cultural identity, which again emphasises the sense of belonging and place that correlates with the life of the Kura-Araxes people (Smith 2005, Sagona 2014a, Smith 2015). Nostrand et al. (1993:3) summarised the homeland in relation to people and place, defining four basic ingredients of a homeland: a people, a place, a sense of place and control of place. Nostrand et al. (1993:3) further claim that 'people who have folk cultures and whose economies are tied directly to the land, as for example, through agriculture, bond more strongly with place than do members of popular cultures whose economies may be divorced from the land'. In other words, people dependent on the land for their livelihood, such as through agriculture, feel a stronger connection with the place than those who do not rely on the land for their economic sustenance. There will be further exploration of these ideas in the Discussion Chapter.

In sum, Wilkinson's (2014a:221) definition of homeland explains the notion of homeland as a 'process [that] was more likely created through interaction between valleys and sub-regions rather than emerging fully formed from one location'. Similarly, Baltus and Baires's (2020) assert that homeland should not be understood as a physical origination but rather as a construction of an imagined origin point of people united by centering place through movement and circulation of object-bodies alongside the human bodies with whom they travelled, as well as this, embodiment of practices rewoven in places in which those bodies settled. However, it is clear that all scholarly views discussed need to be reconceptualised through new excavations, surveys, a series of calibrated radiocarbon determinations and last but not the least, should be examined through reformation of theoretical approaches.

2.3.2. Heterogeneity and integration models (KAC regional varieties)

Within Kura-Araxes homogeneous material culture communities, there is a constant duality between unity and diversity, where several distinct traditions developed their own path during the Kura-Araxes phase II (Sagona 1984, Palumbi 2016). During this stage, many changes occurred, which reflected different groupings, traditions, and specific ways of life which were bounded by different geographical areas. Thus, scholars (Palumbi 2008, Kohl 2009, Sagona

2018:228) questioned whether the formalisation of regionalism (local differences) dates back to the same period when the cultural package was at its furthest extent. While Palumbi and Chataigner (2014:253) argue that 'the Kura-Araxes homogenous culture 'skin' concealed a richness of local and regional diversities', this would certainly be an 'over-simplification to say that the South Caucasian communities were a monolithic cultural pole for over a millennium' (Palumbi 2008:323). Similarly, Sagona (2014:22) claims that the Kura-Araxes cultural package elements have a sense of strong unity (but not uniformity); simultaneously, each element is distinctive and has its own character.

Accordingly, scholars (Palumbi 2008, Wilkinson 2014a) are also concerned, on one level, about the potential impact of emphasizing the cohesion and endurance of the culture, while undermining its regional variations by putting the cultural variability at risk. On another level, interestingly, when attempting to convey the local differences, and a plurality of regional traditions, we face with different challenges in relation to each KAC region, such as different and ambiguous periodisation, chronologies and terminologies (pers. comm Marro 2018). Similarly, Wilkinson (2014a:223) argues that by preserving their integrity, the fossilised conservatism of the KAC prevented the flow of new social ideas and models into the local system. Webb and Frankel claim that:

> Stability, conformity and an absence of innovation may be viewed in an active sense, as a deliberate maintenance of continuity and reinforcement of group cohesion through shared production and reproduction. This suggests both the strength of communally held values and the existence of social controls that effectively restricted innovation and promoted stability (Tomkins 2004:47, as cited in Webb and Frankel 2013:76).

Greenberg (2018) points out that improvements in technology provided new concepts and new ideas for the application of beliefs, institutions and practices in society in different ways. For example, common sets of vessel types similarly suggest common forms of food presentation, cuisine and traditions (Webb and Frankel 2013). Such integrative strategies appear to have served as key mechanisms for alliance and solidarity among these communities. While also various ceramic technologies provided new elaborations of food preparations, and functional alternatives established long-lasting culinary traditions (Fuller and Rowlands 2011). This also addresses questions of pottery's role in the reconstruction of economic activities and cultural and economic differences in the KA communities (Rothman 2016).

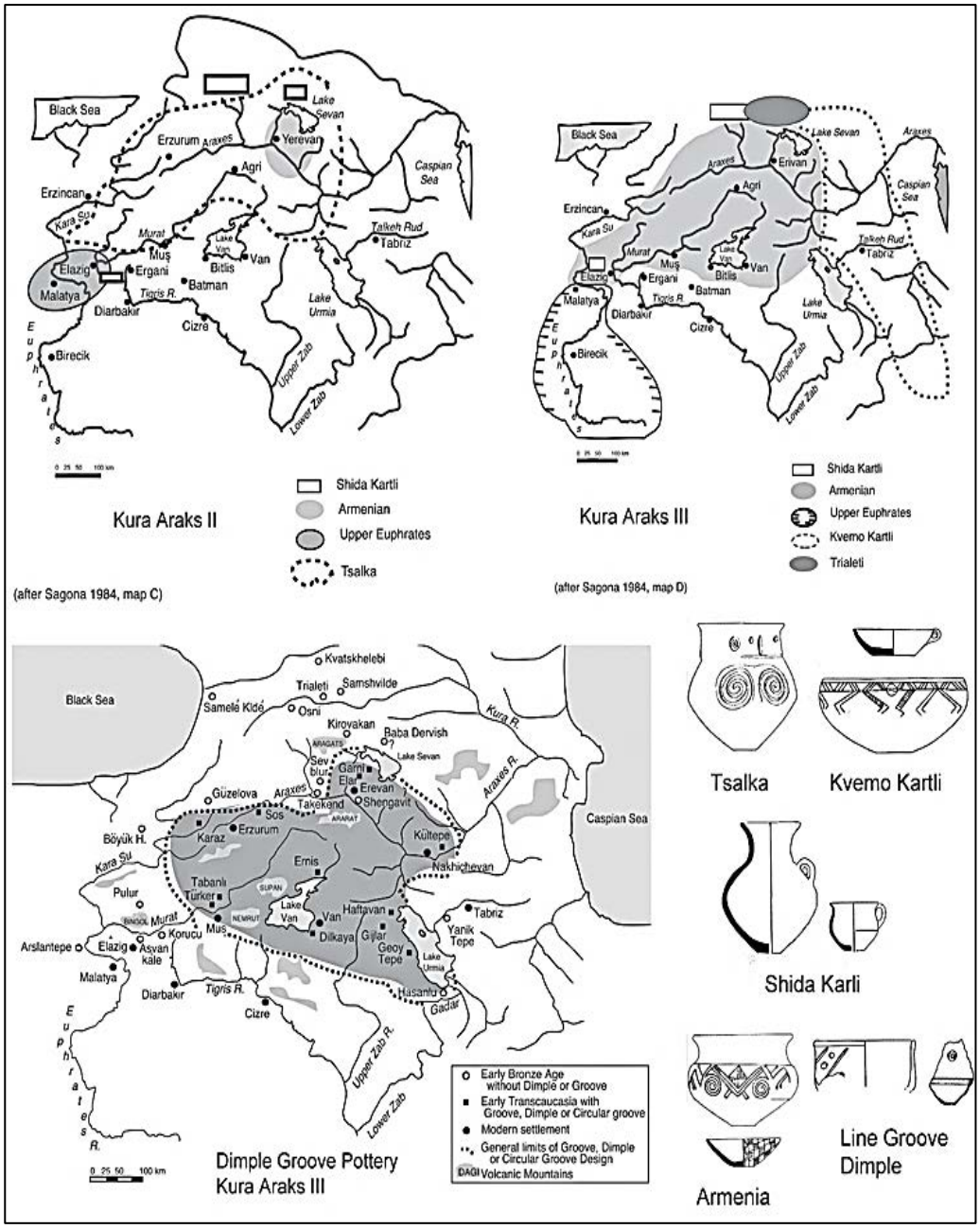


Figure 2.5. Distribution of KAC Pottery style groups across stages (Rothman 2014: fig 2)

Elaborating more on ‘regionalism' concept, it helped to develop communication networks effectively through the movement of people, goods and ideas (Frankel 2009). Palumbi (2016:12) claims that ‘although manufacturing principles remained basically stable, considerable diachronic and regional changes in morphologies, surface colours, and decorations can be observed.' While pottery patterns, shapes and styles were distinctive in each region, the interaction of people in each of these zones and their crisscross movements from place to place

might have affected their pottery-making technologies (Rothman 2016). Some stylistic differences and technical practices have long been employed as a measure of community economic interaction. One such aspect that demonstrates domesticity and regionalism is ornamentation on ceramics, which was rare towards the dawn of the KAC, in the late fourth millennium BC (Badalyan 2014). However, the beginning of the KAC phase II and III saw a growing diversification, enlargement of iconographic repertoires, anthropomorphic and zoomorphic representations in the ceramic tradition (Sagona 1984, Smith 2015, Palumbi 2016) (fig 2.5). Furthermore, variability in vessel decoration, such as ritual or cosmological contents closely associated with interpersonal behaviour and expressions of social identities through a choice of vessels, foods, and methods of presentation, became evident. In other words, more complexity of decoration and greater diversity of vessel shapes would have necessitated a more intricate comprehension of how meals and beverages were presented, along with a broader range of social etiquettes and possible interactions among individuals and groups (Webb and Frankel 2013).

2.4. The spread of KAC cultural repertoires and ways of life

2.4.1. The definition of Diaspora

Expansion is the central theme underpinning the 'rise' of the Kura-Araxes Culture, which reached its furthest extremities during the late phase of the culture, and this is also a period when regionalism was at its zenith (Sagona 2018:226). Scholars (Palumbi 2008, Rothman 2015b, Smith 2015, Sagona 2018) wonder about the reasons that brought the Kura-Araxes people to further territories. It is believed that this spread wasn't continuous and that all contiguous zones were not equally affected by this expansion; rather Rothman (2003:99) described it as 'ripples in a stream', with multiple different forms of movements, connections and ideas flowing back and forth along the migration paths. It is also believed that the rapid spread of this distinctive material culture was perhaps due to population movements and cross-cultural interactions, however, there is still no direct evidence to understand this physical transfer of Kura-Araxes populations from one region to another (Palumbi and Chataigner 2014, Batiuk et al. 2022). Most scholars argue that a major development occurred in the later phase of KAC I when the 'homeland' expanded and this development was represented by a cluster of many more settlements which came up around 3300-3200 BC, particularly in Eastern Anatolia, but also in Dagestan and around the Urmia Lake in Iran (Batiuk et al. 2022) (fig 2.6).

Interestingly, diasporas are 'characterised by fluid identities and hybridity', qualities detectable through patterns of artefact dispersal and landscape use' (Lilley 2004:304, as cited in Baltus and Baires 2020:113). In other words, the diaspora is not static; rather it warns against the construction and maintenance of 'ideal' types (Clifford 1994, as cited in Baltus and Baires 2020:124). Instead, it draws together old and new traditions and practices allowing immigrants to reinvent themselves through a hybrid nature of material culture (Clifford 1994:303, as cited in Baltus and Baires 2020:124). Specific material markers of 'Kura-Araxes-ness' through the diaspora provide a useful framework for thinking differently about building styles, construction practices and community plans, which were sustained over a long time. However, such markers might be visible boldly or manifest themselves subtly even on a single sherd of pottery, which transformed over time based on geography, and generational change (Owen 2005:47, as cited in Baltus and Baires 2020:113).

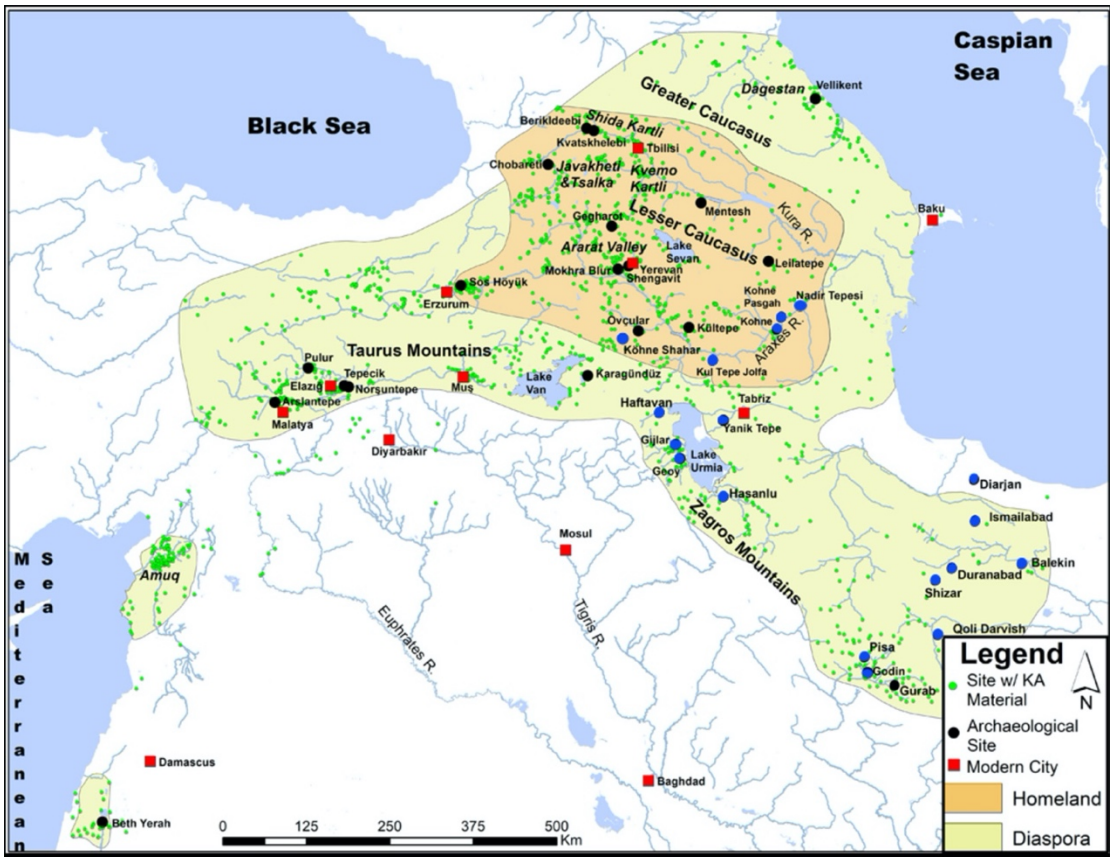


Figure 2.6. The distribution of the Kura-Araxes cultural tradition capturing 'homeland' and 'diaspora' (Batiuk et al. 2022: fig 1).

From a broader perspective, immigrants often have two distinct spheres of life: the public sphere, which is their interaction with the society of the region they have emigrated to, and the private sphere, which is more resistant to outside influences and is shaped by their daily habits and practices (Burmeister 2017). In the public sphere, immigrants may adapt their material culture to the outside world and show flexibility in their cultural practices, while in the private sphere, their habits and practices are more likely to be resistant to change and have a stronger persistence (Burmeister 2017:61-62). Greenberg (2021) argues that the changes in cultural behaviours through 'homeland' are preserved and manifested in different forms in further territories. This can be best exemplified in the Southern Levant observed at Tel Bet Yerah, where Khirbet Kerak Ware was appeared. Although there are similarities identified in typological, decorative and technological relationships to material culture, there is also a regional variation between the 'homeland' and the 'diaspora'.

An absence of certain elements from the 'package' again emphasises continuity of identity within a new form. For example, architectural features relating to portable and fixed hearths and animal figurines reinforced a common set of values that originated in the homeland within the definition of a 'cultural package'. An array of similarities is also evident in manufacturing processes supported by both petrographic and *chaine operatoire* analysis. However, Khirbet-Kerak ware is a mixture of local wheel-made pottery and handmade pottery (Zaid 2016). For example, the thick slip and highly burnished red/black surfaces, flat-rimmed bowls and loop or lug handles bear strong similarities in both traditions. Interestingly, 'over time, the loss of ceramic distinctiveness occurred through increasing contact and integration with local population groups, which reduced the need for Red Black Burnished Ware (hereafter RBBW) and Khirbet-Kerak Ware (hereafter KKW) producers and consumers to emphasise a variable and distinct identity' (Zaid 2016:83). In other words, there wasn't a need anymore for local people and newcomers to propagate their cultural distinctiveness but rather raised an inter-group interaction over time (fig 2.7). It further explains that material culture is not simply a reflection of social norms but also a way of social communication and shaping social relationships, and its significance and use are constantly being negotiated and re-evaluated (Burmeister 2017:60).

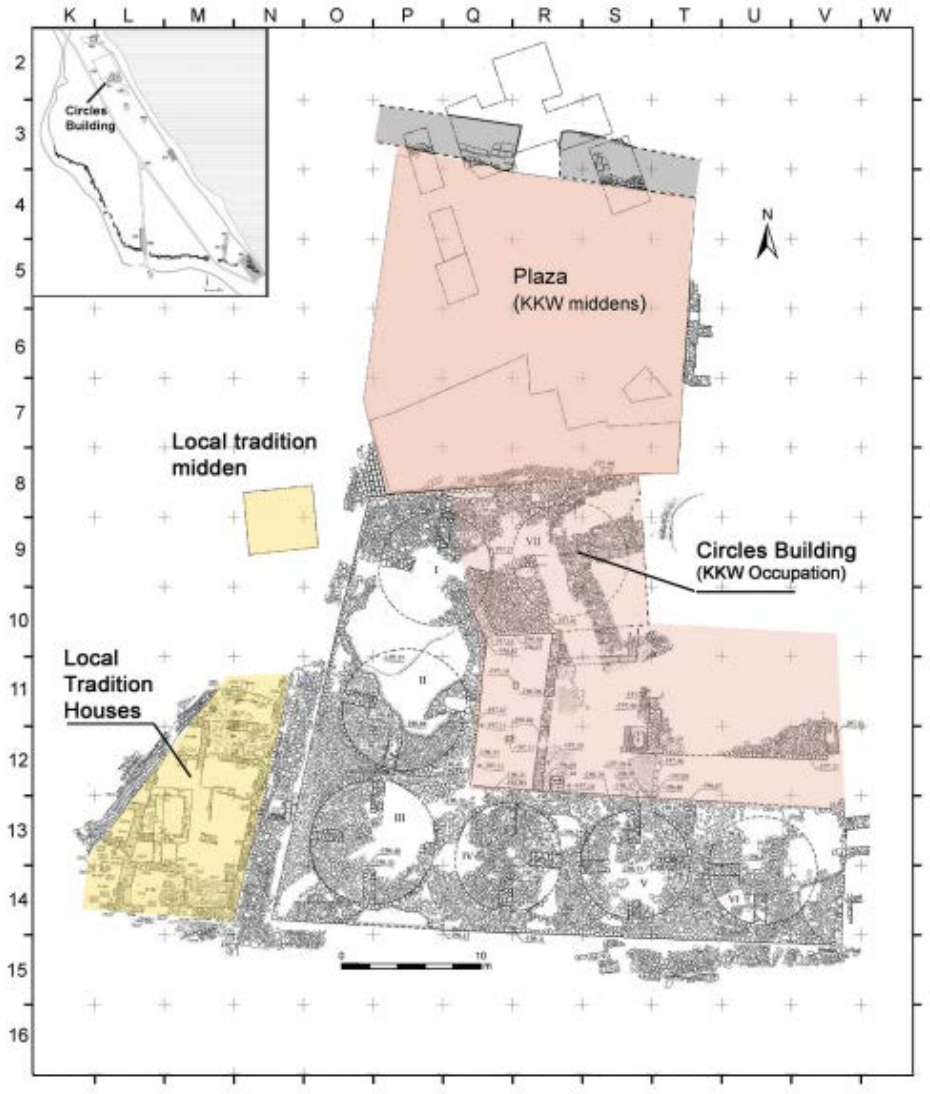


Figure 2.7. The 2003–2015 excavation areas, with Khirbet Kerak Ware areas, shaded red, and local-tradition areas, shaded yellow. Inset: Tel Bet Yerah and its principle excavation areas. (Tel Bet Yerah Archaeological Project). (Greenberg 2021:3, fig 2).

Despite all these similarities, the diaspora didn't represent a complete cultural repertoire with full 'cultural package' elements; rather, there were some cultural elements, such as mortuary practices, which mainly suited the practices of local people (Greenber 2021, Batiuk et al. 2022). However, again the domestic domain was vital for the KAC people, even in the land of diaspora. Batiuk et al. (2022:104) stress that '…where the Kura-Araxes migrants cohabitated with indigenous societies, yet still maintained their cultural identity. This pattern of cohabitation was yet another part of the Kura-Araxes cultural signature'. Greenberg strongly argues that:

If the KKW-using groups were constrained to give up highly visible elements that seem to have been a mainstay of the Kura-Araxes 'civilizing machine', i.e. houses and tombs, it is in the realm of the less-visible practices, in the interior expressions of domestic life, that we see the hard, non-negotiable core of Kura-Araxes 'identity' (a term that should be used in its loosest sense); these are the matters over which they retain maximal control – household installations, ceramic production, small symbolic objects, and the rules of food distribution and consumption (Greenberg 2021:12).

In other words, the KKW-using groups were likely required to give up certain visible elements of their culture, such as houses and tombs. However, they were able to maintain control over less visible aspects of their lives, including household installations, ceramic production, small symbolic objects, and the rules surrounding food distribution and consumption. Similarly, Burmeister (2017:62) supports the idea that food habits, practices of preparation and consumption of food, including the construction of fireplaces and hearths, are especially important in distinguishing the culture of immigrants, and these tend to persist more strongly in the everyday life of immigrants. In sum, Palumbi and Chataigner (2014:256) believe that '… in the early 3rd millennium it was possible to become a Kura-Araxes community and to acquire a Kura-Araxes identity without being either of Kura-Araxes descent or born in its 'homeland'. In other words, it opens up the possibility that the adoption of KAC by the inhabitants was perhaps through a favourable cultural environment rather than by the intrusive migrations of 'outsider' Kura-Araxes communities (Palumbi and Chataigner 2014:256).

2.4.2. Migration theories

There have been a lot of scholarly debates over understanding the complexity and diversity of migration in KAC communities. Parker et al. (2011:192) emphasise that 'the Early Transcaucasian migrations' is among the top ten problems confronting the field of 'Near Eastern archaeology'. This section will examine some of the nuanced theories for Kura-Araxes migration. In general, scholars have approached migration differently, but mainly, 'vulnerability' is a movement of people from one destination to another due to negative push and positive pull factors (Maziar 2021). For example, push factors may include a sharp rise in population, landholding regimes, and climate change; whereas, pull factors include seeking a better life and access to a new market in neighbouring areas (Smith 2015, Sagona 2018).

Wilkinson (2014a:206) claim that there are three main themes inherent in the existence of the Kura-Araxes communities; migration, metallurgy and pastoralism. Throughout history, inhabitants were eager to find new sources of raw materials from nearby areas. One of the prominent statements in relation to migration is whether nomadism and sedentism are characteristics of the KAC communities. These theories have received a great deal of attention from scholars (Lyonnet 2014, Palumbi 2016, Sagona 2018). Mobility was inferred by the expansion of the cultural identity, the KAC pottery, which widespread distribution of red-black burnished pottery over vast geographical areas has led to the suggestion that nomadism is characteristics to these communities in the region (Sagona 1993). Further support has given by Cribb (1991:221, as cited in Sagona 1993:453) 'while the Early Trans-Caucasian was not a nomadic culture, as such, it 'may have had a fluctuating nomadic component as revealed in the variations in ceramic forms and architecture'. Also, Sagona (1993:473) and Wilkinson (2014a:207) similarly argue that different types of settlements and modification in architecture in the Caucasus, ranging from relatively seasonal houses to permanent villages, and the long-span life of occupation at most KAC sites cannot be used to support 'nomadic pastoralism' as a main subsistence strategy for KA villagers. It seems that depending on local conditions KA societies practised a different level of nomadism, pastoralism and crop-based agricultural practices during the EBA (Wilkinson 2014a:207, Batiuk et al. 2022). For instance, Palumbi (2008) points out wooden architecture, pits and portable andirons are characteristic of a KA lifestyle which reflects impermanence.

Wilkinson (2014a) draws our attention to the 'ritual-economic system' as 'sharing certain attitudes or codes relating to the circulation of materials and creating economic interdependencies- but equally developing its own dynamics which resulted in an independent trajectory for the people involved'. This system of economic interdependence resulted in social interaction between the KAC communities and neighbouring areas. This is certainly true in the case of winemaking technologies (Batiuk 2013, Rothman 2015a), the better-quality wool weaving (Anthony 2007: as quoted in Rothman 2014:41) and mostly, metal production (Kohl 2007), which encouraged the interconnections between the Caucasus and the south.

Metallurgy can be considered a field of shared technology, which can be defined as a part of the homogeneous culture among KAC communities. The same overarching techniques were expanded in different regions that the Russian archaeologist Chernykh (1992) has characterised

as a 'Circumpontic Metallurgical Province' (hereafter CMP). CMP was a system of closely interrelated centres of metalworking and metallurgy, covering a vast area that included the southern part of Eastern Europe, the Caucasus, Asia Minor, the Balkan-Carpathians throughout the Early and Middle Bronze Ages (Cernyh et al. 1991). In the time of EBA, the great explosion of metallurgical producing took place in Anatolia, Mesopotamia, Levant, and mainly, in the Caucasus region (Chernykh 2014).

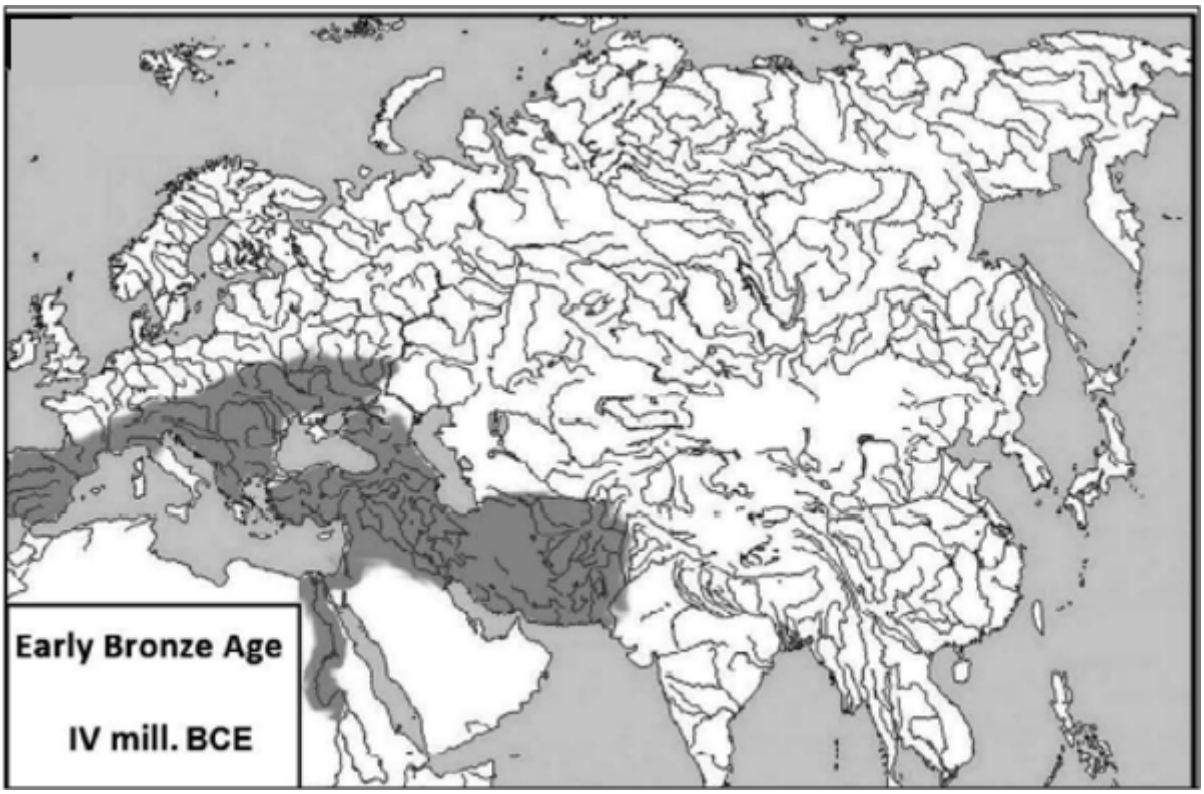


Figure 2.8. Distribution of metal-using culture of Early Bronze Age (adapted from Chernykh 2014:1003, fig 1)

Despite this, metal objects are less common in Kura-Araxes settlements, and have poorly been attested in graves and cemeteries, without demonstrating rank or status differentiation. Smith (2012:677) claims that there is very little evidence for materials flow to the south. Only a handful of 'Transcaucasian' style metals were founded at Tell-Mozan (northeastern Syria), which makes the metallurgy hypothesis less influential. At the same time, being rich in raw materials and metallurgy made Transcaucasia largely self-sufficient, resulting in a 'technological separateness' from neighbouring communities (Smith 2015:109). For example, almost all metal artefacts are deliberately alloyed arsenical bronzes, with a percentage of arsenic

ranges between 2 and 8. In this case, this insularity again distinguishes them from contemporary neighbouring areas, such as Anatolia and Mesopotamia, where tin bronzes were prevalent and were metal alloyed rather than arsenical bronzes during the EBA. Probably, this metal based interaction system may have offered sufficient motive for an expansion of the KAC (Smith 2012). Similarly, Avetisyan and Bobokhyan (2018, n.p) argue that the connections between the South Caucasus and the Near East should not be understood primarily as significant movement of people, large expansions, or colonizations from a central area to its outskirts, as was traditionally thought. Instead, these connections can be seen as a manifestation of shared knowledge and the broadening of intellectual perspectives resulting from dynamic interactions. This is particularly evident in the advancements of metallurgy. For more details on the metallurgy in the Caucasus see section 3.3 in Chapter 3.

In conclusion, approaches to the study of KAC have changed in the past few decades. As the capabilities of archaeological science continue to expand, it does need to be combined with rigorous theoretical frameworks. In addition, the culture still catches up with other regions and influenced by previous school of thoughts. Taking the above discussions forward, we are hoping to build an understanding of the Kura-Araxes communities in Azerbaijan. However, unfortunately, the region is not represented in many discussions, which encourages us to explore these ideas and concepts from a different angle. Therefore, to propose some directions for future research on the KAC tradition in Azerbaijan, we need to determine what information we have regarding these frameworks to guide our analysis.

2.5. Approaches to the study of the KAC in Azerbaijan

2.5.1. Theoretical approaches to the studies of KAC in Azerbaijan (Soviet-era approaches and developments since the 1990s)

Following current studies and theoretical approaches to understanding the overall development of KAC in neighbouring regions, this section will try to find similarities and differences in ideas and frameworks to help us understand KAC communities in Azerbaijan during the EBA. Hence, this section reflects on the use of current ideas, theoretical and methodological approaches for understanding the KAC in Azerbaijan in more depth. This will help situate the relevant literature written in Azerbaijan within an extensive framework in the Caucasus and beyond.

Later, we will reassess these ideas and their application in relation to the data from the case study region, Azerbaijan in the following Discussion Chapter.

There is a consensus among scholars (Bulkin et al. 1982, Trigger 1989, Smith 2005, Sagona 2010) that the Russian school of prehistoric archaeology occupies a special place among leading national archaeological communities, and its concepts prevailed in the Caucasus countries, which we have already touched upon in the Introduction Chapter. Since the early 1970s, efforts have been made to formulate a uniform definition of the archaeological culture, which has a hierarchy of units: local variant, archaeological culture and culture group throughout the Soviet Union (Trigger 1989:240). A group of scholars followed the 'historical-ethnographic communities or entities' approach, which defined KAC communities in terms of artefact types. This then became associated with a distinct material assemblage, a territorial space, and a historical tribal population (Trigger 1989, Fabian 2017). Sagona (2014:23-24) strongly points out that the 'Soviet archaeology often placed an emphasis on cultural materialism and the supposition that communities could be seen as functioning wholes, producing assemblages that may reflect their distinctive social identities'.

Other tendencies accordingly followed this trend of so-called 'descriptive archaeology'. This presented as a 'naked artefactology' (Klejn 2012:23, as cited in Fabian 2017) or 'descriptive archaeology' (Bulkin et al. 1982:282) for which a particular language was used to facilitate strict description. Proponents of the descriptive approach embedded the construction of relative chronologies through seriation. The influence of this theory was evident during the Soviet Era excavations, and is still currently prevalent among local scholars. In other words, there was an absence of a theoretical framework to bridge the gap between field data and their interpretation, which is critical for evaluating data sources, developing rigorous typological and cartographic analysis principles and establishing the criteria for recognising cultural continuity. The methodological approaches by locals failed to demonstrate the sequence of concrete processes of cultural assemblage development, the dynamics of their changes, or create theoretical frameworks that would help to understand the evolution of societies in terms of their economies, social structures and idea systems (Bulkin et al. 1982:284). Another characteristics of the archaeological mentality of the Soviet methodological schools was the procedures of chronological determination in Soviet archaeology, which will be discussed in detail in the Chronology chapter.

2.5.2. The history of Early Bronze Age studies in Azerbaijan

This section traces the development of archaeological inquiry in Azerbaijan, especially the EBA studies, from its antiquarian roots in the 19th century and through the Soviet era into modern times. It provides an overview of landmark excavations and important milestones, problems and limitations in developing the EBA studies in the region. Although archaeological investigations were broadly operated under a unified structure and with a comprehensive treatment of the history of archaeology in three South Caucasian Republics-Armenia, Azerbaijan and Georgia during Soviet periods, the scope of our discussion will be an individual history of the development of EBA in Azerbaijan from 1850s until modern current times. Therefore, concerning different events and landmark changes in intellectual and institutional climates, this study suggests that the history of EBA archaeological investigations in Azerbaijan can be roughly categorised into four general chronological periods, outlined below:

1. Antiquarianism and early professionalism (1850s until 1920)
2. Research between (1920 and 1950s)
3. Research between (1950 and 1991s)
4. Research (1991- Present)

2.5.2.1. Antiquarianism and early professionalism (1850-1920)

The earliest discoveries of red-and-black burnished ceramics, later became known as 'Kura-Araxes pottery', were first attested at Zaglik (Ganja, Azerbaijan) in 1869 (Kohl 2007, Lyonnet 2014, Kohl and Trifonov 2014). Other early finds of KAC sherds near the present-day village of Nukha in Shaki (1904) and in the Kultepe I settlement in Nakhchivan (1904) were among the first signs of the existence of KAC in the Caucasus (Ismailov 1977, Kuftin 2012:90). Around the same time, discoveries related to KAC emerged in other parts of the Caucasus, for example, Sachkhere in Georgia in 1910 and Shreshblur settlement in Armenia in 1913 (Kushnareva and Markovin 1994). Although all these voluntary works conducted in the Caucasus provided a starting point for the research into KAC, there was a lack of professionalism; research was quite isolated and limited (Sagona 2010). In later years, the South Caucasus experienced considerable political tumult due to the World War I and almost no archaeological fieldwork was undertaken in the region. New institutions were founded when attention returned to archaeological research after post-war reconstruction. As a result, there

was a significant turning point in the development of Azerbaijan with the foundation of the National Museum of History of Azerbaijan in 1920.

2.5.2.2. Research in early Soviet Era (1920-1950)

From the beginning of the 1940s, there was a revival in archaeological inquiry again which was a major turning point in the study of the pre-history in the whole South Caucasus. Boris Kuftin's systematic excavations and his problem-oriented research on the KAC led to the emergence of a new generation of archaeologists (Ismailzade 2008). His regional periodisation on the KAC for Southern Caucasus had important implications for locating the Kura-Araxes complex within a specific timeline (Sagona 2014:26). Highly influenced by a culture-historical approach, Kuftin's definition of the KAC was towards understanding cultural groups and concepts rather than emphasizing national and ethnic issues (Smith 2005:244).

2.5.2.3. Research in late Soviet Era (1950 and 1991)

In the second half of the 1950s, the reputation of Soviet archaeology improved as more attention was devoted to the methodological questions and logical structure of research. Sagona (2010:146) points out that 'scientific objectivity began to replace the subjectivity that had fuelled the ethnogenetic paradigm'. Around the same year, Soviet archaeologists pioneered salvage excavations of archaeological sites, leading to an enormous increase in the amount of archaeological excavation and data. For instance, one of the significant projects was the Mingechaur Hydroelectric Station supervised by Saleh Gaziyev during 1946-1953, which discovered a long occupation settlement, Mingechaur, with an excavated area measured 35000m^2 (Aslanov et al. 1959). This was the first research understanding the entire settlement from various angles, including the social organisation, the relationship between the settlement and burial sites, and production etc.

Sagona (2014:25) points out that 'the 1950s ushered in a new phase of research aimed at the clarification of the historical and cultural context of the Kura-Araxes, followed by a period of consolidation in the 1960s and 1970s'. The years between 1951 and 1964 are considered an important period in the KAC studies in Azerbaijan. Particularly, Nakhchivan, located in the southwestern part of Azerbaijan, has been a crucial region in identifying the archaeological and chronological framework for KAC in Azerbaijan. Osman Abibullayev's (1982) complex

research on the Chalcolithic and EBA sites of Kultepe in Nakhchivan provided the key to understanding the development process of KAC in Azerbaijan (Sagona 2014). As such, Kultepe was the first site in the Southern Caucasus where a Late Chalcolithic layer was recognized underneath the KAC cultural layer (Abibullayev 1982). Furthermore, the site significantly enhances our understanding of the long-occupational agricultural life in the Southern Caucasus pre-KAC communities (Ismailzade 2008). Therefore, Sagona (2014:25) believes that Kultepe is 'a cornerstone in South Trans-Caucasian prehistory.'

Azerbaijan also attracted scholars as being one of the archaeological science centres on Caucasian metallurgy during the 1960s (Iessen and Deqen-Kovalevskiy 1935, Seyidov and Hasanova 2005, Sagona 2014). The initial decision to build a chronological scheme according to the Bronze Age materials from the Caucasus was made by a Soviet scholar Aleksandr Iessen, based on metalwork from the site of Nakhchivan Kultepe in 1963; proposing that 'the Kura-Araxes Eneolithic' unconditionally needs to be assigned to EBA (Sagona 1984, Smith 2005). There were considerable improvements in understanding the KAC in western Azerbaijan with the discovery of the Babadervish site following the Kultepe excavations. Furthermore, excavations in the Mil-Karabakh steppes under Iessen's supervision between 1956 and 1960, opened a new chapter of EBA sites in the Mil steppe regions. Alongside settlements, there were systematic excavations supervised by Iessen on burial sites dated to EBA, which provided a comprehensive study of the mortuary practices in the steppe regions of Azerbaijan (Ismailzade 2008). Excavations in Garakopaktepe and other clusters of settlements at Karabakh plain supervised by Ismayilov between 1964 and 1986 opened a new chapter for the KAC studies, providing a vivid impression of the extent of the Mil-Karabakh plain settlements.

Archaeological projects also spawned across the Gobustan archaeological complex along the Caspian coastline in 1960s. As a result, the Ana-zaga, Chardag zaga, and Khicikdash rock settlements began to yield materials illuminating one of the most striking variants of KAC. These sites were interpreted as transhumant campsites, providing a different picture of the culture. A spate of excavations run by Cafarqulu Rustamov and Firuza Muradova reinvigorated the study of EBA in Gobustan during 1968-1971. In fact, as a result of their research, a number of funerary sites were revealed, which possibly helped archaeologists understand the funerary traditions of the Kura-Araxes communities living near the coastline in the last stage of EBA (Muradova 2011).

2.5.2.4. Research during the Independence (1991- Present)

During later years, anticipated problems emerged within the newly built nation-states after the break-up of the Soviet Union in 1991 and the war in the Nagorno-Karabakh between Azerbaijan and Armenia, which led to the halt of archaeological research in the region. In 1993, the foundation of the Azerbaijan National Academy of Sciences Institute of Archaeology and Ethnography, led to the growth of young local archaeologists in the field, and brought new direction of research and possibilities for broader collaboration.

In the following years, between 2001-2005, large-scale salvage archaeological investigations were conducted, and novel techniques were developed alongside the construction of the Baku-Tbilisi-Jeyhan Oil pipeline and Baku-Tbilisi-Erzurum Gas pipeline (the South Caucasus pipeline) passed through Azerbaijan, Georgia and Turkey. The project applied advanced technological standards, such as GPS measuring equipment, mapping, satellite imagery, and aerial archaeology, which gained broad acceptance for new technologies that have previously been unavailable. The excavation covered periods from the Chalcolithic to the Middle Ages (Taylor and Maynard 2011) (fig 2.9).

Furthermore, there have also been several joint archaeological projects run yearly between Western and Azerbaijani scholars. As aforementioned, Nakhchivan being one of the KAC core areas has constantly been at the centre of scholarly interest. Particularly, the study of the transition between the LC and the EBA (Kohl 2007:70, Palumbi and Chataigner 2014, Alizadeh 2015:74, Sagona 2018:225). For that purpose, investigations have been running in Kultepe I by the French-Azerbaijani team since 2013 (Bakhshaliyev et al. 2017, Marro et al. 2019), as well as this, intensive excavations have been carried out in Ovchular Tepesi settlement since 2006 (Marro et al. 2009, Marro et al. 2011).

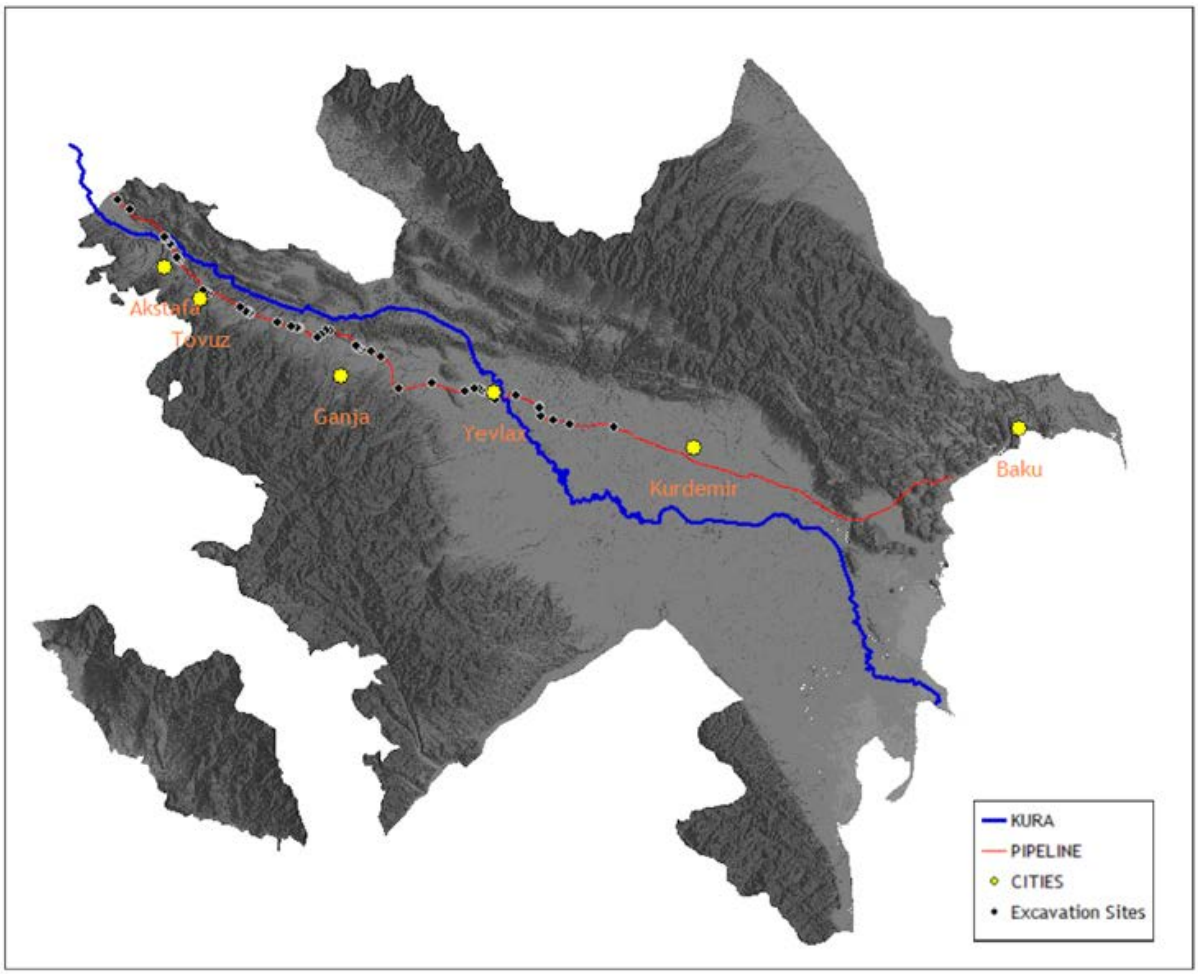


Figure 2.9. Archaeological excavations along the BTC and SCP pipeline route (Taylor and Maynard, 2011:152)

2.5.3. Understanding the origin of the KAC in Azerbaijan

This section explores the origin of the KAC in Azerbaijan by questioning different theoretical frameworks, particularly the concept of homeland (core area), which is a far more problematic terrain to enter. Compared to other parts of the KAC, the most confounding problem is the lack of a reliable chronology, characterised by contradictory arguments, to understand the origin and expansion of the culture. Some scholars (Iessen 1963:9, Burney and Lang 1971, Sagona 1984, Batiuk et al. 2022:59) believe that Azerbaijan can be considered one of the main areas for the culture, especially areas along the Araxes River basin, however, delimitate it being as a nuclear region of this culture (fig 2.4 and 2.7). Conversely, local scholars firmly believe that the emergence of KAC goes back to the LC period; particularly, Nakhchivan stays at the centre of scholars' attention in the region (Abibullayev 1982, Seyidov 1993, Bakhshaliyev 2006). It has

been hypothesised that Nakhchivan has mirrored a key role of the pre-existing cultural traditions of the indigenous KAC populations in the spread and re-adaptation of an origin model introduced in Azerbaijan (Marro and Bakhshaliyev 2014). Findings in Ovchular Tepesi, which Marro et al. (2009) claimed to be the origin of the culture so-called 'Proto-Kura-Araxes' trace back to the last quarter of the 5th millennium BC. This encouraged scholars to tackle questions of the genesis, formative processes, and overall chronological evolution of the culture in Azerbaijan.

There is a consensus that the expansion of the culture didn't happen rapidly; rather, it was a slow process that began to create a network of multiple interacting areas towards to the middle stages of the culture (Bakhshaliyev 2006, Kohl 2009, Batiuk et al. 2022). One of the views is that this expansion started from the Nakhchivan-Urmia area, spreading along the Araxes River Valley, along the Kura River valley, reached the Ganja-Khazakh region while connecting through the Karabakh Plain, and ran into the Mughan steppe, ending in the Caspian Sea coastline (Bakhshaliyev 2006, Bakhshaliyev 2012:132-133, Ashurov 2015:34). The majority of settlements that attested are small and multi-stratified indicating settled and agricultural village communities, alongside with a long-time occupation in the region, especially within the majority of the Araxes River Valley, along the Karabakh plain (Akhundov and Almammadov 2009:35, Fedorov 2013). For instance, the great depth of the EBA cultural layer in Nakhchivan draws the attention of scholars, such as Kultepe 9.5 m, Kultepe II 6.8 m, Ashaghy Dasharkh 7 m, Maxta 4.6 m thick, which strongly indicates a long-term occupation (Abibullayev 1982, Bakhshaliyev and Seyidov 2012). On the other hand, settlements with a short occupation that is believed to be dated to the end-stage of the expansion of the culture, attested in the northeastern frontier of the Greater Caucasus borders the Caspian plain, which represent a complex coastal landscape (Burney and Lang 1971, Akhundov 2009, Musayev 2009, Museyibli 2017). These territories are believed to have a distinctive material culture, which is not within the norm for 'classical' Kura-Araxes features (Musayev 2005, Muradova 2011). Batiuk et al. (2022:73) consider this to be as a part of the 'diaspora', which appears to have blended with local and classical Kura-Araxes features. In sum, it is still challenging to put forward the theory of the origin of KAC in Azerbaijan without carrying out extensive excavations, surveys and radio-carbon dating. For further details on the chronology, see the Chapter 3.

2.5.4. Understanding regional varieties in KAC communities in Azerbaijan

As discussed earlier, local scholars in the early years of study tend to define KAC as one united culture without presenting its diversity within different traditions. By the mid-1960s and 1980s, under the increasing influence of theories of migration and diffusion, along with advances in comparative typological and technological studies, archaeologists in the South Caucasus began to collate individual sites' development into broader regional frameworks (Bulkin et al. 1982, Lindsay and Smith 2006:175). This approach in the South Caucasus is called an era of 'great site' archaeology (Kushnareva and Chubinishvili 1970, Smith et al. 2009). In that light, large sites dominated field research, representing the apogee of their given archaeological period (Smith 2005:247). Therefore, a lack of stratigraphically excavated settlements and less radiocarbon dating led to misinterpretations of cultural sequences of individual sites and assemblages.

During the 1970s, archaeological zones in relation to geographic distinctions dominated field research in the South Caucasus (Kushnareva and Chubinishvili 1970: 62-94, Smith 2005:247). For instance, Azerbaijan was effectively partitioned into a series of discrete archaeological provinces: Greater Caucasus, Lesser Caucasus, Kur-Araz, Lankaran and Nakhchivan (Goyushov 1986, Bakhshaliyev 2006, Ismailzade 2008). There was a temporal division of various geographical territories of Azerbaijan into regional patterns on the presumption that most sites share similar characters. However, no systematic methodologies for regional survey were developed and there was a very little change in the discipline's interpretive priorities. A similar methodological approach was in Armenia, where Lindsay and Smith (2006:175) claim that 'these regional investigations were extremely valuable for the record they provided of major moments, but neither was based upon well-developed theory on how to read regional trends from localized data'. In Azerbaijan, scholars focusing only on one or two regions, particularly, on Nakhchivan expanded its local features to the whole region, which again risk other major sites and their separate development (Ashurov 2015) (fig 2.10).

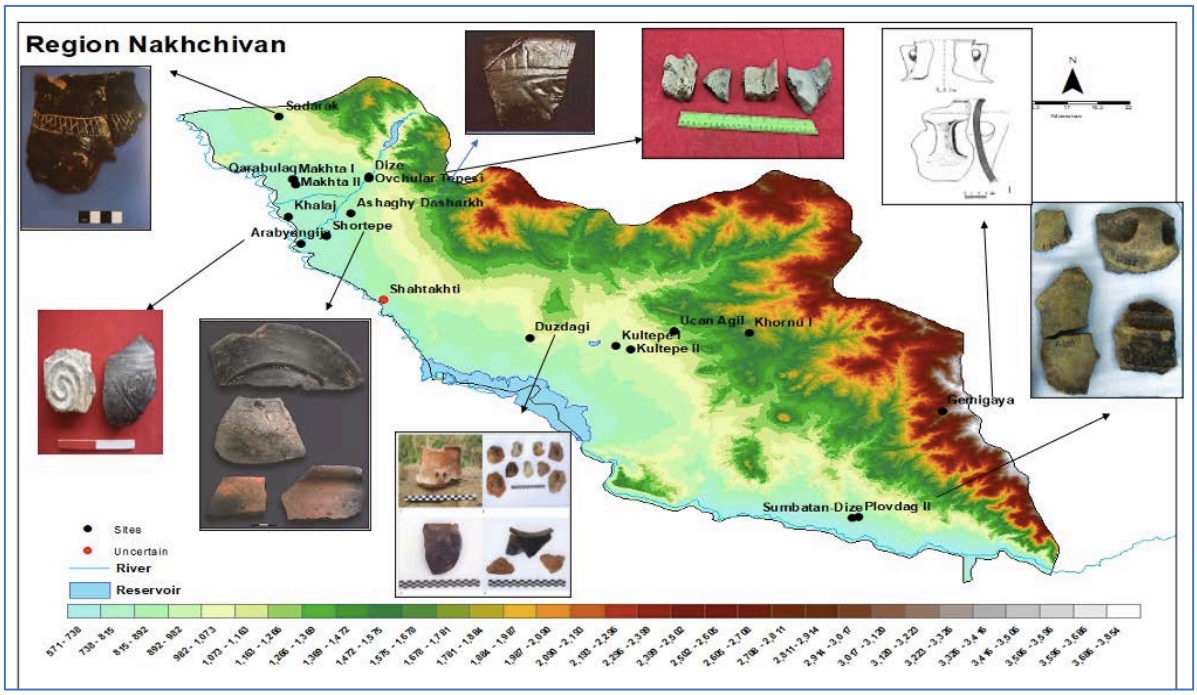


Figure 2.10. Nakhchivan region demonstrating regional differences on ceramic style (created by the author, Ismayilova)

However, advanced studies and international collaboration urged scholars to study this culture from different angles. For example, compared to western part of Azerbaijan, there was a very uneven distribution of study in the eastern part of the country, such as northeastern face of the Greater Caucasus that borders the Caspian plain, and Kur-Araz lowland. This again indicates bias towards concentrated of research in certain regions (Musayev 2009, Muradova 2011, Museyibli 2017). See Chapter 4, for further details on the history of study of the KAC in the regions of Azerbaijan.

2.5.5. Social organisation of KAC communities in Azerbaijan

Understanding the structure of Kura-Araxes communities in Azerbaijan warrants caution against accepting ideas resulting from meagre evidence. The primary objective here is to establish the existing evidence by identifying critical questions and challenges and drawing conclusions while emphasising the direction for future surveys and excavations. The literature suggests that the social world of Kura-Araxes communities in Azerbaijan encompassing their social life, economic priorities, and cultural values remain under-explored. However, certain elements, such as pottery and stylistic variations do provide insights about KAC life in Azerbaijan (Abibullayev 1982). Among shared cultural traits, the widespread centrality of the

house concept provides a rather spatial and physical focus for the productive and reproductive activities in KAC households. Architecturally, KAC constructions incorporate free-standing modules into a larger circular compound composed of several buildings. The layout includes random placement of small, equally sized, furnished buildings with equal distribution of materials. The central hearth within different households facilitates a shared identity constructed through everyday practices (Ismailov 1962, Bakhshaliyev 2004, Restelli 2015). Furthermore, the significance of ritual spaces and symbols in expressing cultural meanings and social relations, along with changes in social structure, is noteworthy. For example, in settlements like Kultepe II, Makhta and Chaggalligtepe, the architectural layout of some buildings may indicate the public rituals of its residents (Aliyeva 2018, Ashurov et al. 2020). Findings such as human-shaped statues (idols), animal figurines, interestingly as well, tokens at Makhta I site (Gazetteer N 45, fig 99, p 100), and other ritual symbols certainly indicate some kind of complexity within these societies (Ashurov et al. 2013, Simonyan and Rothman 2022).

Another indication of the diversity that is detectable in social organisation of the Kura-Araxes people is the degree of production, evidence of storage, and technology that was carried out in KAC households (Wilkinson 2014b). The presence of metal objects in dwellings, represented by crucibles, moulds and sizeable containers of smelted copper and bronze, indicate to some production areas being collectively used by KAC communities (Seyidov and Bakhshaliyev 2009, Ristvet et al. 2011). Especially in Babadervish I, material consists of different metal debitage, such as three furnaces (two of which are equipped with a ventilation system), tuyeres, clay moulds and slags are believed to represent a ‘metallurgical workshop’ (Courcier 2014:636, as cited in Makhmudov et al. 1968:18-20). In addition, remnants of storage pits with a large amount of charred grains in some settlements like Babadervish I, Mingechaur and Balatepe demonstrate some degree of specialisation in the production of grain surplus (Aslanov 1959, Goyushov 1986, Mammadov and Aliyev 2013, Hovsepyan 2015). For further details on the household activities, see Chapter 6. The social world can be further clarified through ideology expressed in the construction of a large number of burial mounds (kurgans), which will be discussed in Chapter 7.

2.6. Conclusion

In sum, we have examined many current frameworks and historical debates to understand the KAC scholarship in the Caucasus, as well as in Azerbaijan. On one level, recent approaches have increased our perception and understanding of the Kura-Araxes Culture. Yet, on another scale, the lack of multiple forms of evidence from each KAC region, especially Azerbaijan, still impacts the results and interpretations of the overall understanding of the culture. In general, what stimulates the future of the area, is the study of the sub-regions of KAC and inter-regional comparison across Azerbaijan to identify regional or even site-specific differences.

While working with the literature, it was found that the interpretation of the KAC hasn't altered significantly over time in the Caucasus states. Relatively still, Soviet archaeological theories and methodological thoughts are dominant in the region. For example, the origin of the culture, homeland and diaspora concepts remains contradictory. Scholars have used general and ready-made concepts while studying these hotly debated issues. They did not bring a newly-developed theoretical approach to determine and understand the individuality of the Kura-Araxes Culture; rather their approach was to find a link between the Chalcolithic and the EBA periods. Moreover, at the present state of research, there is limited evidence about the migration and movement of Kura-Araxes communities in Azerbaijan. In fact, the nature and causes of the end of the culture are also unclear. The literature shows that pottery remains the sole evidence for explaining the life of KAC communities in Azerbaijan. This thesis, therefore, aims to explore new aspects of the lifestyle of KAC societies through fragmented records of the settlement patterns and structure, funerary practices, and building traditions throughout KAC stages.

CHAPTER THREE: KURA-ARAXES CULTURE CHRONOLOGY

3.1. Introduction

This chapter provides a detailed account of the chronology in KAC regions, particularly in Azerbaijan. The chronology of the KAC and its periodisation remains a matter of speculation among archaeologists. We have already outlined uncertainties and acknowledged the current problems of the KAC chronology in previous chapters. The primary intent of this chapter, however, is to evaluate more closely different chronological frameworks and periodisation used for the KAC chronology in Azerbaijan during the EBA.

The chapter begins with an overview of some existing problems of the KAC chronology in the Caucasus, and more broadly in the wider KAC regions. This is followed by the critical evaluation of different local chronological frameworks used in Azerbaijan. This will include an assessment of the reliability and interpretative validity of current regional chronological frameworks that are employed in the region. Next, this study attempts to bring a single and unified chronology, for the first time, for the entirety of Azerbaijan, by bringing together all regional chronologies. The proposed chronology will be used as a tool to examine data analysis chapters.

3.2. General perspective of the KAC chronology

The chronology of the KAC and its periodisation remains a matter of ambiguity among archaeologists. Sagona (2018:224) outlines some of the current problems of the archaeology of the Caucasus during the EBA, such as the lack of radiocarbon dating for sites, inconsistencies in ceramic typologies, a dearth of well-stratified archaeological sequences, lack of understanding of the origin of the culture, its relation to the LC horizon and also its transformation into a different culture during its final stages of its existence. Despite the existence of a commonly accepted chronological framework for the KAC, which is between 3500-2500 BC, different approaches among scholars still exist. However, on the basis of absolute chronological framework, it is now increasingly accepted that the ‘Kura-Araxes

Culture' is defined as a 'cultural flip-side' of the term EBA (Akhundov and Makhmudova 2008, Kohl 2007, Wilkinson 2014, Palumbi 2016, Rothman 2016).

To understand variations between different schemes of periodisation proposed by KAC scholars over time, there will be a brief comparison of two generally accepted chronological schemes refined and framed by Palumbi in 2008 (fig 3.1) and Palumbi and Chataigner in 2014 (fig 3.2). In Figure 3.1 below, one of the earliest chronological schemes proposed by Djaparidze in 1961 (Djaparidze 1961, as cited in Palumbi 2008) supported Kuftin's (1943: as cited in Smith 2005:251) proposal by placing the KAC into the LC period. In 1970, a new chronological scheme, EBA I, II and III, was proposed by Kushnareva and Chubinishvili (1970:62), which was not based on C14 dates but rather restricted to ceramic styles in KA sites throughout the Caucasus (Batiuk et al. 2022). Later, Kavtaradze's influential study based on a new and larger dataset of C14 calibrated dates pushed the beginning of the stage to 3600 BC (Kavtaradze 1983: as cited in Palumbi 2008:19, Sagona 2014a). After Kavtaradze's periodisation in 1997, a further chronological revision of the KAC was proposed by Kushnareva, which divided the EBA into four stages: EBA I (3500-3200 BC) I, EBA II (3200-2900 BC), EBA III (2900-2600 BC), EBA IV (2600-2300 BC).

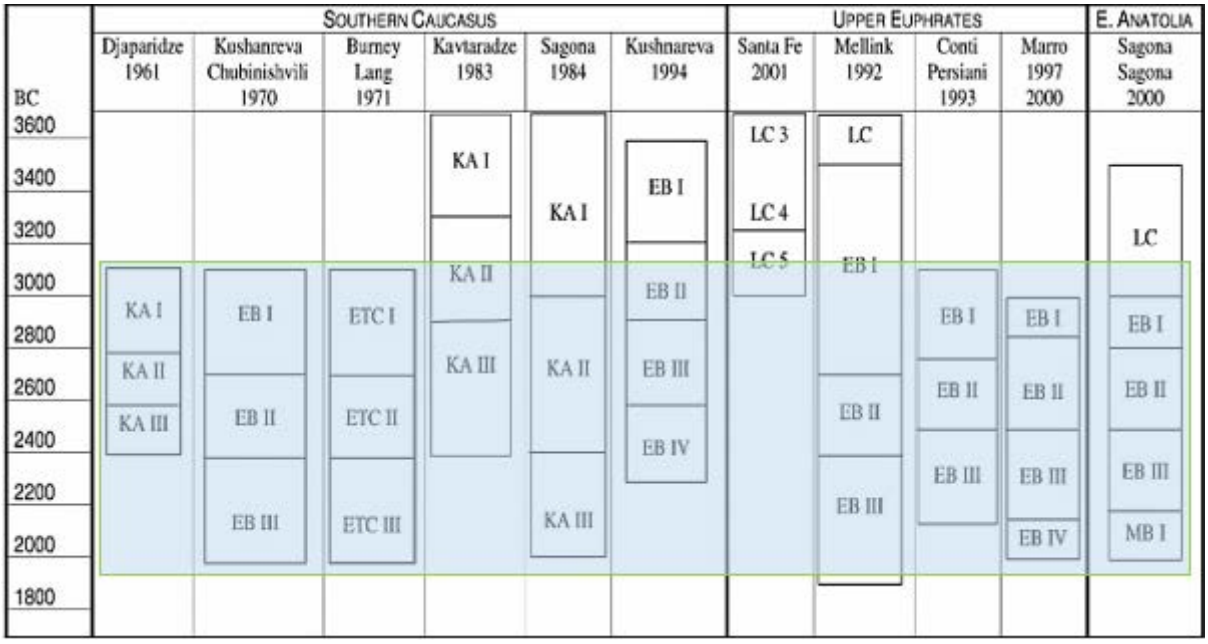


Figure 3.1. Synoptic chronological table of the Kura-Araxes Culture in the South Caucasus region), (Palumbi 2008: fig 1.1)

Later in 2014, the re-evaluation of a chronological scheme provided by Chataigner and Palumbi (see fig 3.2) shows that chronological frameworks are built on relatively good sites which their chronologies were foundation on a big scale for neighbouring sites to understand regional development of the culture. Furthermore, as we can see from fig 3.2, there has been a tendency to use cross-comparative work, which promoted a dialogue between scholars from the Northern and Southern Caucasus, Northwestern Iran, Eastern Anatolia and the Southern Levant. In that respect, in recent years, separate research projects on the regions and sub-regions of the KAC chronology were intensified, witnessing the increasing emergence of regional studies affecting different chronologies and terminologies (Rova 2020a, Rova 2020b).

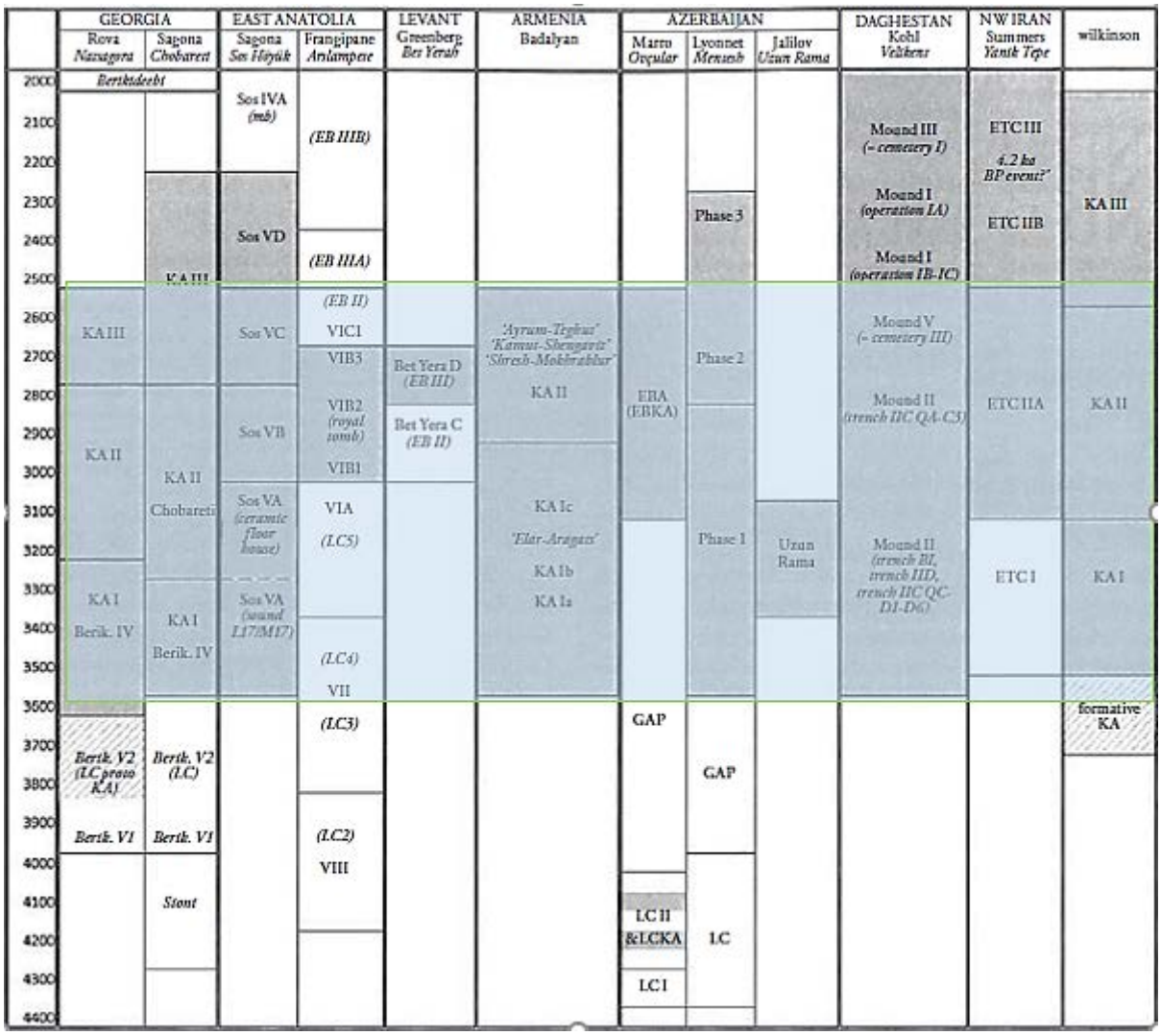


Figure 3.2. Regional chronologies of the Kura-Araxes culture (Palumbi and Chataigner 2014: fig 1)

For further details on different intellectual traditions of cross-cultural contact and the change covering Near Eastern chronological frameworks, follow the section 3.4.

In sum, some of the larger issues and perspectives were addressed from different chronological frameworks. However, as we can see from the two proposed periodisation models, the picture is much more complex; the dates of the beginning and end of the culture proposed by scholars fluctuate and are clearly still a matter of considerable discussion (fig 3.1 and fig 3.2, highlighted areas in blue box). Therefore, we still need to answer the questions of the transition between the LC and EBA stage, and the range of fluctuations and overlaps between KAC stages, which are still scanty. There will be further discussion of these issues throughout the chapter.

3.3. KAC relative chronology

This section will look at the more traditional approach to developments in material culture defining the relative chronology. The problem of KAC chronology has been treated differently throughout decades by former Soviet and current archaeologists. Alongside several challenges discussed in Chapter 2, Soviet archaeologists tried to embed the construction of relative chronology by utilising absolute chronology, giving big date breaks, with most of them bracketed with two or three centuries interval (Trigger 1989). However, it was a difficult task to locate boundaries between cultural assemblages on the scale of absolute and relative chronology (Bulkin et al. 1982:289). Rova (2020a) claims that to reach a unified chronology and tackle questions related to innovation, continuity, change and origin, the limits of the periods should be identified at the level of cultural discontinuities for the Caucasus region. Further, contrary to Soviet archaeology, which expressed communities in terms of an assemblage through complex artefact typologies, there is a need to identify precisely the material indicators, such as ceramics, metal objects and funerary customs of the KAC. Through these indicators, maximum discontinuity can be achieved where those material indicators occur and change, not at the exact same pace, but with the same modalities and over the same territory. Thus, this can help different regional chronologies and periodisations in the region to emerge.

Pottery is considered the universal identifier of the KAC and the ‘yardstick’ of its development (Palumbi and Chataigner 2014:253). For the first time, Sagona (1984) attempted to establish a periodisation using pottery styles associated with different subregions, which later served as

the foundation for chronological schemes, defining characteristics of cultural groups, and maintaining the most critical diagnostic of the KAC tradition. Similarly, Palumbi (2008) proposed three divisions of phases for the KAC to approach pottery from modes of production and manufacturing (see section 3.5 for more details). However, extreme regional and diachronic variation in other cultural elements of the KAC, such as architecture, funerary practices and metallurgy, challenge their use as a clear chronological reference. We have, therefore, attempted a reassessment of the development stages of architecture and funerary practices in Azerbaijan, which will be discussed in Chapters 5, 6 and 7 accordingly.

It is also challenging to identify a chronological framework based on metal evidence alone in the region. Scholars (Chernykh 1992:66, Palumbi 2008, Sagona 2017) have reached a consensus to avoid the metallurgy conception in terms of creating a chronology of the KAC as it is pointless to integrate the chronology with few metal finds which are incomplete and inadequate. For example, Kuftin (1943: as cited in Smith 2005:251) called the Kura-Araxes Culture 'Kura-Araxes Eneolithic (Late Chalcolithic)' due to the scarcity of metalwork in the Caucasus area. However, since the 1960s, scholars have sought a connection between KAC and EBA. Explaining it further, the concrete criteria for differentiating the EBA metal from the LC was the presence of copper-arsenic alloys (arsenical bronzes) in metal objects. The conscious addition of arsenic into the content of copper was considered an improvement in metallurgical production, which was viewed as the beginning of the new period, the Early Bronze Age (Lyonnet 2014:116). Iessen's (1963:2) research into the Kultepe I metalwork revealed the maximum usage of arsenical copper, up to 6 percent, in the making of metal objects. Therefore, the author considers that 'the Kura-Araxes Eneolithic' unconditionally needs to be assigned to the EBA. However, for some (Tavadze, Sakvarelidze, and Inanishvili 1987, as cited in Smith et al. 2009), arsenical content naturally occurred alongside the copper ores, which means this stage should not be attributed to EBA and rather should be defined as the LC period (Museibli 2014).

Another debate is associating some complex metal products either to the pre-KAC, close to Maikop culture or late Kura-Araxes sites, probably, to the start of MBA (Chernykh 1992:65-66). No wonder the existence and abundance of metal ores, including gold in some burials beginning at the end of the 5th millennium, define the Caucasus region as a rich record of a metallurgical region (Chernykh 1992, Kohl 2007, Lyonnet 2012). A significant technological

rise in metallurgy took place in the Southern Caucasus in the Leilatepe Culture during the LC period. Furthermore, the appearance of precious metals and their skilful production reached its zenith in the neighbouring areas, in the Northern Caucasus, during the Maikop Culture (Museibli 2014, Courcier et al. 2017). Supporting the aforementioned idea, Courcier et al. (2017) affirm that possibly during the Kura-Araxes Culture, smith-metallurgists refined the skills of previous craft workers and were able to recycle ancient metal products. Palumbi (2016:27), in a similar vein, argues that EBA metallurgy shows an advancement in the *chaine operatoire* of metallurgical activities and provides techniques to modify physical and aesthetic properties of metal. Therefore, it is unreliable to name this period in terms of being at a level of 'technological superiority' (Abibullayev 1982:124-125). Similarly, Sagona (2014) claims that Kura-Araxes communities did not contribute to the new techniques of bronze metalwork. Rather they adopted skills and practices, which have already been formulated from the second half of the 6th millennium BC (Abibullayev 1982:199, Akhundov 2014).

3.4. KAC chronology in the wider region (Near Eastern chronological frameworks)

The intermediary location of the Caucasus between the Near East and Eastern Europe, and the poor nature of data from the region, made local scholars use the cross-comparative nature of evidence and pull together the best-known options of chronologies from regions, such as Anatolia, Mesopotamia and Iran (Sagona 2017, Kavtaradze 2014). Rova (2020a) points out that different schools of research, with their paradoxical implications, definitions, periodizations and terminologies, cause several problems, making it a contentious issue among scholars to decide whether the Near Eastern or Southern Caucasus chronology is more helpful as a valuation of different cultural phenomena.

Chronological frameworks produced by scholars carrying out field research in the Near East (Upper Mesopotamia and Anatolia) seem to be different from those who mainly prefer to use local Southern Caucasian chronology. For example, for Near Eastern archaeology of EBA period, losing its technological meaning, it represents a cultural-chronological concept, which is marked as 'the era of state formation' or 'the era of urban revolution' (Rova 2020a). Conversely, influenced by Soviet and post-Soviet tradition, this period is characterized by local

archaeologists by the presence of metal as the discriminating criterion of chronological distinction (refer back to section 3.3).

Kavtaradze (2004:540) argues that before correlating Caucasian archaeology with Near Eastern historical archaeology, it is important to construct a 'pan-Caucasian' archaeology for Caucasian cultural-geographical regions (fig 3.3). Kavtaradze (2004) believes that as long as we have a common framework for the Caucasian chronological system, we can integrate it with the archaeological evidence of the Near East to construct a composite picture of the KAC.



Figure 3.3. Caucasus geographical regions (Kurtubadze 2008)

In a similar vein, scholars have made attempts to fix KAC relative chronologies to better understand absolute sequences of Anatolian chronologies (Isikli 2015a). Using evidence from Sos- Hoyuk in the Erzurum region, Sagona (2000) formulated a new chronology for Eastern and Central Anatolia, as well as for the KAC regions. Sos-Hoyuk is the only case of continuous occupation between the LC and the MBA that offered a chronological framework, which can be helpful for the region to build the chronology of the Southern Caucasus. However, Passerini et al. (2018a:86) argue that the first evidence of typical RBBW appears in the region,

exceptionally early, and the culture lasted until 1600 BC, which adds more complications to the issue (Sagona 2000). This again brings the debate that a small production of pottery is not the only representation of the culture; rather, there should be an examination of an overall ‘cultural repertoire’ within different stages of the KAC.

Recently, there was a different approach by scholars working on the KAC to build a unified chronology for the entire extent of the Kura-Araxes between 'homeland zone (core area)' and its 'diaspora' (Batiuk et al. 2022). We have already discussed these concepts from a theoretical point of view in Chapter 2; here a chronological understanding of this framework is attempted. A six-day workshop organised in Toronto in 2017 brought together a set of scholars from different scholarly traditions to understand the 'big picture' of the KAC and discuss its complex issues, which will be discussed in the following section 3.5 (Batiuk et al. 2022). Scholars (Batiuk et al. 2022) tried to suggest one single chronology that covers ‘homeland’ and ‘diaspora’ areas, bearing in mind that the culture didn't evolve on the same path in these zones. This is because the Kura-Araxes lifestyle is a larger concept beyond pottery. Changes were not homogeneous in all parts of the KAC regions, and each area has its own trajectories. Palumbi (2011: as cited in Maziar 2019) argues that in a broader context, some regions witnessed cultural breakdown and some experienced parallel developments in harmony with the South Caucasus. For example, while elements of the KAC ceramics survived in southern areas, such as north-western Iran, the Van region, or Amuq Valley, the complete ‘cultural package’ elements differ from place to place in the diaspora, alongside discontinued occupation. Thus, further improvements in the geo-chronological method is of paramount importance to ascertain the chronological position of the cultures of these regions (Kavtaradze 2014).

3.5. KAC chronology in the Caucasus (Georgia and Armenia)

Prior to examining the Azerbaijani chronology in more detail, the stimulus arose to summarise the regional chronology for Georgia and Armenia during the EBA. The internal periodisation of the KAC has become interestingly complex in the latest years. It remains a task for scholars to understand the homogeneity and heterogeneity features of the culture in relation to its groups and sub-complexes. Most scholars favour a three-fold division, a traditionally accepted model for the region. In Table 3.1, we have brought together three chronological schemes for the Caucasus region that appear to be followed by most KAC scholars.

A first refined and articulated developmental scheme has been proposed by Palumbi (2008:319-327) for the period of 3500-2500 BC by dividing KAC into a tripartite sequence (KAC I, KAC II and KAC III), which was accepted as the most integrative proposal for the whole region (Table 3.1, column 1). For this division alongside with pottery typology, variability of architectural and burial features, and metal was necessary to identify cultural affiliation across sites and regions (Passerini et al. 2018a). In this regard, during KAC I phase (3500-3300 BC), around the mid-fourth millennium BC, the colour of the pots tends to be brown, buff or grey, characterising Monochrome Ware (hereafter MW). However, the distinctive feature of the Kura-Araxes II (3300-2800 BC), showed the prevalence of the pottery with a black outer surface and red inner surface demonstrating the typical Red-Black Burnished Ware (Palumbi 2008:319). Finally, during KAC III (2800-2500 BC), black-gray ware became more predominant; specifically, it had a silvery sheen surface with incised decoration, indicating Black Burnished Ware (hereafter BBW).

Table 3.1. Three main internal periodisation of the Kura-Araxes Culture

Palumbi (2008)	**Badalyan (2014)**	**Toronto Workshop (Batiuk et al. 2022)**
Proto-KA (before 3500 BC)	KA I (3500/3350-2900BC)	Pre-KA-EBA (3650-3540 BC)
KA I (3500-3300 BC)		KA I (3500/3373-3000 BC)
KA II (3300-2800 BC)	KA II (2900-2600/2500)	KA II (3050/2950-2553/2425 BC)
KA II (2800-2500 BC)		

Contrary to Palumbi's scheme (2008), there are also scholars (Badalyan 2014, Palumbi 2016) who argue that a twofold division better fits the Caucasus region, particularly, for Armenia. Thus, Badalyan's (2014) division, avoiding the more traditional approach of the typology of ceramic material, was utilised in more recent data derived from the comparative stratigraphy and radiocarbon dates of Kura-Araxes sites in Armenia (see Table 3.1, column 2 above) (fig 3.4). This twofold periodisation contains the KAC I (3500/3350-2900BC) comprising the Elar-Aragats complex (Fig 3.5) and KAC II (2900-2600/2500) comprising the 'Shresh-Mokhrablur' (fig 3.6), 'Karnut-Shengavit' (fig 3.7) and 'Ayrum-Teghut' (fig 3.8) ceramic groups in Armenia (Badalyan 2014) (see Table 3.2 below).

Table 3.2. New Periodization of the local ceramic complexes correspond to physical-geographical regions of Armenia

Cultural Phase	**Ararat valley**	**Aragatsotn, Shirak, Kotayk, Lori-Pambak regions**	**Aghstev-Debed rivers**
EB/KAII-2900-2600/2500	'Shresh-Mokhrablur' complex	'Karnut-Shengavit' complex	'Ayrum-Teghut' complex
EB/KAI-3500/3350-2900	'Elar-Aragats' complex		

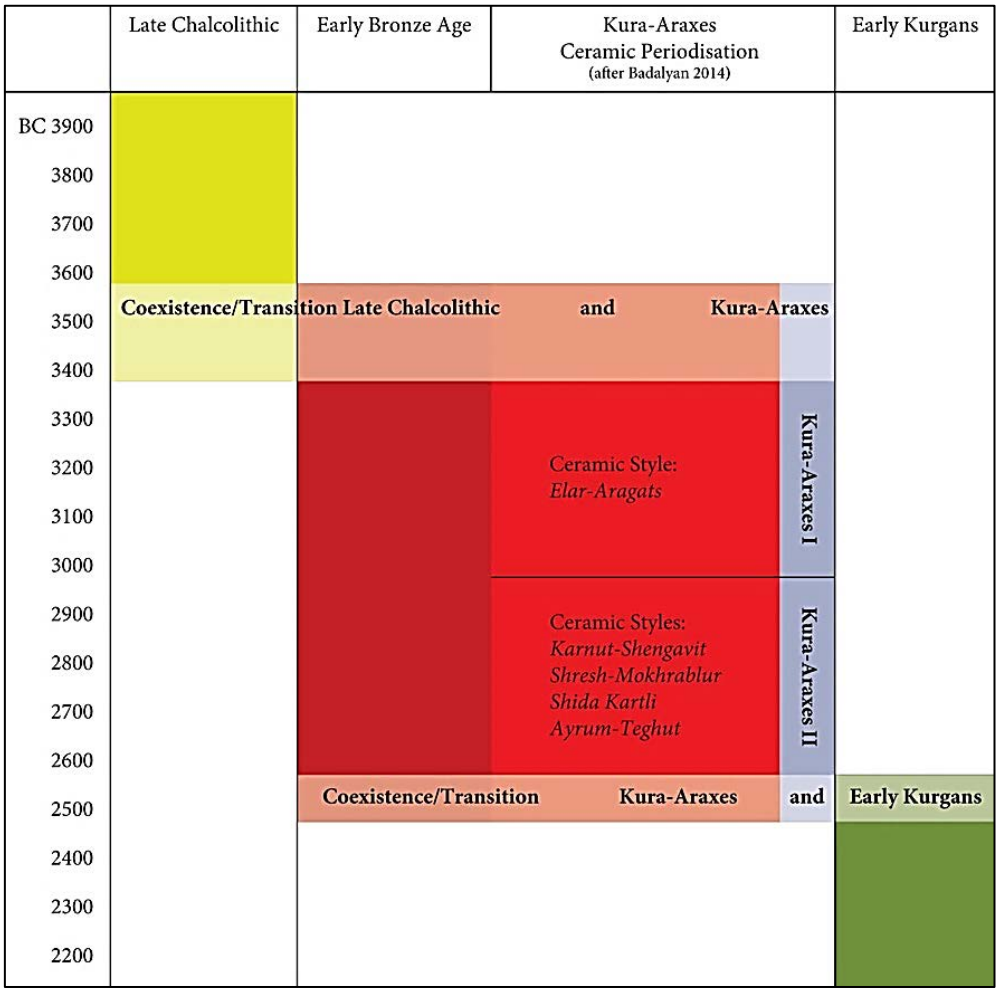


Figure 3.4. Absolute chronology and periodisation of the EBA proposed by Badalyan (Palumbi 2016: Table 1)

KAC I (Elar-Aragats complex) is a period in which a fairly homogeneous ceramic complex was distributed across the entire Armenian highlands stretching from the basin of Lake Urmia to the middle reaches of the Kura River (Badalyan 2014:73). The inception of the KA I phase is still

fraught with controversy, in this regard, the KA I phase itself can be traced according to its development: ‘early’ (KA I a), ‘middle’ (KA I b) and ‘late’ (KA I c) stages (Badalyan 2014:79).

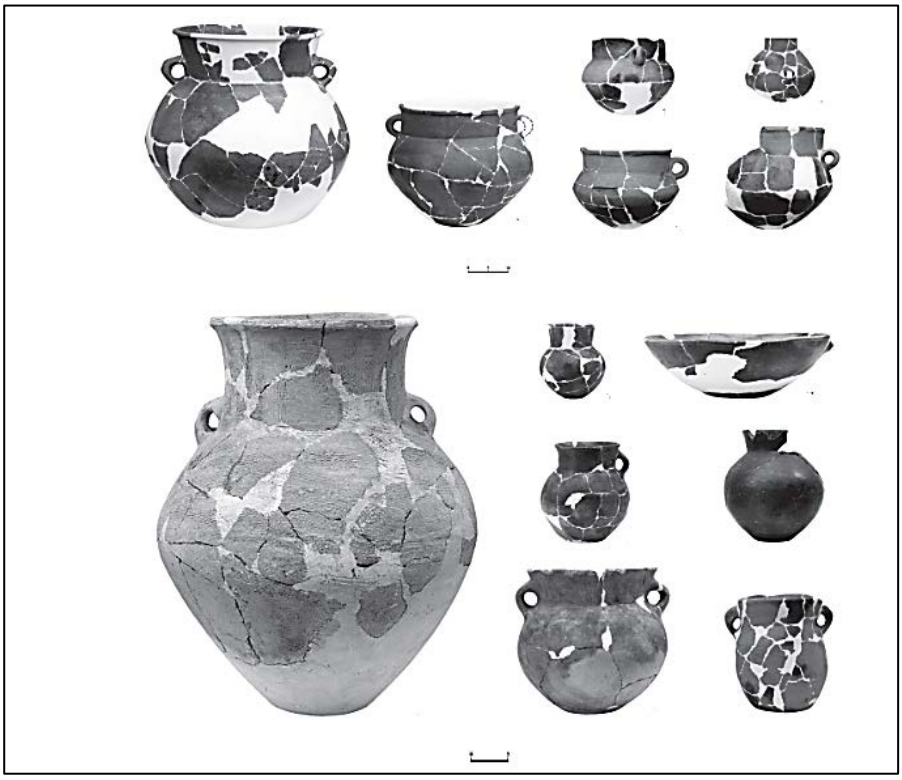


Figure 3.5. ‘Elar-Aragats’ ceramic complex (KA I) (Badalyan 2014: fig 1)

In later stages, the homogeneity of the Elar-Aragats complex disintegrates around 2900 BC, and a mosaic of local ceramic styles follows the relative unity. Similarly, during the beginning of the third millennium BC, some clear changes in pottery styles, architecture, building functions, households already started to emerge around 2900 BC in the Caucasus (Sagona (2018). Thus, during the KAC II stage, this uniformity was replaced by stylistically different local ceramics creating at least three synchronous complexes: Shresh-Mokhrablur (fig 3.6), Karnut-Shengavit (fig 3.7), and Ayrum-Teghut (fig 3.8). Thus, the morphological, typological, and stylistic peculiarities of KA II ceramics demonstrate that this stage was attested in the territory of Armenia by two consecutive stages: KA IIa (2900-2600 BC), KA IIb (2650/2600-2500 BC) (Badalyan et al. 2021).

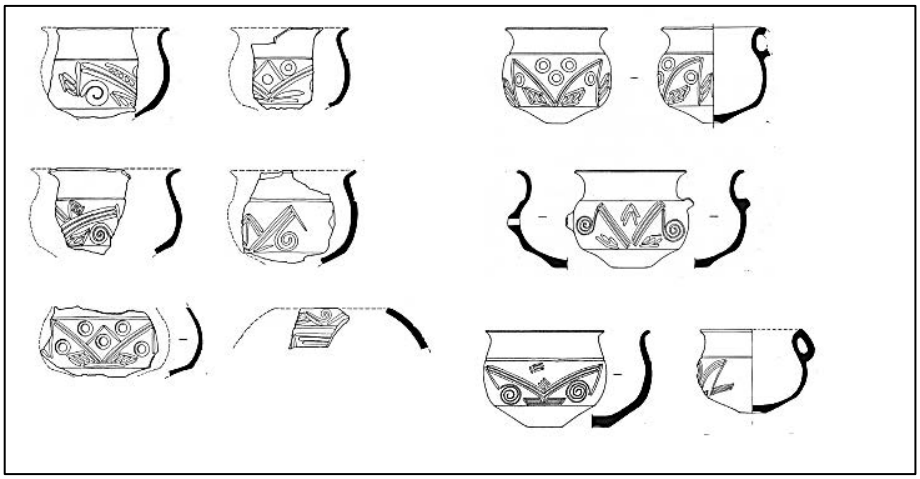


Figure 3.6. ‘Shresh-Mokhrablur’ ceramic complex (KA II) (Badalyan 2014: fig 5)

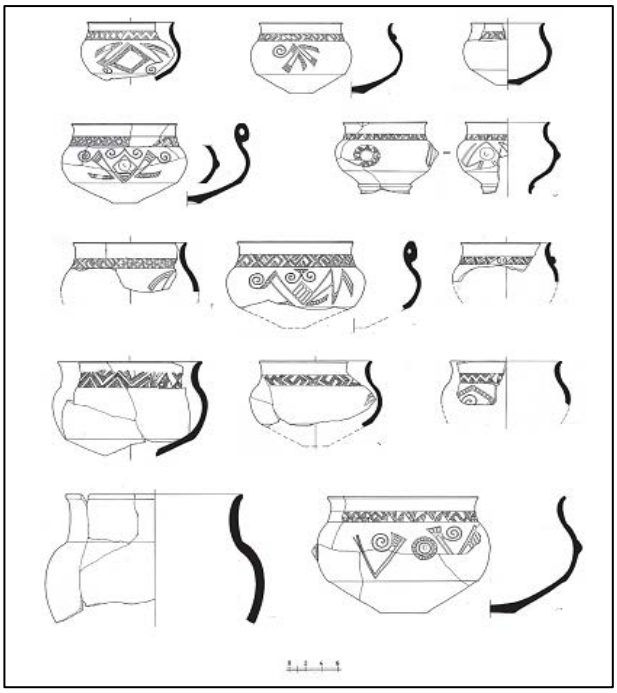


Figure 3.7. ‘Karnut-Shengavit’ ceramic complex (KA II) (Badalyan 2014: fig 7)

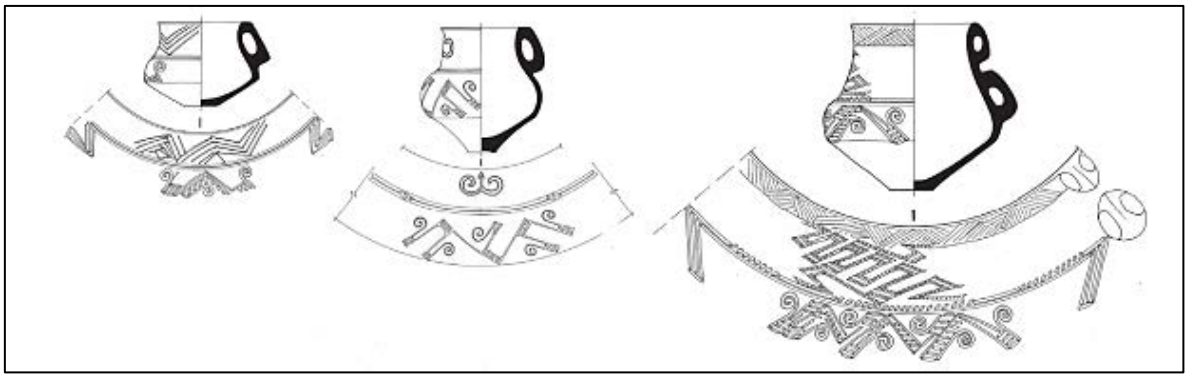


Figure 3.8. ‘Ayrum-Teghut’ ceramic complex (KA II) (Badalyan 2014: fig 8)

Most recent data suggest that the final stage in Armenia is represented by 'Aygevan-Shengavit' and 'Ayrum-Teghut' clusters of sites (Badalyan et al. 2021). C14 data makes it possible to synchronise the sites of these groups with the 27/26th-first half of the 25th century BC. This stage of transformation is also evidenced by scenarios of simultaneous abandonment of settlements during the KA II through geographically and climatically diverse subregions of Armenia (Badalyan et al. 2021). The latent nature of the final stage is particularly associated with the lack of stratigraphic correspondence between the Kura-Araxes and 'Early Kurgan Culture' Martkopi (earlier) and Bedeni (later) cultures (collectively known as 'Early Kurgan Complex', hereafter EK) materials. The segmentation of the late KA and its cultural landscape transformation associated with the problem of the Early Kurgan Culture raise the question of isolating and recognizing the truly final KA complex with an emphasis on the clarification of chronological and phasing issues (Rova 2014). In addition, confusion also arises when building the KAC chronology in Armenia as settlements are largely single-layered both during the KA I and KA II stages with a chronological hiatus (sterile layer), which is identifiable through the discontinuity of KA I-II settlements (Badalyan 2014). In this case, there is a lack of clarity between the EBA and the MBA stages, which remain an unresolved issue (Badalyan 2014).

Another most recent chronological scheme that favoured Badalyan's two-fold division is the Toronto workshop model, which brackets dates of 3500 and 2500 BC (Batiuk et al. 2022:7) (see Table 3.1. column 3 above). This chronological scheme was primarily built on absolute dates and stratigraphy, only then there were the elements of relative dating refined and validated by those absolute dates. The model was suggested on the same core data of the Passerini et al. (2018a) periodisation, which was built with the Bayesian chronology of 212 radiocarbon dates from 42 different sites in Turkey, Georgia, Armenia, and Azerbaijan dated between 4400-2000 BC. This indicates traditional Kura-Araxes I-III phase system, with the additional dates from new or overlooked samples (Batiuk et al. 2022:7, see the list of full radiocarbon dates, Table 5, Batiuk et al. 2022:159).

Unlike the proposed two-phase chronology for Armenia, the three-fold division model for Georgia suggested by Rova (2014), was applied specifically to the Shida-Kartli region. Here, the internal periodisation was built based on ceramic development and other cultural elements. Rova (2014) claims that the region has played a significant role in the dynamic and active processes of transformation over the static model in the early 3rd millennium BC. However, due

to the lack of data, some KAC cultural elements show a high degree of continuity throughout KAC stages, which are difficult attribute to any particular phase (Rova 2014:52) (see Table 3.3).

Table 3.3. Selected typical features of the different KA phases in the Shida Kartli region and the tentative attribution to these phases of settlements levels and burials (adapted from Rova 2014: Table 1)

Phase	Main Typical Features	Sites, Levels
Late Chalcolithic (Proto-Kura-Araxes)	• Archaic KA pottery associated with CFW and local "Sioni-derived" pottery • Circular hearths	• Berikldeebi, Levels V1, V2 • Kavtiskhevi (Ioramisgora) kurgan
Kura-Araxes I (3500-3200/3100 cal. BC ca)	• Monochrome ware, Red-Black Burnished Ware (very rare) • Bowls of truncated conical shape with small loop handle, jars and open pots with high cylindrical neck, flat lids, large flat-bottomed basins • Rounded architectural plans • Circular hearths	• Berikldeebi, Level IV • Khizanaant Gora, Phase E • Takhtidziri
Kura-Araxes II (3200/3100-2800 cal. BC ca)	• Red-Black Burnished Ware, Monochrome ware (rare), Black Burnished Ware (very rare) • Single or double-handled carinated vessels, one-handled carinated jugs, small three-handled jars, "scoops", flat lids, large flat-bottomed basins • Squarish architectural plans with rounded corners and rectangular annex, rounded architectural plans (rare) • Hearths with inner projections • Pit graves covered by a group of stones • Double-volute-headed pins • Simple socketed axes	• Kvatskhela phase C • Kvatskhela cemetery • Tvlepias Tsqharo cemetery • Khizanaant Gora, phases C, D • Urbnisi cemetery • Takhtidziri graves • Natsargora settlement and cemetery • Dzaghina cemetery • Nuli graves
Kura-Araxes III (2800-2600/2500 cal. BC ca)	• Black Burnished Ware • Bowls and mugs vertical shoulder and outflaring rim, pots with accentuated belly and double carination, slightly raised bases, elongated and sinuous profiles, "scoops", flat lids, incised, grooved and relief decoration, painted decoration (very rare ?) • Squarish architectural plans with rectangular annex, with or without rounded corners • Hearths with inner projections • Pit graves covered by a group of stones, collective graves (increasing), kurgans (?) • Pins with an upper twisted shank and/or loop-shaped and "T-shaped head" (?) • Simple socketed axes, elaborated socketed axes (?)	• Tsikhiagora, Level I (continuing into EK period) • Mchadijvaris Gora • Kvemo Aranisi • Kvatskhela, phase B Khizanaant Gora, phase B • Aradetis Orgora (Doghlauri) cemetery • Sachkhere area settlements and graves (continuing into EK period)

Another example of a three-phase partition can be brought from North-western Iran, where the phase division was built particularly on architecture. These are ETC I, ETC II and ETC III, which correlate with Phase I (3600-3500/2900 BC), Phase II (2900-2700/2600 BC) and Phase III ranges from 2700/2600-2400 B (Summers 2014, Maziar 2019:55). Summers (2014:158-159) reasonably argues that this division might not be identical for all KAC regions due to the regional trajectories and 'cannot be forced into rigid boxes on a single chart.' Similarly, Maziar (2019:61) comparatively, has assembled the data from several sites in North-western and

western Iran, which lack a degree of continuity over all KAC stages, linking to the scanty number of related excavated sites of this period and solid evidence from the region (see Table 3.4 below).

Table 3.4. Simplified correlation among excavated Kura-Araxes sites in Northwest and western Iran (Maziar 2019: table 3)

SITE	KA I Ca. 3500-3000	KA II [a] Ca. 3000-2700/2600		KA III Ca. 2600-2450 [b]		End	Post-KA
Kul Tepe*	(V) Round mudbrick building with plain burnished grey-black and reddish-brown ware with excised and incised decoration	(IVA) Round mudbrick building with plain burnished black-grey and brown and several groove and dimple decorations and Nakhichevan handle		(IVB) Rectangular stone and mudbrick building with plain burnished black and grey-brown ware		ca. 2300-2200**/ No gap, some evidence of coexistence	Transition/ Urmia ware
Kohne Tepe*	-	(I-V) Rectilinear mudbrick building with plain burnished black-grey and brown with groove and dimple-incised decoration and Nakhichevan handle		(VI-VII) Rectilinear mudbrick building with plain burnished black-grey and brown with incised decoration		ca. 2300-2200**/ abandonment	Gap
Kohne Pasgah	(II) No architecture with plain burnished orange/black brown ware (or KAII A?) with groove decoration	(III, IV) Round mudbrick building with plain burnished black-grey and brown with groove and dimple decoration and Nakhichevan handle		?		-	Gap
Nadir Tepesi [c]	-	Round mudbrick building with plain black-brown burnished with several groove and dimple decorations and Nakhichevan handle		Angular building with plain burnished black-grey and brown with incised decoration and elbow-shaped handle		ca. 2579-2462/abrupt end (violence?) followed by new tradition	Late Bronze Age?
Kohne Shahr*	-	(I-III) Round stone building with plain burnished black-grey and brown ware with incised decoration		(IV-V) Round stone building with plain burnished black-grey and brown ware with mini Nakhichevan lug and elbow-shaped handle, incised decoration and pieces of painted ware		Middle of the 3rd mil. BC	Gap
Yanik	-	(A) Round houses with plain burnished black-grey and brown ware with Incised decoration, and with white filled excised and incised patterning	(B) Round houses and plain burnished black-grey and brown ware	2500-2400 BC Gap	Rectilinear building and plain burnished black-grey and brown ware	ca. 2000?/abandonment	Gap
Haftavan*	-	?	(VIII) Round houses and plain burnished black-grey and brown with groove and dimple decoration	?	(VII) Rectilinear building with plain burnished black-grey and brown ware	ca. 2000?/abandonment	POW/ Urmia Ware (HV VI)
Geoy	-	(K1, 2) Rectangular building and plain burnished black-grey and brown with groove and dimple decoration		?		Middle of the 3rd mil. BC	POW?
Gijlar	-	(B) Round mudbrick houses and plain burnished black-grey and brown with groove and dimple decoration		(B) Rectangular building and plain ware		ca. 2200?	Gap
Godin	-	(IV) Rectangular building pottery with white filled excised and incised patterning		Godin III [d]		ca. 2500/Transition-cultural assimilation?	Transition/ Godin III

To conclude, we have attempted to provide a picture of the multiplicity of factors and complexity of dynamics which affect the building of a chronology in the Caucasus. However, as we can see, the development of the KAC in the region is characterized by both unity and diversity, and the following sections will examine the scale of this development in Azerbaijan.

3.6. Kura-Araxes Culture chronology and periodisation in Azerbaijan

This section covers the KAC chronology problems relating to Azerbaijan, which are further exacerbated in the case of Azerbaijan and its chronological scheme during the KAC. Compared to other parts of the Caucasus, large areas of Azerbaijan remain archaeologically unexplored,

with only a few sites having undergone stratigraphic investigations and detailed publication. There are still insufficient radiocarbon dates for building up a reliable absolute chronology for the whole of Azerbaijan during the EBA. In addition, there is no clear information regarding whether these sites' C14 samples were collected from reliable contexts, as the KAC material of most sites, mainly comes from surface material and survey evidence. Despite this, there was an effort by local scholars to establish an internal periodization according to parameters they deemed meaningful. Therefore, this study is undertaken as a reassessment of both relative and absolute chronology, in the light of the most recent C14 radiocarbon dates and as a re-evaluation of the already published data.

First, this section provides an overall overview of existing problems of the chronology of KAC in Azerbaijan. There will be a more considered approach to analyse different chronological frameworks within geographically distinct sub-regions of Azerbaijan. We will consider whether and how it could be subjected to a similar revision as its neighbours, and secondly, whether it might be integrated into the new periodisation. After a detailed evaluation, there will be proposed a single chronology as working hypothesis for Azerbaijan. The method of selection of sites in relation to chrono-cultural phases and associated material assemblages will be explained. Finally, the section will be concluded by the definition of tripartite phases for KAC sites in Azerbaijan.

3.6.1. Evaluation of absolute dating in Azerbaijan

Since there is limited radiocarbon dating of sites in the region, we intend to give a brief reflection on the reassessment of the absolute chronology. It would be unhelpful to repeat the problematic details here, but a few points need to be underscored. Firstly, there is no reliable radiocarbon dating from the regions of Azerbaijan. Therefore, any evidence to construct a comprehensive study of the chronology of KAC is still scanty and poorly understood in the region. In most cases, C14 dates are geographically isolated, as individual dates relate to a whole site or phase within that site. Thus, the collection of most radiocarbon dates remains clustered within specific geographic outlines. For example, as we can see from the figure 3.9 below, most available C14 dates from Azerbaijan were collected through literature sources, making for a total of 43 dates from 13 sites unevenly distributed between regions. These were predominantly from the Lesser Caucasus region. Due to the scarcity of settlements, collected

dates in Lesser Caucasus are mainly extracted from funerary deposits and there will be a detailed explanation of the chronology of the funerary sites in Chapter 7.

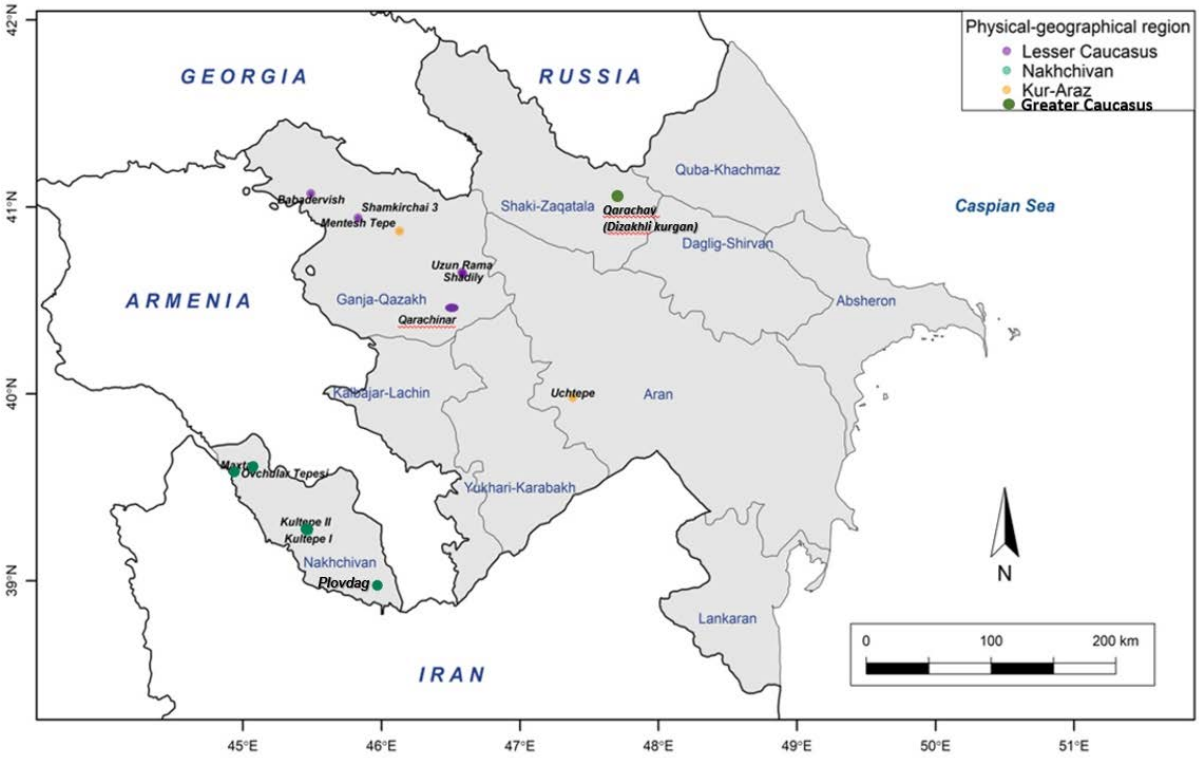


Figure 3.9. Map of all C14 dates sites in Azerbaijan (R Program, provided by the author)

Discrepancies and large omissions in C14 dates, scarcity or ambiguity of information also affect the homogeneity of the radiocarbon record derived from the Caucasus, for example, the absence of data regarding Lab Code, BP date, the nature and provenance of the samples (Passerini et al. 2018a:162). Misunderstandings have also arisen from using different reporting conventions between Soviet and Western laboratories (Chataigner 1995, as cited in Passerini et al. 2018a). Radiocarbon dating methods have also changed and improved over time, and all this means that the BP date which produced the original chronological date range may not be reliable. Therefore, to keep consistency and have one general calibration for all KAC sites in Azerbaijan, radiocarbon ages were calibrated to the IntCal20 atmospheric curve in years cal BP using Calib 8.2 software (http://calib.org/calib/). (See Table 3.5 below).

Many of those early radiocarbon dates are also unreliable as we do not know the nature of the sample, such as old wood or bulk samples because we are uncertain about the archaeological

context, stratigraphic and cultural position of most samples. For example, the designation of long-lived or short-lived wood charcoal is often absent in publications. Most of the time, there is an absence of detail regarding the stratigraphic origin of the samples. Although dates from Babadervish (LE-780) and Kultepe I (LE 163) give a depth of stratigraphy, the provenance of the samples is unclear. Furthermore, the quality of the sampled material is often omitted or scarcely characterised within publications (Therefore, we have refrained from dividing the table 3.5 based on short-lived and long-lived samples). Different materials provide different resolutions, for example, bones and seeds give high-precision radiocarbon measurements and are more accurate than unidentified charcoal. Problems can also arise from the contamination of samples during collection, in particular, whether the location was sealed to prevent contamination or not. Another limitation is that wide standard deviations coming from old excavated sites are not valid. For example, some dates (Uchtepe -LE-305, and Uchtepe -LE -300, Kultepe I-LE 163) have a far too wide calibrated range, which makes their level of reliability not comparable to that of more recent ones.

Table 3.5. List of all C14 dates for the EBA in Azerbaijan. The samples are ordered according to sites and appear in alphabetical order.

Site Name	Lab Code	Sample	Archaeological Context	Date (BP)	Cal. BC (1 s)	Cal. BC (2 s)	References
Babadervish 2	LE-780	Charcoal	From a depth of 1 m	3900±60	2466-2333	2496-2202	Sagona 1984: table 4
Kultepe I	LE 163	Charcoal	II occupation layer, 8.5 m deep	4880±90	3777- 3622	3815- 3500	Abibullayev 1982: 191
Kultepe I	LTL16016A	charred seed	Locus G008	4471±45	3331-3216	3355-3011	Marro et al. 2019: Table 1
Kultepe I	LTL16018A	charred seed	Locus G040	4475±45	3333- 3214	3356-3014	Marro et al. 2019: Table 1
Kultepe II	UGAMS 02066	Charcoal	From floor, lot 4, beside lot 3 firepit	3940±50	2491- 2398	2574- 2288	Ristvet et al. 2011:52
Kultepe II	UGAMS 02067	Charcoal	Lot 7 firepit	4220±50	2807- 2750	2823- 2663	Ristvet et al. 2011:52
Kultepe II	UGAMS 02068	Charcoal	Lot 11 floor	4050±50	2630- 2474	2701- 2466	Ristvet et al. 2011:52
Kultepe II	AA85516	Charcoal	Lot 21 hearth	4151±48	2781- 2666	2881- 2619	Ristvet et al. 2011:52
Kultepe II	AA85519	Charcoal	Charcoal from near hearth lot 28	4254±41	2913- 2870	2929- 2847	Ristvet et al. 2011:52
Kultepe II	AA85518	Charcoal	Lot 47 hearth	4383±45	3028- 2918	3104- 2899	Ristvet et al. 2011:52

Site Name	Lab Code	Sample	Archaeological Context	Date (BP)	Cal. BC (1 s)	Cal. BC (2 s)	References
Kultepe II	UGAMS 02069	Seeds	Lot 43 hearth	4480±50	3334- 3213	3361- 3011	Ristvet et al. 2011:52
Maxta I	UGAMS 02070	Seeds	Lot 13 floor	4430±50	3104- 3009	3140- 2919	Ristvet et al. 2011:52
Makhta I	AA85517	Charcoal	Lot 11 floor	4382±41	3026- 2920	3103- 2900	Ristvet et al. 2011:52
Mentesh Tepe	Poz-63143	Human bone	Z. 27, Str. 54, indiv.1	3920± 30	2467- 2403	2475- 2293	Lyonnet et al. 2017:138
Mentesh Tepe	SacA 31993/ Gif-12989	charcoal	Z. 27, Str. 54, timber from the roof of the chamber	3930± 30	2470- 2432	2491- 2337	Lyonnet et al. 2017:138
Mentesh Tepe	Poz-63144	Human bone	Z. 27, Str. 54, indiv.2	3970±30	2495- 2463	2574- 2447	Lyonnet et al. 2017:138
Mentesh Tepe	Beta 272311	charcoal	Z. 10, in KA cup	4010±40	2571- 2515	2633-2456	Lyonnet et al. 2017:138
Mentesh Tepe	Poz-63142	Human bone	Z. 13, Sep. 49	4035±30	2543- 2488	2629- 2469	Lyonnet et al. 2017:138
Mentesh Tepe	SacA 32006/ Gif-13002	charcoal	Str. 54, NW balk	4035±30	2543- 2488	2629- 2469	Lyonnet et al. 2017:138
Mentesh Tepe	Beta 272308	N/A	Z. 10, Loc. 15, south part	4040±40	2543- 2488	2673- 2467	Lyonnet et al. 2017:138
Mentesh Tepe	Beta 272313	Human bone	Z. 7, str. 28, BCF	4110±40	2697- 2618	2781- 2571	Lyonnet et al. 2017:138
Mentesh Tepe	SacA 21737/ Gif-12531	charcoal	Z. 21–22, Loc. 96, jar 2 under pit KA	4135±30	2860- 2805	2783- 2620	Lyonnet et al. 2017:138
Mentesh Tepe	Beta-255528	charcoal	Z. 1 East, Str. 4, E1, in pot	4370±40	3021- 2916	3098- 2898	Lyonnet et al. 2017:138
Mentesh Tepe	Beta-252225	charcoal	Z. 1 West, Str. 4, near pot 1, alt. 358,98	4430±50	3104- 3009	3140- 2919	Lyonnet et al. 2017:138
Mentesh Tepe	Beta-252224	charcoal	Z. 1 East, Str. 4, F2 pass2	4630±50	3510- 3428	3529- 3330	Lyonnet et al. 2017:138
Mentesh Tepe	Beta-272312	charcoal	Z. 5, fence/wall Str.4	4660±40	3510- 3428	3527- 3359	Lyonnet et al. 2017:138
Ovchular Tepesi	LTL3888A	charcoal	OT'08 6120, ashy layer under tone hearths	4207±45	2808- 2749	2822- 2663	Marro et al. 2009:48
Ovchular Tepesi	LTL3889A	charcoal	OT08 6099, stone hearth	4020 ± 45	2575- 2472	2674- 2456	Marro et al. 2009:48
Ovchular Tepesi	LTL4531A	N/A	OT'09 6172, KA structure, hearth	4302±45	2934- 2882	3028- 2871	Marro et al. 2011:62
Ovchular Tepesi	LTL4534A	Charcoal	OT'09 12089, pit partly dug into the virgin soil and lined with stone	4273± 45	2925- 2871	3016- 2854	Marro et al. 2011:62
Ovchular Tepesi (LCKA – LC Kura-	LTL12565A LTL13323A	Wood Charcoal +Wood Charcoal	OT '11- 5333 (storage jar above 5313)	5600±45	4456- 4362	4504- 4349	Marro and Yilmaz 2018: 34

Site Name	Lab Code	Sample	Archaeological Context	Date (BP)	Cal. BC (1 s)	Cal. BC (2 s)	References
Araxes)- adult pit-grave (5313)			OT'10 -11.267 (posthole under 5313)	5635±45	4504- 4442	4550- 4354	
Ovchular Tepesi (EBA)- adult pit grave (11.285) with stone cairn (11.217)	LTL12566A	Wood charcoal	OT'11 – 11.217 (cairn over 11.285)	4258 ± 45	2917- 2868	2936- 2845	Marro and Yilmaz 2018: 34
Ovchular Tepesi LC Kura-Araxes)	LTL8087A	Wood charcoal	Locus 5194, House 5.3	5364±40	4261- 4226	4330- 4213	Marro et al. 2014: 142
Plovdag II	UGAMS 29729	Charcoal	N/A	4630±25	3494- 3457	3511- 3427	Pers.comm Ibrahimli, B 2022
Qarachay grave 1	N/A	human bone	N/A	N/A	2485-2340 BC		Museyibli, et al. 2015: 82
Qarachinar	LTL18628A LTL18629A LTL19736A	Seeds	N/A	N/A	2860-2570 BC		Palumbi and Ricci 2022
Qarachinar	LTL19737A LTL20484A LTL20485A LTL20486A	Seeds	N/A	N/A	2340-1890 BC (2560-1980 BC)		Palumbi and Ricci 2022
Shadili Kurgan	PLD-23945	Charcoal	crypt beneath barrow	4524±24	3228- 3182	3243- 3102	Jalilov 2018: 105
Shamkirchay 3 kurgan (unlocated sample)	Beta 220997	Charcoal	10-15CM	4030±40	2578- 2474	2668- 2465	Museyibli, 2008:16
Shamkirchay 3 kurgan (grave 2)	Beta 220996	Charcoal	Q2	4070±40	2639- 2567	2700- 2473	Museyibli, 2008:16
Uch-tepe kurgan	LE- 305	Wood Charcoal	Kurgan 3, covering of basic internment	4500±120	3364- 3072	3386- 2903	Butomo 1965:226, Ismailzade 2008: 170
Uch-tepe kurgan	LE – 300	Charcoal	Unknown	4830±230	3818- 3361	4055- 3004	Ismailzade 2008: 170
Uzun Rama 5	PLD-23944	Charcoal	crypt beneath barrow	4521±24	3231- 3181	3243- 3102	Jalilov 2018: 105

3.6.2. Reflection on different chronological frameworks of KAC sites in Azerbaijan

In the absence of secure radiocarbon dating and accurate stratigraphy, local scholars (Ashurov 2002, Musayev 2005, Bakhshaliyev 2006, Ismailzade 2008) are more inclined to provide a periodization based on relative chronology to define phases of the KAC. As we have already reviewed in Chapter 2 (section 2.5.4), inspired by the Soviet traditional school of thought, scholars use the 'great site' method of approach by linking relative sequences of only a handful of sites applied widely to other distributed sites. This means that many years of research have

been problematic when reconstructing and correlating the cultural processes occurring in these areas in a unitary manner, leading local scholars refrain to challenge the problem of understanding the development stages of the culture. Furthermore, another issue in understanding the sequences of stages is that throughout decades of Soviet and probably, post-Soviet influence, scholars usually avoided assigning relative dates on material culture in archaeological reports during excavations. They rather preferred to use very broadly applied dates, such as EBA and LC (Bulkin et al. 1982:288, Fabian 2017). This often gives rise to ambiguities and misunderstandings, which are also linked to the problem of the dearth of modern radiocarbon dating in the region. This limits scholars' ability to look at the whole picture rather than to accept the sometimes obscure and vague narrative way.

Referring back to the aforementioned methodologies, we are going to compare different chronological timescales proposed by KAC scholars working in Azerbaijan during the Soviet and post-Soviet periods. We have decided to examine and reflect on all those chronological frameworks by dividing them into 'Single-site type' and 'Region-based chronology' categories (see Table 3.6 and 3.7). Table 3.6 provides an overview of proposed chronological frameworks in chronological order. The 'single-site type' column represents sites only having the evidence of few radio-carbon dates, which provide a basis for the relative chronology of nearby sites. However, unfortunately, these individual dates are scattered chronologically and geographically, most with wide standard deviations. These are not trustworthy and do not reflect geographical variations. On the other hand, in the same Table 3.6 (Region-based Chronology) and Table 3.7, region-based chronology gives a broader sense about the region and neighbouring sites. These regional chronological schemes were mainly built based on ceramic development, which has been a main indicator of the cultural development of Caucasus prehistory (Kiguradze and Sagona 2003:48).

3.6.2.1. Single-site type chronology

First, Table 3.6 confirms the main data extracted from the Nakhchivan region, which is significant for a better understanding of the Kura-Araxes study in the Caucasus region. Nakhchivan is considered one of the longest occupations of the region alongside with reliable radiocarbon dates come from this region (Abibullayev 1982, Ashurov 2002, Baxshaliyev et al. 2009, Baxshaliyev and Seyidov 2012) (fig 3.10).

The first column in Table 3.6 shows that the first absolute date was retrieved from Kultepe I site under Abibullayev's supervision in 1982, which provides a foundation for the relative chronology of nearby sites in Central Nakhchivan and beyond. However, as we discussed above, the calibration date is too wide and not reliable (LE 163- 4880±90). In the site, there was an uninterrupted succession of phases from the Chalcolithic to the EBA, marked by a pronounced hiatus (sterile layer), 20-40 cm thick, between the LC and the EBA layers (Abibullayev 1982). However, Kushnareva (1997:65) argues that possibly this sterile layer could be missing in other parts of the site, but it might be that there was somehow a period of abandonment in this particular part during the Chalcolithic period. Based on Kultepe evidence, for the first time, Abibullayev (1982) put the hypothesis that the KAC layer was constructed above a Chalcolithic component and was rooted in the Chalcolithic elements in the Caucasus. Thus, recent growing research and increase of radiocarbon dates in the region support Abibullayev's claim (Ristvet et al. 2011:13).

Table 3.6. Chronological Frameworks of KAC sites in Azerbaijan

	Single Site – type Chronology						**Region based chronology**			
Cal BC	**Abibullayev 1982** *(Kultepe I), (Nakhchivan region)*	**Bakhshaliyev vliyev et al. *2011*** *(Kultepe II site Nakhchivan region)*	**Bakhshaliyev vliyev et al. 2011** (*Makhta site, Nakhchivan region)*	**Marro and Bakhshaliyev 2014** *(Ovchular Tepesi site), (Nakhchivan region)*	**Jalilov 2014** *(Uzun Rama site), (Ganja-Kazakh region)*	**Marro et al. 2019** *(Kultepe I), Nakhchivan region)*	**Kushnareva 1997** *KAC sites across South Caucasus including sites in Azerbaijan*	**Ismailzade 2008** *(Based on Qarakopaktepe site in (Garabakh region), including several KAC sites across Azerbaijan and few sites from north-western Iran*	**Bakhshaliyev vliyev and Seyidov 2012** *(Several sites in Nakhchivan region)*	**Lyonnet 2014** *Based on Mentesh Tepe site in Ganja-Kazakh region), including several KAC sites across Azerbaijan*
2000										
2100										
2200										
2300		**EBA III**								**Phase III**
2400				**EBA**			**EBA IV**	**KAC III**	**Late Phase**	
2500										**Phase II**
2600							**EBA III**			
2700		**EBA II**						**KAC II**	**Middle Phase**	
2800										
2900							**EBA II**			**Phase I**
3000						**EBA I**		**KAC I**		
3100		**EBA I**	**EBA II**		**EBA I**					
3200			**EBA I**				**EBA I**		**Early Phase**	
3300										
3400										
3500	**Hiatus**			**GAP**						
3600									**Proto- KAC (Formative Phase)**	
3700										
3800										
3900										
4000										
4100										
4200				**LCKA) (LC Kura-Araxes**						
4300										
4400										

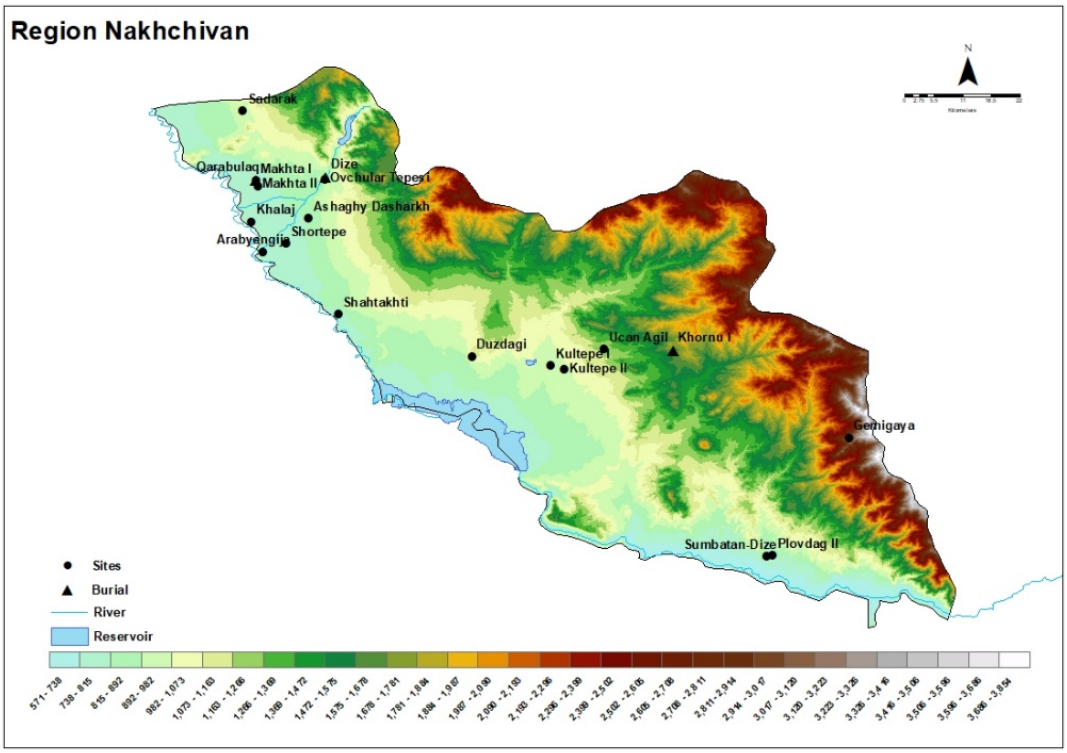


Figure 3.10. Nakhchivan region (created by the author, Ismayilova)

There is also relevant evidence retrieved from sites (Table 3.6, columns 3rd and 4th) which are located near the Arpachay River, such as Makhta and Ovchular Tepesi. Recently, the discussions were again intensified among scholars concerning whether to place the earliest manifestation of the KAC (proto-KAC) within the LC or the EBA (Kohl 2007:70, Palumbi and Chataigner 2014, Alizadeh 2015). As Marro et al. (2009) suggest, the 20 red-black Kura-Araxes sherds from Ovchular Tepesi in Nakhchivan date to the last quarter of the 5th millennium BC, which can be considered the earliest traces of the KAC. Few scholars (Bakshaliyev and Seyidov 2012, Marro et al. 2014) agree with the findings and support the idea, while also these findings remain controversial and encourage scholars to review again the chronology and periodization of the KAC (Kohl 2007:70, Palumbi and Chataigner 2014, Alizadeh 2015:74, Sagona 2018:225, Batiuk et al. 2022). Palumbi and Chataigner (2014:250) claim that 'the LC Kura-Araxes ceramics from Ovchular Tepesi is an isolated case in terms of chronology.' With regards to dating the funerary sites in Azerbaijan (Table 3.6, column 5th), the main data is from Ganja-Khazakh region (Jalilov 2014) and the collective kurgan, Uzun Rama site dated to the initial stage of KAC. There are also a few other sites, such as Tatarli and Shadily, which relatively confirm the date of Uzun Rama, which we will be further explored in Chapter 7.

3.6.2.2. Region-based chronology

There are also some broad regional chronologies covering KAC sites widely in Azerbaijan (see Table 3.6 above, Region-based chronology' column and Table 3.7). For example, during Soviet period, scholars studied sites in Azerbaijan comparatively integrated into other South Caucasus regions. For instance, in 1997, a few KAC sites from Azerbaijan were added to the chronological framework proposed by Kushnareva, who divided the EBA into four stages, EBA (3500-3200BC) I, EBA (3200-2900BC) II, EBA (2900-2600BC) III, EBA (2600-2300BCE) IV (Table 3.6, column 4th, Table 3.7, column 4th).

Another relative periodization was suggested by Ismayilzade (2008:172) (Table 3.6, column 2nd and table 3.7, column 2nd) based on the sites near the rivers of Guruchay and Kondalanchay. The Qarakopaktepe site is considered the main deeply studied, researched and stratigraphic settlement, which was excavated by Qudrat Ismayilzade between 1964 and 1986. Its stratigraphy is the foundation for dating other adjacent settlements (Ismailzade 2008). Therefore, Quruchay and Kandalanchay settlement groups share a similar chronology which is based on settlement and ceramic sequences in the Qarakopaktepe site: Period I (3500- 3000 BC), Period II (3000-2700 BC), Period III (2700-2300/2200 BC).

Cal BC	Bakhshaliyevliyev and Seyidov 2012 *(Several sites in Nakhchivan region)*	Ismailzade 2008 *Based on Qarakopaktepe site in (Garabakh region), including several KAC sites across Azerbaijan and few sites from north-western Iran*	Lyonnet 2014 *Based on Mentesh Tepe site in Ganja-Kazakh region), including several KAC sites across Azerbaijan*	Kushnareva 1997 *KAC sites across South Caucasus including sites in Azerbaijan*
2000				
2100				
2200				
2300		Garakopaktepe (the upper horizons), Khankandi, Khacbulag kurgan 1, Uchtepe, Telmankend kurgans, Gaflatapalari, Azyurdu, Meynetepe, Kultepe, Shomulutepe, Qarakopaktepe	Mentesh Tepe, Martkopi, Bedeni, Uch-tepe, Hasansu, Garakopaktepe (upper level), Baba-dervish, Misharchay	Shengavit (IV), Takhavoranist, Kosi-Choter, Arich, Orom, Keti, Tignis, Amiranis-Gora (horizon III), Karaz (upper horizons), Aragats (burial ground), Baba-Dervish II (late materials), Uchtepe, Telman (the kurgans), Maynetepe, Kyul-tepe, Shomulutepe, and Garakepek-tepesi (the upper horizons). Khizanaant-Gora-Kvatskhela (horizons B-3, B-2, and B-1), Kvatskhela (burials 3, and 6-8), Yanik-tepe (EBA II), Shakh-tepe (the kurgan burial grounds Koreti, Nacherkezevi, and Tsartsis-Gora), Trialeti (kurgans at Lake Paravani), Aragats (burial ground), Samgori, Bedeni, Martkopi, Yanik-tepe (the upper horizons).
2400	Kultepe I, Kultepe II, Makhta I, Arabyengija and Ashagy Dashark.			
2500			Babadervish, Garakopaktepe, Misharchay, Mentesh tepe, Gobustan, Georgia (Samshvilde), Daghestan (Chirkej), Bet Yerah (Israel), Martkopi	
2600				
2700		Kultepe I, Goeytepe (the upper		Shengavit (III), Mohkra-Blur, Maisyan (the kurgans), Amiranis-Gora (the central part of horizon
2800				

Cal BC	**Bakhshaliyevliyev and Seyidov** **2012** ***(Several sites in Nakhchivan region)***	**Ismailzade** **2008** ***Based on Qarakopaktepe site in (Garabakh region), including several KAC sites across Azerbaijan and few sites from north-western Iran***	**Lyonnet** **2014** ***Based on Mentesh Tepe site in Ganja-Kazakh region), including several KAC sites across Azerbaijan***	**Kushnareva** **1997** ***KAC sites across South Caucasus including sites in Azerbaijan***
	Kultepe I, Kultepe II, Makhta I, Makhta II, Arabyengija, Ashagy Dashark and Shortepe	horizons), Kultepe II, Mingechaur, Baba-dervish (the upper horizons), Yaniktepe (north-western Iran), Gobustan, Meynetepe, Kultepe, Shomulutepe, Qarakopaktepe		II), Khizanaant-Gora-Kvatskhela (the base part of horizon C), Okami, Akhalkalaki, 'Samarkhi-Kanebi' in Zveli, Geoy-Tepe (K-2, and in part K-3), Pulur (horizons VIII-I), Korucutepe (EBA II), Garni, Elar (the burial ground), Kyultepe (middle horizons), Yaniktepe (EBA I) and Garakepektepe (middle horizons).
2900			Mentesh tepe, Uzun Rama, Borsunlu, Gabala, Garakopaktepe (lower horizons), Mingechaur, Arslantepe (Malatya) VIA, Telmankend,	
3000				
3100	Kultepe II, Khalaj, Arabyengija and Ovchular tepesi,	Kultepe I and Garakopaktepe (lower horizons), Misharchay I phase, Baba-Dervish (lower layer), Guneshtepe, Uzuntepe, Meynetepe, Xantepe (near Garachay and Kondalanchay rivers), Goeytepe (North-western Iran lower horizons)		Ozni, Khizanaant-Gora (D), Khizanaant-Gora-Kvatskhela, Goeytepe, Kyultepe (lower horizons), Garakepek-tepesi, Meynetepe, Shomulutepe (lower horizons), Gyuneshtepe, Shengavit (II), Khantepe, Uzuntepe, and Mingechaur, Kulbakebi, Kulokhomi, Zgudris-Gverda, Gudabertka, Metekhi, Beshtasheni (Akhyllar), Amiranis-Gora (horizon I), Akhalkalaki, Abastumanskoye 'Kanobili', Samshvilde (second layer), Geoy-Tepe (K-1, and in part K-2), Mokhra-Blur, Maisyan (the

Cal BC	**Bakhshaliyevliyev and Seyidov** **2012** ***(Several sites in Nakhchivan region)***	**Ismailzade** **2008** ***Based on Qarakopaktepe site in (Garabakh region), including several KAC sites across Azerbaijan and few sites from north-western Iran***	**Lyonnet** **2014** ***Based on Mentesh Tepe site in Ganja-Kazakh region), including several KAC sites across Azerbaijan***	**Kushnareva** **1997** ***KAC sites across South Caucasus including sites in Azerbaijan***
				kurgans), Shengavit (II), Shreshblur
3200				Didube, Kiketi, Ortachala, Tamarisi, Ardisubani, Koranta, Koda, Gomareti, Digomi, Khizanaant-Gora (E), Samshvilde (the lower layer and burial ground), Sioni, Gremi, Mashnaari, Tetri-Tskaro, Akhalkalaki, Zveli, Abeliya, Tekhut, Elar, Kyultepe (lower horizons), Sioni, Alikomektepesi, Mokhra-Blur (lower horizons), Misharchay I (low horizon), Velikent, and Baba-Dervish (lower layer), Dzhraovit (V-III), Aragats, Zaglik, Gemi-Tyube I
3300				
3400				
3500	Ovchular Tepesi, Khalaj, Shortepe, Makhta I			
3600				
3700				
3800				
3900				
4000				
4100				
4200				
4300				
4400				

Table 3.7. Regional chronologies covering KAC sites widely across Azerbaijan

The next periodisation was developed by Lyonnet (2014) (Table 3.6, column 4th and 3.7 column 3rd), who builds a periodisation on the basis of realible data from the Mentesh Tepe site and applied it to the majority of the KAC areas in Azerbaijan. The Mentesh Tepe site aids our understanding of the funerary traditions and the hypothesis of mobility in Azerbaijan during the EBA. Even though the site helps to reinvigorate the study of the KAC in Azerbaijan, this chronological scheme has its own drawbacks as no settlement occupation has been attested in the EBA phase, albeit the living occupation can be proved based on having large pits (Lyonnet et al. 2012). The site showed a significant continuity of occupation, ranging from settlement to pits and burial, during its entire period of use, from the Neolithic (first half of the 6th millennium) until the EBA. Despite this, two main hiatuses are noticeable, one during the last part of the 6th millennium BC, and the other during the first half of the 4th millennium BC. It is also evident that the site does not have a high potential to provide new insights into the development of the Kura-Araxes Culture in the region, which does not help understanding of the associated the Kura-Araxes 'package' in Azerbaijan. For further discussion on the funerary practices of the Mentesh Tepe site follow the Chapter 7.

In sum, even though the timescale from the mid-fourth to the mid-third millennia is generally accepted as the overall duration of this long cultural phenomenon, there has never been an univocal consensus among scholars. This proves that the above section on local chronological frameworks and approaches applied by scholars has shortcomings. As we can see from the above tables, and different chronologies that provided by scholars provide a thin surface for the study: they lack unified viewpoints and varied terminologies and different regional viewpoints express heterogeneity with different underlying concepts. Thus, the chronology points to a complex investigation, which is still fraught with controversy, and demands a more careful stratigraphic investigation. In the following section, there will be proposed a single chronology for the first time for the whole of Azerbaijan, which will provide a tool to assist the data analysis chapters.

3.6.3. Method of presentation of single chronological framework

The most reliable method for a single chronological framework that we found useful is to define stages of KAC sites individually according to their regions. It is important to try to encompass the full range of variation among KAC sites to have a reasonably representative basis for social

and cultural interpretation. The advantage of this chronological framework is that it will provide us with a depth of understanding of the grouping of sites in regions and will help us to explore regional similarities and differences over space and time. Using a combination of radiocarbon dates and comparative schemes, a tentative sequence for the KAC stages will be proposed. We will consider the collected C14 dates presented on the (Table 3.8) by arranging them chronologically and grouping them into phases according to our understanding of the relative regional chronology. Through the elements of relative dating, to some degree, we will be able to validate the structure built by those absolute dates.

The chronological framework used in this thesis focuses primarily on the period between 3500-2450 BC, while evidence from before and after this range is referred to where relevant to the arguments and data discussed. Controversial views still exist in relation to technological innovations pertinent to LC and EBA periods (see section 3.3). Therefore, the relative tripartite system that I adopted uses the cultural periodisation terms: pre-KAC (before ca 3500), KAC I (ca 3500-3000), KAC II (ca 3000-2800/2700), KAC III (ca 2700-2450) (Table 3.11 and 3.12). The aim is to tackle the revision of the general chronology of the Kura-Araxes Culture in Azerbaijan over its whole distribution area, a task which is fraught with a number of still unsolved difficulties. For example, Passerini et al. (2018a:85) argue that 'the subdivision into internal phases of the KA culture is more evidently affected by the inaccurate use of culturally and technologically based terminologies, which contribute to the confusion and misplacement of available ^{14}C dates.' Similarly, Rova (2020a) argues that to tackle generalization and develop an agreed terminology; there should be a substitute of chronological terms with neutral 'slots' of time expressed in absolute dates based on available radiocarbon dates. There are also instances of overlap in the transition of stages pre-KAC/KAC I tradition, KAC I/KAC II, and the-transition KAC II/III. Again, this overlap remains problematic, making it difficult to understand cultural change across the region. Therefore, due to the small quantity of samples any derived regional interpretation should be considered with caution.

Table 3.8. Grouping into KAC phases of available C14 dates for the EBA in Azerbaijan.

Site Name	Lab Code	Sample	Archaeological Context	Date (BP)	Cal. BC (1 s)	Cal. BC (2 s)	Cultural Periodisation	References
Pre-Kura-Araxes/LC Phase (before ca 3500 BC)								

Site Name	Lab Code	Sample	Archaeological Context	Date (BP)	Cal. BC (1 s)	Cal. BC (2 s)	Cultural Periodisation	References
Ovchular Tepesi (LCKA – LC Kura-Araxes) - adult pit-grave (5313)	LTL12565A LTL13323A	Wood Charcoal +Wood Charcoal	OT '11- 5333 (storage jar above 5313) OT'10 -11.267 (posthole under 5313)	5600±45 5635±45	4456- 4362 4504- 4442	4504- 4349 4550- 4354	Pre-KAC	Marro and Yilmaz 2018: 34
Ovchular Tepesi LC Kura-Araxes)	LTL8087A	Wood charcoal	Locus 5194, House 5.3	5364±40	4261- 4226	4330- 4213	Pre-KAC (LCKA)	Marro et al. 2014: 142
Kura-Araxes Phase I (ca 3500-3000 BC)								
Kultepe I	LE 163	Charcoal	II occupation layer, 8.5 m deep	4880±90	3777- 3622	3815- 3500	KAC I	Abibullayev 1982: 191
Kultepe I	LTL16016A	charred seed	Locus G008	4471±45	3331-3216	3355-3011	KAC I	Marro et al. 2019: Table 1
Kultepe I	LTL16018A	charred seed	Locus G040	4475±45	3333- 3214	3356-3014	KAC I	Marro et al. 2019: Table 1
Kultepe II	UGAMS 02069	Seeds	Lot 43 hearth	4480±50	3334- 3213	3361- 3011	KAC I	Ristvet et al. 2011:52
Mentesh Tepe	Beta-252224	Charcoal	Z. 1 East, Str. 4, F2 pass2	4630±50	3510- 3428	3529- 3330	KAC I	Lyonnet et al. 2017:138
Mentesh Tepe	Beta-272312	Charcoal	Z. 5, fence/wall Str.4	4660±40	3510- 3428	3527- 3359	KAC I	Lyonnet et al. 2017:138
Shadili Kurgan	PLD-23945	Charcoal	crypt beneath barrow	4524±24	3228- 3182	3243- 3102	KAC I	Jalilov 2018: 105
Uch-tepe kurgan	LE- 305	Wood Charcoal	Kurgan 3, covering of basic internment	4500±120	3364- 3072	3386- 2903	KAC I	Butomo 1965:226, Ismailzade 2008: 170
Uch-tepe kurgan	LE – 300	Charcoal	Unknown	4830±230	3818- 3361	4055- 3004	KAC I	Ismailzade 2008: 170
Uzun Rama	PLD-23944	Charcoal	crypt beneath barrow	4521±24	3231- 3181	3243- 3102	KAC I	Jalilov 2018: 105
Kura-Araxes Phase II (ca 3000-2800/2700 BC)								
Kultepe II	AA85519	Charcoal	Charcoal from near hearth lot 28	4254±41	2913- 2870	2929- 2847	KAC II	Ristvet et al. 2011:52
Kultepe II	AA85518	Charcoal	Lot 47 hearth	4383±45	3028- 2918	3104- 2899	KAC II	Ristvet et al. 2011:52
Maxta	UGAMS 02070	Seeds	Lot 13 floor	4430±50	3104- 3009	3140- 2919	KAC II	Ristvet et al. 2011:52
Makhta	AA85517	Charcoal	Lot 11 floor	4382±41	3026- 2920	3103- 2900	KAC II	Ristvet et al. 2011:52
Mentesh Tepe	Beta-255528	Charcoal	Z. 1 East, Str. 4, E1, in pot	4370±40	3021- 2916	3098- 2898	KAC II	Lyonnet et al. 2017:138
Mentesh Tepe	Beta-252225	Charcoal	Z. 1 West, Str. 4, near pot 1, alt. 358,98	4430±50	3104- 3009	3140- 2919	KAC II	Lyonnet et al. 2017:138
Ovchular Tepesi	LTL4531A	N/A	OT'09 6172, KA structure, hearth	4302±45	2934- 2882	3028- 2871	KAC II	Marro et al. 2011:62
Ovchular Tepesi	LTL4534A	Charcoal	OT'09 12089, pit partly dug into the virgin soil and lined with stone	4273± 45	2925- 2871	3016- 2854	KAC II	Marro et al. 2011:62
Kura-Araxes Phase III/Post-Kura-Araxes Phase (ca 2700-2450 BC)								
Babadervish 2	LE-780	Charcoal	From a depth of 1 m	3900±60	2466-2333	2496-2202	KAC III	Sagona 1984: table 4
Kultepe II	UGAMS 02066	Charcoal	From floor, lot 4, beside lot 3 firepit	3940±50	2491- 2398	2574- 2288	KAC III	Ristvet et al. 2011:52
Kultepe II	UGAMS 02067	Charcoal	Lot 7 firepit	4220±50	2807- 2750	2823- 2663	KAC III	Ristvet et al. 2011:52
Kultepe II	UGAMS 02068	Charcoal	Lot 11 floor	4050±50	2630- 2474	2701- 2466	KAC III	Ristvet et al. 2011:52
Kultepe II	AA85516	Charcoal	Lot 21 hearth	4151±48	2781- 2666	2881- 2619	KAC III	Ristvet et al. 2011:52
Mentesh Tepe	Poz-63143	Human bone	Z. 27, Str. 54, indiv.1	3920± 30	2467- 2403	2475- 2293	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	SacA 31993/ Gif-12989	Charcoal	Z. 27, Str. 54, timber from	3930± 30	2470- 2432	2491- 2337	KAC III	Lyonnet et al. 2017:138

Site Name	Lab Code	Sample	Archaeological Context	Date (BP)	Cal. BC (1 s)	Cal. BC (2 s)	Cultural Periodisation	References
			the roof of the chamber					
Mentesh Tepe	Poz-63144	Human bone	Z. 27, Str. 54, indiv.2	3970±30	2495- 2463	2574- 2447	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	Beta 272311	Charcoal	Z. 10, in KA cup	4010±40	2571- 2515	2633-2456	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	Poz-63142	Human bone	Z. 13, Sep. 49	4035±30	2543- 2488	2629- 2469	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	SacA 32006/ Gif-13002	Charcoal	Str. 54, NW balk	4035±30	2543- 2488	2629- 2469	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	Beta 272308	N/A	Z. 10, Loc. 15, south part	4040±40	2543- 2488	2673- 2467	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	Beta 272313	Human bone	Z. 7, str. 28, BCF	4110±40	2697- 2618	2781- 2571	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	SacA 21737/ Gif-12531	Charcoal	Z. 21–22, Loc. 96, jar 2 under pit KA	4135±30	2860- 2805	2783- 2620	KAC III	Lyonnet et al. 2017:138
Ovchular Tepesi	LTL3888A	Charcoal	OT'08 6120, ashy layer under tone hearths	4207±45	2808- 2749	2822- 2663	KAC III	Marro et al. 2009:48
Ovchular Tepesi	LTL3889A	Charcoal	OT08 6099, stone hearth	4020 ± 45	2575- 2472	2674- 2456	KAC III	Marro et al. 2009:48
Ovchular Tepesi (EBA)- adult pit grave (11.285) with stone cairn (11.217)	LTL12566A	Wood charcoal	OT'11 – 11.217 (cairn over 11.285)	4258 ± 45	2917- 2868	2936- 2845	KAC III	Marro and Yilmaz 2018: 34
Shamkirchay 3 kurgan (unlocated sample)	Beta 220997	Charcoal	10-15CM	4030±40	2578- 2474	2668- 2465	KAC III	Museyibli, 2008:16
Shamkirchay 3 kurgan (grave 2)	Beta 220996	Charcoal	Q2	4070±40	2639- 2567	2700- 2473	KAC III	Museyibli, 2008:16
Qarachay grave 1	N/A	Human bone	N/A	N/A	2485-2340 BC		KAC III	Museyibli, et al. 2015: 82
Qarachinar	LTL18628A LTL18629A LTL19736A	Seeds	N/A	N/A	2860-2570 BC		KAC III	Palumbi and Ricci 2022
Qarachinar	LTL19737A LTL20484A LTL20485A LTL20486A	Seeds	N/A	N/A	2340-1890 BC (2560-1980 BC)		Bedeni Culture	Palumbi and Ricci 2022

When building the chronology, it was not sufficient to only include pottery assemblages, but also other elements of the culture have been taken into consideration to explore further the stages of the sites (Table 3.9). However, only a limited number of artefacts were available to show which stage each artefact belongs to. In addition, some artefact types were in use for a long time and had a considerable morphological continuity, which was difficult to assess. One of the difficulties was to identify a firm classification for ceramic typology and other attributes to trace their cultural change over space and time. In other words, not all typologies were equally spread in KAC sites. Rather, some attributes are site-specific or time-specific and characterised by a typological conservatism over time and space. On the other hand, some elements of the culture show a high degree of continuity, which makes them difficult to attribute to any particular phase.

Table 3.9. KAC phasing based on assessments of multiple evidence categories in combination in Azerbaijan

Phase	Main Typical Features	Sites, Levels
LC (Pre-Kura-Araxes) (before ca 3500 BC)	Semi-subterranean houses Archaic KA pottery associated with CFW: comped impression, composed of chaff and fine sand with simple motifs Circular Hearth	Ovchular tepesi, Khalaj, Ashaghy Dasharkh, Chaggalligtepe, Arabyengija, Kultepe II (lower layers)
Kura-Araxes I (ca 3500-3000 BC)	Circular architectural plan Monochrome ware, varies in colour brown, pinkish, grey with small loop handles Flat lids with a central depression Fireplaces and fixed circular hearths	Kultepe I (lower layers), Kultepe II (middle layers), Ashaghy Dasharkh, Qarakopaktepe (lower layers)
Kura-Araxes II (ca 3000-2800/2700 BC)	Circular shape architecture with rare rectangular annex Compartmentalisation inside the round dwelling Monochrome ware (common), Red-Black Burnished Ware Lids with typical Nakhchivan lugs Vessels with sharp carinated profile Horse-shoe shaped andirons	Qarakopaktepe (middle layers), Babadervish II, Makhta, Ashaghy Dasharkh, Mentesh Tepe
Kura-Araxes III (ca 2700-2450 BC)	Squarish architectural plan, compartmentalisation inside the round dwelling Communal structures (defence wall) Black-burnished Ware Portable hearth stands Triple-handled vessels Elbow-shaped handles. Vessels with a variety of ornaments	Qarakopaktepe (upper layers), Babadervish II, Serkertepe, Kultepe II, Sadarak, Mentesh Tepe

Table 3.10. Examples of individual sites providing a phasing based on the dating criteria

Site	Pre-KAC (before ca 3500 BC)	KAC I (ca 3500-3000 BC)	KAC II (ca 3000-2800/2700 BC)	KAC III (ca 2700-2450 BC)
Golyeri	Semi-subterranean houses Archaic KA pottery associated with CFW: comped decoration, composed of chaff and fine sand with simple motifs Filter type vessels with holes functioned as a strainer	Well-burnished vessels, storage jars, large bowls with a large mouth Flat lids, in a discoid shape, with a central depression and lids with the typical KAC feature, Naxchivan lugs.	Three-handled jars Horse-shoe shaped andirons Miniature vessels	

Site	Pre-KAC (before ca 3500 BC)	KAC I (ca 3500-3000 BC)	KAC II (ca 3000-2800/2700 BC)	KAC III (ca 2700-2450 BC)
	Pans with a small flat base (mangals)			
Kultepe II	Fine straw, with wide-mouth, and straight neck Combed impression	Circular architectural plan Fireplaces and fixed circular hearth Pottery well burnished, less-polished, monochrome, semi-globular handles, mainly bowls, with collared and inverted rims.	Circular shape architecture with rare rectangular annex Compartmentalisation inside the round dwelling Absence of red-black burnished ware. Lids in a discoid shape Clay mould (one example) for casting metal	Black-burnished Ware (common) Nakhchivan handles Improvement in ornamentation. Squarish architectural plan, compartmentalisation inside the round dwelling Communal structure ('defence wall') A large group of portable hearths (hearths with inner projections, horse-shape andiron)
Kultepe I	Pottery with convex pattern	Circular architectural shape Fireplaces and fixed circular hearth Monochrome, varies in colour brown, pinkish, grey with loop handles Flat lids with a central depression Pans with a small flat base	Circular architectural shape with partition Vessels with sharp carinated profile Lids with typical Nakhchivan lugs Flint sickle blades Model wheels Animal figurines Clay mould (three examples) for casting metal	Black-burnished Ware Circular architectural shape with rectangular annexes, rectangular architecture (rare) Triple-handled vessels, and elbow-shaped handles. Hearth with a wide everted rim Portable hearth stands
Serkertepe	**?**	Circular shape architecture with a dome-shaped Fixed hearth Wheel-thrown and coloured and ornamented pottery Big jugs with out-turned rims Large-narrow based vessels with high cylindrical neck Big storage jars, containers (pithos)	Circular shape architecture with a dome-shaped Fixed hearth Vases on a broad saucer with ornamentation Vases on footed base Drinking vessels Perforated handles Sickle blades (40 examples) Mangal in a disc shape	Different handles: lugs, perforated lugs, knobs, pierce and hole and closed shapes Different decoration: bold (pressed) relief decoration-impressed or stamped zigzags, wavy line, tiny wedge-shaped or nail-like impressions. Mace-heads (perforated) Flint spearheads Model wheels Portable hearth stands Bone weapon assemblage (arrowhead, bone knife) Bone beads Clay mound, bronze artefacts

Site	Pre-KAC (before ca 3500 BC)	KAC I (ca 3500-3000 BC)	KAC II (ca 3000-2800/2700 BC)	KAC III (ca 2700-2450 BC)
Babadervish	?	Free-standing circular shape architecture Well-burnished,	Free-standing circular shape architecture (numerous storage pits) Triple-handled jars Pots with out-turned rims, high and straight neck Vessels with sharp carinated profile Tanged projectile points (flint and obsidian) Sickle blades	Free-standing circular shape architecture Handles with zoomorphic handles Vessels with a variety of ornaments Mace-heads (perforated) Circular hearths with central horns Different metal debitage Beads and pendants
Qarakopaktepe	?	Monochrome Ware (grey and red) Circular shape architecture with a dome-shaped	Clay Mould (for casting metal)	Black-burnished Ware Rectangular shape architecture

What becomes clear is that during many studies of the KAC, it was agreed that development over its vast areas occurred in a linear fashion. In this, a process of homogenisation has been recognised in regions contributing to a unified cultural tradition or 'cultural package' (Sagona 2018). However, later studies show that the picture of the KAC also contains of variation between regions owing to local circumstances, which again offers some insight to the non-linear model of the culture (Sagona 2018). For example, Table 3.10 demonstrates a phasing of some sites based on assessments of multiple evidence categories in combination, which shows some artefact types or building forms are present in more than one cultural phase. Therefore, due to the lack of data defining elements of each KAC stage in Azerbaijan, it will be beneficial to refer to other neighbouring regions to compose groups of 'look-alikes'. Rova's (2014) tripartite division for Georgia appears to be relatively suitable for our purpose (see Table 3.3). In general, due to the complex and disturbed stratigraphy of multilevel settlements, a precise phase attribution of individual sites, in many cases is impossible to determine.

3.6.4. Internal Periodisation of the KAC in Azerbaijan

3.6.4.1. Pre -KAC I stage (before ca 3500)

We must admit that the influence of the Chalcolithic period, specifically the ceramic repertoire, cannot be dismissed under the coverage of the EBA. Most scholars (Bakhshaliyev 2006,

Palumbi 2016, Quliyeva 2014, Sagona 2018) support the idea of a link between the LC and the EBA, specifically at the formation phase of this culture (Table 3.9 and 3.10). While the direct dating of the transition between the LC and the KAC I is presently not possible in Azerbaijan (pers. comm Lyonnet 2018), a brief explanation should be devoted to the terms 'Proto-KAC' and 'pre-KAC' and our choice of 'pre-KAC' over 'Proto-KAC'. The transition phase, 'Proto – KAC' can probably be dated to the second half of the 5th millennium BC, in which a minority of Kura-Araxes wares coexisted with the archaic features of the Chalcolithic period (Batiuk et al. 2022:9). In other words, there are some sites which yielded the 'Proto-KAC' production, that has been attested to have archaic-looking KAC assemblages, such as grit-tempered, with brown or grey burnished surfaces that appear within LC horizons. The term has been adopted by some scholars (Kiguradze and Sagona 2003, Marro et al. 2014, Rova 2014, Sagona 2018) referring to sites of different regions, such as Ovchular-tepesi (Azerbaijan), Areni -I (Armenia), Berikldeebi (Georgia), Sos-Hoyuk (Turkey). Meanwhile, we need to be careful about using the term 'Proto-KAC' until we accumulate more of a sample. Therefore, due to the lack of refinement, sporadic occurrence of ceramics in LC horizons and because no context yielding 'Proto-KAC' has been directly radiocarbon dated, sites in association with the reminiscent of the LC production will be assigned to the pre-KAC phase.

The Pre-KAC period is characterised by two main archaeological horizons, namely, Sioni and Chaff-Faced Ware (CFW) assemblages, and the geographical area covered by Chaff-Faced Wares was far more extensive than the Sioni. The latter was expanded as a part of the tradition in Northern Mesopotamia, through the Southern Caucasus to north-western Iran, while Sioni wares were attested in a narrower area, and was especially prevalent in the Kvemo Kartli area of modern Tbilisi. CFW represents several variants, which in the Caucasus were associated with the Leilatepe Culture. There are ongoing debates about whether assemblages of the Leilatepe tradition have some parallels with the KAC traditions. Possible prototypes of the Leilatepe production, are typically hand-made and marked by the prevalence of chaff-tempered and chaff-faced bowls and jars with pinkish or buff in colour. Most recently, in a Toronto workshop, scholars (Batiuk et al. 2022) argued that 'pre-KAC' term is misleading. This is because although some Kura-Araxes sites appear to have its roots in the Chalcolithic, they do not show a complete cultural repertoire (cultural package: pottery, architecture, ritual). Rather they feature some ceramics with similar shape to traditional Kura-Araxes vessels, but these are lacking finish and formation techniques (Batiuk et al. 2022:9).

The archaeological data depicting a prototype of a sunken-floored structure (semi-subterranean buildings) emphasises the rare case of continuous occupation of the settlements belonging to these two periods (Narimanov 1987, Kushnareva 1997, Azimov 2006, Bakhshaliyev 2006, Kohl 2007, Lyonnet et al. 2017, Sagona 2018:229, Baudouin 2019). This can be attested in sites such as Golyeri, Ovchular Tepesi, Muraddayi and Padar, which saw the transition between the Chalcolithic and the EBA, and also at sites like Mingechaur and Babadervish which were associated with the KAC I stage. Again, the lack of continuity between these two periods needs to be studied from the point of a long process of mutual and casual relations (Palumbi 2008:309).

3.6.4.2. Kura-Araxes I stage (3500-3000 BC)

While it is difficult to identify the signs of the transition from the pre-KAC to the Kura-Araxes stage I, we have broadly defined Kura-Araxes phase I to be dated to the 3500-3000 BC (Table 3.9 and 3.10), which is considered a highly homogeneous development stage during EBA. It will be impractible to repeat the details of homogeneity features of this stage, which were explored in earlier chapters. However, Palumbi (2008:23-41) describes the technological and morphological features of ceramics as being well-burnished, the majority of pottery is monochrome: black, grey and brown in colour, and was considered as a straw-tempered burnished ceramic. Morphological features include globular bowls with high and pronounced shoulders, biconical forms with thickened walls, and cylindrical-necked jars with ovoid bodies, with a profusion of handles, lugs and perforated lugs that are typical to the initial stage of culture. Moreover, decorated pottery is still rare in KAC phase I. Another characteristic feature is the widespread presence of monocellular circular-planned buildings associated with the KAC I stage, which are usually furnished with fixed circular hearths (Palumbi 2008, Rova 2014, Isikli 2015, Passerini et al. 2018a).

While there is a degree of continuity with the preceding period, it is important to note that identifying the transitional stage material culture elements, particularly, pottery presents challenges, and in this instance, making an error is inevitable. This continuation can be traced to the persistence of some traditional manufacturing techniques, for example poor firing, combed surfaces, organic-tempered, textile remains, and shape as well as large bowls of truncated conical shape with a small loop handle attached to the rim (Rova 2014:52). Traces of

combed decoration on the surface and inside the pottery are reminiscent of Chalcolithic traditions, which play a vital role in understanding the transition from the Chalcolithic to the EBA. Textile remains in vessels reveal that cloth sacks were used as supports or moulds on which to model the ceramic containers (Palumbi 2008:42). This fabrication technique, specifically, was common during the earliest phase of Kura-Araxes Culture. It can be traced in sites such as Ovchular Tepesi, Kultepe I, Ashaghy Dasharkh in Nakhchivan, and Garahaci and Juttepe in the Mughan-Karabakh plain, which shows the slightest hint of continuity from the LC.

3.6.4.3. KAC II stage (3000-2800/2700 BC)

The KAC II phase is the stage of full development of the KAC in which the cultural complex started to distinguish itself with all its properties (Isikli 2015a). Radiocarbon dates from collected sites indicate the second stage of the KAC as dating to 3000-2800/2700 BC (Table 3.8). The second stage shows highly burnished pottery, marked by a red and black colour scheme (RBBW), which is considered the hallmark of the Kura-Araxes Culture. Various types of handles are attested, such as a globular shape, which is the most recognisable marker of the Kura-Araxes potting traditions [called Nakhchivan handles]. As well as this, a range of other handles, such as perforated or pinched hemispherical lugs and horizontal lugs along their rim, were associated with the middle stage. Scholars (Lyonnet 2014:125, Rova 2014, Rothman 2016, Batiuk et al. 2016) agree that the second stage of the KAC shows more heterogeneous features rather than homogeneous, which were broken down to an assemblage characterised by greater diversity and fragmentation. Diversification and enhancement of decoration became more complex during the KAC II period, which saw the exponential growth of pottery decorations, the variety of regional motifs such as sites Serkertepe and Chaggalligtepe in Guba-Khachmaz regions, while at some sites decorated pottery is still very limited: Qarakopaktepe, Kultepe II, Kultepe I (Table 3.9, 3.10).

The pottery types are characterised by tripartite profile vessels, more or less sharp carinated vessels and small three-handled jars. In contrast, there are also sites, in which monochrome ware is still present and represents a significant portion of the assemblage as an initial stage of the culture, which doesn't follow the chromatic evolution that is expected from Kura-Araxes ceramic assemblage, such as Kultepe I (Marro et al. 2019:109). Also in the Lesser Caucasus region, sites in Guruchay and Kondalanchay river valley show conservatism against the typical marker of the second stage; a pottery assemblage of red-black burnished ware (Ashurov

2002:21, Ismailzade 2008). During this stage houses were circular in structure, with an occasional attached rectangular annex. Further developments are also manifested, such as compartmentalisation inside the round dwellings furnished with portable hearths, clay pottery kilns, fireplaces, and storage pits, which were used for the purpose of household tasks, such as the storage of cereal and the processing of food. Finally, large dwellings were supported by posts placed on flat stones, sometimes standard fittings of benches and bins were typical in Kura-Araxes houses.

3.6.4.4. KAC III stage (2700-2450 BC)

Radiocarbon dates from collected sites make the final stage of the KAC date to 2700-2450 BC (Table 3.8). This stage is generally characterised by the widespread use of incised black-burnished pottery. Domestic house installations share similarities with the preceding stage while attesting to compartmentalisation inside round dwellings. Also, freestanding rectangular structures, with or without rounded corners were recorded. Interestingly, fortified settlements seem to appear in the Caucasus during the final stages of the KAC, which is highly debatable in the literature (see Chapter 5, section 5.6.5). The pottery that belongs to the third phase is still close to the typical Kura-Araxes ware such as black burnished exterior, groove on the shoulder, handle on the belly, and simple everted rims. However, there are also newly attested forms of vessels, displaying innovation in both their technological and functional production. For example, the temper was more visible and sandier, the rims are often red or brown-yellow while the black colour starts only a few centimetres below and the inside of the vessels is usually reddish or yellowish (Lyonnet 2014:127). New shapes of handles such as elbow-shaped projected the last stage of the culture. The ceramic repertoire of the last stage of KAC was closely paralleled with the Urmia Lake sites (Iran), as well as sites attested in the eastern part of Azerbaijan, by Gobustan low mountainous area and from there to the Absheron peninsula (Muradova 2011) (Table 3.9, 3.10).

This stage gives an interesting picture between the final stage of the EBA and the beginning of the Middle Bronze Age. ‘Post Kura-Araxes’ is characterised by some scholars as an emergence of new cultural models and social order or a partial contemporaneity between the KA/EK cultures. Martkopi (earlier) and Bedeni (later) cultures (collectively known as ‘Early Kurgan Complex’, hereafter EK). These were characterized by a conspicuous accumulation of wealth in funerary contexts, a large quantity of metal objects, wagon burials, which emphasize the

emergence of elites and new forms of leadership in the area in the middle of the 3rd millennium BC (Palumbi 2014). The influence is clearly obvious in the Eastern Georgia and Western Azerbaijan through different elements, such as pottery, and burial customs. While also other areas of Azerbaijan do not seem to have been affected by the Early Kurgan Culture; rather the KAC still continued its development by creating coexistence with other local groups (Bakhshaliyev 2006, Lyonnet 2014). In other words, there is a hypothesis that characteristics of the 'post-Kura-Araxes' were connected to the development and spread of a new ceramic tradition, 'Painted ceramics' covering mainly, Nakhchivan region in Azerbaijan, and Urmia basin sites in Iran, as well as sites in north-east Anatolia (Ozfirat 2001:23, Bakhshaliyev 2006, Bakhshaliyev and Seyidov 2012, Wilkinson 2014b:43). There were attested a different group of painted pottery assemblages, such as Karmirberd /Kizilvank, Sevan-Uzerlik, Van-Urmia, Aras or 'Yayla' wares consisting of elaborate painted decoration with depictions of birds, deer, ibex etc. (Summers 2014:166) (fig 3.11)

We can see different pictures across Azerbaijan and neighbouring regions during the transition to the MBA; partly a great distribution of the kurgans, often containing rich graves, and while also an evidence of different changes happening to settlement patterns and ceramic traditions in the western part of Azerbaijan and southern regions. The diversities of MBA groups are much deeper than the ones of the regional variations of the Kura-Araxes Culture (Sagona 2018). Their chronology is still debated and their distribution areas have often been argued, and sometimes these cultures can be divided into local groups, which still need to be clearly identified. At the present state of research, the implication of this complex picture is hard to explain as in North-western Iran, and in Eastern Anatolia compared to the Southern Caucasus, the study of this period is still limited (Edens 1995, Wilkinson 2014b).

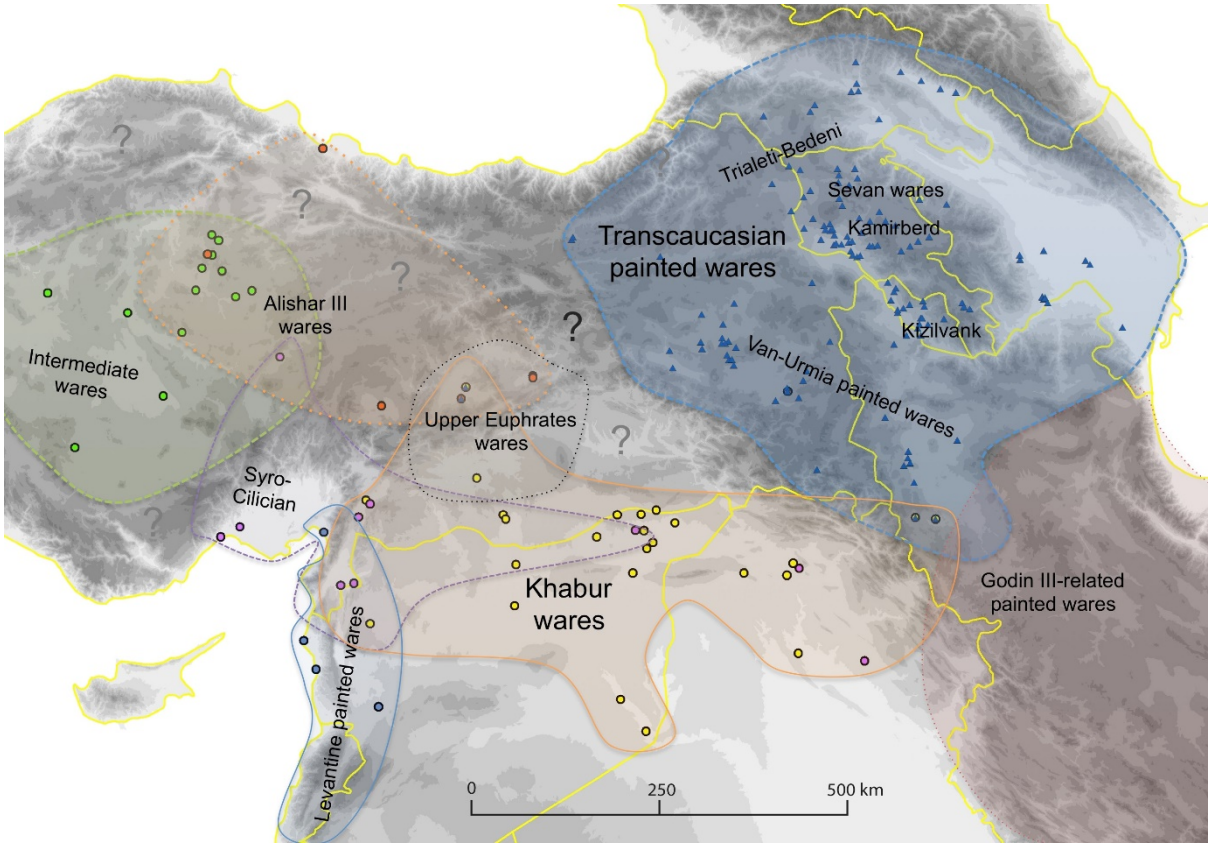


Figure 3.11. Distribution of emerging various painted pottery traditions in late 3rd millennium BC (highlighted in blue) (Wilkinson 2014b:273, fig 6.36)

3.7. Conclusion

To sum up, as the data demonstrate, the documentation on the chronology of the Kura-Araxes Culture is still incomplete and rather imprecise. However, despite the difficulties posed by this lack of data, we believe it is still possible to debate the general characteristics of the culture that existed throughout the KAC stages. Future studies must go beyond the revision of the general chronology of the KA culture; rather, it should provide a 'formation', 'development' and 'end' stage of this phenomenon in a regional context. The suggested periodisation for this study can be improved, with further research in the future, and the evolution of new chronological frameworks based on the overriding new data.

As we can see, chronological frameworks based on ceramic assemblages are still insufficient for building up a reliable periodisation and understanding of the cultural change. For the first time, this study will attempt to detect development stages of the culture differently, focusing on homogeneity and heterogeneity features through different 'heuristic devices'. In other

words, by using the proposed chronological framework as a 'tool', it will examine the life of the Kura-Araxes communities in relation to settlement patterns (Chapter 4), settlement structure (Chapter 5), building traditions (Chapter 6) and funerary practices (Chapter 7) in Azerbaijan. We will explore how these elements of the culture are supported in the data analysis and how different the results in Azerbaijan will be compared to neighbouring regions. This study will attempt a comprehensive approach, analysing all aspects of homogeneity and heterogeneity within KAC communities in Azerbaijan. By analysing the unity and diversity within the culture, it will be questioned whether widely shared ceramic tradition is the main 'standard' to identify the chronology of the KAC, or whether other elements of the culture can help us to demonstrate this picture.

CHAPTER FOUR: EARLY BRONZE AGE (KURA-ARAXES CULTURE) SETTLEMENT PATTERNS IN AZERBAIJAN

4.1. Introduction

Each KAC region is characterised by different environments that impacted on their settlement occupation, pattern, architecture, and subsistence economy. Unfortunately, our knowledge of the KAC settlements is still complex, evading a straightforward definition. Especially, as a result of relatively few systematic investigations and their uneven distribution, a half-completed picture gives a limited understanding of the settlement patterns in Azerbaijan. Therefore, the aim here is to consider influential factors, such as settlement, landscape and the environment that all play a fundamental role in enhancing our understanding of the life of the Kura-Araxes communities, which varied across a diverse geographical range lasting over the thousand years**.**

In the last decades, there has been a growing interest in neighbouring regions in various methodologies and approaches to understanding the distribution of settlements. However, such analyses are lacking in Azerbaijan. Furthermore, these studies tend to imply a scattered regional approach instead of a site-based approach. Acknowledging this, the aim of the chapter is twofold. First, to investigate regional settlement patterns and to introduce an understanding of the general distribution of KAC settlements across Azerbaijan. This will provide a broad understanding of the landscape setting, distributions of settlement sites and the density of site concentration at a regional level. Secondly, the aim is to present an analysis of issues, such as distributions of settlement sites, altitude and continuity of settlement occupation in a spatio-temporal context for all KAC sites in Azerbaijan. This chapter will enhance our understanding at a larger scale of inter-regional comparisons and broader patterns both spatially and chronologically.

The chapter begins with the method of analysis, and the problems and limitations of the study. The method section interrogates several aspects of the EBA settlement patterns, drawing upon the wide-ranging dataset to give an overview of settlement patterns during all KAC phases in Azerbaijan. Next, there will be a brief overview of the environmental setting and the agriculture

and food economy of the Caucasus during EBA to guide us in understanding the organisation of its settlements. Later, this study will outline the settlement distribution of KAC sites at a regional level. This is followed by a spatio-chronological analysis of KAC settlements, taking account of some comparative settlement evidence from the neighbouring regions. Finally, the chapter will end with a discussion of the previous interpretations in light of new evidence, and with concluding remarks.

4.2. Method of data presentation and limitations

In the last two decades, following the disintegration of the Soviet Union, there has been an increase in adopting various methodologies and approaches in the Caucasus to understand landscape archaeology. These include intensive and extensive surveys, satellite remote sensing, and GIS-based analysis (Ristvet 2011, Hopper et al. 2018). However, the region still follows Soviet-era archaeology, with less methodological, theoretical and analytical approaches, which is apparent in the research aims, the methods and approaches used in each Caucasus state (Hopper et al. 2018). There is an urge to explore, particularly, the relationship between Soviet-period landscape transformations and post-Soviet archaeological landscapes (Lindsay et al. 2018).

Research in Azerbaijan follows more static approaches, wherein there are no local-scale landscape studies of the KAC settlement organisation. The emerging research demonstrates a lack of Soviet historical texts and legacy data, such as earlier surveys and maps, making it challenging to gather fresh insights for re-analysis. However, there have been some projects that benefit from large-scale funding, such as ‘Registering and mapping of archaeological sites located in the western part of Azerbaijan (Almammadov et al. 2017) and ‘Geographical Database of Archaeological Monuments of Garabakh) (Almammadov 2016). Furthermore, rescue archaeology in the Caucasus has led to the emergence of a broader ‘landscape’ framework, escalating the tension between site-based and landscape-based approaches (Hopper et al. 2018:4). It has influenced archaeological practice and methods in the region, bringing a new set of methodological and ethical challenges (Hopper et al. 2018:4). One of the largest archaeological projects carried out during 2001-2005 is Baku-Tbilisi-Jeyhan Oil and the Baku-Tbilisi-Erzurum Gas pipelines, which, for the first time, the project applied GPS measuring

equipment and the use of satellite imagery and mapping that could record geographical information previously been unavailable in Azerbaijan (Maynard 2011).

The specific research aims of this study are: to achieve a greater understanding of settlement patterns in a broad-scale distribution, to examine the distribution of KAC settlements in a wider regional context, and to identify settlement change at a wider scale both spatially and chronologically. To achieve these aims, the study has employed a three-step methodology: digital mapping, elevation and spatio-temporal (chronological) analysis. Data was obtained for this study from existing sources and new data on the location of KAC settlements were obtained through different programmes that will be discussed below. Digital mapping and database visualisation were performed using R programme, ArcGIS, and Google Earth. The database was imported and georeferenced using the x & y (longitude and latitude) coordinates of each site to the World Geodetic System 1984 (WGS 1984). Most mapping products were displayed within the GIS using World Geodetic System (WGS 84) / UTM zone 38N and 39N coordinate systems. This program helped to understand the spatial distribution, as well as clustering and chronological stages of all KAC sites.

Through the analysis of published sources and primary materials, it was identified that there are 124 known Kura-Araxes period sites, including funerary sites dated back to EBA in Azerbaijan. The data is very disparate from one site to another; some settlements are simply mentioned, while others are discussed in the literature. Unfortunately, most KAC sites in Azerbaijan do not have exact GPS coordinates; only 43 such sites were available from the literature. For sites where GPS coordinates were unavailable, coordinates of the nearest villages to the sites were used. Thus, the assigned coordinates for each site ought to be regarded as an estimate, encompassing a wide range of accuracy, spanning from a few meters in certain instances to several kilometres (detail approach on site selection see Introduction of Appendix I).

Furthermore, through Google Earth Historical Imagery, it was possible to trace modern changes in sites. For example, the irrigation and construction activities during the Soviet era led to the substantial degradation of most sites located in lower-lying areas, consequently prompting surveys to concentrate on the highland regions (Ristvet et al. 2011:6). Especially, significant transformations of anthropogenic changes and agricultural intensification, heavy infrastructures

have caused rapid change of the landscape (Hopper et al. 2018) (fig 4.1 and 4.2). Lindsay et al. (2018:2) argue that 'In many parts of the South Caucasus, for example, heavily contoured landscapes altered by Soviet and post-Soviet land-use practices that have obscured or altogether removed surface artefacts require more complex methods of investigation than basic satellite-imagery analysis, surface collection and ground-truthing'



Figure 4.1. Padar Google Earth Historical Imagery (2003 and 2022)



Figure 4.2. Misharchay Google Earth Historical Imagery (2000 and 2020)

Chronological analysis of the settlement organisation will allow us to evaluate the chronology and dynamics of occupation through different landscapes. By analysing the elevation of settlements, we aim to show the variety of habitation areas ranging throughout the KAC stages. As a general scheme adopted here, the KAC is divided into three stages: KAC I, KAC II and KAC III, while also some observation will be made on Pre-KAC stage. For a detailed explanation of each phase, see Chapter 3, section 3.6.4. In its broadest sense, elevation is

considered a crucial factor closely associated with climate, soil, human activity and vegetation. I understand that site elevations are not very meaningful, with relatively small site samples that cannot be representative of local settlement patterns. For the time being, elevation only presents a part of the picture that had influenced the choice of habitation sites of the Kura-Araxes communities. However, there is a dearth of evidence for vegetation, geology, and topography in the region that remains almost limited and should not be overlooked collectively.

4.3. The environmental setting during the EBA in the Caucasus

The environmental and climatic changes in KAC areas varied across the diverse geographical range (Shanshashvili and Narimanishvili 2014, Chataigner 2016). The Southern Caucasus is where the Euro-Siberian region flora meets the Irano-Turanian steppe flora (Connor and Kvavadze 2014, Decaix et al. 2016). At the meeting point of different climatic and biogeographic systems of the Euro-Siberian and Irano-Turanian floras, this region hosts extraordinary levels of plant and animal biodiversity (Myers et al. 2000: as cited in Connor and Kvavadze 2014:14). The timing and extent of sequences of the environmental changes that happened in the KAC regions are still debated (Connor and Kvavadze 2014). Contradictory hypotheses have been raised about the climate of the KAC regions. On one hand, some scholars (Narimanov 1987, Kushnareva 1997, Chataigner 2016, Chataigner et al. 2014, and Connor and Kvavadze 2014, Haroutunian 2016) hold the view that climate was moderately dry and cold during the Holocene period in the South Caucasus. On the other hand, some new data reveals that there was more humidity in ancient times than today, as settlements were generally situated beside the rivers, which are now dry (Lyonnet et al. 2016).

Kura-Araxes Culture was followed by a period of unanticipated outcomes of the environmental changes that occurred between 6400 and 6250 BC, with the transformation of the Black Sea from a freshwater lake to a semi-marine basin, as the Mediterranean began to spill over into the Bosporus (Connor and Kvavadze 2014). While the timing and the lasting effects of these longer-term changes are still debated and imprecise, there is now ample evidence that as a result, the climate became wet, causing the gradual replacement of arid steppes by woodlands and forests. Areas close to the main source of the Black Sea saw the earliest forest expansion (Connor and Kvavadze 2014). Another claim, however, was supported by Chataigner (et al.2014), who argue that during the transition from the Chalcolithic to the Early Bronze Age,

there was a tendency for deciduous forest to disappear and be replaced by a landscape of open vegetation, which indicates inclination toward a dry climate. For example, experiments on Vanevan peat from the south-eastern shore of Lake Sevan, Armenia demonstrated that forested landscape was followed by open vegetation landscape which indicated the tendency towards dry climate from the 4th millennium (Chataigner et al. 2014). There is also a similar decline of the forest attested in Azerbaijan. The analysis of charred macro-botanical remains and phytoliths from the Mentesh Tepe site, reveals a decrease in deciduous forest during the EBA, which resulted in an increase of a drier climate (Chataigner et al. 2014). Collectively, the data supports the idea that the Chalcolithic-EBA transition resulted in an increase in a progressively drier climate, favouring a kind of climatic optimum between 4000-2000 BC (Palumbi 2008).

4.4. On the agriculture and food economy of the Kura-Araxes Culture

The issues of nomadism and sedentism in KAC have received much attention from scholars (Lyonnet 2014, Palumbi 2016, Sagona 2018). Throughout outdated as well as up-to-date literature, KAC is portrayed as nomadic pastoralists or pastoralists practising varying degrees of mobility (Sagona 1984, Kushnareva 1997, Rothman 2003). However, this mobile model, mixed with pastoralism and mobility within the literature, is confusing. Another pattern widely agreed in the scholarly literature suggests that the Kura-Araxes communities practised an agro-pastoral economic system in the Caucasus (Hovsepyan 2015). Sagona (2018:218) emphasises that the KAC people's choice of land was a high percentage (76%) for arable land suited to farming, whereas pastureland was only 15 % and finally, even less than 1.3 % of the population occupied areas with rough grazing.

Decaix et al. (2019) claim that the Kura-Araxes agropastoral system is less homogeneous than previously thought. Hovsepyan (2015:80) believes that 'changes in agriculture, particularly cultivation choices for certain plants by people of Kura-Araxes culture, were related to climatic changes, but economic efficiency and cultural choice of certain agricultural products and traditions have a decisive role in the formation of Early Bronze Age agriculture of the South Caucasus'. Isikli (2015a:55) argues that based on analysed results of archaeo-botanic and archaeo-zoologic evidence from Sos Hoyuk, Kura-Araxes communities seem to have been

focused on animal husbandry and limited farming. This is because to be resistant to severe unpredictable bio-climatic conditions, which can be described as practising ‘extensive husbandry supported with limited agricultural activities’ (Hovsepyan 2015:79). This model demonstrates striking similarities with the models of ‘agro-pastoralist’ and ‘transhumant’ in modern anthropology. Numerous paleoenvironmental samples taken from different sites indicate that highland regions witnessed a stable ‘climatic optimum’ (or Holocene Optimum) between 4000-2000 BC, providing an effective base for subsistence economies (Connor and Sagona 2007:35, Akhundov and Almammadov 2009, Omrani et al. 2011).

A recent macro-botanical sampling from Chobareti in Southern Georgia and Sos Hoyuk in Eastern Anatolia reveals that hexaploid free-threshing wheat (naked wheat) and two-rowed and six-rowed hulled barley were the most cultivated crops by Kura-Araxes farmers (Sagona 2018:279). However, communities specialised more in naked wheat farming compared to hulled barley (Longford 2015). Therefore, Sagona (2018:279) emphasised that naked wheat can be defined as a 'signature cereal' of the Kura-Araxes agriculture. However, the recent data on the isotopic difference measured between the individuals and plant remains show that the dietary practices of the KAC populations show extensive consumption of cereals, mainly barley (Herrscher et al. 2021:168). Scholars (Hovsepyan 2015:77, Sagona 2018:278-279, Herrscher et al. 2021:153) also agreed that the changing ratio between barley and wheat could have been a result of minimising risk of crop failure and the geographical position of the sites. Further, Hovsepyan (2015:77) argues that ‘the higher the elevation of the site, the more the ratio of hulled barley is over wheat and vice versa’.

Lastly, ‘unspecialised’ strategies are accepted as relevant to animal husbandry in the Kura-Araxes region (Frangipane 2007, Palumbi 2012, Smith 2015). However, the composition of the herd is not homogenous in all KAC settlements (Decaix et al. 2019:96). In general, caprines were the most commonly reared species to cattle ratio, while sheep usually dominating in percentage over the goat, whereas pigs were rare (Decaix et al. 2019). It is a general consensus among scholars that societies at a more northern elevation showed a higher percentage of animal husbandry focusing on cattle, rather than on sheep or goats, which was the main subsistence strategy in lowland environmental zones (Rothman 2015a, Sagona 2018, Maziar and Zalaghi 2021). It is believed that especially in the initial stages of KAC, people tend to lead a sedentary life in which the faunal remains prove pastoralism was focused on large-horned

cattle, whereas in the last phases of occupation, the abundance of animal bones was linked to small caprines (Quluzade 2006, Sagona 2018). Despite this, we are still far from understanding the Kura-Araxes agropastoral systems. The definition of each term suggested by scholars is broad and frequently equivocal in both a geographic and temporal sense, without offering a clear explanation. There are not enough studied faunal and botanical assemblages yet from the different environmental zones of the South Caucasus and beyond.

4.5. The physical geography of Azerbaijan

Geographically, Azerbaijan is characterized by a wide range of landscapes. One of the main features of the relief system of Azerbaijan is that diverse landscapes replace each other, and mountain systems are systematically connected to lowland and plain areas. The country mainly consists of mountains, which form a rim along the northern, western, and southern borders, whereas the central and eastern part of the republic is covered by the fertile Kura-Araxes lowland. The country is bounded by three separate mountain ranges: Greater Caucasus, Lesser Caucasus and Talysh mountains (fig 4.3).

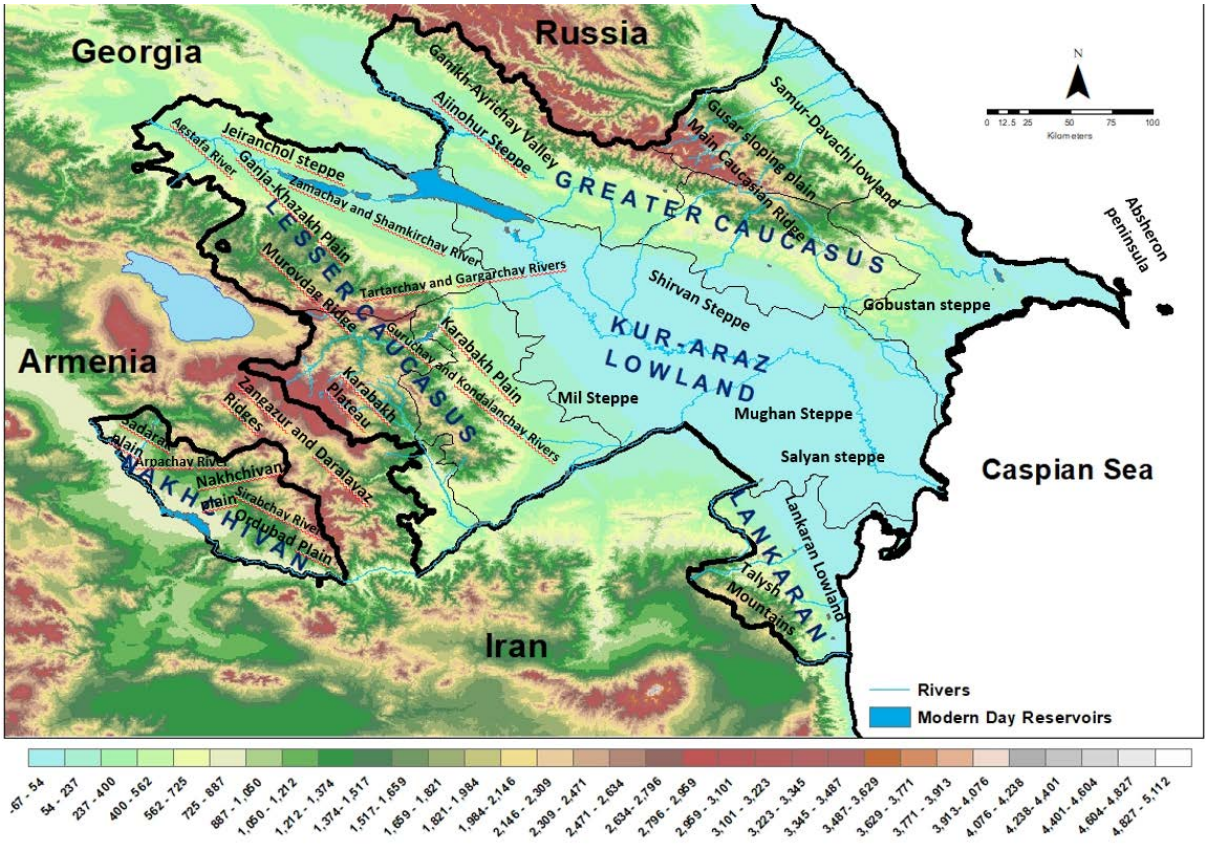


Figure 4.3. The physical map of Azerbaijan (created by the author, Ismayilova)

The main orographic (geomorphological) units in the country (regions) are: Greater Caucasus, the Samur-Davachi lowland, the Kur intermountain depression, Lesser Caucasus, the near and middle Araz Ridges of Zangazur and Daralayaz ridges in Nakhchivan and Talysh mountains (Museyibov 1998:11). The Greater Caucasus covers the main Caucasus range, which stretches over a distance of 1500 km from northwest to southeast. The East Transcaucasus covers most of Azerbaijan and the central eastern part of Georgia. The central part of the East Transcaucasus consists of the Kura-Araxes lowland, which comprises the Shirvan, Mil and Mughan steppes. The Lesser Caucasus is not as high as the Greater Caucasus, which stretches 530 km from northwest to southeast direction. The Javakheti-Armenian highlands are located in the southwest of the Lesser Caucasus and are subdivided into the middle Araxes basin, the Ararat plain and the Nakhchivan lowlands. The Hirkan comprises the Talysh mountains and the Lankaran lowlands (Coene 2010) (fig 4.4).

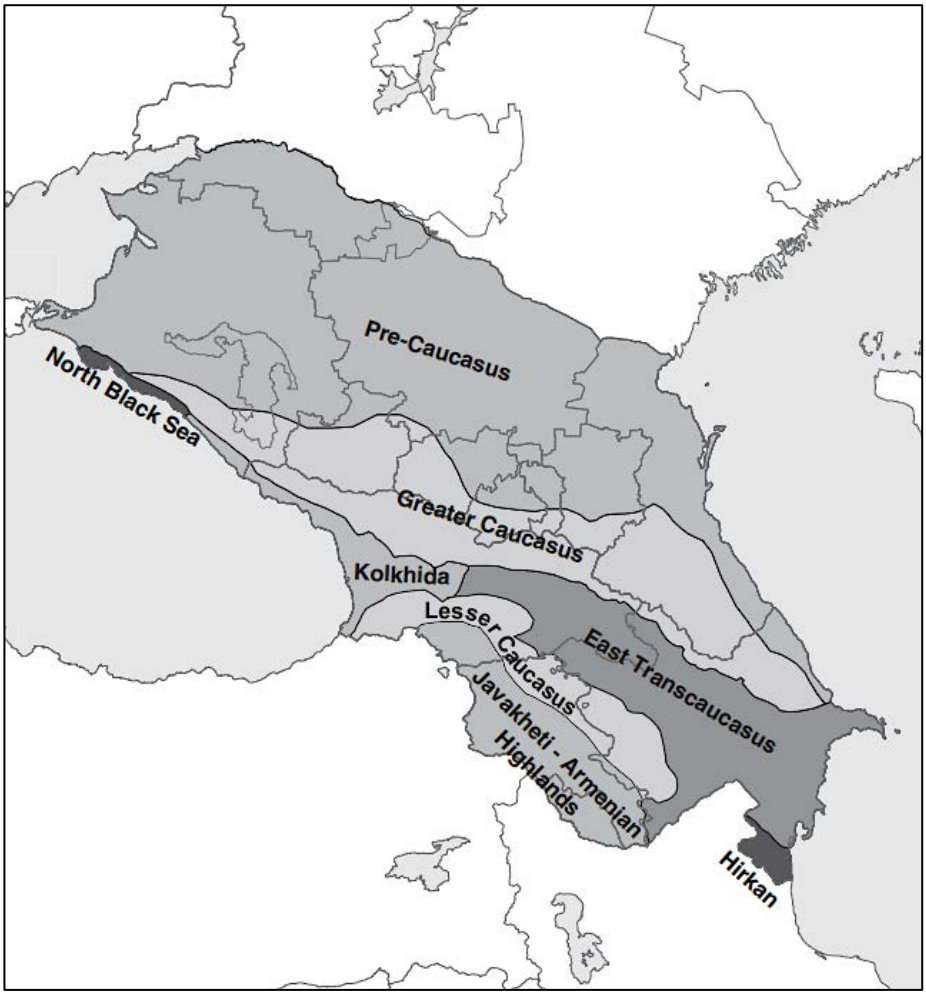


Figure 4.4. The Caucasus main physical-geographical regions (Coene 2010: fig 1.2)

The KAC river system acted as a communication route in the development of interregional cultural exchange between Kura-Araxes communities during EBA. The subsistence strategy of the KAC communities' lifestyle benefits significantly from the presence of the main rivers, the Kura and Araxes, providing a valuable opportunity for growth and development (Burney and Lang 1971, Kuftin 2012, Palumbi 2008, Sagona 2018) (fig 4.5). However, with regards to the networks of contacts and exchange and the general history of occupation along these rivers, little is known (Maziar and Zalaghi 2021). The Kura and Araxes rivers form a confluence in the Kur-Araz Lowland, which maintains the irrigation system of the country. Kura is the longest river in the South Caucasus, and its source starts from the present-day Turkish-Georgian frontier, running through different regions to reach Azerbaijan. In contrast, the Araxes River is the main river in the Lesser Caucasus and its source is close to the Erzurum region (Palumbi 2008). This fertile river basin makes it a desirable location for habitation, as well as the movement and interplay of Kura-Araxes groups. In that light, understanding the settlement pattern and cultural dynamics of the wide area thoroughly requires more systematic fieldwork. (Maziar and Zalaghi 2021).

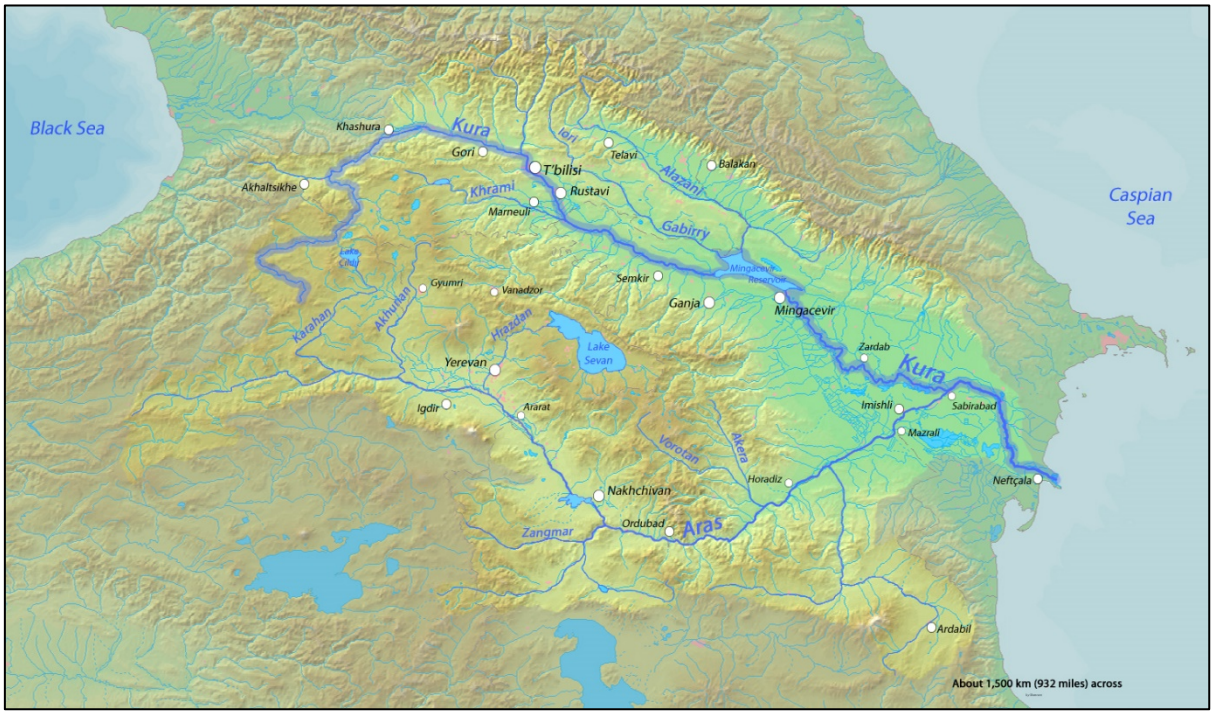
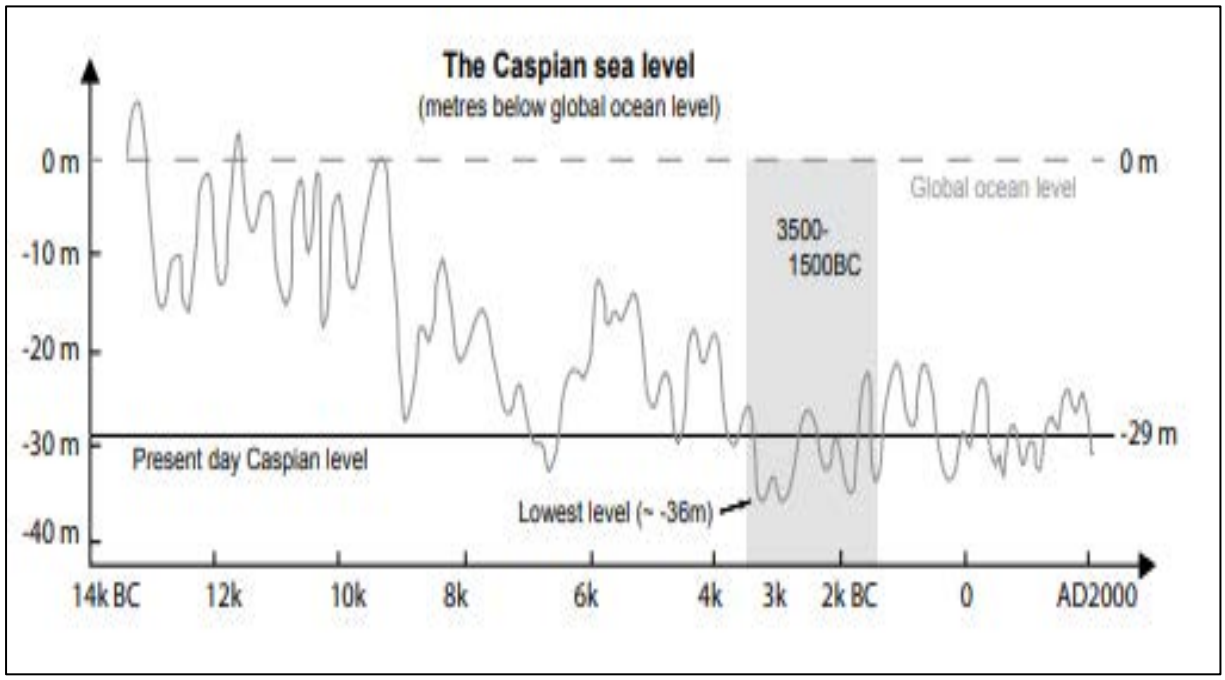


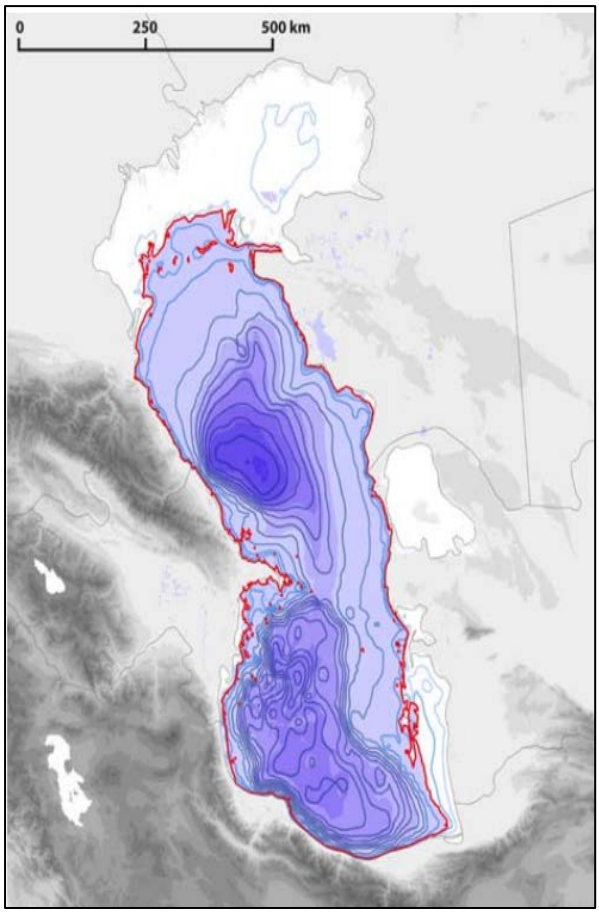
Figure 4.5. Kura-Aras River Basin (Shannon, 2010, public domain)

Caspian Sea

Changes in the Caspian Sea level sheds light on settlement patterns over time affecting terraces of rivers that feed them (Sagona 2018:28). The Caspian Sea water levels may be influenced by several factors, both climate and changes in flow of other river tributaries. For example, the Caspian Sea level depends on the flow of its eastern European tributaries, such as the Volga, Ural, Caucasian rivers (Sulak, Samur, Kura rivers), and Iranian rivers (Vali-Khodjeini 1994: as cited in Ollivier 2011). The data show that the level of the sea has changed dramatically over time (Kohl and Magomedov 2014). 'Over the last century, the level has fluctuated between 25 to 29 metres below sea-level due to differential inflow from contributary rivers (both natural and man-made) and extraction through evaporation' (Wilkinson 2014b:33). Between the interlude 10,000 to 2900 years ago, the river showed significant oscillations, with a maximum of around -11m 10,000 years ago and the period between 3300-2900 BC marked the period when the Caspian Sea was its lowest level around -35 m bsl (Wilkinson 2014b:33) (Fig 4.6). Nevertheless, sea level changes around the Caspian Sea make it difficult to understand the incorporation between sea and land movement over the longer-term.



(a)



(b)

Figure 4.6. a) graph showing estimated sea-level changes through time b) the red line shows reconstructed coastline of the Caspian at its lowest level (-34 m) below global sea level in 3300-2900 BC based on this modern bathymetric data (based on Kosarev and Yablonskaya 1987, as cited in Wilkinson 2014b:1.6)

4.6. Settlement distribution of KAC sites in Azerbaijan (Macro-level Approach)

There are some areas that Kura-Araxes settlement densities have been highest during EBA. Kushnareva (1997:74) claims that the 'regional centres' or group of settlements comprise a dominant dense network underpinned by natural resources, building materials, access to communal arable lands and pastures. This concentration can be observed in the Ararat Valley, where the Elar settlement was surrounded by a hundred contemporaneous settlements located one or two kilometres from each other and with a common cemetery (Kushnareva 1997). In Georgia, many KAC sites were widespread in the Shida-Kartli region around the Kura River Valley and its tributaries, such as Khizanaant Gora and Kvatskhelebi. Moreover, in North-

Western Iran, a large number of settlements were clustered around Lake Urmia, such as GeoyTepe K, Godin Tepe IV and Haftavan VIII (Piro 2009) (fig 4.7). Whereas settlements located in the Eastern Anatolia expanded in three clusters of regions, namely Erzurum-Kars (Erzurum-Kars Plateau), Van-Mush (Van Lake basin) and Elazig-Malatya (Upper Euphrates Valley) (Isikli 2015b) (fig 4.8).

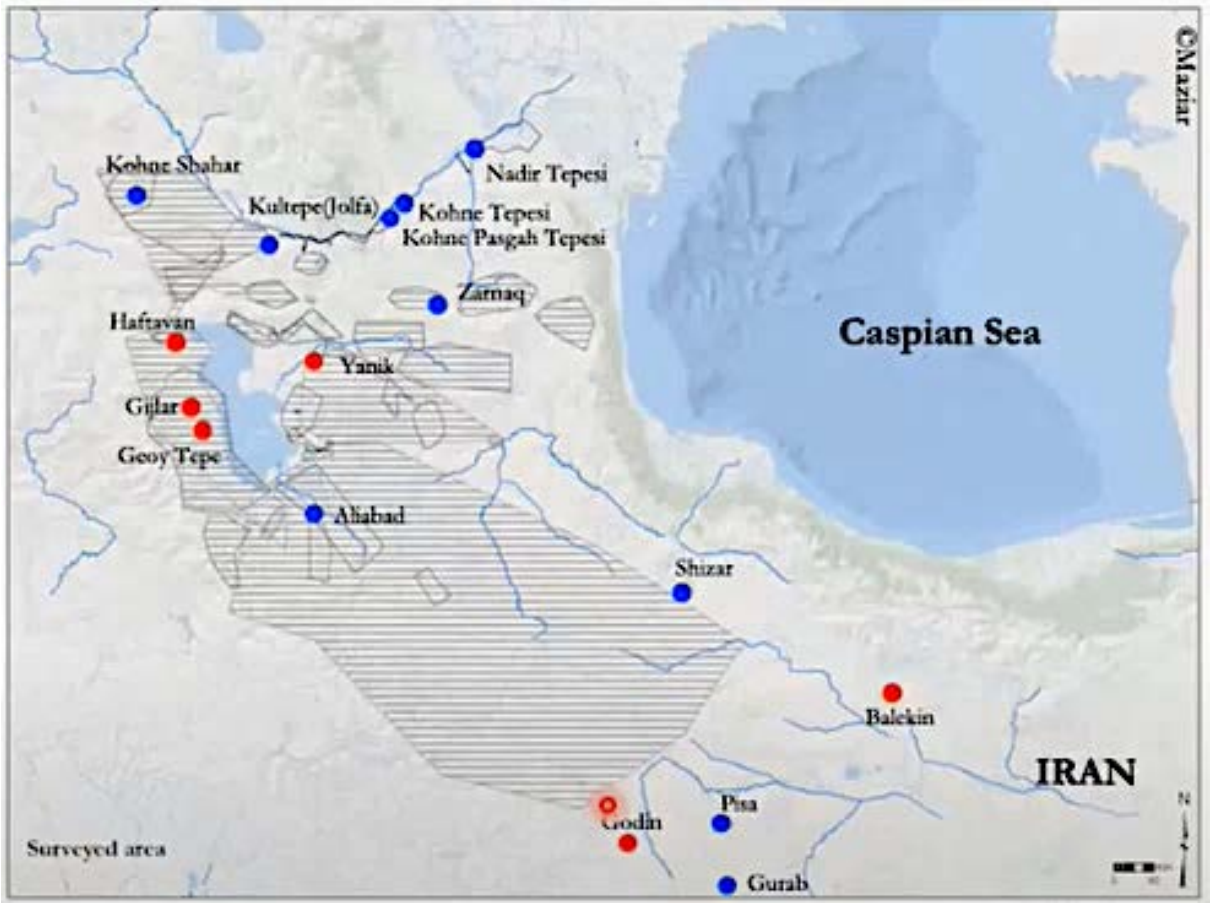


Figure 4.7. Clustered KAC sites around Urmia Lake in North-Western Iran (The red points correspond to excavations before 1979, and blue points demonstrates excavations that carried out since 2000) (Maziar 2022)

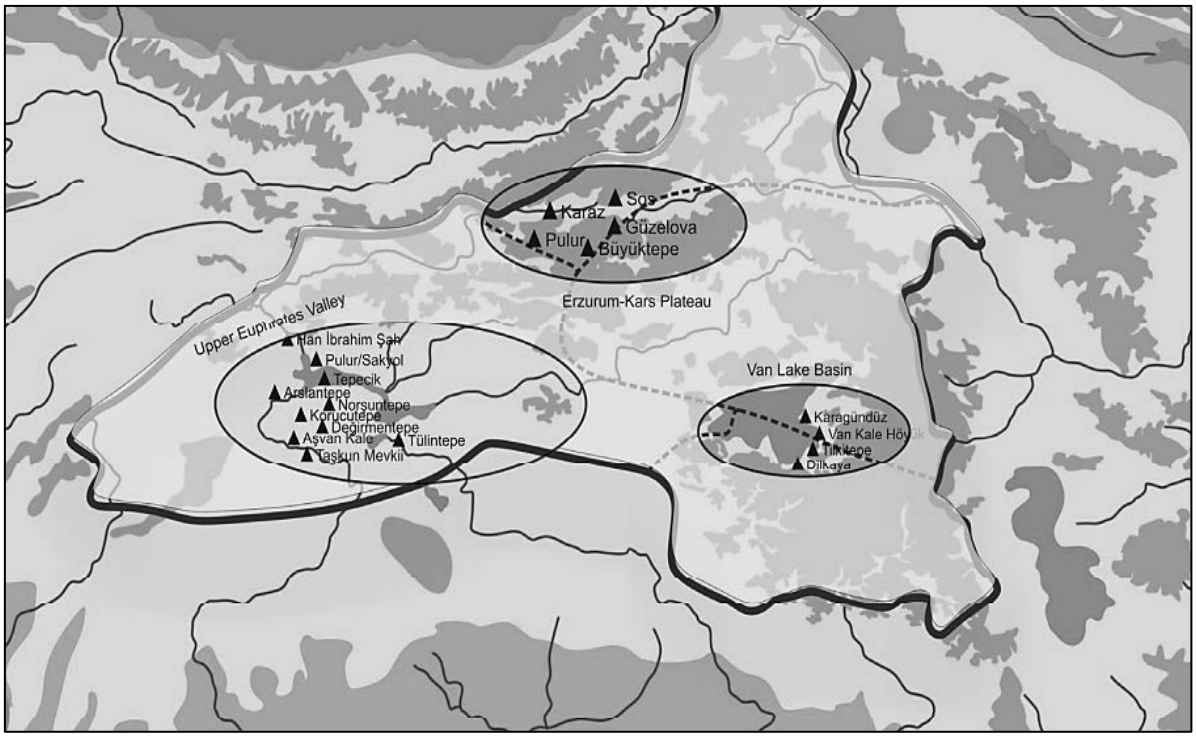


Figure 4.8. Sub-regions of Kura-Araxes Culture in Eastern Anatolia (Isikli 2015b: 246, fig 2)

While in Azerbaijan, the analysis of 124 KAC sites shows the widespread distribution of KAC settlements which are scattered and irregular, without having any spatial link between them (fig 4.9). Furthermore, the majority of settlements are concentrated in the western part of the country, and the density of settlements is mainly clustered along rivers, streams and valleys. The necessity of spatial concentration of sites was mainly due to the availability of water throughout the whole year. The main sites were situated along the catchment area, which was the course of the Kura and Araxes Rivers, and this had large dimensions and was continuously occupied during a long period (fig 4.10). For example, one of the major concentration of settlements was indicated along the rivers of Gargarchay and Tartarchay in Mil Steppe. Settlement nodes, such as Qarakopaktepe, Kultepe and Guneshtepe were established near Guruchay and Kondalanchay Rivers in the Karabakh plain, which is considered a fertile land for agricultural purposes (Ismailzade 2008). Interestingly, there are also some areas where KAC people avoided settling. For example, there is a noticeable disparity in the distribution of KAC settlements in the Kur-Araz lowland (fig 4.10).

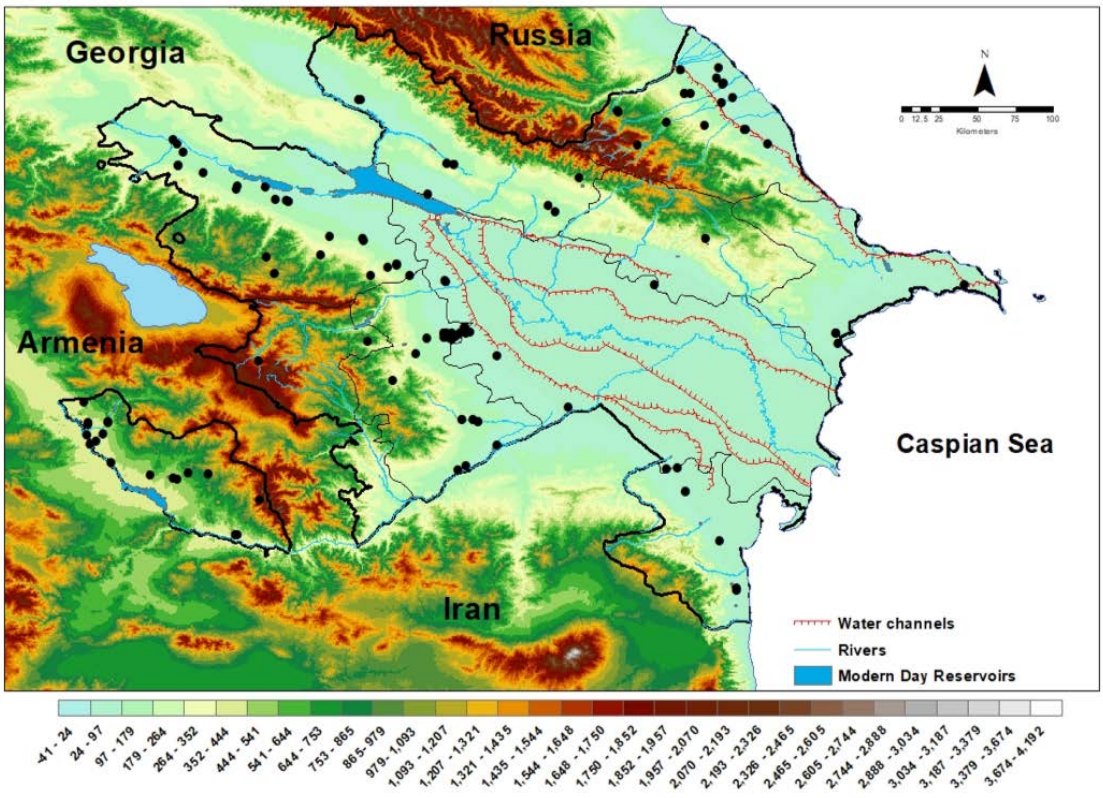


Figure 4.9. The overall distribution of KAC settlement in Azerbaijan during KAC phases (created by the author, Ismayilova)

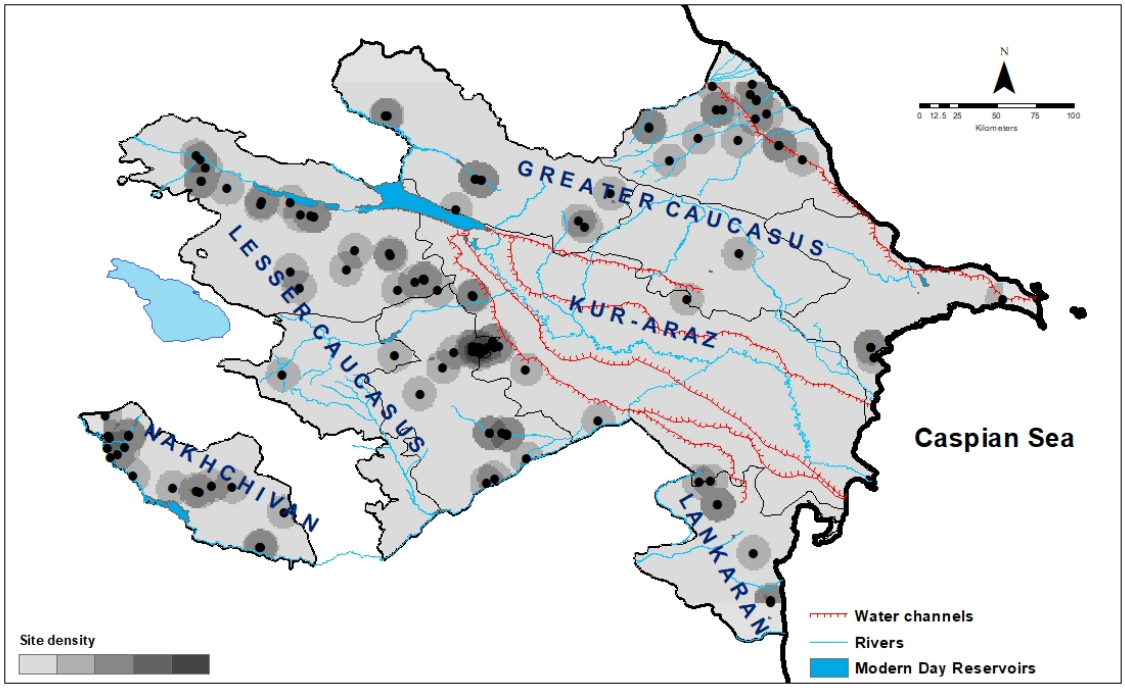


Figure 4.10. KAC settlement density over the wide region of Azerbaijan during the EBA (created by the author, Ismayilova)

Settlement patterns are also varied across regions. During EBA, foothills and valley floors provided a land suitable for agriculture, whereas higher elevations were needed for more water supplies, pasturelands, as well as for the exploitation of raw materials (obsidian and metal ores) (Maziar 2015:28, Palumbi 2016). For example, settlements were distributed in the highland areas, particularly in the north-east part of Azerbaijan, along the Samur-Davachi lowland, sites in the Gusar sloping plain and several new settlements were established in hard-to-reach, naturally protected places, such as tops of cliffs. Shaki-Zaqatala and especially, Ganja-Khazakh are the regions that were famous for concentration of funerary practices during KAC. Whereas in Nakhchivan region, the Sharur plain was intensively useful for agricultural and pastoral purposes due to hospitable location on the bank of the Arpachay River. The Nakchivan and Lesser Caucasus regions are also renowned for their mineral resources, such as gold, silver, and copper. The presence of salt deposits in Nakchivan, is particularly noteworthy, and attracted the people of Kultepe site (Bakhshaliyev et al. 2012) (fig 4.11).

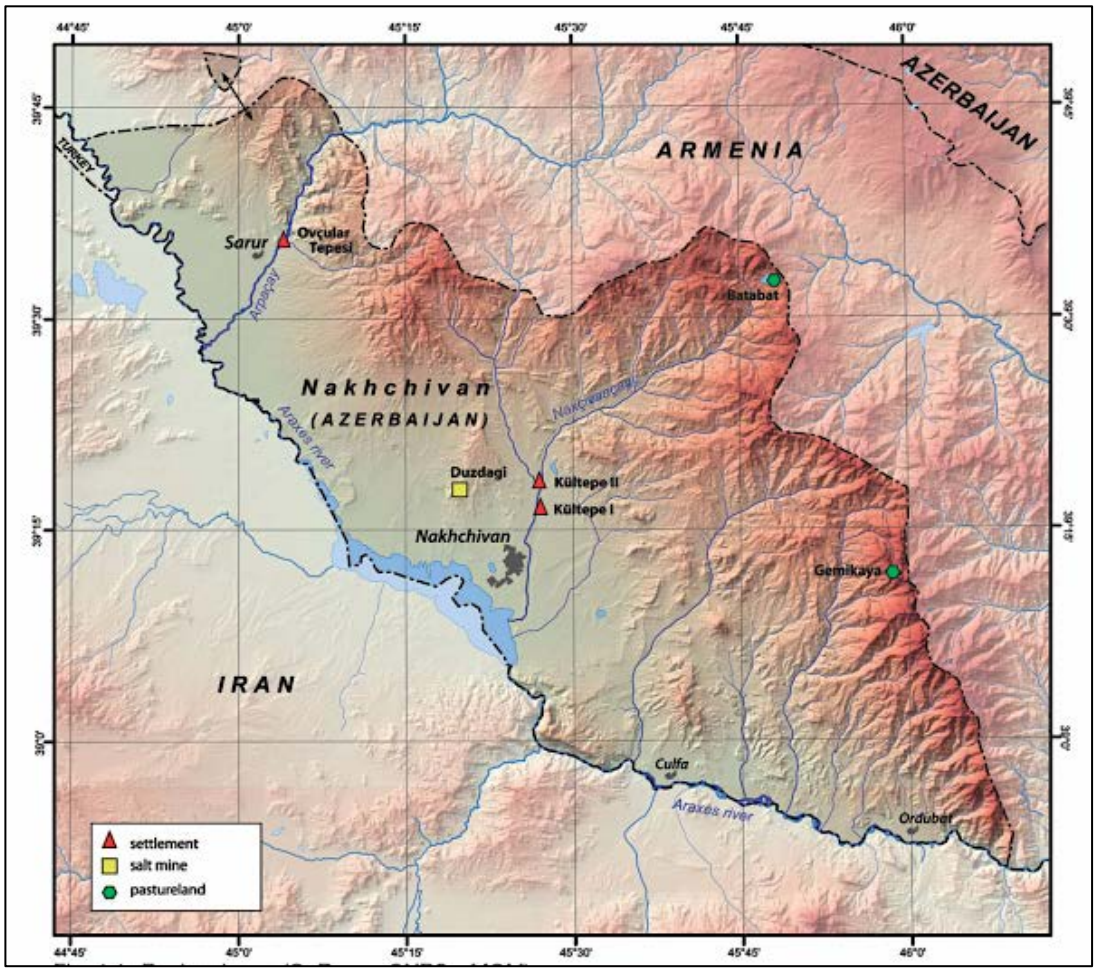


Figure 4.11. Location of settlements close to Duzdagi (Marro et al. 2010: 238)

Furthermore, sites concentrated in the eastern part of the country can be characterised as temporary dwellings with seasonal occupations or caves (shelters) during the last stages of the KAC. For example, Gobustan archaeological complex is famous for its cave (shelter) settlements, such as Daire, Anazaga and Chardagzaga.

Geographically, the relief of the country of Azerbaijan is diverse and complex, with 18 % of the region below sea level, 42 % ranging from an absolute height of 0 to 200 m, 31 % between 200-1000 m high, and in some places 1000-2000 m contains 19.5 % of the relief system, while, 6.5 % rests in 2000-3000 m, and finally, above 3000 m contains 1% of the total territory of the republic (Museyibov 1998). The average altitude of the modern-day country is 384 m. The analysis of the elevation of 124 KAC settlements which are mapped, georeferenced and incorporated into the study, gives us an image of a different range of altitudes where the habitation areas were created, from -7m to 2903 m in Azerbaijan during all periods of KAC (fig 4.12). Elevations in the region range from under 10 m along the Caspian coastline (Chardagzaga site -7 bsl) to over 2900 m along Gilanchay River valley, Ordubad mountain, Gemigaya site, 2903 m asl of altitude all periods of KAC.

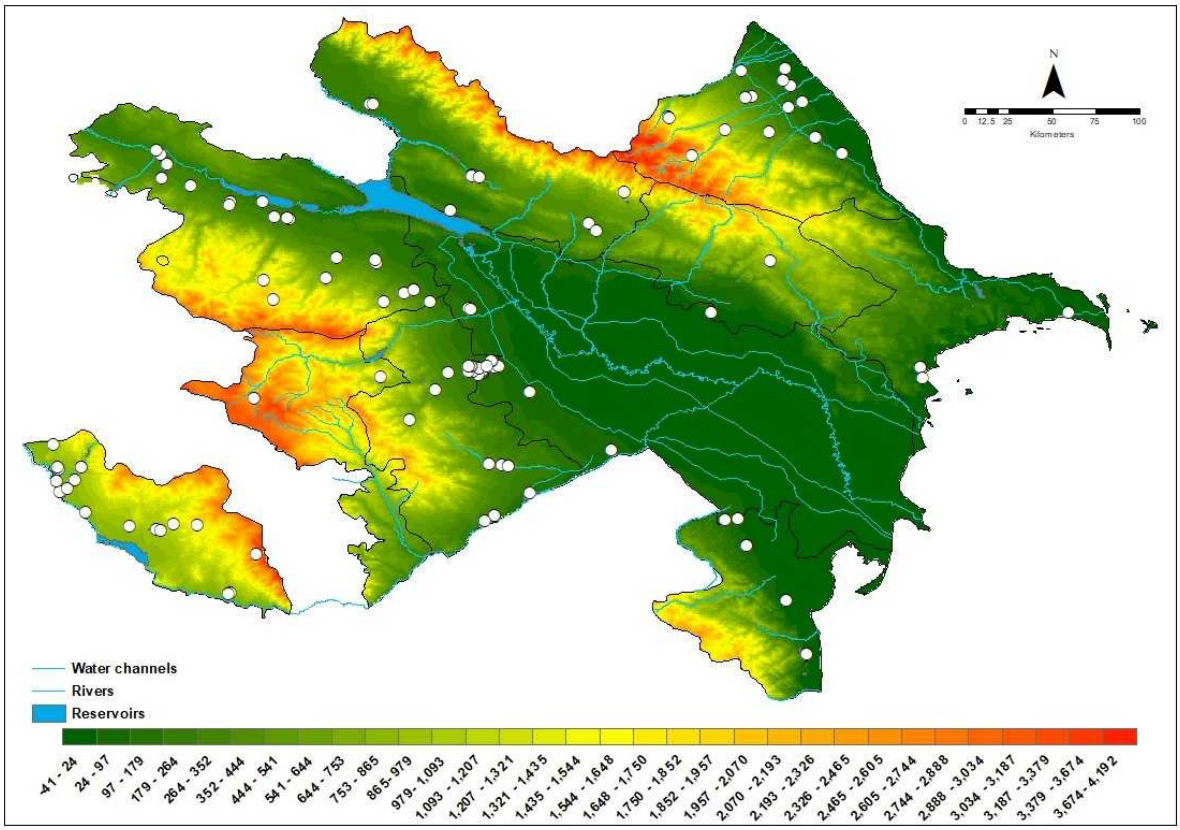


Figure 4.12. Elevation map demonstrating KAC sites, (created by the author, Ismayilova)

4.7. Regional distribution of KAC sites in Azerbaijan (Micro-level Approach)

The distribution of KAC sites can be roughly aligned with five natural-economic zones or physical-geographical regions, namely the Great Caucasus, Lesser Caucasus, Kur-Araz (Aran), Lankaran (Mughan) and Nakhchivan (Middle Araz) (Isayev et al. 2013) (fig 4.13). The modern country of Azerbaijan is divided into these five physical-geographical regions due to the geomorphological structure and landscape elements. The modern administrative division roughly replicates the regions' historical borders. In addition, this division can be helpful in drawing the possible overall picture of Azerbaijan during KAC. However, we are aware that analytically modern boundaries are meaningless in relation to ancient social organisation, settlement patterns, and clustering. Nevertheless, the data revelated a concentration of settlement groups across these five regions, affirming the previous literature. Those settlement concentrations are as follows:

1. **Greater Caucasus Region**

1.a Samur-Davachi

1.b Caspian Coastline

1.c Southern slope of Greater Caucasus, and the Ganikh-Haftaran valley

1.d Shirvan Plain

2. **Kur-Araz Region**

2.a Mil-Karabakh steppe, the rivers of Gargarchay

2.b Mil-Karabakh steppe, the rivers of Tartarchay

2.c Karabakh plain, and Karabakh plateau

3. **Lesser Caucasus Region**

3.a Mil-Karabakh steppe, the rivers of Guruchay and Kondalanchay

3.b Ganja-Khazakh plain, the rivers of Akstafa and Gasansu and Shamkirchay

4. **Lankaran Region**

4.a Talysh mountains and Lankaran Lowland

5. **Nakhchivan region**

5.a Sharur plain, the river of Arpachay

5.b Nakhchivanchay River Valley

5.c Sirabchay and Gahabchay River Valley

5.d Gilanchay River Valley

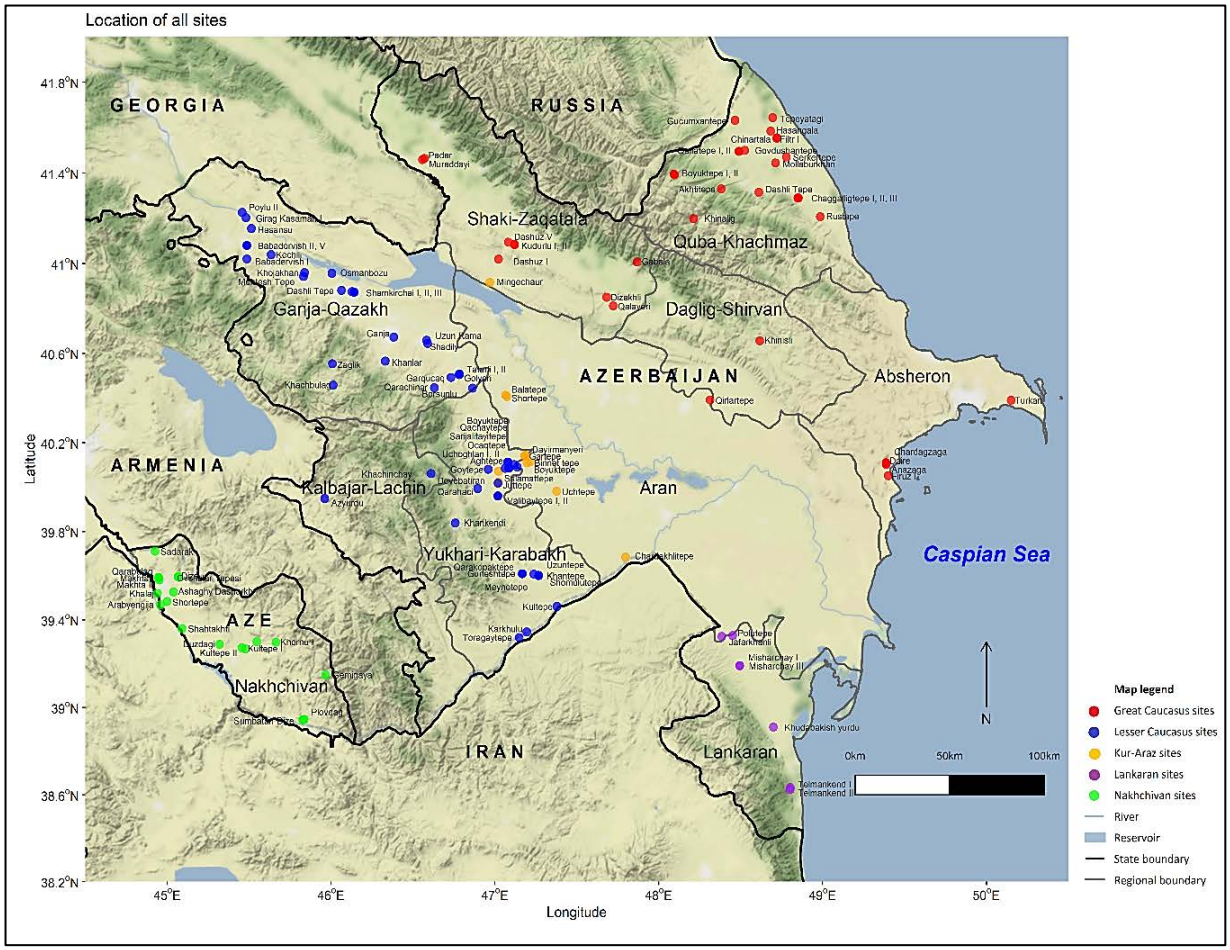


Figure 4.13. KAC sites across modern physical-geographical regions in Azerbaijan (created by the author, Ismayilova)

Before moving into the detailed analysis of settlement distribution, Table 4.1 gives a brief reminder about the history of excavations related to the EBA in each region, and it illustrates how sparse the data is. It demonstrates the excavation history of sites within five groups based on the region they are located at, and somewhat arbitrary categories based on the amount and quality of the data present. This unequal distribution of data should be carefully analysed since it could be a source of potential bias in the interpretation of settlement pattern or material culture dispersal and the ability to get a comprehensive and comparative view of the nature of KA communities.

Table 4.1. Short summary of the regional history of EBA studies in Azerbaijan

Regions	The history of research
Greater Caucasus	**Guba-Khachmaz (Greater Caucasus mountains and Samur-Davachi lowland)** • It is a well-researched area compared to other regions of the Greater Caucasus. • The region started to get a scholarly attention in 1960s. • First planning and mapping of KAC sites started in 1970s supervised by Khalilov. • Serkertepe is considered the main site to understand neighbouring settlements. Large-scale excavations happening in Serkertepe since 1983, while currently some small-scale excavations continuing since 2009 (Gazetteer N 71, p 151). • Small-scale excavations, soundings and surveys carried out in 1970-77. • Most sites' dating mainly coming from the surface material. • A book published in 2009 by Akhundov further enhanced topography, settlement patterns and the density of settlements in the region. • Recent studies on the sites like Chaggalligtepe (Gazetteer N 14, p 40 and Kninalig (Gazetteer N 39, p 84) added a new knowledge to the KAC study. **Absheron (Caspian Coastline):** • Large-scale excavations carried out during 1968-71 in Gobustan site. • Currently only a small-scale excavation happening in the region, in Turkan site, which was discovered in 2009 (Gazetteer N 79, p 168). **Shaki-Zagatala (Southern slope of Greater Caucasus, and the Ganikh-Haftaran valley):** • Compared with other Greater Caucasus regions the Shaki-Zagatala region had received little attention of study. • First excavation related to KAC carried out near the present-day village of Nukha in Shaki in 1915. Only little information coming from Padar (Gazetteer N 55, p 125) and Muraddayi (Gazetteer N 52, p 118) sites excavated Karakhmedov in 1990s.

Kur-Araz	**Mil-Karabakh steppes (Gargarchay and Tartarchay rivers) (Aran region)** • The preliminary survey and excavations have been started in the region since the end of the 20th century. • Comprehensive results came from the sites located along the rivers of Gargarchay and Tartarchay in the Mil-Karabakh steppes of the region. • The region has seen major contributions from people like Narimanov, Iessen and Jafarov since 1960s. • A more comprehensive study of Tartarchay and Gargarchay rivers sites happened between 1980-88 years by Jafarov. • Since 2010, the 'Karabakh Neolithic and Chalcolithic' archaeological expedition conducted several landscape surveys and created a geographical database of 169 archaeological monuments, with their exact GIS locations. **Kur-Araz lowland (Aran Region)** • The region is considered one of the least-understood and under documented area. • One particular site, Mingechaur located on the right bank of the Kura River in the Kur-Araz lowland helps us understand KAC in this region. • Currently small- scale excavations happening along the Tartarchay river, in the Barda district.
Lesser Caucasus	**Karabakh plain and Karabakh plateau (Upper Karabakh and Kalbajar-Lachin region)** • In 1895 Resler, in 1896 Ivanovski and later on Alakbarov did some meagre research near the Guruchay and Kondalanchay rivers. • In 1954-60 years, Iessen had a survey on settlements, which located on the left bank of the Kondalanchay river. • Main excavations happened along the Guruchay and Kondalanchay rivers 1967-80s supervised by Ismailzade. • Large scale excavations carried out in Qarakopaktepe site between 1964-1986 (Gazetteer N 65, p 141). • Most sites' dating mainly coming from the surface material. • The study was halted due to the conflict between Armenia- Azerbaijan that prevented scholars from doing systematic surveys and excavations in the area. **Ganja-Khazakh plain (Ganja -Khazakh region)**

	• The region was carefully investigated, soundings was made on many of sites by Narimanov between 1950-70s. • The region mostly stands out for its KAC burial customs. • Major site, Babadervish was excavated between 1960-67 (Gazetteer N 7, p 27). • Currently, there is less research in settlements, rather some systematic excavations happening for identifying funerary practices, especially kurgan culture in the region. • 'Ancient Kura' project (2010-2012) and 'Kura in Motion' project (2013-2015), led by a joint research group of French, German and Azerbaijani scholars in the middle course of Kura River. • Some salvage archaeology projects happened in the region, such as Baku-Tbilisi-Jeyhan oil and the Baku-Tbilisi-Erzurum gas pipelines between the periods of 2001-2005.
Lankaran	**Talysh mountains, Mughan steppe (Lankaran region)** • A new stage in the study of EBA began when Narimanov and Makhmudov discovered the Misharchay settlement on the left bank side of the Misharchay river in 1964 (Gazetteer N 49, p 111). • Misharchay is the only site which gives a comprehensive information about KAC communities in the region, periodic excavations happened since 1960s. • Periodic publications appeared about Talysh and Mughan zones during 1960-70s by several scholars including Ismailzade, Qaziyev, Quliyev, Kesemanli, and Babayev.
Nakhchivan	**Arpachay valley, Nakhchivanchay River Valley, Sirabchay and Gahabchay River Valley, Gilanchay River Valley (Nakhchivan region)** • The region is considered as one of the best-documented areas. • Preliminary work on KAC in the region was undertaken by Lalayan in 1904. • Systematic excavations have been started in the region from the years of 1950s. • Extensive excavations carried out in 1951-1964 in Kultepe I supervised by Abibullayev, and excavations in 1968-1989 at Kultepe II run by Aliyev. • Many other KAC sites, such as Arabyenjiga, Khalaj, Ovchular Tepesi, and Makhta have been documented by team of Seyidov and Aliyev between the years 1960-80.

	• The American-Azerbaijani group Bakhshaliyev, Ristvet, and Ashurov was intensively did excavations and survey in Kultepe II and sites along the Sharur Plain since 2006. • Numerous excavations carried out in the Ovchular Tepesi site between 2006-2012 by the Azerbaijani-Franco archaeological team, supervised by Marro, Ashurov, and Bakhshaliyev for the scope of investigating crucial issues: the presence of a 'transition' period between the Late Chalcolithic and EBA and explaining 'Proto-Kura-Araxes' in the region. • The systematic investigations at Duzdagi salt mine by the Franco-Azerbaijani team since 2008, which help understand the economic and subsistence strategies of the Late Chalcolithic and EBA communities.

The following sections will explore the settlement concentrations at a regional level. We will have a brief review of physical geography, history of study, landscape setting and distributions of settlement sites, the density of site concentration and settlement elevations designated for each region.

4.7.1. Regional settlement distributions: Greater Caucasus Region

The physical geography of the Greater Caucasus region

The Greater Caucasus mountains cover the north and north-eastern part of the country, and only the south-eastern part of the Greater Caucasus mountain system is included in the territory of Azerbaijan. The main orographic units here are the Main Caucasian Ridge or the Watershed Ridge and the Side Ridge. The main Caucasian Ridge covers a large part of the Greater Caucasus. Moving towards the south, the region is covered by Gobustan, a low mountainous area up to the Absheron peninsula. The Samur-Davachi lowland runs along the Caspian Sea from the north-west to the southeast, from the Samur River continuous to Sumgayitchay River. The Gusar sloping plain also extends along the line of the Samur-Davachi lowland (fig 4.3). Main rivers such as Samur, Gusarchay, Gudyalchay, Garachay and Velvelechay cross the plain. The climate of semi-deserts and dry steppes with mild winters and dry warm summers is prevalent in the Greater Caucasus, mainly in the Kura-Araxes lowland, in Samur-Davachi lowlands, Gobustan and Absheron (Kohl and Magomedov 2014:94). There have been overall 36 KAC sites attested, including funerary sites in the Greater Caucasus region (fig 4.14). Most of the sites are positioned along the narrow Caspian coastal littoral plain.

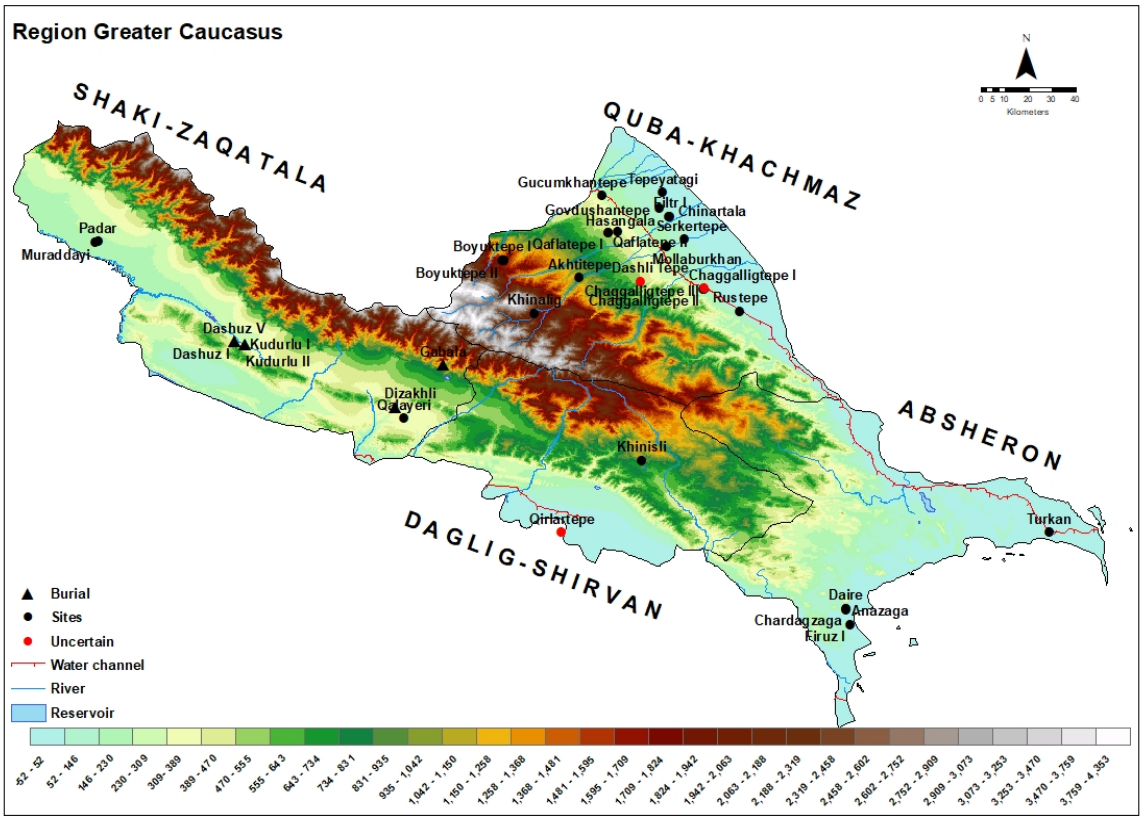


Figure 4.14. KAC settlement distribution in the Greater Caucasus Region (created by the author, Ismayilova)

Three primary categories of establishments have been identified in the region: lowland areas range between 19-182 m, high plain or uplands estimates between 216-471 m, and highland zones ranging from 1575 to 1974 meters in height. Sites were expanded along big areas, such as the slopes of mountain foothills, river basins and especially along the Gusar sloping plain and the Samur-Davachi lowland. This region is characterised by a high degree of internal homogeneity and conservatism ranging from building traditions and metallurgy to ceramics styles (Bakhshaliyev 2006).

For sites located in the Greater Caucasus region, scholars (Musayev 2005, Bakhshaliyev 2006, Musayev 2009, Muradova 2011) raise the question of comparison beyond the boundaries with the KAC of the Northern Caucasus and Dagestan. The region covers the northeastern face of the Greater Caucasus, bordering the Caspian plain to the west and runs up to the Caspian Sea at Derbent, which has produced a series of radiocarbon dates and represents a good report of surveys and excavations. Especially, scholars draw comparison between sites from the

Northern Caucasus and Quba-Khachmaz zone. Some Caucasian scholars (Munchaev 1955, Kruglov 1958, Krupnov 1964, as cited in Magomedov 2006) grouped these areas into a single local variant of KAC. For example, Kushnareva and Chubinishvili (1970) refer to sites in north-eastern Azerbaijan within the category of Daghestan KA sites. Conversely, Azerbaijani scholars, see these Dagestani and Azerbaijani groups as a separate variant of KAC but they consider the northern Caucasus sites as having an affinity with those in north-eastern Azerbaijan (Museyibli 2017). For example, in recent years, several ongoing excavations in the Chaggalligtepe site in north-eastern part of Azerbaijan confirms similarities, as well as local differences to the Dagestan sites (Ashurov et al. 2019).

Landscape setting of settlement sites
Greater Caucasus mountains and Samur-Davachi lowland

The southern slope of the Greater Caucasus mountains and the Samur-Davachi lowland contain the most important concentration of settlements. A total of 19 KAC settlements were recorded in the Guba-Khachmaz region, with most of these located in the lowland plains along the coastline (Fig 4.14). The abundance of settlements indicates that people began to settle in mountainous as well as valley locations, even at elevations above 2000 m. The highest point of the region is Khinalig settlement, 1974 m asl, which is the highest in the north-eastern region dated to EBA (fig 4.15 a, b). The lowest location is the settlement Tepeyatagi, 25 m asl.

The distribution of sites does not seem to display a meaningful cluster, with the arrangement of these sites indicating that very loose connections prevailed among them. Sites stretched along the Samur-Davachi lowland are located at a distance of 4-6 km from each other. Settlement size ranges fairly between 1-4 ha, but most sites are 1 ha, and even large and rare case sites were close to 5 ha, such as the Boyuktepe II and Serkertepe sites (Akhundov 2009). Sites tend to have a rather thin cultural deposit, sometimes no more than 1m depth. The deepest cultural layer was attested in the Serkertepe site, which is 4 m (Musayev 2005).

Most of the sites were occupied during the middle and last stages of the KAC. However, it must be stressed that recently, traces of some traditional manufacturing features of the Chalcolithic period in the pottery assemblage was attested in the Chaggalligtepe site. This may indicate that the region was already occupied from the second half of the 4th and beginning of the 3rd millennia BC. Similar findings were confirmed by the dating of material in the North Caucasus.

This shows no consensus with the view that the earliest Kura-Araxes settlements were spread to the north onto the Caspian Coastal Plain (Musayev 2009:80), or widely to the North Caucasus at the beginning of the third millennium BC. Rather the earliest sites in the North Caucasus or north-east Azerbaijan extend back roughly to the middle of the fourth millennium BC (Kohl and Magomedov 2014:95).





Figure 4.15. Khinalig settlement a) northern view (Aliyev and Aghayev 2013: 181), b) eastern view (images provided by Dr Idris Aliyev, pers comm 2017)

Caspian Coastline

A relatively high density of settlement was identified in the western part of Azerbaijan, along the Caspian coastline, in the Absheron peninsula, where Anazaga, Cardagzaga, Firuz I and Daire are located between a distance of 0.25 km far from each other (fig 4.3, 4.14 and 4.16).



Figure 4.16. Gobustan (Overall view of the Reserve with GPS locations of sites dated to different periods) (adapted from Taylor and Maynard 2011, no.fig number)

Due to thin cultural deposits and a small quantity of material, these sites were interpreted as being transhumant campsites, occupied seasonally (Muradova 2011). These sites are also characterised as cave-shelters dated to EBA. Aliyev (2009:76) emphasizes that one of the most interesting and specific markers of the cultural life of these KA coastline communities is that settlements are represented by a huge number of wall paintings (petroglyphs) which facilitate the reconstruction of the ancient ideology and religion. Farajova (2018:86) believes that petroglyphic images, such as boat, female, gazelle, goat and sun on rocks on these sites dated back to EBA. Especially, the images of spirals and circles in a shape of solar sign which appeared first on rocks and stones and later on ceramics and architectural monuments, were peculiar to Kur-Araz archaeological culture **(**Farajova 2018:86) (fig 4.17). Yet, no instances of

pottery featuring the solar symbol were identified within the data collection and without radiocarbon dating and precise descriptions of the cultural material, it is impossible to associate these images with the KAC.

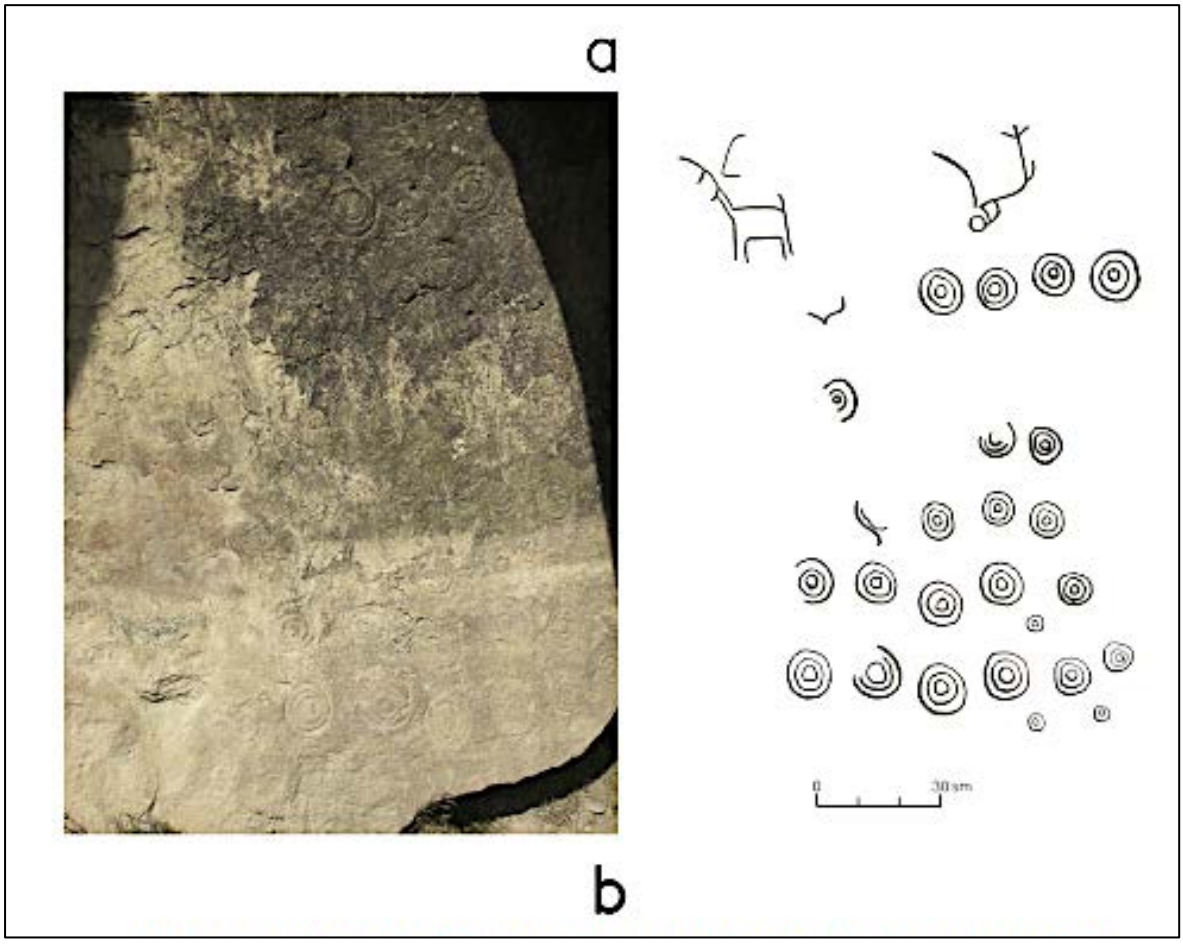


Figure 4.17. a) Eastern sketch view of Firuz-2 shelter, b) Kichikdash Mountain, stone 97, helical solar signs (Farajova 2018:87, fig 9)

Southern slope of Greater Caucasus, and the Ganikh-Haftaran valley

The relief system of the region is diverse. It consists of the southern slope of Greater Caucasus, the Ganikh-Haftaran valley and the Central Kur highland. The Ganikh-Ayrichay valley stretches to the north and the Jeiranchol-Ajinohur low-hill terrain is situated south of Ganikh-Ayrichay valley (fig 4.3, 4.14). A total of nine KAC settlements were recorded in the Shaki-Zagatala region. The archaeology of settlement sites of this period is poorly known but the mortuary evidence is much richer in three settlements: Padar, Muraddayi and Qalayeri. Cemeteries are not associated with habitation sites; rather, they are located in isolation. While Padar and Muraddayi were occupied from the Late Chalcolithic, and were used intensively

during early and middle stages of EBA. This use is especially characterised by a fabric and morphological repertoire of ceramic assemblage, which shows the continuity from the preceding period.

Shirvan Plain

This region occupies the north Greater Caucasus mountains and south-west of the Shirvan plain. It lacks details of settlement occupation as only two sites were attested along the Shirvan plain (fig 4.14). At present, this region has a limited usage due to the salinisation of soils and the degree of mineralisation in the Shirvan Steppe, which require a large development of the artificial irrigative agriculture (Gulmammadov et al. 2022). This might also be linked to a dearth of geomorphological investigations and excavations in the area.

4.7.2. Regional settlement distributions: Kur-Araz Region

The physical geography of Kur-Araz

The Kur-Araz occupied areas stretch from the north-east of Mingechaur to the south-east of the Caspian Sea, for a distance of 260 km. The majority of the region is dominated by the Kur-Araz lowland (fig 4.3 and 4.18). It is situated between the Greater and Lesser Caucasus, comprising wide plains and foothills. The Kur and Araz river valleys dissect lowland into the Shirvan, Karabakh, Mil, Mughan and Salyan depositional plains. In the south, the Mughan and Salyan plains merge with the Lankaran lowland surface. The importance of this region is further enhanced by the abundance of natural resources in the region. The main rivers are Tartarchay, Khacinchay and Gargarchay.

Landscape setting of settlement sites

There is a clear gap in the distribution of the KAC settlements in the Kur-Araz region (fig 4.18). Kura-Araxes settlers seem to have consciously avoided this area. Tributaries of the Araxes and Kura Rivers in the Kur-Araz lowland played an important role for the spatial concentration of the settlements near one of these streams. However, the Araxes and Kura Rivers themselves have not been an attractive catchment area due to the flash flooding. Even today, modern districts where the Kura confluence with the Araxes, is considered a hotspot region of inundation by the Kura River with massive flood during seasonal rains. Only one settlement,

Mingechaur, on the right bank of the Kura River in the Kur-Araz lowland shows a long occupation in the region.

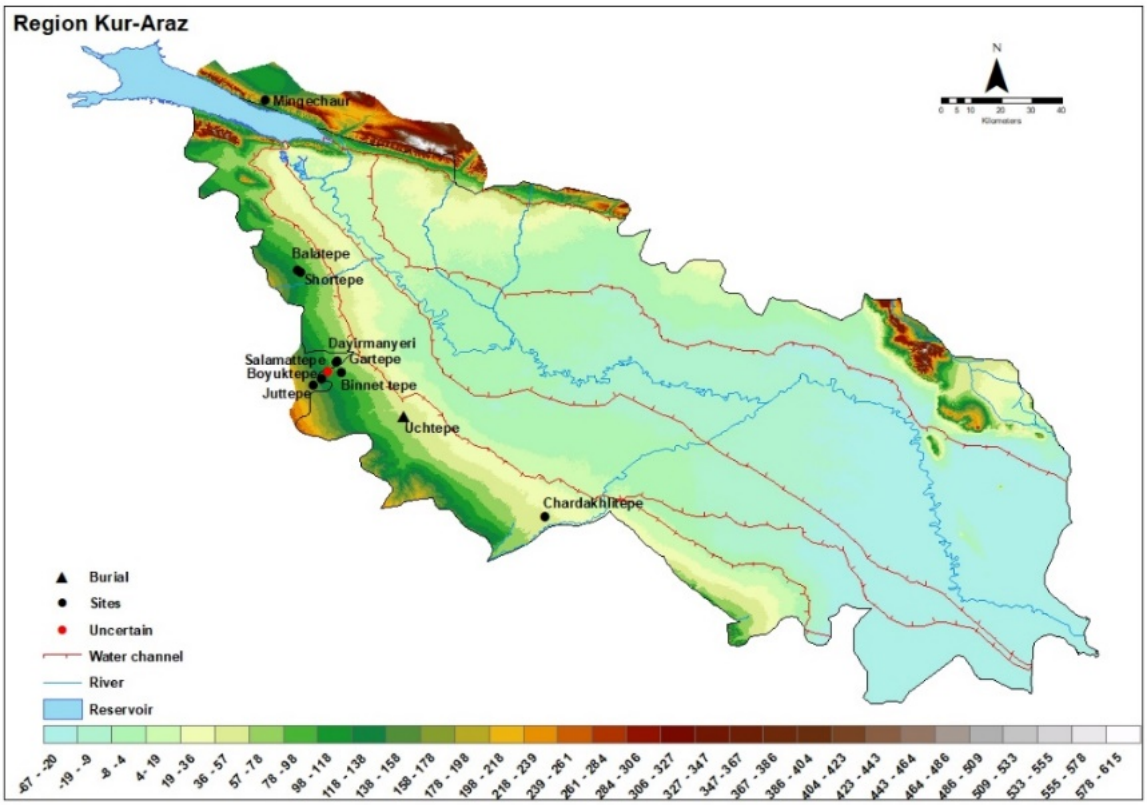


Figure 4.18. KAC settlement distribution in Kur-Araz Region (created by the author, Ismayilova)

Gargarchay river settlements

This period of settlements is mainly located along the Mil-Karabakh steppe, among the Gargarchay and Khachinchay river basins. The area demonstrated a huge concentration of settlements as permanent rivers and suitable geographical condition played a crucial role in positioning of settlements here since the Chalcolithic period (fig 4.18). Intensive settlement occupation happened in the area during the Late Chalcolithic, which, however, saw an abandonment before the EBA (Kushnareva 1997). Sagona points out that:

> [the occupation is quite different to the landscape in the Mil Steppe] …small mounds with shallow deposits that never developed into proper 'tells' point to seasonality, whereby communities might have followed a cyclic pattern of occupation– abandonment– reoccupation of a site. As a working model, it has been suggested that this lifestyle was one of choice and stemmed from socioeconomic

factors, rather than one imposed on the population by an unpredictable physical landscape (Sagona 2018:96).

Jafarov (2000) also argues that this might be due to different factors, such as a reduction of rainfall and the drying up of rivers. Jafarov (2000) believes that there are also some settlements from the Chalcolithic period where people continued to live during EBA as well, such as Goy-tepe, Valibay-tepe, Dayirman-yeri and Binnet-tepe. While most settlements are multi-layered, whereas, some, such as Garahaci, Uchoglan-I and II and Karkhulu, are single-layered, dating only to EBA (Narimanov 1987, Jafarov 2000). The settlement distribution demonstrates sites are located between a distance of 0.20 and 4 km apart.

Tartarchay river settlements

Only a few sites, Balatepe, Shortepe and Azyurdu are located on the left bank of the Tartarchay river (fig 4.18). The Shortepe complex consists of the Shortepe and Balatepe settlements dating back to the Bronze Age and Antique periods. The Tartarchay river ravine separates these settlements from each other. They are approximately 1 km far from each other. Investigations of the Kura-Araxes level are limited by the presence of a large Late Antique and Medieval city, Barda, which occupies the highest part of the sites. For example, the Azyurdu settlement was located in Khalbajar mountain which shows a remarkable height reaching a lofty altitude, 2239 m asl in the Karabakh plateau. Based on material culture evidence, this site may have been a seasonal camp-site used by groups practicing transhumant pastoralism (Ismailzade 2009).

4.7.3. Regional settlement distributions: Lesser Caucasus Region

The physical geography of Lesser Caucasus

The Lesser Caucasus mountains lie to the west of the country (fig 4.3 and 4.19). It is a mountainous area in the prolongation of Eastern Anatolia and North-western Iran. It goes all the way to the Caspian Sea, including the Lankaran and the Nakhchivan mountainous areas. It is bordered on the north by the Kura but on the south, it is both bordered and cut through by the Araxes. The Lesser Caucasus mountains are characterised by several mountain ridges, some parts even peak up to 3900 m, and lowlands, such as Murovdag, Karabakh volcanic highland, while also a part of Shakhdag and Mikhtoken ridges and Karabakh, Gayan and Inja lowlands

enriches the region. The northern and eastern parts of the Lesser Caucasus are dominated by temperately warm climate with dry winters.

Landscape setting of settlement sites

Sites across the rivers of Quruchay and Kondalanchay

The Guruchay and Kondalanchay rivers begin from the Kirs Mountain, which is located 2725 m above the sea. The Guruchay and Kondalanchay valley ranges across a large area, starting from the south-eastern part of Lesser Caucasus to the Araxes River. In the vicinity of 40 km, 50 small and big settlements dated to EBA have been attested (Ismailzade 2008). Due to limited excavations and survey in the region, the data is coming only from seven sites. The distances between settlements are range between 500-600 m up to 3-4 km. Compared with sites located along Gargarchay and Tartarchay rivers, there is no dense clustering among these sites (fig 4.20). Over time due to the accumulation of cultural layers, settlement turned from the flat plane into the mounds, where KAC people had permanent settlement occupation. Ismailov (1981) argues that the presence of deep cultural horizons and permanent dwellings near and along the rivers of Guruchay and Kondalanchay certainly represent evidence of sedentary life in these regions.

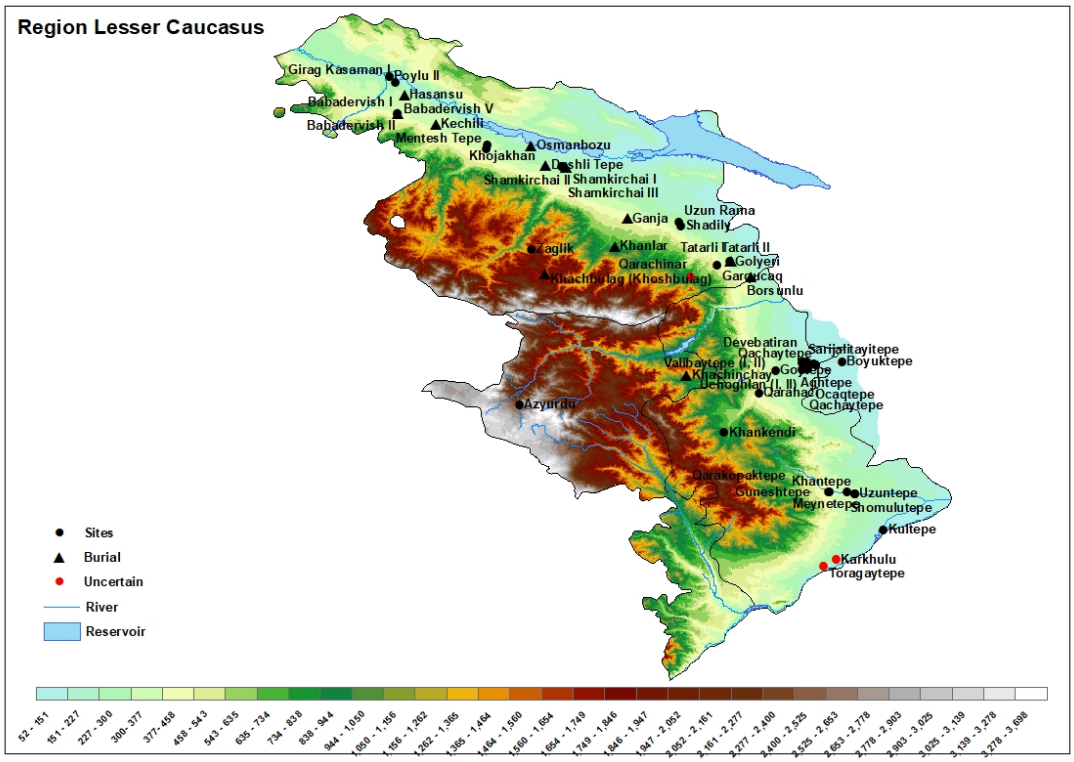


Figure 4.19. KAC settlement distribution in Lesser Caucasus Region (created by the author, Ismayilova)

The topography of the region is diverse, consisting of a highland zone, Karabakh plateau and lowland areas along the rivers. In addition to climate factors, other considerations such as the proximity of natural sources like obsidian, flint, and tuff stones must have had some influence on the choice of habitation sites along the Guruchay and Kondalancay rivers valley. Ismailzade (2008:117) argues that agriculture was heavily dependent on cereal cultivation during EBA. This also has been supported by material assemblage, a large quantity of stone tools, such as sickle blades and boat-shaped grinding stones found in the majority of settlements. Moreover, it has been attested by grain storage pits found in Uzuntepe, Gunehstepe and Garakopaktepe settlements (Ismayilov 1981:20).



Figure 4.20. Distance location of KAC settlements along Guruchay- Kondalanchay River Valley (created by the author, Ismayilova)

Ganja-Khazakh plain

The western part of Azerbaijan comprises the territory of the modern Ganja-Khazakh region, which is a part of the Lesser Caucasus region located along the Middle Kura River (fig 4.3, 4.19). There have been 25 sites identified in the Ganja-Kazakh plain, of which 18 are funerary sites. The Ganja-Khazakh region stands out as having strong homogeneity in burial customs. Major rivers are Agstafachay, Tovuzchay, Zayamchay and Ganjachay. However, due to the Agstafa and Gasansu rivers having deep beds, flooding in spring time and tributaries shifting

their courses, an occupation of permanent settlement is impossible in this zone, even today (Narimanov 1992). Therefore, major settlements were occupied at the foot of the Lesser Caucasus in the vicinity of small streams (Lyonnet 2009). The data supports the view that settlements along the Ganja-Khazakh plain were settled lowland and slightly hilly areas.

It seems there was also a distinct climatic fluctuation between periods of the Neolithic and the Iron Age, which affected the settlement occupation. At the end of the 6th millennium BC, people abandoned their settlements, whereas strangely, the beginning of the 5th millennium BC marked changes in settlement patterns. At a certain point, reduction in water level and the drying up of the Akstafa and Gasansu rivers, led to the Chalcolithic population abandoning their villages during the transition from Chalcolithic to EBA. These were again reoccupied toward the end of the Bronze Age (Narimanov 1992:9, Akhundov and Almamedov 2009). However, Lyonnet (2009) links the poor understanding of the region to the exceptionally massive exploitation of metallurgical mines in the region by Siemens since the early 19th century, which led to the destruction of early settlements. Archaeological data shows that warming of the climate at the beginning of the Holocene led to the emergence of wetlands in the valleys south of the Lesser Caucasus. Fluctuations in the Caspian Sea level also impacted landscape changes and alluvial terrace organisation of the Kura River tributaries (Baudouin 2019:116, Palumbi et al. 2021:2).

4.7.4. Regional settlement distributions: Lankaran Region

The physical geography of Lankaran

The Lankaran region consists of Talysh mountains, Mughan Steppe and Lankaran Lowland (fig 4.3, 4.21). The south-eastern part of the country is covered by the Talysh mountain system, which stretches 100 km southeast toward the Caspian Sea. Despite the mountainous landscape, much of the interior of the region is typified by agricultural lowland. The Lankaran Lowland is positioned between Talysh mountains and the Caspian Sea, and is considered to be an extension of the Kura-Araz lowland, and surrounded with it on the north, west and south-east sides. A temperately warm climate with dry summers is common in the Lankaran lowland and the Talysh mountains. The Mughan Steppe is a part of the Kura-Araxes lowland placed between the Mil Steppe and Lankaran lowland, with the southern part of the plain falling within Azerbaijan and the northwestern part of it lying in Iran. The majority of the plain falls within Azerbaijan. Overall, the plain's geographic and environmental condition makes it perfectly

suitable for rain-fed agriculture. However, during the EBA the steppe was the dominant strategy of land-use for winter pasture (Bakhshaliyev 2006, Alizadeh et al. 2018).

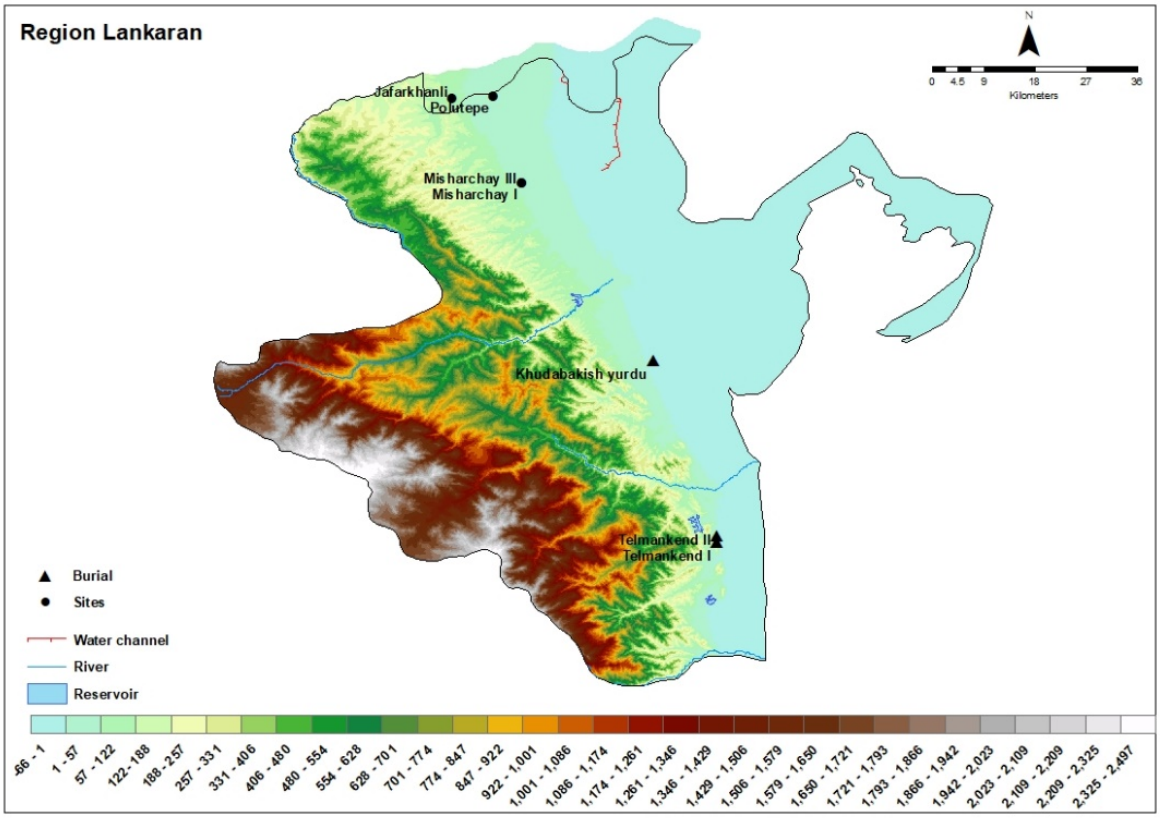


Figure 4.21. KAC settlement distribution in Lankaran Region (created by the author, Ismayilova)

Landscape setting of settlement sites

In total, seven KAC sites with four settlements were recorded in the Lankaran region (fig 4.21). The distribution of sites is very irregular, without any spatial link between the sites. Misharchay I is considered the major site in the region. One of the ambiguities is that even though the region is geographically diverse, it remains relatively empty and it seems KAC people avoided the region. As already pointed out, it is believed that sites located along the Caspian coastal plain certainly had a connection with each other and sites in Lankaran had interactions and similarities in terms of cultural materials with those located in the north-eastern part of Azerbaijan (Kohl 2007, Makhmudov 2008, Muradova 2011). The nature of the ceramic assemblage from the region conveys the characteristics of the Late Chalcolithic period in the sites. For example, straw tempered clay, textile remains on vessels, and traces of combed decoration on the surface and inside the pottery from the Misharchay I bottom layer and

Polutepe, show a link between the Chalcolithic and EBA (Burney and Lang 1971, Makhmudov 2008, Akhundov 2011).

4.7.5. Regional settlement distributions: Nakhchivan Region

The physical geography of Nakhchivan (Middle Araz)

The Nakhchivan, exclave and the autonomous Republic of Azerbaijan is located in the southern part of Azerbaijan (fig 4.3). It shares a border with Armenia on the north-east, with Iran in the south and with Turkey on the west. The region is dominated by a variegated landscape of highlands, mountains and plateaus, with the highest altitude for the region being 3906 m asl, and average altitude is 1400 m asl. Nakhchivan has a rather complex system of relief and comprises of the near and middle Araz Ridges of Zangazur and Daralayaz ridges. These ridges stretch along Armenia on the north and east all the way to the Araxes River in the south. The eastern part of the region is the most mountainous, with elevations above 3500 m, whereas the western part is less mountainous, not higher than 2100 m. The region possesses a rich variety of plains with the climate of semi-deserts and dry steppes, having cold winters and dry warm summers along the river Araxes. Cold climate with dry summers includes the Nakhchivan region areas, which are 1000-1200 m asl.

Landscape setting of settlement sites

Nakhchivan's position being between the steppes of Inner Asia and the Near East makes it a focal point for comparison with the neighbouring regions. Therefore, the study of the KAC settlements in Nakhchivan has a significant role in examining the transition between the Late Chalcolithic and the EBA not only in the Caucasus but also in the Near East (Bakhshaliyev et al. 2009:82). At different stages in history this area acted as an intermediary between the tribes of the Caucasus and the Urmia basin, East Anatolia and the Ararat Valley (Ashurov 2015, Bakhshaliyev 2014:19). There have been 19 settlements discovered, including funerary sites in Nakhchivan region during the EBA (fig 4.22). As seen from the figure 4.22, the EBA sites were concentrated mainly in the western part of the region (Bakhshaliyev and Novruzov 2010). Nakhchivan is recognized for its multi-period mounded sites and defined by large settlements, which measure between 5 ha and more. The availability of fresh water attracted the KA communities, which was the impetus for prolonged occupation periods, such as Arpachay,

Sirachay, Nakhchivanchay and Gilanchay which were densely populated during the EBA (Ashurov 2014).

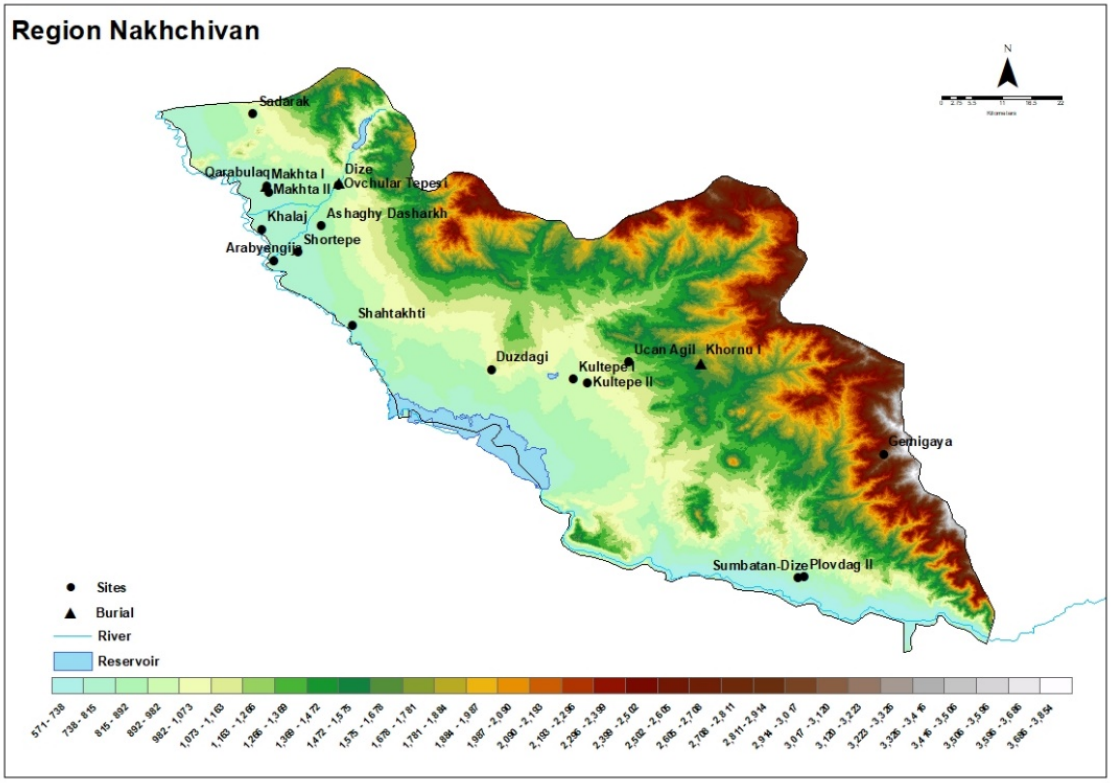


Figure 4.22. Settlement distribution in Nakhchivan Region (created by the author, Ismayilova)

Sites along the Arpachay valley in the Sharur plain

The Sharur plain is located in the western part of Nakhchivan. A large group of sites have been attested dating LC and EBA in this part of the region. The distribution of settlements does not seem to depict a meaningful cluster due to the long distance of 4-6 km between them. Most settlements, such as Makhta I, Arabyengija, Shortepe and Ashaghy Dasharkh were occupied along the Arpachay river show a long-intensive life during the EBA (Bakhshaliyev 2006)**.** This area was intensively used for the agricultural and pastoral purposes due to its hospitable location in the bank of the Araxes River (Quliyeva 2014). The concentration of settlement along the Arpachay river was also due to its proximity to ore deposits. For example, many sites have yielded evidence of metallurgical activity, such as kilns, crucibles, metal slag and moulds, which have been attested in the Makhta settlement (Ashurov et al. 2020). Interestingly, the ware analysis from the site Makhta revealed that lead has been added to mixture of ceramic made of clay temper, which point to the exploitation of local ores, such as at Gumushlu located on the left bank of the Arpachay river (Ashurov 2015:32).

Sites along Nakhchivanchay River Valley

Like Arpachay River, the distribution of KAC settlements in this area also suggest that the early settlers were motivated by the proximity of water sources and arable land. Bakhshaliyev (2006:96) argues that the Nakhchivan river, due to its depth prevented the land from drying up in periods of drought, encouraging ancient people to support their activities and relocate nearby, unlike the Arpachay river. Bakhshaliyev (2006) further posits that the continuity of settlement occupation lasted long, from the Late Chalcolithic to the Middle Ages along the Nakhchivanchay river as compared to the Arpachay river. The Arpachay is often dried out and had short-duration occupations (Bakhshaliyev 2006:96). KAC people also had the desire to exploit some of the mineral sources nearby. For example, Kultepe obsidian was brought from remote deposits, such as the Urmia basin, the Ararat valley and from deposits along Geyche (Sevan) lake basin (Bakhshaliyev et al. 2017:153). Furthermore, the ancient salt mines, Duzdagi, are located 5-6 km west of the Kultepe II settlement, bring an hypothesis that these mines might provide the subsistence strategies of Nakhchivanchay communities (Marro et al. 2010) (fig 4.11). A considerable quantity of tool assemblages was found in these sites, revealing the analogy with those found in Duzdagi.

Sites along Sirabchay and Gahabchay River Valley

There is uncertainty about KAC sites located along the Sirabchay river. This is explained by the period of environmental change during the EBA in the region which needs to be adequately researched. Bakhshaliyev et al. (2017) argue that at the beginning of the 5th millennium BC, people moved closer to river valleys due to the increasingly drought prone climate. However, at the end of the fifth millennium BC, as a result of flash floods in Sirabchay rivers, many settlements had been lost and were covered by a thick layer of soil. This thick layer of colluvium was in between the earliest occupational levels dating to the first half of the 5th millennium BC and the Kura-Araxes layer positioned at the surface of the mound. Only one settlement, Ucan Agil located near Sirabchay river and a kurgan, Khornu along the Gahabchay river, dated to the EBA. Bakhshaliyev and Novruzov (2010) argue that pastoralism and mobility were key elements in the lifestyle of communities living in the vicinity of the Sirabchay river.

Sites along Gilanchay River Valley

Two sites, Sumbatan-Dize and Plovdag were attested along Gilanchay River. They are located close to each other, and also demonstrate similarities in material culture. The highest point of

the region is the Gemigaya site, 2903 m asl, located in the Ordubad mountain, in the Nabiyurdu plateau, which is the highest point found to date in the region dated to the EBA. Perhaps, this indicates people's movement toward very high altitudes during the last stage of the KAC. This stage is characterised as a period of concentration on transhumant pastoralism (Bakhshaliyev 2006, Quliyeva 2014, Sagona 2018).

4.7.6. Discussion: Regional distribution of KAC sites in Azerbaijan

A broad analysis of the regional settlement pattern demonstrates that each region has relatively very few sites with only very small known site samples, with no local-scale landscape studies of KAC settlement organisation. As we can see from the data, not all regions are equally investigated so far. For example, most settlements were established in the Kura-Araxes river valley, which ensured good agricultural yields, while also there were some sites that existed only during one period, or have shallow, and discontinuous sequences. Furthermore, there many sites found in mountainous areas with thin cultural layers, and finally, some sites represented seasonal settlements established to exploit summer pastures. This suggests that heterogeneity existed among KAC communities in relation to their subsistence economy and living strategies, dietary, environmental and ecological potential. However, for the time being, we cannot precisely estimate to which degree these factors were important in the choice of settlement locations. These different landscapes require different strategies, cultural trajectories and even a different kind of study of their orientations. In this regard, we need a more detailed view at the regional level. Therefore, we cannot generalise a picture on the basis of a few excavated sites and apply their results to the whole of Azerbaijan.

Another interesting finding from the data is that the location of most sites is very irregular, without any spatial link between the sites. Furthermore, not all areas were hospitable, and not all occupied densely; some had a short period of occupation, while some regions show a long of period of intensive use during the EBA and proceeding periods. New discoveries will clarify our understanding of these diverse regional variations.

4.8. Spatio-chronological analysis of KAC sites in Azerbaijan

4.8.1. Elevation analysis of each KAC sites according to KAC stages

The second aim of the study is the chronological analysis, taking into consideration settlement occupation and changes during the different phases of the KAC. This comparative analysis helps us understand any evolution or change in the variety of habitations ranging throughout the KAC stages. For the study, 124 known KAC sites have been mapped to draw comparison based on spatio-temporal analysis. The limitations and challenges of using the elevation method was already discussed in the Method section of the Chapter. In addition, for more details on the chronology, especially, on the three-phase partition, follow the Chronology Chapter.

4.8.1.1. Elevation analysis of KAC settlements during pre-KAC stage

It is believed that some remnants of Chalcolithic traditions were still common during the earliest phase of KAC (Palumbi and Chataigner 2014, Sagona 2014). Particularly, a new territorial organisation and the geographical location of settlements were similar in a number of ways during the second half of the fourth millennium BC (Palumbi 2008). It is apparent that between the transition from the Late Chalcolithic to the EBA, KA people had already settled at a range of altitudes and preferred different territories as a result of ameliorating climatic conditions (Sagona 2014: as cited in Connor and Sagona 2018). There are three striking patterns attested in settlement altitude during the pre-KAC: lowland areas and upland areas up to 407 m high, and highland areas up to 1006 m high. The minimum altitude attested is 46 m in Lankaran, whereas the maximum altitude is in Nakhchivan at 1179 m high. In particular, the location of several sites in hilly or mountainous regions is relatively visible in Nakhchivan. However, most settlements were found in the lowlands, which supports Kushnareva's (1997:49) claim that the initial dispersal of the KAC was mainly found in the flatlands.

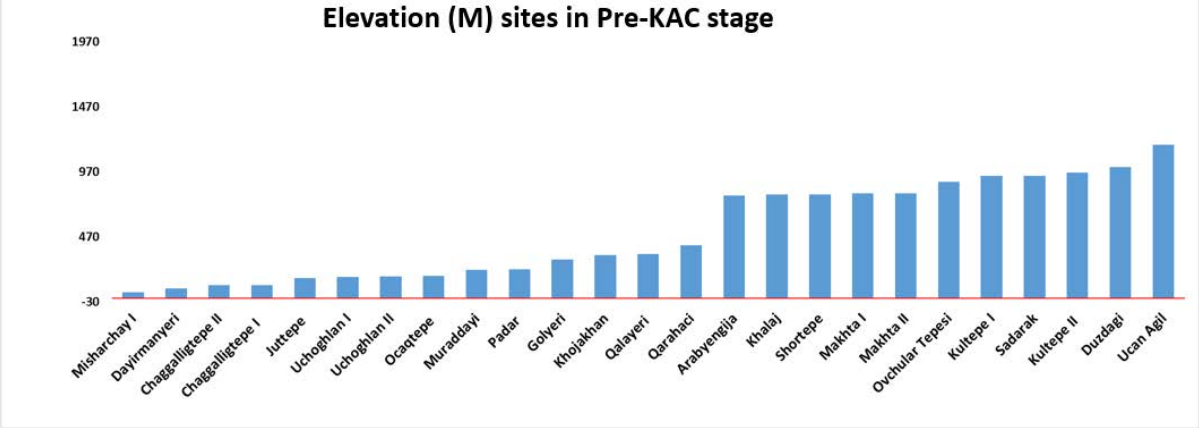


Figure 4.23. Pre-KAC stage settlements elevation

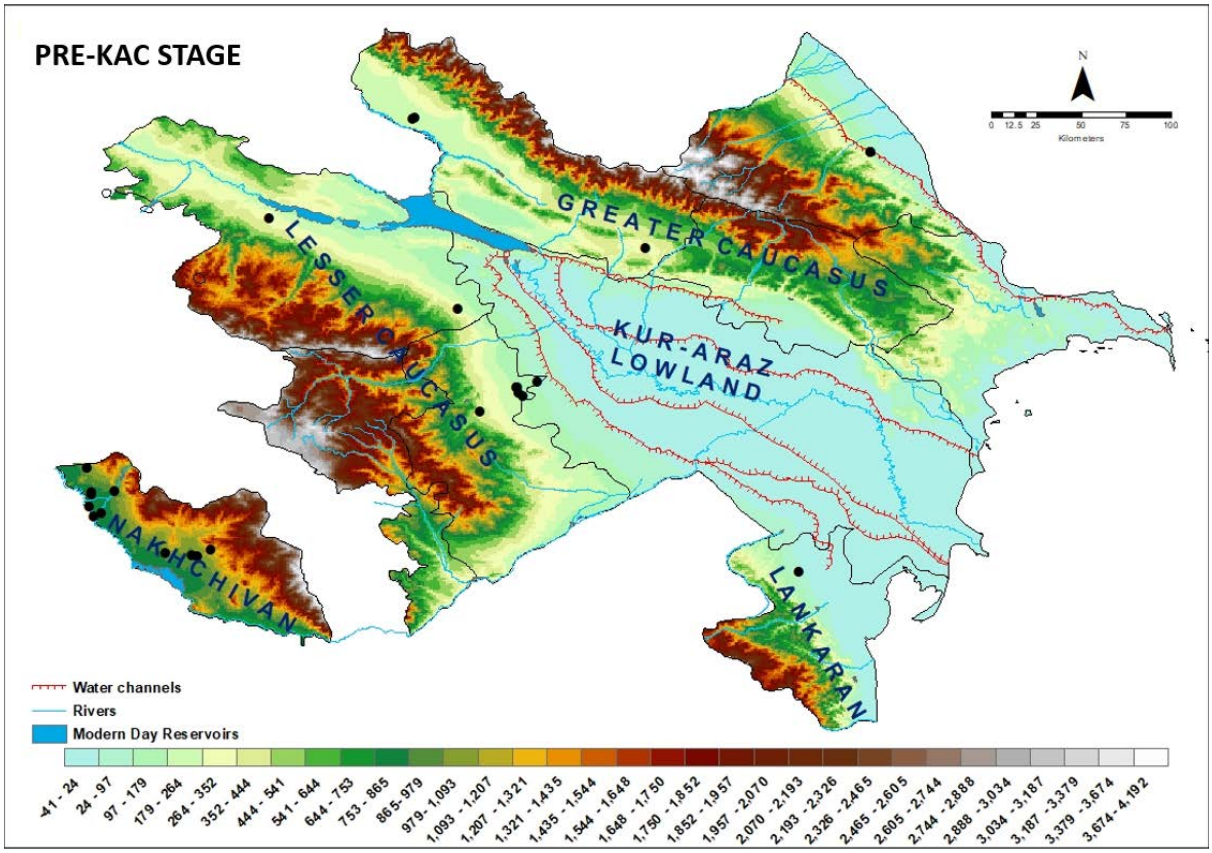


Figure 4.24. Distribution of KAC settlements during the pre-KAC stage (created by the author, Ismayilova)

The availability of critical resources, such as water attracted the KA communities, with most settlements being sited around water sources (Omrani et al. 2011, Sagona 2018). For instance, some sites were documented around the Gargarchay and Tartarchay rivers in the Lesser Caucasus, and mostly in the Sharur plain, near the Arpachay River, while four sites concentrated around the Nakhchivanchay river. This period may see the first establishment of

a true settlement grouping in the Mil steppe, along the Gargarchay and Tartarchay rivers. Moreover, the long-span life of occupation was concentrated in Nakhchivan region, which bring the hypothesis that the culture can be originated in this part of region during the pre-KAC (Seyidov 2003, Ashurov 2015). The available evidence unequivocally supports the idea that the initial dispersal of the KAC already is to be found throughout all regions during this stage. Figure 4.24 demonstrates that the KAC occupation expansion appears from the second half of the fourth millennium BC. This supports previous literature which states that KAC, in its formation period, already reached as far as the Mughan Steppe in Azerbaijan (Burney and Lang 1971, Bakhshaliyev 2006, Makhmudov 2008).

4.8.1.2. Elevation analysis of KAC settlements during KAC stage I

KAC I stage is characterised by a largely shared cultural and social identity expressed by communities living in a broad area (Palumbi 2014). There is an overall increase in settlement occupation during the formative stage of the KAC. Elevation consists of three groups (fig 4.25): 1) 34-220 m, lowland areas 2) 278-407 m, upland areas 3) 788-1006 m, highland areas. The lowlands remained as populated as in the previous period, perhaps due to agricultural reasons. Palumbi (2016) claims that during the second half of the fourth millennium BC, the environment was warm and more stable, which encouraged a new form of occupation in the highlands. This proves the idea that even from the early stages of the culture, people moved to highland areas, and as we can see from the figure 4.25, already some sites reached lofty altitudes.

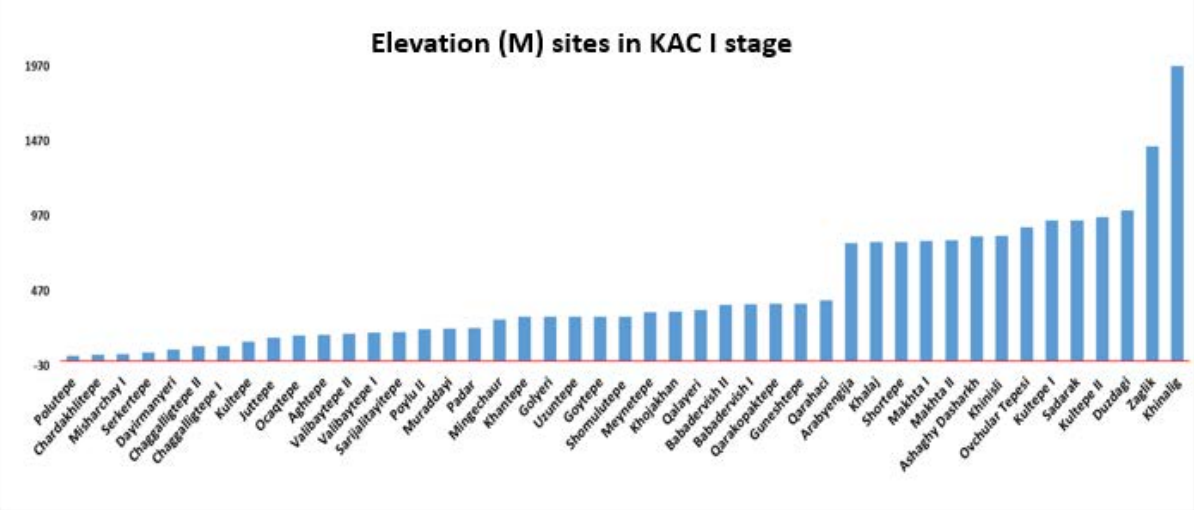


Figure 4.25. KAC I stage settlements elevation

A group of new settlements appeared along the Quruchay and Kondalanchay rivers (fig 4.26). The Qarqarchay and Tartarchay rivers were once again a centre of settlement, with an increase in the number of sites along this tributary. Similarly, Karimov (2013:13) and Kushnareva (1997) support the idea that settlements close to rivers and streams from the transition of the Late Chalcolithic and Early Bronze Age period, emphasise that the climate was relatively mild and hospitable. It can also be interpreted that at the end of Late Chalcolithic, most river streams began to decrease and dry up, forcing communities to abandon their villages and settle in the vicinity of other streams, creating large fans when they arrive on the plain (Narimanov 1992, Jafarov 2000). An acceleration of new settlements can also be observed in the Ganja-Khazakh plain (fig 4.26). During the KAC I, the Nakhchivan region still remains dominant with settlements which are multi-layered and have a long-duration of occupation.

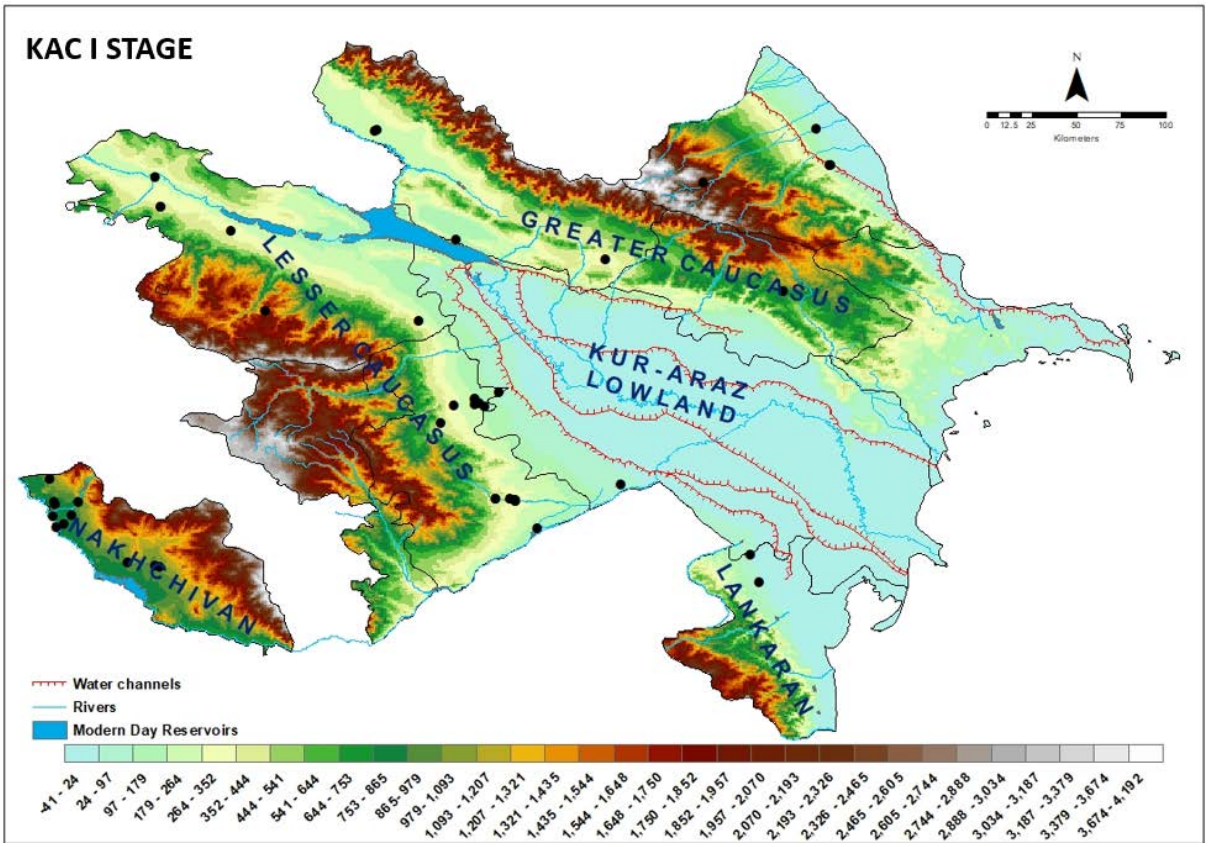


Figure 4.26. Distribution of KAC settlements during the KAC I stage (created by the author, Ismayilova)

4.8.1.3. Elevation analysis of KAC settlements during KAC II stage

KAC II stage is characterised as a flourishing and most developed stage of the KAC, in which regional differences fostered the process of diversification and transformation in the region. New arrivals seem to have settled both in existing sites and the new constructed lands. During

KAC II there were three groups of elevations: 1) 25-220 m, lowland areas, 2) 278-441 m, upland areas and 3) 788-963 m, foothill zones. The chronological analysis of Kura-Araxes I and Kura-Araxes II phases does not show any striking evolution of establishment type or altitude. It is clear that KAC people still preferred lowland areas at this stage. There is also evidence of expansion into highland zones as supported by Kushnareva (1997).

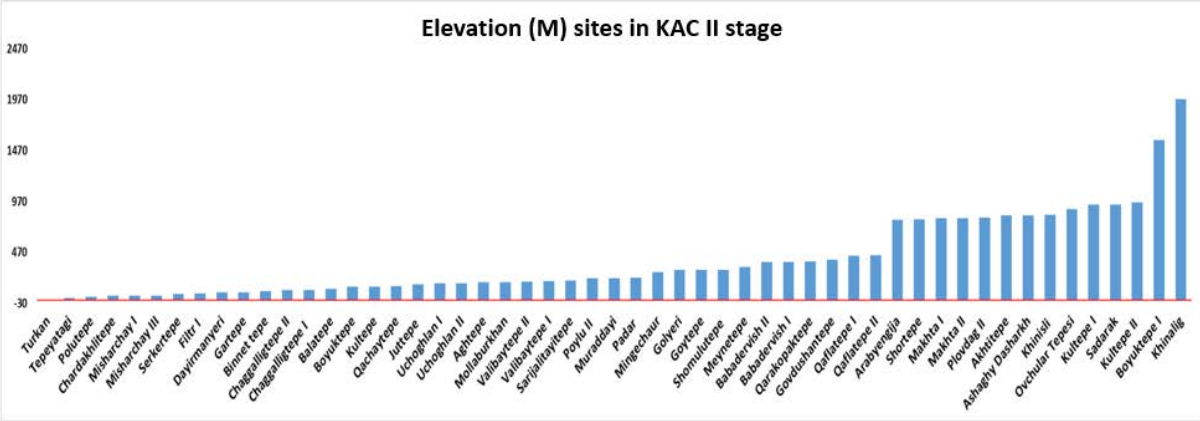


Figure 4.27. KAC II stage settlements elevation

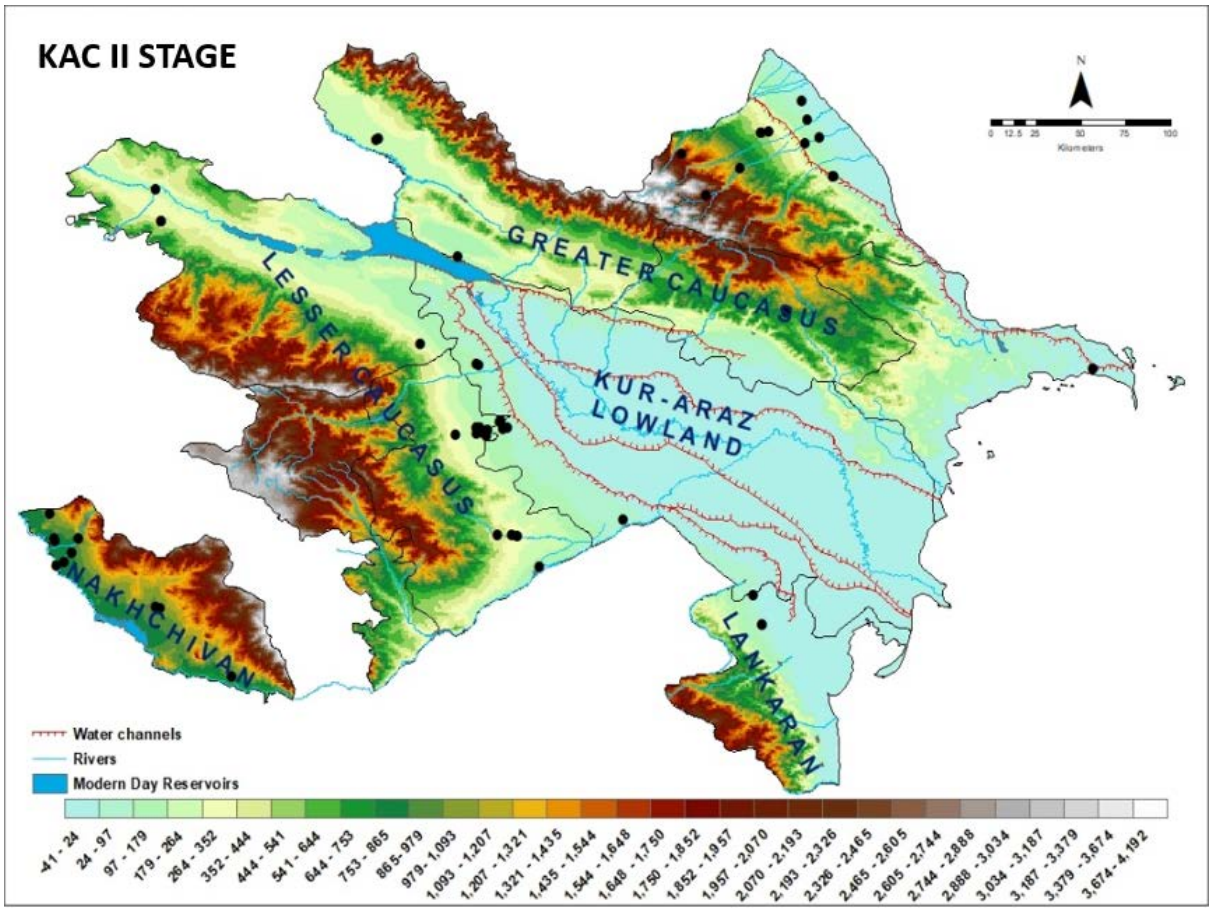


Figure 4.28. Distribution of KAC settlements during the KAC II stage (created by the author, Ismayilova)

The data supports that KA communities went through comparable processes of change and development in phase two; long-occupied settlements continued to attract the attention of communities with their relative sizes, fertile lands and closeness to the mineral sources (Bakhshaliyev 2006, Seyidov and Bakhshaliyev 2012). For example, settlements inhabited along the river basins of Gargarchay and Tartarchay show distinctly more settlements compared to KAC I. Sites along the Quruchay and Kondalanchay rivers were still visible during this stage. There was an acceleration of new settlements around the Guba-Khachmaz region, both in lowland and highland areas. It seems there was also an abandonment of villages (for brief or longer periods) during this stage, for example, some settlements in the middle Kura River Valley disappeared in KAC II.

4.8.1.4. Elevation analysis of KAC settlements during KAC III stage

KAC III stage demonstrates a different picture of life, as attested sites were located in various environments and altitudes, while also the discontinuity and abrupt change of settlements at its very end makes the stage interesting to explore. Elevation during KAC III contains three groups of occupation: 1) 25-182 m, lowland areas 2) 298-437 m, upland areas 3) 774-963 m, highland zones (fig 4.29). There is clear evidence of occupation in highland plateaus, with the KA people usually introduced as a ‘peoples of the hills’, an apt phrase by Burney and Lang (1971) (fig 4.29). Meanwhile, people were still occupying lowland areas during the last phases of the culture.

The presence of settlements in the highlands indicates that there might have been some transhumant aspects of the KAC. A seasonal occupation around caves in the western part of Azerbaijan is also a strong possibility for this period. The traces of petroglyphs (rock art) are evident in the sites located in the highland zones. For example, there were attested more than 5000 rock paintings of short-horned and big-horned cattle in the Azyurdu site (2239 m) located in the Karabakh plateau (Ismailzade 2009). Similarly, Gamigaya (2903 m) is well-known for its rock art features dated to the last stage of KAC. A group of rock art has been attested in the sites, Chardagzaga, Anazaga, and Daire located along the Caspian coastline.

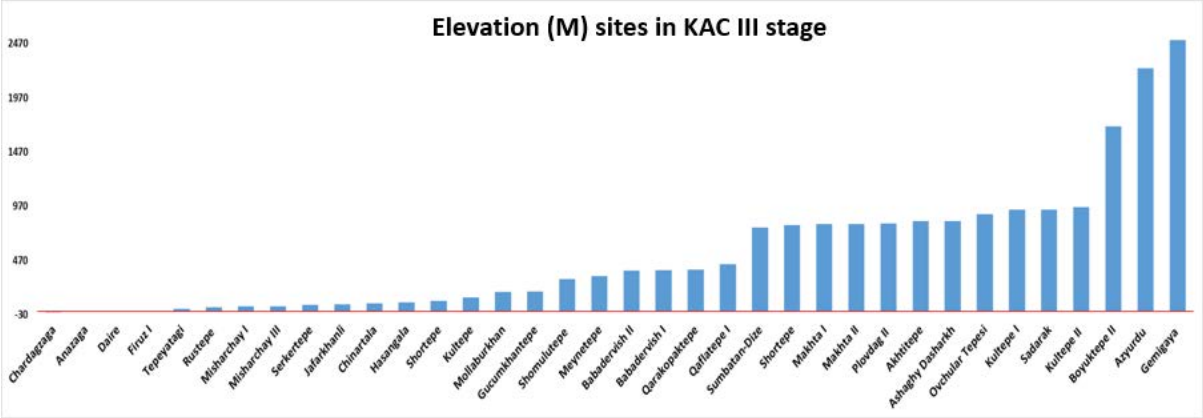


Figure 4.29. KAC III stage settlements elevation

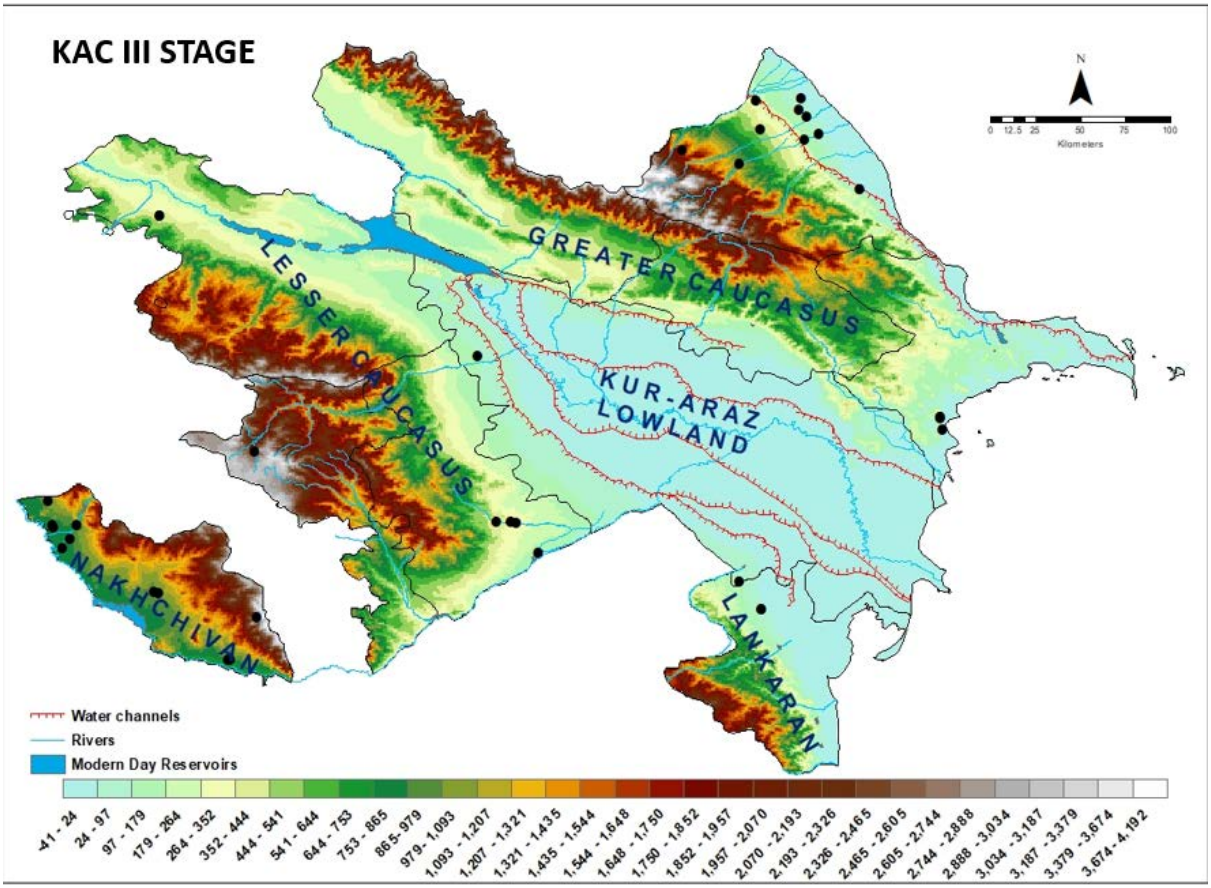


Figure 4.30. Distribution of KAC settlements during the KAC III stage (created by the author, Ismayilova)

KAC people rarely occupied lands above 2200 m asl. However, there have been attested a few sites that reached more extreme altitudes: Boyuktepe II, 1704 m, Azyurdu 2239 m and Gemigaya 2903 m. Gemigaya, so far demonstrate the highest point of distribution of sites of KAC tradition. This site dates back relatively to the last stage of the culture, however, the

evidence is coming from a few potsherds (fig 4.31). Interestingly, few typical KAC potsherds were found in Armenia, Karmir-Sar on the southern slopes of mountain Aragats, which is also around 2900 m asl (Bobokhyan 2022) (fig 4.32). A recent C14 dating from the site testifies that the site Karmir-Sar dates back to 27-26th centuries BC (Bobokhyan 2022) (fig 4.33). While this data indicates the highland occupation in the region, there is a need for future research to identify whether these high-altitude landscapes were indeed occupied by KA settlers.

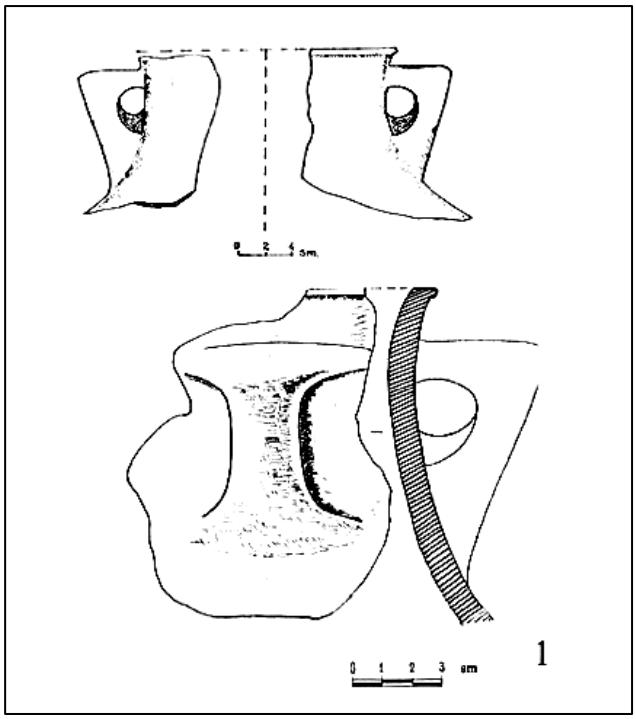


Figure 4.31. Elbow-shaped handles dated to the last stages of the KAC (Museyibli 2004: table XIV)

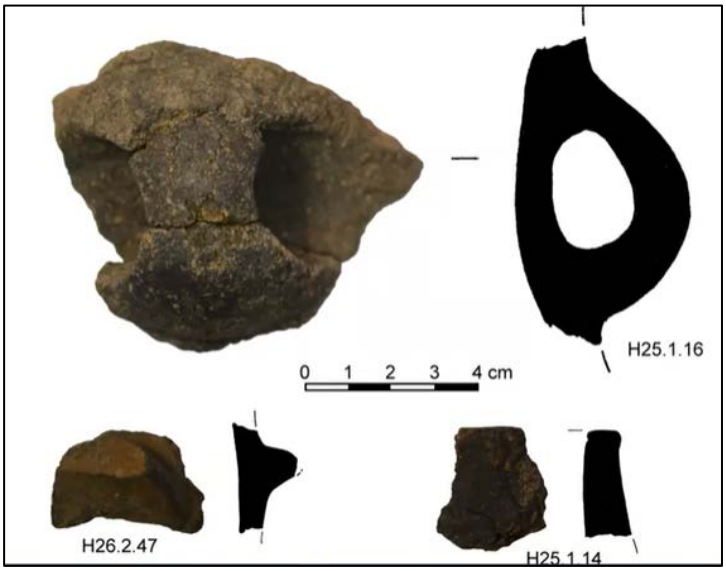


Figure 4.32. Typical KAC handles found in Karmir-Sar site (Bobokhyan 2022)

Operation	Locus	Excavation Year	Analysis Year	Material	Laboratory	1-sigma, Cal	2-sigma, Cal
H structure	25.5	2019	2019-Al	Charcoal	UGAMS 44555	2840-2810 BC (9.7%) 2670-2570 BC (58.5%)	2860-2810 BC (14.8%) 2750-2720 BC (2%) 2700-2560 BC (72.8%) 2530-2490 BC (5.8%)
H sctructure	26.9	2019	2020-Al	Charcoal	UGAMS 50682	2573-2555 BC (0.235) 2543-2511 BC (0.460) 2505-2489 BC (0.222) 2482- 2475 BC (0.084)	2619-2609 BC (0.018) 2581-2469 BC (0.982)

Figure 4.33. Karmir-Sar C14 dating (Bobokhyan 2022)

The KAC traditions declined and ultimately disappeared in the middle of the third millennium BC (Palumbi 2014, Alizadeh et al. 2018). The collapse of the KAC is evident in various ways: a large decrease in the number of settlements, an increase in burial sites, a new kurgan burial custom, an increase in mobility, changes in ceramic traditions and the emergence of new cultural models and social orders (Palumbi and Chataigner 2014, Alizadeh et al. 2018). Therefore, the last stage of the KAC still remains one of the most tantalizing subjects for scholars.

As we can see from the Figure 4.30, villages were abandoned (for brief or longer periods) during this stage (Edens 1995, Alizadeh et al. 2018). There are different opinions that some newcomers moved in and some populations abandoned their land and intermingled with another communities. Scholars (Lyonnet 2014, Kohl 2007) argue that the emergence of new population in the South Caucasus was from the north moving into the Caucasus through the Darial Pass in Georgia, or through the Caspian corridor. This points the beginning of the 'Early Kurgan Culture' in the South Caucasus region. Kohl (2001: as cited in Alizadeh et al. 2018) argues that a decrease in the settlement occupation during the second half of the third millennium BC was due to the expansion of the KAC people to western Iran, the Zagros region and to the Levant.

There is still a grouping of settlements in different regions (fig 4.30), identified in the north-eastern part of the country, mainly, in the Samur-Davachi lowland, and highland zones during the KAC III. There is still an occupation attested along the rivers of Quruchay and Kondalanchay as well. Surprisingly, there is an apparent sudden abandonment of the KA settlements located along the Gargarchay and Tartarchay rivers. Kushnareva (1997:74) holds the view that in the middle of the third millennium BC, the impulse to expand the settlements in the foothills and mountains was due to the increased populations in river valleys and on lake

shores and also it was due to the aridisation of the climate. In the same vein, Alizadeh et al. (2018) argue that a decline in the dense settlement groups at the end of the Kura-Araxes, was due to the environmental factors such as aridification and deforestation.

4.8.2. Discussion: Spatio-chronological analysis of KAC sites in Azerbaijan

The overall picture provides three occupation patterns that have been attested throughout KAC in Azerbaijan: lowlands, uplands and highlands. The data indicates that settlement occupations were relatively on a more stable basis in lowland areas throughout all KAC stages. The average altitudes throughout the KAC stages corresponds to the average altitude of the modern-day country, which is 384 m. Furthermore, the spatio-temporal analysis suggests that each region had diverse characteristics that attracted KAC people to settle in specific period of the KAC. The spread was not continuous and there are clear gaps in the distribution of sites which makes it interesting to study the contacts and movement of KAC people and understand the expansion of the culture. For example, Nakhchivan shows the longest duration of occupation throughout the entire KAC compared to other regions. Most sites in this region have a long-term of occupation, which indicates that KA communities were reluctant to occupy new land and preferred to reoccupy previous sites. This sedentism can be due to the different reasons; a variety of natural sources, a fertile land, water proximity or groupings like clans in kinship societies.

Furthermore, it is generally believed that KAC people had small villages with relatively thin cultural deposits (Kohl 2009, Badalyan 2014, Smith 2015, Sagona 2018). Sagona (2014:43) claims that 'most communities did not establish their settlements on earlier sites but reinforced their sense of identity by choosing new locations in which to build their homes'. In other words, to strengthen their sense of identity, KAC communities preferred to build their homes in new locations. However, this picture does not change in Azerbaijan, in which KA communities seem reluctant to explore new areas. Conversely, in other regions of the Caucasus, for example, in Armenia, the distinction of the KA phenomenon is reflected in the largely single-layered character of both early (KA I) and late (KA II) settlements. However, a small portion shows a short hiatus, demonstrating the discontinuity of certain multi-layered (KA I-II) settlements (Badalyan and Avetisyan 2007, Badalyan 2014:87, Badalyan 2022). Some regions, such as the northeastern part of Azerbaijan, along the Caspian coastline, mainly featured single-layered

occupation sites, perhaps demonstrating that KA communities were keen on finding new lands, especially during the later stages of the KAC. This perhaps also links to the changes in the subsistence economy of the KAC settlers. However, it is hard to distinguish all these occupational changes, whether those links different communities, such as those living in highland areas with varying economies of subsistence, organization, and life strategies, or lowland societies with flexible environments and easy-accessible lands. We need a more detailed view at a regional level to understand precise episodes of this culture in Azerbaijan.

4.9. Conclusion

In sum, this chapter tried to demonstrate many unseen aspects of the settlement dynamics of Kura-Araxes groups in Azerbaijan during the EBA. Even though settlements described in this chapter represent only a sampling of those occupied during the KAC stages, future research will increase the understanding of settlement life in Azerbaijan. Given that the occupation of altitudinal zones is different, it is not surprising that the settlement structure, spatial organisation of settlements, architectural repertoire and principles of construction will be diverse and characteristic for each region. This will help us more fully understand the impact of climatic, economic and social factors in Kura-Araxes communities which will be discussed in the following chapters.

CHAPTER FIVE: THE NATURE OF KURA-ARAXES CULTURE SETTLEMENT STRUCTURE IN AZERBAIJAN

5.1. Introduction

Following the previous chapter that explored the KAC settlement pattern in Azerbaijan, this chapter aims to examine the nature of the KAC settlement structure in the region. There are still challenges to understanding the spatial organisation of settlements, as there are only a handful of sites that provide information on the settlement structure of the KAC sites in Azerbaijan. Unfortunately, most of these excavations have not been systematically published, and the available information is patchy and fragmentary. This is partly because most of the excavations are clustered around specific regions, while also fieldwork and surveys are not equally distributed to cover the whole area. We are therefore, confronted with a serious dearth of information and in this chapter, the ability to show regional differences spatially and chronologically is very much restricted.

The purpose of analysing the nature of settlement structures in KAC communities is to establish a broad overview of KAC settlement structure. Furthermore, the aim is to understand whether there are patterns in terms of settlement layout that indicate cultural change throughout different phases of the KAC. The chapter will start with the method of presenting data and introducing the challenges of the study. Next, we will attempt to identify settlement variations along the wide landscape setting in the Southern Caucasus and later in Azerbaijan. The following section will attempt to analyse the changes in architectural forms and usage of space during the KAC phases in the South Caucasus. Finally, there will be an assessment of previous frameworks in the light of new evidence with an interpretative summary and concluding points.

5.2. Methods and Limitations

In comparison with other areas of the Kura-Araxes Culture, less attention has been paid the aspects of cultural, social and settlement dynamics of Kura-Araxes groups in Azerbaijan. Therefore, we will try to gain an understanding of settlement organisation and layout structure

more broadly by bringing some comparisons from neighbouring regions. It would be unhelpful to repeat the problematic details previously discussed in the methodology section of Chapter 4, however, it is worth reiterating a few problems here. The reason for insufficient data partly links to the issue of the investigations of Soviet archaeologists, which has left a vast amount of archaeological finds coming from burials. Sagona (2018:476) emphasises that approaches to studying the Caucasus region have changed in the past two decades. For much of the twentieth century, the evidence was dominated by burials, so that data on the dead took precedence over the living and their settlements. In addition, it is difficult to determine the complex developmental phases of the KAC settlements with only a handful of radiocarbon dates.

The evidence of settlement structure is based on those sites that cover a long stratigraphic sequence, have undergone systematic excavations and surveys and have been the subject of published reports over a long time. Regarding sampling techniques, there has been no specific criteria for site selection for the data analysis. A significant part of the contribution of the current research is the identification of 89 KAC settlements in Azerbaijan, which were mapped and incorporated into the study. It is important to encompass the full range of variations among KAC settlements to have a reasonably representative basis for social and cultural interpretation due to the data varies extensively. For instance, there are some sites with extensive systematic excavations which give comprehensive information about the rich material culture, with having site plans and some level of landscape setting details. However, some partially excavated sites have only a few building plans and some sites do not provide site plans at all. In order to make a series of analyses, relevant data is presented in the form of graphic drawings of site plans, comparative graphs, and photographic images. It is also important to mention that all settlement drawings (architectural plans) are at the same scale.

Another potential issue is that the estimation of the size and area of the settlements are not indicated in most archaeological reports, which hampers any interpretation of the complexity of the society. Therefore, it withholds us from discussing the clustering or grouping of settlements in different regions or considering ‘core or large-scale settlements’ and ‘satellite or small-size settlements’ principles. Regarding the environment and land use, there has also been limited research about settlement use and the development of the settlement environment. This results in the lack of understanding of further anthropogenic interferences in the landscape and economic development during the EBA. Therefore, a dearth of data, limits our understanding

of the relationship with environment and the strategies for adaptation of land use including sedentarisation, animal economy and resource extraction. Hence, all the aforementioned issues are exceedingly intricate to be explored considering limitations of the present dataset.

5.3. Identification of settlement variation in the Southern Caucasus

The flexible lifestyle of Kura-Araxes communities is reflected in varying modes of occupation ranges from permanent villages to seasonal camps, alongside situated in open plains and caves (Sagona 2018). KAC settlers occupied a greater diversity of environmental zone ranging over different altitudes, which affected the settlement variations across the wide region. Summarising major changes in the settlement occupation, which differentiated the EBA from preceding periods, it is noticeable that there was a definite increase in productivity, diverse topography, together with an increase in population and diversity in architectural planning (Kohl 2007, Palumbi 2016). A modification in the form and construction method of settlements in different altitudes also reflects changes in environmental conditions. For example, settlements on the slopes of hills adopted a distinctive form of settlement planning that included terracing. For instance, Amiranisgora is made up of no less than ten occupational terraces stretched along a mountain slope that each terrace appeared to be an independent quarter comprising of about 18 houses (Kushnareva 1997: 55) (fig 5.1). The Karaz and Pulur sites in Eastern Anatolia were analogous to the Amiranisgora settlement in Georgia (fig 5.2).

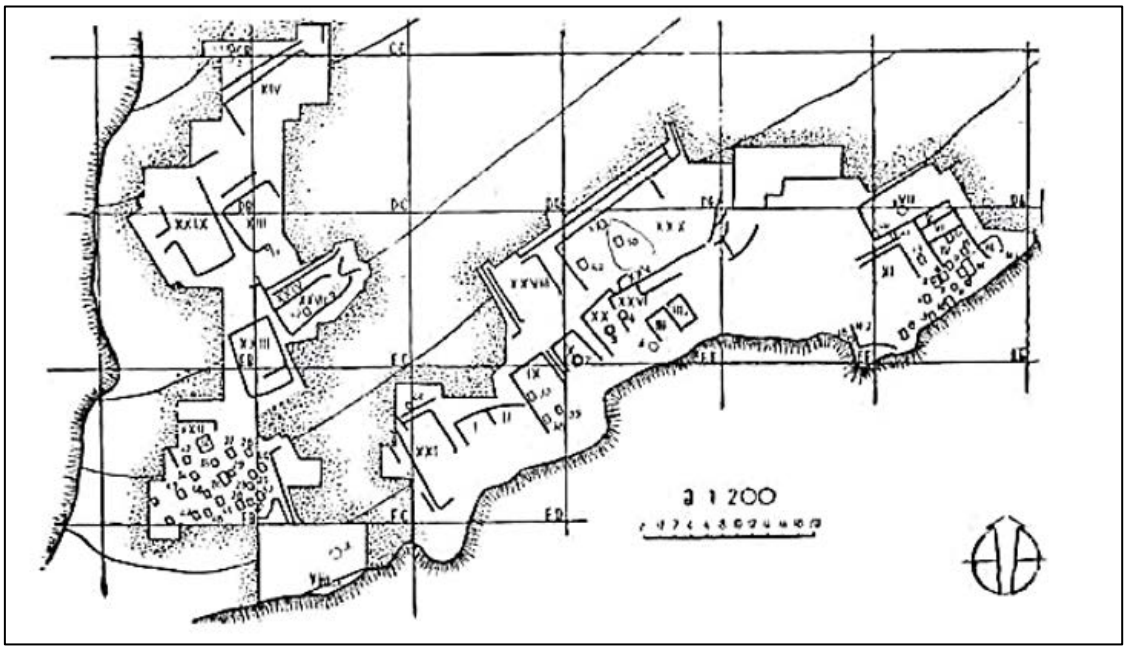


Figure 5.1. Plan of Amiranisgora (Shanshaashvili and Narimanishvili 2014:262, Pl VII,3)

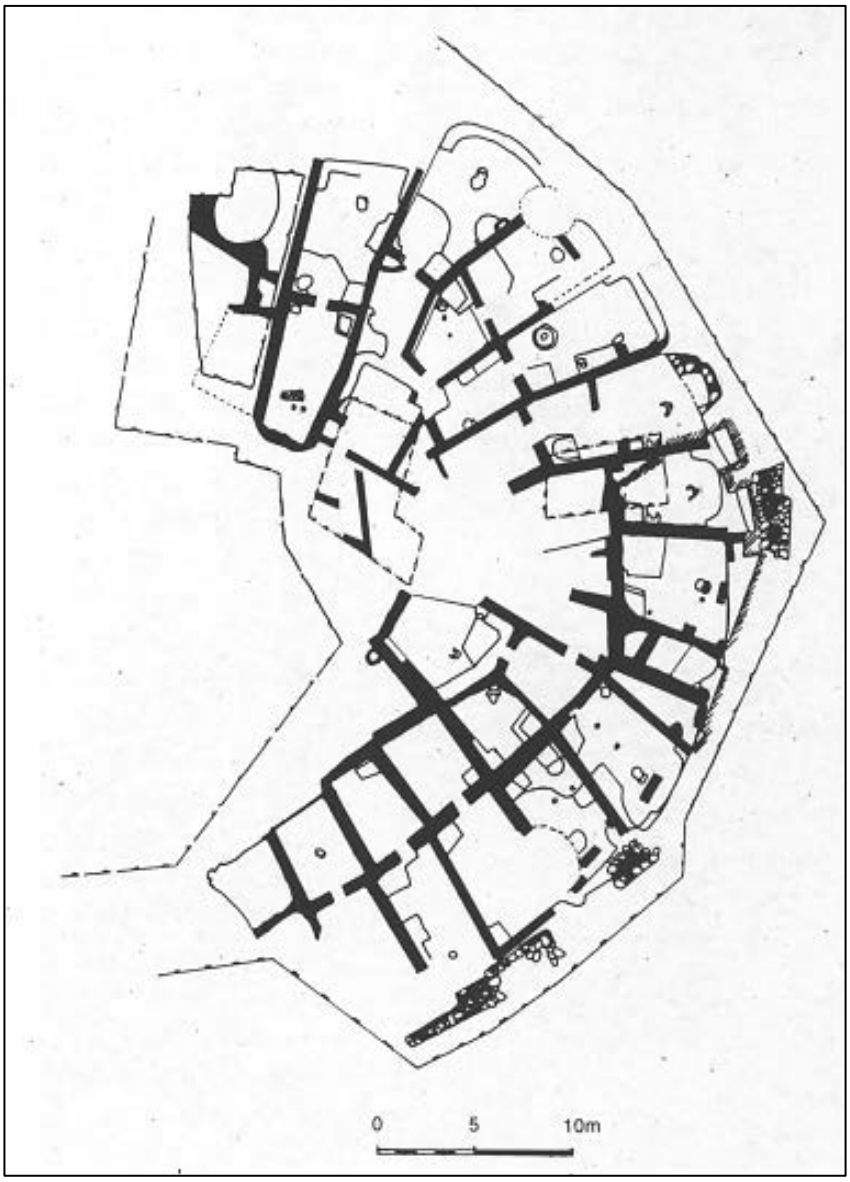


Figure 5.2. Plan of Pulur (Sakyol) Levels X-XIII (Kosay 1976, as cited in Sagona, 1998:17, fig 1)

Some groups of settlements, for example located in the Shida-Kartli region, such as Kvatskhela, Khizanaant Gora and Kvatskhelebi (fig 5.3) lay in the dominant position on the river cliff. This group of settlements was composed of architectural units of the same type, characterised by a significant homogeneity in architectural practice in the region throughout the KAC stages (Rova 2014: 55).

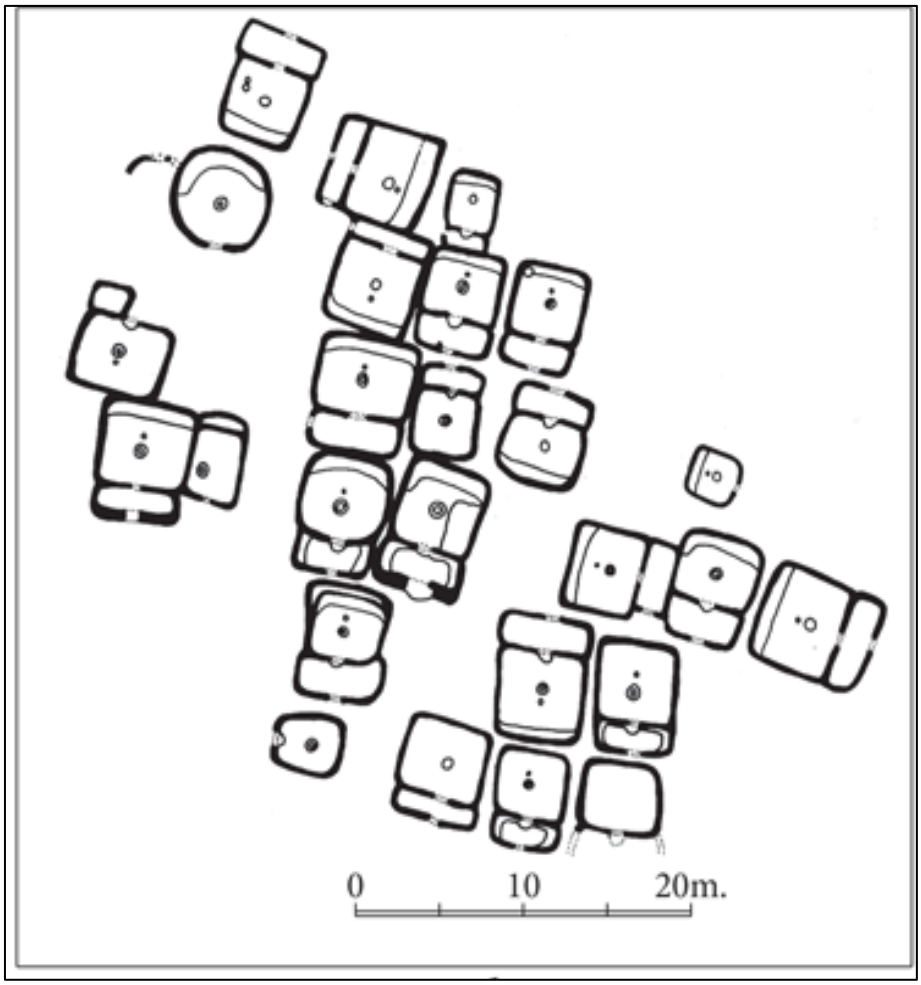


Figure 5.3. Plan of Kvatskhelebi Level C, Georgia (Sagona 1998: 17, fig 1)

Furthermore, the morphology of settlements differs ecologically over large areas during different stages of the culture. Palumbi (2008:201) points out that the settlements on flat land in the alluvial plain tend to emerge as multi-layered mounds, indicating a longer history of occupation compared to settlements in hilly or mountainous regions, which are often 'flat' settlements and have less evidence of continuous occupation. A few examples can be brought from Azerbaijan, where some settlements have found on a 'tepe' or 'tell', which shows a long history of occupation (b, f). At the same time, some settlements were built on artificial mounds or plains that emerged as a short period of occupation (a, c, e). Some are located in the hillside or mountain areas with have lesser settlement continuity of occupation (d).

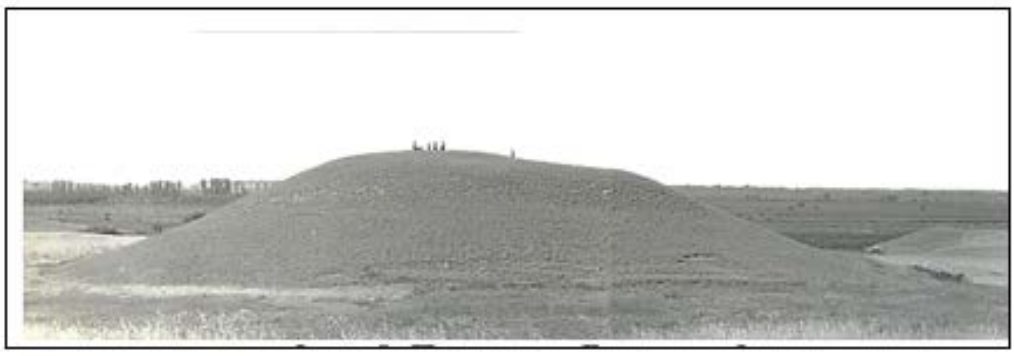
a



b



c





d



e



f

Figure 5.4. View of various settlements occupied various environments within the Kura-Araxes regions in Azerbaijan. a. Chaggalligtepe (view of the site along with the sounding test, (Ashurov et al. 2018: fig 4), b. Ovchular Tepesi, view from from the north (O. Barge, CNRS, cited in Bakhshaliyev et al. 2010:24, fig 2), c. Boyuktepe I (Akhundov 2009: 273, fig 8), d. Northern view of the site Khinalig along with the sounding test, Northern view of the settlement (Aliyev and Aghayev 2013: 181. N.fig. n), e. View of the Golyeri settlement (Huseynov 2012: 70, n.fig n), f. View of Qarakopaktepe site (Ismailov and Danielyan 1980, fig 2).

5.4. Architectural forms of KAC settlements during the KAC stages in the Southern Caucasus

This section sets the foundation to briefly discuss the architectural plan of the KAC settlements in the Southern Caucasus before analysing the Azerbaijani data. Given the geographical extent of the developed Kura-Araxes complex, it is not surprising that there are differences among settlements in relation to architecture, building techniques and spatial organisation of settlements. Considering all these differences, Sagona (1993:463-473) identified three types of settlement divisions for the Early Bronze Age in the Southern Caucasus:

1. Free-standing wattle and daub structures
2. Large circular houses with or without rectangular annexes
3. Villages of rectangular houses

Sagona (2018:228-242) divided settlements according to their architectural forms into earlier and later settlements based on their chronological changes during the KAC. Early settlements are considered as having traces of the earliest Kura-Araxes structures while still carrying Late Chalcolithic features. For example, sites Berikldeebi, Chobareti, Grmakhevistavi and Khizanaat Gora show the formative stages of KAC architecture. The superimposition of architectural layers of the KAC and Late Chalcolithic was attested in Berikldeebi (Palumbi 2008, Sagona 2018). The earliest stages of Kura-Araxes houses consisted exclusively of monocellular free-standing houses with one or two rooms contrary to the agglomerations of multicellular architecture commonly seen in Late Chalcolithic settlements (Palumbi 2008, Palumbi and Chataigner 2014:249, Sagona 2014) (fig 5.5). However, the arrangement of the compound of round buildings in a circle way was already common in the local Chalcolithic architectural traditions (fig 5.6). Numerous questions still need to be examined in relation to whether differences were expressed in the use of materials or in the function, as well as in the nature of buildings that differentiated KAC people from the Late Chalcolithic communities (Palumbi 2008:44).

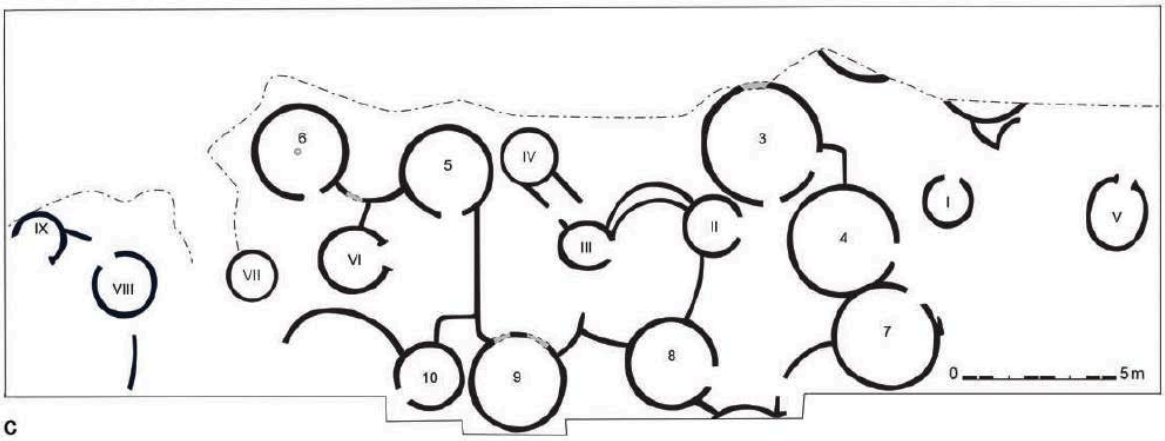


Figure 5.5. Late Chalcolithic settlement. Shomu Tepe (plan without orientation) (Narimanov 1992: 199, fig 3, as cited in Baudouin 2019: 139, fig 13, c)

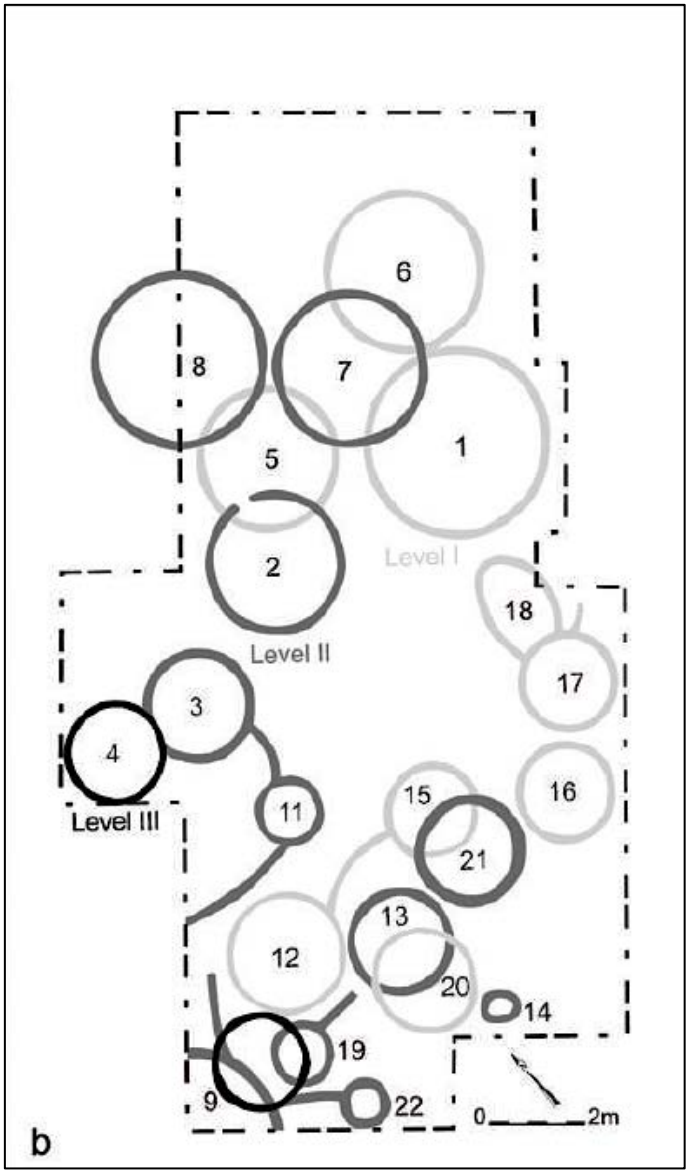


Figure 5.6. Late Chalcolithic settlement. Gargalar Tepesi, plan of levels 1 to 3 (plan without orientation) (Narimanov 1987:216, fig 20, as cited in Baudouin 2019: 139, fig 13, b)

Settlements related to the later stages show diversity in plan and spatial organisation, which roughly divided into: free-standing wattle and daub structures, villages of circular structures, stone mud-brick rectangular houses, terraced settlements, semi-subterranean structures and fortification or protective walls. While it is difficult to ascertain the stage of these different architectural types, there is a general tendency that circular houses with or without rectangular annexes prevailed in the initial stages of the culture, while the later stages saw a growing trend toward rectilinear dwellings (Palumbi 2008, Rova 2014, Isikli and Ergurer 2017:45, Sagona 2018). For example, in Khizanaaant Gora, phase D represents houses with a circular shape (fig 5.7). In contrast, in phases C and B, the circular shape disappears and being replaced by rectangular dwellings with rounded corners and a rectangular front vestibule (fig 5.8) (Palumbi 2008:180).

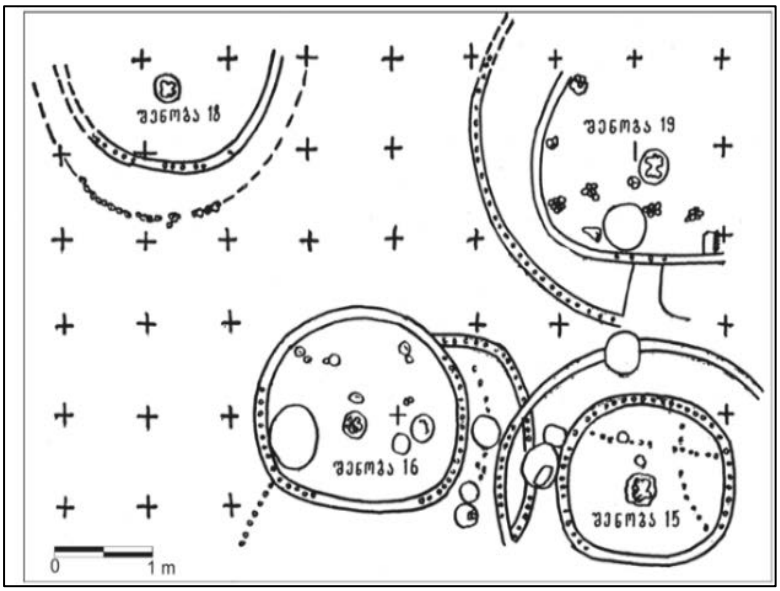


Figure 5.7. Plan of Khizanaant Gora phase D, Georgia, circular building structure, KAC II (Palumbi, 2008:181, fig 5.18 (1)),

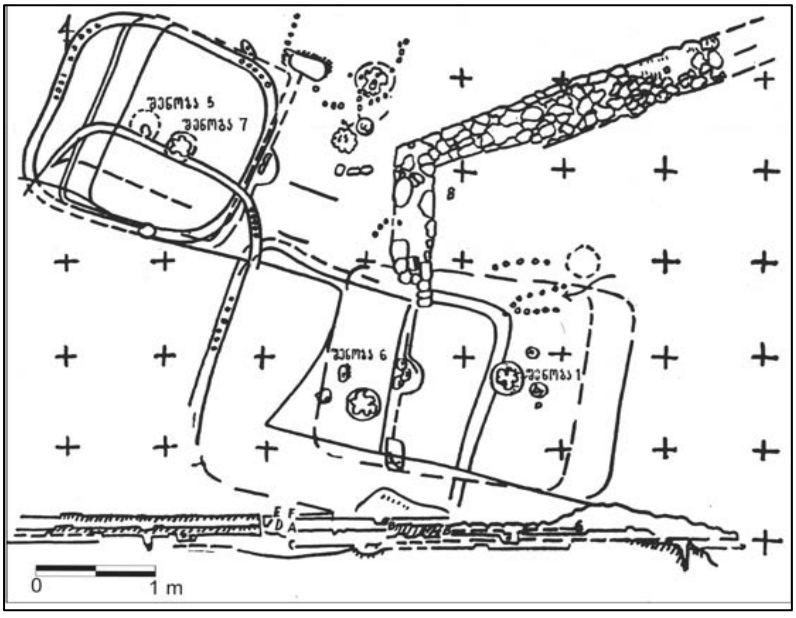
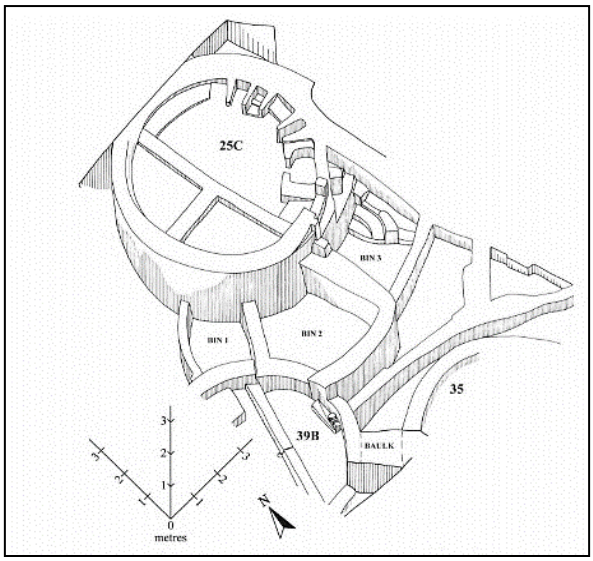


Figure 5.8. Plan of Khizanaant Gora phase B, Georgia, rectangular dwelllings with rounded corners, KAC III (Palumbi, 2008:182, fig 5.19 (2))

Some believe that toward the middle and last phases of the KAC, an increase in societal complexity evolved (Batiuk et al. 2022:64). For example, at Yanik Tepe, Iran, two chronological divisions are readily recognisable with the dramatic changes in architectural traditions (Summers 2013a). The ubiquitous presence of round houses in KAC II (fig 5.9) was replaced by an agglutinative rectilinear building tradition in the last stage of the KAC III (fig 5.10).

Another great example is Shengavit, located in the Ararat Plain with its 3.5 m deposit and 6 ha spread, which provides a good idea of the settlement layout, recalling similarity with the sites in the middle Araxes Valley, and around Lake Urmia, where Yanik Tepe and Gijlar Tepe are found (Palumbi 2008, Sagona 2018) (fig 5.11). Architectural remains in Shengavit, include a mud-brick structure with a circular room and rectangular annex. This demonstrates a form of densely packed settlement with inter-connected by walls, and notably, amorphous villages with no obvious routes of communication (Sagona 1984, Palumbi 2008).



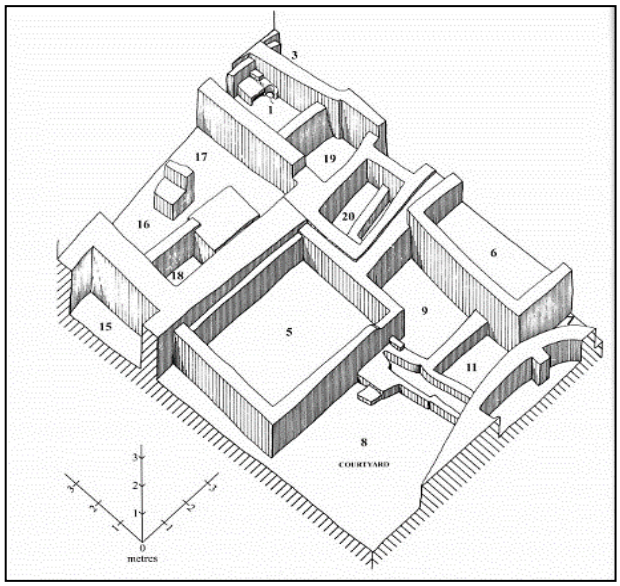


Figure 5.9. 3D plan of Yaniktepe, Northwestern Iran, circular building structure, KAC II (Summers 2013b:54, fig 46)

Figure 5.10. 3D plan of Yaniktepe, Northwestern Iran, rectangular building structure, KAC III (Summers 2013b:136, fig 124)

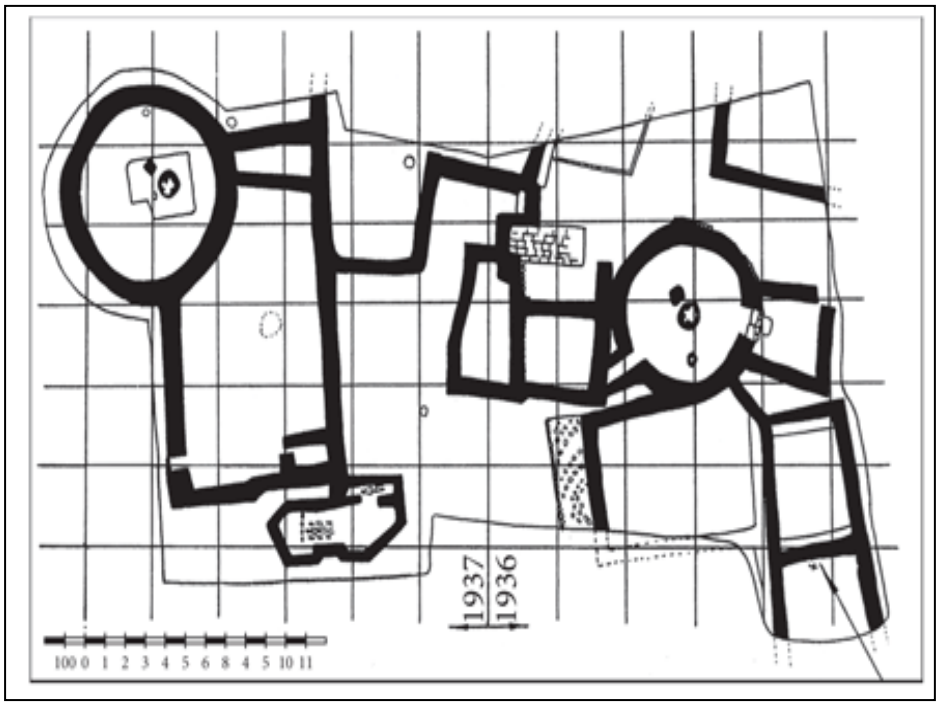


Figure 5.11. Shengavit, Armenia, the plan of the domestic structures (Palumbi 2016:17, fig 6 (4))

A similar plan to Shengavit can be attested in Makhta site, Nakhchivan, Azerbaijan and Yaniktepe in Iran, where circular buildings were organised into rectangular multi-room residences with common courtyards (fig 5.12, 5.13).

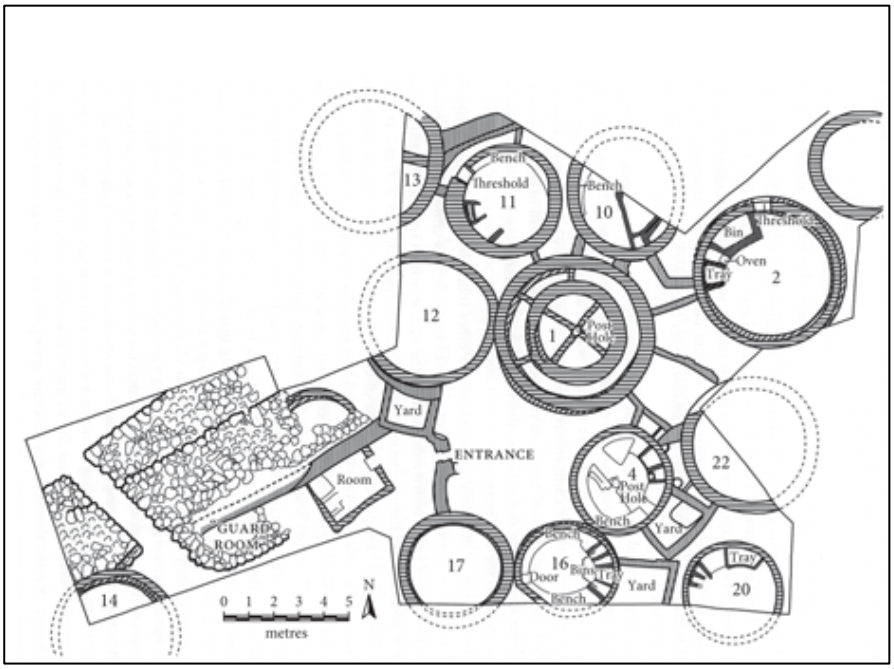


Figure 5.12. Yanik Tepe, the plan of Level 15 (Summers 2013b:61, fig 54)

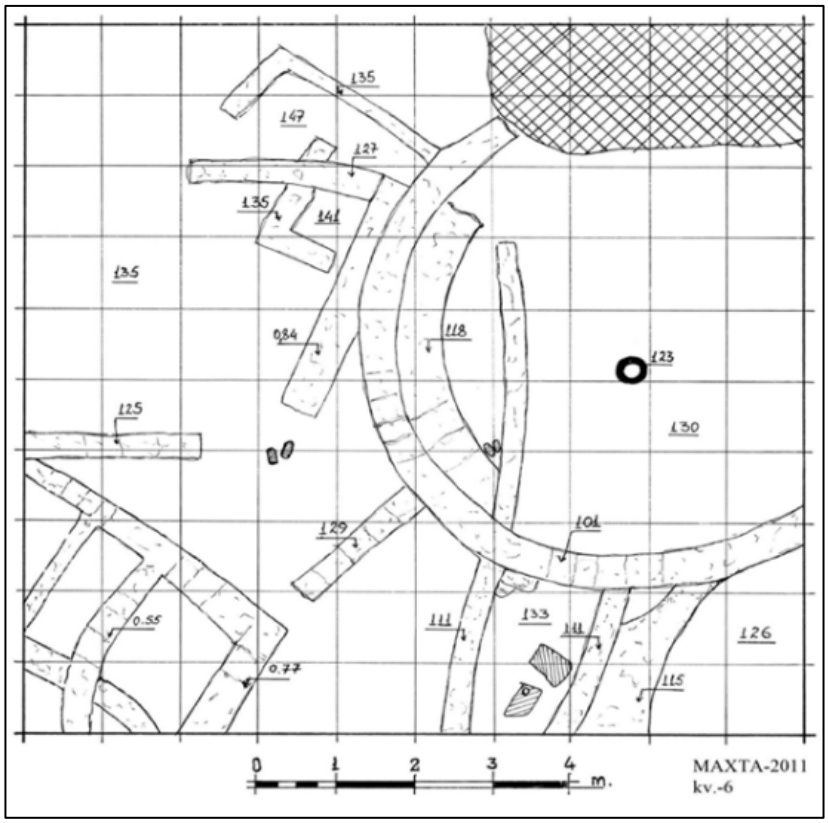


Figure 5.13. Makhta, the plan of level 6 (Ashurov et al. 2012:90, no figure number)

5.5. KAC Settlement sizes

Despite the cultural unity and homogeneity at the core of the Kura-Araxes cultural horizon, some visible variability in the society prompted scholars to question the growth of settlements and the overall expansion of the community. Settlement sizes can thus help us identify the social complexity in KAC settlements in the Caucasus. Although the dynamics of KAC social complexity, population growth and inter-societal interaction remain underexplored, there have been some attempts to address the subjects of social complexity, social dynamics and settlement size during the EBA (Kohl 1993, Masson 1997, Kushnareva 1997, Areshian 2007, Alizadeh 2015, Rothman 2018, 2020). Further details on the variable parameters of social complexity discussed in Chapter 2, section 2.2.3. The degree of social complexity in KAC settlements with the extensive size of some buildings, construction of fortification walls, or irrigation canals associated with the communal organisation, centralised management or other forms of existence of social differentiation (Masson 1997:126, Areshian 2007, Simonyan and Rothman 2015, Palumbi 2016).

Kushnareva (1997:74, 225) has argued some hierarchy of social complexity among KAC settlements in the Caucasus. Based on her suggestion, there is a tripartite hierarchical division for the Kura-Araxes settlement sizes: small KAC settlements occupied 1-1.5 hectares, the medium-sized, 3-5 hectares, the large, 6-10 hectares and in rare case up to 12 hectares. So far, the largest recorded KAC site is the settlement of Arich, located on the southern edge of the Shirak plain in northwestern Armenia occupying an area of 12 ha (Kushnareva 1997, Kohl 2009:250). However, an average KAC settlement occupied 3-4 hectares (Masson 1997, Kushnareva 1997:184, Kohl 2009, Sagona 2018, Batiuk et al. 2022). Areshian (2007:40) claims that the hierarchy suggested by Kushnareva (1997) is based on few settlements in the Caucasus, mainly in Ararat plain which can also be postulated for neighbouring KAC sites in which the elements of social disorganisation is detectable, such as Norsuntepe site in Eastern Anatolia, settlements in the basin of Urmia Lake and in Kangavar plain.

Areshian (2007:42) firmly believes that settlement size is not a primary indicator of social complexity. In the KAC horizon, there are high-density built environments, but in reality, there are also architectural landscapes of low density that occupied large areas. It is obvious that high-density settlements are represented quite often by tells. Despite occupying a vast area represented by the 'tell', some sites do not seem to be densely populated but still have some level of complexity. For example, contrary, Norabats, an EBA settlement in Armenia, in spite of its small size that does not exceed 0.6-0.8 ha, displays a pattern of small free-standing round structures. The settlement characterised with a substantial hierarchical differentiation of a cluster of smaller satellite houses surrounded by the 'core' houses which are larger than other satellite structures (Areshian 2007:31-32). Therefore, Areshian (2007:41) claims that we can presuppose a bi-level settlement structure rather than a tripartite hierarchical division, which was characteristic of less socially complex sites of the Caucasus. Despite all these speculations, scholars like Kohl (2009:250) and Rothman (2015:123) strongly believe that most KAC settlements do not constitute evidence for a sharply differentiated three-tiered settlement.

In order to see whether there is any evidence of functional or hierarchical differentiation among KAC settlements in Azerbaijan, we have attempted to explore the size of settlements from the available data. Indeed, there are far too many uncertain variables to be confident about the size of settlements. The data presented in Table 5.1 is derived from the literature referencing the size of settlement in particular during the EBA period in bracket. For some settlements size,

rough estimations were based on the calculation of their excavation area while some settlement size estimation was based on them representing 'tepe' or 'tell', having a long occupation and long density. Large-scale excavations at sites such as Kultepe I, Kultepe II, Babadervish, Makhta I could possibly give us some aspects of social differentiations in KAC communities. This is, of course, very speculative, but it does offer a broad order of magnitude.

Table 5.1. Descriptive statistics for site sizes in KAC settlements in Azerbaijan

KAC sites	**Area ha**	**Period**
Khinisli	60?	EBA (a very short period), Antique Period, Medieval Period
Kultepe	6?	LC, EBA, MBA, LBA, EIA
Kultepe II	5 (EBA)	EBA, MBA, LBA, IA
Serkertepe	5 (EBA)	EBA, MBA, MP
Boyuktepe II	5	EBA, MP
Qarakopaktepe	4	LC, EBA, MBA, LBA, EIA, AP, MP
Mingechaur	3.5	EBA, LBA, IA, MP
Makhta I	3 (EBA)	EBA
Mahkta II	3 (EBA)	EBA
Meynetepe	3	EBA, MBA
Golyeri	2.5	LC, EBA
Guneshtepe	2.5	LC, EBA, MBA
Ovchular Tepesi	2 (EBA)	MC, LC, EBA
Qarahaci	2	EBA
Jafarkhanli	2	EBA, MBA
Turkan	2	EBA, LBA
Khojakhan	1.5	LC, EBA, LMP
Kultepe I	1.5 (EBA)	N, LC, EBA, MBA, LBA, IA
Shortepe	1.5	EBA, MBA, AP
Uzuntepe	1.5?	EBA, MBA
Misharchay I	1.2 (EBA)	EBA
Misharchay III	1?	EBA, MP
Ocaqtepe	1?	LC, EBA, MBA
Boyuktepe I	0.77	EBA, MP

The data reveal that KAC settlement size ranges between 1.5 and 5 ha in Azerbaijan. The majority of sites fall into the 1-3 ha category. The small-sized sites are 1.5-2 ha, the medium-sized sites are between 2-3 ha, and finally, the large and rare case is 4-5 ha, such as Kultepe II (5 ha), Qarakopaktepe (4 ha), Makhta (3 ha) and Serkertepe (5 ha). However, some sites, such

as Kultepe I, which does not exceed 1.5 ha have a high tell and show a long occupation. Therefore, as confirmed above, site size cannot simplistically be equated to social complexity (Kohl and Lyonnet 2008:32). Furthermore, while analysing the data it is found that a clustering system suggested by Kushnareva (1997) and Areshian (2007) does not closely associate with the scale of settlements in Azerbaijan. The data refrain us to further interpret and claim on the existence of a marked tri-level hierarchy of Kura-Araxes settlements in the case of Azerbaijan. Another circumstance contributing to increased social complexity is the increasing diversity within the internal structure of the settlements, which led to the further growth of social complexity. Therefore, in our next section, through exploring architectural forms of KAC settlements, we will find out whether there is a relationship between settlement complexity and settlement structures.

5.6. Architectural forms of KAC settlements in Azerbaijan

One of the aims of this chapter will be to draw a general picture of the architectural structures in the broadest sense and it will attempt to identify their chronological development and change over time. Out of 89 settlements incorporated into the study, only a few can give us a general impression of the changes of the architecture in Azerbaijan over the KAC stages. The data found that five architectural forms can be recognised in Azerbaijan during the EBA, which should be treated as a rough division. The first group of settlements contain sunken floor structures, the second contains free-standing monocellular circular buildings without rectangular annexes, the next group is the free-standing circular buildings with rectangular annexes and later rectangular buildings, and last but not least, an architectural form that shows some level of complex walls. However, it is still difficult at a single site level to identify at what stage these structures were common, or whether all these types were built in all phases of the Kura-Araxes Culture, or whether any form of structure was dominant during all KAC stages.

The documentation on the residential structures of the KAC settlements in Azerbaijan reveals a fairly similar picture of architectural traditions to that of other neighbouring regions (Sagona 1993:454). However, in the data that was examined, a local distinctive architectural feature of a sunken floor was discovered and these sunken-floor dwellings, are thought to be attributed to the earliest phase of the Kura-Araxes period (Bakhshaliyev 2006, Kohl 2007, Lyonnet, et al. 2017, Sagona 2018, Baudouin 2019). A second group of free-standing circular buildings

illustrates the common architectural representation not only in Azerbaijan, but also in the whole Caucasus region throughout all KAC stages. These house types were built in all phases of the Kura-Araxes Culture (Palumbi 2008, Sagona 1993:464). A third group of structures contained complex and compound dense of buildings, with the admixture of circular with rectangular annexes, belong to more middle phases of the KAC (Sagona 1993). The next group contains solely rectangular structures, which is less common in the region. Finally, structures in the form of fortification walls are less documented, and therefore their purpose of usage as an emergence and existence of social complexity within KAC communities during the last phases is still debatable.



Figure 5.14. Example of a circular sunken-floor structure from the Chaggalligtepe site (Yusifli 2022)

5.6.1. Sunken- floor structure

The data suggest that there are several buildings with underground structures in Azerbaijan that we possibly think are sunken-floor structures. The sunken structures were recorded in three settlements dated relatively to the early stages of the KAC: Chaggalligtepe, Mingechaur and Plovdag. Due to the fragmentary nature of the data, it perhaps is not a definite number; however, we have tried to determine the accurate number to the best of our knowledge. Although sunken dwellings seem to have a simple structure, they have been poorly investigated so far (Azimov

2006, Sagona 2018, Baudouin 2019). There are homogeneous peculiarities in deeply dug architectural plans, and building methods with settlements located in the north-eastern Caucasus, namely Velikent, on the west Caspian Coastal Plain in Dagestan (Magomedov 2006, Kohl 2007, Batiuk et al. 2022:73).

Scholars (Kushnareva 1997, Azimov 2006, Bakhshaliyev 2006, Lyonnet, et al. 2017, Sagona 2018, Baudouin, 2019) claim that sunken-floor architecture is the remnant of the early pits which can be traced back to the Chalcolithic period. This is evident in the case of pit houses attested at sites such as Golyeri, Babadervish, Ovchular Tepesi, Muraddayi and Padar, which saw the transition between the Chalcolithic and the EBA. Therefore, due to the poor understanding of the Chalcolithic period and the limited available stratigraphy, it is challenging to identify whether these sunken structures were assigned to the earliest Kura-Araxes period or to the later stages of the culture.

Definition of the structures

There have been different names and definitions for sunken-featured buildings in the literature (so-called 'землянка' in Russian literature), such as 'pit houses', 'semi-subterranean', 'semi-interred' or 'semi-dugout' structures. According to local scholars (Gadzhiev 1987, Magomedov 2006, Abakarov and Davudov 1993), pit houses (qazma evlər) and semi-subterranean (yarımqazma evlər) structures differ from each other based on their construction. However, some scholars (Kohl, 2007, Sagona 2018) define them as the same under one category. From a construction point, semi-subterranean buildings are deeply dug down from the surface (fig 5.14). In other words, 'Semi-subterranean buildings are constructed by digging a pit and often, by using the extracted earth to build low walls of stacked mud at the edge of the pit to support a wooden beam cover' (Wulff 1966:103, as cited in Baudouin 2019:134). Scholars (Azimov 2006, Baudouin 2019:145) believe that the reason for choosing this style of architecture is the basic simplicity of design and its reliability. It is believed that this style was found in regions that lacked access to a wide range of construction materials, and therefore possibly not yet fully developed construction techniques (Azimov 2006, Roe 2017).

Shape and size of sunken buildings

Sunken structures, like 'above-ground' buildings are also divided into two shapes: circular and rectangular. Some are roughly circular in shape, with others being a more rounded rectangle

and oval. It is generally believed that the oldest form of pit-house was a round shape (Collis 2001, Sagona 2018). Development over time in structure resulted in changes from the round-shape to the rectangular pit-houses (Azimov 2006:19, Roe 2017:97, Sagona 2018:105) (fig 5.15, 5.16). Changes in shape have also contributed to the increase in building size. Most commonly, round buildings are between ca 2.20-3.50 m (4-9 m^2) and have usually been dug about 0.60 m into the earth. In contrast, surviving rounded rectangle sunken dwellings are ca 5 m long, and 4 m wide (16-20 m^2) (Aslanov et al. 1959, Ashurov et al. 2018). Some scholars (Timar 2015:198, Collis 2001) believe that sunken-featured buildings were too small for habitation and perhaps the size of the structure does not give sufficient space to accommodate individuals. These buildings were probably used to fulfil non-domestic subordinate functions, such as storage cellars or for some special activities. Subsequently, there was a shift where some larger structures appeared with multi-roomed buildings, large in diameter and these are most likely to have been used by extended families (Aslanov et al. 1959, Sagona 2018). For example, in Mingechaur, buildings' length measured between 8 and 14 m, width between 4 and 8 m and their size (area) ranges between 9 and 112 m^2 (Gazetteer N 48, p 107) (fig 5.15).

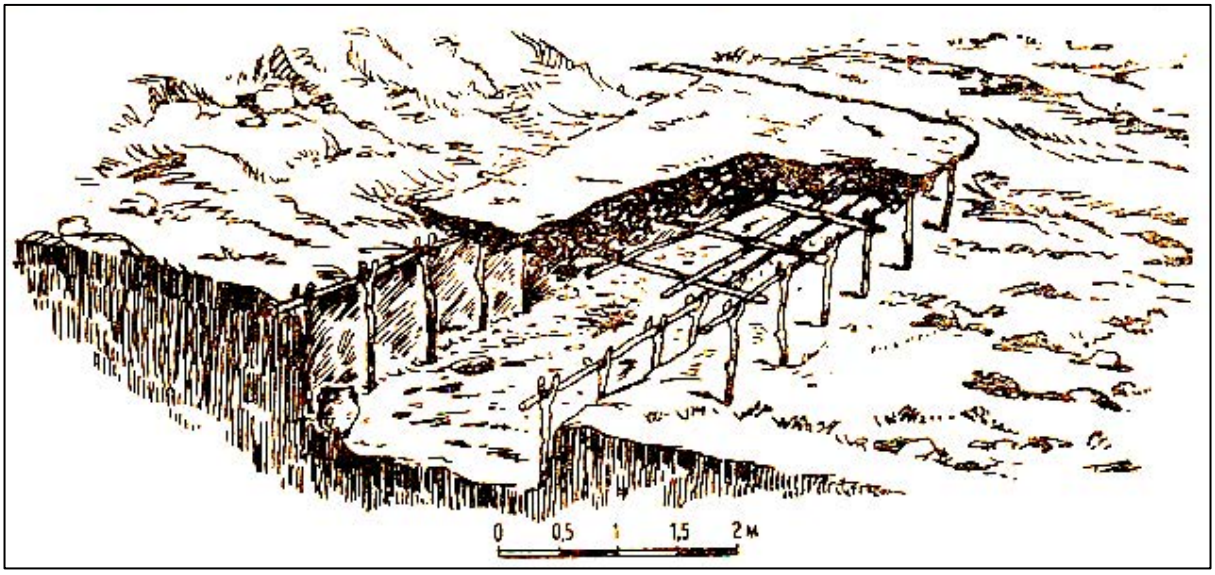


Figure 5.15. Rectangular sunken dwelling in Mingechaur site (Reconstruction) (Aslanov et al. 1959:25, fig 8)

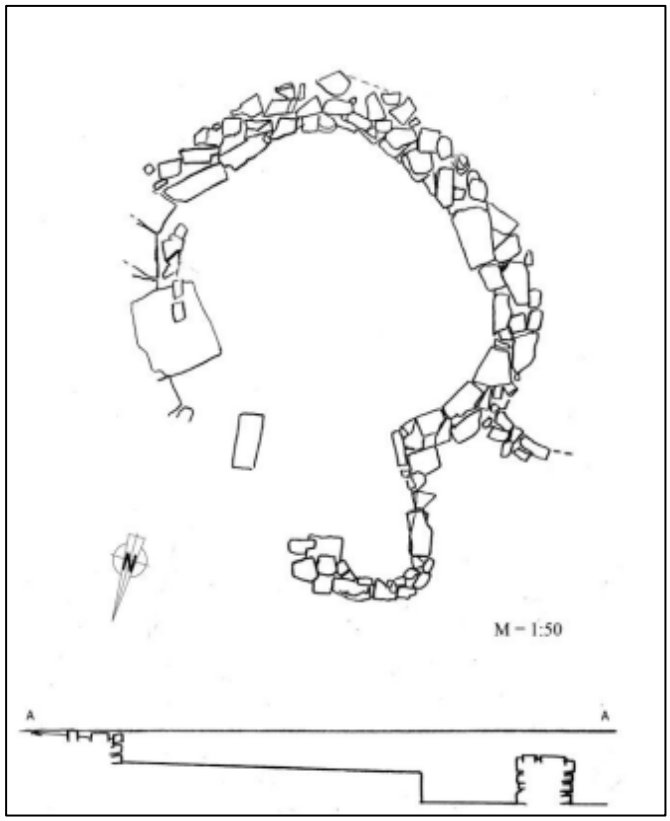


Figure 5.16. Plan of Plovdag circular semi-subterranean building (Ibrahimli et al. 2015: 169, fig 2)

Building materials used for sunken structures

It is difficult to give a precise description for sunken structures in relation to their construction techniques. However, it is generally accepted that timber, wattle and daub are the primary building materials with structures often incorporating stonework as a foundation or sometimes dug down into the natural soil without foundation (Kohl 2007, Ashurov et al. 2018, Sagona 2018). Floors are paved with pebbles and coated with clay and have some structures made of light material which also contain numerous post-holes. The diameter of postholes ranges between 0.10-0.25 m (Ashurov et al. 2018) (fig 5.17, 5.18). More often, the function of postholes is obscure, however, Sagona (2018:99) claims that 'posts were occasionally used for connecting fences between storage units'. We see a similar picture using post-holes in Dagestan as well (Abakarov & Davudov 1993, Gadzhiev et al. 1996) (fig 5.19).

Roof shapes for these structures, are not well understood and the nature of roofing methods still poses many questions. Ashurov et al. (2019:9) claim that pit houses used to have dome-shaped (or beehive-shaped) roofs. In contrast, there is also possibility that because of the thinness of

the walls and absence of central supporting posts, some structures' roofs may have been flat. This suggestion is evident in the case of a reconstructed plan of Mingechaur settlement, which shows the roof to be flat (fig 5.15).

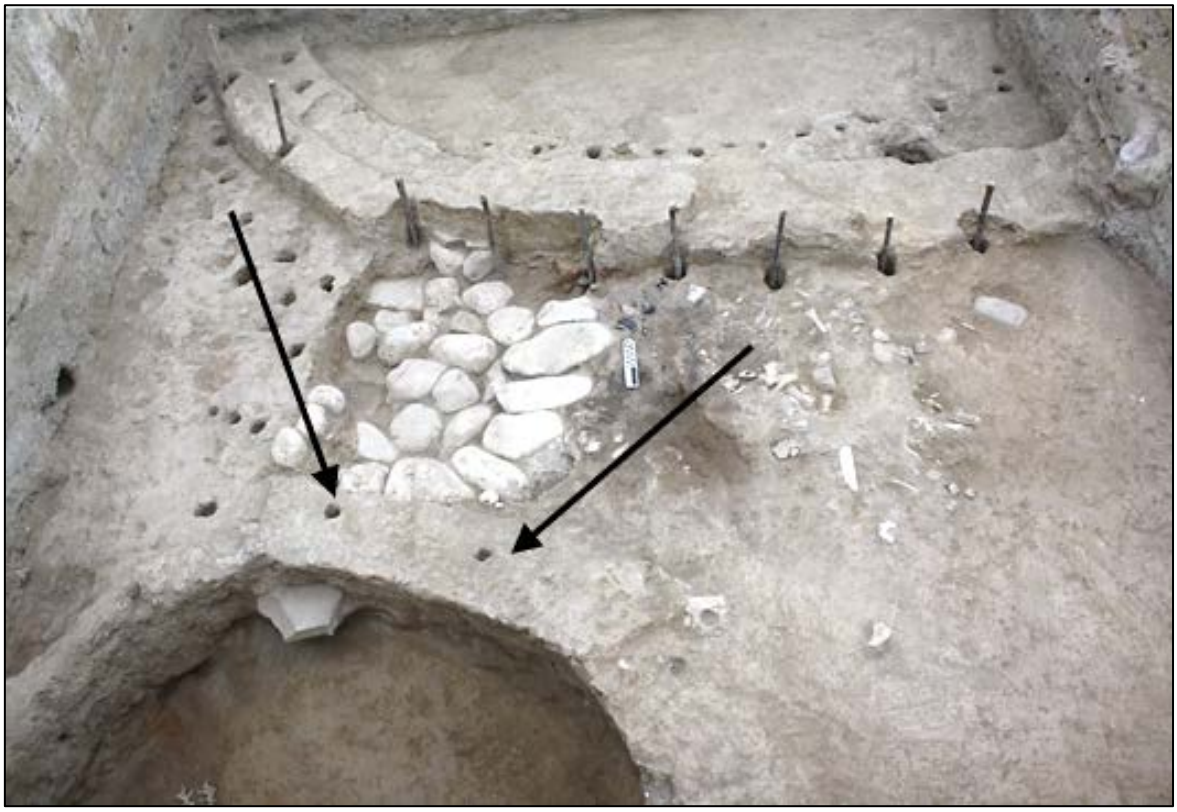


Figure 5.17. Smaller-size post holes from Chaggalligtepe site (adapted from Ashurov et al. 2018:fig 26)



Figure 5.18. Postholes from the Chaggalligtepe site (the dimension of the holes unknown) on the periphery of the round building (pers comm. Ashurov 2022)

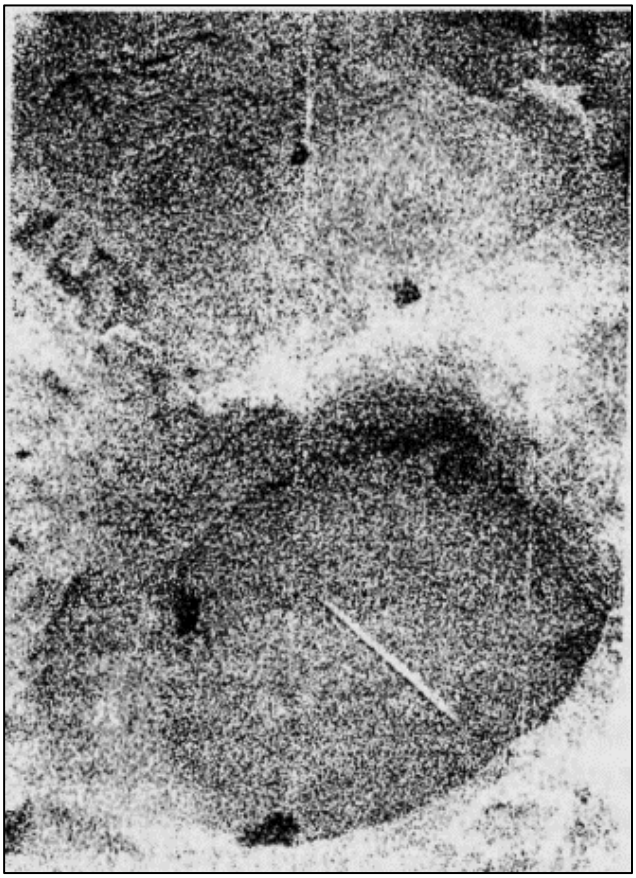


Figure 5.19. A sunken dwelling with postholes (Gayakand settlement, Gemetyube I, Dagestan, Gadzhiev et al. 1996:58, fig 16), (Image quality is too poor).

Organization of activities in sunken structures

The organisation of activities at sunken structures has been a central question in understanding the use of space and function of these buildings (Azimov 2006, Kohl 2007, Ashurov et al. 2019, Sagona 2018). It is impossible to determine firmly the interior organisation of space and purpose of these buildings. There is sometimes a confusion about whether these structures might be large anthropogenic pits, however, the reasons for digging such a huge pit close to dwellings are not yet clear (Collis 2001, Timar 2015, Ashurov et al. 2019). In addition, these pit houses can be easily distinguished from traditional storage pits by their dimension and shape: storage pits are mostly bell-shaped, with a diameter of roughly 1-1.75 m, while 1.50 m deep. Furthermore, there are not any distinctive findings from these buildings.

More complex forms of sunken structures can be associated with the later stages of the KAC. Similarly, in Dagestan, circular houses were replaced by rectangular buildings with rounded shapes in the later stages of the culture, showing complexity in the architectural plan and spatial organisation (Abakarov and Davudov 1993:37). For example, at the Mingechaur settlement there are marked differences in the plans of sunken dwellings, with evidence of multi-roomed structures (fig 5.15). The internal spaces of Mingechaur buildings were divided by partitions. Such compartmentalisation inside the rounded rectangle dwelling provides the hypothesis that it was most likely used by an extended family for the purpose of household activities. A large quantity of knapped debitage, flaked stone tools, tanged projectile points and raw materials found near settlements indicate that a broad range of activities such as pressure flaking and knapping took place around the domestic structure (Aslanov et al. 1959). One of the indications of the domestic activities is that storage pits were attested in Mingechaur, with one inside (dia 0.80 m, depth 0.50 m) and four (dia 0.50-0.80 m, depth 1 m) of them outside the building.

The Chaggalligtepe site showed heterogeneity in architectural structures (Gazetteer N 14, p 40). The bottom layer consisted of mostly, pit and semi-subterranean structures, while the later stages showed a sunken structure side by side with surface-built structures (fig 5.20 a and b). Sunken structures with round shape in Chaggalligtepe site perhaps served as a storage cellar while being contemporary with above ground buildings. The proximity of this site to the north-eastern Caucasus suggests that there was a clear influence between these areas (Musayev 2005, Magomedov 2006).



Figure 5.20. (a and b). Chaggalligtepe site. Sunken and surface-built structures are attested in the same cultural layer (a, b).

Another example of complex sunken structure was attested at Plovdag settlement. In the north-east corner of the building was found a small storage unit (length 1.25 m, width 1 m), adjoined to the building, which possibly served as a storage room (Ibrahimli et al. 2015) (fig 5.16). There was attested a doorway facing to the east. There is also an interesting fact that in Plovdag settlement, sunken structures (diameter ca 3-4 m) were found inside a high wall with 25-30 m

diameter (Ibrahimli et al. 2015). Finds from the area include grain remains, a large quantity of animal bones and 100 q metal debitages showing metal working activities. A proliferation of fire installations (hearths) in sunken structures also might be one of the distinctions indicating a living place (fig 5.21). For example, in Plovdag and Mingechaur, each building had hearths, often two or three by row in the corner of the room with the distance 1-1.15 m or central fixed hearths typical of KAC houses. 'The hearths are in the middle of the rooms and must have played a crucial role both in practical terms (for preparing, and processing foodstuffs, and products) and also in the symbolic realm' (Smogorzewska 2004:159, as cited in Palumbi 2008:202).



Figure 5.21. Remains of fireplaces. Plovdag settlement (images provided by the author, Ibrahimli, B)

In sum, there was possibly a spatial, functional and chronological change within sunken structures when the layout of buildings shifted from circular to rounded rectangle and oval shapes. Firstly, this is due to the increase in house sizes and the complex appearance of buildings. In other words, alongside serving as a living area, they perhaps played a communal area role, including several fireplaces, partitions, extra adjoining units to buildings, with multiple rooms. Due to the lack of research, the sites at which sunken structures were attested do not show a stratigraphic sequence of architectural development. There are still open questions left, for example, whether this variety in building construction suggests that this may be partly a reflection of differing local geological and other environmental conditions, and also whether these structures were associated with pastoral or sedentary life communities. The results of this study indicate that sunken structures were smaller in size and not too complex compared to surface-built structures.

5.6.2. Free-standing monocellular circular buildings without rectangular annexes

The data show that free-standing circular buildings are the most dominant type among KAC settlement architecture forms in Azerbaijan, which can be attested in all phases of the KAC. Mainly, the earliest phases of the culture, at lower layers of settlements, such as Kultepe II (fig 5.23), Kultepe I (fig 5.24), Serkertepe (fig 5.25), Babadervish II (fig 5.26), Qarakopaktepe (A level) (fig 5.27) and Turkan are more consistent with free-standing circular buildings. In some settlements, there is a remarkable continuity in the construction of circular buildings, which stand alone from one level to the next. For example, in Kultepe I, the remains of 40 architectural structures have been identified in the 14 levels, all consisting of buildings with a circular layout. Rectangular buildings only exist as extensions or annexes to the round-plan constructions and systematically started to be applied from the 5th level (Abibullayev 1982). Similar to Kultepe I, Kultepe II, 14 architectural horizons were attested, where circular buildings are considered a dominant type. The approximate distance between buildings ranges between 2-3 m, with maximum 7 m distance attested in Kultepe I. In some settlements, such as Qarakopaktepe (A bottom layer), Babadervish II and Kultepe II (XIV and X layers) buildings were built quite close each other.

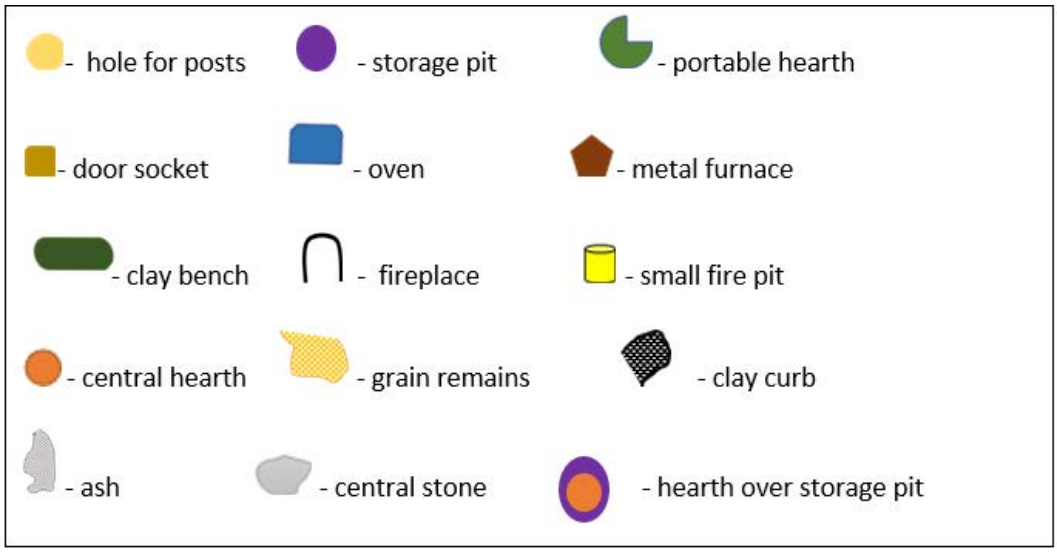
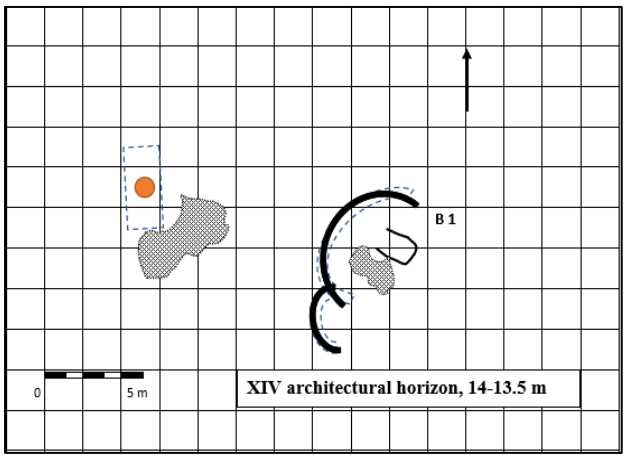
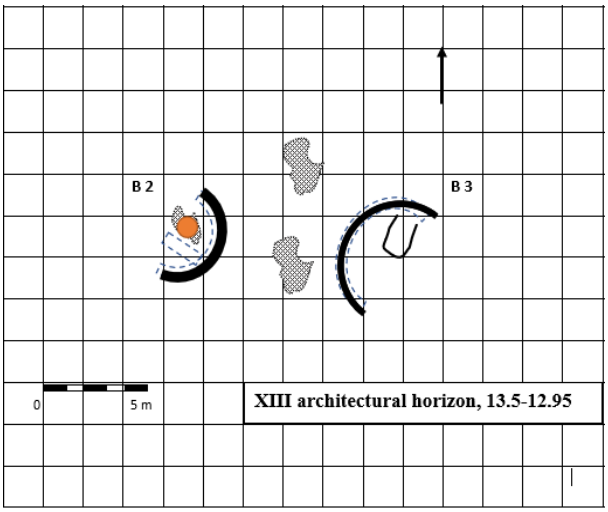
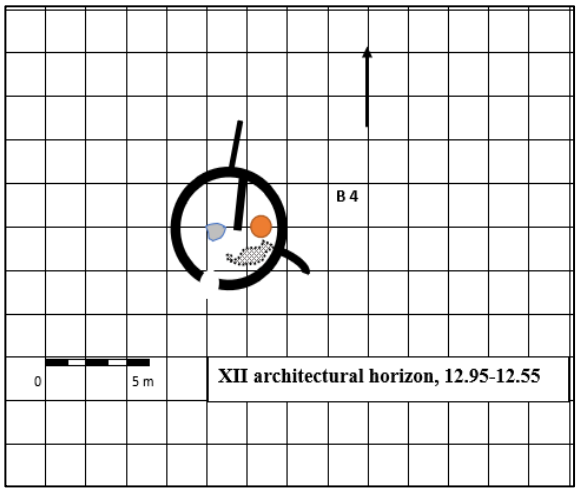


Figure 5.22. For image interpretations see symbol signs







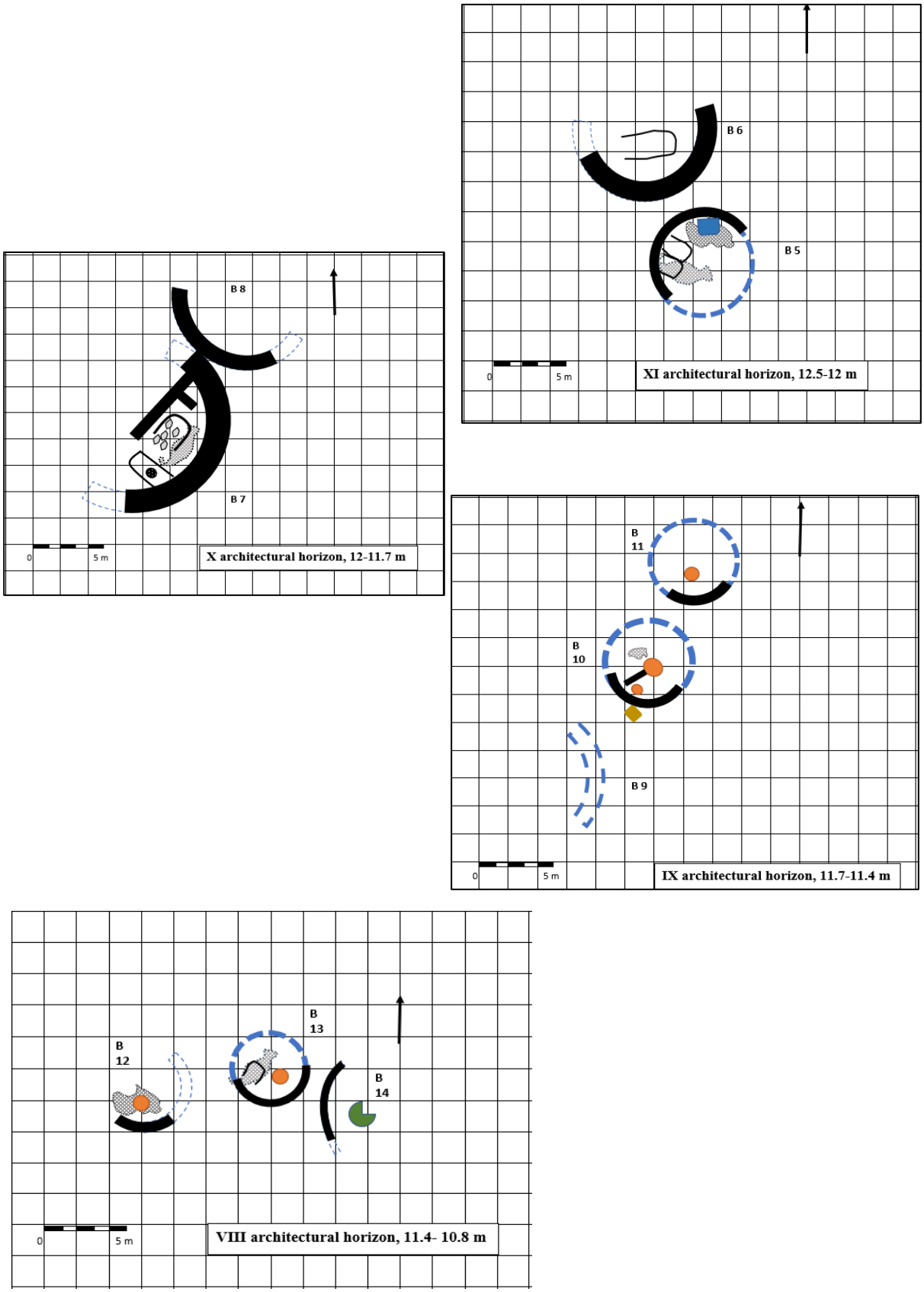


Figure 5.23. Schematic plan of Kultepe II circular structures, lower level, (XIV-VIII architectural horizons) (Seyidov 1993: fig 2-9, drawn by the author, Ismayilova)

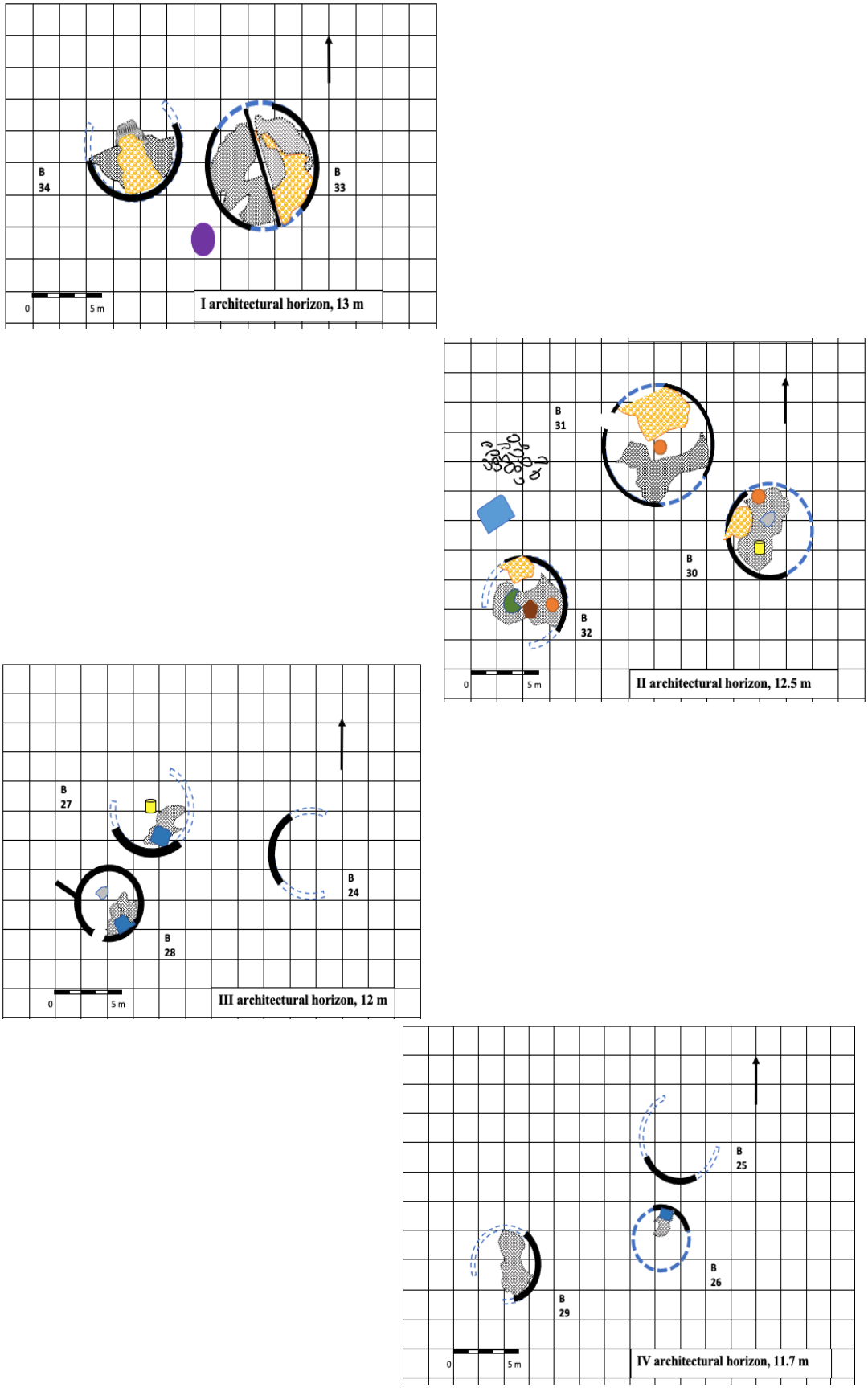


Figure 5.24. Schematic plan of Kultepe I circular structures, lower level, (I-IV architectural horizons) (Abibullayev 1965: fig 2,3,4, 6, drawn by the author, Ismayilova)

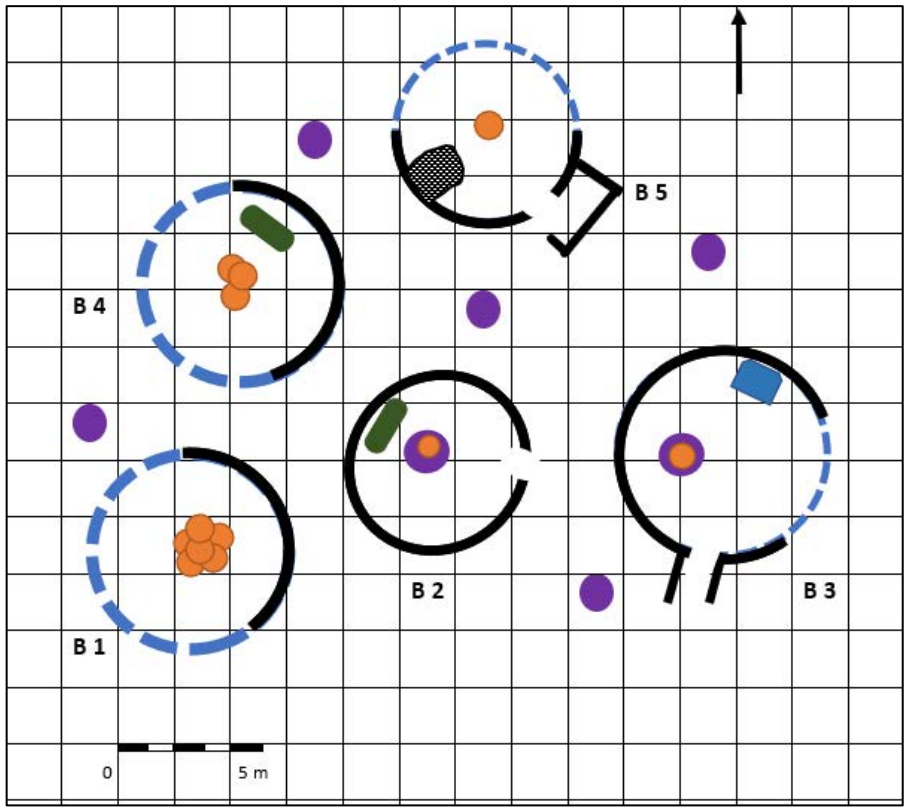


Figure 5.25. Schematic plan of Serkertepe circular structures, lower layer (Musayev 2005:116, Tablo 8, site plan drawn by the author, Ismayilova)

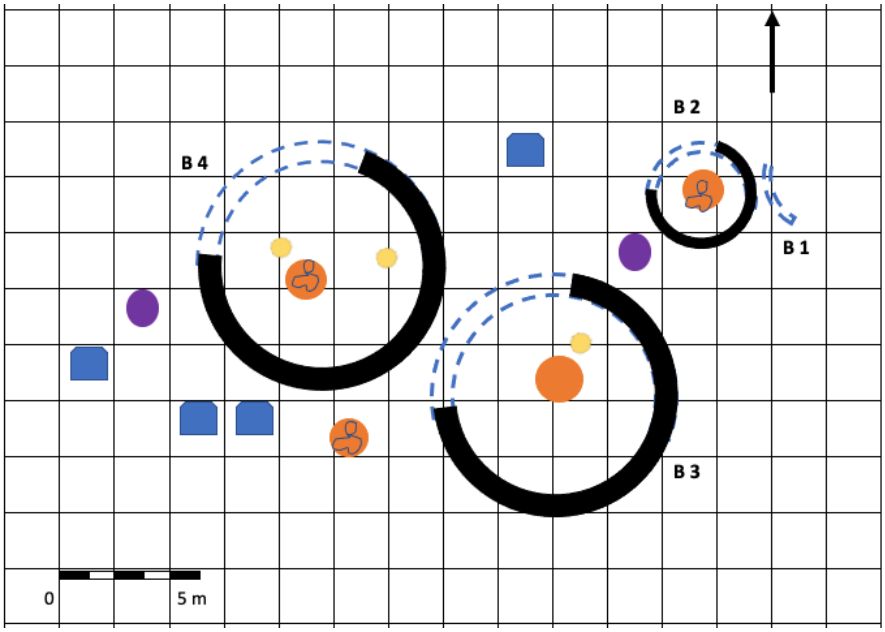


Figure 5.26. Schematic plan of Babadervish II site circular structures (Azimov 2006:76, fig 47, drawn by the author, Ismayilova)

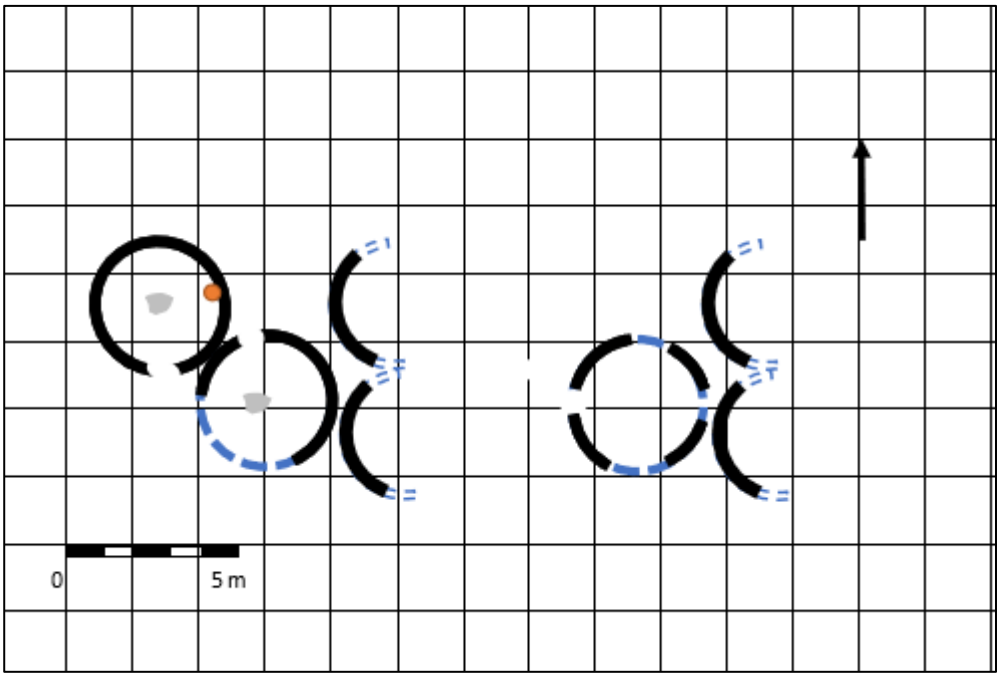


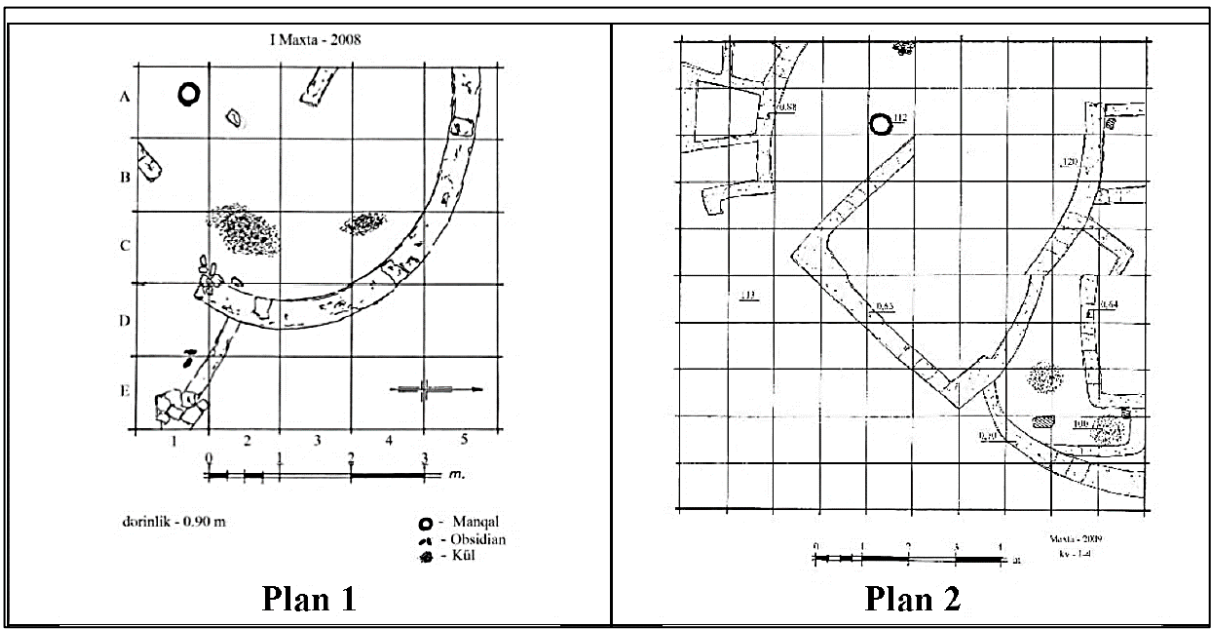
Figure 5.27. Schematic plan of Qarakopaktepe circular structures (A bottom layer) (Ismailzade 2008:237, fig. 17, drawn by the author, Ismayilova)

Throughout the ensuing levels, large circular structures appear to have installations, external yards and storage bins, possibly to represent an individual household. Domestic facilities included hearths, bins, niches, and a bench around the entire wall (Sagona 1997). Especially, as the architectural plan demonstrates, Kultepe I and Kultepe II settlements have a big courtyard space, and the spatial relationship between the round buildings together with their courtyard space creates the impression of individual buildings (fig 5.22, 5.24 (II architectural horizon). These round buildings were juxtaposed and arranged in a circle, separated from each other with a fixed hearth which was large and quite elaborate (fig 5.22, 5.23 (IX architectural horizon). Abibullayev (1982) argues that even buildings can be functionally different from each other, but having a 'central hearth' is an indication of unity and a focal point of a house in KAC buildings. There is also evidence for domestic installation that evolved with elaborate kitchen fixtures. Interestingly, in settlements such as Babadervish and Serkertepe, most of the fire installations and activity devices were attested outside buildings, which again indicates that communities used these communal areas mutually (fig 5.22, 5.25, 5.26). For example, the indication of several storage pits, containing numerous amount of grain in Babadervish, metallurgy items from Serkertepe appear to be maintaining the communal work and investment, and were perhaps also connected to the specialised internal space of 'core' buildings (Ismailov 1977, Musayev 2005). Despite some buildings being different from each other in size, they do

not strictly differ from neighbouring buildings in their household activities and spatial organisation. However, the functional meaning of each building remains difficult to explain and therefore, different interpretations are always possible.

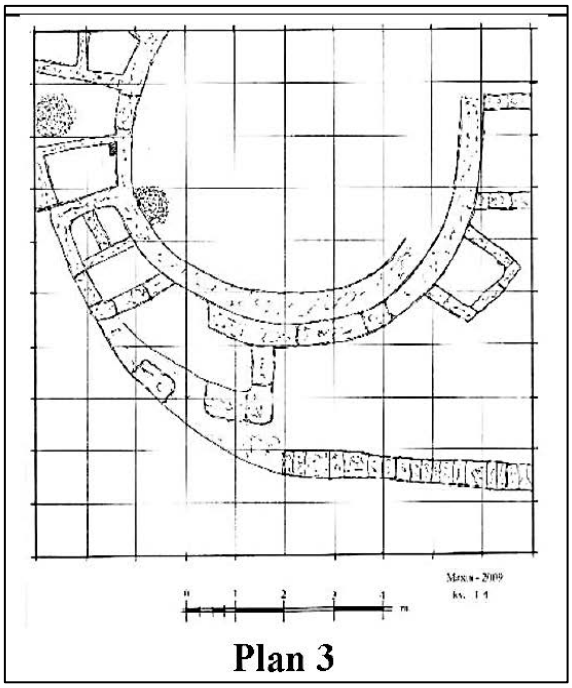
5.6.3. Free-standing circular buildings with rectangular annexes

The third group of settlements are buildings which mostly contain large free-standing circular buildings with rectangular annexes. Circular buildings founded on stone are more permanent structures made of mainly mudbrick while annexed buildings are constructed from wattle and daub. In some settlements, a chronological change can clearly be seen, where lower layers are more consistent with free-standing circular buildings whereas the upper layers contain buildings with rectangular annexes or separate rectangular buildings. Especially, in later stages of the culture, there is a shift from monocellular circular buildings to buildings composed of circular and rectangular modules, forming a densely packed cluster of compounds. Within this category, building compositions in these settlements are close to each other and certain houses are multi-roomed with elaborate structures, such as Makhta (fig 5.28), Azyurdu (fig 5.29), Chaggalligtepe, Arabyengija and Ovchular Tepesi (fig 5.32) (Ristvet et al. 2011). The growth of settlements is reflected in the increased architectural density, where the agglomeration of scattered free-standing structures was replaced by compact construction of larger houses leaving only small courtyards and narrow passages, sometimes multi-roomed buildings joined each other by internal buttress-like constructions (Bakhshaliyev et al. 2013:347).

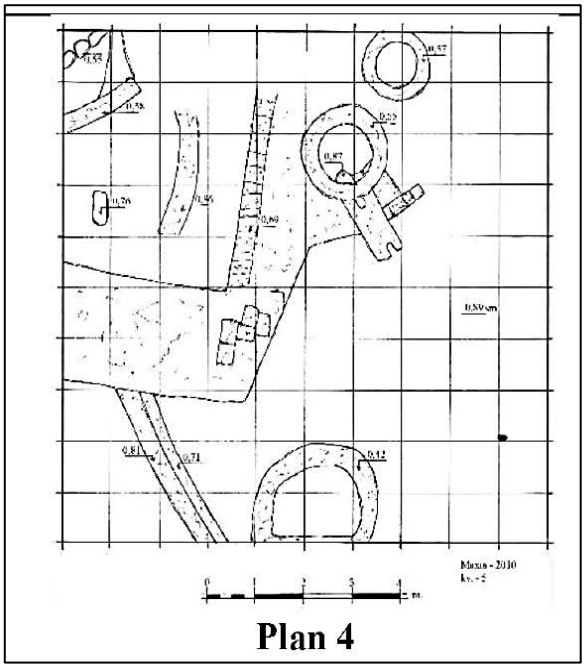


Plan 1

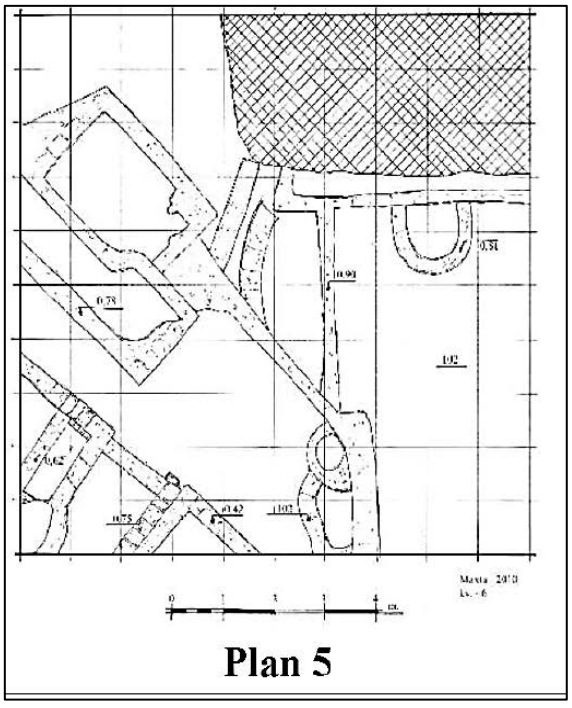
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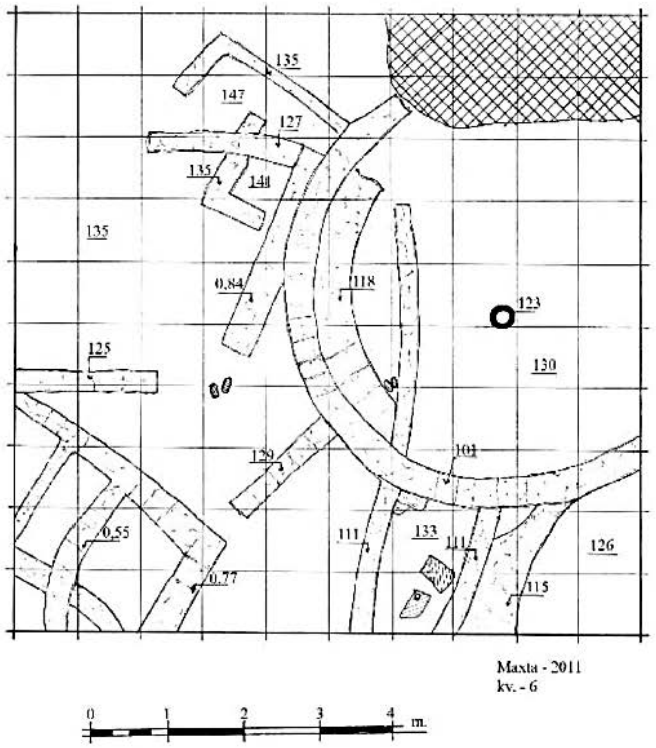
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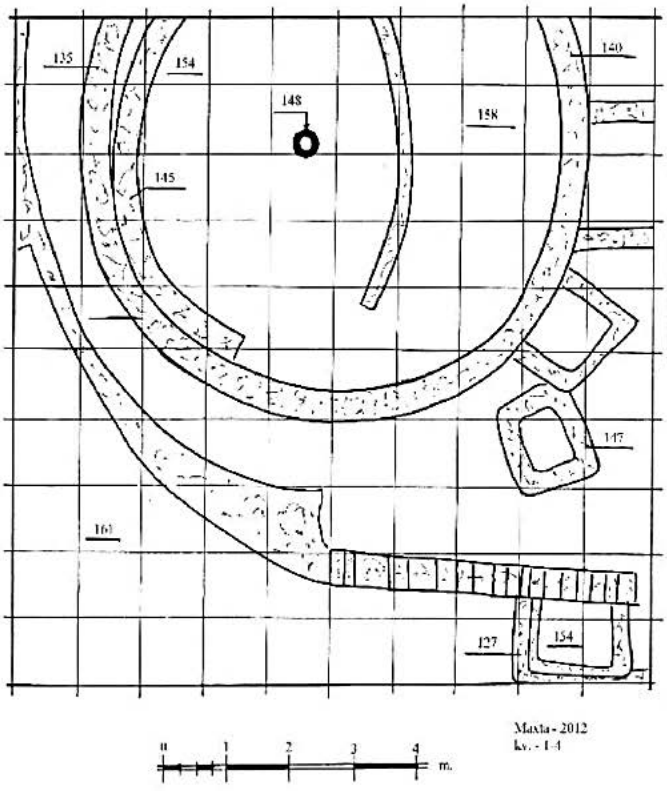
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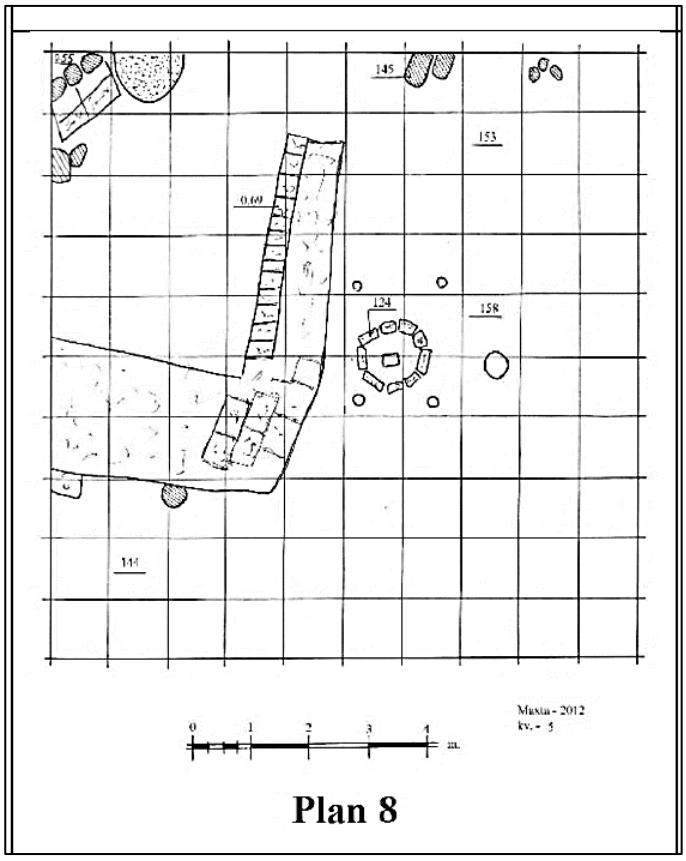
Plan 5


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Plan 6


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Plan 7



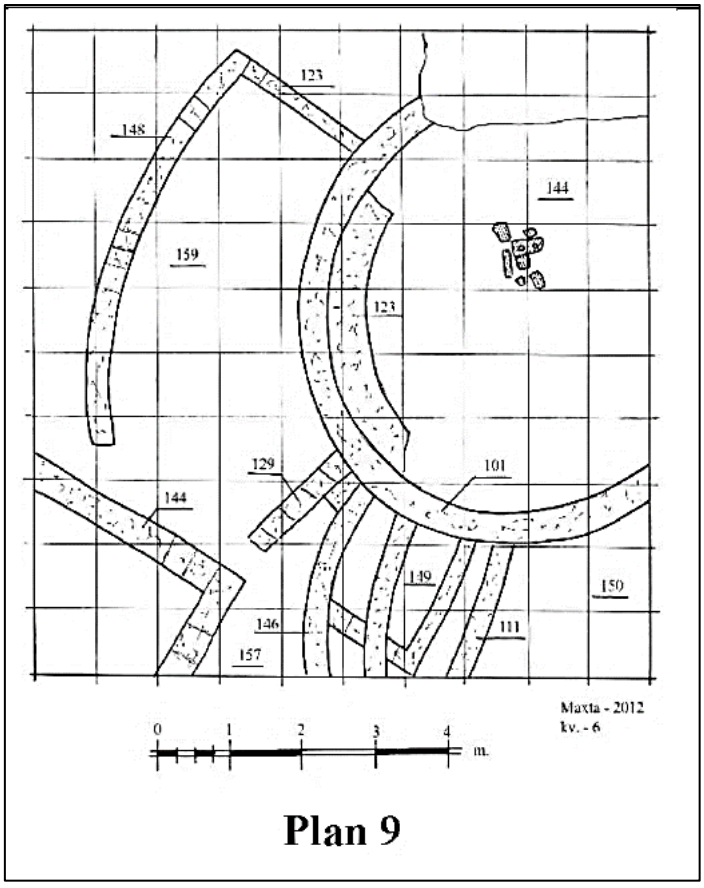


Figure 5.28. Makhta site Plan (Ashurov et al. 2020:37, 38, no fig number)

Another example of settlement with free-standing circular buildings with rectangular annex that dated to the last stages of the culture is Azyurdu. The settlement has an interesting architectural plan with the wall of a rounded corner (2 m thickness and 22 in diameter) and remnants of circular annexes attached to the dwelling (3-5 m in diameter) were also attested (Ismailzade 2009:87) (fig 5.29). The most distinctive feature of the site is its location at a very high altitude, 2239 m asl, which might be used for a seasonal purpose, during a time when transhumant pastoralism increased in the area (Ismailzade 2008:30).

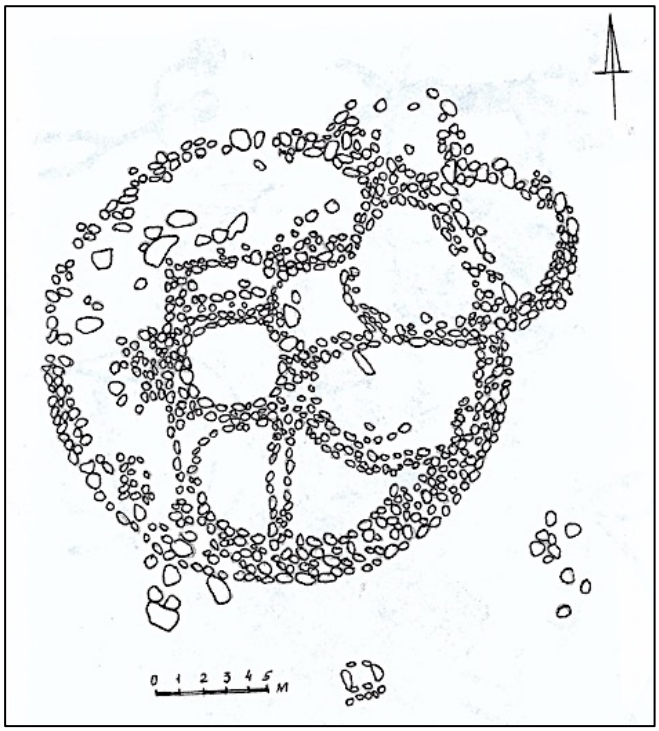


Figure 5.29. Azyurdu settlement with distinctive layout (Ismailzade 2008: 231, fig 11)

The high density of houses seems to represent a complex form of architecture. Settlements such as Makhta, Ovchular Tepesi (fig 5.31, 5.32) and Chaggalligtepe (fig 5.29), having dense and compact architecture which seems to have several functions. Apart from encompassing household tasks, some are characterised by symbolism and the focal point of ritual activity, and even some with specialised production and activities. For example, the Chaggalligtepe site underwent a certain number of architectural transformations, which continuously succeeded one another. The bottom layer consisted of mostly pit and semi-subterranean houses, which was discussed in section 5.6.1, the next structures are mud-brick circular houses whereas the third type of structure found at the site is a wattle and daub house which is characterised by a light structure, and finally, wattle and daub, sometimes however, combined with mud-brick

circular and rectangular shape structures. However, a large number of storage pits, central hearths and fireplaces in all structures indicate the diverse household activities (fig 5.30). Evidence for the increased duration of occupation of domestic structures in these settlements is shown by that the fact that single- course-thick mudbrick walls were regularly replaced by a double-course-thick construction technique, and renovation of houses several times created consecutive building phases within the same building level (Ashurov et al. 2012, 2019).



Figure 5.30. Chaggalligtepe. Circular building with domestic activities (Ashurov et al. 2019:13, fig 3)



Figure 5.31. Chaggalligtepe. Circular building with a storage pit and a hearth (Ashurov et al. 2019:13, fig 3)



Figure 5.32. Ovchular Tepesi dense architecture plan (Ashurov and Bakhshaliyev 2010, no fig)



Figure 5.33. Ovchular Tepesi excavation plan- Area 1 and Area 6 EBA architectural levels (Bakhshaliyev et al. 2010: 24, fig 3)

5.6.4. Rectangular buildings

The least attested building structure is rectangular buildings at settlements, such as Kultepe II (fig 5.34) (upper layers), Qarakopaktepe (with huge courtyards) (fig 5.35), Makhta (see fig 5.28 (plan 4, 5, 8), Arabyengija and Chaggalligtepe. While there was a more gradual transition from round to rectangular buildings in some settlements, in Qarakopaktepe this division is clearly recognisable where A: lower phase - consists of round constrcutions without extensions and the B: lower phase - in which there were attested large-scale rectangular buildings with enclosed courtyards, dated to the last stage of the KAC. Overall, settlements with rectangular structures show multi-room residences, with the dense and close occupation of rectangular buildings (Seyidov 1993:42). In some settlements, such as Qarakopaktepe, there was attested a substantial increase in the massiveness of the domestic structure in the upper layer of the Qarakopaktepe settlement. For example, buildings are characterised by multirooms, made of stone, walls are thick, made of big blocks of 1.20 high and thickness is 1 m. Inside the buildings central fixed hearths were attested (fig 5.35). Despite these varieties, generally, the size of rectangular buildings is smaller than the circular buildings in KAC settlements (Ashurov et al. 2020) (see Appendix II). Some buildings have partitions perhaps for segregating different activities (fig 5.34 building 25).

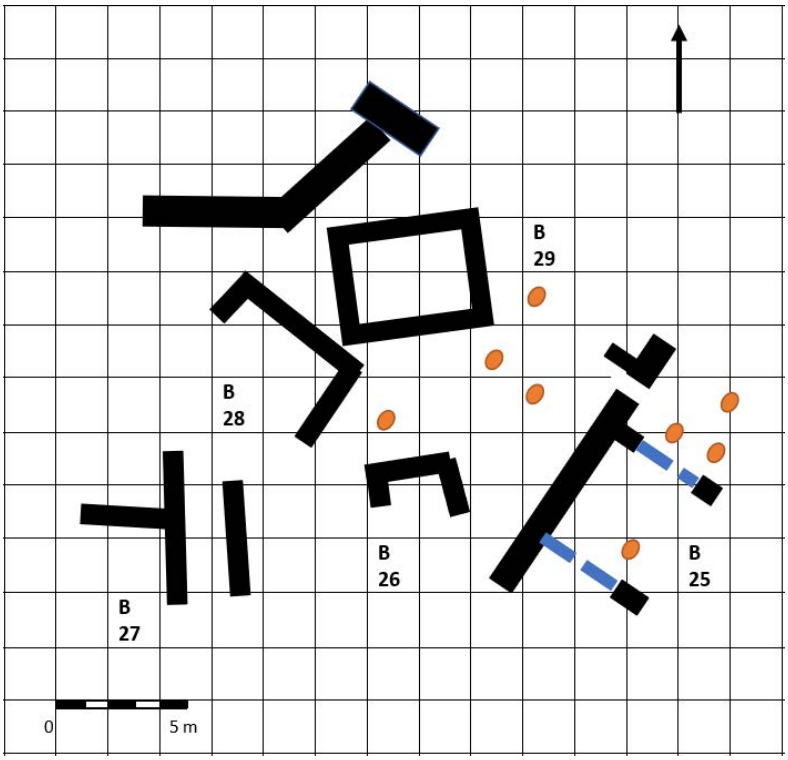


Figure 5.34. Schematic plan of Kultepe II rectangular architecture, II architectural horizon 6-5.2 m depth (Seyidov 1993:14, drawn by the author, Ismayilova)

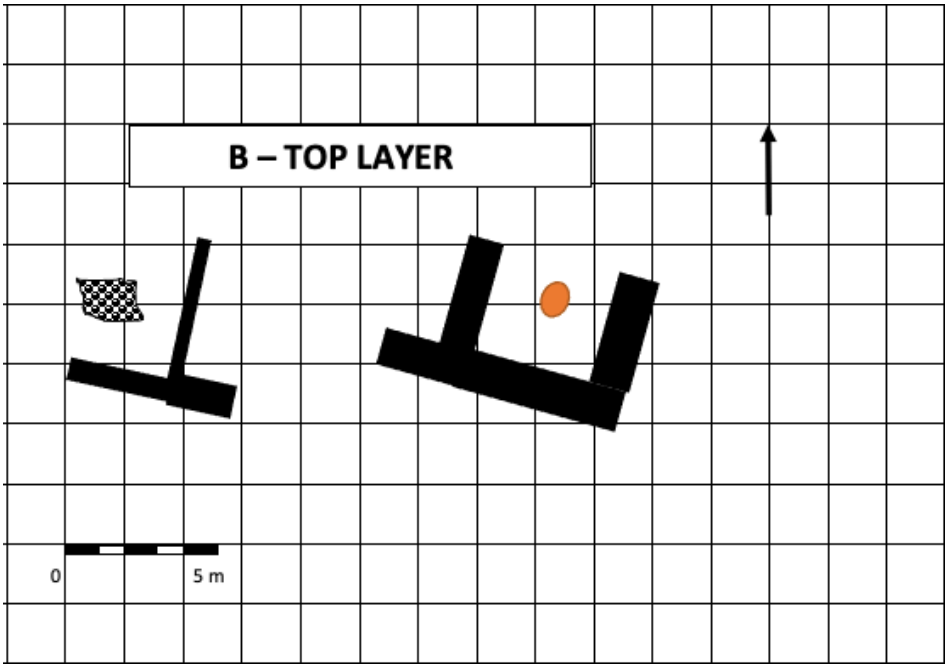


Figure 5.35. Schematic plan of Qarakopaktepe B-Top Layer, rectangular architecture (Ismailzade 2008:234, fig 14, drawn by the author, Ismayilova)

5.6.5. Defensive Walls

The dimensions of the KAC settlements are fairly small and there is no evidence of ranked territorial organisation attested in any site in the Caucasus (Smith 2005, Palumbi 2008, Alizadeh 2015) . However, the last phases of the KAC shows more diversity evident in architecture on a scale that is not characteristic of the earlier Kura-Araxes architectural plan (Kohl 2007:113). In other words, there have been documented some settlements in the Caucasus where a significant stone walls, possibly played a role of defence. For example, big walls dated to the last phases of the EBA, were attested in Gudabertka and Mokhra Blur in Georgia, Shengavit (fig 5.36), Shresh-Blur and Muxannatepe in Armenia, as well as in Geoy Tepe, Yanik Tepe, Kohne Shahar (fig 5.37) in northwestern Iran. The exact function of these walls still remains unclear, and it is difficult to ascertain whether these communal structures represent defence, animal barriers or are simply retaining walls to hold back earth or water (Kushnareva 1997, Muradova 2011, Alizadeh 2015, Longford 2015, Palumbi 2016). There is a general consensus that changes in the architectural landscape and the appearance of defensive mechanisms such as fortification walls demonstrate the beginning of some level of inequality in the society, showing the transition between the EBA and MBA (Kushnareva 1997, Muradova 2011, Alizadeh et al. 2018). Summers (2004) and Palumbi (2016:20) believe that such massive walls are perhaps

indicative of a certain level of administration and collective labour work in these small-scale communities.

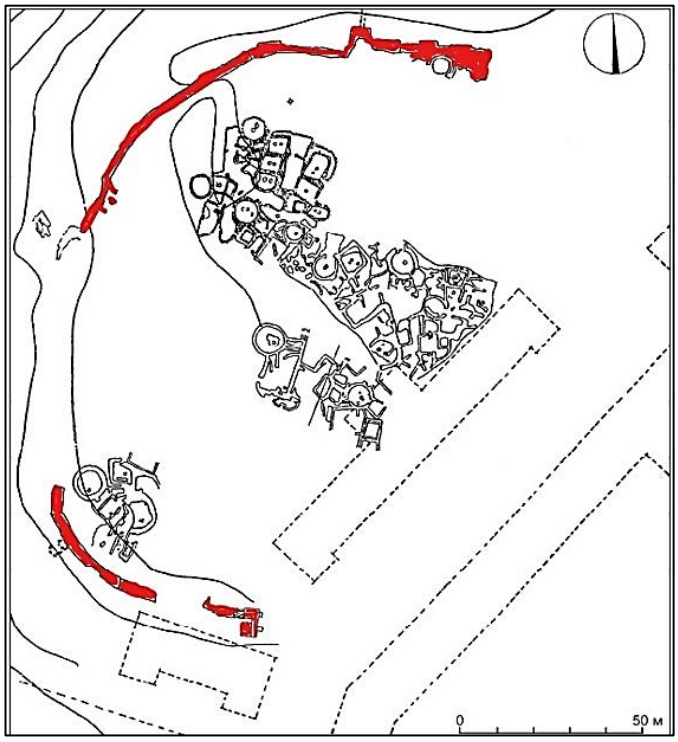


Figure 5.36. Shengavit settlement layout, Armenia (Kushnareva 1997:15, fig 1), (fortification wall highlighted in red).

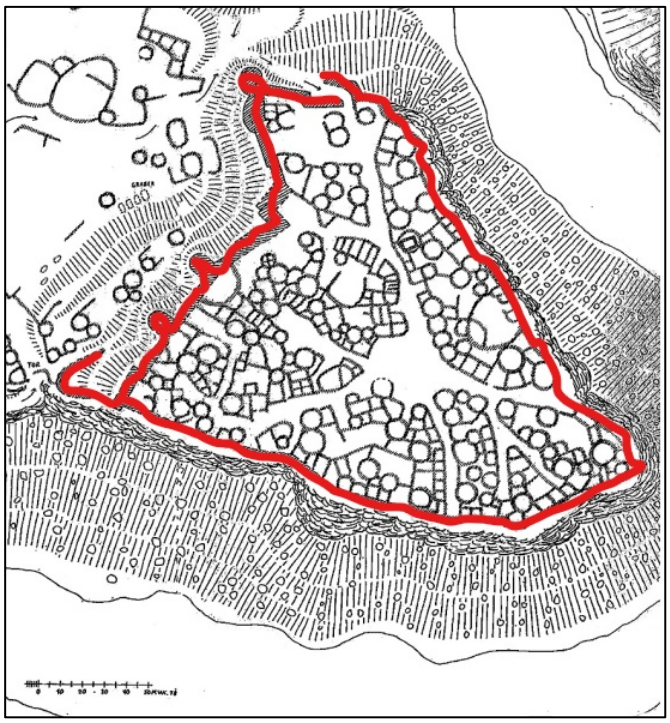


Figure 5.37. Topography and plan of Kohne Shahar, North-Western Iran, (from Kleiss and Kroll 1979) (Alizadeh et al. 2015, fig 4: 40), (fortification wall highlighted in red)

To understand the complex structures, ‘defence’ walls are not alone a site differential measurement to decipher the social complexity within communities (for details on the settlement size, see section 5.5). In other words, ‘the question is what unique functions these sites had within their polities and what sorts of control they may have had outside their site boundaries’ (Batiuk et al. 2022:34). For example, Omrani et al. (2011:13) claim that large settlements with the model of defence are possibly referred to as diverse societies. An investment in such costly projects highlights the symbolic aspect of fortification walls. In other words, such defensive features are associated with larger settlements, which have regionally centralised roles (Palumbi 2016, Sagona 2018). For example, shrines at Shengavit and Mokhra Blur which are considered cultic buildings for ceremonial activities (Palumbi 2016). In particular, an impressive stone tower that survived in Mokhra Blur, was considered a focal point for the settlement and thought to represent a communal cult dated to the last stage of the KAC. The height of the tower is 6 m, and at the top of the tower, a basalt obelisk (4 m in height) was erected (Areshian 2007:38) (fig 23). Therefore, collectively exploring the signs of centralisation, social differentiation, production, possibly the investment of resources, can help understand the notion of fortification in certain KAC communities.

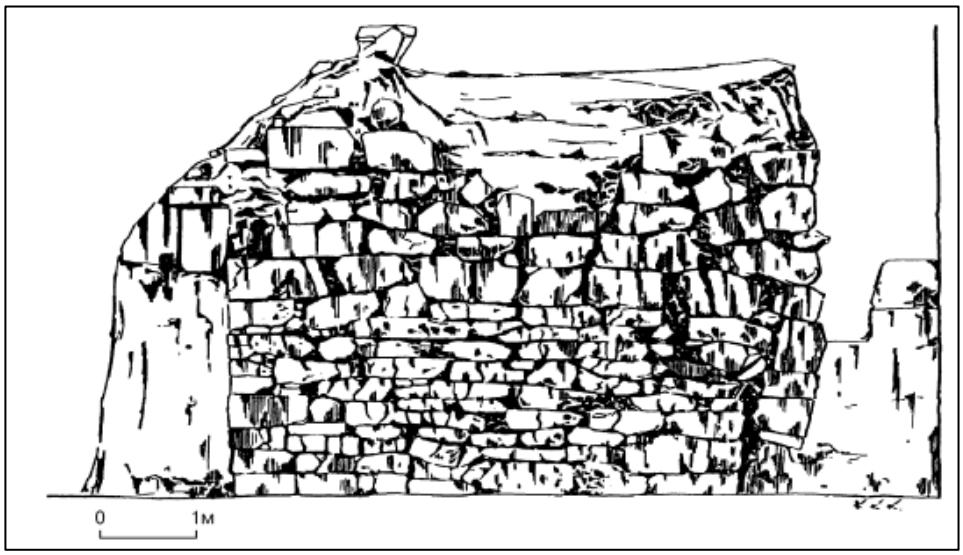


Figure 5.38. Southern wall of the Mokhra Blur cultic tower (after Areshian and Ghafadarian 1975) (Areshian 2007:38, fig 2.4)

With regards to the case-study, Azerbaijan, based on the data, there have been attested a few distinctive walls in several sites, whose function is difficult to determine, namely, Azyurdu (2239 m asl), Kultepe II (963 m asl), Plovdag (809 m asl), Qarakopaktepe (383 m asl) and Daire

(-2 m asl). There is no extensive research or site plans, and no radiocarbon dating, which could determine the interpretation of these structures. Some evidence comes from Kultepe II site, where a complex wall was revealed in the first building horizon (5.2-4.4 m in depth) relatively dated to the last stage of the KAC. It is made of massive blocks of mud-brick (40x 40x 10 cm), strengthened with huge rock stones, and the wall measures 13 m long, with 1.4 m wide, and 0.8 m high (Seyidov 1993:38, 56). There was also an entrance (width 0.7 m) from the eastern side of the wall, and the wall was strengthened with a buttress (Aliyev 2010:42). However, due to the removal of an excavated part, it was impossible to identify an exact length of the wall (Seyidov 2003:78) (fig 5.38).

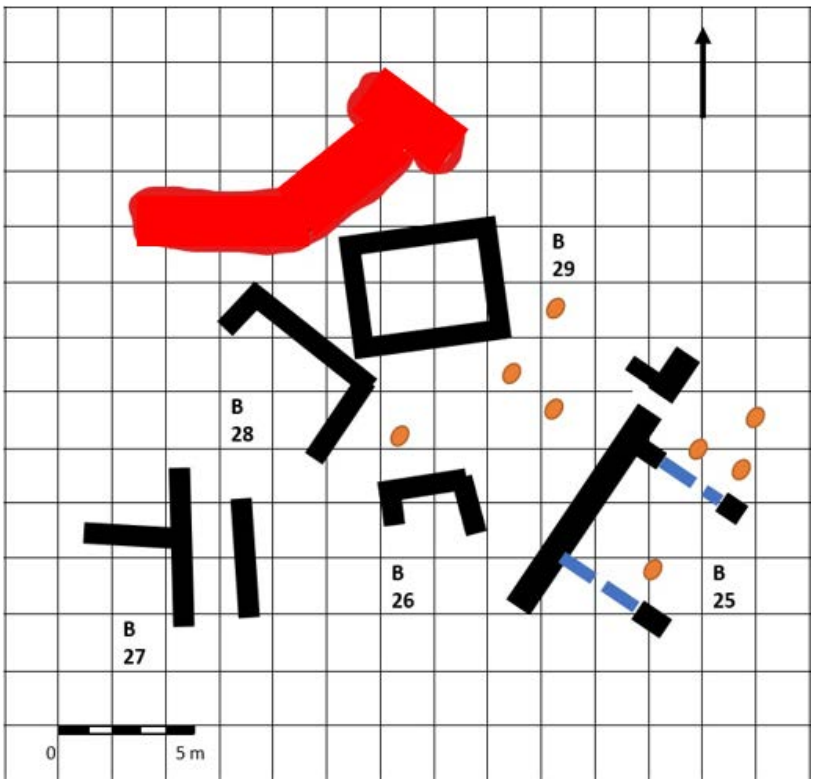


Figure 5.39. Schematic Plan of Kultepe II, II-I architectural horizon 6- 5.2 m deep, a small fragment of the complex wall highlighted in red (Seyidov 1993: fig 14, drawn by the author, Ismayilova)

Some have questioned whether this wall dated to the Kura-Araxes Culture or the following periods. This is because a Middle Bronze Age fortification wall was built over the EBA defence wall, which shows a superimposition of Early Bronze Age and Middle Bronze Age levels (Seyidov 2003:78, Bakhshaliyev 2006:120). Therefore, it still remains ambiguous whether the wall attested in the last phase of the EBA links to the MBA. Scholars believe that Kultepe II appears to be a site located in broader networks of relationships as such complex walls were

attested starting from the EBA until the Early Iron Age (Seyidov 2003:76, Bakhshaliyev 2006). Middle Bronze occupants had a massive settlement that would have supported the kind of effort needed for a large-scale project such as defensive wall building (Jafarov 2021) (fig 5.39). However, more data is needed to prove or disprove this hypothesis.

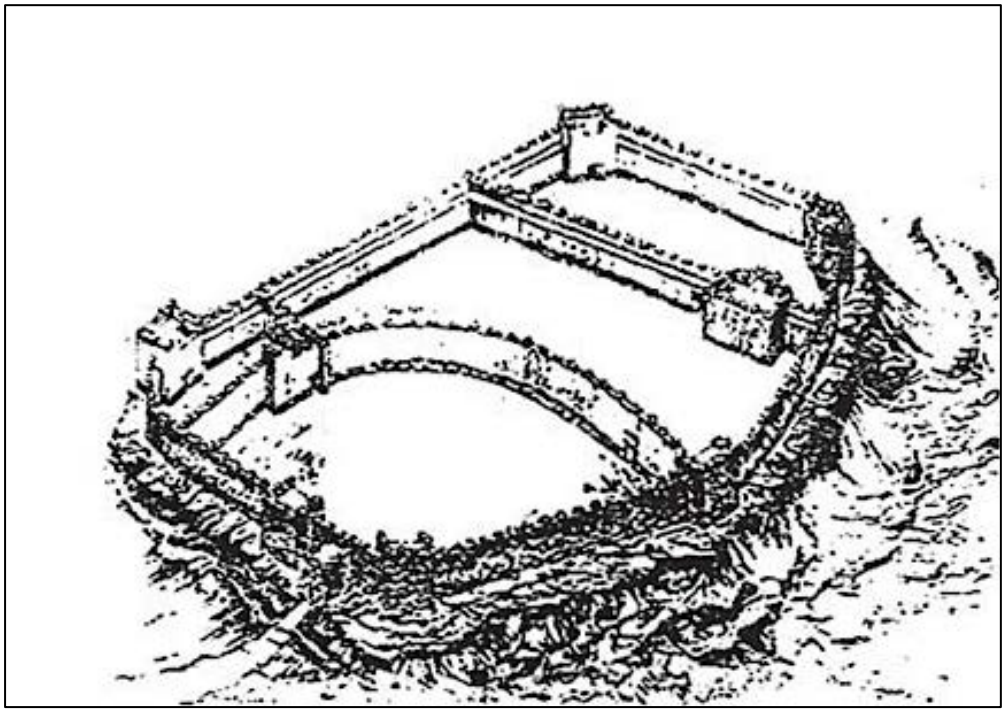


Figure 5.40. A reconstruction plan of the Middle Bronze Age fortification wall (Jafarov 2021: fig 2 (4))

It had also been suggested that the sides of some settlements were artificially shaped in order to improve defensive power against climate change. In other words, these walls acted as a retaining wall for the river side (Ismailov 1981, Muradova 2011). However, we are not sure enough about a threat of erosion in these settlements to justify this argument. For example, there was revealed a significant complex wall constructed from huge rock stones, in the upper layer (B) in Garakopaktepe site dated to the last stages of the KAC. The wall measures 2 m wide, 20 m long (Ismailzade 2008:29) (fig 5.40). Ismayilov (1981) suggests that the presence of the wall was to provide a natural defence for the settlement, which was located close to the Quruchay and Kondalanchay river valleys. Ismailzade (2008) believes that other nearby settlements, such as Meynetepe, Shomulutepe and Kultepe were also surrounded by such defensive walls. It is an important to note that similar to Kultepe II site, in Qarakopaktepe, the 'defence' wall dating to the Middle Bronze Age that was built over an EBA cultural layer, which again reemphasizes that we need more radiocarbon dating for KAC sites (Ismayilov 1981:27).

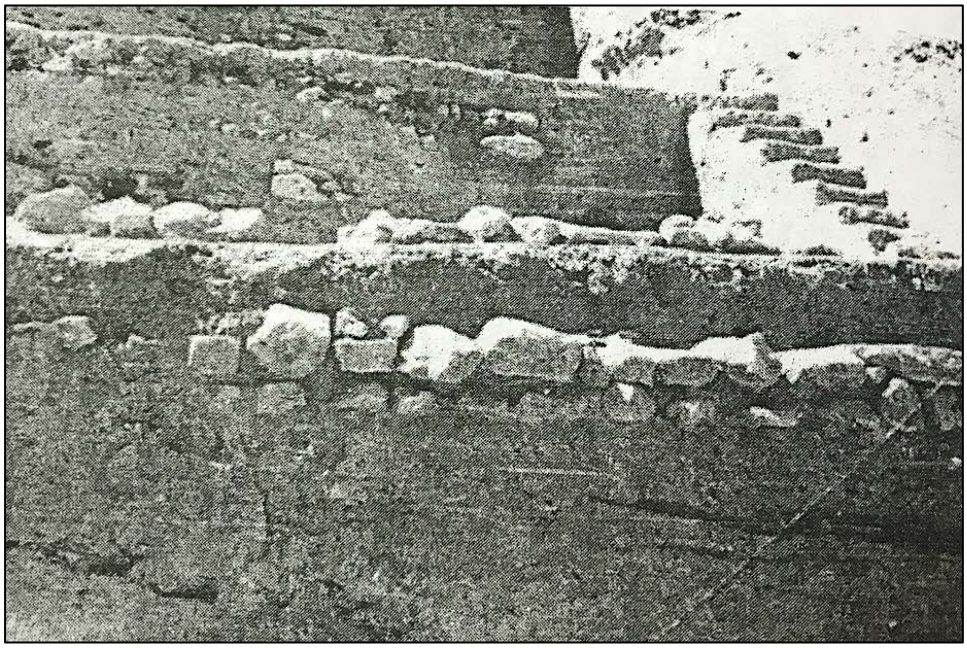


Figure 5.41. A fragment of an outer fortification from the Qarakopaktepe site (the image quality is too poor) (Ismailzade 2008:230, fig 10)

Another example, at the Daire settlement, a circular structure with stone fences was revealed, which was constructed from huge rock blocks. The settlement itself dated to the last stages of the KAC. The thickness of the outer wall is 1 m in width, and in other parts of the building, rock stones were 2 m height (fig 5.42). Muradova (2011:124) suggests a hypothesis that the settlement was located on the low land (-2 m asl), which naturally required a barrier or fence to be resistant to the climate change.

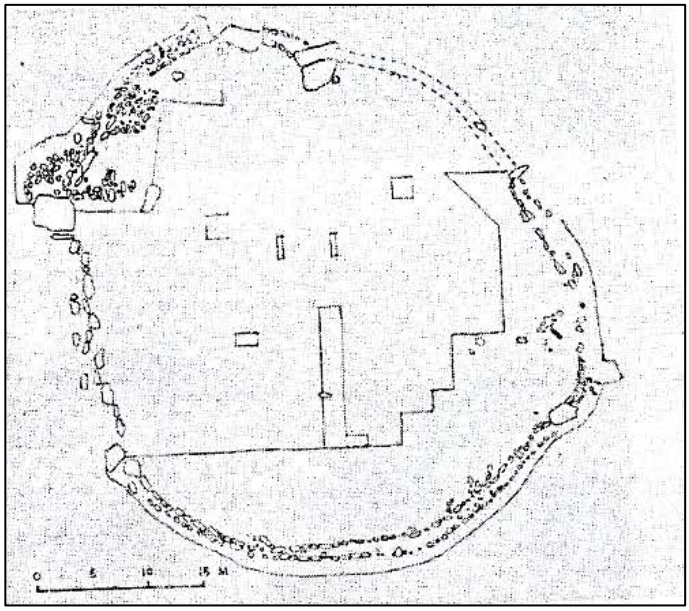


Figure 5.42. Daire settlement circled with an outer wall (Muradova 2011, fig 4, n p)

In sum, defence walls discovered in neighbouring regions, represent a different picture from the walls attested in Azerbaijan, with its organised community defence, centralised management, and perhaps different social groups, bodies and forms of organisation. However, irrespective of the actual role of these walls, whether as a part of the site construction, or a purposeful protection of dwellings, these structures involved the collection and transportation of a large quantity of stones (Areshian 2007, Batiuk et al. 2022). Therefore, these remarkable structures clearly deserve further analysis and comparative study.

5.7. Conclusion

This study has been undertaken to shed light on settlement structure of KAC, which has been unexplored for a long time. The best that can be done for the moment is restate broad conclusions which can be open to further research in the future. Summarising changes and varieties in the settlement occupation, evidently, the KAC communities exhibited an adaptable way of life, characterised by unique aspects of topography, architectural plans, and possessing their own intricacy and distinct characteristics. Taking into account all analysed data, the general trend in the Early Bronze Age appears to be one from small to large round houses, with rectangular annexes that gain popularity in later phases, which give us a general impression of the architecture in Azerbaijan. However, the layouts and internal organisation of settlements and their association with economic strategies, mobile and sedentary communities, and permanent or temporary domestic structures, are still under question. In conclusion, all these findings show that the current knowledge of the nature of the settlement structure in Azerbaijan during the EBA is still uncertain and ambiguous and in order to deeply understand the chronological development of these structures, further research with detailed stratigraphy and radiocarbon dating is needed. Despite the greater differentiation in planning, these settlements were equally homogenous and followed quite standardised plans: a central circular hearth fixed to the floor, and storage bins and household possessions were generally arranged on the bench along the wall. The next chapter will explore, in detail, the domestic sphere and internal layout of KAC households in Azerbaijan.

CHAPTER SIX: THE NATURE OF KURA-ARAXES CULTURE BUILDINGS IN AZERBAIJAN

6.1. Introduction

It is commonly believed that the house is the 'backbone' of the Kura-Araxes Culture society, where identities, and relationships would have been structured around the physical space, as well as the most fundamental unit of economic output of the KAC tradition (Palumbi 2008, Sagona 2014, Samei and Alizadeh 2020). Despite recent advances, there is a lack of interpretative frameworks to understand the nature of KAC buildings, and their inhabited spaces. In comparison to other Kura-Araxes regions, little attention has been paid to this sphere in Azerbaijan and thus, our knowledge still remains ambiguous. The main aim of analysing socio-cultural life in KAC communities in Azerbaijan is to establish a broad overview of the domestic life of the KAC communities through studying the remains of emerging architecture. In particular, the study will explore the temporality of diversity and unity among KAC communities in relation to domestic space, household, and social organisation.

The chapter begins with the introduction to this aspect of the study and an outline of the method of data presentation. First, the method section interrogates several aspects of domestic architecture drawing upon the wide-ranging dataset to create an overview of the KAC building tradition in Azerbaijan. Secondly, the problems and limitations of the KAC buildings are examined. This includes the challenges of working with raw data, the poor quality of site plans and photographic images and a lack of absolute chronology. Despite the weaknesses of most building-specific data, site-wide comparisons will be made and the overall picture and patterns will be widely discussed. Next, there will be a thorough examination of a comprehensive and comparative analysis of the nature of KAC buildings. Derived from the data, the following features including shape, size, doorways (entrance), partition, annexes, building materials, and other built-in features in above-ground structures will help us establish a Kura-Araxes Culture building tradition in Azerbaijan. There will be a brief overview of the organisation of internal spaces based on architectural furnishings and features associated with particular activities, including food preparation and storage, manufacturing and social activity. Later, recent

approaches and interpretative frameworks in relation to the nature of KAC buildings will be discussed.

6.2. Method of data presentation and limitations

Most scholars (Kushnareva and Chubinishvili 1970, Djavakhashvili 1973, Smith 2005, Kohl 2007, Rothman 2015b, Sagona 2018) argue that little is known about the social world of the Kura-Araxes communities. The intention of this study as the basis of further systematic research, therefore, is to examine and compare all the existing data for the first time, in order to get an overall picture of KAC architecture at household level. However, difficulties arise owing to the variations in the quality and quantity of available data. For example, one of the most challenging problems is the lack of a reliable absolute chronology. This creates a problem in understanding the complex interrelations occurring within the same site. It is difficult to interpret the successive architectural traditions, and their simultaneous relationship with material, space and associated activities. For example, sometimes material culture can be homogeneous whereas the architecture develops differently and thus it is difficult to observe how material culture and architecture developed simultaneously (Summers 1982). Furthermore, finds from houses can give us an idea of the activities carried out in and around these spaces without always knowing what part of the building they came from, while also without taking into account depositional and post-depositional factors.

Regarding sampling techniques for the buildings, there are no specific criteria for building selection for the data analysis. Out of 89 KAC settlements attested in Azerbaijan, we have analysed 18 settlements with information on the nature of the KAC buildings. 139 KAC buildings were available in total and were incorporated into the study, however, most of them are were fragmentary. For further detail on the method of collection of building data see the (Volume II, Appendix II, p 247). We have tried to encompass the full range of variation among KAC buildings in order to have a reasonably representative basis for social and cultural interpretation. However, to facilitate a comparative analysis of different buildings our intention alongside sites with less data, also to look at sites, which have some level of reliable data, depicting a greater continuity of occupation during the KAC stages. For instance, sites with long-term excavations, such as Kultepe I, Kultepe II, Serkertepe, Qarakopaktepe and Makhta.

An examination of reports and site plans reveals that the available evidence presents a number of potential gaps and limitations. First, Soviet archaeological reports on the architectural remains appear to have a little scientific value as the majority of records lack figures or graphic drawings and the information lacks about buildings' form, design and their functional features (Azimov 2006, Fabian 2017). Kushnareva and Markovin (1994:31) acknowledge that most available data is derived from old excavations, exploratory trenches and surface collections. These were carried out with methods that hardly meeting the present standards of research, often insufficiently documented and also being fairly descriptive in nature. Therefore, in order to make a series of analyses, this study presents relevant data in the form of graphic drawings of site plans, comparative graphs, photographic images and interpretative drawing.

There are also some further shortcomings which stem from several factors. One of the challenges is to deal with a great variety of digging and recording methods used in the excavations, which create difficulties to understand and also to compare old publications with the new data (Rova et al. 2011). In particular, artefacts and ceramic assemblage by being transportable elements of an activity area, are very dispersed and there is little information on the original positioning of excavated finds or in-situ material deposits. This is primarily due to the variations in recording techniques and methodologies of the original excavators during and after the Soviet Period. Many publications tend to be 'superficial' with less systematic and comprehensive recording, giving little evidence on stratigraphy and context (Baudouin 2019:123). In conclusion, all the aforementioned challenges provide evidence that more systematic, accurate and detailed data is urgently needed for future research.

6.3. The nature of KAC buildings

6.3.1. Shape of the buildings

Analysis of KAC settlements has revealed similarities in planning structures in the majority of the KAC settlements. Overall planning seems to fall into two construction forms: circular and rectangular houses. As we can see from the graph the majority of KAC settlements in Azerbaijan consist of round buildings (fig 6.1).

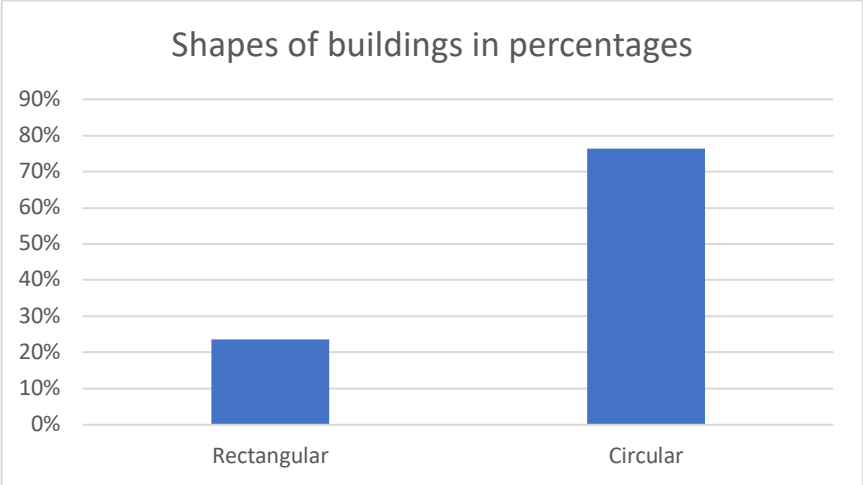


Figure 6.1. The proportion of KAC buildings in relation of shape

There are also attested different variations within round and rectilinear shape categories (fig 6.2). For example, there are some variations within the rectilinear scheme, such as rectangular forms with rounded edges at Qarakopaktepe (B phase), Chaggalligtepe, Misharchay and Arabyengija. There were also attested different variations within round shape schemes, for example, oval, and elliptical forms, such as at Arabyengija, Ashaghy Dasharkh and Shortepe (Nakhchivan). Unfortunately, due to the limited site plans it is also often difficult to identify a clear difference between these building shapes. Furthermore, due to the lack of stratigraphy, we do not have solid evidence to see whether the shift from circular to rectangular buildings was sudden or was there a gradual transition from round to oval and later to rectangular rounded shape and finally, turned to rectangular shape buildings.

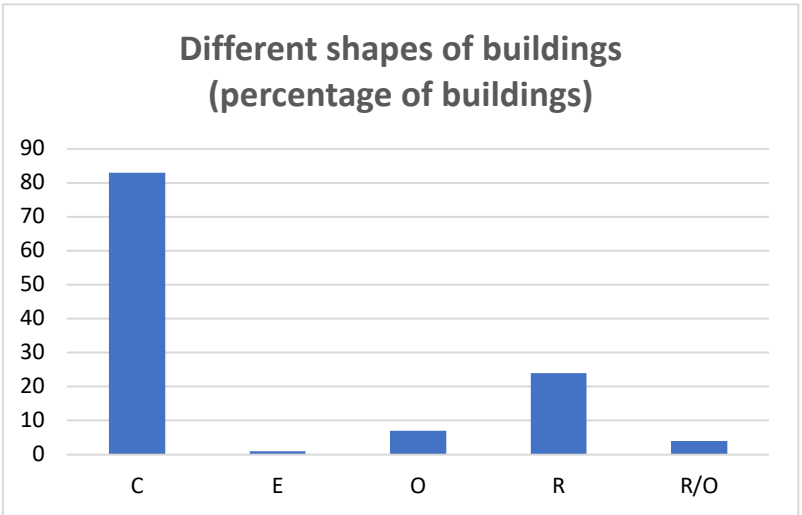


Figure 6.2. The various shapes within KAC building shape category (C- Circular, E- Elliptical, O- Oval, R-Rectangular, R/O- Rectangular-Oval)



Figure 6.3. Oval shape building remnant, Shortepe (Nakhchivan) (Seyidov 2012: 193, fig 225)



Figure 6.4. Rectangular building with rounded shape, Arabyengija (Seyidov et al. 2008:26, fig 1)



Figure 6.5. Rectangular building with rounded shape, Chaggalligtepe, 4th square (Ashurov et al. 2018)

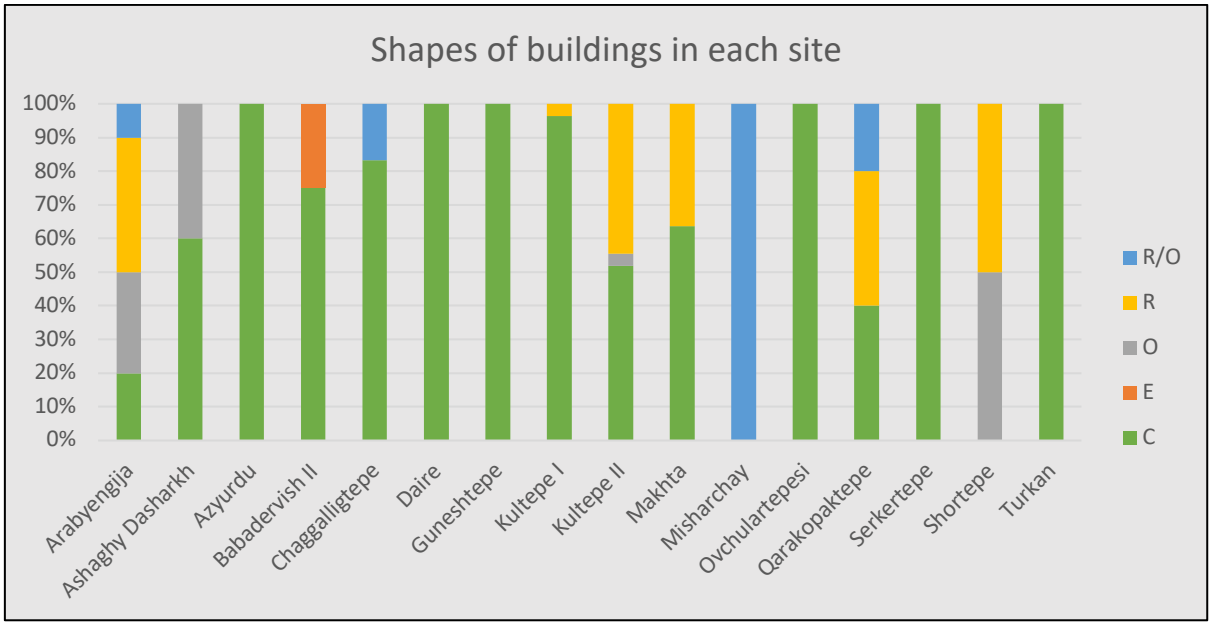


Figure 6.6. The various shapes of KAC buildings according to each site (R/O – Rectangular- Oval, R- Rectangular, O- Oval, E – Elliptical, C- Circular)

As we can see from the Figure 6.6, there are different shape varieties that exist among KAC buildings. While, homogeneity is mainly dominated by circular structures in most KAC building tradition during the EBA, some settlements demonstrate heterogeneity by later development in different shapes of buildings. It is important to highlight that most of these settlements have partly been excavated and destroyed and some settlements in the graph are represented by only one or two buildings. Azimov (2006) claims that the culture of round-plan buildings had a long history even before the KAC, which is characteristic of the Caucasus region. Chronologically speaking, there was a long sequence of circular buildings in the initial stage of the KAC, while later stages were followed by rectangular structures (Smith 2005, Palumbi 2016, Sagona 2018). For example, at Kultepe I, and II and Qarakopektepe, where upper layers show buildings with more rectangular annexes or separate buildings, whereas lower layers are more consistent with circular buildings. In some cases, circular and rectangular shapes of buildings coexisted in the same layer, for instance, at sites Makhta, Kultepe I, Chaggalligtepe, Ovchular Tepesi and Arabyengija. This coexistence can be seen either through annexes attached to the building, or through separate standing structures. This supports the view that many sites went through changes in building shapes, existing through different phases of the culture.

6.3.2. Size of the buildings

By examining KAC building sizes throughout temporal stages, this study hope to further develop our understanding of the various factors that influenced the physical domestic space. An overall range of KAC buildings suggests that there are three sizes of KAC building categories: 1) Small- 0<=size<20 m2 (approximately up to 5 m), 2) Medium- 20<=size<40 m2 (approximately 5-7 m) and 3) Large -size>=40 m2 (above 7 m). The data found that among KAC buildings the most common size for medium buildings ranged between 5-7 m in diameter (20<=size<40 m2) (fig 6.7, 6.8) (For the methods of size measurements see Volume II, Appendix II, p 248).

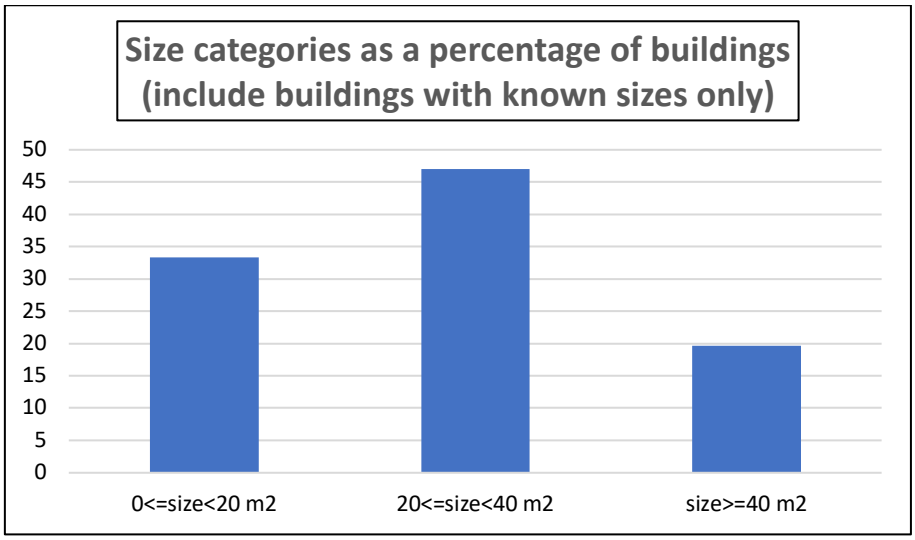


Figure 6.7. Size categories as a percentage of KAC buildings

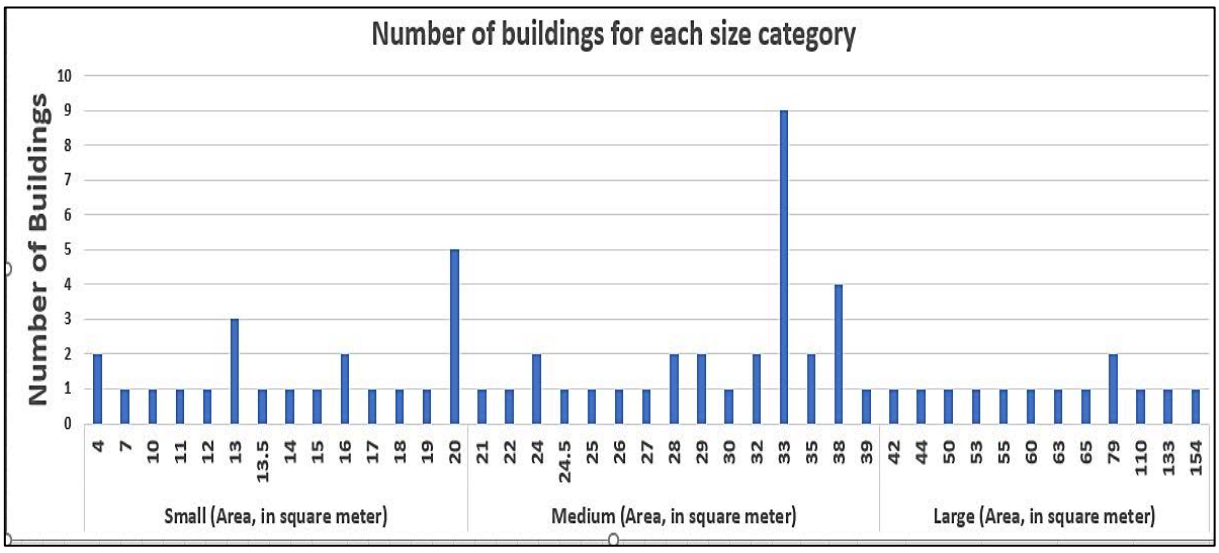


Figure 6.8. Number of buildings for each size category

Interestingly, the data also look at size categories in relation to the shape of buildings, to see variations, if any, between shape and size of buildings (fig 6.9, 6.10). However, it is also important to mention that due to much less available data, the result of the number of rectangular buildings compared to circular buildings can be inconclusive.

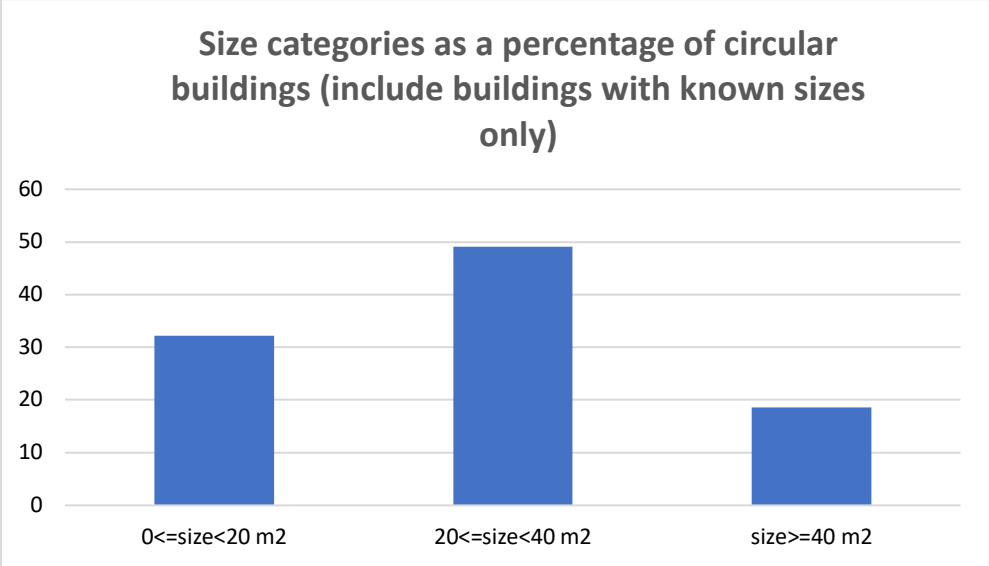


Figure 6.9. Size categories as a percentage of circular buildings

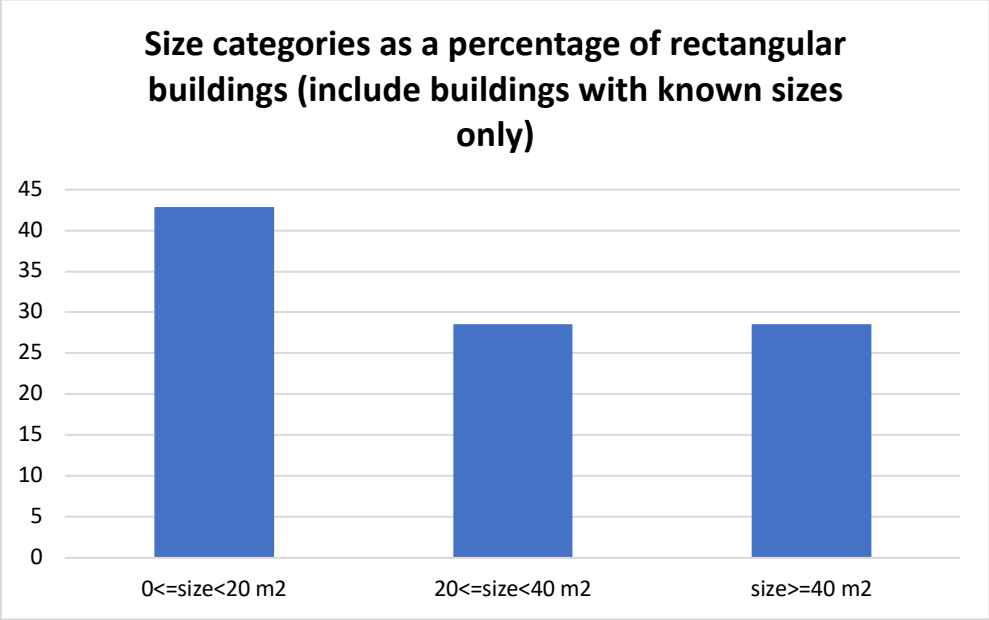


Figure 6.10. Size categories as a percentage of rectangular buildings

0-20 m^2 category (small)- This category contains a small percentage of the total building size in Azerbaijan (fig 6.7). Buildings are mainly attested with annexes and partitions. These

buildings seem to be used for household activities, as it is evident through installations relating to the domestic use of fire, such as oven and mangal (central hearth) attested in these buildings. Interestingly, rectangular buildings dominate this size range (fig 6.10). This suggests that rectangular buildings acted as alternative rooms for different activities. In addition, an abundance of archaeological materials are obtained from these rectangular auxiliary buildings. For example, Figure 6.11 demonstrates house activities through the remains of big storage vessels (dia 0.50 m), with big grinding stones, as well as several holes with about 40 tanged projectile points made of bones amalgamated in one place. The diameter of these holes is around 8-10 cm; depth is 25 cm.



Figure 6.11. Chaggalligtepe small size room with domestic activities (Ashurov et al. 2018: fig 13)

21-40 m^2 category (medium) –This category contains the majority of KAC buildings, which represents the building size that grew markedly, depicting the busy lifestyle which are mainly

attested in circular buildings (fig 6.7). Specifically, the common size of these structures ranges between 25-35 m^2 (5.6-6.7 m diameter). Moreover, some settlements demonstrate a high concentration of this size of buildings, such as Kultepe I with 14 buildings out of 34, and Serkertepe with 7 buildings out of 10, belong to this category. Doorways are quite common in this category. Interestingly, the data shows that despite the size increase, the usage of partitions and annexes disappeared in these buildings. Sagona (2018:233) claims that in general, in KAC communities, a quarter of buildings, 25 and 40 m^2 of floor space was used for storage. There was no evidence of any difference in relation to activity within this size of households. The internal layout of these buildings tended to be standardized and they were generally furnished with a central circular hearth with a spread of some of household possessions.

40-154 m^2 category (large)- Only a small number of buildings were recorded under this category (fig 6.7, 6.8). The data found that partitions and annexes are quite common in this category of buildings. In the few cases where size differences are evident, the structures indicate some level of complex spaces such as community meeting houses or shrines. For example, the two largest buildings among the entire KAC settlements in Azerbaijan have been attested in Kultepe I, building 2, (133 m^2, approx.13 m) and in Kultepe II, building 7 (154 m^2, approx.14 m) (fig 6.13, 6.14). Abibullayev (1982:98) suggests that Kultepe I, building 2 because of its large size was used for public gathering, such as cult purposes. However, the author contradicts his opinion by demonstrating that there is an absence of any distinctive finds in this construction, which means it is less likely to be a cult site (Abibullayev 1982:243). In general, it was not possible to distinguish the building functions according to their sizes, because domestic facilities are arranged both in small, medium and large buildings. It was also found that the chronological changes building sizes chronologically show their varieties within KAC settlements. For example, at Kultepe I and Kultepe II, big size buildings surprisingly attested in the lower layers. Similarly, in the Serkertepe site, lower level buildings' size is bigger than upper layer buildings but conversely, in Qarakopaktepe, big size buildings were mostly attested in the upper layer of the settlement.

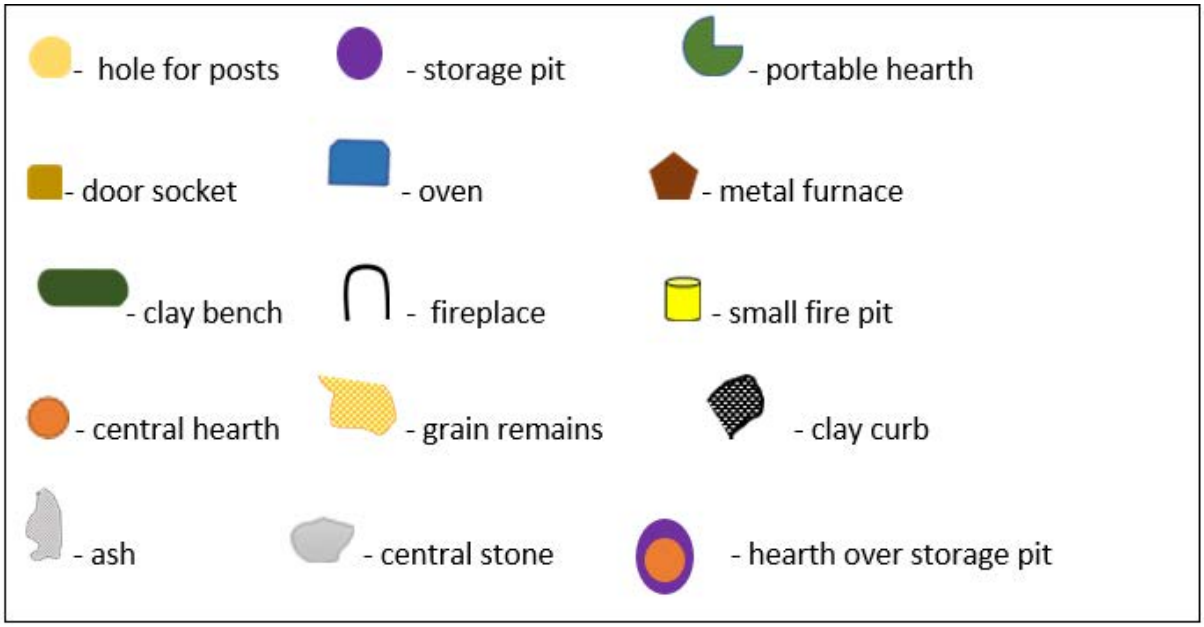


Figure 6.12. For image interpretations see symbol signs

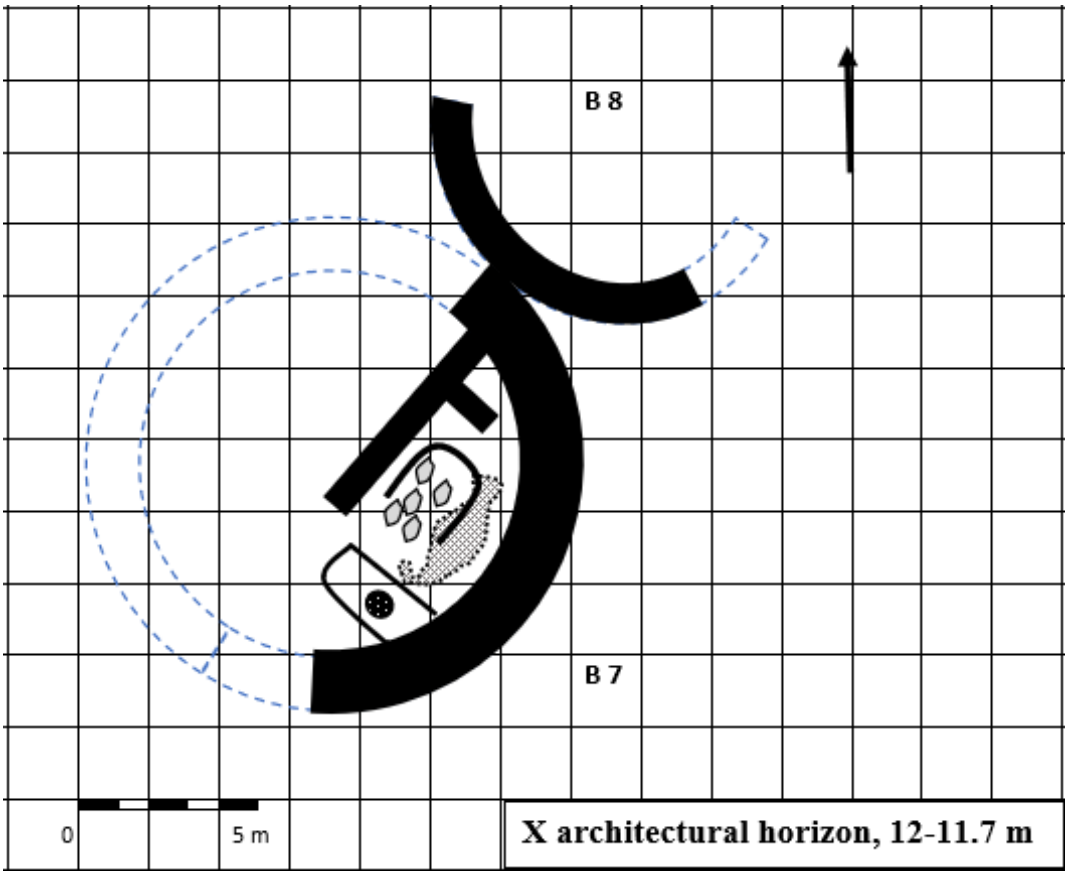


Figure 6.13. Schematic plan of Kultepe II, building 7, household activities attested in the building (Seyidov 1993: fig 5, drawn by the author, Ismayilova)

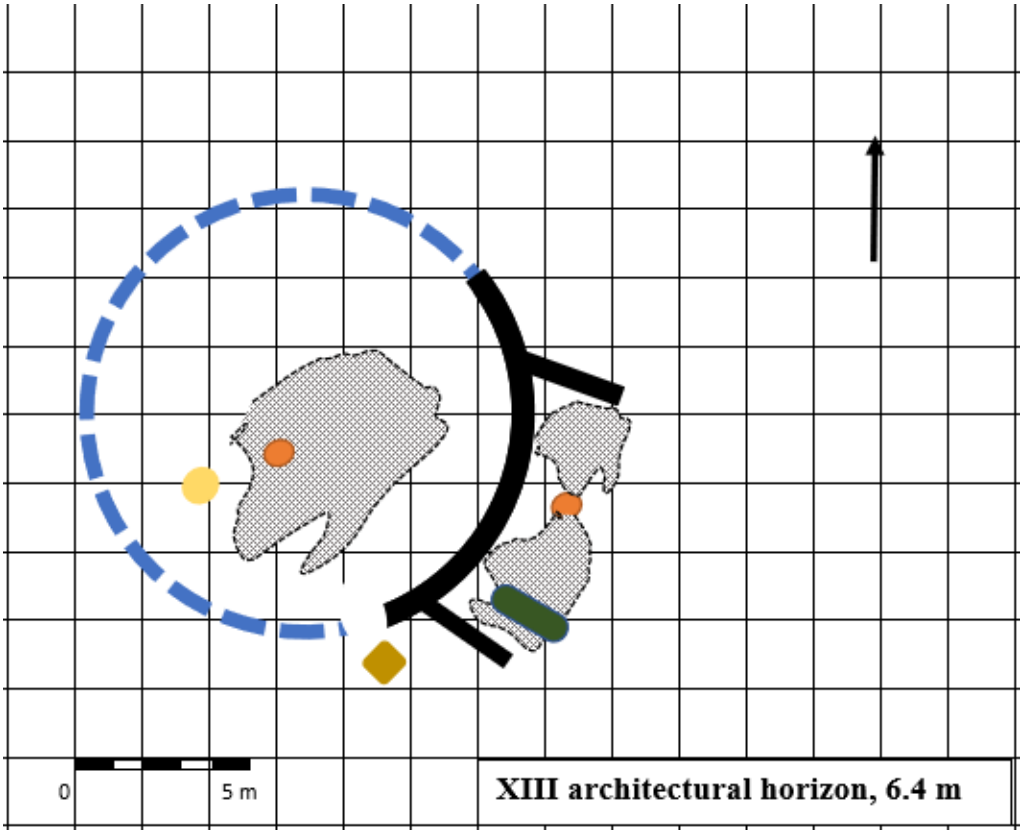


Figure 6.14. Schematic plan of Kultepe I building 2, household activities attested in the building (Abibullayev 1965: fig 20, drawn by the author, Ismayilova)

6.3.3. Doorways

The data indicates that doorways are less attested in KAC buildings and have only been recorded in 18 buildings. Access to the house was through the porch. The width of entrances is almost consistent at around 1 m, unlike the doorways of the Chalcolithic period, which were narrow, 50-60 cm wide (Sagona 2018:101). Doorways are mainly attested in circular shape buildings and the remains of door sockets in buildings perhaps indicates the traces of doorways in KAC settlements (Abibullayev 1982:28). Some buildings have two doorways attested in them, mainly at Kultepe I (Building 19/20), Kultepe II (building 4) and Serkertepe (building 5) settlements (fig 6.15). The main orientation of doorways is from the south.

Door entrances are mainly attested in medium sized buildings, as well as in buildings with partition and annexes (fig 6.16). The data suggests that those buildings where doorways are attested seems to have a complex architecture. There has been attested fixed hearths, fireplaces, and ovens, which demonstrate these buildings having a multi-purpose function (fig 6.12, 6.16).

In addition, in buildings with doorways, such as Kultepe II (B 4), Guneshtepe (B 1), and Serkertepe (B 2, 4) benches are also attested. See the section 6.3.4 for more details about benches and other built-in features.

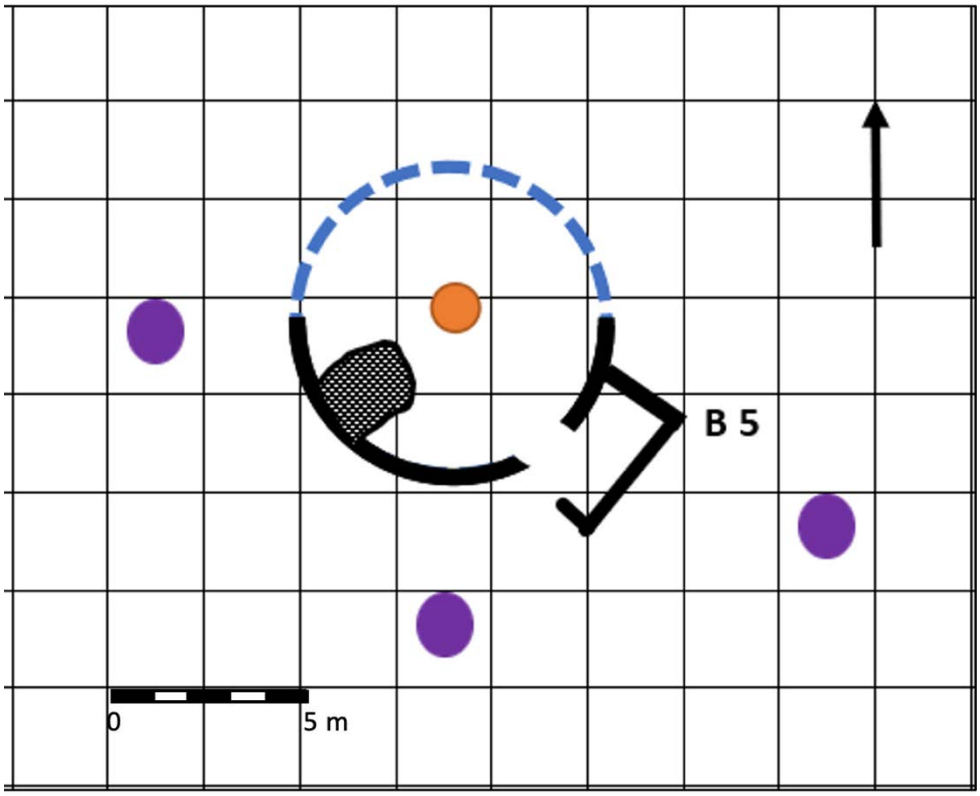


Figure 6.15. Schematic plan of Serkertepe lower layer Building 5 with two doorways (Musayev 2005:116, Tablo 8, drawn by the author, Ismayilova)

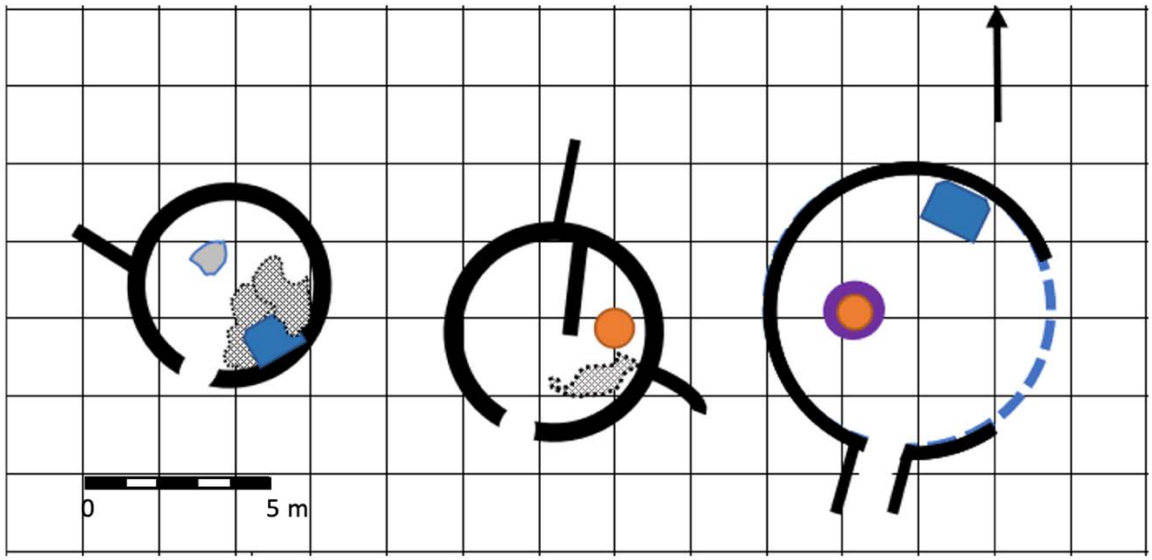


Figure 6.16. Schematic Plan of Kultepe I B 28, Kultepe I, B 2/1, Serkertepe B 3, buildings attested with partitions and annexes (Abibullayev 1965: fig 11, 13, Musayev 2005:116, Tablo 8, drawn by the author, Ismayilova)

One of the interesting buildings that attested in Kultepe I, building 19 (diameter 5.2 m) has three doorway entrances (fig 6.12, 6.17). The main area is divided into two parts. At half- way along the wall there is an opening 90 cm wide. The entrance to the premise is 110 cm wide, which located in the northeast section of the smaller part. There is a 70 cm wide entrance into the larger half of the circular premises. Some porches have heel-stones or depressions in the ground which are indicative of doors. However, a locking system or 'door-lock sealing' wasn't attested in most settlements. The rectangular extension adjoins the unit from the south. Roe (2017:124) claims that if an annex was added in front of the original entrance to a hut and a new entrance created in the annex, it would make the annex a more prominent and active part of the building as it would be the main point of access for both the inhabitants and any visitors. It might be that the annex was built attached to the building later, once the direction of the wind was discovered. Annex can also serve as a security measure for the occupants or might serve to keep the house clean while having several activities happening inside.

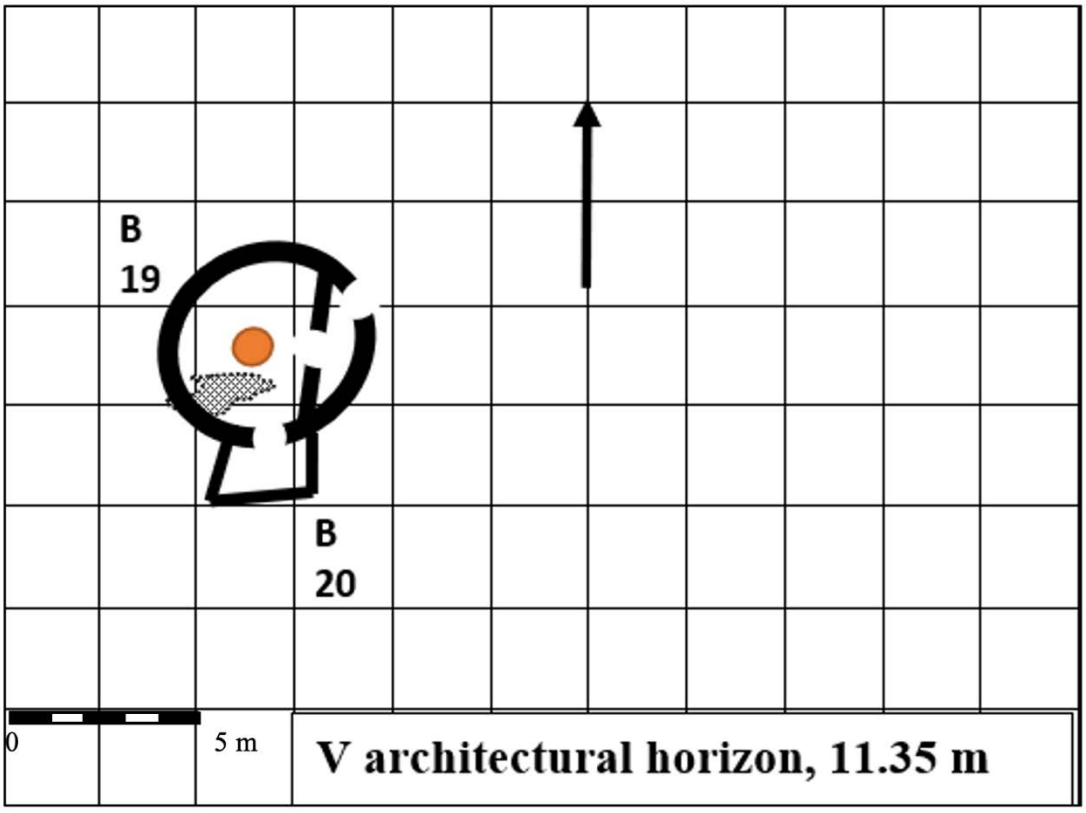


Figure 6.17. Schematic plan of Kultepe I, B 19/20 with three doorways. V architectural horizon, 11.35 m (Abibullayev 1965: fig 7, drawn by the author, Ismayilova)

6.3.4. Built-in features (fire installations, benches and storage pits)

In this section, we will discuss some specific built-in features typical to the KAC buildings in Azerbaijan to understand the internal layout. KAC dwellings conveyed a standardised and homogeneous concept of social identity with regards to the internal organisation. In other words, there is a strong possibility that houses will have a circular hearth, lying in the centre of the main room and with a low bench along the back wall. These were the most common internal installations in the Kura-Araxes communities (Smith 2005, Sagona 2014, Palumbi 2016) (fig 6.18). The initial KAC buildings were small but over time gradually became larger and developed in interior complexity with elaborated kitchen fittings, such as benches, hearths, ovens and pits (Longford 2015). More specifically, this section examines the social organisation of space and the arrangement of built-in features during the subsequent phases of the KAC in relation to the 'fixed' elements of the dwellings, such as fire installations, benches, or storage pits (fig 6.19). Although the interpretation of evidence showing the concentration of workshop activities is often difficult, a combination of those activities can suggest a collective usage of these spaces among KAC communities. In other words, building spaces equipped with furniture, benches, fire infrastructures, and pyrotechnological installations showed an agglutinative model, where dense and common areas were used collectively. This kind of domestic plan is also connected with distant lands from north-western Iran to Eastern Anatolia (Palumbi 2016).

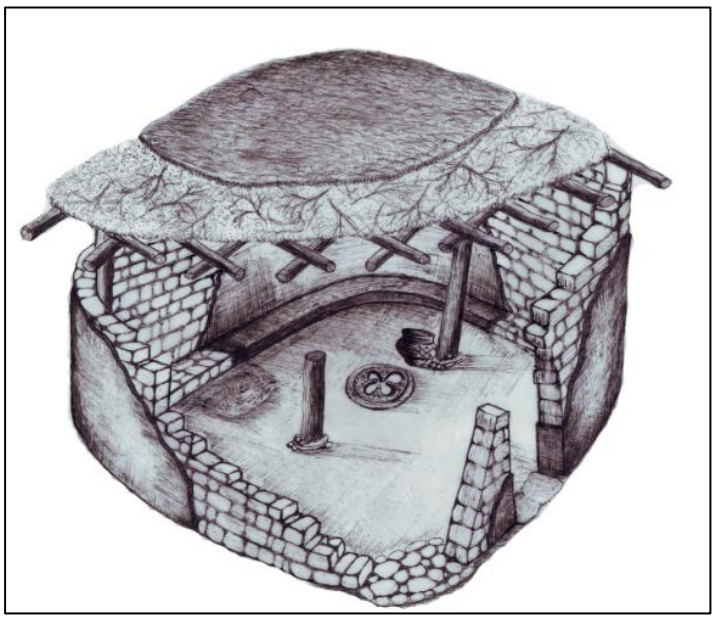


Figure 6.18. Standard KAC house (reconstruction plan), Isikli and Ergurer (2017: fig 4:61)

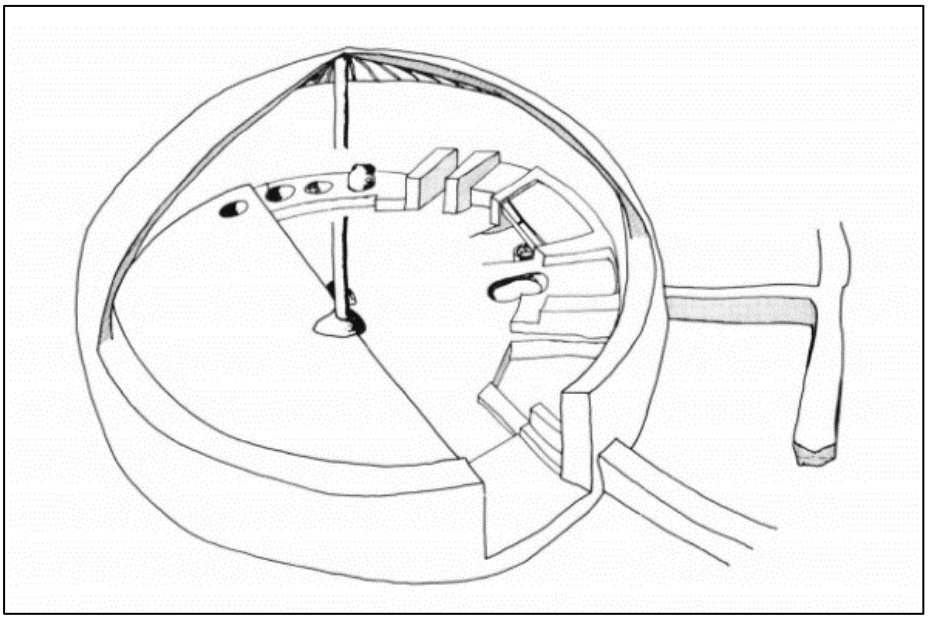


Figure 6.19. ‘Fixed’ elements of the typical KAC house (Summers 2013b:85, fig 74, reconstruction of circular plan house)

Fire Installation

A key characteristic of Kura-Araxes buildings was fire installations attested inside them. In traditional dwellings, the hearth covers a central position in the life of household. The hearth embraces a series of events, from daily routinised activities, where food is prepared, where the family can find relief from cold and darkness, to the most intimate moments, where the family can sit, talk, and discuss (Restelli 2015, Shimelmitz 2003, Simonyan and Rothman 2015). The data found that hearths are certainly an important element of the KAC houses in Azerbaijan. There are different varieties from fixed (permanent) to portable hearths attested in KAC buildings (see Appendix I for each site entry attested with hearths, and Appendix II for each building documented with hearth). Probably, they have different functions and are complementary to each other in the preparation of food or heating purposes (Muradova and Ismayilov 1971, Abibullayev 1982). Furthermore, their varied distribution may suggest a fluidity between private, communal space and other activities happening within buildings (Restelli 2015). For example, there is a consensus (Restelli 2015, Sagona 2018, Palumbi 2008) that a fixed central hearth at the centre of the room is good evidence of the habit of sitting around it. Shimelmitz (2003:208) points out that while there can be several hearths in the house, it is the central one that represents the family and the fire in it burns continuously (fig 6.20, 6.21). In some settlements, there is evidence of the thickness of the deposits and the succession

of buildings, as well as hearth over hearth and storage pits under hearths, such as Serktepe settlement (fig 6.12, 6.22)



Figure 6.20. Chaggalligtepe, the plan between 4th and 5th squares. Close view of the central fixed hearth (mangal) (Ashurov et al. 2020: fig 19)

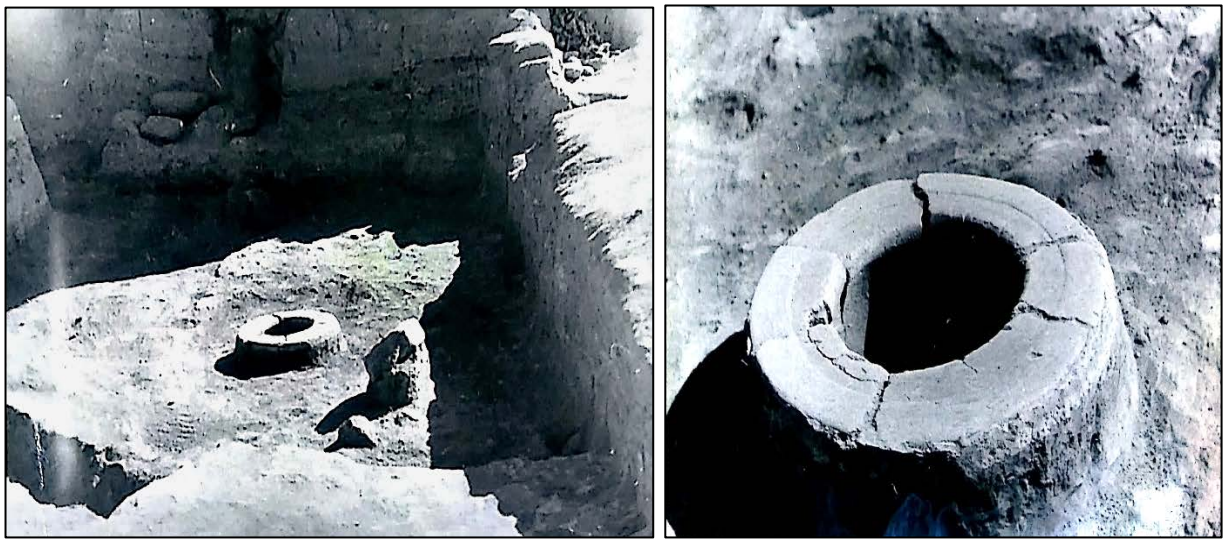


Figure 6.21. Fixed Hearth in Kultepe II house (building no identified) (1985: fig 5)

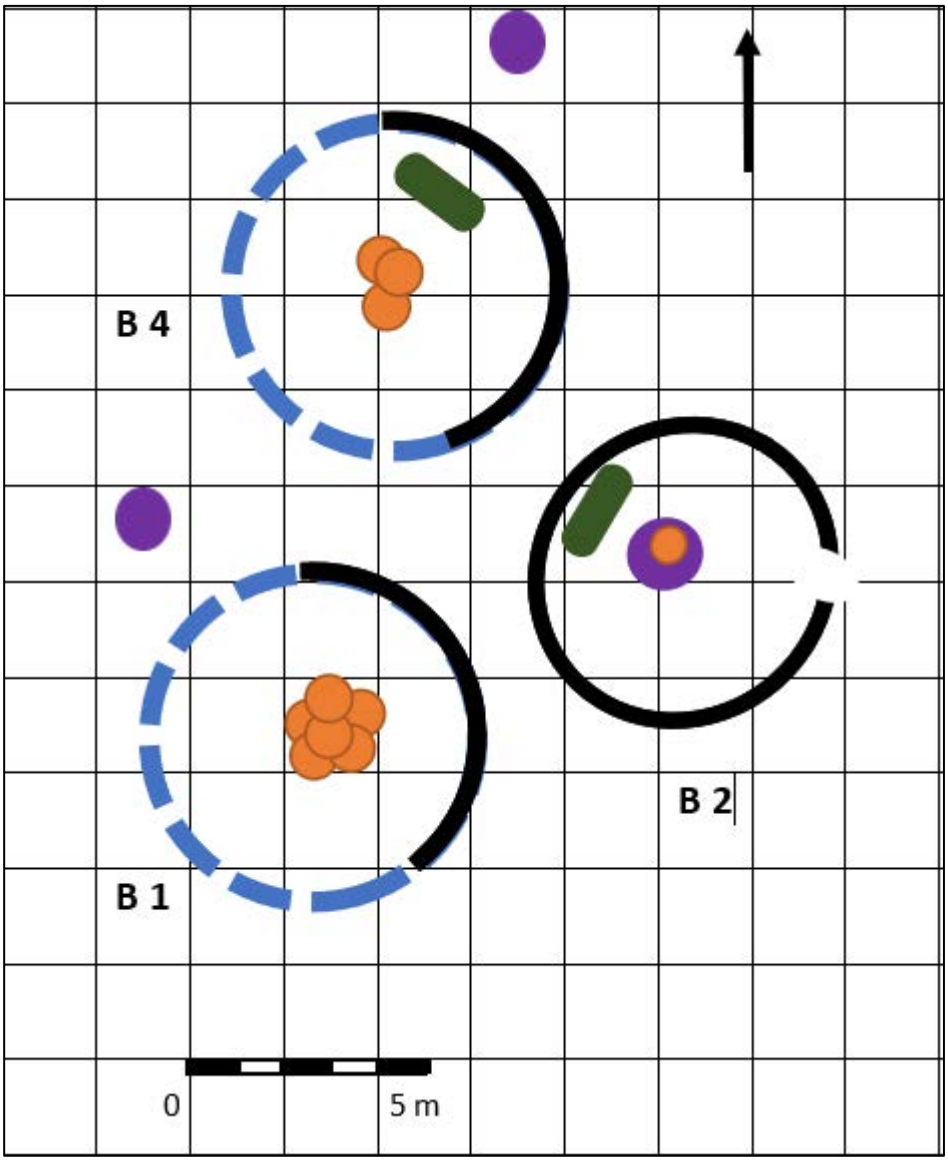


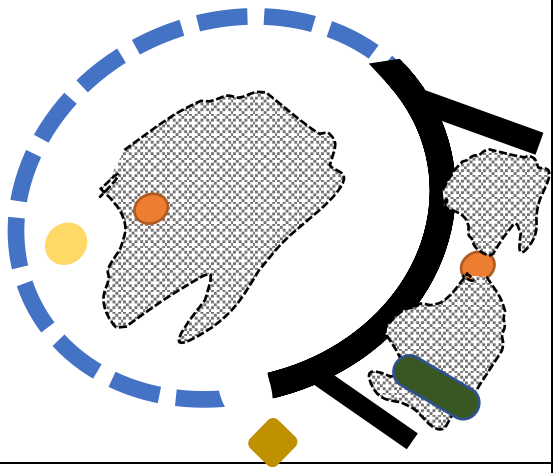
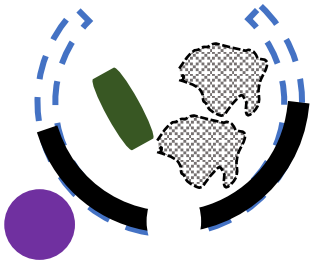
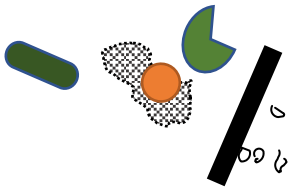
Figure 6.22. Schematic plan of Serkertepe settlement lower layer, successive buildings of hearths ((Musayev 2005:116, Tablo 8, drawn by the author, Ismayilova)

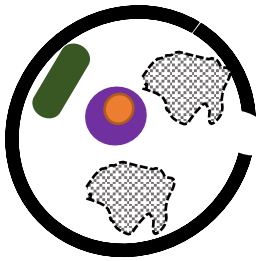
Benches

One of the elements of 'repetitiveness' (standardisation) that appear in the internal layout of Kura-Araxes household is the arrangement of household possessions on the bench along the wall. Sagona (2014:43) claims that benches are considered as a distinctive cultural package defining a shared cultural identity among KAC communities. The constraints of space probably meant that household goods and the social organisation of activities within these houses were well defined (Sagona 2018). Clay benches were usually placed against the back wall, sometimes in black or red-pained colour (Longford 2015, Sagona 2017). There are only a few buildings, where benches were attested in KAC households in Azerbaijan (Table 6.1). The common size

ranges between height 0.30-0.50 cm, width 0.50-0.60 cm, and the length is 2 m. The data shows that benches were arranged not far from the hearth and kitchen utensils, where a different range of activities were happening within interior division.

Table 6.1. KAC buildings with benches -  - (symbol sign) (drawn by the author, Ismayilova)

Site Name	Features	Drawing
Kultepe I, Building 2 (Building 1 annex)	The bench is placed along the wall, height 30 cm, width 30 cm with an hearth inside the annex building 1.	
Guneshtepe	Inside the building close to the centre a bench was attested. The bench measures: height 0.30 m, length 2 m, width 0.50 m. In addition, there was found a model of wheel, obsidian, some precious stones in the building.	
Kultepe II, Building 20	The bench made of wattle and daub is attested in the remnant of the rectangular structure, close to the hearth. Next to the bench animal bones, and remains of a zoomorphic portable hearth were attested.	

Serkertepe, Lower level B 3 (7)	The bench made of wattle and daub is attested along the wall. In addition, at the centre, a pit and a central hearth were discovered. The bench measures: height 0.5 m, length 2 m, and width 1 m.	
Serkertepe, Lower level B 4 (9)	The bench is located in the northern side of the building, attached to the wall. The bench measures: length 2 m, and width 0.5-0.6 m.	
Makhta 5th square, B 2	Productive activities (metal working)	N/A
Makhta 5th square, B 5	Working place	N/A

Arabyengija	The bench is located along the wall, which is 50 cm wide and 75 cm long.	N/A

Storage Pits

Other communal structures in KAC buildings include storage facilities. There are 15 sites with storage pits that were attested in Azerbaijan, however, the data from these sites is extremely poorly documented, and it is difficult to identify whether these storage pits are contemporary. It is generally accepted that KAC pits have been used for garbage disposal after they ceased to be used for a storage facility (Batiuk et al. 2022). According to Sagona (2018:101), the indication of grains and the deliberate placement of caching usable tools, like bone and stone objects in close proximity to, or within the bins implies that while these bins might have served a functional purpose, they could also potentially signify ritual practices to the same degree. However, 'it is difficult to discern whether the functionality of the bins preceded the ritual, or whether both activities were performed simultaneously' (Sagona 2018:101). The data reveal that storage pits were attested primarily outside buildings, perhaps having more communal purposes, such as at Ovhculartepesi (fig 6.23). However, in sites such as Chaggalligtepe and Mahkta, storage pits started to appear inside buildings (fig 6.24). Some pits were used for discarding waste debris. There was evidence of the traces of ash and in *situ* domestic material, including fragments of ceramic, stone tools, anthropomorphic figure, model wheels and grain remains. The grain-storage pits were attested in several settlements, mainly in Babadervish, also in Balatepe, Kultepe I and II, however, there is no evidence on how they were lined (Ismailov 1977, Karimov 2013).



Figure 6.23. Ovchular Tepesi, storage pit (Ashurov and Bakhshaliyev 2011:no figure number)



Figure 6.24. Chaggaligtepe I, plan of 4th square, fireplace and storage pit inside the building (Ashurov et al. 2018: fig 29)

6.3.5. Building interior division (Partition/Annexes)

In the middle and later stages of the KAC, the use of the overall space has undergone some changes, with attempts to separate the structure with a partition wall during the EBA period (Azimov 2006:22). It appears that the need to construct annexes or a partition reflects a desire for dividing domestic space within an adaptable physical structure, giving the owner of the house greater adaptability than its rounded counterpart (Roe 2017). Furthermore, the addition of other parts to the building can be seen a result of other factors, such as wealth, status, ideas of personal, private and public space. In addition, weather and climate conditions, such as wind direction, temperature control, sun direction and air movement could have also influenced the building layout (Roe 2017).

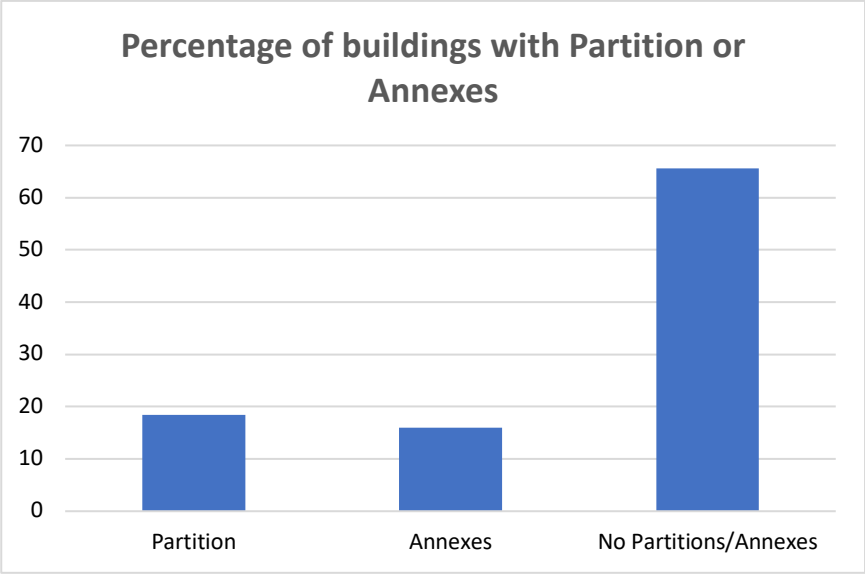


Figure 6.25. A graph of the percentage of buildings with partition or annexes

The data shows that despite some buildings attested with internal divisions and annexes, most KAC buildings do not have internal divisions (Fig 6.25). However, it is important to note that due to the small sample size this should not be taken as a final conclusion. The graph also shows that partitions and annexes feature in almost similar proportions. Internal divisions are commonly found mainly in circular buildings and are quite common in houses of all sizes (fig 6.27). Another finding is that buildings with partitions do not show any indication of functional differences among KAC buildings. In dwellings with partitions there was evidence of the element of *standardisation*, where a circular hearth with a central hole full of ash was found along with with a wide range of stone utensils and ceramic potsherds that associated with agricultural activities and food processing. This compartmentalisation inside the buildings demonstrates high-density housing and seems to represent a complex form of architecture. For example, there are some premises, such as building 33, which is of particular interest. Here, the space is divided into two equal parts, and Abibullayev (1982:83) claims that in the northern section of the building, plentiful remains of burnt grain indicated that this part was probably used as a food storage area (fig 6.12, 6.26). In addition, outside the building, a storage pit with the depth of 1.8 m was found and inside the pit chaff, unthreshed grain (not cleaned) and potsherds were attested. Seyidov (1993:26) suggests that that perhaps one part of the building was used for living purpose and another part for household activities.

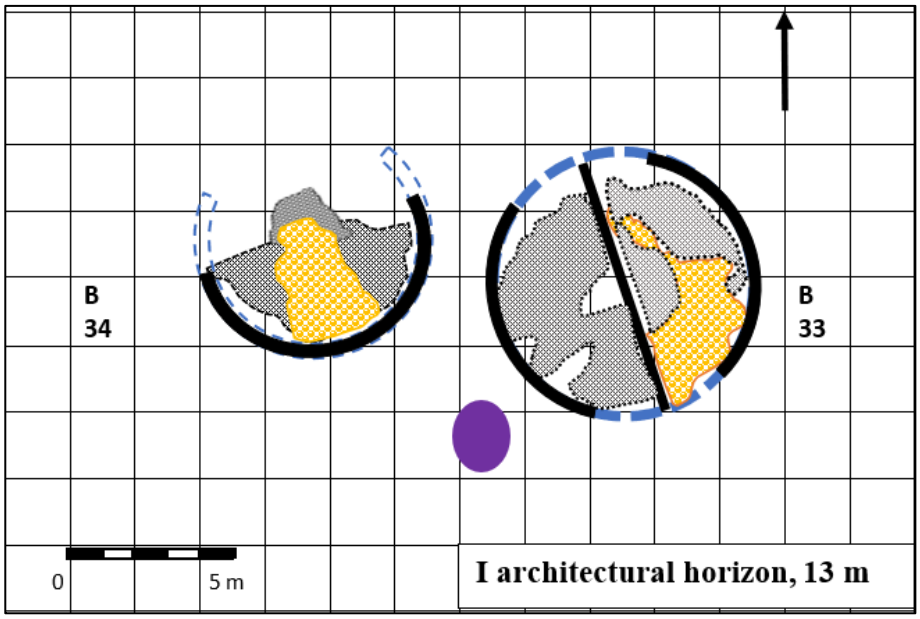


Figure 6.26. Schematic plan of Kultepe I Building 33 (13 m depth) (Abibullayev 1965: fig 2, drawn by the author, Ismayilova)



Figure 6.27. Photogrammetry of the site Makhta, buildings attested with partitions and annexes (Ashurov et al. 2013:100, fig 1)

6.3.6. Building materials and construction techniques

Alongside homogeneous features of the internal layout, differences in construction techniques, where different building materials were applied also attracted scholars. There is a broad consensus that the different levels of altitude at which settlements were built, affected the architectural plan and selection of building materials (Karimov 2013, Palumbi 2016, Sagona 2018). For example, moving north the architectural traditions are composed of heterogenous elements. Stone with wattle and daub material and wooden post dwellings, as well as sunken structures are used mainly in highland areas, such as the Great and Lesser Caucasus, which tend to have a rather thin cultural deposit (Kohl 2007, Karimov 2013). Circular mud-brick structures sometimes with stone foundations, were constructed in lower plains, and further down toward the south, such as the Ararat Plain, Nakhchivan, across the Guru and Kandalan Rivers in south-eastern Azerbaijan, north-western Iran and Eastern Anatolia. These were distinguished by their thick cultural deposits reaching heights of more than 10 m (Kohl and Trifonov 2014, Azimov 2006). However, it is still not clear whether the differences in the use of materials were due to the local availability of materials, or due to the function and nature of the building itself. In general, building materials vary according to local resources. The building materials used for construction of KAC buildings fall into three main categories: earth, stone and organic matter (See Appendix II for construction material for each building entry). The choice of building materials also reflects the long and short-lived local conditions. Building materials and construction techniques can help us identify whether the buildings were reused or were multi-functional. Some settlements had an intensive and dense occupation with evidence of reuse of some buildings and series of replacements over time (Musayev 2005).

Earthen Material

The data reveal that earthen material such as mud-brick is predominant almost in all KAC settlements. Perhaps the KAC people used mud-brick as a main construction material in the first place due to its availability and accessibility. While in some settlements, mudbrick was used alongside wattle and daub (Chaggalligtepe, Kultepe I, and II), the usage of mudbrick was consistent, such as in Babadervish (mudbrick with postholes), Ovchular Tepesi (mainly mudbrick on a stone base, rarely wattle and daub) (Azimov 2006, Bakhshaliyev et al. 2013). In Kultepe II settlement, however, top layers (XIV-VIII) are made of wattle and daub, whereas

VII-I below layers' buildings are constructed from mudbrick. In some buildings, mudbrick was used for foundation, about 30 cm from the bottom, later followed by wattle and daub (Seyidov 1993). Therefore, we concluded that there was no homogeneity in building material. Mud-bricks can be classified into different dimensional categories. The common mudbrick size ranges between length: 44-50 cm, width:18-22 cm, thickness:10-12 cm. For example, in some settlements, large mud-bricks were used in the main wall construction whereas between intersections (alternative rooms) small bricks were applied (Ashurov et al. 2010). In rectangular rooms, mud-bricks used are thicker than the circular rooms, which might be linked with the domestic activities carried out in these spaces and the need for the stability and strength of the walls (Ashurov et al. 2013).

Stone

Stone was also a commonly used material. River pebbles were used for footings, and stone blocks were employed in the foundation as well. Sometimes mud-brick walls rest on stone foundations. Stone bases have been traced at Kultepe I, Babadervish II, Guneshtepe and Garakopaktepe. There are also buildings constructed without the use of foundations, which means buildings were erected directly onto the virgin soil or on the levelled remains of previous constructions, such as in Serkertepe, Kultepe II and Misharchay (Azimov 2006). There are buildings with walls and bases made completely of stones, such as Ashaghy Dasharkh, Ovchular Tepesi, Qarakopaktepe, Guneshtepe, Azyurdu and Turkan. For example, Qarakopaktepe settlements were characterised with the thickness of walls that reached to 1.5 m (Ismailzade 2008). Thick stone walls, like thatch, have a high thermal mass, allowing them to absorb heat during the day and re-radiate it out at night, thereby helping to maintain a more consistent internal temperature (Roe 2017:210). Buildings with this structure will have increased longevity in comparison to those with direct contact between wooden elements and the earth (Roe 2017:75).

Organic Matter

In addition, organic matter essentially consisting of wood, straw, and reeds were used in different aspects of the construction. The best evidence of the use of organic matter is represented by postholes for the roof supports. In most sites, there was evidence of the use of load-bearing poles in buildings. For example, in Chaggalligtepe, wooden posts of 10-15 cm

diameter were entrenched in the ground at a distance of 20-25 cm from each other. They were woven together with thin rods, and finally, both sides of the whole construction were coated with clay plaster. Postholes with diameter ranges between 8-23 cm were also present, with most houses having postholes with distance between them of 0.06-0.18 m, at 0.20 m from each other (fig 6.28, 6.29). Most postholes are along the walls and there is also a claim that in the centre a support stone was attested which carried a rafter. Unfortunately, there is no evidence for the process of dressing wood.



Figure 6.28. Chaggaligtepe, 5th square, wattle and daub structure with small postholes (Ashurov et al. 2017: fig 25, n.p)



Figure 6.29. Chaggaligtepe, 5th square, mud-brick houses with postholes (Ashurov et al. 2018: fig 9, n.p)

Wall structure

House walls are mainly constructed from mud-brick and wattle and daub. The walls of the constructions were assembled mostly from one line of crude bricks arranged lengthways. Some constructions had powerful walls made of two rows of bricks. The height of the walls usually reaches up to 1 m. The thickness of the walls ranged between 0.20 and 1 m (Ismailov 1977, Bakhshaliyev 2006). The numerous repairs to walls indicate that the occupants maintained their houses on a regular basis. The walls were coated on both sides with a thick layer of clay, and sometimes the coating was reapplied. Azimov (2006:28) argues that the coatings not only offered stability but also provided waterproof qualities. Some walls, however, are made of timber and wood mixed with clay, Serkertepe and Mingechaur.

Covering and roofing

Dome-shaped (or beehive-shaped) roofs have been used since the Neolithic period for the buildings of the Southern Caucasus (Baudouin 2019). Post-built houses comprise an open framework of load-bearing timber uprights, secured in post-pits and with a central support

stone. It is likely that these structures supported a dome shape roof, mainly in circular buildings (fig 6.30, 6.31, 6.32). Guliyev and Nishiaki (2014:6, as cited in Baudouin 2019:141) claim that sometimes some buildings lack dome-shape structure due to the thinness of the walls. Problems arise with the settlements where there no traces of a central supporting post. In that case, a flat roof had been replaced with the support of postholes (Aslanov et al. 1959, Abibullayev 1982). However, the understanding of the roof methods still poses many questions.

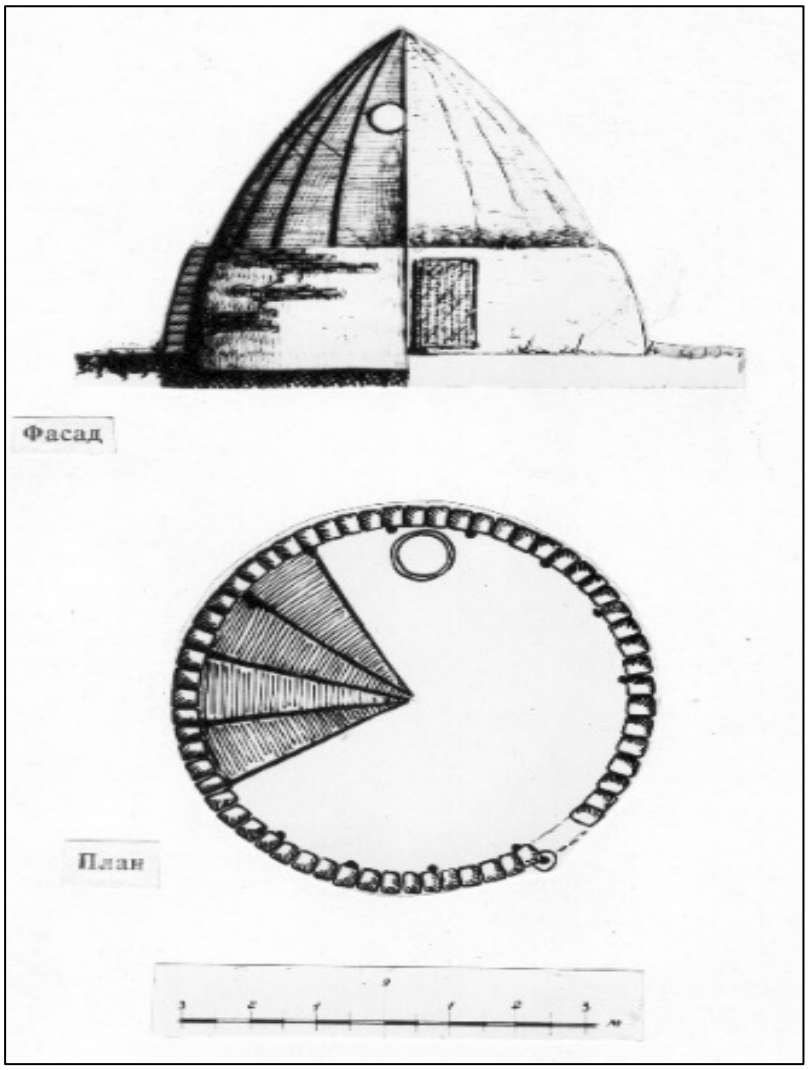


Figure 6.30. Serkertepe, dome-shaped building (Musayev 2005: n.p table 10)



Figure 6.31. Qarakopaktepe dome-shaped buildings (reconstruction plan) (adapted from Azimov 2006:77, fig 49)

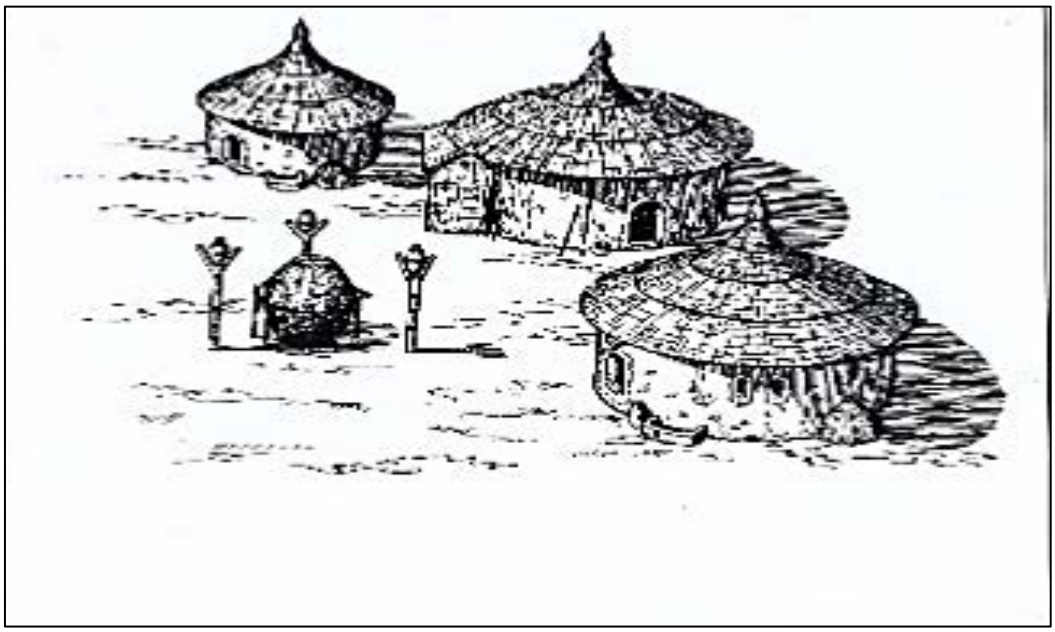


Figure 6.32. Kultepe I dome-shaped buildings (reconstruction plan) (adapted from Azimov 2006:75, fig 46)

6.4. Conclusion

The collective evidence suggests that the cultural development of the Kura-Araxes complex shows diverse and distinctive differences in the nature of buildings. All these distinctive elements of architecture show that the domestic domain was vital for KAC communities. The chapter can be concluded with several observations. First, the spatial organisation of the architecture is fairly consistent in KAC buildings, which helps to understand their common social identity. Despite wide variability in size, shape and building materials, the commonality of individual houses indicates predominantly small extended households. As Rothman (2015b:122, as cited in Palumbi 2008:203) demonstrates 'domestic architecture and village planning do not emphasize any form of social internal differentiation within the small Kura-Araxes communities in the South Caucasus'. Furthermore, we do not have enough detailed examples of the distribution of artefacts within buildings to identify their functions. However, what we know from the data, domestic or productive activities were possibly everyday practices within households. Usually, all activities are interrelated which tell us about the dynamic life of KAC people within these settlements. Second, attention was centred around a hearth as a community focal point and focus for activities involving hearths. Thirdly, there is a pattern of the re-usage of some buildings, with a series of replacements, and an appearance of repeated patterns of successive periods of rebuilding. In general, all these changes in the internal organisation and functions of KAC buildings over time help us to understand this household-centric society living in Azerbaijan during the EBA.

CHAPTER SEVEN: KURA-ARAXES CULTURE MORTUARY PRACTICES IN AZERBAIJAN

7.1. Introduction

While the KAC is generally considered to be a uniform cultural phenomenon, its funerary practices are complex and diverse. A different system of values, collectivity and horizontal social relations of KAC communities represented itself in the funerary practices, which has attracted many scholars to study this society's funerary ideology. Unfortunately, the archaeological picture available from the Southern Caucasus for this period shows a heavy imbalance between a large number of settlements and funerary sites. A rather small number of cemeteries and burials have been discovered so far due to lack of reliable data. Although there has been an increase in systematic excavations and C14 dating in recent years, yet problems and uncertainties still exist in understanding the diversity, complexity and uncertain chronological attribution of the mortuary practices of the Kura-Araxes communities. It is clear from the literature that studying and understanding the funerary practices in Azerbaijan has attracted disproportionate attention compared to neighbouring regions despite having only recently the region has drawn the attention of scholars (Poulmarc'h 2014:347, Laneri et al. 2020).

Given that no previous study has investigated the general nature of the KAC funerary practices in Azerbaijan, this chapter aims to develop an overall understanding of the mortuary culture, by demonstrating the general distribution of the KAC funerary sites, and by examining the patterns of homogeneity and diversity in mortuary practices during the EBA. The chapter will first begin with the method of analysis, problems and limitations of the study. Next, there will be a brief overview of the mortuary studies of the KAC in Azerbaijan. This will be followed by the section exploring the overall landscape distribution of known KAC funerary sites. Following this, there will be a classification of the typology of the KAC graves and funerary monuments, for the first time, to examine the complexity and diversity of mortuary architecture. It will be followed by a section on KAC mortuary practices, particularly looking at the mortuary treatment of the body and artefact assemblages, and finally, the chapter will end with concluding remarks.

7.2. Methodology and limitations of the study of KAC burial sites in Azerbaijan

This section describes the data used in the study and explains the methods applied to answer the research questions. For this study, specific research questions are: how were KAC funerary sites distributed spatially across wide regions? How were typical KAC graves built and do they exhibit any architectural variation within different regional traditions? Is there any evidence for patterns of variation among grave architecture? Are kurgans linked to different social groups or considered to be a 'classical' Kura-Araxes tradition? One of the challenging aspects of the mortuary practices of KAC is that the dataset is incomplete in many directions and the existing data is from mainly secondary sources. The dearth of site plans, limited surveys, limited excavations and a lack of C14 dating, together with a dearth of bone material, severely limit the extent to which local variability in the regions of Azerbaijan can be understood (Laneri et al. 2019). Therefore, data from neighbouring regions will also be used to provide insights into the comparative analysis. Re-examining old data in the light of new discoveries will possibly draw up an overall picture of the KAC funerary practices in the region. This is the first step towards a deeper understanding of the complex system of KAC funerary practice in Azerbaijan and is an essential foundation for any future studies of this topic.

An overview of the data as a whole, includes a visual examination of the spatial distribution of sites, burial constructions, and artefacts. To achieve our first aim, ArcGIS has been an effective tool, which helped us analyse the distribution of KAC sites including settlements and funerary sites in Azerbaijan. For the first time, the location of all 35 KAC funerary sites and their altitude, and their location from the distance of settlement were mapped and analysed. The amount and type of information available vary greatly from one site to another. Compared to other parts of the region, surveys and excavations mainly concentrated in the western part of Azerbaijan that provide a good data (fig 7.1) (see section 7.4 for further details).

To achieve our second aim, the grave architecture will help us understand a variety of burial complexes from the point of heterogeneity features that exist within funerary practices. Until now no work has been focused on classifying, grouping and analysing the burial constructions of KAC sites in Azerbaijan. Based on collected data on construction techniques, five types of KAC grave construction have been identified (see section 7.6 for further details). For analytical

research, Excel helped generate data on construction type, as well as other attributes, such as grave goods, burials with the presence of intensive fire, collective and individual graves, grave shape and orientation using the information available for each site.

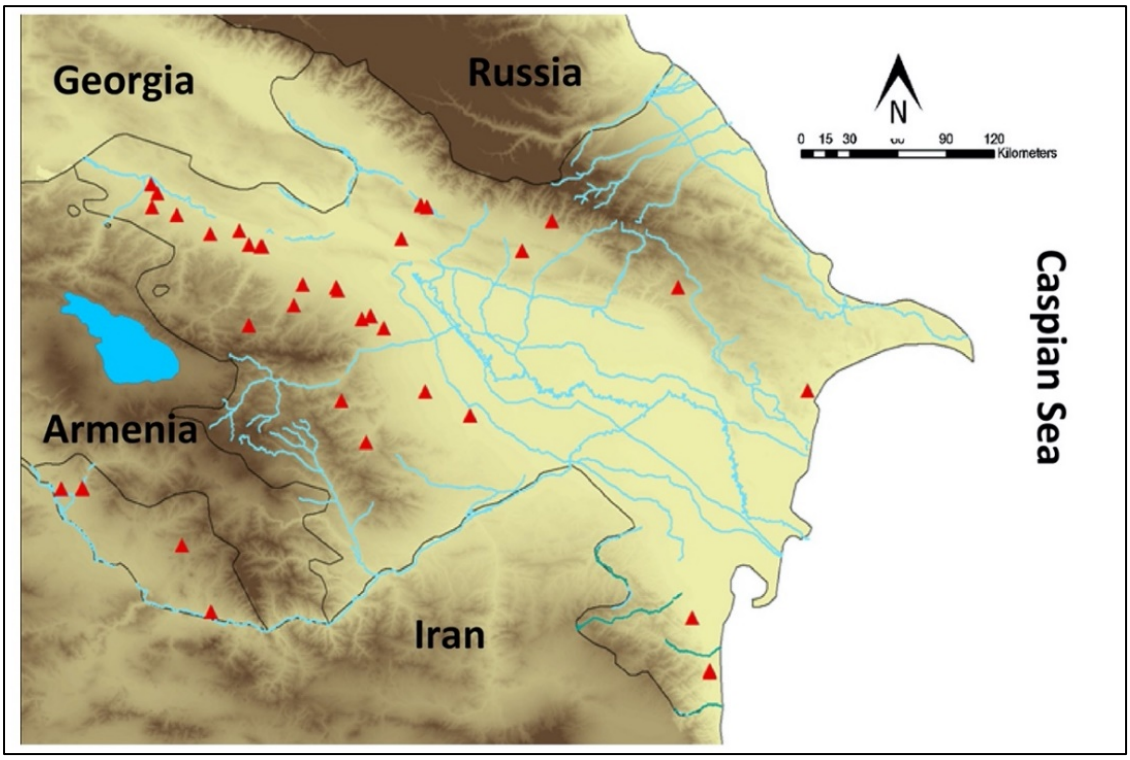


Figure 7.1. The distribution of KAC funerary sites in Azerbaijan (created by the author, Ismayilova)

7.2.1. Chronology of the KAC funerary sites

This section provides a brief summary on the chronology of the KAC funerary sites in Azerbaijan. It would be unhelpful to repeat the limitation of the chronology here, as it was fully discussed in Chapter 3. The section will evaluate different dating and interpretations on the chronology of the funerary practices in Azerbaijan during the EBA. Starting with the absolute dating, the majority of the available C14 dates from Azerbaijan were collected from the literature sources and out of 43 KAC dates, 24 dates are mainly extracted from funerary deposits (Table 7.1). The majority of these C14 dates are associated with collective kurgans, predominantly distributed in the Lesser Caucasus region. In total, there are seven sites so far that have been radiocarbon dated, namely, Uzun Rama, Shadily, Uchtepe, Mentesh Tepe, Shamkirchay 3, Ovchular Tepesi and Qarachay. The recent radiocarbon date undertaken on Mentesh Tepe site can be considered as reliable data source (Lyonnet 2014). The data from Mentesh Tepe further helps us to assemble an overarching picture of burial practices in western

and north-western part of Azerbaijan as there are noticeable similarities with the material discovered in kurgans from these regions. For example, radiocarbon dates provided by Uzun Rama and Shadily sites give similar results about the kurgan tradition in the Ganja-Khazakh region (Jalilov 2015). There are also typological analogies with the pottery from these sites.

Table 7.1. List of all C14 dates for the EBA funerary sites in Azerbaijan. The samples are ordered according to sites and appear in alphabetical order.

Site Name	Lab Code	Sample	Archaeological Context	Date (BP)	Cal. BC (1 s)	Cal. BC (2 s)	Cultural Periodisation	References
Mentesh Tepe	Poz-63143	Human bone	Z. 27, Str. 54, indiv.1	3920± 30	2467-2403	2475-2293	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	SacA 31993/ Gif-12989	charcoal	Z. 27, Str. 54, timber from the roof of the chamber	3930± 30	2470-2432	2491-2337	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	Poz-63144	Human bone	Z. 27, Str. 54, indiv.2	3970±30	2495-2463	2574-2447	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	Beta 272311	charcoal	Z. 10, in KA cup	4010±40	2571-2515	2633-2456	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	Poz-63142	Human bone	Z. 13, Sep. 49	4035±30	2543-2488	2629-2469	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	SacA 32006/ Gif-13002	charcoal	Str. 54, NW balk	4035±30	2543-2488	2629-2469	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	Beta 272308	N/A	Z. 10, Loc. 15, south part	4040±40	2543-2488	2673-2467	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	Beta 272313	Human bone	Z. 7, str. 28, BCF	4110±40	2697-2618	2781-2571	KAC III	Lyonnet et al. 2017:138

Site Name	Lab Code	Sample	Archaeological Context	Date (BP)	Cal. BC (1 s)	Cal. BC (2 s)	Cultural Periodisation	References
Mentesh Tepe	SacA 21737/ Gif-12531	charcoal	Z. 21–22, Loc. 96, jar 2 under pit KA	4135±30	2860-2805	2783-2620	KAC III	Lyonnet et al. 2017:138
Mentesh Tepe	Beta-255528	charcoal	Z. 1 East, Str. 4, E1, in pot	4370±40	3021-2916	3098-2898	KAC II	Lyonnet et al. 2017:138
Mentesh Tepe	Beta-252225	charcoal	Z. 1 West, Str. 4, near pot 1, alt. 358,98	4430±50	3104-3009	3140-2919	KAC II	Lyonnet et al. 2017:138
Mentesh Tepe	Beta-252224	charcoal	Z. 1 East, Str. 4, F2 pass2	4630±50	3510-3428	3529-3330	KAC I	Lyonnet et al. 2017:138
Mentesh Tepe	Beta-272312	charcoal	Z. 5, fence/wall Str.4	4660±40	3510-3428	3527-3359	KAC I	Lyonnet et al. 2017:138
Ovchular Tepesi	LTL4534A	Charcoal	OT'09 12089, pit partly dug into the virgin soil and lined with stone	4273± 45	2925-2871	3016-2854	KAC II	Marro et al. 2011:62
Ovchular Tepesi (LCKA – Late Chalcolithic Kura-Araxes) - adult pit-grave (5313)	LTL12565A LTL13323A	Wood Charcoal +Wood Charcoal	OT '11-5333 (storage jar above 5313) OT'10 - 11.267 (posthole under 5313)	5600±45 5635±45	4456-4362 4504-4442	4504-4349 4550-4354	Pre-KAC	Marro and Yilmaz 2018: 34
Ovchular Tepesi (Early Bronze Age)- adult pit	LTL12566A	Wood charcoal	OT'11 – 11.217 (cairn over 11.285)	4258 ± 45	2917-2868	2936-2845	KAC III	Marro and Yilmaz 2018: 34

Site Name	Lab Code	Sample	Archaeological Context	Date (BP)	Cal. BC (1 s)	Cal. BC (2 s)	Cultural Periodisation	References
grave (11.285) with stone cairn (11.217)								
Plovdag II	UGAMS 29729	Charcoal	N/A	4630±25	3494-3457	3511-3427	KAC I	Pers.comm Ibrahimli, B 2022
Qarachay grave 1	N/A	human bone	N/A	N/A	2485-2340 BC		KAC III	Museyibli, et al. 2015: 82
Shadili Kurgan	PLD-23945	Charcoal	crypt beneath barrow	4524±24	3228-3182	3243-3102	KAC I	Jalilov 2018: 105
Shamkirchay 3 kurgan (unlocated sample)	Beta 220997	Charcoal	10-15CM	4030±40	2578-2474	2668-2465	KAC III	Museyibli, 2008:16
Shamkirchay 3 kurgan (grave 2)	Beta 220996	Charcoal	Q2	4070±40	2639-2567	2700-2473	KAC III	Museyibli, 2008:16
Uch-tepe kurgan	LE- 305	Wood Charcoal	Kurgan 3, covering of basic internment	4500±120	3364-3072	3386-2903	KAC I	Butomo 1965:226, Ismailzade 2008: 170
Uch-tepe kurgan	LE – 300	Charcoal	Unknown	4830±230	3818-3361	4055-3004	KAC I	Ismailzade 2008: 170
Uzun Rama 5	PLD-23944	Charcoal	crypt beneath barrow	4521±24	3231-3181	3243-3102	KAC I	Jalilov 2018: 105

It is very difficult to put burial sites into chronological order, especially when these assemblages are seemingly similar, and have a strong sense of repetition and standardisation exists in quantity and variety (Rova 2018). Scholars (Palumbi 2008, Passerini et al. 2018a, Sagona 2018) argue that textile remains in vessels reveal that cloth sacks were used for the support or mould on which to model the ceramics' container. This fabrication technique, specifically was common during the earliest phases of the Kura-Araxes Culture, which is considered reminiscent of the Late Chalcolithic tradition. For example, pottery assemblages from Uzun Rama and

Mentesh tepe sites are attested with textile remains and they are mostly hand-made, and brownish in colour. Radiocarbon dates also prove that they belong to the initial stage of the KAC (Lyonnet et al. 2012, Jalilov 2018) (Fig 7.2). Pottery assemblages dated to the second phase of the culture are characterised by highly polished, black-burnished ware, though a few sherds are red or yellowish. They are well-fired, often so highly burnished that they have a silver sheen (Fig 7.3, 7.4). At the end of the culture, there was evidence of a variety of potsherds decorated with different ornamentations with semi-globular handles (Figure 7.5, 7.6, 7.7)



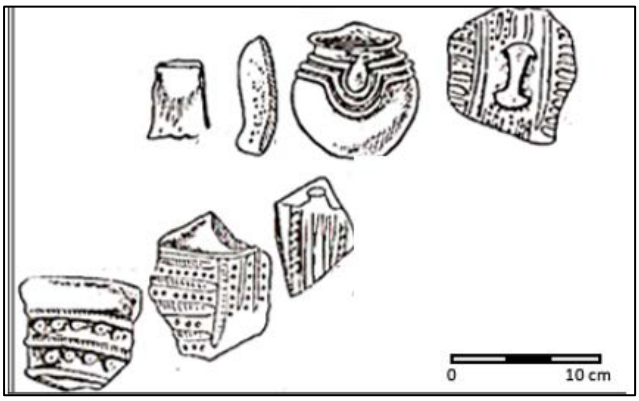




Figure 7.2. Mentesh Tepe 4, pottery assemblage from the collective kurgan (Lyonnet et al. 2012:106)

Figure 7.3. Mentesh Tepe 4, Pottery assemblage from individual graves (Lyonnet et al. 2012: 107-108)

Figure 7.4. Uzun Rama kurgan, pottery vessel (adapted from Poulmarc'h et al. 2014:243)





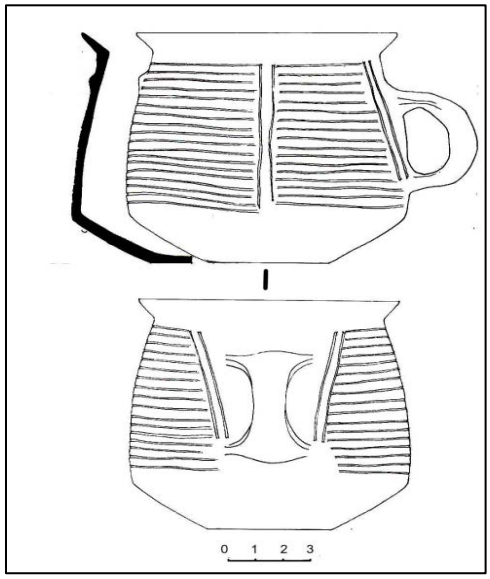


Figure 7.5. Khachinchay site, ornamented ceramic potsherds (adapted from Jafarov 2000: table 16)

Figure 7.6. KP332 Shamkirchai Kurgan 2 Grave 2, decorated pottery vessel (Museyibli 2008: Plate 1)

Figure 7.7. Mentesh Tepe, Kurgan ST 54, ceramic with semi-globular handle (Lyonnet 2017:150, fig 20)

Chronologically speaking some burial structures have emerged and coexisted for a long period of tradition while there are also some that have appeared as a new tradition in the Caucasus. For example, stone-lined graves, stone-cist and horseshoe shaped graves appear to be new practices during the time of the KAC, which can be assigned to the final quarter of the fourth millennium BC (Palumbi 2007, Palumbi 2008, Poulmarc'h 2014, Altunkaynak et al. 2018). In contrast, earthen-pits, monumental structures, such as graves with heaps of stones, and kurgans can be considered a continuation from previous periods (Poulmarc'h 2014). For example, earthen-pits are considered to foreshadow the Late Neolithic and Chalcolithic traditions (Palumbi 2008). In fact, radiocarbon dating from Soyuq Bulag in Azerbaijan has also confirmed the existence of kurgans in the Southern Caucasus dating back to the Maykop and Leilatepe Culture traditions in the Late Chalcolithic period (Reinhold 2019, Museibli 2011, Poulmarc'h

and Mort 2015). The presence of these different funeral styles varies chronologically across the KAC regions. For example, in Amiranisgora, the usage of horseshoe shaped stone-cist tomb structures is dated earlier than earthen-pits. Conversely, in Armenia and Azerbaijan earthen-pit burials seem to have been the most typical funerary structure at the early stage of the KAC while other innovative structures seem to emerge in the later stages of the culture (Kushnareva and Markovin 1994).

7.3. Mortuary studies of the Kura-Araxes Culture during the Early Bronze Age in Azerbaijan

This section provides details of burial practices of the KAC in Azerbaijan in the light of past and present research. The first KAC grave in Azerbaijan was discovered by Resler in 1897 on the left bank of the Khachinchay River (Jafarov 2000). Other early finds of KAC graves were detected by Gummel in Karabakh plain and along Ganjachay river, such as the Khankendi kurgans in the 1930s (Gummel 1948). Relatively dating back to the end stages of the EBA, these collective kurgans gave an opportunity to understand the transitional period, showing mixed funerary practices of Early and Middle Bronze age communities in the Karabakh region (Smith 2015:133). Furthermore, excavations conducted in the years 1960-1966, ushered in a new phase of research exploring the funerary practices of the KAC populations in Azerbaijan. Starting from 1960, supervised by Iessen, widely distributed excavations were carried out in Uchtepe kurgans in the Mil Steppe (Huseynov et al. 1981:42). These form one of the biggest kurgan complexes found in the Caucasus; both in terms of their scale (up to 130 m in diameter and 15 m high) and grave assemblages, though it is debatable whether these are associated with KAC (Munchayev 1975:71, as cited in Kushnareva and Markovin: 1994, Lyonnet 2014). One of the significant turning points was the discovery of a large number of graves of the EBA found during the salvage excavations, along the Baku-Tbilisi-Jeyhan oil and the Baku-Tbilisi-Erzurum gas pipelines between 2001-2005. The installation of these pipelines opened a new chapter in the understanding of the transition of the last phase of KA funerary practices to the Middle Bronze Age, with the sites such as Shamkirchai and Hasansu kurgans (Taylor and Maynard 2011).

One of the least understood characteristics of the KAC burial custom is the use of isolated cemeteries and their link to the life of KAC communities. In that light, recently, international collaborative research is beginning to provide a more coherent and firmer understanding of the Kura-Araxes burial practices in the region. The Ganja Region Kurgan Archaeological Project was launched by an Azeri-Italian joint international archaeological group to excavate sites along the steppe of Uzun Rama (Laneri et al. 2019, Laneri et al. 2020) (fig 7.8). One of the aims of the project is to investigate kurgan tradition in the area by using an archaeological reconnaissance survey to map hundreds of kurgans; to identify and excavate the settlements associated with kurgans in the area; and to perform archaeometric analysis of the material culture found in burials throughout the Southern Caucasus from the 4th to the 1st millennium BC (Camnes.n.d). Moreover, to mitigate the threat of damage, and looting the aim was also to raise social and cultural awareness about the importance of the historic sites of kurgans. Recently, a new virtual Kurgan Archaeological Park (V-KAP) of burial mounds of western Azerbaijan (Camnes.n.d) was created.

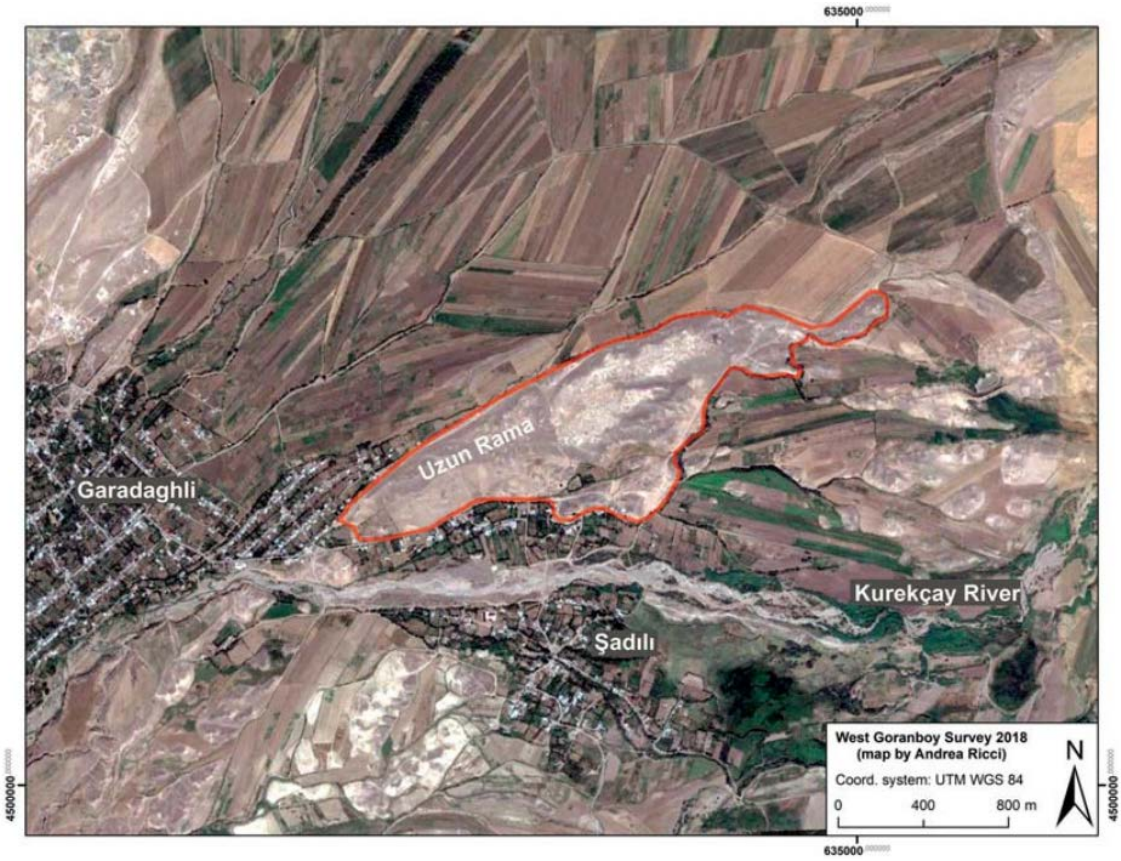


Figure 7.8. The polygon indicates the limits of Uzun Rama (base map: WorldView; Map by A. Ricci). (Laneri et al. 2019: fig 5)

Another recent project, the KUR(A)GAN, in the Kura River Valley (2019-ongoing) also traces the 3rd millennium social and cultural changes in the Kura River valley, to develop an understanding of the relation of the kurgans and settlements. Here, excavations in Qarachinar settlement opened new perspectives on the regionalisation of Kura-Araxes funerary customs (fig 7.9). The project aims to trace these changes through a comparison of socio-economic, cultural systems and lifestyles between Kura-Araxes and Early Kurgans (Hansen and Palumbi 2022). Having outlined various research and projects on the study of the funerary practices of KAC in Azerbaijan, it is clear that available evidence remains clustered within specific geographic areas, which prevents us from getting a general picture of the whole region.

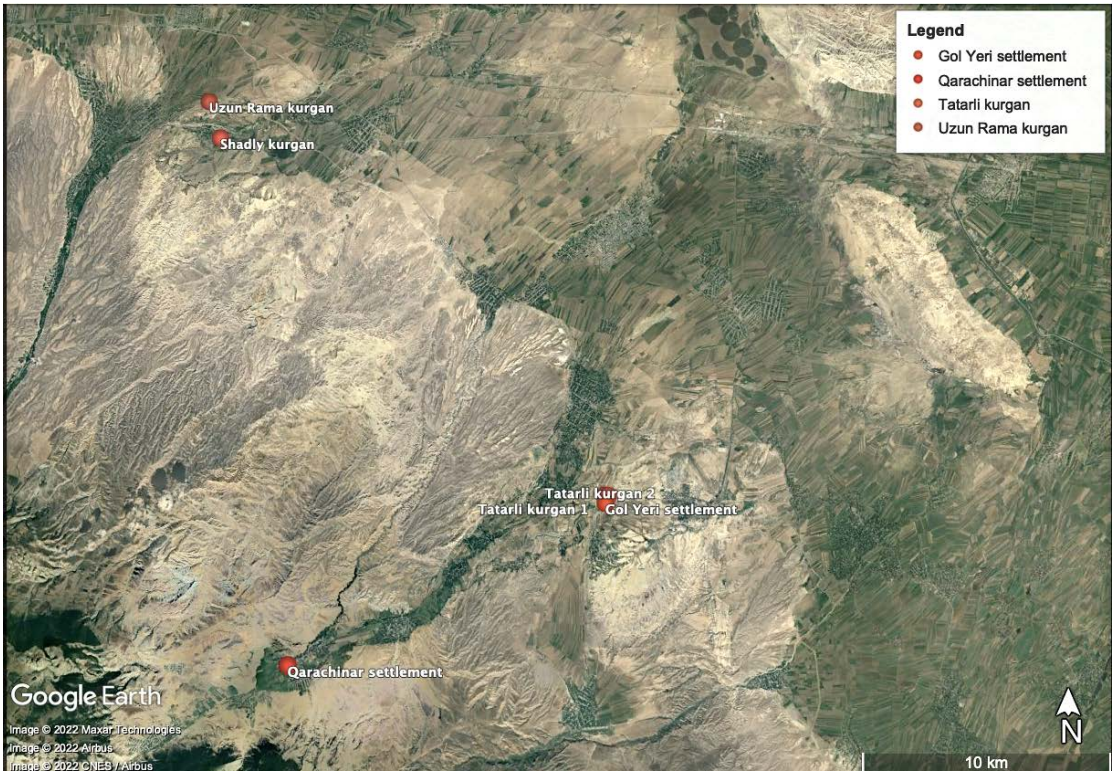


Figure 7.9. Settlements and kurgans located at a close proximity to each other (created by the author, Ismayilova)

7.4. Landscape settings of KAC funerary practices in Azerbaijan

This section demonstrates the spatial distribution of KAC funerary sites in Azerbaijan and its varied picture across the wide landscape. Overall, evidence from the mortuary sites revealed a total of 111 sites in the South Caucasus (Poulmarc'h 2014) (fig 7.10), while the recent data show there are 154 KAC funerary sites that cover regions outside the Caucasus dated to the EBA (Batiuk et al. 2022: as cited in Altunkaynak et al. 2018).

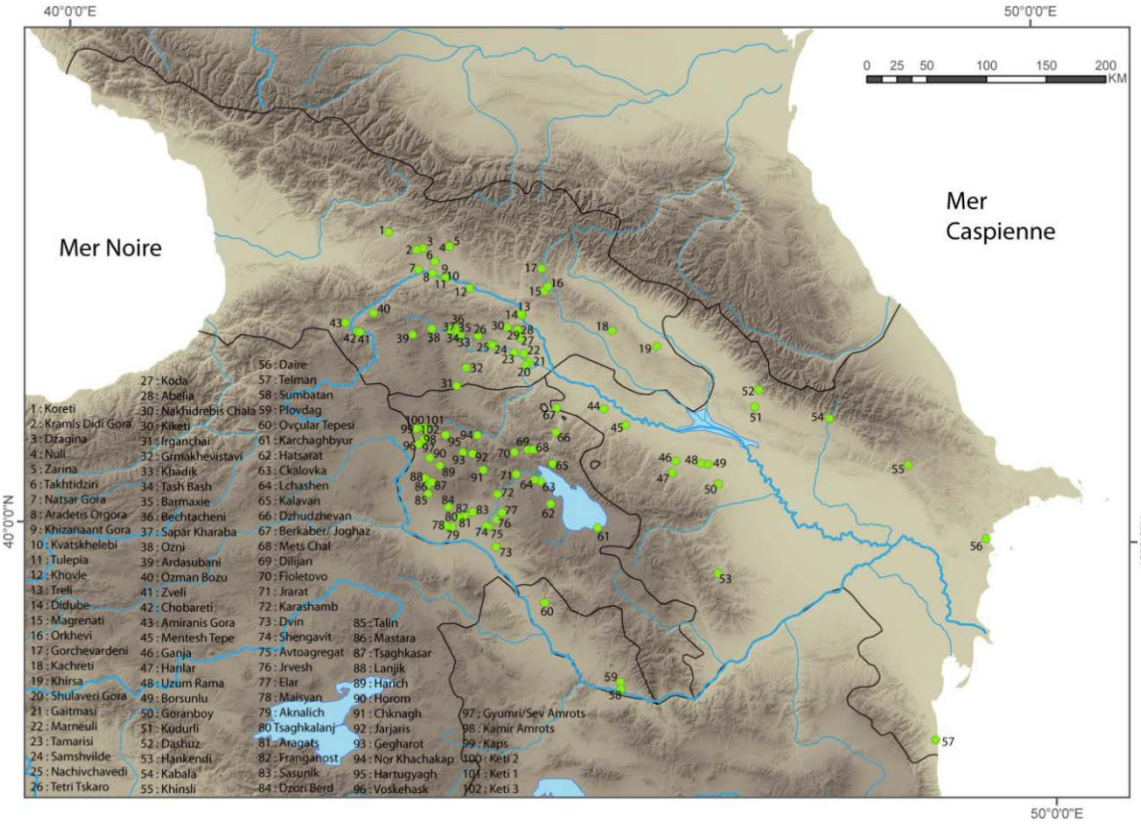


Figure 7.10. Distribution map of KAC funerary sites in the Southern Caucasus (Poulmarc'h 2014: fig 247)

For the first time, in this study, all KAC funerary sites in Azerbaijan have been recorded and included in the Gazetteer. There are overall 35 KAC funerary sites, whereas if counted individually, there are 73 graves over the whole Azerbaijan dated to the EBA (fig 7.11). Furthermore, some funerary sites are known only as names in the literature, without any further detail available (see Gazetteer Appendix I, section Introduction, Table 1). As we can see from the figure 7.11, the overall distribution of KAC funerary sites is clustered within specific geographic outlines. The majority of funerary sites are concentrated in the western part of the country, particularly in the Ganja-Khazakh plain, north-western part of Azerbaijan and the southern slope of Greater Caucasus (fig 7.11). It is difficult to determine exactly how different factors, such as environmental conditions, natural resources, safe or easily defensible locations, topography, distance from other settlements or perhaps large settlements in the wider region influenced the choice of funerary site location. KAC funerary sites are located at different range of altitudes, extending from nearby river streams to the plains (up to 300 m), through the foothills (500-800 m), to mountain slopes and highlands (1000-2000 m) (Table 7.2). The

analysis of the elevation of the funerary sites in Azerbaijan revealed that the establishments range between -14 m asl (Khudabakish yurdu) in Lankaran lowland to 1674 m asl (Khachinchay) in Karabakh plain of altitude during all periods of KAC (fig 7.11).

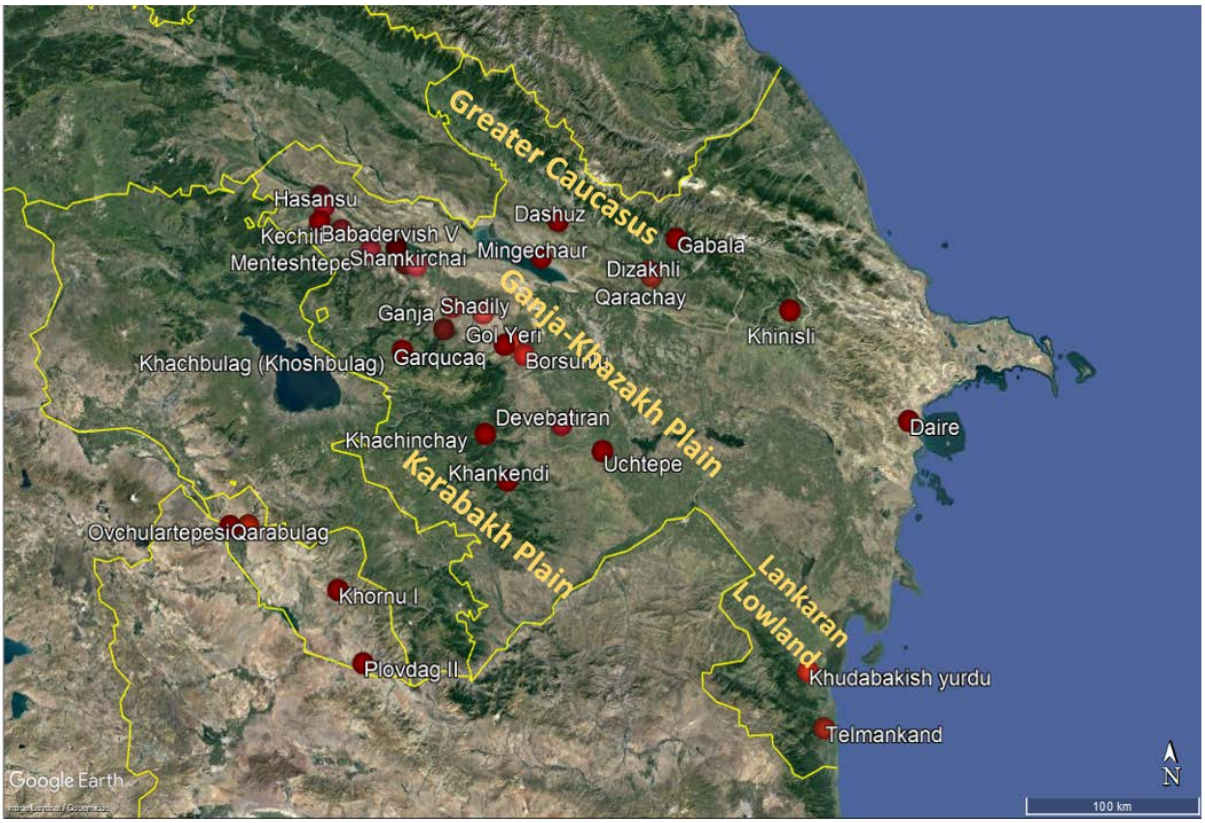


Figure 7.11. General distribution of KAC funerary sites in Azerbaijan (created by the author, Ismayilova)

Table 7.2. The list of KAC funerary sites with their elevation

No	Site Name	Elevation	No	Site Name	Elevation
1	Babadervish V	379	**20**	Khinisli	839
2	Borsunlu	266	**21**	Khornu I	1613
3	Daire	-2	**22**	Khudabakish yurdu	-14
4	Dashli Tepe	270	**23**	Mentesh Tepe	355
5	Dashuz	314	**24**	Mingechaur	278
6	Devebatiran	146	**25**	Osmanbozu	197
7	Dizakhli	332	**26**	Ovchular Tepesi	895
8	Dize	861	**27**	Plovdag II	809
9	Gabala	968	**28**	Qarabulaq	804
10	Ganja	410	**29**	Qarachay	324
11	Garqucaq	433	**30**	Shadily	274

12	Girag Kasaman I	229	**31**	Shamkirchai	247
13	Golyeri	297	**32**	Tatarli I	301
14	Hasansu	305	**33**	Telmankend	-2
15	Kechili	359	**34**	Uchtepe	55
16	Khachbulag (Khoshbulag)	1093	**35**	Uzun Rama	302
17	Khachinchay	1674			N/A
18	Khankendi	738			N/A
19	Khanlar	790			N/A

The current paucity of investigated Kura-Araxes burial sites is also due to the result of the destruction of sites, where burial mounds are no longer present or due to the resurfacing and ploughing of land for agricultural reasons, which lead to invisibility of sites (Museyibli 2008). For example, through historical imagery on Google Earth programme, we can clearly trace modern construction and changes to the landscape, which damage and destruct pre-historic sites (fig 7.12 and 7.13).



Figure 7.12. Mentesh Tepe Google Earth Historical Imagery (2006 and 2022)



Figure 7.13. Gabala Google Earth Historical Imagery (2007 and 2021)

The spatial link between burial sites and settlements is generally limited and rather poor in KA societies. A dissociation between the place of burial and the place of habitation appears at the

end of the Chalcolithic, continues into the second half of the 4th millennium and seems to be increasing from the first half of the 3rd millennium (Poulmarc'h 2014:348). In that sense, burial traditions opened up a new concept in terms of relationship between a settlement and its surrounding land during the EBA (Palumbi 2008, Smith 2015, Palumbi 2016). Throughout the EBA, there was an unbalance in which there was a dense distribution of settlements, followed by a more limited occurrence of burial sites in the Caucasus region. However, this shift changed at the last stage of the KAC and in transition to the MBA, where conversely a sharp increase appeared among burial sites with the advent of essentially new monumental structures in the region (Kohl 2007:112-114, Kohl and Lyonnet 2008:33). The reason for this sharp break is still unclear whether it was due to ecological reasons, or periodic movements, as was discussed in Chapter 4. Evidently, the location of single and collective burials is generally isolated from the settlements across the whole South Caucasus (Batiuk et al. 2022:32). However, there are some exceptions, where burial sites, mainly earthen-pit graves, being 'intramural', are located within the settlement, such as at Golyeri, Ovchular Tepesi, Mingechaur, Babadervish and Plovdag (fig 7.14).

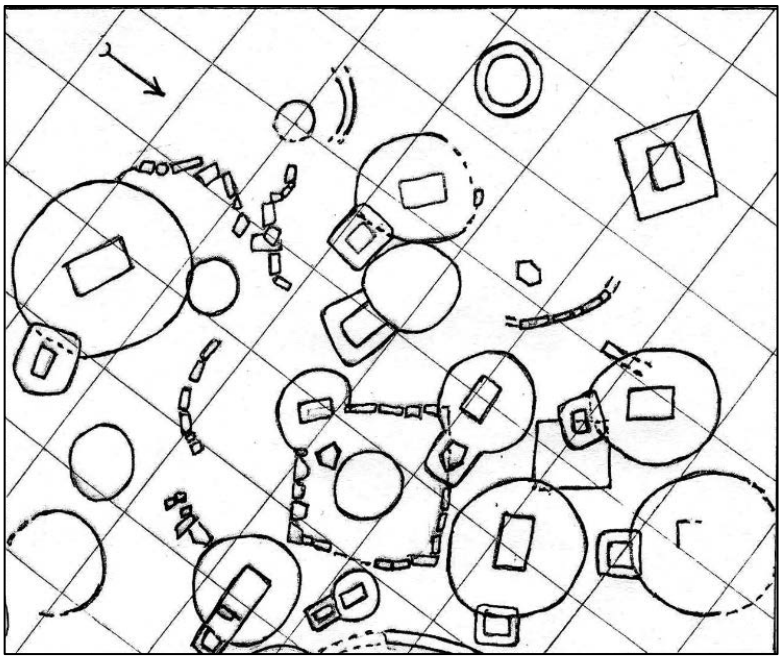


Figure 7.14. Plovdag site plan that contains graves dating back to the EBA, MBA and LBA (Ibrahimli et al. 2011:124, no fig, unknown scale)

There are also graves with mounds that are 'extramural', located exterior to the settlement, such as at Dize and Tatarli. These kurgans were associated with nearby settlements usually divided

by a small course of water (fig 7.15). For example, the Tatarli kurgans and the Golyeri settlement are approximately located at 300-350 m distance from each other. Due to the lack of spatial, stratigraphic and dating evidence it is difficult to assume that these burials are certainly contemporary with the settlements, despite the fact that typical KAC vessels are present at these sites.

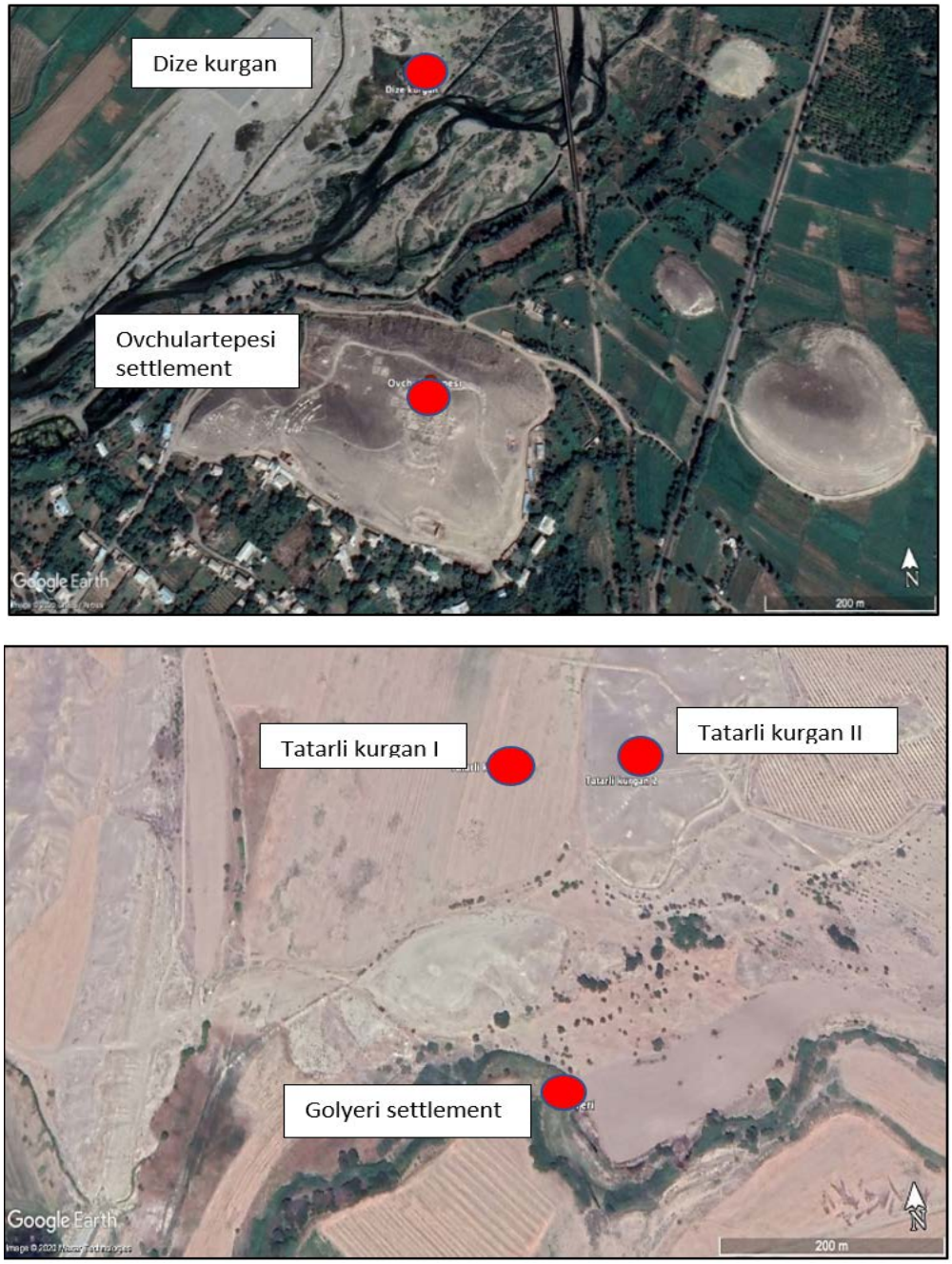


Figure 7.15. Settlements and kurgans located in close proximity to each other (modified from Google Earth by the author)

Another group of kurgans that attracts scholars are isolated burial sites, which do not appear to be anywhere near a visible settlement (Palumbi 2016). Those apparently dominant in Azerbaijan compared to most cemeteries in Armenia and Georgia, which are located to be more or less, connected with the settlements (Rova 2014). It is important to consider that perhaps the lack or absence of a Kura-Araxes settlement near a given cemetery might be the result of contemporary failings in archaeological excavation or surveys in the area. These isolated cemeteries are mainly concentrated in the western part of Azerbaijan, along the middle Kura River valley (Lyonnet 2014, Poulmarc'h et al. 2014, Jalilov 2018). Lyonnet (2014:128) reveals that a survey done in the districts of Ganja-Khazakh region shows that among 66 sites, only two sites had settlement occupation, while a third was a cemetery dated to the EBA. The reason the area consists of small sites with a short duration, and mainly, with a cemetery of kurgans is a hypothesis linked to the climatic changes during the Late Chalcolithic period which arguably made communities abandon the area (Lyonnet 2009).

7.5. Nature of the classification of the KAC grave types in the South Caucasus

The examination of mortuary variability is not only attested with the spatial distribution of the sites, but also with the burial structures, which stand out showing a very strong heterogeneity in the region (Poulmarc'h et al. 2014). However, certain types appear to be more related to some specific regions, such as monumental structures of collective kurgans in Azerbaijan, and pit graves in Georgia (Poulmarc'h et al. 2014). Stone-cist graves are particularly found in Armenia, such as the sites of Elar and Keti, whereas horseshoe shaped graves are few in number, mainly at Amiranis-Gora and Kiketi in Georgia and Elar in Armenia (Poulmarc'h et al. 2014:239, Rova 2014). Broadly speaking, scholars (Sagona 2004, Kalantaryan 2007, Polumarc'h 2014, Altunkaynak et al. 2018) have suggested different architectural typologies for burial sites in the Southern Caucasus region. With the recent intensification of field research in the region, the conventional view is changing, offering an opportunity to reassess the diachronic approach to burial customs at a regional level (Kalantaryan 2007, Rova 2018, Aghikyan 2021, Batiuk et al. 2022). In general, different typologies applied for the whole Southern Caucasus lack deep study of research for each category, which can potentially offer a good opportunity for a regional comparison. Thus, there are still gaps in the classification of the KAC funerary sites which demand a more careful stratigraphic investigation.

Despite this highly variegated picture of KAC burial sites, Poulmarc'h's (2014) single typology of the KAC burial sites remains a generally accepted scheme for the whole region (Sagona 2018). It is grouped into six types: pit, cist, stone-lining cist, horseshoe shaped grave, barrow (kurgan) and small cairn (Poulmarc'h 2014) (Fig 7.4). Below there is a description for each type of burial sites.

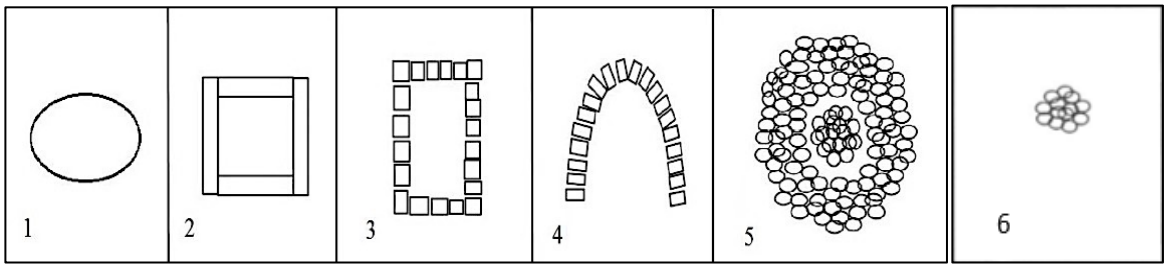


Figure 7.16. Kura-Araxes Culture grave typology (adapted from Poulmarc'h et al. 2014:232, fig 1)

Earthen (pit) graves- this type of grave comprises a simple pit shape occasionally with stone lining, but without structural walls or roof, uncovered or covered with a pile of pebbles, slabs or earth (Fig 7.16:1).

Stone cist grave– this type of grave is an earthen pit, which is lined with big slabs of stones. The walls of the tomb are constructed from big slabs, some floors are paved either with slabs or with stones (Fig 7.16:2).

Stone-lining grave – these consist of one or two rows of medium or smaller sized stones, and vary from rectangular, square, oblong or circular (Fig 7.16:3). The walls can be one or two rows of stones. Some have an entrance sealed by one or two slabs.

Horseshoe-shaped stone grave - this form of grave is in the shape of a horseshoe, consisting of one or two rows of stones, which is a variant of the stone-lining type, rarely joined with mortar (Fig 7.16:4).

Kurgans – Burial mounds (kurgans) are one of the most multifaceted and complex monumental architecture of Eurasian steppe landscape. The problem arises when attempting to define kurgans (barrow) based on different characterisations (Rova 2018). 'The meaning and origin of the term 'kurgan' seems to have derived from the Tartaric word *korugan* and can be translated

into barrow, tumulus or even better, burial mound. It consists of an artificial hill created by covering a funerary chamber with earth, gravel and stones' (Laneri et al. 2019:9). Kurgans characteristically show a highly variegated picture, in terms of both architectural variability and diversification of shape. Recently, scholars have had some concerns in attempting to distinguish the different types of kurgans and cairns (Fig 7.16:5, 7.16:6). For example, in contemporary archaeological usage, a mound made of stones is called a 'cairn' (heaps of stones), whereas a kurgan (barrow) is covered with a large mound of earth. In Poulmarc'h's (2014) and Sagona's (2018) definition a small cairn is essentially a pile of stones to mark the position of the burial and is mainly associated with pit graves during the Chalcolithic period and was in common use throughout the KAC. Poulmarc'h (2014, as cited in Rova 2018:47) considers that a distinguishing feature of the kurgan was the presence of a 'cover of pebbles forming a circle, of which the minimum diameter is 5 m'. Generally, scholars reserve the term 'kurgan' only for larger barrows.

7.6. Classification of KAC graves and funerary monuments in Azerbaijan

To achieve the second aim of this study, we offer a classification of KAC graves and funerary monuments based on data collection from Azerbaijan. The data suggest that KAC funerary sites can be classified into five main categories: simple pit graves without mounds, earthen pit graves covered with heaps of stones (cairn), graves with burial structures covered with kurgans, shallow graves without complex mortuary chambers covered with kurgans and collective deep graves with complex mortuary chambers covered with kurgans (Fig 7.17). The information about the burial construction of only 68 graves out of 73 were accessible in limited scale through literature. Given the fact that burial constructions are found alongside other multifaceted features, such as entombment, death treatments and objects and sacrifices accompanying the entombment, the data fails to demonstrate a complete package to understand the overall features of mortuary practice. Unfortunately, due to the limited excavations and modern documentation techniques, it is difficult to build a picture of the *chaine operatoire* of grave construction (Pearson 1999: as cited in Reinhold 2019). Thus, I am aware that this classification may not be perfectly accurate, but it gives us an insight into the pattern of different burial constructions in

Azerbaijan during the EBA. The seeming inaccuracies can be resolved through further research and the evolution of new chronological frameworks based on the overriding new data.

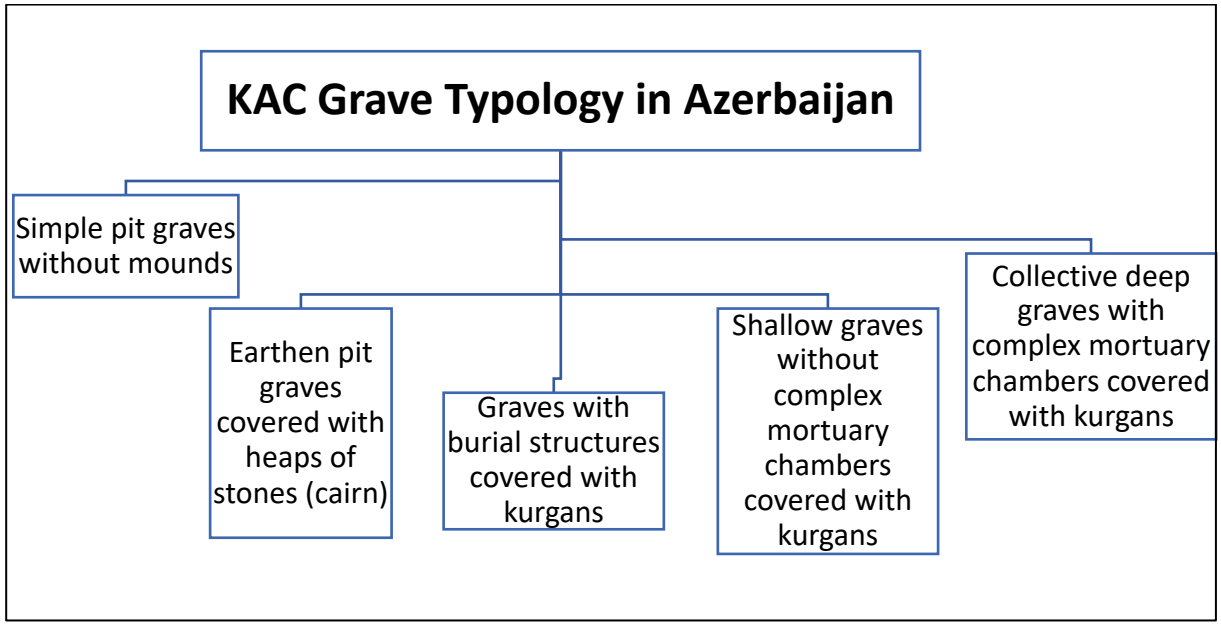


Figure 7.17. Classification of the KAC funerary sites in Azerbaijan

Height, size and shape of graves

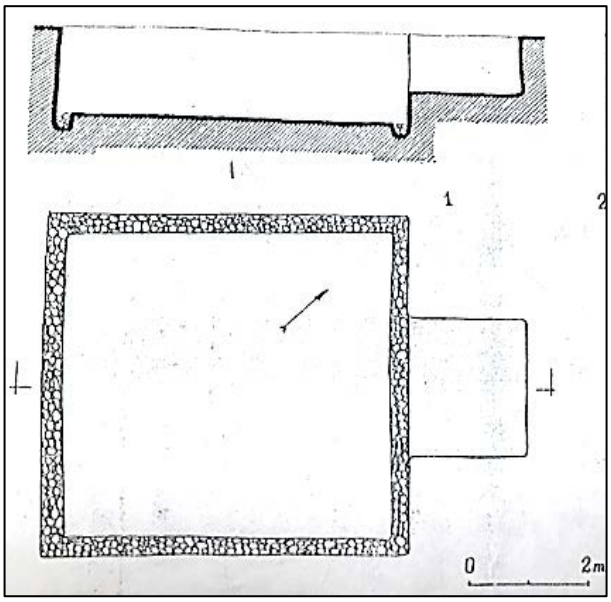
Before moving into detailed explanation for each category there are some variations in terms of height, size, and other features amongst these grave types. Figure 7.17 shows that the majority of KAC graves are covered with kurgans, which are mostly characterised by the presence of collective inhumations. The data also reveal that that the size and shape of kurgans appears to vary. As Table 7.3 (column 2 and 3) shows, there is no big difference between the diameter and height of graves in relation to single and collective inhumations. Kurgans vary differently in their diameter whereas their height almost stay same, reaching ca 1-2 m high. Unfortunately, due to modern damage, kurgans have been flattened, making it difficult to determine the original shape and height of most kurgans (Lyonnet et al. 2012). Some interesting examples appears from the data, as some sites are attested to be large in diameter, such as Uchtepe (130 m in diameter), Dizakhli (40 m in diameter), Khankendi 119 (24 m in diameter), Shamkirchay III (22 in diameter), Borsunlu 12 (22 m in diameter).

Table 7.3. Diameter and height of KAC graves that available from the literature. The samples are ordered according to sites and appear in alphabetical order.

Grave	Diameter	Height	Grave type	Single/Collective Inhumation	KAC stage
Borsunlu kurgan 12	22	2	Collective deep grave with complex mortuary chamber covered with kurgan	collective (5)	I
Borsunlu kurgan 26	8	0.6	Grave with burial structure covered with kurgan (stone-lining)	Single (unknown)	I
Borsunlu kurgan 7	12	1	Collective deep grave with complex mortuary chamber covered with kurgan	collective (19)	I
Borsunlu kurgan 9	14	1	Grave with burial structure covered with kurgan (stone-lining)	Single (unknown)	I
Bosunlu kurgan 20	18	1.5	Grave with burial structure covered with kurgan (stone-lining)	single (child)	I
Daire 3	11	1.1	Grave with burial structure covered with kurgan (stone-cist)	Unknown	III
Dashuz kurgan 1	30	2	Collective deep grave with complex mortuary chamber covered with kurgan	Collective (5)	I
Dashuz kurgan 5	17-18	N/A	Collective deep grave with complex mortuary chamber covered with kurgan	Collective (5)	I
Dizahkli	40	2	Collective deep grave with complex mortuary chamber covered with kurgan (alongside two intrusive pit graves)	Collective (unknown)	III
Gabala kurgan I	12	1,.5	Collective deep grave with complex mortuary chamber covered with kurgan	collective (15)	I
Gabala kurgan II	12	1.5	Collective deep grave with complex mortuary chamber covered with kurgan	collective (11)	II

Khachbulag (Khoshbulag) 1	10-11.5	0.75	Unknown	Single (child)	III
Khanchinchay (kurgans 1,2,3,4,5)	ca 10-25	ca 1.25-2.5	Unknown	Single in Kurgan 1, collective in kurgan 2, 3,4,5	III
Khankendi 103	15	1.5	Collective deep grave with complex mortuary chamber covered with kurgan	Collective 48 (adult, elderly people, juvenile, teenagers)	III
Khankendi 119	24	1.5	Collective deep grave with complex mortuary chamber covered with kurgan	Collective 36 (children and adults)	III
Khankendi 125	9	0.8	Collective deep grave with complex mortuary chamber covered with kurgan	Collective (unknown)	III
Khanlar kurgan 10	5	1	unknown	Collective (number unknown, children and adults)	I
Khudabakish yurdu	N/A	Slightly higher 0.5	Grave with burial structure covered with kurgan (stone-cist)	Unknown	I
Osmanbozu kurgan 1	10	1.5	Collective deep grave with complex mortuary chamber covered with kurgan	collective (30)	I
Osmanbozu kurgan 4	18	1.5	Collective deep grave with complex mortuary chamber covered with kurgan	collective (5)	I
Osmanbozu kurgan 5	12	0.5	Collective deep grave with complex mortuary chamber covered with kurgan	collective (10)	I
Qarabulag 6	9	1.2	unknown	Unknown	III
Shadily	11	1	Collective deep grave with complex mortuary chamber covered with kurgan	Collective 70 (women and children predominant)	I
Shamkirchay II	13.3	0.8- 1.6	Shallow grave without complex mortuary chamber covered with kurgan	Single	III
Shamkirchay III	22	1.5	Shallow grave without complex mortuary chamber covered with kurgan	Collective (unkown)	III

Tatarli 1	16	2.8	Collective deep grave with complex mortuary chamber covered with kurgan	Collective (19)	I
Telmankend I	14	2.3	Grave with burial structure covered with kurgan (stone-cist)	Single (unknown)	I
Telmankend II	11	2	Grave with burial structure covered with kurgan (stone-lining)	Unknown	I
Uchtepe	130	15	Shallow grave without complex mortuary chamber covered with kurgan	Unknown	III
Uzun Rama 5	17	1.2	Collective deep grave with complex mortuary chamber covered with kurgan	collective (appr 120, adults, infants, children)	I
Uzun Rama 8	16-17	N/A	Collective deep grave with complex mortuary chamber covered with kurgan (alongside three intrusive pit graves)	Collective (higher than 120)	I



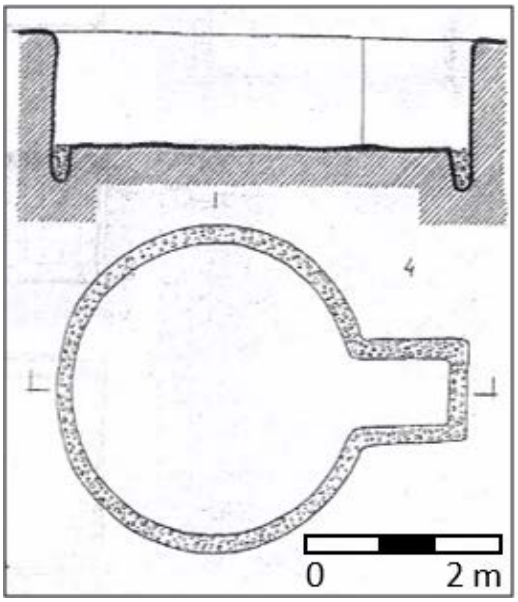


Figure 7.18. Borsunlu 12, chamber plan (Akhundov 1999, table 6, fig 1)

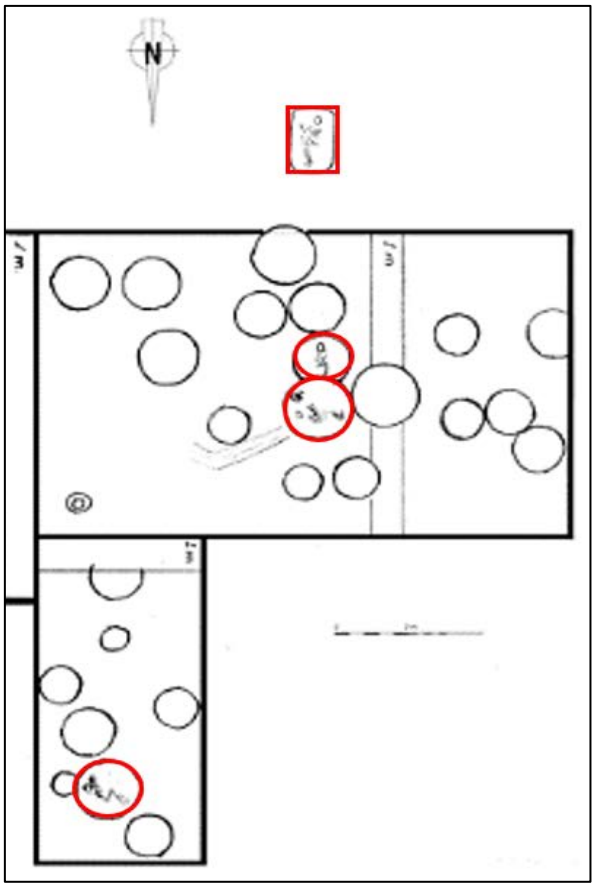
Figure 7.19. Khankendi 103, chamber plan (adapted from Akhundov 1999, table 5, fig 4)

Another characteristics feature is that the shape of chambers is mostly rectangular and the size varies. For example, Borsunlu 12 (6.6 x 5.5 x 1.5 m) (fig 7.18), and Mentesh Tepe 4 (6 x 5m)

and circular plan kurgans are fewer in number, such as Khankendi 103 (4.5 x 1.5 m) (fig 7.19) and Khankendi 119. The orientation of the chamber with the dromos (entrance door) to the east, usually with a rectangular shape can also be characterised as a homogenous feature for most KAC funerary sites in Azerbaijan.

7.6.1. Simple pit graves without mounds

The first category is the simple deep and spacious earthen pit type (fig 7.17), which varies from square or rectangular to round and oval shapes. These graves contain mostly single inhumations with primary deposits. Graves could accommodate one or not more than two bodies. Graves were not sealed and there was access to the graves. However, some exceptions may be explained with later disturbances of the graves, such as secondary depositions. Burial pits are usually located between 1.5-3 m in depth from the surface (Poulmarc'h 2014). Earthen-pit graves do not show a specific chronological marker and are rather dated to different stages of the KAC, as proved by the discovery of human remains in nearby settlements: Mingechaur, Babadervish and Golyeri. Indications of the former custom of burying in domestic spaces still persisted into the early stages of the KAC (Palumbi 2016). For example, there have been attested one rectangular and three oval shape graves in the Golyeri settlement (fig 7.20). The settlement was actively occupied during the Late Chalcolithic, therefore, it is difficult to identify whether these graves are dated between the transition of the Late Chalcolithic and KAC. The skeletons were covered with limestone and buried in a flexed position. They were recorded in the same layer where extremely numerous household pits and a lot of storage jars were recorded. Graves found in the settlement were full of ashy soil, and the diameter of the graves was much larger than the deceased's size (Huseynov 2011) (fig 7.21). The deceased was accompanied by ceramic vessels, as well as stone tools, spindle-whorls, grinding stones, and pestles, which were placed to the deceased's forehead (fig 7.21, 7.22).



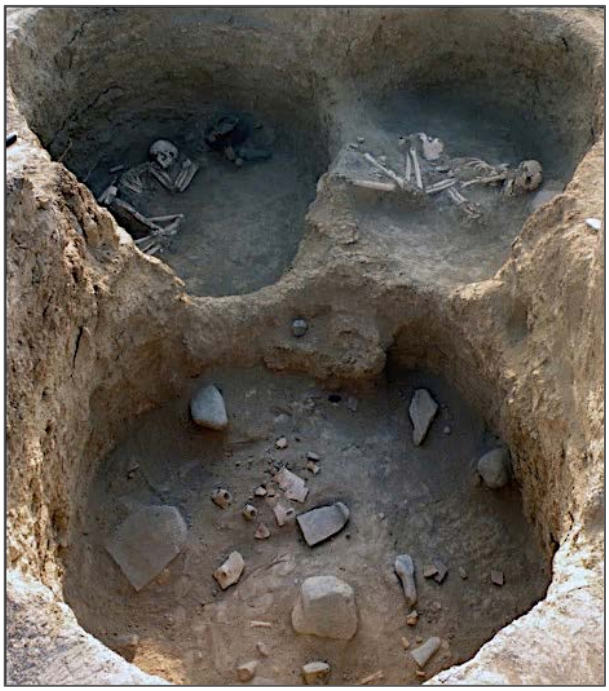




Figure 7.20. Golyeri graves plan (Huseynov and Kazimov 2011: 76, no fig n)

Figure 7.21. Golyeri settlement grave view (adapted from Huseynov 2013: 91)

Figure 7.22. KAC pottery vessels (Huseynov and Kazimov 2011:76)

7.6.2. Earthen pit graves covered with heaps of stones (cairn)

The next type is earthen pit graves, which are mostly not roofed, but sometimes they are covered with small cairns (heaps of stones). These graves are recorded mainly within settlements, such

as Plovdag, Mentesh Tepe and Ovchular Tepesi. Poulmarc'h et al. (2014) and Sagona (2018) claim that they probably are intended to indicate the existence and position of the graves in the inhabited place. Parallel graves with heaps of stones were found in Armenia on the site of Kalavan I, Goergia at Khashuri Natsargora, Aradetis Orgora and a number of sites in Shida Kartli region, which correspond to the second quarter of the 3rd millenium BC (Marro and Yilmaz 2018). Grave goods contained mostly pottery vessels. For example, two individual graves attested in Mentesh Tepe were both covered by an oval heap of large river pepples, while, one contained a complete skeleton (grave 28) while the other is a secondary burial with only parts of the skeleton (grave 49) (Lyonnet et al. 2012:96) (fig 7.23).

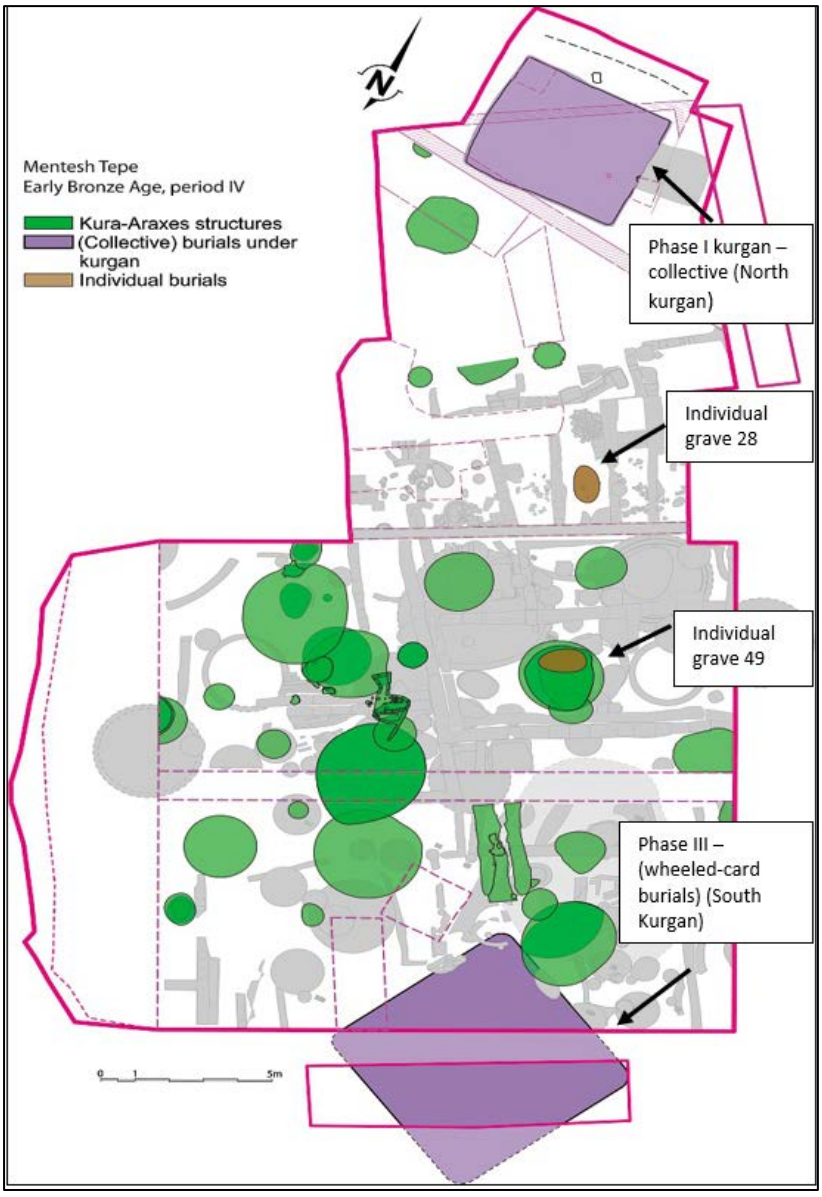


Figure 7.23. Mentesh Tepe, EBA (period IV), pits and burials, plan P. Raymond, (adapted from Lyonnet et al. (2012: 95, fig 139) (highlighted brown in the image)

Radicarbon dates from the Mentesh Tepe grave 49 (2629-2469 cal.2 sig) also testify that individual pit-graves marked by stone cairns correspond to the second quarter of the 3rd millenium BC (Lyonnet 2017:138) (see Table 7.1). However, no material directly associated with the deceased has been found (Poulmarc'h 2014:155-158) (fig 7.24). The second individual grave 28 was covered with the heaps of stone, the adult lies on his back with legs flexed and hands raised to their face, head oriented to the southeast and feet to the northwest (fig 7.25). The skeleton rested on pebbles mixed with KAC sherds, and dating one of the bones produces 3637-3354 cal BC, which would locate the burial between the transition of the Late Chalcolithic and KAC (Poulmarc'h 2014:152). On the other hand, not far from the deceased lay almost entire skeleton of a sheep, as well as this, ceramic sherds, which belong to the second phase of Mentesh Tepe site, 2800-2400 cal BC, means there is a discrepancy between C14 dating and the material (Poulmarc'h 2014:152).



Figure 7.24. Mentesh Tepe Individual grave 49, stone capping (Poulmarc'h 2014:155, fig 75)



Figure 7.25. Individual grave 28, (Poulmarc'h 2014:153, fig 74)

Similarly, three earthen-pit covered with heaps of stone were found in the Ovchular Tepesi site (Marro and Yilmaz 2018). The first grave (5313) was found in a pit sandwiched between two building levels: all these houses belong to the Late Chalcolithic period. The grave contained an adult female and the deceased was accompanied by only four black-burnished KAC ceramic vessels. The body was covered by a cairn of stones and pebbles. C14 dated the grave to the second half of the fifth millennium BC (4550-4338 BC cal.2 sig.) (fig 7.26).



Figure 7.26. Ovchular Tepesi, Grave 5313 (Marro and Yilmaz 2018:38, fig 7)

Grave (11.285) also contained the remains of an adult female, covered by a cairn of stones and pebbles. The grave contained two spiral bronze earrings that were located on either side of the skull. C14 radiocarbon gives a date 3010-2840 BC cal.2 sig. The third grave (4005) also dated to the EBA, was surrounded by stones and pebbles. It is poorly preserved, and damaged, and probably related to the bones of an adult. Grooved pottery was found in the grave, which makes it to date to the end of the EBA.

Another example of this type of grave is attested in Plovdag settlement dated to the EBA. In regard to characteristic elements of the grave, the edges of the grave were circled with a single-row of big cobble-stones and river pebbles, ca 9 m in size. The mound was covered by stone soil filling (fig 7.27). The burial contains a male skeleton, holding a semi-spherical cup in his hand. Ibrahimli (2018) claims this 'cup in hand' ritual tradition as a homogeneous feature widely found in Plovdag's graves from the Chalcolithic until end of the LBA (fig 7.28). Furthermore, the skull of a shorthorn cow was put in front of the man's forehead. Leg bones of the animal were placed at the back of the skull, while finger bones were attested next to the leg bones of the deceased. In front of the dead, on the level of breast there was attested a bronze ring, a bone needle, and a bone awl. The charcoal elements taken from Plovdag II settlement dates the site to the first stage of the KAC, between 3511-3427 BC, while unfortunately, there is no dating evidence from the grave itself.

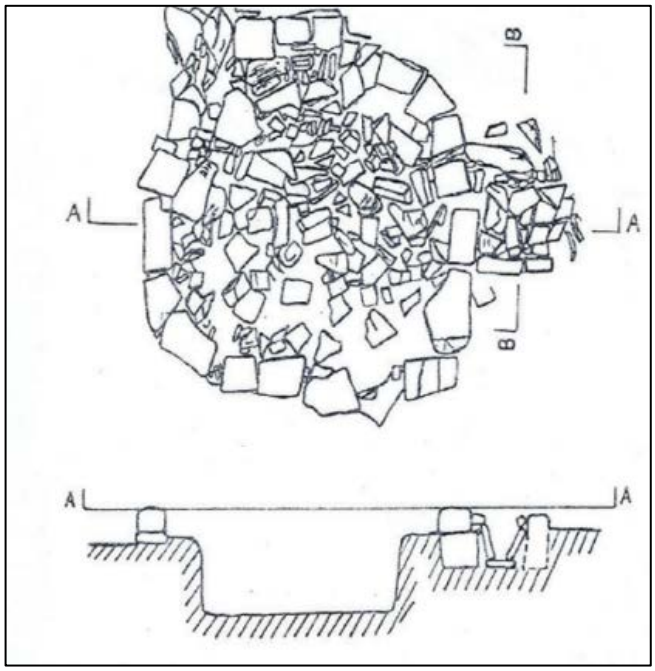


Figure 7.27. Plovdag grave 8, stone capping (Ibrahimli 2018: 61, fig 3, unknown scale)

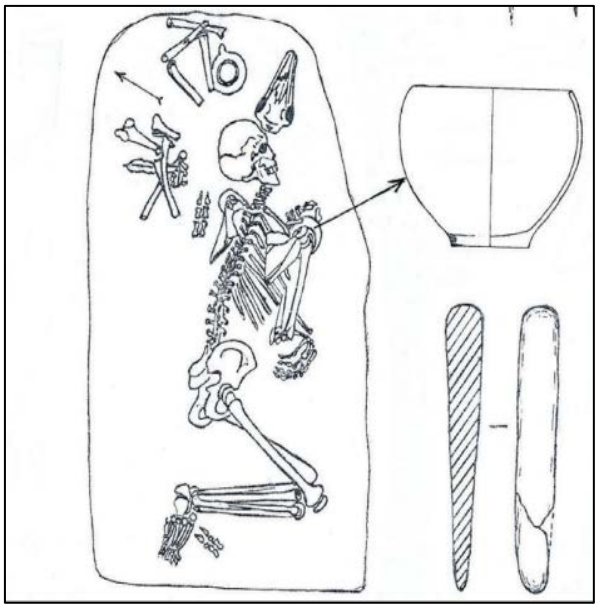


Figure 7.28. Plovdag grave 8 (Ibrahimli 2018: 61, fig 3, unknown scale)

Another interesting feature is that a few meters south of the chamber, there is a pile of stones attached to grave 8 from the east side (fig 7.29). The top of the pit was filled with small river pebbles, and neither human bones nor goods were discovered in those pits. This structure is rectangular in shape, covered with big stone slab. By calling this an altar or shrine Ibrahimli (2018:70) claims that this stone setting (0.3/0.4 m) may have been a feature to imitate the main grave which was more likely built on the death anniversary of a deceased body. There are similar examples of 'miniature kurgan' that are attested as a part of some cairns, which perhaps conveys a symbolic tomb (shrine) (Akhundov 1999, Ibrahimli 2018, Lyonnet et al. 2012). However, it is questionable whether this small stone structure (embankment) is a part of the kurgan and whether it is contemporary to the grave or not.

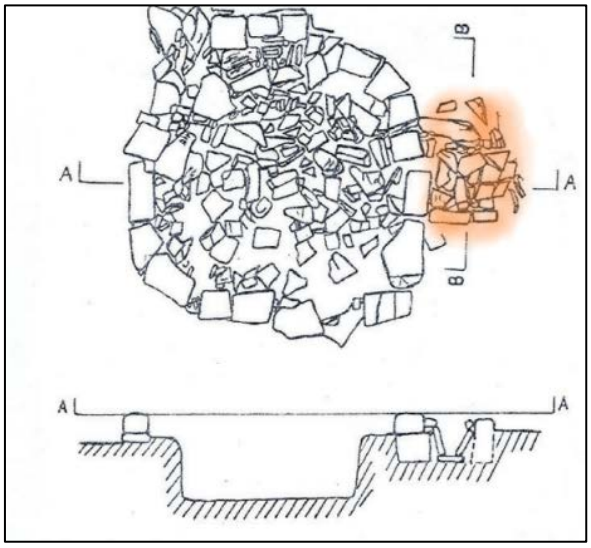


Figure 7.29. Plovdag grave 8 (Ibrahimli 2018: 61, fig 3, unknown scale) (highlighted in orange)

7.6.3. Graves with burial structures covered with kurgans

The third group consists of graves with burial structures, such as stone-cists (stone boxes), and pits lined with stones. This group of graves is less common in Azerbaijan compared to neigbouring regions (Poulmarc'h 2014). Comparatively, however, kurgans with stone-lining are more common than kurgans with stone-cists. There remains a confusion among scholars to identify differences between these two burial structures, which are quite similar in construction (Palumbi 2008, Polumarc'h 2014, Sagona 2018:246). Usually, kurgans are roofed by large stone slabs. This group of burials have attested with a rectangular dromos, which is evidence that the graves have been used during variable intervals of time, such as Telmankend 2, and Borsunlu 9 (fig 7.31, 7.32 c). These graves can be both individual and collective (maximum two people). Some are associated with the inhabited place, such as Khornu, Dize, Plovdag, Qarabulaq, Daire kurgans, while some are located in isolation, such as Telmankend (fig 7.30, 7.31), Borsunlu (7.32 a, b,c), Khudabakhish yurdu.

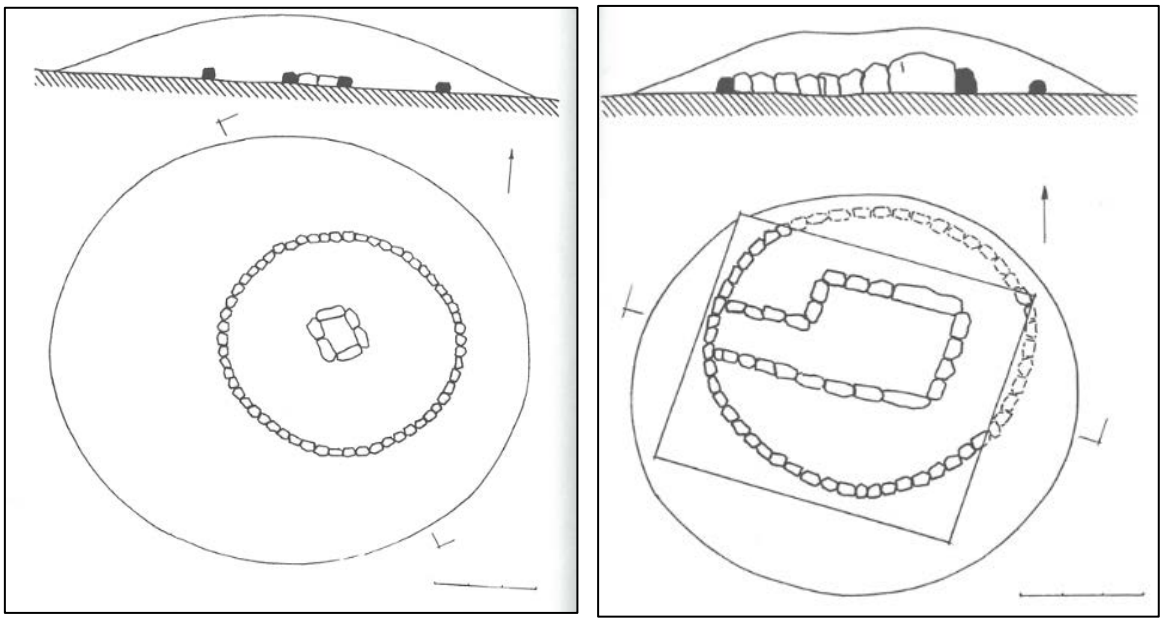


Figure 7.30. Telmankend 1, stone-cist kurgan (Akhundov and Makhmudova 2008:114, fig 10)

Figure 7.31. Telmankend 2, stone-lining kurgan (Akhundov and Makhmudova 2008:115, fig 11)

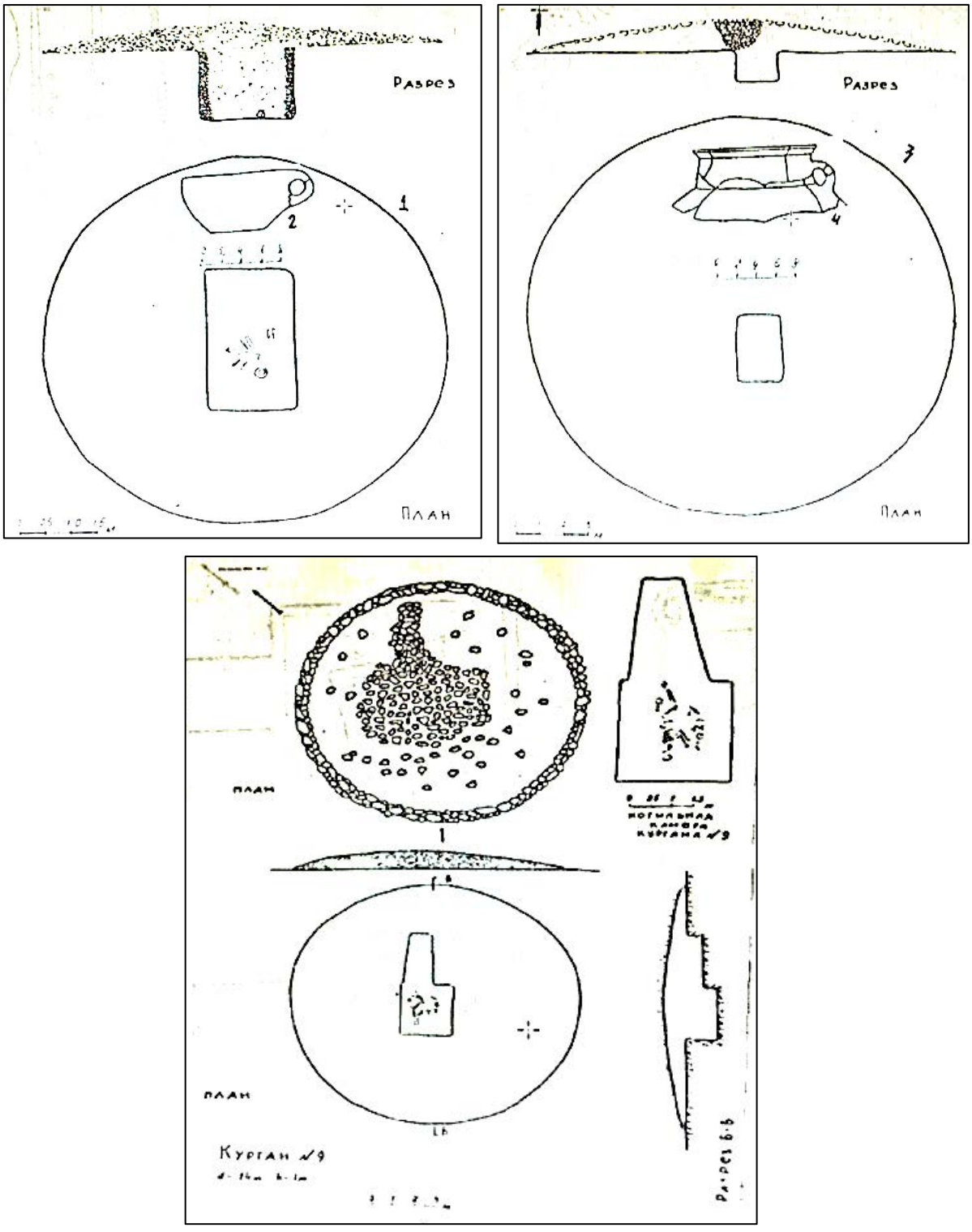


Figure 7.32. a) Borsunlu Kurgan 26 (Jafarov 2000, table 20), b) Borsunlu Kurgan 20 (Jafarov 2000, table 20), c) Borsunlu Kurgan 9, (Jafarov 2000, table 19)



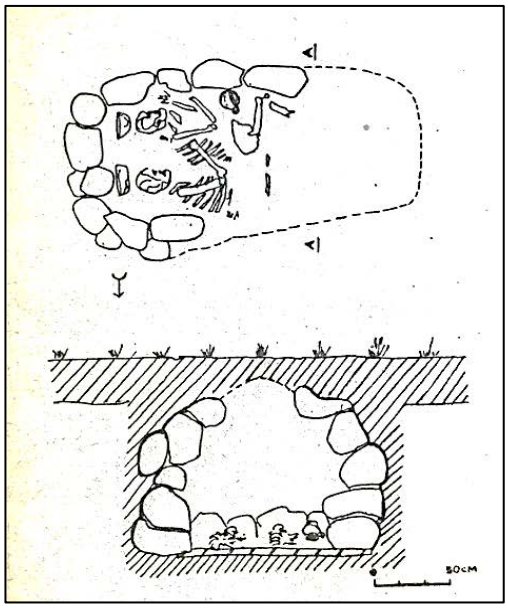


Figure 7.33. Plovdag grave N 25 (adapted from Ibrahimli 2018: 65, fig 7)

Figure 7.34. Dize kurgan (adapted from Seyidov 2003: 112, fig 28)

Some scholars (Muradova 2011, Museyibli et al. 2012, Ibrahimli 2018) claim that this form of grave is relatively dated to the middle and late stages of the EBA, while some ((Lyonnet 2014, and Bakhshaliyev 2006) claim it is dated to the early stages of the culture. Grave goods are mostly sherds, however, some interesting finds such as metal items in Telmankend kurgan 1 are impressive.

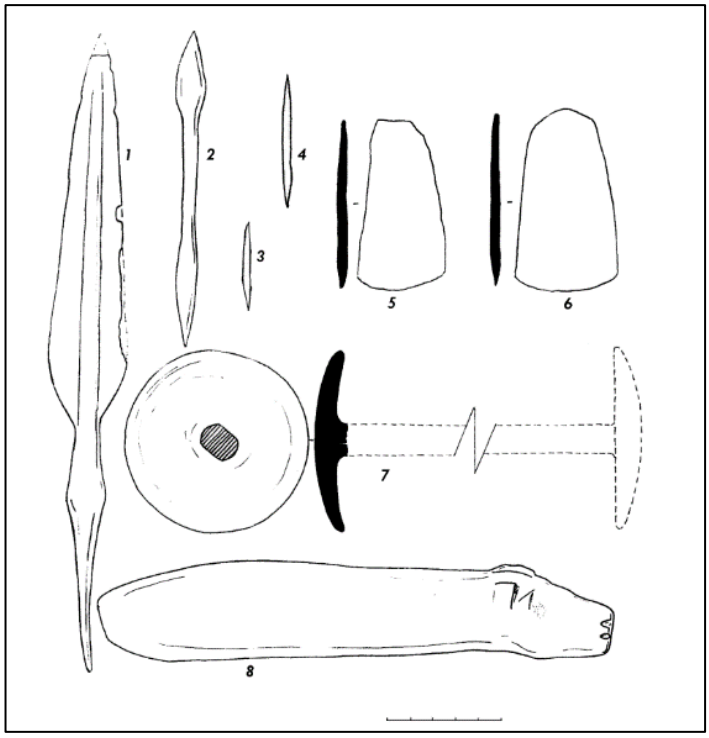


Figure 7.35. Telmankend Kurgan 1 grave assemblage. 1, 2 bronze tripartite spearhead, 3,4 – borer (awl), 5, 6 - flat (wedge-edged) axe, 8-stone scepter with an animal head 7 – a model of wheel (Akhundov and Makhmudova 2008:147)

7.6.4. Shallow graves without complex mortuary chambers covered with kurgans

This group of shallow graves without complex mortuary chambers covered with kurgans were constructed on the natural ground surface, which no complex burial chamber attested in the kurgan and bodies were buried relatively on a virgin soil (fig 7.37 and 7.38). Kurgans' mound mostly consisted of earth. This group of sites are not found in association with inhabited places. The graves are both individual and collective inhumations. The kurgan mounds consisted of a dense spread of river stones, with a thin layer of earth in the upper layer. The edges of kurgans were encircled by a stone ring (fig 7.36).



Figure 7.36. Shamkirchai 2. Stone capping and stone ring (Museyibli 2008:14, fig 2)

One of the similarities between these graves is that they have a wooden mortuary structure. For example, burnt remains of wood poles were found during the excavation at Shamkirchai 2, which lead to the hypothesis that they were used for the construction of these burial structures (Museyibli 2008). For example, in Shamkirchai 3 kurgan, firstly, six holes for wooden posts around the grave were dug. The posts inserted into the holes stood ca 40-50 cm above the ground. A wooden frame structure was constructed over these posts. The deceased and grave goods were placed on this wooden mortuary structure, covered with wooden logs and then by river pebbles over top of that (Museyibli 2008).

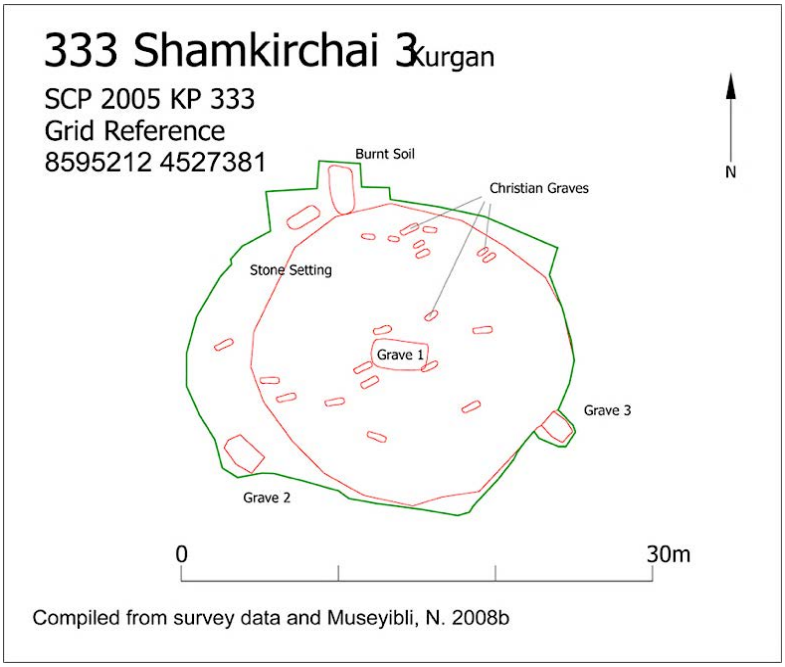


Figure 7.37. Plan of the Shamkirchay III kurgan (Museyibli 2008, fig 166)

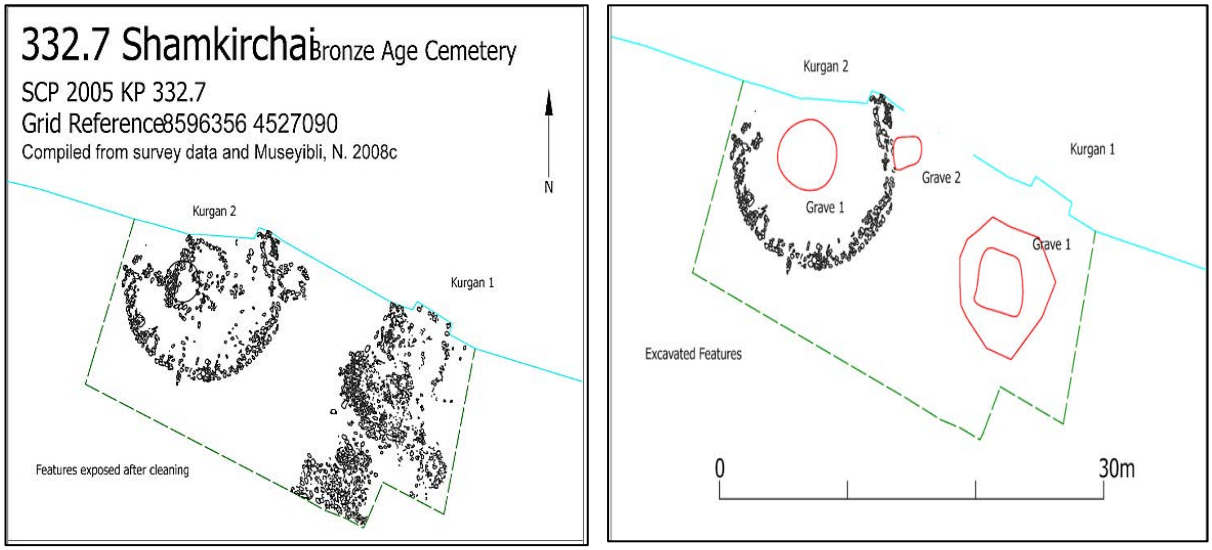


Figure 7.38. Plan of the Shamkirchay I and II kurgans (Museyibli 2008, fig 165)

Scholars (Lyonnet 2014, Smith 2015, Sagona 2018) claim that burial structures covered with wooden beams can be dated between Kura-Araxes and succeeding 'Early Kurgans' phases (2500-1500 BC). It has been proven with the radiocarbon dates taken from the Shamkirchai III kurgan, that these date belong to the second half of third millenium BC, the last stage of the KAC (see Table 7.1). This link can also be explained with the rich grave material found in these kurgans, such as at Hasansu (fig 7.39) and Shamkirchai (fig 7.40 and 7.41).



Figure 7.39. Metal implements from the Hasansu kurgan (Museyibli et al. 2012:103, no figure number)



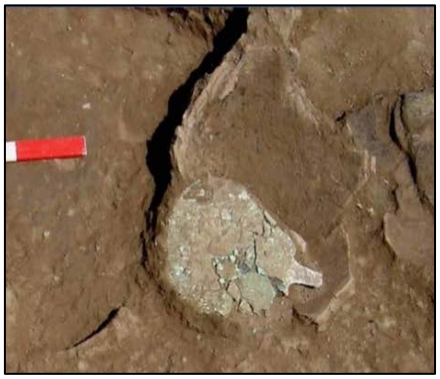




Figure 7.40. Shamkirchai III, paste, agate and stone beads (Museyibli 2008:35, plate 6)

Figure 7.41. Shamkirchai II, bronze mirror (the National Museum of History of Azerbaijan, Facebook Page) and Shamkirchai II, grave 1, gold beads (Museyibli 2008:19, fig 5)

Another example of these graves, particularly with dromos is Uchtepe (130 x 15 m) where under the earthen mound, a pile of stones was found representing a long oval grave covering. The grave was covered by two rows of wooden beams (lenght 7.5-8 m) (fig 7.43). The dromos attached to the grave from the south-west was a shallow and narrow channel. Finally, the kurgan was set on fire, with wooden beams and grave goods turned to ashes (see site Uchtepe, Gazetteer N 115, p 231). The next example is at Khankendi 119 kurgan (fig 7.42). The kurgan mound consisted of a dense spread of river stones with a thin layer of earthen soil in the upper layer. Kurgans have a dromos from the eastern side sealed with a limestone slab. Small gullies

(ditches) were drilled in the edges along the walls, and including the entrance, and these were filled with small river stones.

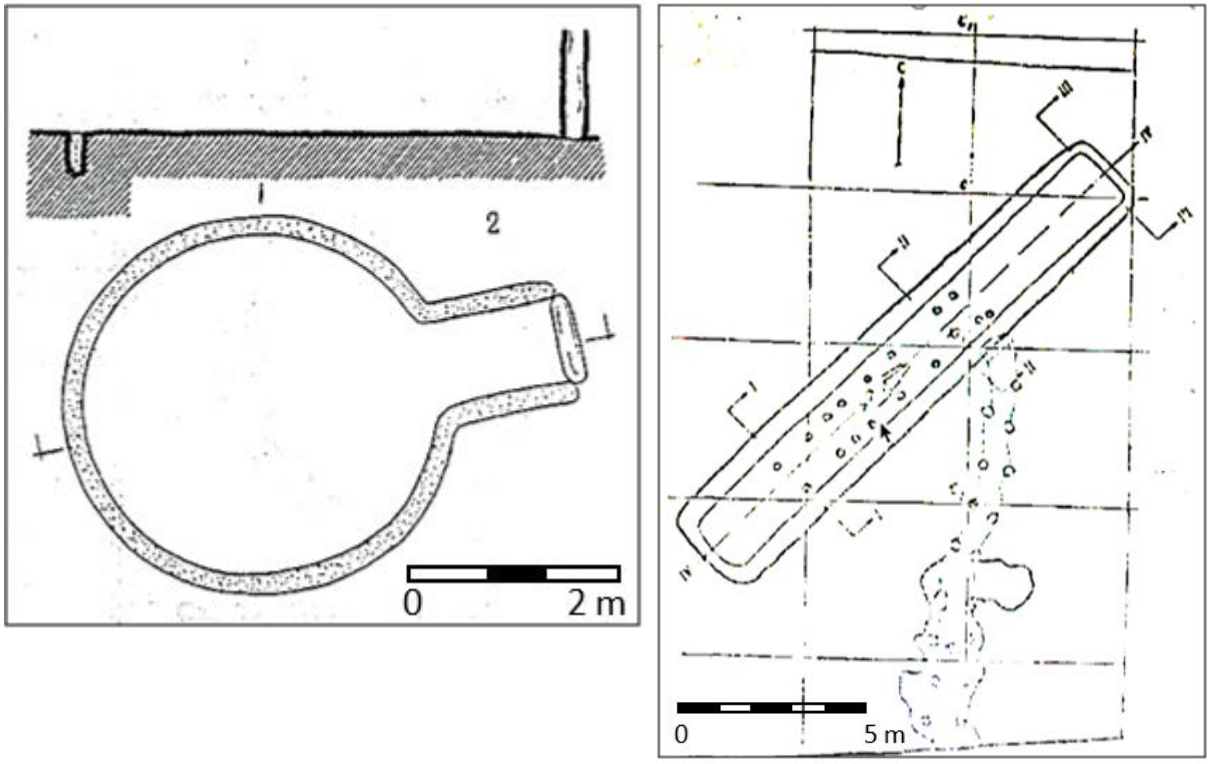


Figure 7.42. Khankendi 119, chamber plan (adapted from Akhundov 1999: table 5, fig 2)

Figure 7.43. Uchtepe kurgan (adapted from Jafarov 2000: table 14)

7.6.5. Collective deep graves with complex mortuary chambers covered with kurgans

One of the most dominant types in the region is the deeper graves with complex burial chambers covered with kurgans. These are characterised by the presence of collective burials, with a large number of individuals, such as 39 in Mentesh Tepe, 48 in Khankendi, 79 in Uzun Rama, and 70 individuals in Shadily kurgans. Most of these sites seem are not linked to any nearby settlements, and are located in isolation. There is a hypothesis that changes in the location of funerary sites correspond to the nature of mobility within the Kura-Araxes communities, which were perhaps linked to nomadic pastoralist groups (Palumbi 2007, Lyonnet 2014 and Smith 2015). Palumbi (2007) demonstrates that this also seems to be aimed at the enlarged territorial occupation and exploitation of the full potential of resources available in nearby regions. In that sense, the burial site could then be the way to mark the territory of the group, within the spaces

traversed by each of the transhumant groups composing the Kura Araxes populations (Palumbi 2008:349).

While analysing this category of kurgans, we have come across some construction materials and the sequence of events that unified these kurgans. Scholars (Palumbi 2008, Palumbi 2016, Sagona 2018, Reinhold 2019, Laneri et al. 2020) do not deny the effort and communal work on these structures which suggests the continuation of similar construction elements as the result of flow and the exchange of people and ideas as a key component in tying communities together (Palumbi 2012). The main feature of such long-lasting and highly visible memorials perhaps could actively work in the creation and collecting of memory and of expressing territoriality (Jafarov 2000). Potrebica (2004:125) emphasize that 'any society or culture claims continuity and links itself to a certain area by adapting or accepting the physical landscape into its sacral and mythological landscape'. In that sense, Holst and Rasmusen (2012, as cited in Reinhold 2019) believe that kurgans were the result of 'combined efforts'. Similarly, the construction of kurgans was perhaps a matter of materialisation of the tomb of the ancestors and a link to cultural identities (Palumbi 2007).

For example, one of these sequence events was the preparation of filling and sealing of the chambers and dromos, which had a similar technique in most kurgans (Laneri et al. 2019). Firstly, large tree trunks (wooden beams) were placed over the chamber, later cobble stones of different sizes were spread on these trunks, and lastly, the soil layer comprising 30-35 cm depth was poured on the stone base. Finally, the outer edges of the chambers are strengthened by two or three rings of medium and small-sized stones by a soil path, such as at Dizakhli and Uzun Rama kurgans (fig 7.44, 7.45). The tradition of one or more external stone circles, which circumscribed the perimeter of the kurgan comes the previous burial custom, from the Maikop and Leilatepe Cultures during the Late Chalcolithic (Palumbi 2012). Laneri et al. (2019) claim that this kind of arrangement might have served a ritualistic purpose in the end-use phase of the kurgan, probably for a ritual circumambulation. Bourgeois (2013:16, as cited in Reinhold 2019:22) claims that each circle represented subsequent and additional constructions to the web of ancestral genealogical lines. Barrett (1988:38, as cited in Barrett 1990) claims that the enlargement of pre-existing mounds by additional cappings wasn't directly associated with the nature of the initial deposit. In other words, final composite structure in the many round barrows had little to do with the primary deposit beneath the barrow.





Figure 7.44. Dizakhli (Babayev et al. 2017:198, fig 9)

Figure 7.45. Uzun Rama 8 (Laneri et al. 2019:137, fig 2)

One of the other elements associated with KAC grave construction is alabaster (a material that is commonly (but erroneously) termed 'alabaster' in the regional literature), which was used for different purposes, such as for filling the mound, for strengthening chambers' walls, and as well as this, was used for the treatment of the body, such as covering the deceased (Jafarov 2000). Alabaster was used mainly, in the construction of tombs, which were centralized mostly in the western part of Azerbaijan, such as at Tatarli and Borsunlu kurgans (Laneri et al. 2019). This might be explained with the fact that this territory, especially, in the Ganja city, is renowned for its lime and gypsum mineral resources (Laneri et al. 2019). This is due to the area being geologically marked as a white lime geological stratum, which is still employed by local people to make a fine white plaster for building material. It is also visible by remote sensing images, which shows the partial destruction of the archaeological record in the area since 1963 (fig 7.46).



Figure 7.46. A comparison of the images illustrates the encroachment of modern extractive activities in the area 2003 and 2017 (Maps by A.Ricci) (adapted from Laneri et al. 2019:142, fig 8)

Another factor shows work-effort employed in the construction of kurgans and reinforces the idea of building for use over a longer term. This is the implementation of gullies (ditches) inside the burial chambers. Small ditches were cut in the edges along the walls, excluding the entrance (fig 7.47). The depth of ditch is usually 25-30 cm. Inside the ditch, in the four edges of the chamber small pits were dug (usually diameter is 20, and depth is 35 cm). These were filled with river stone and pebbles. Jalilov (2015) believes that this was perhaps to keep inside the chamber always dry, and prevent it from severe weather conditions, such as heavy rains. This structure was attested mainly, in kurgans with a dromos. This perhaps can support Jalilov's (2015) opinion that during heavy rains water went out through the dromos.

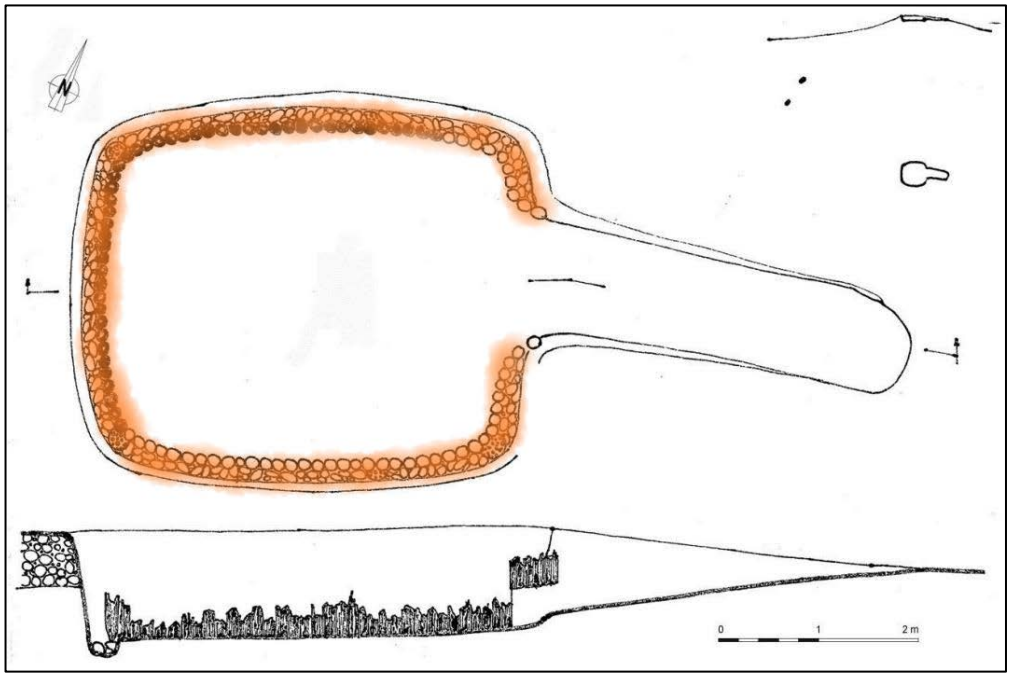
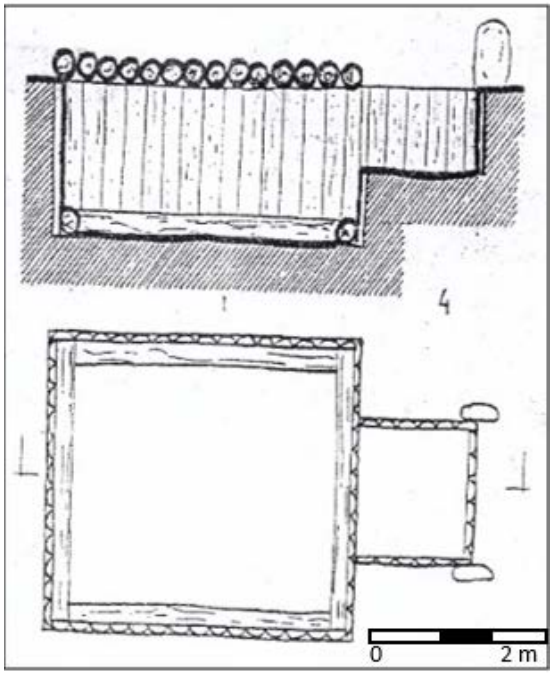
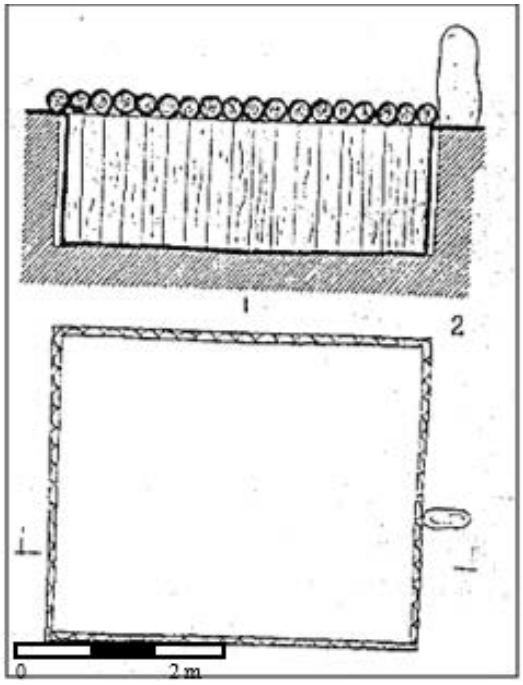


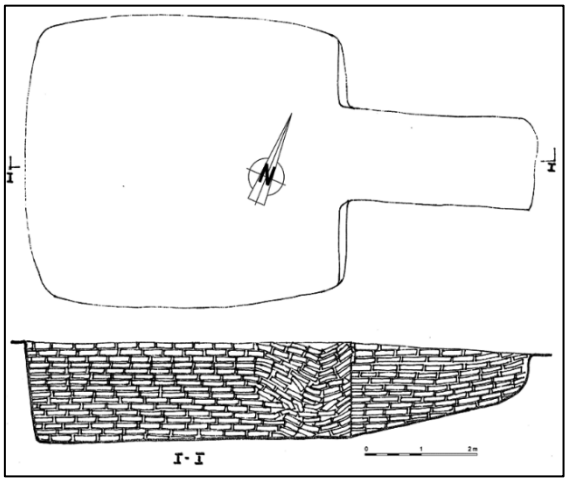
Figure 7.47. Small ditches were drilled in the edges along the walls of the chamber of Shadily kurgan (Jalilov 2015: 162, fig 2) (highlighted in orange)

One of the similarities that was attested in most kurgans was the use of wooden logs (beams) for the strengthening of walls, and floor and also covering the top of the chambers, such as at Uzun Rama (fig 7.48), Osmanbozu 1 (fig 7.49), Osmanbozu 4 (fig 7.50) (Akhundov 1999, Jalilov et al. 2016). The result of the dendroarchaeology analysis from the Uzun Rama kurgan shows that wooden beams were made of juniperus tree wood (Jalilov et al. 2016). Environmental studies confirm the fact that around 3000 BC, open woodlands prevailed at higher altitude, between 800 and 1300 m, where a high representation of juniper was attested (Connor and Sagona 2007, Connor and Kvavadze 2014, Decaix et al. 2016). Yet there is

insufficient palaeoecological study from Azerbaijan to provide a precise definition of vegetation usage during the Early Bronze Age. Jalilov et al. (2016) claim that compared with today, the EBA period had a greater extent of open woodlands of juniper and oak forests concentrated in the western part of Azerbaijan. Juniperus tree has also have symbolical meanings as seen in other cultures (Bhasin 2008, Coder 2011). It is believed that in religious ceremonies the juniperus tree had an anti-pollutant role and was involved in spiritual cleaning, ridding the atmosphere of evil spirits (Bhasin 2008, Coder 2011). As well as this, the juniper tree is highly flammable, and burned extremely well. As a result of the fiercest fire, it made a peculiarly loud and crackling noise, which might again link to the purification of the body (treespiritwisdom.n.d).







Clockwise from top-left:

Figure 7.48. Uzun Rama kurgan 5 (Jalilov 2013:129, fig 2)

Figure 7.49. Osmanbozu 1, (Akhundov 1999, table III, fig 2),

Figure 7.50. Osmanbozu 4, chamber plan (Akhundov 1999, table 4, fig 4)

The most striking difference between mortuary practices in Azerbaijan and other neighbouring regions is the evidence of intentional burning events involving built structures in kurgans (Poulmarc'h et al. 2014). The limited data reveals that there is evidence from 27 KAC graves in Azerbaijan where the presence of fire is visible, mainly dominated by collective burials (Table 7.4). This custom was fairly widespread in the north-western and western part of Azerbaijan during the EBA, which characterised as a strong heterogeneity feature among neighbouring regions (Lyonnet 2014, Poulmarc'h et al. 2104, Laneri et al. 2019). Most of those collective kurgans are located in isolation from settlements (Table 7.4, column 3).

Table 7.4. KAC funerary sites with the presence of fire. The samples are ordered according to sites and appear in alphabetical order.

Site name	Physical-geographical region	Location	Single/Collective Inhumation	Number of Individuals	KAC stage
Borsunlu 12	LC	isolated	collective	5	I
Borsunlu 20	LC	isolated	single	1 (child)	I
Borsunlu 26	LC	isolated	single	X	I
Borsunlu 7	LC	isolated	collective	19	I
Borsunlu 9	LC	isolated	single	X	I
Dashuz 5	GC	isolated	collective	5	I
Gabala 1	GC	isolated	collective	15	I
Gabala 2	GC	isolated	collective	11	I
Ganja 1	LC	isolated	X	X	I
Ganja 31	LC	isolated	X	X	I
Garqucaq 1	LC	isolated	collective	30	I
Khachinchay 4	LC	isolated	collective	X	III
Khachinchay 5	LC	isolated	collective	X	III
Khanlar 10	LC	isolated	Collective	X (children and adults)	I
Khanlar 20	LC	isolated	collective	X (children and adults)	I
Mentesh Tepe 4	LC	isolated	collective	40	I

Site name	Physical-geographical region	Location	Single/Collective Inhumation	Number of Individuals	KAC stage
Osmanbozu 1	LC	isolated	collective	30	I
Osmanbozu 4	LC	isolated	collective	5	I
Osmanbozu 5	LC	isolated	collective	10	I
Shadily	LC	isolated	Collective	70 (women and children predominant)	I
Shamkirchai 2 N 1	LC	isolated	single	juvenile	III
Shamkirchai 2 N 2	LC	isolated	single	X	III
Tatarli 1	LC	near settlement	Collective	19	I
Tatarli 2	LC	near settlement	Collective	X	I
Uchtepe	KA	isolated	X	X	III
Uzun Rama 8	LC	isolated	Collective	higher than 120)	I
Uzun Rama 5	LC	isolated	collective	(appr 120, adults, infants, children)	I

As part of the purification process, funerary chambers were set on fire after they were filled with human remains, and as a result of intense fire, the roof collapsed into the chamber and the dromos, by disturbing the whole deposit and making any subsequent bone count difficult (Poulmarc'h et al. 2014). Scholars (Jalilov 2015, Akhundov 1999) consider that there was no specific cremation process conducted in these kurgans. This is due to the fact that kurgans were not always fully burnt as some parts remained unaffected by fire (Lyonnet 2014). For example, the eastern side of the chambers in kurgans, where the dromos was located didn't face the combustion, as the wind passed through the dromos. This is why in this part of the chamber the effects of the flames were not strong, which was demonstrated by the fact that the soil layer and stones became red, and human bones were not subject to fire. However, the south-west and north-west parts of the graves were subject to fire and human bones turned white due to a very

high temperature (Jalilov 2015) (fig 7.51). Similarly, Akhundov (1999:30) and Museyibli (2008:8) hold the view that most of the time, evidence of fire is visible on the roof, because some kurgans were covered with tree branches, however, no trace of burning was observed on human bones. Poulmarc'h et al. (2014:238) claim that 'reasons for fires in burial chambers… are currently unknown, but they are in all cases deliberate acts'. This view can be supported with the existence of five hearths found in Mentesh tepe kurgans, which demonstrate that kurgans were deliberately set on fire (Poulmarc'h et al. 2014:240). Another claim is that this religious tradition was conducted in order to prevent the plundering of the mound in the future (Jalilov 2015). All these features are still new, and there is no evidence of a similar case in neighbouring regions, which would open a new window for comparison.

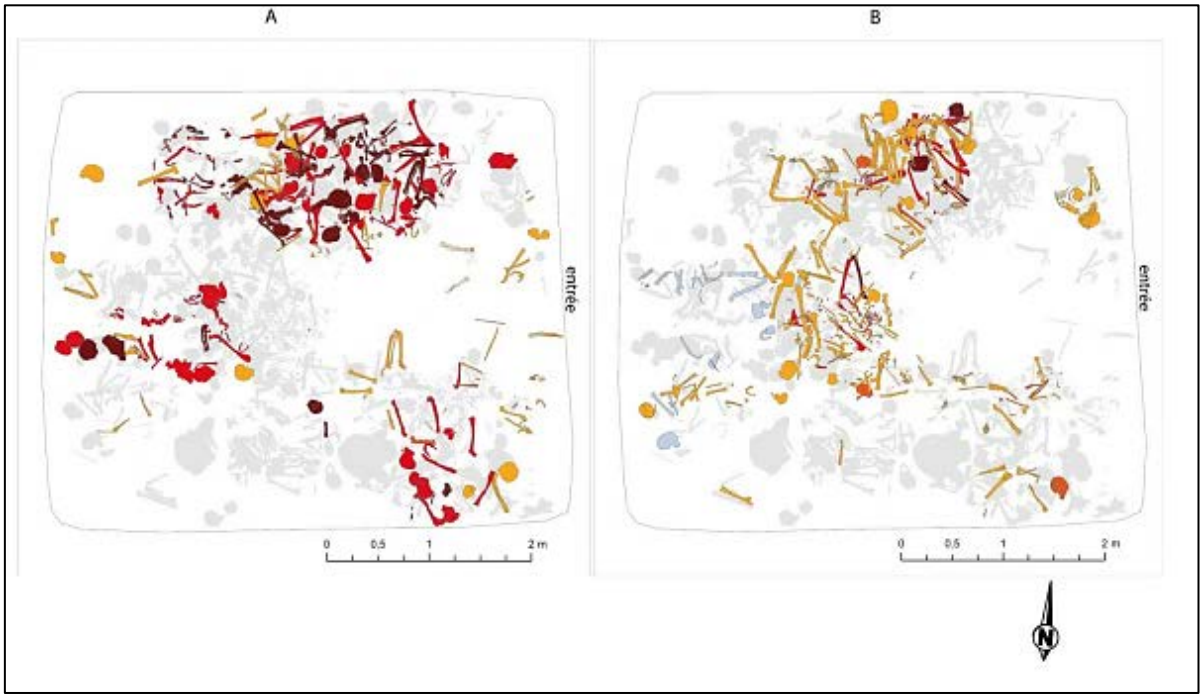


Figure 7.51. Mentesh Tepe St 4, plan of the distribution of bones according to their stage of combustion; A: upper level indicates a very high temperature and the proximity of the bones to the source heat, and B: lower level reflects a lower temperature and a low oxygen supply, which makes the calcination of the bones impossible (Poulmarc'h 2014:146, fig 66).

7.7. Mortuary practices in KAC in Azerbaijan

7.7.1. Mortuary treatment of body

The data suggests that the practices of the KAC mortuary treatment in Azerbaijan stands out relatively as homogeneous with other neighbouring regions during the EBA. However, the lack

of anthropological methods in the region limits the general understanding of treatment of the dead due to the predepositional and post-depositional processes. The most significant pattern that appears from our data is that the main ritual treatment of the dead is inhumation; both primary and secondary inhumation were practiced. A homogeneous pattern is that no big difference exists in deposition modes among KAC graves. For example, regardless of the architectural typology of the graves, single grave inhumations are widely characterized with the strongly crouched or flexed body, more often placed on the left or right side, and legs are tightly bent, with heel bones almost touching the pelvic bones (Akhundov 1999, 2001, Poulmarc'h 2014:99). Also the hand bones were folded together in front of the face of the deceased (fig 7.52 and 7.53).

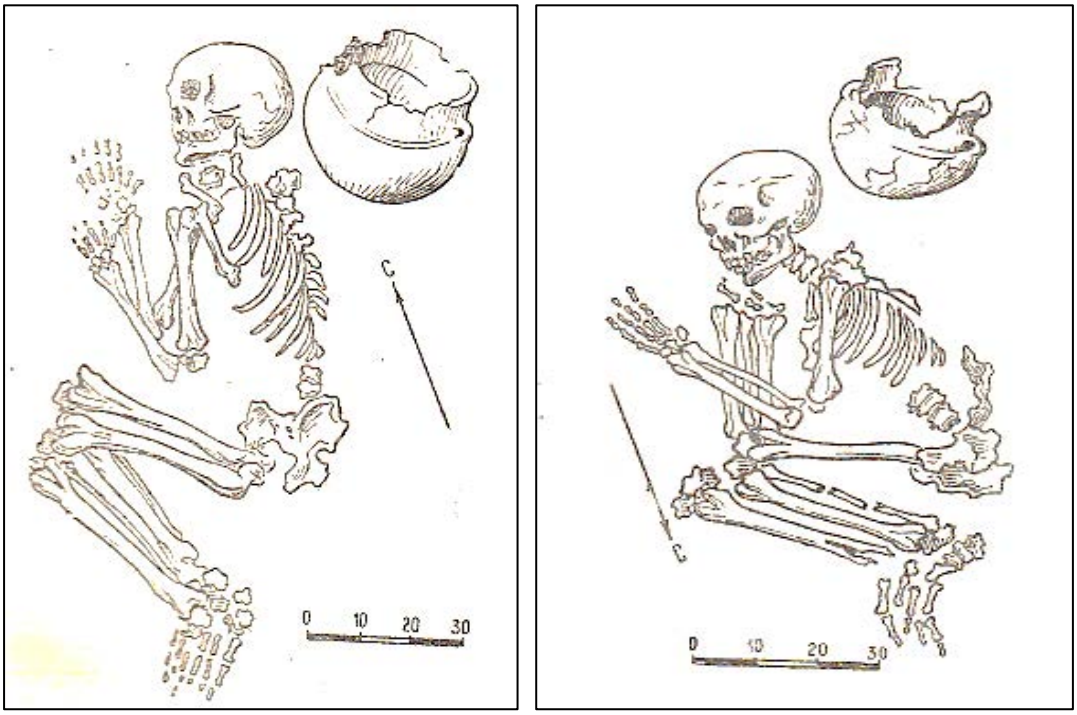


Figure 7.52. Mingechaur grave 3 (Aslanov et al. 1959:27, fig 10)

Figure 7.53. Mingechaur grave 82 (Aslanov et al. 1959:27, fig 11)

Sometimes local differences can be attested in some inhumation graves, such as Khankendi, in which individuals lie in both supine and sitting postures (Jafarov 2000), and Khachbulag and Khachinchay individuals lie in a supine position (Kasamanli 1999, Jafarov 2000:29). There is also an interesting position was found in Mentesh Tepe site during 2009 season, which is unusual compared to the majority positions attested in KAC graves during the EBA

(Poulmarc'h 2014:152). At the grave Mentesh Tepe 28, the adult lies on his back with legs flexed and hands raised to his faces, head oriented to the southeast and feet to the northwest (fig 7.25). This position was rarely used during the KAC mortuary practices, and has been relatively recorded in the North Caucasus in Maikop burials (Sagona 2018:164).

For those kurgans where a large number of people were buried, it is difficult to understand the position and the number of deceased in big burial chambers. This is possibly due to the re-opening of primary burials, conducting secondary or successive depositions, which shows a long time of usage, and periodically reopening of the tombs during variable intervals of time (Poulmarc'h et al. 2014). Furthermore, the degradation of bones by fire, as a result of burning the timber chamber, which we have already discussed earlier, makes it also difficult to identify the primary position of the body (fig 7.54).

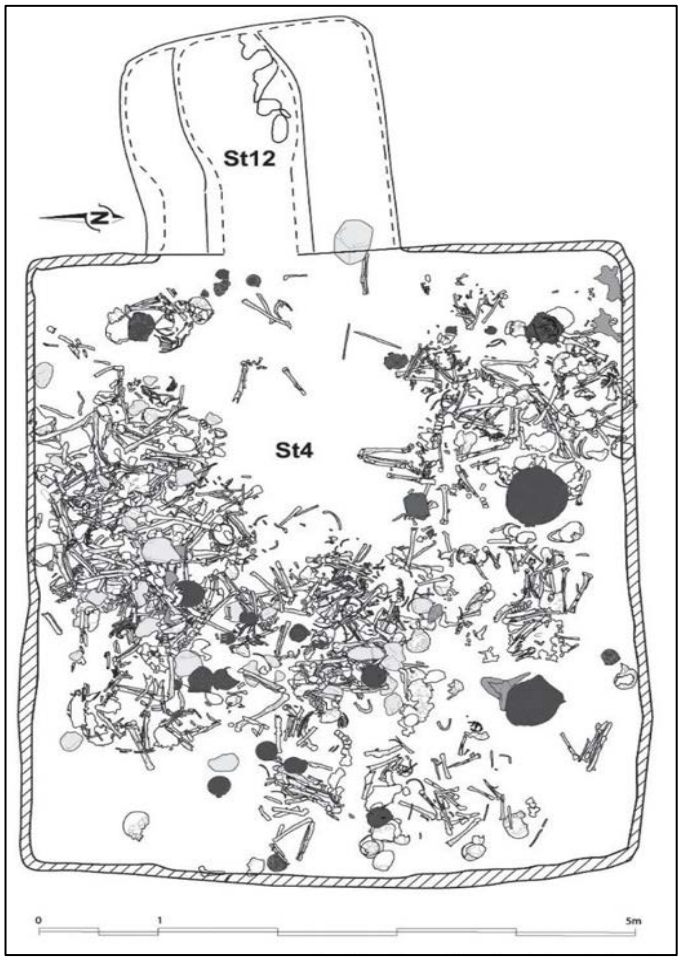


Figure 7.54. Plan of the Mentesh Tepe St 4 collective kurgan, burning event of the chamber (plan P. Raymond) (Poulmarc'h et al. 2014:241. Fig 8)

There is also evidence of an interesting local variation in the deposition of bodies in Karabakh, and Ganja regions. For example, in Khankendi kurgan 103 (48 individuals have been accounted for, which among 20 are adults and the rest are teenagers and children), and Khankendi kurgan 119 (both adults and children were documented), bodies were neatly placed on the virgin soil in different positions, folded, sitting and supine (fig 7.55, 7.56). At the end, they were covered with river pebbles plastered with clay (mortar) (Jafarov 2000). There are also some kurgans where skeletons had been buried in multiple layers, which shows that they had been dug up from their original graves multiple times (Gummel 1948:17, as cited in Jafarov 2000:38). In other words, other ways of showing multiple depositions and chronological continuity of re-using graves are attested in north-western and northeastern parts; areas of Ganja, Karabakh, Shaki, at sites Borsunlu, Qarachay, Uchtepe, and Shamkirchay (Jafarov 2000:33). For example, the corpse treatment indicated in Borsunlu 7 kurgan which had three layers of individuals on top of each other, detected in diferent positions, folded, sitting and supine, plastered with clay (mortar). For example, in the first layer one individual (depth of layer 40 cm), in the second layer, eight bodies (depth of layer 50 cm) and finally, in the third layer, ten individuals (depth of layer 50 cm) were buried.

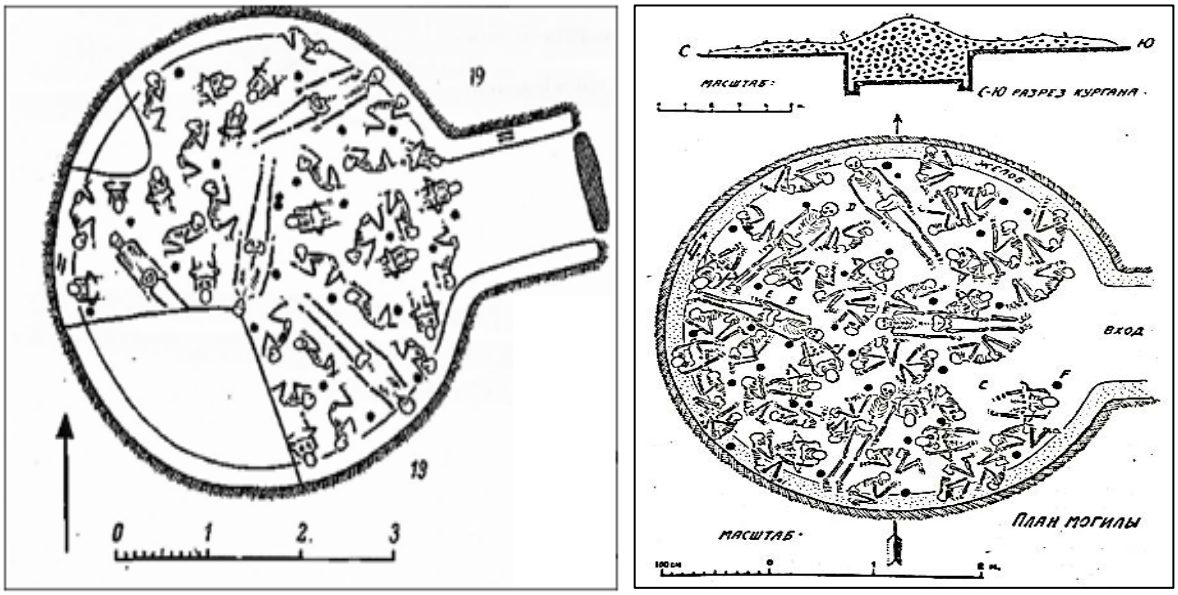


Figure 7.55. Khankendi Kurgan 119 (Kushnareva and Chubinishvili 1970: 82, fig 29)

Figure 7.56. Khankendi kurgan 103 (Gummel, 1939: 212, fig 5)

In some instances, kurgans included the use of red ochre. The practice of sprinkling of red ochre on some graves shows ceremonially some kind of continuity throughout different periods in the

Caucasus region, and was especially prevalent in the north Caucasian funerary rite (Sagona 2018:373). The practice of covering the deceased with red ochre is often associated in a broader sense with blood, vigour and life, possibly conveying spiritual meanings as seen in other cultures (Sagona 1994: as cited in Sagona 2018). Similarly, Alakbarov (2013) points out that red colour has always been a symbol of fire and sun, which through the presence of ochre, the dead's soul was perhaps protected from bad spirits. The evidence collected from KAC graves was only fragmentary in most cases showing that ochre is not very much a part of the funerary process during the KAC tradition (Jalilov 2015). For example, this red pigment was ceremonially sprinkled on the deceased in Daire kurgan or at sites, such as Uzun Rama, Borsunlu 9, Uchtepe, and Shamkirchai III kurgans the walls of the burial chamber were painted with red ochre (Museyibli 2008, Jalilov 2015).

7.7.2. Artefact assemblages

It is a general consensus that the range and the quantity of the materials recovered from the KAC funerary sites is extremely modest, and narrow (Sagona 2018, Rova 2018). Given that scholars (Smith 2015, Palumbi 2016) also believe that funerary goods followed a strong sense of 'repetition and standardisation'. In other words, most graves appear to consist of more or less the same goods, lacking variability, such as pottery, bone spindle-whorls, beads, obsidian, flint tools and arrowheads, sometimes with a few metal objects (Palumbi 2007, Altunkaynak et al. 2018). It is worth mentioning that the association of funerary goods with graves in relation to spatial organisation is very poor and our struggle to discern the function and meaning of the material culture that accompanied the dead is difficult. The data presents a lack of representation of how the grave goods were used during the ritual; how objects were displayed, arranged, and concealed in different parts of the funeral. This was often due to collective inhumation, the process of re-opening of primary burials, conducting secondary or successive burials, or perhaps also due to the destruction of grave goods as a result of the fire rituals in the funerary chambers, or was a result of looting (Polumarc'h et al. 2014). In fact, scholars (Palumbi 2016, Rova 2018, Sagona 2018) believe that modest graves goods possibly convey the idea of a socially undifferentiated society, with limited social classification in the KA communities, and lacking any signs of social differentiation (Laneri et al. 2019, Reinhold 2019). It is also difficult to determine whether the objects deposited were the personal possessions of the deceased or gifts accumulated by their mourners.

The data found that grave goods from KAC burials in Azerbaijan firstly indicate repetition and also share homogeneity in types of objects found from these graves (table 7.5, see also for individual entry of each site in Gazetteer, Appendix I). For example, KAC graves contain the ceramic repertoire, which comprises a high percentage of the grave goods. A further analysis revealed that there are no significant differences in the shape of the ceramic ware in kurgans; they are on a small scale and ornamentation is scanty. Most of the time, handles are attached to the upper body (fig 7.57).

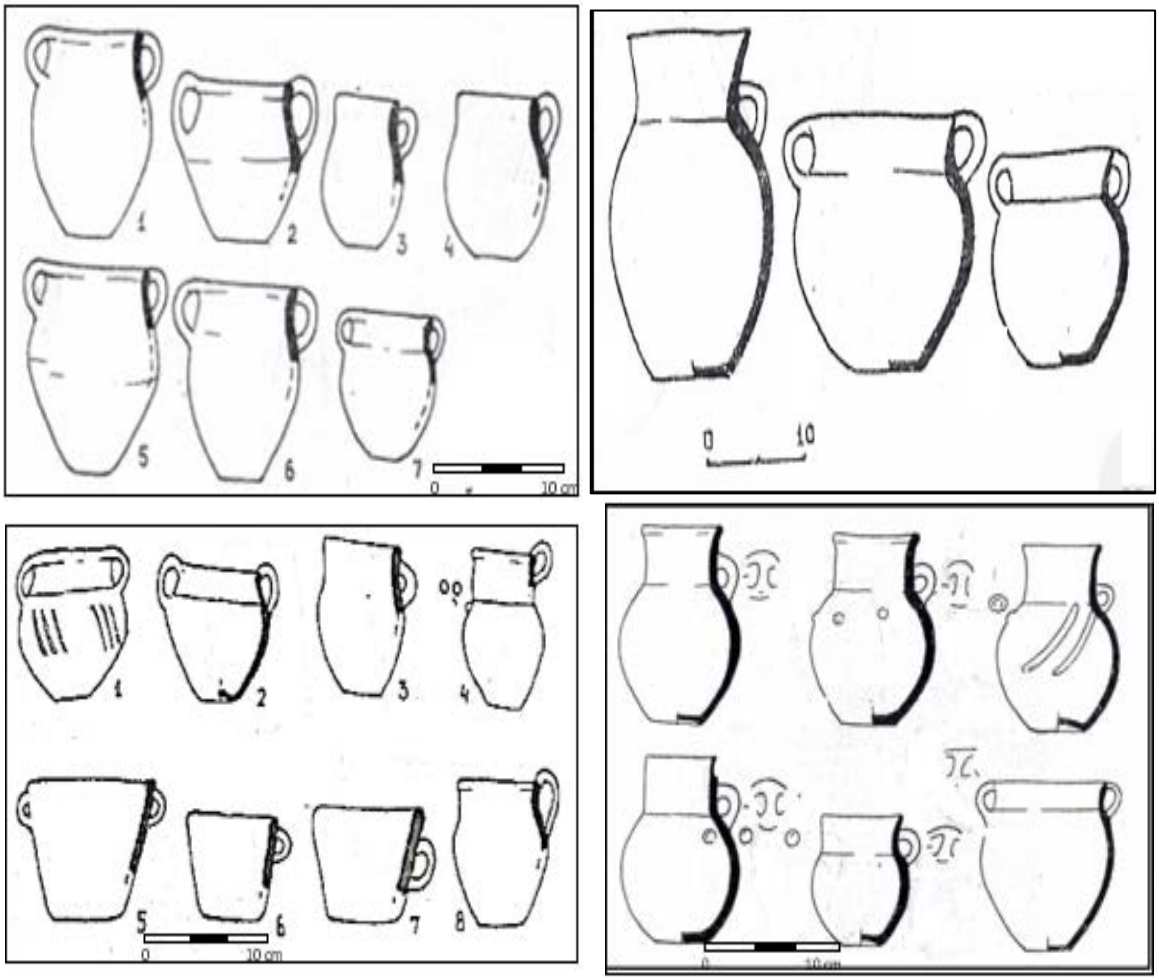


Figure 7.57. Ceramic assemblage from different KAC graves. Clockwise from top-left (Borsunlu kurgan 7 (Akhundov 1999: fig 8), Dashuz kurgan 5 (adapted from Akhundov 1999, fig 8), Osmanbozu 1 (Akhundov 2001: fig 19, 1-8), Dashli tepe (Akhundov 1999, fig 11)

Table 7.5. The types of grave goods per individual burial in KAC sites. The samples are ordered according to sites and appear in alphabetical order.

Grave	Grave Type	Grave goods	Single/Collective Inhumation
Babadervish 5	Simple pit grave without mound	Ceramic vessels and potsherds, spindle whorl, bronze hoop-metal	single
Borsunlu 12	Collective deep grave with complex mortuary chamber covered with kurgan	Fragments of 11 ceramic vessels, animal bones	collective
Borsunlu 20	Grave with burial structure covered with kurgan (stone-lining)	Single ceramic vessels	single
Borsunlu 26	Grave with burial structure covered with kurgan (stone-lining)	Single ceramic vessels	single
Borsunlu 7	Collective deep grave with complex mortuary chamber covered with kurgan	Fragments of ceramic vessels, animal bones	collective
Borsunlu 9	Grave with burial structure covered with kurgan (stone-lining)	ceramics, bronze axe -metal	single
Daire 3	Grave with burial structure covered with kurgan (stone-cist)	potsherds, animal bones, a blade crafted from a dark green flint, a loom weight made of deer bone.	unknown
Daire 5	Grave with burial structure covered with kurgan (stone-lining)	Fragments of 3 ceramic vessels	unknown
Dashli Tepe	Collective deep grave with complex mortuary chamber covered with kurgan	11 pottery vessels, animal skull	collective
Dashuz 1	Collective deep grave with complex mortuary chamber covered with kurgan	ceramic potsherds	collective
Dashuz 5	Collective deep grave with complex mortuary chamber covered with kurgan	ceramic potsherds	collective
Devebatiran	unknown	Ceramic sherds	unknown

Grave	Grave Type	Grave goods	Single/Collective Inhumation
Dizakhli	Collective deep grave with complex mortuary chamber covered with kurgan (alongside two intrusive pit graves)	ceramics	collective
Dize	Grave with burial structure covered with kurgan (stone-lining)	pottery vessels	collective
Gabala 1	Collective deep grave with complex mortuary chamber covered with kurgan	Pottery vessels, spindle whorl, copper bronze bead- metal	collective
Gabala 2	Collective deep grave with complex mortuary chamber covered with kurgan	Pottery vessels, spindle whorl, copper bronze bead- metal	collective
Ganja 1	Collective deep grave with complex mortuary chamber covered with kurgan	Ceramic vessels and potsherds	unknown
Ganja 31	Collective deep grave with complex mortuary chamber covered with kurgan	Ceramic vessels and potsherds	unknown
Garqucaq 1	Collective deep grave with complex mortuary chamber covered with kurgan	20 pottery vessels	collective
Girag Kasaman 2	unknown	Ceramic sherds	unknown
Golyeri 1	Simple pit grave without mound	ceramic vessels, stone tools	single
Golyeri 2	Simple pit grave without mound	ceramic vessels, stone tools	single
Golyeri 3	Simple pit grave without mound	ceramic vessels, stone tools	single
Golyeri 4	Simple pit grave without mound	Ceramic vessels, stone tools, stone and bone jewellery, silver earring-metal	single
Hasansu	Earthen pit grave covered with kurgan	Pottery vessels, various metal objects	collective
Kechili	unknown	Ceramic potsherds	unknown
Khachbulag (Khoshbulag) 1	Unknown	A three-globular jar, gold and silver ring-shaped earrings-metal, paste beads	single
Khachinchay 1	Unknown	no material	collective

Grave	Grave Type	Grave goods	Single/Collective Inhumation
Khachinchay 2	Unknown	Ceramic potsherds, silver and gold earrings- metal, beads, bronze dagger, mace-head, obsidian, flint flakes	single
Khachinchay 3	Unknown	Ceramic potsherds, silver and gold earrings-metal, beads, bronze dagger, mace-head, obsidian, flint flakes	collective
Khachinchay 4	Unknown	Ceramic potsherds, animal bones, mace-head	collective
Khachinchay 5	Unknown	Ceramic potsherds	collective
Khankendi 103	Collective deep grave with complex mortuary chamber covered with kurgan	30 pottery vessels, obsidian tools, horn and teeth of goat	collective
Khankendi 119	Collective deep grave with complex mortuary chamber covered with kurgan	22 pottery vessels, mace-head, mortar, arrowheads made of obsidian and flint, gold beads-metal bones of goat, 5 spindle whorls	collective
Khankendi 125	Collective deep grave with complex mortuary chamber covered with kurgan	arrowheads, spindle whorls, gold earring- metal, obsidian flakes, two goat skeletons	collective
Khanlar 10	unknown	pottery vessels and potsherds	collective
Khanlar 20	unknown	pottery vessels and potsherds	collective
Khinisli	Grave with burial structure covered with kurgan (stone-lining)	pottery vessels, stone beads	unknown
Khornu 1	Grave with burial structure covered with kurgan (stone-cist)	Ceramic potsherds	unknown
Khudabakish yurdu	Grave with burial structure covered with kurgan (stone-cist)	bone tools- spindle whorl, two perforated mace-head, grey stone axe	unknown
Mentesh Tepe 4	Collective deep grave with complex mortuary chamber covered with kurgan	3 animal skull, 21 pottery vessels, perforated bone items, white and black stone beads	collective

Grave	Grave Type	Grave goods	Single/Collective Inhumation
Mentesh Tepe 49	Earthen pit grave covered with heaps of stones (cairns)	Two graves - ceramics, a few animal figurines	single
Mingechaur 101	Simple pit grave without mound	pottery vessels	single
Mingechaur 3	Simple pit grave without mound	pottery vessels	single
Mingechaur 64	Simple pit grave without mound	pottery vessels	single
Mingechaur 82	Simple pit grave without mound	pottery vessels	single
Osmanbozu 1	Collective deep grave with complex mortuary chamber covered with kurgan	Fragments of 17 ceramic vessels	collective
Osmanbozu 4	Collective deep grave with complex mortuary chamber covered with kurgan	Ceramic sherds	collective
Osmanbozu 5	Collective deep grave with complex mortuary chamber covered with kurgan	Fragments of 10 ceramic vessels	collective
Ovchular Tepesi 11.285	Earthen pit grave covered with heaps of stones (cairn)	two spiral bronze earrings	single
Ovchular Tepesi 4005	Earthen pit grave covered with heaps of stones (cairns)	A grooved, decorated pottery vessel	single
Plovdag II N 25	Grave with burial structure covered with kurgan (stone-cist)	2 pottery vessels, necklace of carnelian and paste beads,	single
Plovdag II N 8	Earthen pit grave covered with heaps of stones (cairn)	A pottery vessel, bronze ring-metal, bone needle, bone awl, the skull of shorthorn cattle	single
Qarabulaq 6	Unknown	ceramic potsherds	unknown
Qarabulaq 7	Unknown	ceramic potsherds	unknown
Qarabulaq 8	Grave with burial structure covered with kurgan (stone-cist)	no material	unknown
Qarabulaq 9	Grave with burial structure covered with kurgan (stone-cist)	no material	unknown
Qarachay	Simple pit grave without mound	ceramics, beads, pendant, bronze jewellery -metal, spindle whorls	Single

Grave	Grave Type	Grave goods	Single/Collective Inhumation
Shadily	Collective deep grave with complex mortuary chamber covered with kurgan	black beads, stone seal, wooden vase, spindle head, fabric remnant, wood niche, 30 pottery vessels	collective
Shamkirchai 1	Shallow grave without complex mortuary chamber covered with kurgan	one vessel, leg bones of goat, or sheep, blue paste bead, white beads, metal pin	single
Shamkirchai 2 N 1	Earthen pit grave covered with kurgan	Fragments of ceramic vessels, a bronze object, gold beads	single
Shamkirchai 2 N 2	Shallow grave without complex mortuary chamber covered with kurgan	Fragments of ceramic vessels, a bronze object, a bronze mirror - metal, obsidian flake, paste beads	single
Shamkirchai 3 N 1	Shallow grave without complex mortuary chamber covered with kurgan	Fragments of ceramic vessels, bead, metal earrings, needle, animal bovid bones, quernstone, obsidian flakes, metal wedge-shaped tool	unknown
Shamkirchai 3 N 2	Shallow grave without complex mortuary chamber covered with kurgan	Fragments of ceramic vessels,	collective
Shamkirchai 3 N 3	Shallow grave without complex mortuary chamber covered with kurgan	Fragments of ceramic vessels,	unknown
Tatarli 1	Collective deep grave with complex mortuary chamber covered with kurgan	30 pottery vessels, grinding stone, spindle whorls, animal bones, 213 paste beads	collective
Tatarli 2	Collective deep grave with complex mortuary chamber covered with kurgan	5 pottery vessels, human and animal bones	unknown
Telmankend 1	Grave with burial structure covered with kurgan (stone-cist)	ceramic, six metal items, stone scepter with animal head, a model of wheel	single
Telmankend 2	Grave with burial structure covered with kurgan (stone-lining)	Some vessels/sherds	unknown

Grave	Grave Type	Grave goods	Single/Collective Inhumation
Uchtepe	Shallow grave without complex mortuary chamber covered with kurgan	Ceramic sherds	unknown
Uzun Rama 5	Collective deep grave with complex mortuary chamber covered with kurgan	64 pieces of vessels, wooden bowls, wooden niche, spindle heads, beads, cloth remnants, animal remains	collective
Uzun Rama 8	Collective deep grave with complex mortuary chamber covered with kurgan (alongside three intrusive pit graves)	Pottery vessels and ceramic potsherds, bone spindle whorls, limestone beads from necklace, a flint arrow-head, goat/ram horns, goat/ram's skulls	collective

The practice of burying the dead with metal objects was not common during the EBA. In other words, the appearance of metal objects is rare in most KAC burial sites (Cernych 1991, Lyonnet 2014, Wilkinson 2014b, Sagona 2018). Yet it was also agreed that metals are mostly coming from funerary deposits compared to settlements in Kura-Araxes world (Kohl 2007, Palumbi 2014, Batiuk et al. 2022). Metal inventories consist of modest, rather simple types of jewellery, such as bronze beads, silver earrings, gold earrings, bronze rings, and as well as this, rarely bronze daggers, axes, and tripartite spearheads. Some scholars (Batiuk et al. 2022:74) consider that 'the metals of the Kura-Araxes were used more for their symbolic meanings than as common tools'. However, Lyonnet (2014:119) argues that perhaps metal implements were collected and taken away from the kurgans prior to the destructive fire ritual, especially, kurgan ST4 from which metal artefacts were singularly absent. Also, Stöllner et al. (2014:103) argue that KAC communities were reluctant to include 'status objects' in graves. Despite all rare examples of metal from a few kurgans, the vast majority of KAC burials were modest, and followed the same principles of some level of egalitarian funerary ideology (Rova 2014, Palumbi 2016).

There is also a lack of evidence to understand the provenance of metal objects and their link to the contemporary surrounding areas. In other words, grave goods made of precious metals barely coincides with settlements, and it is almost impossible to find a simple answer for this

consumption. This also creates a problem of building chronology in which grave goods rarely seem to relate to the activity of a specific site that they are located nearby. In other words, it seems that tombs do not always exhibit a direct linkage between the funerary goods and the settlement activities of the KA people. For instance, sites with a longer occupation with the precious-metal bearing deposits, such as Sakdrisi and Dzevzebi settlements in Georgia, which potentially specialised as metallurgical communities, and yet metal goods were absent in their tombs (Stöllner et al. 2014:103, Palumbi 2016:25). In the case of Azerbaijan, Mentesh tepe is the site where one of the largest archaeological samples was studied to understand how distant the procurement zone was for the different kinds of raw materials that were exploited. The results of analysis show that during the Late Chalcolithic and EBA period, raw materials came from an area between 30 to 300 km away from the site (Astruc et al. 2021:423). EBA communities compared to Late Chalcolithic communities showed a possibly more mobile way of life which could have led to exploration for metal ores and precious materials (Astruc et al. 2021:423). However, further analyses are needed to determine the exact provenance of metals used.

There are some complexities and variation, which appear in the types of grave goods, possibly in the last stages of the KAC. There are some ambiguities, when putting valuable objects into a chronological order found in KAC graves, such as precious stones, flint and obsidian arrowheads, and metal implements. Some claim these objects either to be dated to the previous (Late Chalcolithic) or succeeding (Early Kurgan Culture) traditions (Museyibli 2014, Lyonnet 2014, Palumbi 2016, Sagona 2018). For instance, some scholars (Akhundov 1999, Museyibli 2014) claim that the quantity and quality of metal objects found in some kurgans is comparable to Maikop metalwork in the North Caucasus. The Maikop phenomenon (3900/3800 BC to 3000/2900 BC), was well-known for its elite material culture and funerary practices. In other words, the kurgan funerary tradition gained its momentum, with the impressive display and accumulation of wealth in the grave goods leading to innovative technologies in metallurgy, economics and mobility (Reinhold 2019). On the other hand, others (Kohl 2007, Lyonnet 2014) argue that the presence of gold and exotic materials in the kurgans might symbolically represent the construction of a new social landscape in the transition to the Early Kurgan Culture, in the last stage of the KAC. Another example that shows striking differences between KAC and succeeding period graves are the metal items coming from secure contexts in Mentesh Tepe ST

54 kurgan, that relates to the Martkopi phase of the Early Kurgan culture/end of the Kura-Araxes Culture. The kurgan is dated between 2495-2408 BC and contains three individuals and fairly rich artefacts in jewellery (metal and stone) (Astruc et al. 2021). Figure 7.58 illustrates a woman together with her jewellery.



Figure 7.58. Mentesh Tepe, kurgan 54, individual no 2 (in situ) together with her jewelry (Mission Mentesh Tepe; L, Pecqueur), (Astruc et al. 2021:415, fig 6)

Another finding suggests that after ceramics, spindle-whorls and animal remains are considered common grave goods in both single and collective KAC graves (fig 7.60). Despite the fact that Laneri et al. (2019:151) argue that the presence of animal deposits in burials is very uncommon for the Kura-Araxes Culture. However, Netherton's (2016:84) data-set of 24 cemeteries across the Caucasus, Iran and Anatolia demonstrates that Azerbaijan has the highest percentage of animal bones in graves (fig 7.59). Despite all the rare examples of grave goods, such as metal and animal remains from kurgans, the vast majority of KAC burials were modest, and it is believed that it followed the principles of egalitarian funerary ideology (Rova 2014, Palumbi 2016).

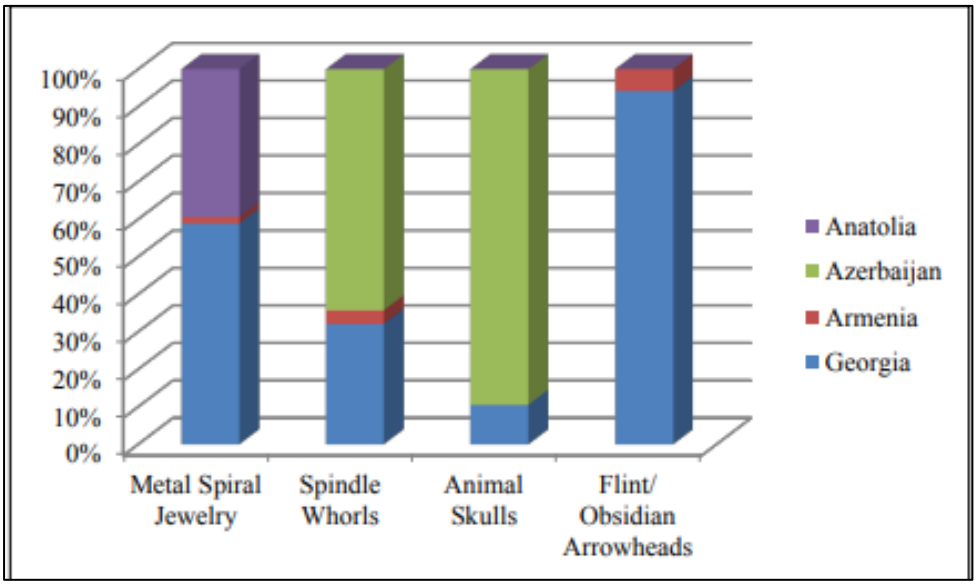


Figure 7.59. Percentage of different grave good types per country


Figure 7.60. Uzun Rama kurgan, spindle whorls (adapted from Poulmarc'h et al. 2014: 243)

7.8. Conclusion

One of the aims of this chapter was to develop an overall picture of the nature of the KAC funerary sites in Azerbaijan. In general, the analysed data effectively validate that KAC funerary customs in Azerbaijan display interesting characteristics of the funerary practices during the EBA. A highly variegated picture of burial constructions, ranging from simple earthen-pits to wooden chambers, and stone-cist, to big and deeper chamber constructions, with

different height, size and shape illustrate a diversity of practices in the region during the EBA in Azerbaijan. The region also stands out for strong heterogeneity, predominantly known for its collective kurgans, as well as the location of funerary sites in isolation from settlements, and the presence of a fire ritual in funerary chambers that are in line with previous literature. Alongside these, it shares some homogenous features with adjacent regions, such as the deceased was accompanied by a modest set of grave goods, mainly pottery vessels; the dead were positioned on their sides in a flexed posture, and the presence of a 'dromos' (entrance) from the eastern side of the kurgans. However, due to the small sample from each region it is difficult to demonstrate regional differences, which still supports the need for further research and collaboration.

All these homogeneous and heterogeneous features raise the question of whether the Kura-Araxes constituted a single socio-economic unit across its entire extent or whether the variations that existed in KAC communities testify to the existence of different cultural identities. It appears that there are different contrasts within the culture, on one level being a different system of values, collectivity and horizontal social relations with modesty and repetitiveness in grave goods, and on another level a huge group of kurgans with different construction techniques, alongside a place of organisation, demonstrate a large amount of work and communal resources were invested to build long-lasting and highly visible memorials. Perhaps, it might link the relationship of the living to the dead by the continuity in the use of space. In other words, the dead may have been forgotten in the course of the daily routines of the living, however, were remembered, as each new death added to the grave. Perhaps, communal work can also be interpreted as a form of separate social identities, and links with different cultural groups, on the other hand, could have acted as a status marker. We have to yet establish a deeper awareness of the social and territorial issues, group identities and their economic organization during the EBA to understand monumental architecture narratives and cultural complexity of KAC communities.

In sum, this chapter suggests that despite the scanty and flimsy evidence of the mortuary practices of the Kura-Araxes Culture, the analysis of the burial sites has been brought some light to the classification of funerary sites, its surrounding landscape, and burial architecture and to some extent, on the traditions and practices during the Early Bronze Age.

CHAPTER EIGHT: AZERBAIJAN IN THE CONTEXT OF A BROADER PICTURE OF THE KURA-ARAXES CULTURE

8.1. Introduction

The aim of this chapter is, firstly, to place the results and findings into a coherent chronological and geographical narrative; and, secondly, to highlight certain cultural patterns and trends that are revealed by the data analysis. A central theme of the chapter refers to the following broad research questions: where does Azerbaijan sit in the wider picture of the KAC, and what are the indications of homogeneous and heterogenous features in the cultural traditions over time? Do the findings correlate with the previous literature and how do they impact the thinking and research on KAC? The results of the analysis of the Azerbaijan KAC evidence will help us examine their implications for further critiquing previous and current interpretations, which were raised in Chapter 2, to develop a new understanding of the KAC in Azerbaijan, the Caucasus, and finally, in the wider extent of the 'KAC world'.

The principal conclusions drawn in the preceding chapters are summarised below, followed by an evaluation of the original research aims. An interpretation of the principal chronological developments within the study area are presented, followed by a discussion of the representation of Kura-Araxes communities living in Azerbaijan through different cultural elements that link to neighbouring regions, as well as features that indicate diversity within these communities.

8.2. Addressing the research aims

As we have brought out throughout the thesis, in order to examine different social aspects of KAC communities, we cannot solely rely on the ceramic assemblage, even though it is considered the most 'diagnostic' components of the KAC tradition (Herrscher et al. 2021). Thus, as a central line of the thesis, each chapter has questioned the overall understanding of the KAC in Azerbaijan across space and time, through fragmentary records of the settlement patterns, settlement structure, building tradition and funerary practices. Scholars overlooked these elements of the culture as a part of a big picture and as a result, no study which could lead

to the understanding of social organisation and the structure of the KAC society in Azerbaijan has been conducted so far. Despite limitations, this thesis aimed to examine different social aspects of these communities, including cultural identity, cultural assemblages and diversity. We believe that this is a new approach to understanding diverse aspects of the life of the KAC communities in Azerbaijan. It is important to note that this is a working hypothesis that needs further research. It is also necessary to evaluate the extent to which these components have been able to address different interpretative ideas from the available evidence outlined in Chapter 2.

The study reveals that the KAC in Azerbaijan shows similar cultural features to those that are attested in neighbouring regions. However, it also demonstrates various and interesting patterns throughout its development stages, which corroborate some of the findings of the previous work in this field. The 'cultural package' components that define the 'cultural identity' recurs in most sites by sharing a high-level of mutual affinity with one another, emphasising strong threads of unity with the adjacent regions. Although, a frequent change of physical distances, different geographical and ecological areas led to the emergence of different heterogeneous components in the region. The chapter will build on the interpretative approach based on the findings and results to understand this complex cultural and societal picture through a chronological narrative. The study will also highlight the inapplicability of some frameworks in the context of Azerbaijani evidence discussed in Chapter 2. It is important to mention that the data is quite patchy and was cautiously interpreted and for comparative reasons, therefore, we have simultaneously referred to the literature on neighbouring regions.

8.3. Understanding KAC settlement pattern and occupation across time and space in Azerbaijan

8.3.1. The distribution of KAC settlements across wide regions

The vast expansion of the KAC over a thousand years constantly made scholars think about land use, occupation of new lands, interaction and other concepts, such as sense of place, sense of belonging (Smith 2005, Sagona 2014a, Smith 2015). The EBA witnessed a new relationship between society and environment with an increase in the domestication of new lands in different environments at varying altitudes in the Caucasus (Bakhshaliyev 2006, Palumbi 2016). Compared to preceding periods, there was a noticeable increase in productivity, distinct topography, together with population growth and architectural planning that enabled the

exploration of local building materials existing in the whole Caucasus area (Kushnareva and Chubinishvili 1970, Kohl and Trifonov 2014). Furthermore, the palaeoclimatic data depicts the climatic condition between 4000-2000 BC as characterised by a continental climate, with long, often very harsh winters and very hot summers, which may have favoured a kind of climatic optimum (Palumbi 2008:5, Connor and Sagona 2007:35).

The aim of Chapter 4, 'Early Bronze Age settlement patterns in Azerbaijan' was to present an analysis of the EBA settlement patterns in the territory of Azerbaijan, which helped us to obtain a more comprehensive picture about settlement occupation and to identify settlement change at a broader scale over space and time. The chapter aimed to explore different aspects, such as occupation dynamics, settlement expansion, the landscape setting of settlement sites and settlement clusters throughout KAC phases. To achieve our aims, the study used three types of methods: digital mapping, elevation and spatio-temporal analysis.

The overall findings demonstrate a wide distribution of KAC sites over a vast area of Azerbaijan in different environmental zones throughout all stages of the KAC. Digital mapping of all known 89 KAC settlements out of 124 KAC sites (including 35 KAC funerary sites) for the first time in Azerbaijan, gave us an opportunity to see a spatial distribution of sites in a wider regional context and helped us to get a comprehensive and comparative view of the settlement pattern. The data suggest that the location of KAC settlements was quite widespread and dispersed over the wide territory. Some form of population movement characteristic of these societies is evident in relation to their expansion to further territories (Longford 2015). The data affirms the Kura-Araxes communities' more flexible lifestyle, [which is reflected in varying modes of occupation from permanent villages to seasonal camps], benefited from resources across a greater range of environmental zones, including those in lowland and highland altitudes (Chataigner 2016:3). (For different points on seasonality see Chapter 4, section 4.7.1, and 4.8.1.4). The analysis of elevation of these settlements help to demonstrate the image of the topography where habitations were created, ranging from under 10 m along the Caspian coastline (Chardagzaga site -7 bsl) to over 2900 m (Gilanchay River valley, Ordubad mountain, Gemigaya site, 2903 m asl).

Some interesting patterns also appear from the data; even though some areas were geographically diverse, a noticeable disparity in the distribution of KAC settlements suggest

that people avoided lands, such as the Kur-Araz lowland, Caspian coastal lines, the southern slope of Greater Caucasus, along the Lankaran Lowland. We are still not confident to claim whether this is due to the lack of survey and excavation as only a handful sites have been investigated, which might result giving a partial picture of the KAC settlement distribution. Alternatively, if it has something to do with the environment or the social and economic organisation of the region. However, it is clear that further data is needed before we can answer any questions regarding the reasons for the particular choice of terrain to occupy in Azerbaijan.

8.3.2. The change of KAC settlements across space and time

8.3.2.1. Lowland occupation across KAC stages

The next aim of the Chapter 4 was to evaluate the chronology, dynamics of occupation and settlement changes across the KAC stages. The analysis of the settlement patterns indicates KAC settlements are primarily found in three locations: lowland, uplands and highlands during the EBA. Kura-Araxes communities occupied lowland areas, especially during the formative stages of the culture. There was some pattern of adaptation to local ecological situations in which these communities practiced different ways of obtaining subsistence from a particular environment. In other words, as the culture progressed, expansion of the communities was seen in highland regions, forging highland-lowland connections between communities especially towards the later stages of the culture (Kohl 2007, Palumbi and Chataigner 2014, Sagona 2018).

Starting with the discussion of lowland occupation first; one of the striking results of this study is that a systematic and stable occupation of the relatively lower areas was on a more consistent basis throughout all the KAC stages. In particular, there are some areas where Kura-Araxes settlement densities have been highest and the selection of these lands might have been an intentional choice, indicating that climate and environment may have played a role in the clustering of these settlements (Ismayilov 1981, Palumbi 2008). We can see a group of settlements in close proximity, forming ‘settlement clusters or groups’, which form a dominant, dense of network along the catchment area. This occurs especially along the course of the Kura and Araxes Rivers, which had large dimension and continuous occupation over a huge period starting from the Late Neolithic periods (Chataigner 2016, Decaix et al. 2016). The concentration of settlements indicated along the rivers of Gargarchay and Tartarchay in Mil Steppe, as well as several key sites with long-term occupation such as Qarakopaktepe, Kultepe

and Guneshtepe, were established near the Guruchay and Kondalanchay Rivers in Karabakh plain, which is considered fertile for agricultural purposes (Ismailzade 2008). The other main locus of occupation is formed by the sites along the Araxes River basin, in Nakhchivan region. The adaptation of the Kura-Araxes people in these areas suggests that long-term settled life with agricultural production was consistent in these specific areas, demonstrating clear adaptations to local circumstances (Batiuk et al. 2022:65-69).

8.3.2.2. Sites with the long occupation and their connection to a 'place'

While discussing sites with a long duration of occupation, a major theme relating to 'sense of place' emerges as the centre of attention (Kiguradze and Sagona 2003, Batiuk 2013, Sagona 2014:43, 2018:280). One of the debatable issues is the duration of settlement occupation during the EBA. It seems that KAC people were keen to inhabit unexploited areas suitable for agricultural production (Longford 2015:168). The majority of Kura-Araxes Culture sites appeared on virgin soil or at sites which previously had been abandoned (Sagona 1984:97, Batiuk 2005:23, Longford 2015:12). Sagona (2014:43) points out that 'most communities did not establish their settlements on earlier sites but reinforced their sense of identity by choosing new locations on which to build their homes'. Conversely, one of the interesting findings is that KA communities living in Azerbaijan were reluctant to embrace the occupation of new land, and preferred to reoccupy sites that had been occupied previously during the EBA. It seems like Kura-Araxes communities living in Azerbaijan attached great significance to locality (Sagona 2018:280, Batiuk et al. 2022:27). In particular, the Nakhchivan region has been marked by long-occupied mounded settlements over a lengthy period of time (Bakhshaliyev 2006). Longford (2015:12) points out that after recent work at sites, such as Kultepe and Ovchular Tepesi we should look at the origin, nature and trajectories of change among the Late Chalcolithic and Kura-Araxes societies. Interestingly, this finding is contradictory to the data derived from Armenia and Georgia, where in stage KAC I people tended to build their settlements in uninhabited places, which are characterised as predominantly of a single-layered nature (Badalyan and Avetisyan 2007).

To continue, conversely, KAC communities living in Azerbaijan were seeking out occupied lands that previously had experienced a long period of occupation, which suggests the concept of 'persistent places' examined by Birkett-Rees (2018) that have a long-term and larger-scale narrative in the South Caucasus landscape. Birkett-Rees (2018:289) argues that the longevity

of the place can be related to the versatility of the landscape. Similarly, Shaw et al. (2016:1450) argue that 'persistence, therefore, is a quality shared by a continuum of land-use practices'. For example, sites in Azerbaijan, such as Kultepe I, Kultepe II, Qarakopaktepe, Babadervish as persistent places, exhibit different formation processes. These show the record of activities over different cultural and chronological periods. In addition, Shaw et al. (2016) and Birkett-Rees (2018) emphasise that persistent places are aligned with memory and have attracted human attention over many years inculcating a 'sense of place'. Furthermore, Shaw et al. (2016:1450) describes persistent places or places that people visit repeatedly as shaped by both the natural characteristics of the location and the activities that took place there. The social significance of these places is influenced by the interactions that have occurred there, which may be remembered directly or inferred from visible evidence, such as old fireplaces, reused lithics or discarded materials.

8.3.2.3. Highland occupation across KAC stages

In terms of transition from lowland to highland, there are different opinions regarding community changes during the last stage of the KAC. Further examination of settlement patterns reveals that these 'people of the hills' began to choose to occupy highland plateaus, settling in high mountain valleys and on broad volcanic uplands in the middle and towards to the last stages of the KAC (Burney and Lang 1971). Furthermore, populations expanded and intermingled with one another and during these processes, social structures obviously must have changed (Kohl 2007). As a result, there was a significant shift where there was a new wave of communities and an abandonment of settlements focused on seasonal occupation (Sagona 2014, Wilkinson 2014b, Smith 2015). This discontinuity in the settlement pattern was not abrupt but rather took place over some considerable period of time (Kohl 2006). The data reveals that there was a movement from flat plains into the higher terraces in Azerbaijan, especially along the southern slopes of the Greater Caucasus mountain ranges and farther north into the intermontane plateaus of the Lesser Caucasus mountains during the middle and last phases of the culture. Furthermore, there was an occupation attested at very high altitudes such as Boyuktepe II with 1704 m asl, Azyurdu 2239 m asl, and Gemigaya 2903 m asl. Settlements appearing in highland plateaus are characterised by having relatively thin cultural deposits (Musayev 2005, Kohl and Trifonov 2014).

The movement of these communities also prompts a discussion of regionalism or local differences indicating the innovations that prompted EBA communities to explore new territories, economic strategies, and acquisition techniques of a new range of raw materials in the course of the 4th and 3rd millennium BC (Marro and Stöllner 2021). Frangipane (2015:9182) sees the flexibility of boundaries in pre-state societies as one of the prime conditions for the constant and widespread movement of people and groups. Perhaps the concept of 'border' was also defined in Kura-Araxes communities as cultural contacts, population movements, interaction, hybridisation, and technological transfer. This fairly rapid intra and inter-cultural communication between KAC people encouraged distinct regional variants containing specific distinctive features related to local roots, distinguishing them from the more 'classical' KAC variant. For example, settlement occupation along the Caspian coastline, the foothills of the Greater Caucasus, Talysh mountains and the Lankaran lowlands during the late phases of the culture, can be characterised as a 'component' of the Kura-Araxes Culture but with a new 'variant' (Magomedov 2006).

The picture is further complicated by questioning whether communities occupying highland and lowland areas were a different group with different ethnicity alongside with socioeconomic systems? First, recent data confirms that Kura-Araxes communities were leading a settled type of lifestyle founded on an integrated agro-pastoral economy (Longford 2015, Sagona 2018, Decaix et al. 2019, as cited in Herrrscher 2021:153). Scholars widely believe that during the first stages of the culture, cattle were predominant, however, the percentage of sheep and goat increased towards the end of the culture (Bakshaliyev 1997, as cited in Rothman 2018:132). Kohl (2006:5-6) challenges the idea that sudden shifts that alter the way of life, such as a change to subsistence economy, agricultural or pastoral lifestyle in a short period of time [even within a single generation], do not necessarily indicate the replacement of one group of people by another, but rather the transformation of the lifestyle of the same group of people. We can see again that overarching kinds of change in settlement occupation urges us to take a different landscape approach that can help discover different patterns of practice and adaptation. Further details on the diversity features of the culture follow Chapter 2, section 2.3.2.

8.4. Understanding varieties within KAC settlement structure and social organisation in Azerbaijan

8.4.1. Unity and diversity in settlement layout and architectural plan in KAC settlements across space and time

The third aim of the thesis was to explore settlement variations along a wide landscape setting and to establish a broad overview of settlement structure in KAC societies across known KAC stages. This was examined in Chapter 5. The study has tried to encompass the full range of variation among KAC settlement structures to understand the extent of change spatially and chronologically. The main finding suggests that while diversity is apparent in different settlement layouts and that settlements would look different on the outside, uniformity prevailed in their internal arrangement (Palumbi 2008, Palumbi 2016, Sagona 2017). However, with the evidence of only a handful of sites with unequal distribution, providing a general picture of settlement structure was challenging. Despite this, the data suggest a fairly diverse pattern attested in the layout of the KAC settlements in Azerbaijan. Peculiarities in settlement plans and architectural specifications depict regional variations. Most settlement plans look like a series of small, separate houses, sometimes tightly packed and at times located separately from each other. For example, some sites such as Babadervish, Kultepe I, Serkertepe show a conservative building code, by following only one single pattern of architectural plan whereas some settlements show diversity through different patterns and traditions throughout different stages of the KAC, such as Kultepe II, Qarakopaktepe, Makhta, and Chaggalligtepe. However, it is hard to fully demonstrate the chronological changes of architectural tradition of the region due to the evidence of buildings being fragmentary, as well as their subsequent destruction at most KAC sites.

The data reveals that circular structures were prevalent across wide regions throughout all KAC stages in Azerbaijan. Chronologically, freestanding circular houses were very much prevalent in the formative stages of the culture. However, later in the development stages of the culture, differences appear in house plans and sizes, with social organisation getting more complex. For example, rectangular annexes attached to circular structures tended to be more prevalent in the KAC building tradition of these communities. Thus, a tendency toward rectilinear dwellings can be observed in the last stages of the culture in some KAC settlements. This conclusion is

aligned with scholars' opinion in relation to different settlements in neighbouring KAC regions (Sagona 2018).

The topography of the settlements also corresponds to the building techniques. The materials used to build the dwellings generally depended on geo- climatic conditions. Findings in relation to building materials seem to be consistent and confirm the predominant usage of earthen material such as mudbrick, which is documented in almost all KAC sites in Azerbaijan. Houses built using mudbrick are mainly present in lowlands, while buildings with wattle and daub structure were prevalent in foothills and mountains (Kohl 2007, Shanshashvili and Narimanishvili 2014). Furthermore, sites with a long occupation history tend to be made of mudbrick building techniques, while structures with wattle and daub are mainly found in the settlements which have a shorter duration of occupation (Bakhshaliyev 2006). There was a concurrent usage of mudbrick, wattle, daub and stone in most sites. In other words, at some settlements, the usage of building material was consistent, while in others, it was mixed throughout different cultural phases. The reason for this difference could be the availability and accessibility of the material, which again emphasises locality within KAC communities.

As a part of the larger cultural identity the data reveals some typical and conservative building traditions in some sites, although again it is difficult to identify the nature of evidence. The question still remains about what unique functions these structures had. For example, there have been attested sunken structures in a few sites which reflect different local, geological and other environmental conditions (Kushnareva 1997, Azimov 2006, Bakhshaliyev 2006, Kohl 2007). This again suggests the local variants of architecture that exist in different regions in Azerbaijan. Another debatable topic is the architecture that relates to the last phase of the culture which questions social complexity or centralised and collective functions in some KAC sites. In other words, there have been attested some 'complex' walls in a few sites which local scholars believe were built as defensive walls (Seyidov 2003, Ismailzade 2008, Muradova 2011). However, whether these walls were a part of the site construction, or purposefully built for protecting the dwellings, the structures involved the collection and transportation of a large quantity of stones. Irrespective, such massive walls are perhaps indicative of a certain level of communal effort and collective labour work in these small-scale communities (Summers 2004, Palumbi 2016:20). In sum, these remarkable structures clearly deserve further analysis and comparative study.

8.4.2. The social complexity of KAC settlements

Despite variation in settlement structure, the dispersed small-scale society is usually a description that fits to the narrative of it being also a more horizontal society, discussed in Chapter 2. The study has attempted to explore the size of settlements based on a limited data. The result on the size of the KAC settlements in Azerbaijan supports the idea that the dimensions of the KAC settlements are usually fairly small and there is hardly any evidence of ranked territorial organisation attested in any site. KAC dwellings are usually considered to reflect exclusive small, autonomous and self-sufficient settlements. The data reveals that settlement size ranges between 1.5 and 5 ha. Mostly, sites of one or two hectares in size were prevalent in the region, although larger settlements that can reach four and five hectares also exist (Kultepe II, Serkertepe and Qarakopaktepe) (Seyidov 1993, Kushnareva 1997, Sagona 2018). Some of these sites show a dense occupation with large size buildings and a densely packed mix of rectilinear and round buildings.

One example of the dearth of evidence is in identifying the internal organisation of Kura-Araxes sites, demonstrating 'core or large-scale settlements' and satellite or small size settlements' category. For example, in Armenia the comparison of phases of KAC I and KAC II, demonstrates a development in the regional organisation. The data reveals an interesting distribution of major sites, surrounded by a few small sites (Haroutunian 2016). This movement of population explains the importance of natural resources concentrated near sites, especially around the copper deposits in north-eastern Armenia (Chataigner 2016:3). However, this is difficult to assess it in the case of settlements in Azerbaijan. In that sense more data is required to reveal different geographical conditions, subsistence economies, and surrounding areas which can lead to the discovery of many unseen aspects of cultural, social and settlement dynamics of Kura-Araxes groups.

8.5. Understanding KAC domestic culture and household in Azerbaijan

8.5.1. Changes of the building tradition over time

One concept which has repeatedly been stressed at the heart of the Kura-Araxes social world is the importance of the household as a socio-economic unit (Palumbi 2003, Palumbi 2008, Sagona 2017, Rothman 2018). A sense of locality has a key role in the formation of a sense of

belonging, ‘which may be expressed through myth, ritual, the veneration of certain objects or particular ways of doing things’ (Mullin 2011:4). A sense of belonging enhances resilience, self-identity and self-esteem in those communities involved. Diversity in house plans, shape of buildings, construction techniques, and use of space help us to define the cultural distinctiveness of Kura-Araxes sites (Batiuk et al. 2022:21). The next aim of this study was to understand the notions of house, household and their internal arrangements to understand the use of domestic space among KAC communities, analysed in Chapter 6. The study enabled us to discuss the social and cultural implications of the built environment and the use of space in Kura-Araxes settlements at house level.

The most important finding was the variability in the size of building structures. An overall range of KAC buildings suggests that there are three size building categories: 0<=size<20 m2 (approximately up to 5 m), 20<=size<40 m^2 (approximately 5-7 m) and size>=40 m^2 (above 7 m) in diameter. The most common building sizes range between 5 and 7 m in diameter (20<=size<40 m^2). This very much fits into the medium size category with KAC buildings in Azerbaijan. Only a few settlements fall into the large category. For example, the two largest buildings amongst the entire KAC settlements in Azerbaijan have been attested, which is similar in size, Kultepe I site, building 2, (133 m^2, approx.13 m) and Kultepe II site, building 7 (154 m^2, approx.14 m) (Abibullayev 1982). Interestingly, in some sites over time, building sizes increase, for example as Kultepe II and Qarakopaktepe, which again might be linked to an increase of some level of complexity or centralisation in the settlements. The structures could perhaps be explained as community meeting houses, or even shrines (Batiuk et al. 2022). However, despite the variation in building size, it was not possible to distinguish the functions of buildings as per their size as there was no attested indication of status or functional differences amongst the houses. In other words, due to the lack of clarity about the functional aspects of buildings, we cannot see vast differences in the diameters of buildings with interior divisions. However, despite being different from each other in terms of shape, size and perhaps functionally, a ‘central hearth’ was an indication of unity and a focal point of the house in KAC buildings, which will be discussed in the following section.

Societies became more complex in the later stages of the KAC, with the additional arrangement of houses with dense structure (Sagona 2018:95). The high density of houses seems to represent a more complex form of architecture marked by partitions and annexes connected through doorways. Some buildings are divided into different activities which seem to have several

functions, but these functions still remain difficult to explain. In addition, buildings with no internal divisions, would have allowed and even encouraged, interaction between the inhabitants due to their visually open nature. Settlements like Kultepe I, Qarakopaktepe, Babadervish and Serkertepe appear to express a desire to physically separate people, with a more open, perhaps public area, where people who were possibly equal despite having different economic and social status could mix. For example, storage pits such as in Kultepe and Serkertepe, particularly pits with grain remains are attested outside some settlements, which again emphasises a level of communal work and effort. This suggests the possibility that these buildings might not have had visual and physical barriers or divisions but still might contain certain areas for particular activities. Whereas settlements, such as Ovchular Tepesi, Chaggalligtepe and Makhta had physical barriers in different forms, suggesting a desire to control access to the building and place restrictions on movement routes. The arrangement of interior divisions in different buildings can also be linked to environmental changes: this can be due to the control of air movement between spaces, direct sunlight or perhaps the temperature changes. However, there is little reference in the available data regarding building technology and environmental and climate condition, which leaves many questions unanswered.

8.5.2. Social Practices within KAC houses

Palumbi (2016:21) claims that the spatial organisation of the architecture is fairly consistent in KAC buildings. The social organisation of space and the arrangement of built-in features during the subsequent phases of the KAC in relation to the 'fixed' elements of the dwellings, such as fire installations, benches, or storage pits, are quite modest and to some extent standardised. Certainly, these elements play a very significant part in understanding cultural unity within KAC communities. This uniform internal arrangement of features relating to a series of domestic activities '…conveyed a clear code of practice, perhaps reflecting a shared ideology…' in Azerbaijan (Sagona 2014a:43). Highly visible elements that seem to have been a mainstay of the Kura-Araxes existence and often described as central to its identity are their 'choice' of residence, household affairs and the formal organisation of the house and the centrality of the built hearth (Greenberg 2021). Greenberg (2021:12) claims that core elements of the Kura-Araxes identity that were hard and non-negotiable where 'they retain[ed] maximal control [were]- household installations, ceramic production, small symbolic objects, and the rules of food distribution and consumption'. Everyday practices which took place within

households were important factors in constructing and defining individual and group identities at the site. However, since these activities are interrelated, it is difficult to separate and examine discretely the segmentation in organisation of space in less complex societies. For example, while food processing and food storage might be interrelated with rituals, the cooking and consumption of food stuff may have also played a significant role in people's gatherings. In that sense, fire installations and fire related utensils help us understand the lifestyle of these people.

'The house and hearth' concept seems to have been at the heart of these communities, which Rothman (2018) defined as a pathway to the ideological view of the Kura-Araxes Culture society. Hearths cover a central position, at times also physically, in the life of the household. The hearth embraces a series of events, from daily routinised activities to the ritualised ceremonies (Simonyan and Rothman 2015). The result of findings from fire installations, [mainly different types of fixed hearths] were attested at the centre of houses in KAC settlements in Azerbaijan (Abibullayev 1982, Seyidov 1993). Portable andirons are also highly stylistic in terms of their usage and their various shapes. Associated with the hearth, other common symbols express symbolic manifestations, such as zoomorphic and anthropomorphic figurines, bone tools, fine obsidian arrowheads etc. In fact, apart from encompassing household tasks, fireplaces are perhaps characterised by symbolism and act as the focal point of ritual activity.

One of the findings that makes this study interesting is that there seems some degree of standardisation in repetitive practices in the successive stages of a building structure. Usually, a standard technique be applied again and again with the same result in order to make the process efficient time-wise. Thus, the basic plan is repeated over a number of generations. For example, some settlements had an intensive and dense occupation with evidence of re-usage of some buildings and a series of replacements over time, such as attested in Chaggalligtepe, Makhta, Serkertepe, and Babadervish. Another way of looking at repetitive practices is the degree of continuity in rebuilding a house with the same location of hearths, storage pits and with successive floors. Building materials and construction techniques also can help identify the reuse of buildings, where some buildings had multi-functional phases. For example, the thickness of the deposits and the succession of buildings, as well as hearth built over hearth in different layers, and in some buildings, storage pits under hearths, might be an indication of an

intense and long-term settlement. Perhaps the hearth being the focal point of a house and the repeated careful deposition around the hearth is suggestive of ritual behaviour (Sagona 1998:22). However, reuse of previous architectural structures might also be simply linked to the 'path of least resistance', in relation to the ease of construction (Morris and Cohen 2018:108). The floors were plastered, and some were probably painted with red ochre. The thickness of the walls ranged between 0.20 and 1 m. The walls were coated on both sides with a thick layer of clay, and sometimes the coating was reapplied. Azimov (2006:28) argues that the coatings not only afforded stability but also provided waterproof qualities. The floors were also coated with clay several times with the thickness of floor sometimes reaching 40-50 cm. The repetitive combination of cultural assemblages is also an interesting approach to understanding the concept of a sense of belonging. Repetition happens through a collective memory with a series of stories (Binford 1982:21). Perhaps, these communities were small and normally connected on many occasions so there was a repetition of actions.

This again brings us to whether the repetition of tasks, internal arrangements and repetitive patterns in some activities correlate with the sedentary life of KAC communities. As we have discussed earlier, the memory of place certainly dominated their choices of where to live in different regions. Binford (1982:26) points out that sedentary lifestyles are often characterised by a number of behaviours such as regular waste disposal and site maintenance, the improvement of facilities and the intensification of subsistence practices like obtaining more food from a smaller area or using logistical tactics to access widely dispersed resources, which again correlate with the sense of belonging and locality. However, the portable nature of the observed Kura-Araxes material culture, for example, the transportable andirons, ceramics with lids and large handles and the assumed temporary nature of wattle and daub buildings, portrays KAC as highly mobile with a significant transhumant pastoralist component (Kushnareva 1997, Palumbi 2003, Kohl 2007). However, 'the effort that Kura-Araxes populations made in plastering and re-plastering floors, maintaining roofs, et cetera do not seem like the activities of people who would move on seasonally' (Batiuk et al. 2022:102). Recent archaeozoological research is beginning to merge this model, suggesting that the Kura-Araxes economy perhaps was a more diversified and settled agricultural economy (Longford 2015:13). In sum, we have attempted to challenge whether this hypothesis of communal work, work investment and repetition may shed light on long-term processes to understand the cultural identity and belonging within KAC communities, which, however, needs further research.

8.6. Understanding local varieties within mortuary practices in Azerbaijan

Scholars (Smith 2015, as cited in Palumbi 2016:16) argue that two main contexts where the social and cultural order of the Kura-Araxes communities are expressed is the house and the tomb. The following section will further explore the KAC tradition through mortuary culture by focusing on results from Chapter 7. Throughout the entire duration of its tradition, the funerary contexts of the KAC stand out for its diachronic regionalisation, which provided insightful data on both cultural variability and on the organisational principles of the KA society in the Caucasus (Herrscher et al. 2021). This highly diversified funerary tradition expressed itself in grave plans and construction techniques, and in the presence of both single and multiple inhumations, and in the treatment of the bodies observed in the homeland (Baituk et al. 2022).

The aim of this study was to develop the understanding of the nature of the mortuary practices at KAC funerary sites during the EBA in Azerbaijan. Despite the scanty and flimsy evidence of the funerary practices of the Kura-Araxes Culture, the analysis of the burial sites has brought some light to the classification of funerary sites, and their traditions and practices through funerary ideology, as well as, links between settlements and its surrounding landscape. The first aim was to explore the general distribution of KAC funerary sites in the region. The archaeological picture available at the moment from Azerbaijan in this period, shows a heavy imbalance between the large number of settlements, and rather small number of cemeteries and burials, which have been excavated or discovered so far. There have been 35 KAC funerary sites attested, whereas if counted individually, there are 73 graves over the whole of Azerbaijan dated to the EBA. Sites are located at different range of altitudes, between -14 m asl (Khudabakish yurdu) to 1674 m asl (Khachinchay) of altitude during all periods of KAC. Predominantly, funerary sites were concentrated in the western part of the country. The reason for this disproportion is due to the lack of examination, surveys and excavations of funerary sites elsewhere.

The evidence also indicates that there existed a highly varied picture of burial traditions in Azerbaijan, ranging from simple earthen-pits to types of wooden chambers, to big and deeper chamber constructions, with highly different dromos, as well as the location of funerary sites in isolation from settlements. Furthermore, fire rituals in funerary chambers, monumentality

and architectural complexity of tombs were also present. Palumbi (2016:22) argues that the structures built for funerary purposes could have played an active role in shaping a new social and political environment in the Southern Caucasus. During this period, the various types of funerary architecture, which emphasized the visibility and longevity of the structures, may have been used to communicate messages promoting the development of land ownership and a shared identity. These all possibly enlighten another important concept of structuring the social organisation of these communities, which can be interpreted as a form of separate social identities, or link with different cultural groups.

The data essentially also confirmed the view that funerary traditions in Azerbaijan had some homogenous features with neighbouring regions in several ways. One of the strong similarities that were attested in most KAC graves in the Caucasus is the 'repetitiveness' (standardisation) embodied in the tradition of this society, which is also expressed in the inventories of the funerary goods (Palumbi 2008, Smith 2015, Palumbi 2016). Palumbi (2016:22) argues that 'the strong sense of repetition and standardisation in quantity and variety of the grave goods and the generalised lack of wealthy and prestige items all seem to emphasise a strongly egalitarian funerary ideology that is fully concordant with the emphasis on collectivity and horizontal social relations…'. In other words, the repetition and standardisation of the quantity and variety of grave goods, as well as the absence of wealthy and prestige items, suggest that there was a strong egalitarian funerary ideology in place that aligns with the emphasis on collectivity and horizontal social relationships. However, even though standardisation is clear in grave goods, we can see some complexity which produces some variabilities among KAC grave architecture. There might be an indication of the changing social landscape in the appearance of kurgans (Palumbi 2008).

Societies and cultures often link themselves to a specific area by incorporating the physical landscape into their cultural and spiritual beliefs and traditions. Landmarks are considered indications of the continuity of a certain community within a landscape (Potrebica 2004:125). The data shows changes during the EBA in relation to the settlement and its surrounding land. The findings support the idea that most cemeteries, especially collective kurgans, do not seem to be linked to any nearby settlements in Azerbaijan, which is a distinctive cultural signature to the region (Lyonnet 2014, Poulmarc'h 2014). A direct connection between burials and settlements is still moot and open to debate, and might be the result of poor archaeological

visibility, limited surveys or site destruction. The kurgan tradition is not a new practice in Azerbaijan, and the appearance of kurgans in the region can to be dated to the beginning of the 4th millennium BC (Lyonnet et al. 2008). However, the question is are these significant kurgans atypical to the Kura-Araxes mortuary customs, creating a contrast between kurgan and non-kurgan traditions?

The location of these landmarks, such as artificial mounds or extramural burials, may be chosen because of their physical visibility and the meaning they hold in local memory and the landscape (Palumbi 2008:149). Sagona (2004:494) argues that '[the process of monumentalisation of the landscape] was an essential element of the cultural rhetoric in the highlands whereby the communities made an indelible mark on the landscape'. These landmarks can also serve as markers of territory as 'demarcation points' and can play a role in shaping the social and political landscape of an area (Palumbi 2008:151). Palumbi (2016) further claims that extramural burials seem likely to have strengthened the legitimization and ownership of the land and conveyed territorial messages and the shaping of a new social and political landscape in the Southern Caucasus. In that light, it has been a much-debated issue whether changes in the location of funerary sites correspond to the nature of mobility within the Kura-Araxes communities (Palumbi 2007, Lyonnet 2014, Smith 2015, Batiuk et al. 2022). It is argued that kurgans located in isolation were perhaps linked to nomadic pastoralist groups, which were predominant in Azerbaijan (Lyonnet 2014, Poulmarc'h 2014). Palumbi (2007) demonstrates that this also seems to be aimed at the enlarged territorial occupation and exploitation of the full potential of resources available in nearby regions. In that sense, the burial site could then be the way to mark the territory of the group, within the spaces traversed by each of the transhumant groups composing the Kura-Araxes populations (Palumbi 2008:349). Surprisingly, a paradoxical image emerges, on the one hand, KAC communities exhibit a tendency to inhabit the same location for extended periods, embracing a sedentary way of life characterized by self-sufficiency in agriculture and pastoralism. On the other hand, another possible view emerges; communities that adopted a mobile lifestyle practised fixed kurgans as a distinctive trait of their funerary culture.

One of the major indications of these societies that has recently been getting a lot of attention from scholars, is that seems KAC people invested a large amount of work and communal resources in building long-lasting and highly visible memorials. This provokes a discussion

about energy expenditure, communal work, and combined effort (Laneri et al. 2019, Reinhold 2019, Laneri et al. 2020). It is important to recognise that combined effort and communal work are not a new thing to KAC communities, activities like specialisation in pottery production and keeping their identity through *'chaîne opératoire'* was a form of technological process, knowledge transfer and work-flow (Iserlis 2018). Energy expended in the construction of monumental public architecture is reflected in different ways; variation in size, elaborateness of the interment facility, method of handling the dead, and the nature of grave associations might manifest social decisions based on the efficient use of resources. The decisions taken about architectural construction depend on cultural and historical concerns, and suggest rank grading, which create dilemmas for KAC scholars (Palumbi 2008, Reinhold 2019). The construction of barrow burials required a substantial amount of time and investment of labour. Sagona (2004:482) claims that 'we are dealing with societies where labour was a valued commodity, and where a large and elaborate barrow must have symbolised not only the status of their occupants but also a workforce that could be mobilised when the need arose'. Some basic calculations have been done by scholars to define the effort expended in the work. For example, according to Palumbi (2008:151) to construct a large kurgan, for example, four meters high, and 44 in diameter, the amount of work needed to build the kurgan could require 200 individuals for 10 days of work or 70 for 140 days. Similar examples can be seen in relation to the Uchtepe kurgans (approx 130 m in diameter and 15 m high) which is one of the biggest kurgan complexes yet found in the Caucasus. Kushnareva (1997:230) argues that the size of monuments such as the Uchtepe kurgans implies that they were built in phases, and this idea is supported by the stratigraphic evidence found in the fill material. However, studies on creating a tentative sequence of the building phases of kurgans will enlighten the kurgan mortuary customs in many ways.

8.7. Azerbaijan's place in the understanding of the KAC in the wider context

This study does suggest a number of patterns that are suggestive of the nature of KAC societies and their transitions to new forms of living in Azerbaijan. Despite the homogeneous landscape across regions of the KAC, conversely, the rhythm of development varies across regions. It was marked to some degree by conservative lifestyles and societal structures. Firstly, it was indicated that settlements used a wide variety of localities from lowland to hill sides up to high

terraces. Settlement layouts were small, mostly circular and arranged without a pattern. Mud-brick dwellings were small and standardised, and their distribution on the site often looks almost random. However, sometimes differences among activities of households, such as a small degree of specialised production, increased use of partitions and annexes, size of houses, shows some level of organic organisation emerging in buildings. Furthermore, usage of different building materials and the construction of some degree of big walls indicate different cultural or organisational patterns. Moreover, changes in the social landscape might be also an indication of the appearance of kurgan collective structure. All these features appear to paint a picture of a society with some formal coordination.

In that light, the result of recent investigations shows that regionalism emerges more and more as the main player in the life of KAC communities in the South Caucasus region (Passerini et al. 2018b). We agree that regionalism accelerated the varieties of the KAC by generating new practices and giving rise to multiple networks, contrary to the slow and sometimes imperceptible changes of the KA cultural package (Wilkinson 2014a). In other words, regional diversities spread the richness of the KAC to different geographies and constructed the regional identity through materials and their stylistic features. While also, diversity represents shared opinions about the practices through which communal identity may be created, evoked, reproduced and remodelled.

To summarise, the study of the Kura-Araxes Culture in Azerbaijan remains incomplete in showcasing its full range of diversity. This emphasizes once more that each case and element present a distinct narrative. Unfortunately, due to lack of systematic excavations and as well as due to the over reliance on the analysis of several major sites, the study of KAC still remains clustered within specific geographic outlines. Consequently, culturally homogenous features were extensively utilised in various dispersed locations, disregarding the regional differences across bigger areas. Even though some trends and recurring patterns visible in Azerbaijan, are similar to other neighbouring regions, there are some highlights from the culture which help to define the cultural distinctiveness of Kura-Araxes sites in Azerbaijan. As discussed throughout the chapter, in that sense, to put all these similarities under phrases like ‘cultural package’ or ‘homeland’ concepts is challenging because it seems too generic and somewhat imprecise and this was discussed thoroughly in Chapter 2. It is necessary to create a more convincing narrative of the KAC in Azerbaijan, taking account of diversity away from the risk of generalisation.

8.8. Conclusion

The frequent use of phrases such as ‘appear to be’ and ‘perhaps’ throughout the chapter suggest that there is a lack of concrete evidence or information available to fully confirm certain claims or conclusions in relation to the KAC in Azerbaijan. The results of this study provide valuable insights into the lives of Kura-Araxes communities living in Azerbaijan by offering a different perspective on their culture and way of life. For the first time, there was an attempt to broadly explore the life of Kura-Araxes communities, however, certainly, there is abundant room for further progress in determining whether concepts of homogeneity and homogeneity fully reflect the cultural entity of Azerbaijan with its cultural traditions during this timeframe. It becomes more apparent that we need to set a spatial and temporal framework to investigate each element of the culture based on each cultural area within its own geographical frontiers.

CHAPTER NINE: CONCLUSION

9.1. Summary

Kura-Araxes Culture is one of the most distinctive and long-lived archaeological complexes of the ancient Near East, which existed roughly between 3500-2500 BC. Despite increasing investigations and studies of the KAC communities during EBA, our knowledge of Azerbaijan is still enigmatic. The primary objective of this study is to create a new foundation for KAC studies in Azerbaijan by focusing on comprehensive research on the region and enhancing the overall understanding of the life of KAC communities. This has been achieved by examining a mass of archaeological material in the light of new discoveries, largely recovered by archaeologists working within the former Soviet Union. The key strengths of this study are the length and depth of the research, facilitated by a comprehensive dataset accessed through in-depth fieldwork. As the result, this study contributes to a broader picture of the culture and presents a more representative narrative of KAC communities in Azerbaijan. Notably, the study follows a regional approach by looking widely at local KAC regions in Azerbaijan.

One of the major contributions of this study for future research is the Gazetteer, providing a detailed account of every single known KAC site in the contemporary borders of Azerbaijan, which were previously inaccessible (Sagona 1984, Kushnareva 1997, Narimanov 2004). It enabled us to utilise the available data more fully, helping to understand a broader chronological and geographical development of the KAC in the region. For the first time, through analysis of the publications and primary sources, this study makes a major contribution by identifying 124 KAC sites (89 settlements and 35 funerary sites) dated back to the EBA in Azerbaijan. Furthermore, by conducting research in English, the thesis provides an international resource for the comprehensive study of the KAC in the region.

The second contribution of this work is developing a wider interpretation of KAC on a larger scale with some sharp observations and general characterisation through examining the Azerbaijani version of the Kura-Araxes tradition across space and time. Most importantly, this holistic approach has helped us position Azerbaijan in a broader context of the ‘KAC world’ to understand the life of Kura-Araxes communities in the region. Particularly, it was achieved by bringing together different intellectual traditions to discuss issues that help examine a distinct

character of KAC in the region. For this purpose, multiple lines of evidence were explored through the data analysis chapters: settlement patterns, settlement structure, building tradition and funerary practices. This work argues that in order to understand the cultural traits of KAC people, we cannot solely rely on ceramics, even though it is believed to be the major hallmark of the culture (Palumbi 2008, Isikli 2015a, Sagona 2017). Rather enough effort should be spent on analysing other equally important elements of the KAC (Batiuk et al. 2022). Since no study has so far been conducted which could lead to the understanding of the social organisation and nature of the KAC people living in Azerbaijan, this data approach was used to postulate ideas on cultural identity, social space, diversity, ethnic identities in terms of practices and social organisation of these societies. In doing so, the study has enhanced our understanding of drawing a comparative analysis with neighbouring regions.

The thesis for the first time builds a single chronology for the entire KAC sites in Azerbaijan, which helped examine the data based on a unified chronology. The study aims to re-evaluate previously published data and reassess the relative and absolute chronology using the most recent radiocarbon dating results obtained through C14. It is important to note that a total of 43 absolute dates from 13 sites dated to the EBA were identified, which is much less compared to neighbouring regions. As discussed in Chapter 3, the chronological framework used in this thesis focuses primarily on the period between 3500-2450 BC, while also evidence from before and after this range is referred to where relevant to the arguments and data discussed. For the study, the relative tripartite system was adopted, which is: KAC I (ca 3500-3000), KAC II (ca 3000-2800/2700), KAC III (ca 2700-2450) (see for more details the section 'Internal periodisation of the KAC in Azerbaijan' in Chapter 3, section 3.6.4).

Most importantly, this study has tested the usage of the general and narrative method of a tripartite division, KAC I (cultural package-unity), KAC II (regionalism-local differences) and KAC III (expansion and demise of the culture), which archaeologists have widely employed for decades. This thesis challenges the notion of whether KAC was externally homogenous representing a single unit or whether it was quite internally heterogeneous, yet tenaciously maintained its identity (Sagona 2014, Wilkinson 2014a, Rothman 2016). The dynamic geographic expansion of the KAC led to a variety of influences that contributed to a diversity of sources and styles, as well as changes in worldviews (Wilkinson 2014, Isikli 2015a, Palumbi and Chataigner 2014). What becomes clear from the data is that local scholars (Ashurov 2002,

Bakhshaliyev 2006, Quliyeva 2014) have recognised the process of homogenisation as a unified cultural tradition over vast areas throughout all KAC phases. However, the data found that variation at a regional level offers a different picture of the KAC in Azerbaijan. Therefore, this narrative method now seems like a descriptive exercise which needs to be interpreted cautiously, as well as comparatively with neighbouring regions.

The research founds that KAC communities living in Azerbaijan had a sense of unity, as demonstrated by some shared collection of artefacts and features, which may suggestively be defined under the umbrella of the ’cultural package’ as distinct to the rest of the KAC regions in the Caucasus. These analogies highlight what appears to be a homogenous flow of information and practical know-how that circulated among the KAC communities. Interestingly, it is also found that the region has contributed to a greater sense of variation presented by various local patterns. The results of this study reinforce the regionality model within the KAC network, not from the KAC II, but rather from the beginning of the culture. The variations appeared on the collection of artefacts and features that displayed broad similarities across vast regions. Notably, different patterns from the settlement structure, architecture and burial practices show a different scenario of life within these communities. However, there are still difficulties in tracking such long sequences and the development of local differences, due to the inadequacy of observations and surveys undertaken so far.

This thesis introduces a general distribution of KAC settlements over the wide region in Azerbaijan and thus expands the knowledge of KAC regional settlement patterns, usage and change over time. This is explored in Chapter 4, ‘Early Bronze Age settlement patterns in Azerbaijan’. Furthermore, having mapped all KAC sites alongside their GPS coordinates helped us trace the development of settlement occupation over time and space. This work suggests that various settlements are distributed at altitudes from under 10 m to over 2900 m in vast areas of Azerbaijan, occupying different environmental zones throughout KAC stages. However, it seems there is no single uniform set of environmental conditions; rather, the adaptation is represented by a range of diverse ecological zones from the lowlands of the Kura and Araxes River plains up into highland regions across the Greater Caucasus mountains. The data suggest that the location of KAC settlements in Azerbaijan was fairly widespread and dispersed over the wide territory. The methodological contribution of the study challenges us against the unitary level of research that limited our view based on studies focusing on some

specific regions. Yet, at a regional level, we can see diversity through different types of settlements ranging from permanent villages, short-period settlements, to seasonal settlements and from cave shelters along coastal lines to funerary sites, that have been taken for granted.

The study also makes a chronological contribution to understanding settlement distribution across regions throughout KAC stages. This study demonstrates that settlement occupations were fairly stable across lowland areas throughout all KAC stages. Furthermore, one of the contributions perhaps confirming the previous research is that during the early phase of the culture, KAC people primarily lived in lowland regions. However, as the culture progressed, there was a trend towards establishing lifestyles in highland areas (Palumbi 2008, Connor and Kvavadze 2014). It also indicates that the patterns of adaptation to local ecological situations may also be associated with obtaining subsistence from a particular environment (Hovsepyan 2015, Decaix et al. 2019).

The study of landscape, settlement pattern and settlement structure further revealed some interesting notions of a sense of belonging, a feeling of the space, a tendency of movement and changes of places, mainly along long-term activities across multi-period sites. The data suggest that KAC in Azerbaijan was more durable with long occupation and communities which preferred to reoccupy previous sites which had a long-life occupation with a sense of permanence and favourable lands. However, interestingly, it is contrary to the previous literature which claimed that KAC people were keen to exploit areas that were not previously occupied and that the majority of KAC sites appear on virgin soil or at previously abandoned sites (Longford 2015:12, Sagona 2018:280). Therefore, these notions invite an investigation of the social memory, tracing change and continuity in social practice in KAC and pre-KAC cultural tradition. Examining all these concepts will enable further exploration of the core ideas of the Kura-Araxes identity.

With regards to the KAC settlement structure, the findings suggest settlement variations across a wider landscape setting. This work further develops a broad overview of settlement structure in KAC communities over the KAC stages, extending our knowledge of diversity in settlement layouts, topography, and architectural plans as discussed in Chapter 5. The scope of the analysis was also to encompass architectural structures in a broad sense. This study demonstrates that circular structures were prevalent across wide regions throughout KAC stages. A diverse

picture also appears in relation to the chronological usage of various architectural types in Azerbaijan. Whilst it cannot be certain, the data suggest that circular freestanding houses were common in the early stages of the KAC. As the culture grew, the social organisation became more complex, and ancillary rooms became associated with the central living area, as well as these rectangular annexes were often added to circular structures in KAC building traditions. Conversely, in the later stages of the culture, some KAC settlements tended to adapt to rectilinear dwellings, and a similar pattern can be observed in other neighbouring regions (Summers 2013, Sagona 2018).

The study provides some insight into the societal complexity of these communities by exploring the size of KAC sites, and their layout during the EBA. The data suggest that most sites were fairly small ranging between 1.5-5 ha, while an average settlement occupied 2-3 hectares, affirming a fairly similar result from the Caucasus (Kohl 2007, Batiuk 2013, Sagona 2018). This again confirms the evidence of relatively small, conservative and horizontal societies living in Azerbaijan and, broadly, in the Caucasus region (Kushnareva 1997, Kohl 2009, Rothman 2020). Interestingly enough, there are also a few settlements, which occupy an area of 4 or 5 ha (Serkertepe, Kultepe II, Qarakopaktepe), which had an extensive size of buildings with dense architecture, alongside activity areas and sometimes defence walls. This again emphasises strong threads of unity alongside the distinctive features that characterise each region.

Chapter 6, ‘Nature of Kura-Araxes Culture buildings in Azerbaijan’ examines houses and households, focusing on understanding the internal arrangement of architectural spaces within KAC buildings. One of the theoretical contributions of this study is that house and household show a strong sense of unity focused on fire installations, ritual spaces and social organisation of the house, which again confirm that in KAC communities, the domestic domain was considered as a vital element (Kushnareva 1997, Rothman 2016). It is also possible to argue that standardisation in building tradition was in the form of techniques that applied repeatedly over several generations. This may help us conceive a degree of unity and belonging embedded at the core of KAC community life. However, we know little about their collective memory with a series of stories that affect the strong sense of repetition and standardisation in cultural assemblage, as well as in the social organisation of space and the arrangement of built-in features.

The final analysis Chapter 7, 'The funerary practices of the KAC sites in Azerbaijan' provides for the first time an overview of the complexity and diversity of KAC funerary sites in Azerbaijan. It also seeks to compare and contrast the regional variations and similarities in mortuary practices in the region. The data shows an imbalance in the number of settlements versus funerary sites and burials found in Azerbaijan from this period. However, having mapped all known 35 KAC funerary sites with their GPS coordinates helped us trace the distribution spatially, which depicts that most of these sites were clustered mainly in the Lesser Caucasus region.

One of the methodological contributions of the study is classifying KAC burial sites over the vast area for the first time, in order to examine the consistency and diversity of EBA funerary structures over time. It revealed that the region exhibits a strong diversity in burial customs, including the location of funerary sites in isolation from settlements, a fire ritual in funerary chambers, and finally, diversity in the architectural complexity of the tombs. Our results have indeed confirmed the previous literature that the kurgan monumental type was the most common type both for single, and mainly collective inhumations in Azerbaijan compared to neighbouring regions (Poulmarc'h and Mort 2016, Laneri et al. 2020).

Interestingly, KAC society as a whole appears to be sharply divided into two levels in Azerbaijan. On the one hand, conspicuously, KAC people are generally accepted as horizontal societies living in small villages with invisible graves. On the other hand, the lavish construction of kurgans, especially those collective kurgans that do not link to any living premises, create ambiguous questions. One of our main concerns is whether kurgan culture, especially the presence of fire ritual in burial chambers, is within the norm of 'classical' Kura-Araxes features, questioning whether these are the same or different communities. This ambiguity further challenges scholars (Lyonnet 2014, Poulmarc'h 2014, Laneri et al. 2019) questioning whether these kurgan communities were nomadic pastoral groups which used these burials seasonally for a short period. While the kurgan tradition is strongly embedded in the communities inhabited in the Caucasus, particularly in Azerbaijan, understanding their social and cultural markers in the landscape still needs further analysis.

9.2. Limitations and Future research

As stated throughout the thesis, there are many limitations for the scholarly community studying the KAC in Azerbaijan. Alongside these limitations discussed in the Introduction Chapter, here, driven by the results of data analysis, some implications and recommendations are outlined for further studies. First of all, one of the main challenging tasks that still makes scholars not come to a firm conclusion is the problem of chronology. That certainly links to a lack of regional excavations, surveys, well-stratified settlements, precise stratigraphy, full publication of site materials, and C14 dates. One of the reasons for the inadequate regional studies, as discussed in Chapter 2, is the problem of using the Soviet school methodology of 'great site' approach using relative sequences of only a handful of well-excavated sites applied widely to other distributed sites, which was obscure and vague. This means that many years of research were problematic when reconstructing and correlating the cultural processes that were occurring in these areas in a unitary manner. This has led local scholars to retrain to challenge the problem of understanding the development stages of the culture (Palumbi 2008:319). As a result, this approach undermined cultural and regional differences, as well as local variants expressed by different regional views.

Moreover, further focus is needed to explore the formative (origin) and last stages of KAC. The research would be specifically strengthened by resolving complex ideas, such as 'homeland', 'cultural identity' and 'cultural package'. Particularly, the 'homeland' concept limits the cultural border of KAC by restricting cultural elements that characterise these homeland regions, and thus, we cannot measure important variations within it. In other words, seeming homogeneity can hide differences and emerging innovations within either local populations or other Kura-Araxes communities. This research demonstrates only a small part of the picture based on digital mapping, elevation and spatial-temporal analysis. Each of these methods encountered in this research needs to be considered in detail for future research. For example, deep mapping and digital storytelling can help researchers visualise and interpret past settlement and land use patterns. Another method, elevation, appears to be a crucial factor closely associated with climate, soil, human activity and vegetation. However, for the time being, we cannot precisely estimate at what level elevations influenced the choice of habitation sites of the Kura-Araxes communities and whether it was a decisive factor in the life of KAC people.

While considerably more work needs to be done on paleoenvironmental studies and landscape survey to understand the landscape of adaptation over space and time within KAC communities, socio-economic systems, food and foodways can help us build an understanding of different cultural identities within these communities. There is also a potential to do more material analysis to investigate the source of production and routes of artefact distribution. The suggestions above could significantly enhance our knowledge of social practices. This would enrich the approach to understanding local practices through social differentiation and complexity. Due to all the aforementioned reasons, therefore, our interpretations are partial and approximate, always subject to necessary revision based principally on the accumulation of new data. For example, we need high-quality data to understand the social organisation of life, as well as cultural practices and beliefs in the region.

This thesis brings some general principles and common archaeological cases together to begin further and deep research on the social organisation of KAC communities in Azerbaijan. This research shows that the current understanding of KAC people's lifestyle is incomplete, representing the tip of a massive iceberg of missing data. For example, due to the dearth of evidence on vegetation, geology, topography and archaeobotanical data, to understand settlement patterns and settlement organisation over time and space, the current study has only relied on GPS location and elevation of KAC sites. Although we have also tried to demonstrate the architectural shapes, sizes and layouts of settlements, broadly, we know little about the detail-oriented comparative studies of the function of these structures, communality and a shared ideology. Yet, status differences and mapping of activity areas require further research.

Some additional explorations will allow us to understand better the nature of KAC life in Azerbaijan, especially the mortuary practices of these communities. We still lack data on the imbalance between funerary sites and settlements, which can be determined through further surveying and excavating. We also firmly believe that to understand the mortuary practices in Azerbaijan, we need further exploration from an anthropological point of view, exploring rituals, symbols, and a shared ideology plus a clear code of practice. Along these lines, we know little about the amount of time invested in labour, social and cultural markers in the landscape, legitimising rights over the land, the exploitation of the surrounding areas and the process of monumentalisation of the landscape. These notions might be further uncovered through tracing

the construction of the sequence of events that occurred stratigraphically and chronologically at kurgans.

Nonetheless, it is envisaged that this thesis will hold significance for others, who undertake the research, not only in the case of Azerbaijan, but also beyond the scope of the case involved. The Gazetteer provides great insight to better understand the overall picture of KAC in Azerbaijan during EBA. For further research, there is a need to exploit the available data more fully to help us understand the broader chronological and geographical development of the KAC in Azerbaijan. It is hoped that by successfully examining settlement patterns, structure, architecture, and funerary practices, this thesis may encourage further discussion of cultural identity, ethnicity, social space, and social organisation and a better understanding of the wider contexts within the field and beyond.

Moving outside of the Kura-Araxes world and its history of excavation, the significance of this thesis comes in the form of the model set out for the understanding of how one pre-historic culture can develop and keep its identity alongside its homogeneity and heterogeneity features. This work further delves into the theories concerning notions of identity, cultural ethnicity, social organisation and social space and how the interaction of these concepts can evolve and change throughout its development stages. These can be applied to any examples of culture to develop a socio-cultural context and build an understanding of the socio-cultural factors. This view offers a starting point for a wider and more detailed exploration of Kura-Araxes communities settled in Azerbaijan and neighbouring regions. It would be incredibly interesting to see investigations studying different aspects of the Kura-Araxes Culture.

9.3. Conclusion

The KAC's long history of duration and expansion across a wide range of regions still challenges scholars to understand these small communities. Until now, fluid methodological approaches, lack of systematic research projects and their disproportionate distribution throughout the KAC regions prevented us from understanding the clear regional borders of this culture. Therefore, we need a more detailed regional view compared with other KAC regions to understand precious episodes of this culture in Azerbaijan.

Furthermore, there are many political issues that make the situation complicated. One of the difficulties that archaeologists and historians face is due to them being pitted against examining the ancient world of the Caucasus in separate political societies; rather, situating it in a complex ancient Caucasian place definition (Kaplan and Karny 2000, as quoted in Smith 2005:231). The countries of the Caucasus have been intensively studied by Soviet and local post-Soviet archaeologists and have received relatively little attention from western authors until recently. Therefore, to prevent the KAC from becoming ineffective, we need more regional projects and their results. Together, these studies will provide important insight into how these pre-historic communities lived *peacefully and freely* in different places as a unity throughout thousands of years, irrespective of their local differences. What is now needed is a cross-national study involving modern-day KAC countries to explore the beauty and hidden pieces of this culture in the future.

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