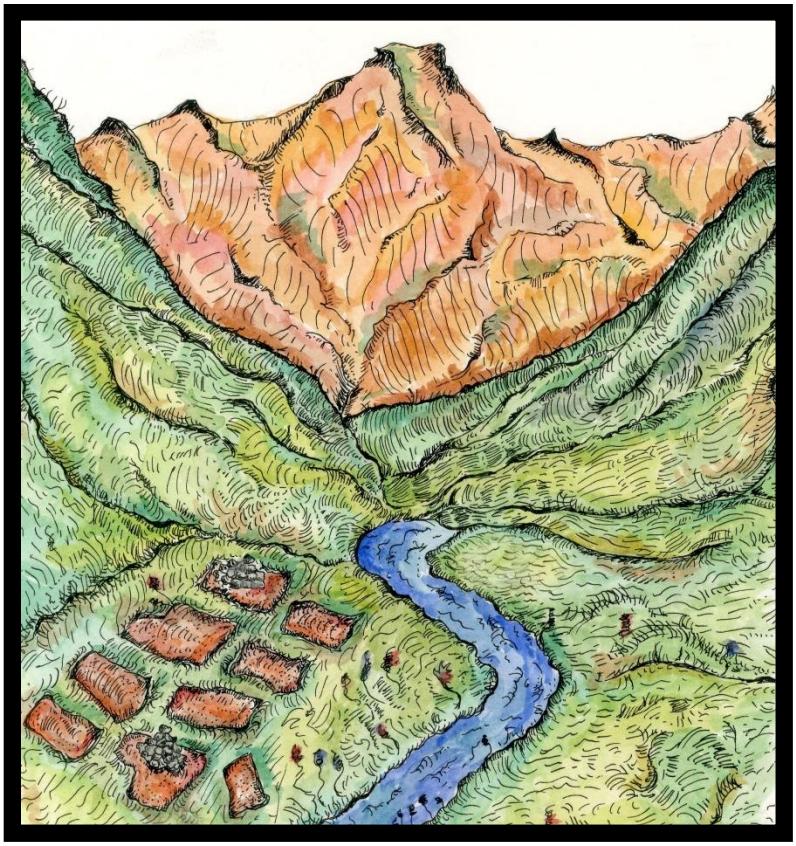
Bodies of Evidence: Economy and Identity within Kura Araxes Cemeteries in Early Bronze Age Transcaucasia

By Alice Netherton



Alice Netherton

Address: Magdalena Moonsstraat 86

2313 ZH, Leiden

Email: anetherton2222@gmail.com

Mobile : 0686365973

Figure: By Author

Bodies of Evidence: Economy and Identity within Kura Araxes Cemeteries in Early Bronze Age Transcaucasia

Alice Netherton, S1736086

Supervisor: B.S. During

Master's Thesis

Specialization: Near Eastern Archaeology

Course code: ARCH 1044WY

University of Leiden, Faculty of Archaeology

Leiden, 4.5.16, Final Version

Table of Contents

Table of Contents Continued…

Table of Contents Continued…

Acknowledgements

This study would not have been possible without the assistance of my supervisor Dr. Bleda During (Leiden University) who helped me choose such an interesting topic and provided support throughout the research and writing process. The useful feedback provided by members of my thesis tutorial headed by Dr. Joanita Vroom (Leiden University) was also invaluable. I also want to thank my friend Rudi Vanzin (Texas A&M University) for providing moral support and constructive criticism along the way. Finally, I would like to thank the archaeologists that have studied and continue to study the region of Transcaucasia, whose works regarding the Kura Araxes culture provided a solid foundation for the research in this study.

This thesis is dedicated to my parents.

Chapter 1: Introduction

1.1. Topic and Research Problems

Archaeologists characterize the Early Bronze Age in the Near East as a complex blend of cultural interactions between different regions and landscapes. One important albeit understudied example of cultural transmission during this time is the Kura Araxes cultural horizon, which originated in Transcaucasia and then spread throughout the Near East. The main problem within previous archaeological scholarship focusing on the Ancient Near East has been the overall lack of emphasis on Transcaucasia and its influence on its neighbors. Only within the past 15 years has archaeological research in the region increased, beginning to change the common perception of Transcaucasia as peripheral to the cultures farther south (Poulmarc'h 2014, 1; Smith 2005, 231). However, many details about Kura Araxes society still remain much debated or completely unknown.

This thesis seeks to fill in some gaps in the knowledge of the history of Transcaucasia and its influence in prehistory. Considering that most theories about the identity and spread of the Kura Araxes are mainly based on the distribution of characteristic ceramics, the evidence published so far does not adequately address the complexity in organization of communities nor the driving force behind the initial dispersal and following widespread expansion (Palumbi 2008, 17). The difficulties in interpreting the spread of the Kura Araxes ceramics stems from the ongoing debate of whether or not this cultural horizon represents one culture with regional variants, or multiple interacting groups with separate ethno-cultural identities.

1.2 Research Questions

In this study I will focus on other material evidence found within sites designated as belonging to the Kura Araxes group with the potential to add more to the current debate. I will study namely the mortuary evidence of the Kura Araxes cultural horizon in the form of different burial practices within distinct cemeteries throughout Transcaucasia. Due to the fact that burials are often argued to be part of deeply embedded local and unique social systems, comparing the different burial typologies can provide insight into homogenous or divergent practices, which have the potential to highlight variations as well. My main research question is:

1. What can the organization of burials within cemeteries tell us about the economic configuration and ethnic composition of the Kura Araxes cultural horizon?

My sub-research questions are:

2. What were characteristics of burial constructions, cemetery locations, inhumation practices and grave goods?
3. How were different burial traditions distributed throughout Transcaucasia?
4. How did burial traditions develop throughout the three Kura Araxes chronological phases?
5. Is there evidence for the migration of the Kura Araxes population?

In answering these questions the mortuary remains will provide useful evidence for a more detailed and nuanced understanding of Kura Araxes identity and the expansion of a material culture such great distances.

1.3 Methodology and Thesis Layout

In this study I compiled all archaeological excavations of Kura Araxes cemeteries with five individuals or more that have so far been published in the archaeological corpus in English and French. Therefore, a secondary contribution of this thesis will be the compilation of this disparate data for future researchers. I have organized the burials based primarily on burial typology, geographic and environmental location, grave goods, skeletal remains and date. I will begin in the next chapter by introducing the history of previous research, chronologies, geographic zones, examples of what is considered Kura Araxes material culture, and the archaeological debates. My third chapter will define in more detail my theoretical framework and methodology for organizing burial evidence. In chapter four I will describe the Kura Araxes burial typology based on locations in Georgia, Armenia, Azerbaijan and Northwestern Iran, Northeastern Turkey, the Upper Euphrates and the Southern Levant. In chapter five I will synthesize the evidence and provide an analysis. In chapter six I will discuss the evidence and contextualize it within the ongoing archaeological debate, providing interpretations about economy and ethnicity in Early Bronze Age Kura Araxes society. I will provide a conclusion in chapter seven.

Chapter 2: Conceptualizing the Kura Araxes Cultural Horizon

2.1 Brief History of Research

The term "Kura Araxes" was coined by Boris Kuftin in the 1930's and 40's, following his investigations within Transcaucasia, in the plains region in Georgia surrounded by the rivers of the Kura and the Araxes. Other terms have been and continue to be used by archaeologists to designate this culture, such as "Early Transcaucasian culture", "Outer Fertile Crescent culture" in Mesopotamia, "Khirbet Kerak culture" in the Levant, "Shengavit culture" in Armenia, "Yanik culture" in Iran and "Karaz culture" in Anatolia (Batiuk 2013, 450). I will be using the term Kura Araxes in the following study as a label for the cultural horizon defined by the widespread ceramic wares, but not as a title for one homogenous culture nor a culture that necessarily has origins in that area. Though Kuftin mistakenly attributed Kura Araxes pottery to the Chalcolithic period and did not foresee the much wider geographical extent of the spread to Iran, northeastern Turkey and beyond into the Levant, scholars consider him to have pinpointed a possible center of origin for the Kura Araxes cultural horizon (Kohl 2007, 87; Palumbi 2008, 7; Smith 2005, 244). Due to WWII and other political restrictions including Russia under the reign Stalin, it was not until the 1950's that further archaeological research was allowed to continue in the region. Even then research was greatly influenced by the U.S.S.R. and Cold War conflict which defined that decade (Smith 2005, 245). As others, such as Adam Smith, have provided detailed accounts of the history of archaeological research in Transcaucasia beginning from the 18th century onwards, I will provide only a summary of those works which are essential for this study (Smith 2005). Suffice it to say, it is important to realize the extent to which the politics and biases of the previous decades of research determined many of the archaeological interpretations in the region, and the extent to which these interpretations have created various difficulties in organizing research today.

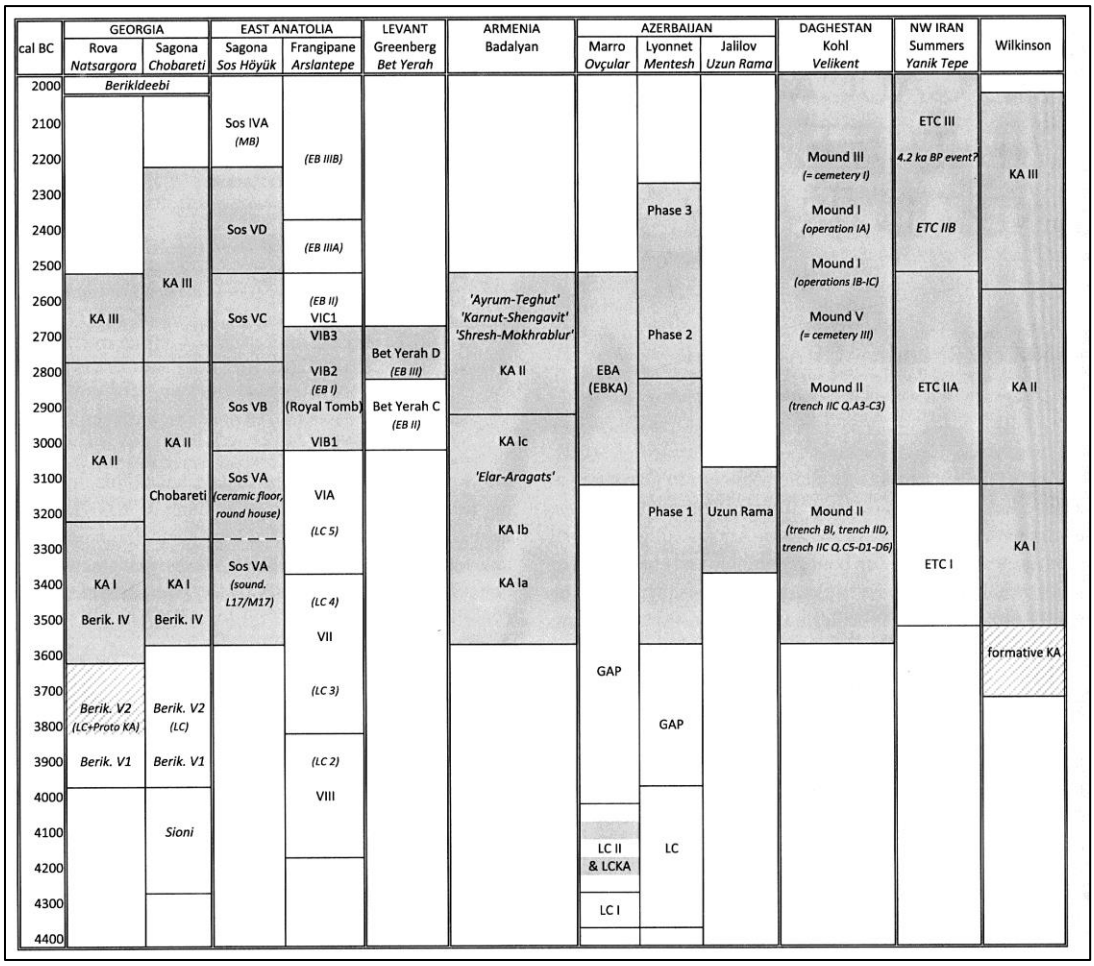
Beginning in the 1970's the Kura Araxes culture was further defined by scholars, such as Kushnareva, who emphasized that the Kura Araxes was a Transcaucasian phenomenon. Charles Burney executed surveys in the Eastern highlands of Anatolia and Northwestern Iran and documented the spread of the culture throughout Transcaucasia (Cilingiroglu and Sagona 2004, 5-7; Palumbi 2008, 7-8). Research in the 1980s and 90s, including work by Sagona in 1984, called for archaeologists to ignore present day national boundaries and resulted in a more complex and varied representation of the Kura Araxes, noting much more regional diversity (Kohl 2007, 87; Palumbi 2008, 7-11). The trend in research towards increased complexity has continued within the past 15 years where scholars have begun to question the

homogeneity of the Kura Araxes culture and prescribe to the idea of "multiplicity of communities" (Palumbi and Chataigner 2014a, 8). Scholars have also begun to re-interpret the relationship between Transcaucasia and the Upper Euphrates during this period, moving away from the old narratives which saw Transcaucasia as peripheral to the cultural centers within Mesopotamia and Near Eastern archaeology in general (Smith 2005, 231, 260). Though overall steps are being taken to provide a more nuanced view of the Kura Araxes material and community organization, many scholars still consider the similarities within the archaeological record, which includes the ceramics mentioned already but also settlements, cemeteries and other artifacts, to adequately describe a single cultural group. The analysis of burial practices in this study has the strong potential to augment and revise these general conclusions with more emphasis placed on heterogeneity.

2.2 Problems with Chronology

Another factor that has hindered the study of heterogeneity within the Kura Araxes culture has been chronology. Kiguradze and Sagona identify one of the major problems: the majority of the chronological organization has been based on typology instead of stratigraphy and a very small amount of absolute radiocarbon dates, and thus the sequences of occupation are mainly "free-floating" within the very general category of the Bronze Age (Kiguradze and Sagona 2003, 39). These problems are further exacerbated by the fact that different scholars focusing on the area have used different terms and numerical dates to describe the chronological sequences, much of the excavated materials have not been adequately published, and the geographic regions have separate inter-chronologies (Kohl 2007, 87; Palumbi 2008, 12). The separations within chronologies for the Kura Araxes based on the main region of study for each archaeologist are shown in table 1. Though there has been progress, no periodization is used consistently most likely due to the fact that clear boundaries surrounding the emergence and disappearance of the Kura Araxes phenomenon have still yet to be decided (Palumbi 2008, 12-3).

Table 1: Chronological table of the Kura Araxes culture according to multiple archaeologists (Palumbi and Chataigner 2014b, 248).



The present debate over anchoring chronology within already known prehistoric sequences can be divided generally into two camps. There are those who favor a later chronology or those who favor an earlier chronology for the beginning of the Kura Araxes culture, otherwise understood as the earliest examples of the characteristic ceramics (Sagona 2004, 478). In general, most of the recent archaeological studies favor the earlier chronology for the beginnings of the culture, especially with the discovery of Red-Black-Burnished Ware dated to before the mid-third millennium (Palumbi 2008, 13-4). As for terminology, the debate consists of whether to place the initial stages of the Kura Araxes culture within the Late Chalcolithic or within the Early Bronze Age (Marro *et. al.* 2014, 143; Sagona 2014, 26; Smith 2005, 257). It is important to note that depending on location, the beginning dates may have differed as well. For example, at sites in Azerbaijan such as Ovcular Tepesi, there is evidence for the Kura Araxes cultural horizon developing separately but coexisting with other Late Chalcolithic cultures from the end of the fifth millennium into

the first half of the fourth millennium (Marro *et. al.* 2011, 53; Marro *et. al.* 2014, 151). This is the earliest evidence for Kura Araxes ceramic material so far discovered.

In terms of numerical dates, the debate consists of placing the beginning stages either around the first half of the fourth millennium (3,600-3,400 B.C.) or around the end of the fourth millennium (3,000 B.C.) (Palumbi 2008, 19). Most scholars agree that the Kura Araxes culture ends with the Early Bronze Age. However the numerical end dates have been proposed as either the mid-3rd millennium (2,400) or the end of the third, beginning of the second millennium (2,000-1,900 B.C.) (Areshian 2006, 71; Palumbi 2008, 19). Most helpful for clarifying chronology issues are sites such as Sos Hoyuk and Berikldeebi in the Northeastern Anatolian Erzurum region, which have uninterrupted occupations from the mid-fourth millennium through to the end of the third millennium (Sagona 2014, 26-34). In order to circumvent this overall chronological ambiguity, most scholars of the Kura Araxes agree that the Kura Araxes phenomenon can be divided into three phases, most popularly known as KA I, KA II and KA III as shown in table 1. KA I represents the birth of the Kura Araxes with the emergence of Red-Black-Burnished-Ware and some movement within Transcaucasia. KA II represents the beginning of the spread outwards from Transcaucasia as well as internal developmental transitions within Transcaucasian societies. KA III represents the farthest extent of the spread of the ceramics, reaching the Southern Levant. This terminology will be used and further defined in the next chapter.

2.3 Geography and Environment

As mentioned earlier, the more recent studies and publications trying to define the Kura Araxes horizon have emphasized more heterogeneity and variation in community organization and settlement types. According to archaeologists such as Kushnareva and Sagona, this variation is heavily dependent on the diverse topography within the region. Overall, the Kura Araxes horizon was located within the region known as the South Caucasus or Transcaucasia. This region includes parts of the modern countries of Georgia, Armenia, Azerbaijan, Iran, Turkey and the disputed region of Nakhchivan, as shown in figure 1. I will use the term Transcaucasia in this paper to represent the core of the culture within these regions. Kura Araxes sites were also discovered farther north in Daghestan within the Russian Federation as well as in the Upper Euphrates in Syria and the Southern Levant, including Israel and Palestine (Wilkinson 2014, 204). Within the areas of Transcaucasia itself there can be found a very diverse mix of environments mainly defined by differences in altitude from mountains to steep valleys to highland plateaus and plains, as well as the Kura

and Araxes rivers and their drainages (Kohl 2007, 64; Palumbi 2008, 2; Smith 2005, 232-3). There are also two main mountain systems known as the Greater Caucasus and the Lesser Caucasus, which greatly determined movement within the region. The Lesser Caucasus cuts diagonally through Georgia, Armenia and Azerbaijan and flattens into the Armenian highlands and plains, which spread west towards the highlands of Anatolia and south towards northwestern Iran (Palumbi 2008, 3).

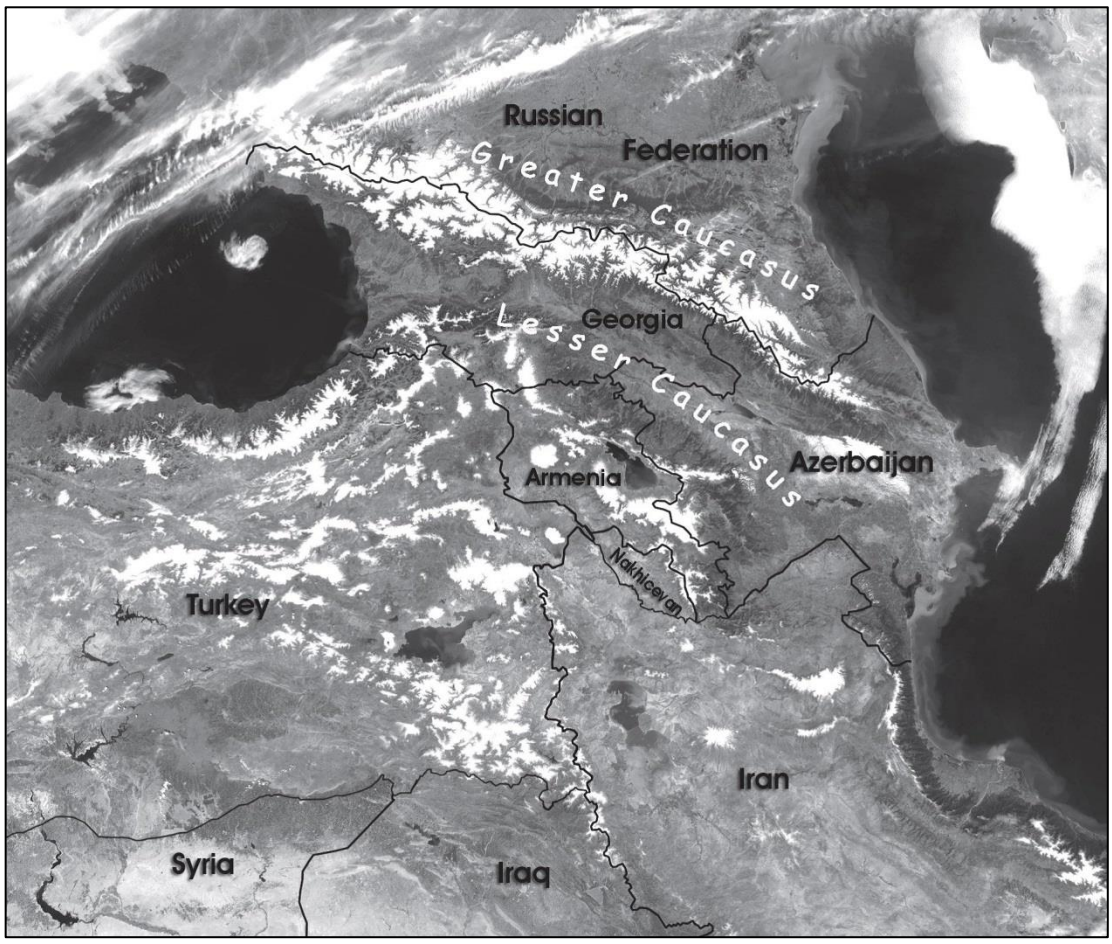


Figure 1: Satellite image of Transcaucasia and the Near East (Palumbi 2008, 3).

This study will focus primarily on the area which includes the slopes of the Lesser Caucasus and areas further south. The smaller mountains that make up the Lesser Caucasus range include the mountains of South Georgia and Mount Aragats and Mount Ararat in Armenia, which continue until the Azerbaijan-Iranian border. To the south of this mountain range are the volcanic highland plateaus and prairie plains of Armenia, defined and crossed by the Kura and Araxes rivers. The Araxes river originates in eastern Anatolia in the Erzurum region and passes through the salt marshes of the Ararat plain in southern Armenia

and Nakhchivan Azerbaijan, along the border of Iran, where it turns to meet the Kura river in the Azerbaijani lowland plains and combines and empties out into the Caspian Sea (Kohl 2007, 64-5; Palumbi 2008, 3-5; Smith 2005, 233). Many Kura Araxes sites were located on the tributaries of the Araxes River (Maziar 2015, 28). The Kura River originates in northeastern Anatolia and flows through central Georgia until it meets the Araxes River in Azerbaijan. These rivers are important as the area between them designates one of the regions the Kura Araxes horizon is thought to have originated. Other lowland plains can be found in central and eastern Georgia as well as in the Nagorno-Karabakh province in Azerbaijan and bordering Iran. In the past there were also large deciduous oak and alpine juniper forests in southern Georgia, which do not exist today and would have changed the visual landscape greatly (Kohl 2007, 65; Smith 2005, 233).

This environmental diversity of Transcaucasia and its neighbors, which is mainly defined by mountain ranges dividing volcanic uplands and fertile lowlands, created much inter-regional variety within Transcaucasia in the Early Bronze Age. Some scholars believe that such diversity led to regional variants of the Kura Araxes culture that correlate to different environment types, which will be discussed in the next section (Kushnareva 1997; Kohl 2007). This diversity is one of the many obstacles archaeologists face in providing a comprehensive definition for a single Kura Araxes culture with similar sociopolitical and economic organization as well as the definition of their subsequent spread throughout the Near East.

2.4 Characteristics of Kura Araxes Material Culture

Figure 2: Example of Red-Black-Burnished Ware (After Burney 1971, 144-5).

The Kura Araxes culture was originally defined as a cultural group due to the discovery of red and black burnished ceramics known as Red and Black Burnished Ware throughout Transcaucasia dated to the Early Bronze Age. These ceramics were hand-made with a black outer surface and red inner surface, with incised or raised designs and often included knobs, lugs and handles, which were easy for transportation, as shown in figure 2. Red and Black Burnished Ware was prevalent in the beginning of the Early Bronze Age and continued until the end of the EBA, spreading throughout Transcaucasia and into the Upper Euphrates and the Levant (Kohl 2009, 245; Palumbi 2007, 19; Rothman 2015, 9190; Sagona 2014, 30). Other definitive characteristics ascribed to the Kura Araxes single culture are much more diverse. Kura Araxes architecture is described as including rectilinear, sub-rectangular and circular mud-brick or wattle and daub houses, which represent almost every construction type in the Bronze Age Near East in general. Common artifacts besides ceramics have been characterized as anthropomorphic or zoomorphic hearths and portable andirons or hearths, carved bone objects, metal objects including spiral jewelry and standardized stone tools such as blades or arrowheads, most commonly made of obsidian or flint (Kiguradze and Sagona 2003, 38; Palumbi 2007, 21). According to Rothman, their production technologies seemed to center around local sources of obsidian, flint, copper ores and some semi-precious stones

such as carnelian (Rothman 2015, 9192). However, their role in metal production economies is still highly debated (Sagona 2014, 26).

In terms of site size and organization Kura Araxes settlements are described as small, rarely larger than five ha. Socially, they are described as including little social differentiation as interpreted from the architecture and organization of homes, but also by the simple flat-grave burial remains that often included a single-person inhumation and few or no grave goods (Edens 1995, 54; Kohl 2007, 90-91; Sagona 2004, 480). The shared materials presented above have been used to describe the Kura Araxes culture as a kind of cultural package, a culture-historical community, a material culture tradition and more (Palumbi and Chataigner 2014a, 8; Sagona 2014, 27). The challenge in the study of this cultural horizon for archaeologists stems from the difficulty in defining what type of "culture" the collection of material remains can be attributed to. The breadth of differing practices argued for, including multiple types of house constructions as well as multiple production technologies based on available resources, and a multitude of mortuary practices, can be seen as problematic in defining a single cultural group. This is particularly true when considering the common phenomenon in archaeology for the transfer of materials and production technologies great distances through trade interactions between otherwise unrelated cultures.

The Kura Araxes variety in site-type location has been discussed in detail by Kushnareva who divides the areas of Transcaucasia with Kura Araxes remains into the regions of southern Georgia, northwestern Armenia, the Ararat Plain, northeastern Armenia, central Georgia, northeastern Caucasus (Daghestan), Azerbaijan, northwestern Iran and northeastern Anatolia (Kushnareva 1997, 54-73). Many sites in Armenia were located near steep ravines or other inaccessible areas, some of which were also fortified. Some sites, such as those in central and southern Georgia and northwestern Armenia were unfortified, simple, open villages with one-room houses including central hearths. These houses could be interspersed or clustered closely together and they were generally located on the foot or lower slope of a large hill (Kohl 2007, 90). The sites found at higher altitudes in the mountain ranges and highland plateaus included houses with stone architecture and thin cultural deposits, perhaps representing seasonal occupation. Sites south of the mountains, located on fertile plains such as the Ararat plain in Armenia, or the piedmont regions in southeastern Azerbaijan and areas further south in northwestern Iran or west in northeastern Anatolia, were often multi-period tells containing mud-brick houses and thick cultural deposits (Kohl 2007, 87-8). Defining a Kura Araxes-related group moving throughout Transcaucasia all the way to the Levant is

again problematic as the diversity in locations and construction of settlements hinders a unified picture of such a cultural group in the first place.

One of the least understood characteristics of the every-day lives of Kura Araxes people is the economic organization of the culture. Kushnareva has described the potential economic traits which characterized the Kura Araxes economies based on the resources available to them, which has since been augmented by more recent archaeological research. The basic economy most likely involved agriculture, which developed in various forms at all altitudinal levels, from the lowland areas to mountain zones (Batiuk 2013, 453; Hovsepyan 2015, 78; Kushnareva 1997, 182-96). As can be seen from the archaeological botanical evidence, the people cultivated wheat and barley, as well as grapes for wine production (Hovsepyan 2015). Batiuk believes that a part of the Kura Araxes population were involved in the wine production market, which influenced their movement throughout Transcaucasia and their ability to successfully settle into new areas by filling the grape cultivation and wine production niche (Batiuk 2013, 450). The variation in subsistence strategies for the cereals can be seen in the use of specific agricultural techniques based on location, such as irrigation in the Ararat plain of Armenia and terracing in the more mountainous regions or on hill slopes (Kohl 2007, 91-5; Smith 2005, 233). For the regions at higher altitudes it is often argued that people took part in a semi-nomadic pastoral lifestyle herding sheep and goat and only occupying the higher areas during the warmer seasons as demonstrated by the thin cultural deposits (Kohl 2007, 91, 95). In contrast, Areshian states that despite the common argument for mobility, there is not a single point of archaeological evidence for mobile pastoralism in Transcaucasia in the past, as most of the hypotheses for this subsistence strategy came from ethnographic studies of the more recent 19th century (Areshian 2006, 71). Smith also states that there is a lack of evidence for mobility (Smith 2009, 26). In some areas, though, the lack of permanent occupation does seem to corroborate a semi-nomadic or nomadic lifestyle. For example, multiple archaeological surveys have been conducted in Azerbaijan, which demonstrate a very small amount of evidence for permanent occupation settlements, besides kurgans, which are grave mounds constructed above ground (Lyonnet 2014, 128).

When it comes to arguing that these shared materials and settlements within Transcaucasia are indicative of a varied, yet single cultural package or horizon I find the use of subsistence strategies as an important form of evidence which can highlight the basis for many of the complex deviations between communities in Transcaucasia. There is a strong possibility, as

shown by mortuary evidence in this study, that the presence of evidence for multiple different and combined subsistence strategies mirrors a reality in the past in Transcaucasia.

2.5 The Pots and People Debate: Theories for Kura Araxes Identity and Expansion

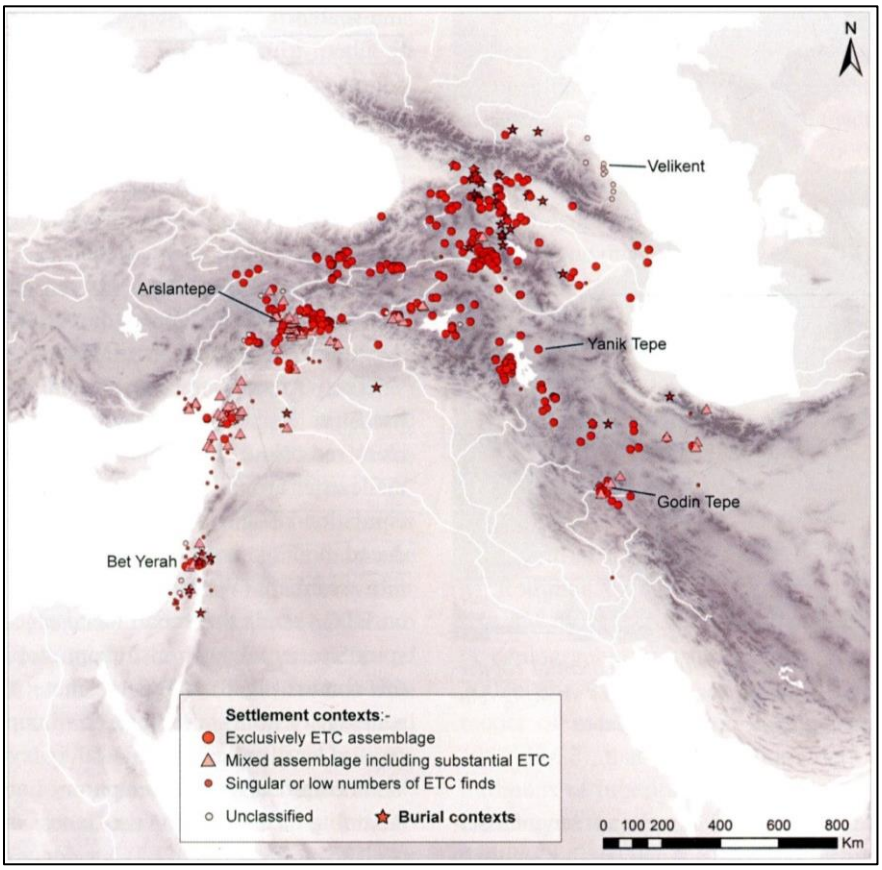


Figure 3: Distribution of sites with ETC wares throughout all Kura Araxes chronological phases (Wilkinson 2014, 205).

Before looking at the diversity in burial construction types and location, it is important to touch upon the main debate facing archaeologists in defining the culture as a single entity, and the nature of its spread. The overarching question that has been part of the discipline of archaeology is do pots equal people? In discussing Kura Araxes sites, the question becomes whether or not the material culture, including ceramics and its spread indicated movement of the Kura Araxes people or just the ceramics themselves? Figure 3 demonstrates the distribution of Early Transcaucasian ware throughout Transcaucasia and the Near East throughout the entire Kura Araxes period. Before being able to truly understand the nature of the spread of the ceramics it is essential to conclude whether or not the Kura Araxes horizon represents a group of people with the same culture and ethnicity or multiple interacting

groups with ethnic and cultural divisions. With the methodical tracking and recording of other material evidence, such as the cemeteries in this study, there is a strong potential for moving the study of Kura Araxes ethnic, political and social identities forward. The comparison of burials throughout Transcaucasia can help further define the cultural horizon due to the importance placed on the treatment of the dead. Burials can effectively highlight unifying or distinctive practices in the domain of deeply rooted and not necessarily easily converted ethnic, social and belief structures. Therefore, the patterns within mortuary remains can either be more comparable to ethno-cultural identity, or has the ability to complement or differentiate between other material evidence used to define the Kura Araxes culture, such as ceramics.

The question of whether pots equal people permeates all aspects of the study of the Kura Araxes since Kuftin named the culture in the 1930s. There are some archaeologists, such as Sagona and Palumbi, who argue that Red-Black Burnished Ware was a Northeastern Anatolian development due to the discovery of a potential precursor to this pottery in the Chalcolithic layers of the site of Sos Hoyuk (Palumbi 2008, 17; Sagona 2000). However, Sagona asserts that the appearance of the ceramic ware type in this area is not equivalent to the development of a Kura Araxes group of people (Sagona 2014, 43). Kura Araxes pottery that may be dated even earlier than the pottery from Sos Hoyuk has been discovered in Nakhchivan, Azerbaijan at the site of Ovcular Tepesi as well, perhaps representing the introduction of a new cultural group into the region (Marro *et. al.* 2011, 53). Finally, Kohl argues that the Kura Araxes culture emerged in northeastern Anatolia, the region surrounding the Kura and Araxes rivers, northeastern Azerbaijan and Daghestan simultaneously instead of in one area (Kohl 2007, 89). This idea brings up the question of whether a single cultural horizon under the one title of Kura Araxes can have multiple origin locations, or whether such a hypothesis actually intimates the development of separate cultural groups. In many cases it seems the ceramics were produced earlier than previously thought, which may show a distinction between these ceramics and the appearance of other material culture attributed to the Kura Araxes, such as the characteristic andirons.

According to Wilkinson, the production techniques of the different variants of the ceramic ware (Early Transcaucasian Ware, Khirbet Kerak Ware, Red-Black-Burnished Ware etc.), are very similar throughout the Near East. As he states, "The uniformity of the pottery is not, then, a matter of mere visual emulation of the finished result. How do we explain the transmission of manufacturing tradition over such large distances?" (Wilkinson 2014, 205). However, others do not agree. Sagona and Frangipane have stated that the RBBW

wares found outside of the Transcaucasian regions are actually quite distinct in shape, methods of manufacture and other specific traits (Sagona 2014, 31-2; Frangipane 2014, 171). Even within Transcaucasia itself there is diversity in ceramics. Within the region of Armenia, Badalyan has organized the ceramics into four to six groups, which are dependent on the site in which they were located (Badalyan 2014, 72). Therefore, the variety in ceramic ware production may in fact be more of an indication of complexity.

Multiple theories of migration exist to answer for the appearance of these similar, albeit not identical, ceramic forms throughout the Near East which are considered literal markers of Kura Araxes people. There are many who see the initial expansion as a movement caused by climate change, depletion of resources and population pressures (Kohl 2007, 88; Kushnareva 1997, 49; Palumbi 2008, 17; Sagona 1984, 138- 9). There are some who argue that there was a search for metal sources for metal production and trade. In this scenario the Kura Araxes would have acted as middlemen within Early Bronze Age trade networks that included Near Eastern populations such as those in Mesopotamia (Wilkinson 2014, 206). There are some who have also argued for the displacement of the Kura Araxes populations caused by the migration of people from Mesopotamia to the South or from the Russian steppes to the north (Kohl 2009, 248, 254; Smith 2005, 258). One of the most popular arguments from Rothman suggests that the pastoral nomadic way of life led to a slow but steady movement throughout Transcaucasia in small "ripples", demonstrated in figure 4, each containing different push and pull factors depending on the group or clan and their location (Rothman 2015, 9192).

The debate of migration specifically with regards to the production of Khirbet Kerak ware in the Southern Levant (henceforth KKW) has recently led to new evidence at the site of Tel Bet Yerah in Israel comparing local continuous traditions with the arrival of new traditions. By observing over time the changes in techniques involved in the production of flints, plaster, tools, cooking practices, symbolic figurines and more coupled with spatial organization and the concentrations of KKW, archaeologists have argued against KKW being an emulation of a Transcaucasian or Anatolian ceramic style. Instead, they argue that a Kura Araxes migrant population arrived at Tel Bet Yerah around 2800 B.C.E and continued in their own traditions of production, leading to a cohabitative rather than integrative form of social organization, which may have led to full integration at the end of the Early Bronze Age (Greenberg *et. al.* 2014, 198-9). If within the cohabitation scenario the Kura Araxes migrants continued their traditions in a domestic setting, it would be expected that the mortuary evidence could also mirror some separations between traditions of locals and migrants. More

study of mortuary remains in these areas has the potential to further prove or challenge these migratory theories.

As stated before, the main problem with the idea of a Kura Araxes migration at its root is that it is based on the long-held assumption that people belonging to the Kura Araxes are part of a unified ethno-cultural population, and that the movement of ceramics is indeed equivalent to the movement of one cultural group of people. Recently, however, there has been a movement towards a more varied outlook on social and economic organization. As further archaeological research is done and debates over cultural identity and expansion continue, the diversity within the Kura Araxes cultural horizon will most likely become even more obvious.

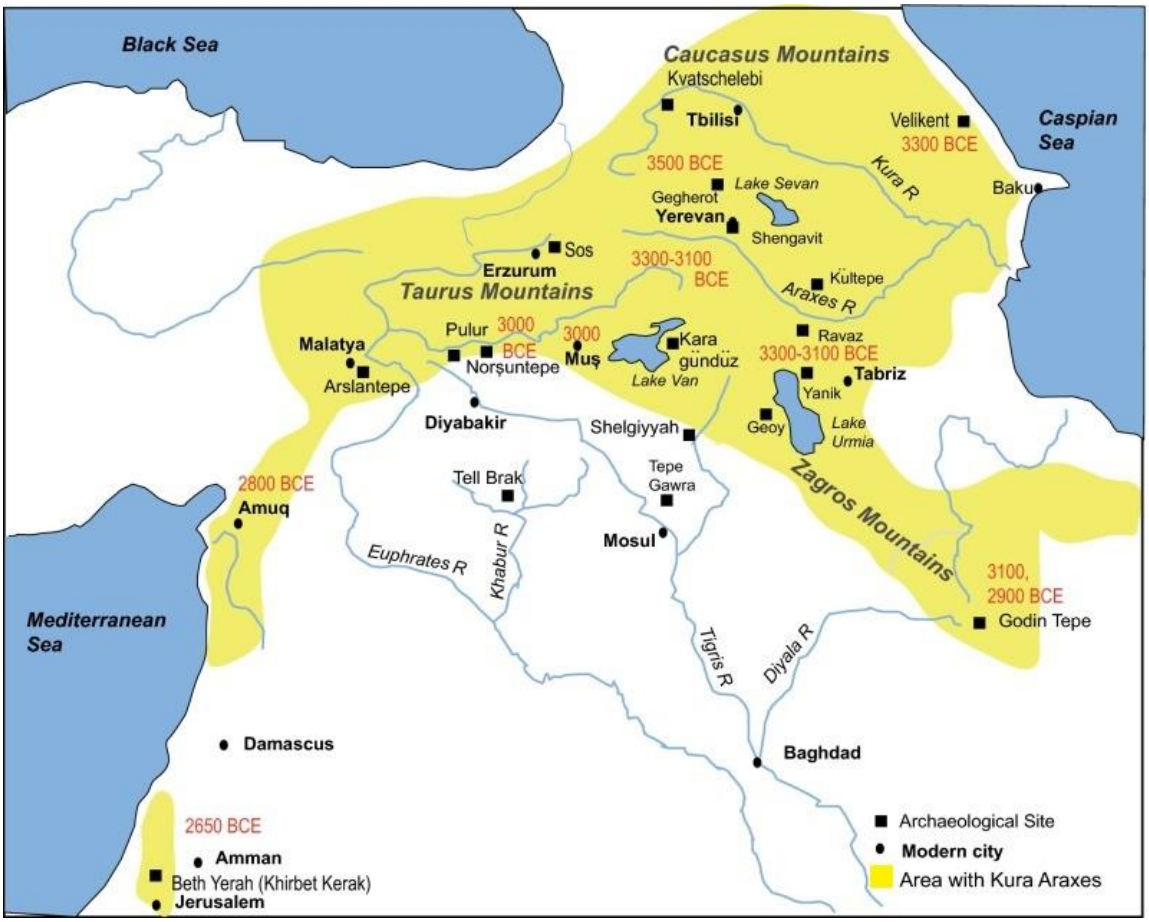


Figure 4: Distribution of the Kura Araxes cultural tradition by date (Rothman 2015, 9191)

Chapter 3: Mortuary Theory and Methods for the Study of Kura Araxes Cemeteries

Comparing burial typology within cemeteries and the distribution of these typologies will be effective in increasing our understanding of the Kura Araxes culture as a whole. The variation within the different types of burials and the similarities in grave goods and treatment of skeletons has the potential to further define the complex organization of Kura Araxes society and identity. To be able to analyze the significance of the burial remains it is essential to understand the different theoretical concepts used by archaeologists to interpret mortuary remains.

3.1 History of the Study of Mortuary Evidence

Mortuary evidence in archaeology has often been used to define the sociocultural characteristics of past societies including social organization, diet and health, ritual types, migrations and so on (Stutz and Tarlow 2013, 1). Mortuary evidence can consist of human remains, grave goods, burial construction, physical signs of specific ritual practices and much other context specific information (Ekengren 2013, 174; Stutz and Tarlow 2013, 3). In order to interpret and understand these different strands of evidence, many archaeological approaches have been developed. There are biological approaches that involve osteoarchaeological studies of the human remains, which can highlight various pathologies as well as the study of the human DNA, which can help define family lineage. Other, more anthropological approaches involve interpreting the social or religious significance of the grave goods and ritual burial practices, such as collective burial versus a single inhumation. Ethnographic examples are commonly cited in order to elucidate burial practices (Stutz and Tarlow 2013, 4-5). Grave goods themselves can be interpreted as personal possessions, gifts, offerings, feasting leftovers, or ritual tools (Ekengren 2013, 174). The diversity involved in the approaches to studying mortuary remains stems from a history of numerous theoretical debates in the discipline of archaeology.

Chapman and Randsborg have stated that "the early history of archaeology was very much the history of burial studies" in that the field of archaeology began through the excavation of mortuary remains (Chapman and Randsborg 1981, 3). Though grave robbing had been a common occurrence since prehistory, it was in the 18th and 19th centuries that the first recorded, systematic excavations of burials were conducted (Chapman and Randsborg 1981, 2). In the early stages of these excavations styles of burial construction, practices and grave good materials were used to answer questions related to chronological sequences (Stout 2013,

18-9). The Three Age System still used today, which describes the chronological sequence of the Stone, Bronze and Iron Ages, was formulated by Christian Jurgensen Thomson during this time as well (Stout 2013, 19). The questions of human national origins and scientific racism fueled archaeology in the 19th century when the analysis of skeletal remains in burials, such as the shape and size of skulls in the field of craniometry or genetics in eugenics, were used to differentiate between races and ethnic groups (Stout 2013, 20-2). During the late 19th century Gordon Childe moved the emphasis more towards interpreting social practices such as social roles, organization and stratification in a cultural-historical approach where a culture was defined by common behavioral patterns in the archaeological evidence. Similarities and differences in material culture, often mortuary remains, were interpreted as evidence for cultural groupings that were still often used to define ethnicity. The variation in material remains was argued to be a result of the diffusion of certain cultural traits from other areas or the physical movement of populations as well (Chapman and Randsborg 1981, 3-4). The foundations and influence provided by the earlier theoretical frameworks in archaeology are demonstrated to be quite important today as within many studies, including the study of the Kura Araxes cultural horizon, scholars continue to build upon such frameworks.

In the 1960's and 1970's Processual Archaeology, spearheaded by Lewis Binford, developed in reaction towards what he considered to be the normative approach of Childe and others. Binford criticized the idea that similarity in material culture was a direct measure of genetic or other relationships and also criticized the idea that variation was only the result of cultural transmission or diffusion (Chapman and Randsborg 1981, 6). He popularized the use of ethnographic examples from non-western societies to interpret the archaeological record and to demonstrate that similarities in practices did not have the same significance within different societies (Chapman 2013, 48; Chapman and Randsborg 1981, 21). For the study of mortuary evidence processual paradigms were demonstrated more by interpreting the evidence as having the potential to reflect the level of social complexity, status and hierarchy within a society (Ekengren 2013, 174; Fowler 2013, 512). Arthur Saxe also put forth various hypotheses to test against the ethnographic record. The most famous hypothesis states that the reason the dead were placed in specific locations had to do with lineal descent and ties to ancestors (Chapman 2013, 49). Therefore, Saxe argued, burials could be like a mirror into the organization of hierarchies and family ties.

Criticism of the Processual school of thought grew in strength throughout the 1980s. In 1981 Ian Hodder, pointing to burial practices in the Sudan, moved against the idea that patterns of death reflected accurate past community organization. Instead, he argued that

burials represented an ideal where social relations were deliberately distorted. In 1982, Parker Pearson further argued that the living manipulated the dead for their own interests, for example by advertising specific relationship types to re-order a society which was in the midst of changing relations. He concluded that mortuary evidence did not necessarily reflect the actual organization of a society in the past (Chapman 2013, 52-3). Therefore, for Post-Processualists, mortuary evidence said more about the society burying the individual, then the individual themselves.

Today, modern studies of mortuary practices still include Processual and Post-Processual theories depending on the period being studied, the country of study and other factors (Ekengren 2013, 176). However, some further developments in theory have moved towards the more abstract characteristics and meanings involved in death. For example, some emphasize new ways of viewing the dead body not as biological remains, but as an embodied person in the past with senses and experiences or instead as a material object like grave goods. However, many criticize these ideas as too abstract (Stutz and Tarlow 2013, 4-5). Overall, within the archaeological study of mortuary evidence today there are many avenues one can take in interpreting burial remains.

3.2 Mortuary Remains and Ethnic Identity

As demonstrated earlier, since the 19th century archaeologists have tried to use material culture, often mortuary remains, to define ethnicity in the past. In recent scholarship, outside of racist paradigms, studies have led to interesting interpretations that are almost completely dependent on the specific context of the society in question, making it difficult to create an overall framework for the study of ethnic identity in archaeology. The main factors which contributed to this challenge stemmed from whether or not ethnicity was manifested in material remains in the first place, closely followed by the fact that "ethnicity" had no single accepted definition (Cooper 2007, 55-6). In previous centuries and even decades, ethnicity was seen as a somewhat clear-cut phenomenon. As Lucy explains, "the past was envisaged as occupied by bounded, homogeneous groupings, whose histories, expansions and movements could be traced through looking at their material remains" (Lucy 2005, 86). Today for some, these ethno-cultural groupings are no longer thought to be simply the result of inherited characteristics, but rather more of a characteristic of social relationships (Lucy 2005, 86). Still bioarchaeological and DNA studies are often used to try and define an ethnic group through physical and genetic relations. Though such methods can provide

answers in the realm of physically inherited traits, these relations are not necessarily equivalent to the way in which ethnic identity was thought about and divided in the past.

Ethnographic examples have shown that physical appearance, language, material remains and other traditional characteristics are not always effective in defining ethnicity. For example, there are cases in which people without a common language were part of one ethnic group, or the distribution of a homogenous material culture was found to be unable to indicate divisions in ethnicity (Emberling 1997, 312-3; Lucy 2005, 91-2). It was also shown that western perceptions of ethnic divisions were generally completely different from how the groups under study conceived of their own ethnicity. As Geoff Emberling states, there are many other factors that come into play when groups place boundaries between themselves and others. Such factors can include economic specializations in specific crafts, religion, statehood or a vast amount of other characteristics not related to physical traits and sometimes not related to material remains either (Emberling 1997, 305-306). This is not to say that they cannot be related to material remains as there are ethnographic examples of this phenomenon as well (Lucy 2005, 101). Even the boundaries between groups in themselves have been observed to be fluid, unstable, and forever reacting to new developments, creating even more nuance and difficulty in placing people into group categories (Emberling 1997, 299; Janes 2015, 573; Rothman 2015, 9190).

The idea that ethnic groups are part of ever-changing situational contexts was first brought to the fore by anthropologists and sociologists working in the 1950s and 1960s (Jones 1997, 110). Frederick Barth ignited an important transformation in the study of ethnicity by moving away from traditional ideas in which ethnicity equaled objective (often physical) traits, towards ethnicity equating to more subjective characteristics, such as those based on the beliefs of the actors within the society itself (Emberling 1997, 299). Barth defined ethnic groups, summarized by Emberling, as decided through self-identification by those within the group and ascription by outsiders. That is to say, an ethnic group is considered as such when its own members see themselves as separate in some way, and outsiders also see them as separate. Emberling states that in many cases, ethnic groups see themselves as being related through constructed common ancestry or a shared construction of the past, which creates a memory of former unity that is not necessarily racially, genetically or linguistically accurate (Emberling 1997, 304). When the mortuary remains of the Kura Araxes are studied in more detail, differences in treatment of the dead may indicate divisions within society that extend to their idea of separate ethnic identity groups that would otherwise have been ignored.

Mortuary remains are especially important in defining an ethnic or cultural group because living members of a group often use burial practices and mortuary treatment to create, maintain or push for the disappearance of existing ethno-cultural identities. Therefore, within mortuary remains one can find clues to self- chosen group identity that has the potential to extend to ethnic separations, perhaps based on past perceptions of ancestral ties (Pestle *et. al.* 2014, 64). Within regions which included multiple different cultural groups interacting, like Transcaucasia and the Near East in the Early Bronze Age, mortuary remains also have the potential to show how different groups dealt with the existence of multiple identities. Methods could have included renegotiation of identity, complete assimilation or a staunch separatist attitude for the maintenance of specific cultural traditions and identities (Janes 2015, 572). One challenge in studying mortuary remains is how to single out whether specific traditions within graves and cemeteries are emphasizing different ethnic identities or many other forms of identity, that do not extend to ethnic separations. That is, can divisions in mortuary remains be equivalent to self-identification as separate ethnic groups? It seems the answer always depends on the historical context and the major events taking place in the community at that point in time. Ethnographic examples to be discussed in chapter six, though they do not necessarily provide exact answers, are particularly useful in highlighting the countless ways in which ethnicity can be interpreted in non-western contexts.

For the study of ethnicity through mortuary remains within the Kura Araxes debate, I find the best interpretation of ethnicity is not related to race, linguistics or other western perceptions, but rather related to a wealth of other factors important to these societies such as economic practices, skill in crafts, or perceived ancestral ties discussed by Emberling. In this study, the term ethnicity will be equivalent to Barth's definition where *differences in ethnicity are self-defined by those within the group as well as ascribed to them by those outside of the group with which they interact*. As mentioned above, differences in mortuary remains do not necessarily need to have any relation to ethnicity. However, as will be discussed later, the major divisions in mortuary practices for the Kura Araxes seem to relate to a difference in mobile versus sedentary economic subsistence strategies, which is a separation that has been demonstrated to relate to ethnic identities in ethnographic evidence. Within the mortuary data in this study, the divisions or similarities in burial practices will be interpreted as having the potential to represent different ethnic identities based on the definition of ethnicity provided above. This will be combined with ethnographic examples of societies with combined nomadic and sedentary economic organization that may have been similar to that of the Kura Araxes in the past. Therefore, in the analysis of burial typology patterns,

variation in economic daily practices and their links to ethnicity will have the potential for providing a much clearer picture of Kura Araxes daily life.

3.3 Introduction to Previous Deliberations on Kura Araxes Burial Evidence

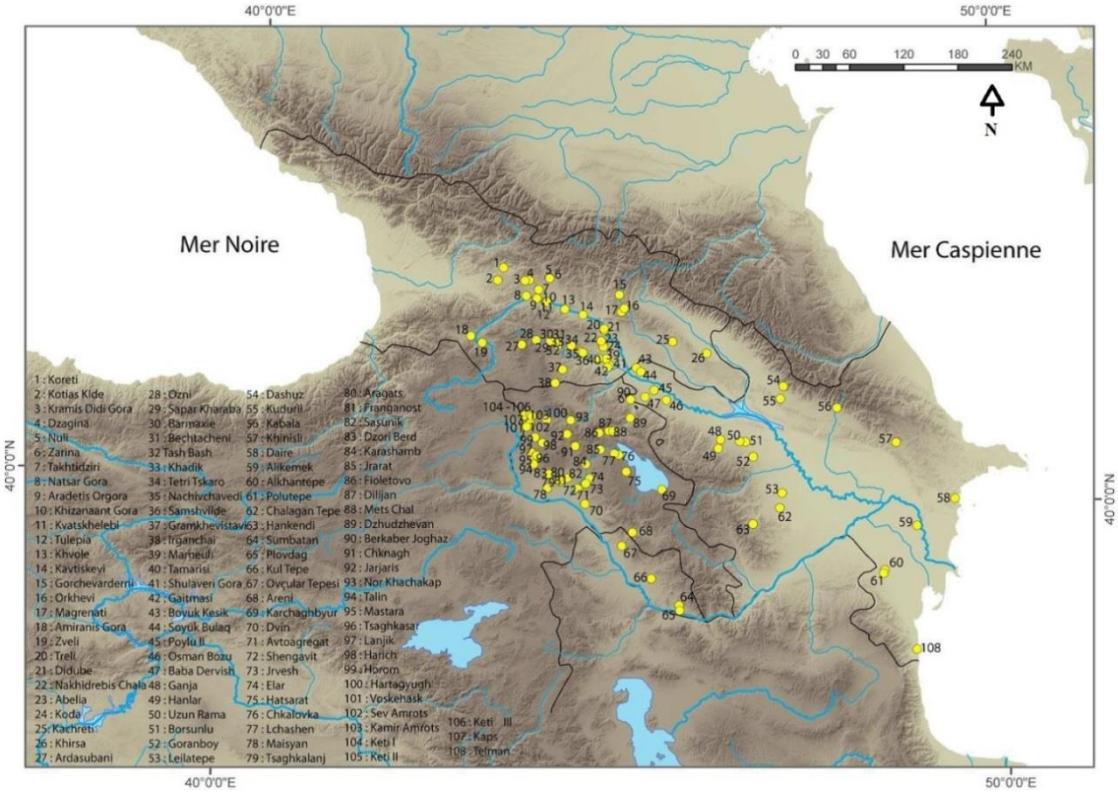


Figure 5: Map of sites with burials attributed to the Kura Araxes by excavators (After Poulmarc'h 2014, 69).

Around 111 sites with burials attributed to the Kura Araxes have been discovered in Transcaucasia. Figure 5 demonstrates the location for 108 of these sites. Despite the large geographic extent, Kura Araxes burials do have some common characteristics. According to Palumbi and Sagona, they can be described as earth pits, horse-shoe shaped tombs, and stone-lined cist tombs and they tend to be located either sprinkled within a settlement or in a clearly demarcated cemetery (Sagona 2004, 480; Palumbi 2007, 21-5). The clearly demarcated cemeteries can be located near to contemporary settlements, sometimes adjoining the outer wall of a settlement, while others are completely isolated from any permanent habitation structures. The burial types within the cemeteries include both individual primary inhumations and collective burials with disarticulated skeletons and secondary inhumations. Funerary goods are reportedly modest, most commonly including ceramic vessels. However, it is possible for other objects to be placed in graves including spindle-

whorls, flint and bone tools, limestone and semi-precious stone beads and copper jewelry. A small number of tombs contain a clearly richer assemblage of grave goods, including metal double-spiral headed pins, hair pins and spiral bracelets. Even rarer are the goods found in the cemetery of Kvatskhelebi in Georgia, Talin in Armenia and Arslantepe in Anatolia, which included metal head adornments (Palumbi 2007, 21-25; Kalantarian 2011, 124- 125). Examples of common grave goods from the Shida Kartli region of Georgia, including the head adornments, are demonstrated in figure 6, below.

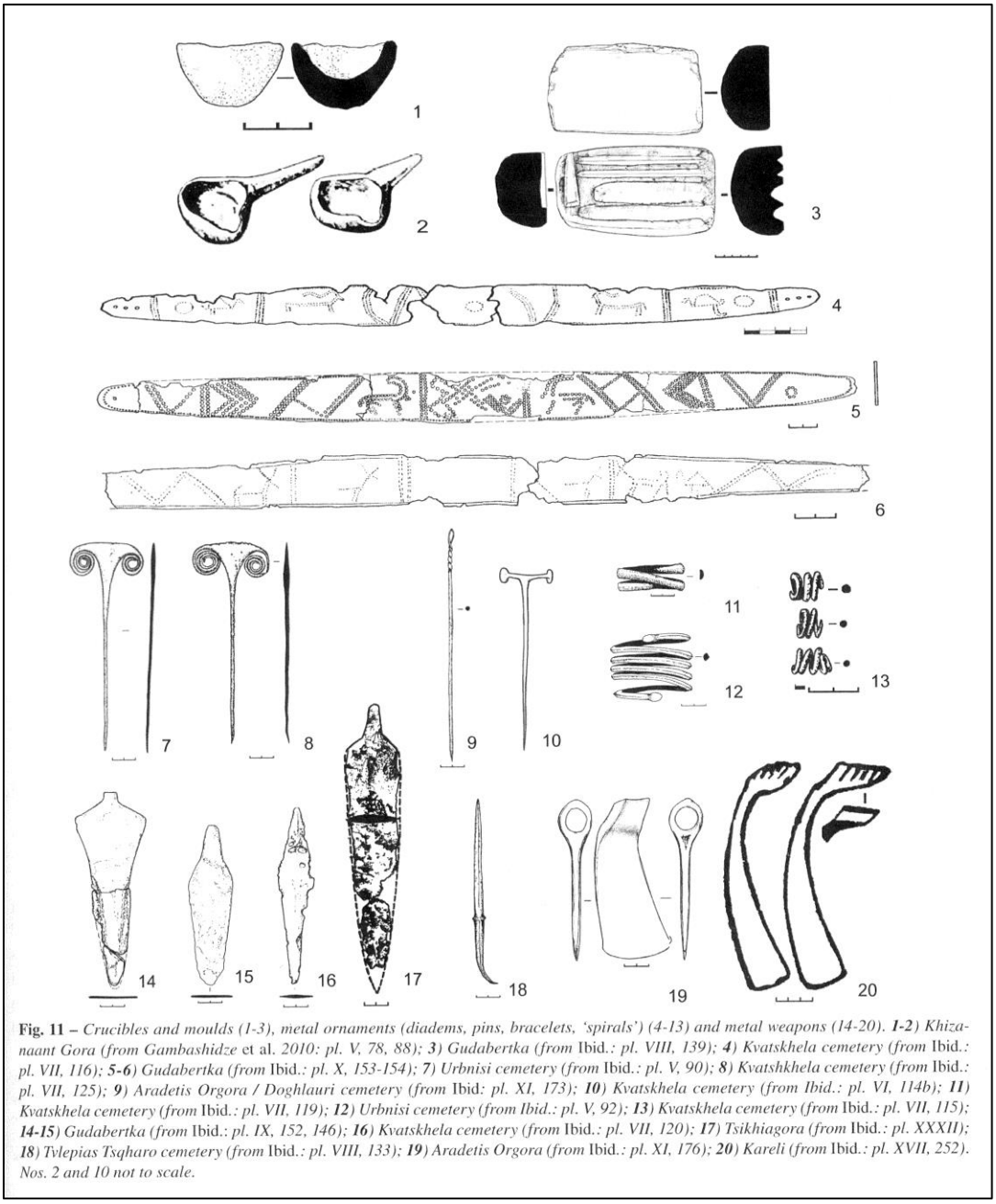


Fig. 11 – *Crucibles and moulds (1-3), metal ornaments (diadems, pins, bracelets, 'spirals') (4-13) and metal weapons (14-20).* ***1-2****) Khizanaant Gora (from Gambashidze* et al. *2010: pl. V, 78, 88);* ***3****) Gudabertka (from* Ibid.*: pl. VIII, 139);* ***4****) Kvatskhela cemetery (from* Ibid.*: pl. VII, 116);* ***5-6****) Gudabertka (from* Ibid.*: pl. X, 153-154);* ***7****) Urbnisi cemetery (from* Ibid.*: pl. V, 90);* ***8****) Kvatshkhela cemetery (from* Ibid.*: pl. VII, 125);* ***9****) Aradetis Orgora / Doghlauri cemetery (from* Ibid*: pl. XI, 173);* ***10****) Kvatskhela cemetery (from Ibid.: pl. VI, 114b);* ***11****) Kvatskhela cemetery (from* Ibid.*: pl. VII, 119);* ***12****) Urbnisi cemetery (from Ibid.: pl. V, 92);* ***13****) Kvatskhela cemetery (from* Ibid.*: pl. VII, 115);* ***14-15****) Gudabertka (from* Ibid.*: pl. IX, 152, 146);* ***16****) Kvatskhela cemetery (from* Ibid.*: pl. VII, 120);* ***17****) Tsikhiagora (from* Ibid.*: pl. XXXII);* ***18****) Tvlepias Tsqharo cemetery (from* Ibid.*: pl. VIII, 133);* ***19****) Aradetis Orgora (from* Ibid.*: pl. XI, 176);* ***20****) Kareli (from* Ibid.*: pl. XVII, 252). Nos. 2 and 10 not to scale.*

Figure 6: Examples of grave goods found in Kura Araxes graves in Georgia (Rova 2014, 61).

Due to the small amount of grave goods per cemetery, many archaeologists argue for a society without status differentiation or hierarchies. The Kura Araxes burials are said to instead emphasize social relations that include categories of tribes, clans or kin groups founded through marriage, alliances or other connections (Sagona 2004, 481; Palumbi 2007, 25). This social organization is considered to be inherent in a nomadic pastoral or seasonally transhumant lifestyle that is extended to the mortuary evidence (Sagona 2004, 497). For example, Palumbi argues for egalitarian ideals represented in the use of collective cist family tombs (Palumbi 2007, 25). Both Sagona and Porter argue that in pastoral society relations, group ethnic identity, connections to common ancestors and a general communal ideal needed to be maintained through methods such as burial traditions because social organization was threatened by the divisive nature of a mobile lifestyle (Sagona 2004, 497; Porter 2002, 6-7). Therefore, in these arguments burials were used to unite groups whose main way of life was based on nomadism.

As mentioned earlier, there are also archaeologists who believe agriculture was one of the main defining subsistence strategies in Early Bronze Age Transcaucasia (Batiuk 2013, 453). Smith and Areshian state that there is more evidence for the majority of Kura Araxes sites taking part in agriculture over pastoralism because of the large amount of sedentary villages discovered (Areshian 2006, 7; Smith 2009, 26). Within agricultural societies, Smith argues for collective burials representing family lineage as well, but within sedentary and hierarchical Kura Araxes societies as opposed to those with no status differentiations (Smith 2009, 26).

Overall, it seems that for the Kura Araxes cultural horizon, whether the society was hierarchical, egalitarian or communal is not particularly useful in defining the ethno-cultural identity of these people within mortuary remains. To look deeper at economic differences or subsistence strategies may be more useful, despite the fact that they are still quite a mystery. Whatever the subsistence strategy and its effect on the Kura Araxes horizon, many of the arguments above are made from the standpoint that the Kura Araxes should partake in one main subsistence strategy over others. Such an argument is being questioned within the following study through the systematic organization of burial types in cemeteries and the different methods in which one can interpret identity. Perhaps the debate over subsistence strategies today, based on a blend of evidence, denotes existing past separations which may extend to multiple ethnic identities. In general, the ways in which ethno-cultural identity are interpreted from the variety of burials in this study will demonstrate a movement away from

the idea of a homogeneous society towards the idea of a heterogeneous society where major differences in mortuary practices have the potential to represent separate interacting groups.

3.4 Methodology: Organization of Kura Araxes Burial Evidence

In this study I will be analyzing published material describing cemeteries which have been written or summarized in English and French. Due to the preponderance of collective burials in Kura Araxes mortuary evidence, a cemetery will be defined as including over five interred individuals, whether within one grave or multiple graves within a clearly demarcated cemetery.

Previously, archaeologists have organized burial practices in different ways. Sagona and Palumbi have organized Kura Araxes burials into three general categories of earth pits, stone-lined cist graves, and horseshoe shaped tombs. Kalantaryan organized burial types into 21 very specific categories for Armenia alone (Kalantaryan 2007, 72-84). Poulmarc'h has divided burial constructions into five categories: cists (tombs lined with large rectangular stone slabs), tombs of various construction (tombs lined with pebbles of various sizes, in various shapes), horseshoe tombs, pits covered with a small pile of stones, and kurgans (Poulmarc'h 2014, 42). In another publication Poulmarc'h *et. al.* placed them into six categories, separating pits covered with stones and pits that were uncovered (Poulmarc'h *et al.* 2014, 42). An important aspect of both of the latter tomb typologies that I agree with is the differentiation between cists and the other types of stone-lined tombs. Poulmarc'h explains that though the term cist has been used often to describe all Kura Araxes tombs lined with stones, there are many which do not fit the "cist" definition. She attributes the confusion to the translation from Russian to English of "tombs of stone" (Poulmarc'h 2014, 40-41). There are many tombs which will be discussed in the following study that are rectangular, trapezoidal or oval and lined with irregularly shaped stones or pebbles of various sizes, with multiple courses, particularly in the Shida Kartli region of Georgia. Adapting Poulmarc'h's typologies I will define the different burial types as follows in figure 7:

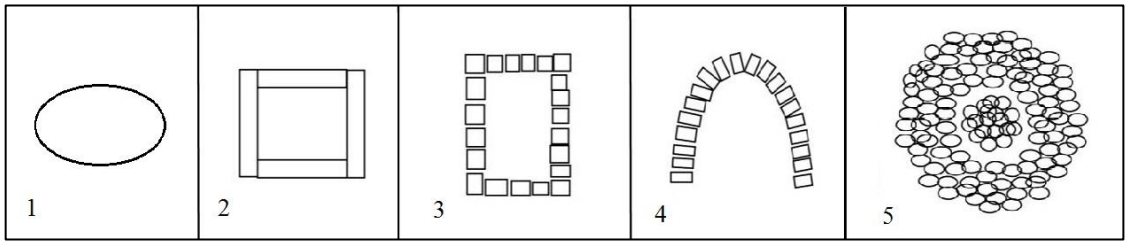


Figure 7: Kura Araxes grave types for this study. 1= pit, 2= cist, 3= stone-lined, 4=horseshoe, 5= kurgan (After Poulmarc'h 2014, 42).

1. Pit Grave: An earthen pit of any shape with no stone lining, uncovered or covered with a pile of pebbles, slabs, or earth.
2. Cist: A square or rectangular tomb lined with at the most 3 large, rectangular stone slabs per side, sometimes including capstones, an entrance of some kind into the tomb or a wooden roof.
3. Stone-lined Grave: A tomb that can be any shape (rectangular, oval, trapezoidal, irregular) which is lined with medium or smaller sized stones, above 3 per side, of any shape, and can be multiple courses and also sometimes includes a wooden roof.
4. Horseshoe Grave: A tomb with stone lining in the shape of a horseshoe.
5. Kurgan: A construction above ground with a central burial surrounded by earth or a circle of stones, otherwise known as a cromlech, and can include wooden poles or other material varieties as well.

It is important to note that despite the attempts of archaeologists to create a typology of different burial constructions, within each construction "type" such as kurgans, there is a great deal of variety. As with Kalantaryan there are some who would create even more distinctions within each category, but for the purpose of this paper such specificity would hinder the overall comparisons in burial construction that extend over so many different region.

In terms of chronology the burial constructions are placed within the three phase chronological sequence previously discussed, following the early chronology argued for by Sagona and others, while using an end-date that is in between the early and later dates argued for by other archaeologists (Palumbi and Chataigner, 2014b, 248). Kura Araxes I period (KAI) will correspond to 3,500- 2,900 BCE. Kura Araxes II will correspond to 2,900- 2,600 BCE. Kura Araxes III will correspond to 2,600-2,300 BCE. For a summary look at table 2.

Table 2: Kura Araxes phases and dates.

KA III	2,600-2,300 BCE
KA II	2,900- 2,600 BCE
KA I	3,500- 2,900 BCE

In chapter four each cemetery is defined by 1) location including country and region from which it was discovered, 2) the environment type 3) it's relations to nearby settlements, 4) grave goods, 5) number of individuals, 6) types of burial constructions, 7) arrangement and identity (if possible including gender and age) of the skeletal remains and 8) the date within

the three phase chronology. Cemeteries within Georgia, Armenia and Azerbaijan have been chosen based on the mortuary remains that the excavators attribute to the Kura Araxes. Cemeteries in Anatolia, the Upper Euphrates and the Levant have been chosen based on the presence of Red-Black-Burnished Ware, Karaz Ware and Khirbet Kerak Ware, as these are the main identifiers used to argue for the presence of the Kura Araxes in these regions. Chapter five will include an analysis of the consolidated information above for major patterns or divisions in mortuary practices by placing them in one table, which can be seen in Appendix 4. In chapter six I discuss the significance of the patterns and interpret their relation to differing or similar economic practices and ethnic identities.

Throughout this study I have mostly relied upon descriptions in previous publications of typological features of burial construction and the spatial arrangement of grave goods and bodies within the burials, and in some cases upon illustrations. Unfortunately the data and descriptions of Kura Araxes mortuary evidence is not uniform. Some modern publications describe the gender and age of the human remains, while the majority of the publications being used in this paper, such as those from the 1960's and 70's, do not. Also in some cases due to the language barrier, I do not have access to a clear list of grave types and their contents, but rather a more general summary. Despite these difficulties, the information that can be gained from the analysis of various burial constructions, skeletal organization and grave good types may provide insights into the economic organization and ethnic identity of the people within the cemeteries and their potential movement throughout the Near East.

Chapter 4: Kura Araxes Cemeteries in Transcaucasia and the Greater Near East

4.1 Kura Araxes Cemeteries in Georgia

4.1.1 The Shida Kartli Province

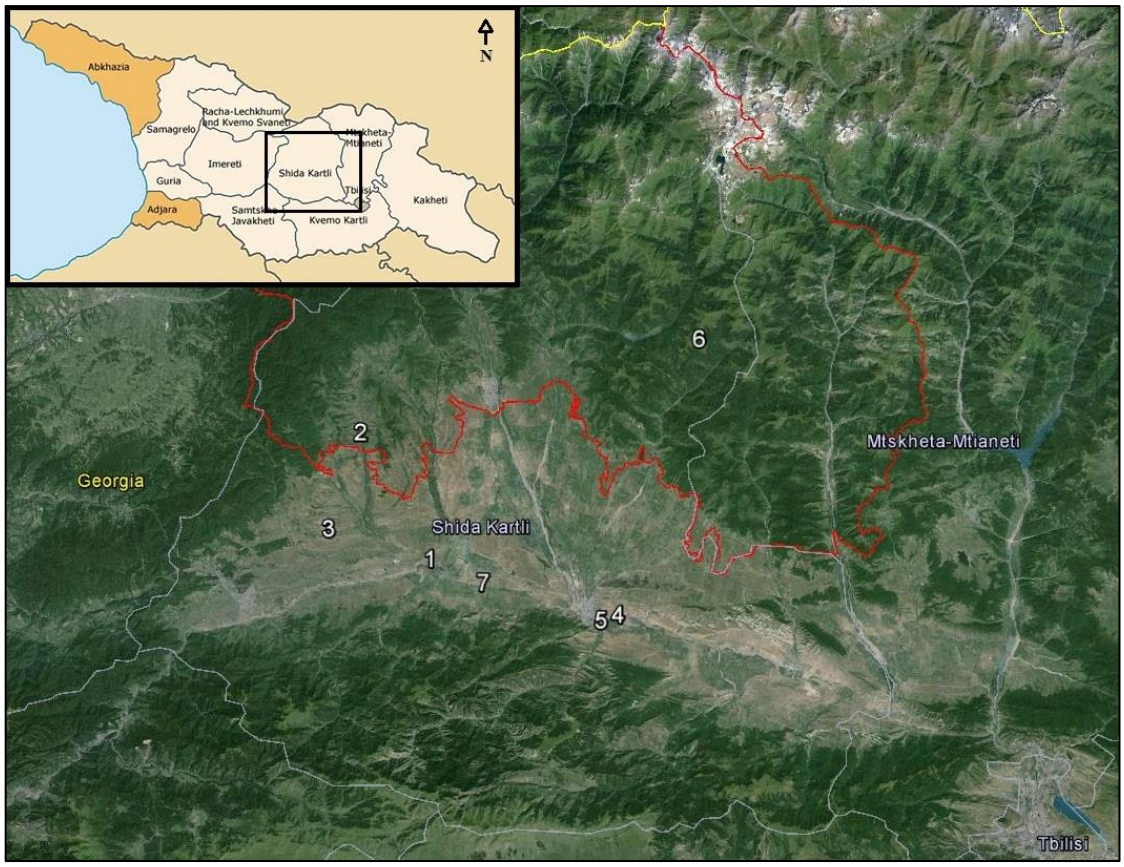


Figure 8: Kura Araxes cemeteries in the Shida Kartli province of Georgia. 1=Aradetis Orgora, 2=Dzaghina West, 3=Khashuri Natsargora, 4=Kvatskhela, 5=Tvlepias Tsqharo, 6= Tqhviavi, 7= Urbnisi (Corner Image: After Chavchavadze.si.edu; Main Image: Google Earth).

The Shida Kartli province in central Georgia is surrounded by multiple mountain ranges on the west, south and north. The Kura River valley specifically can be considered the core of the region, as well as one of the hearts of the Kura Araxes culture where many Kura Araxes cemeteries and sites are located (Rova 2014, 47). The valley is characterized by the middle course of the Kura River and an alluvial plain, as well as the hills surrounding the plain (Rova *et. al*. 2011, 5-7). The cemeteries in the Shida Kartli region can be found along the banks of the Kura River and on the slopes of multi-period mounds, natural hills and promontories. Figure 8 shows the location of cemeteries in Shida Kartli discussed below. They include grave types of earth pits, stone-lined tombs, and a few kurgans. Though the

majority of the cemeteries are close to a domestic settlement, there are some such as Dzaghina West and Tqhviavi which are seemingly completely isolated. The majority of the burials within the cemeteries are individual burials, however there tends to be at least one collective grave with over three skeletons per cemetery as well. The following cemeteries are arranged in alphabetical order and recorded in tables located in Appendix 1.

Aradetis Orgora

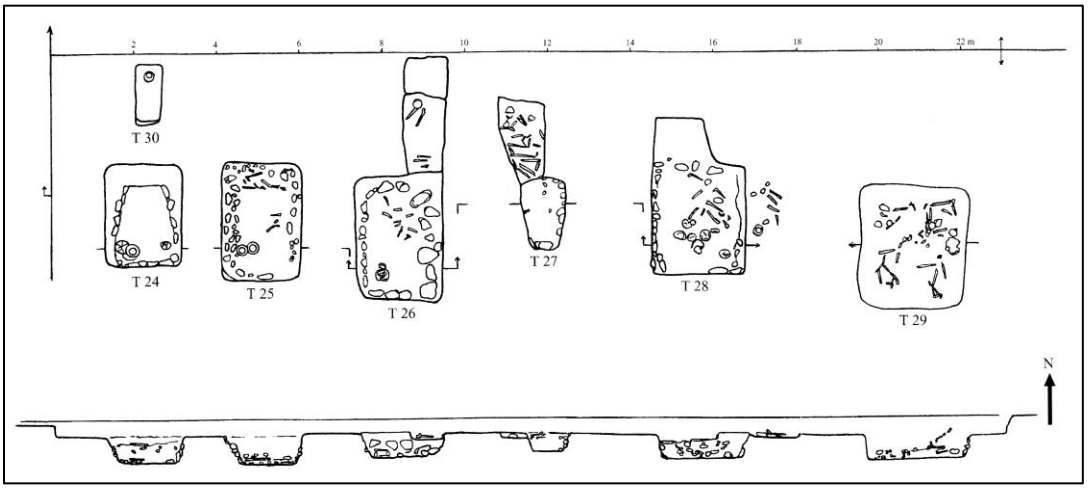


Figure 9: Seven stone-lined tombs from Aradetis Orgora (Koridze and Palumbi 2008, 125).

Aradetis Orgora was excavated from 1979 to 1982 by the Dedopolis Mindori expedition, directed by I. Gagoshidze. His publications were written in Georgian, however Palumbi and Koridze have translated the information in their contribution to *Archaeology in the Southern Caucasus: Perspectives from Georgia* (Koridze and Palumbi 2004, 125- 52), as well as Koridze in *Khashuri Natsargora: The Early Bronze Age Graves*. *Publications of the Georgian- Italian Shida Kartli Archaeological Project I* (Koridze 2012, 75- 82). The site is comprised of three hills, located around 500 meters north of the Kura River. The cemetery, which included 12 tombs, was located on a flat area between the main mound and a nearby highway (Rova 2014, 51). The majority of the tombs were located on the western section of the hill, however there was one tomb found on the eastern section. The tombs were comprised of stone-lined rectangular graves and oval pits. It is emphasized that the Kura Araxes cemetery has not been fully excavated and therefore there may be more tombs to discover. By comparing the grave goods with other burials such as at Kvatskhela, the tombs were dated to around 2,800- 2,750 B.C.E. or KA II (Palumbi and Koridze 2004, 125). However, recently, Rova dated the cemetery to the KA III phase due to ceramic typologies and this date will be used in this study (Rova 2014, 51).

The 13 graves were all oriented N-S and contained both individual and collective inhumations. The collective tombs involved secondary burials with disarticulated bones on the side as well as an undisturbed skeleton. This potentially represents the pushing aside of the bones of the previous occupant to make room for the newly dead. The grave goods included ceramics, stone and copper beads, copper spiral jewelry and bone spindle whorls (Palumbi and Kiguradze 2004, 127-133). For a detailed information table see Appendix 1.1. Figure 9 above shows seven tomb constructions and their location in relation to each other in the cemetery.

Dzaghina West

The Dzaghina cemeteries were excavated separately by B.R. Kuftin and O. Japaridze in the 1950s and were described together in works by the Georgian- Italian Shida Kartli Archaeological Project. Overall, 12 graves were excavated within Dzaghina East and Dzaghina West. The burials from the Western area were dated by Japaridze to around 2,400-2,300 B.C.E., which corresponds to KA III. The Eastern area was dated later, to the transition into the second millennium. Therefore I will only discuss the western cemetery (Ketskhoveli *et al*. 2012, 84, 89). Recently, based on ceramic typologies Rova dated this cemetery to KA II, which will be used in this study (Rova 2014, 53). The Dzaghina West cemetery is located near the modern village of Dzaghina in Shida Kartli. The skeletal remains within the burials were badly preserved, however according to the excavators the majority were most likely flexed and lying on their right side with the head to the north or the west. Whether they were individual or collective burials was not discussed. All burials were earthen pit graves covered by a small pile of stones. The main detailed information provided by the excavators were the grave goods which included ceramics, a clay spindle-whorl, a basalt grindstone, flint blades and some copper items (Ketskhoveli *et al*. 2012, 84-5). For a detailed information table see Appendix 1.2.

Khashuri Natsargora

The settlement of Khizanaant Gora and it's cemetery of Khashuri Natsargora were excavated by Ramishvili in the 1980's and 1990's (Ramishvili and Rova 2012, 11-27). The cemetery was located on a gradual slope around two-hundred meters south of the settlement mound, on the right of a stream. Five-hundred graves were excavated dating from the Bronze Age through to Classical Antiquity. Twenty-six of the graves were dated to the Early Bronze Age specifically and are demonstrated in figure 10. According to the excavators, the Early Bronze Age cemetery was most likely used for a short period of time due to the fact that no

other third millennium graves cut the graves (Ramishvili and Rova 2012, 11). The majority have been dated to the end of the fourth until the mid-third millennium, or KA I-II, more likely to be KA II (Puturidze and Rova 2012, 97; Rova 2014, 51). Most were individual inhumation rectangular pit burials oriented NW-SE or N-S with some variation, whose individual remains were flexed on their right or left side, and their heads were oriented south. The grave goods included ceramic vessels placed near the head or by the torso, animal bones, copper spiral jewelry and stone beads (Ramishvili and Rova 2012, 11-27). For a detailed information table see Appendix 1.3.

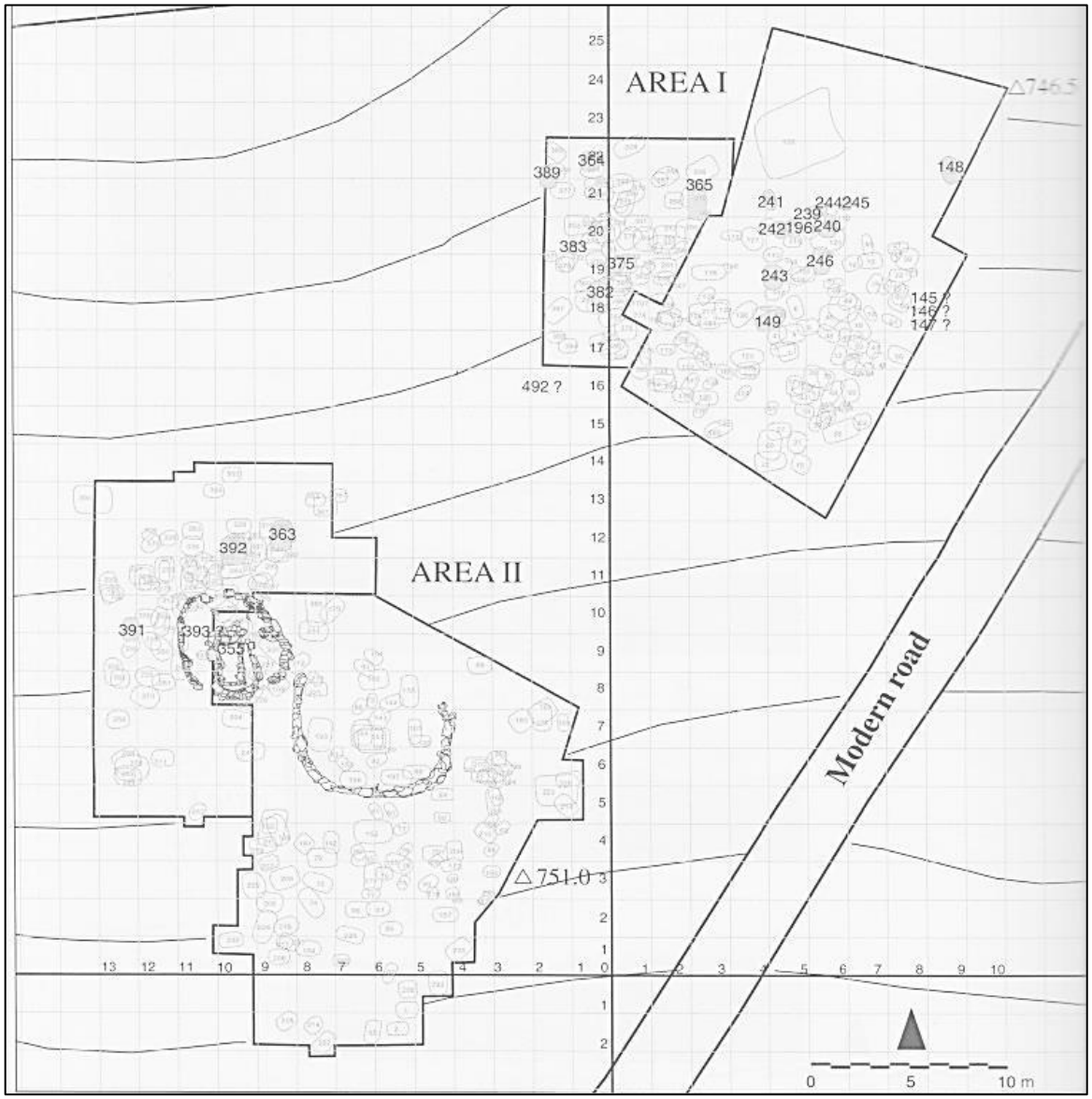


Figure 10: Khashuri Natsargora cemetery plan, Early Bronze Age graves are in bold (After Rova *et. al.* 2012, 116).

Kvatskhela

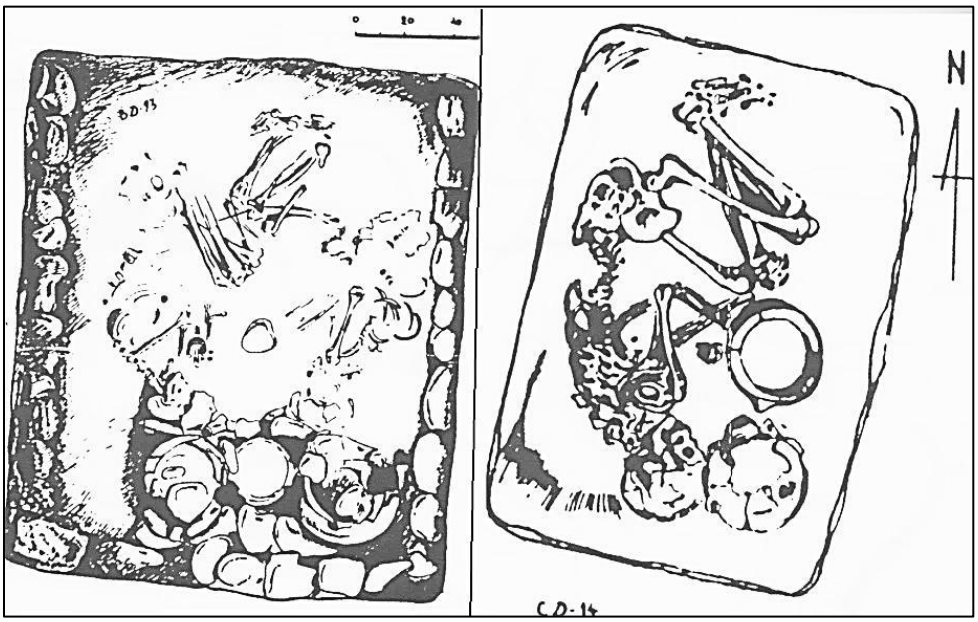


Figure 11: Graves 1 and 5 from Kvatskhela (After Rova *et*. *al*. 2012, 152).

The settlement of Kvatskhelebi and the cemetery of Kvatskhela were excavated from 1954 to 1964 by I. Berdzenishvili, L. Glonti and A. Djavakhishvili. The site is located on a terrace overlooking the left bank of the Kura River. Fifteen graves were excavated on the northern edge of the site, four of which (1, 3, 4 and 5) were dated to the last quarter of the fourth millennium B.C.E, or KA I by the excavators (Glonti *et al*. 2008, 153-5). However, according to Elena Rova, the majority of the graves in the cemetery correspond to an early and later date within KA II, which will be used in this study (Rova 2014, 50). Three graves (2, 5, and 8) are significant in that they contain a large amount of rich metal items including spiral jewelry, while the rest of the graves do not. Most of the graves were individual graves oriented N-S, while some were oriented NE-SW and E-W (Glonti *et al*. 2008, 153-5). The majority of the graves have been called shaft graves lined with stones and covered by a tumulus of stones by Glonti, or have been described as rectangular pits lined with pebbles and covered by a pile of stones by Jalabadze (Glonti *et*. *al*. 2008, 155). I would place these in the category of stone-lined tombs that can come in various shapes with various coverings, but are not cists as the lining is made of smaller pebbles. In comparison to other stone-lined graves however, these tend to be much deeper. Figure 11 shows a stone-lined grave and a pit with a single individual. As shown, the grave goods are placed near the head or by the bent knees. For a detailed information table see Appendix 1.4.

Tvlepias Tsqharo

The cemetery of Tvlepias Tsqharo, also known as Tulepia, was located around 200 meters from the settlement of Kvatskhelebi, on a small promontory overlooking the valley of the Kura River. Four graves were discovered there, dated to the KA II period. The graves have been disturbed heavily by agricultural activities, but were generally oriented E-W (Glonti 2012, 66-7; Rova 2014, 53). They contained disarticulated bone fragments, perhaps due to the agricultural activities. The number of individuals could not be calculated exactly, but it seems all the graves besides grave four were collective. All were rectangular pits covered by or filled with stones and were quite rich in grave goods. They contained a large amount of stone beads, flint arrowheads, and some metal spiral jewelry. Grave one showed signs of child skeletal remains and of being burnt from within (Glonti 2012, 66-7). For a detailed information table see Appendix 1.5.

Tqhviavi

Tqhviavi is a cemetery made up of three kurgans, located in the northern area of the Shida Kartli, near Dzaghina West. The kurgans were excavated in the 1930's by S. Makalatia and dated to the Kura Araxes period but not any more specifically. All kurgans contained an earth pit covered by a large structure of stones above ground, which was not described in detail. Two of the kurgans were collective with 42 individuals and two individuals, while the third had one individual. It can be safely argued that the cemetery is dated either to KA I or KA II due to the size of the number of individuals and the grave good types which were common in Georgia during these phases. Grave goods were rather poor, but included ceramic vessels, flint arrowheads, some metal and stone weapons and a few copper spiral items (Kvetskhoveli *et. al.* 2012, 90). For a detailed information table see Appendix 1.6.

Urbnisi

Urbnisi was excavated by the S. Janashia Georgia State Museum directed by N. Berdzenishvili. The cemetery is located in the western section of the settlement of Khizanaant Gora. Nine burials were excavated, of which seven were located in the same area, while two were located in other areas of the settlement. The graves were all individual pit burials facing E-W and were dated to KA II. The majority of the skeletal remains were disturbed, but for some it was concluded that they were flexed on their side. Grave goods included almost exclusively ceramic vessels, except for one richer grave (Grave 44), which contained copper spiral jewelry and stone beads (Chilashvili *et. al* 2012, 70-4; Rova 2014, 53). For a detailed information table see Appendix 1.7.

4.1.2 The Kvemo- Kartli Province of Georgia

The Kvemo Kartli province is located directly south of and bordering the Shida Kartli province. It is characterized by plains, river valleys, plateaus and canyons, but is mostly mountainous. It is surrounded on three sides by the Kakheti, Trialeti and Javakheti mountain ranges and on the fourth side by the Azerbaijan plain (Mirtskhulava *et al*. 2005, 5). The cemeteries, shown in figure 12, are found along river-banks or on ridges in the more mountainous areas. They include stone-lined graves and pit graves as well as horseshoe graves and cists, which had not been seen at all in Shida Kartli. Most cemeteries in Kvemo Kartli had a majority of collective burials versus single burials, which is also in contrast to Shida Kartli burial characteristics.

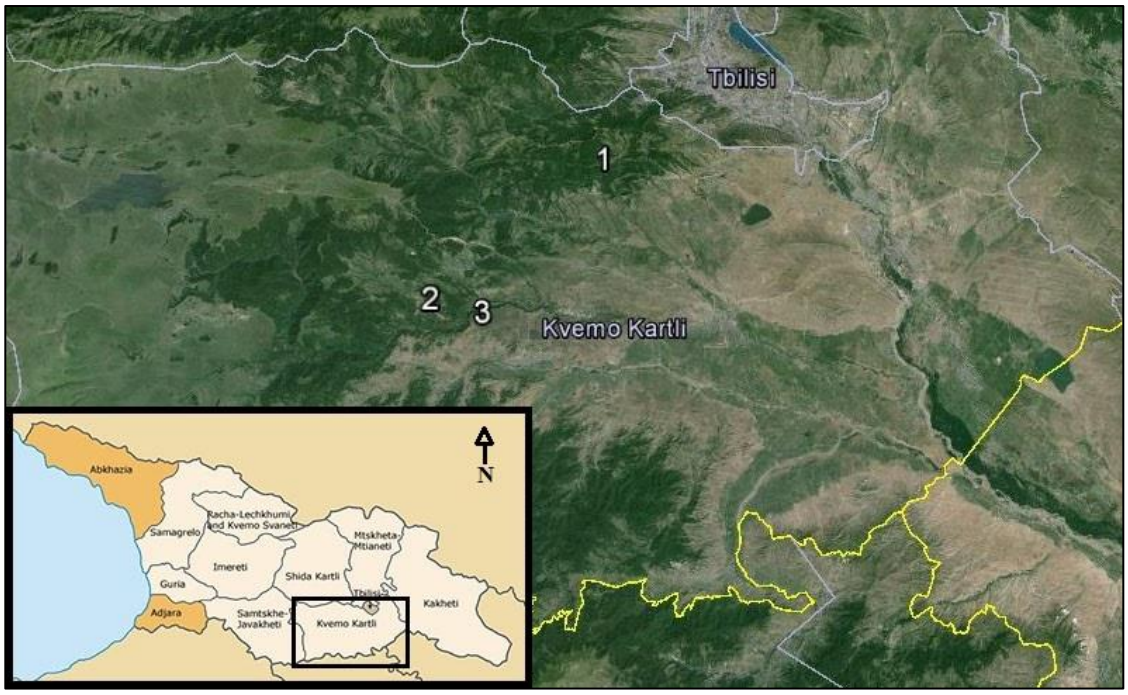


Figure 12: Kura Araxes cemeteries in the Kvemo Kartli province of Georgia. 1= Kiketi, 2= Nachivchavebi, 3= Samshvilde (Corner Image: After Chavchavadze.si.edu; Main Image: Google Earth).

Kiketi

Kiketi is located on the west bank of the Asureti- Skali river on the plain of Kvemo Kartli, at around 1200 meters in altitude. The cemetery was originally excavated by Pchelina in the 1920's, by Kuftin in the 1940's and then G. Pkhakadze continued excavations in the 1960's (Poulmarc'h 2014, 196). Fourteen graves were discovered at the site, plus a few traces of potentially temporary occupation, yet the overall site was not connected to any larger

settlement nearby. Pkhakadze separated the cemetery into three chronological phases, all between 3,200 to 2,800 B.C., or KAI- KA II. According to Palumbi, the cemetery included pit graves, stone cist tombs and horseshoe tombs (Palumbi 2008, 147, 158). However, according to Poulmarc'h, there were only pit graves and horseshoe tombs, two of which are shown in figure 13, below (Poulmarc'h 2014, 200). All the tombs except one were collective burials where some bodies were in a flexed position on the right or left side, next to the disarticulated remains of previous occupants of the grave or they were all disarticulated (Palumbi 2008, 158). The grave goods included almost exclusively ceramic vessels, except for a few stone beads and sheep bones in two burials (Poulmarc'h 2014, 201-3). For a detailed information table see Appendix 1.8.

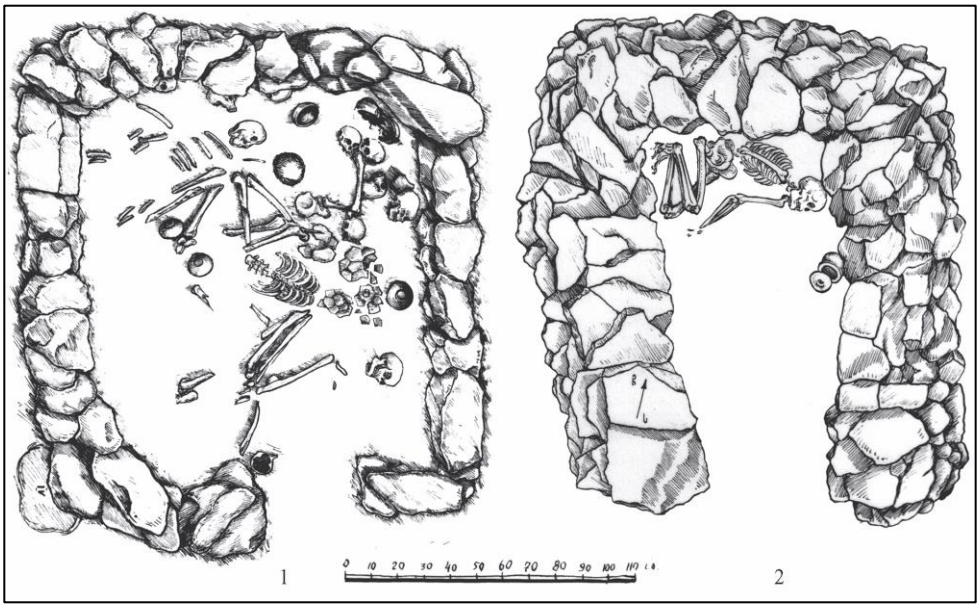


Figure 13: Example of two horseshoe graves from Kiketi (Palumbi 2008, 159).

Nachivchavebi

The cemetery of Nachivchavebi was excavated in 2003 and 2004 by the Tetrisqaro Archaeological expedition. The site lies on a forested mountainside slope, deep within the Chivchavi River gorge. Excavators believe the settlement is situated nearby in an unexcavated area. Five burials were found in total. Four were dated based on the tomb constructions and stratigraphic comparisons with Shida Kartli to the early stage of the Kura Araxes culture, or KA I. Three graves (1, 2 and 5) were stone-lined in multiple shapes and one (Grave 3) was defined as a pit with a stone mound. It is unclear whether the mound was inside the pit or on top of it. The graves generally included both males, females and children. Only one burial contained a single child. The ceramic vessels included mainly

ceramics, but also obsidian remains. Particularly interesting is the fact that a ceramic vessel from grave three was found to have the pollen of hazelnut, bear-nut, walnut, a cultivated vine and oak (Chikovani *et. al.* 2010, 96-100). For a detailed information table see Appendix 1.9.

Samshvilde

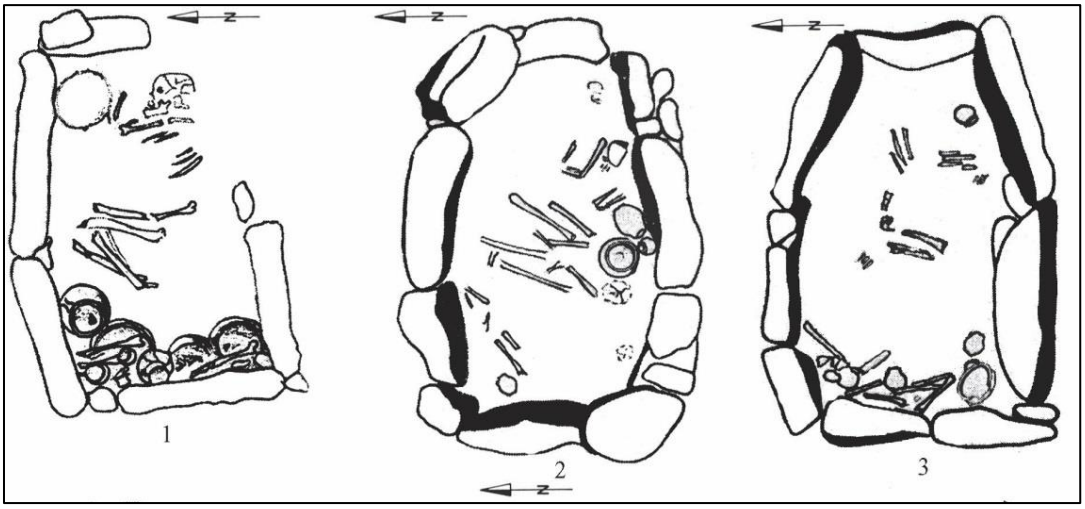


Figure 14: A cist (1) and two stone-lined graves (2-3) from Samshvilde (After Palumbi 2008, 142).

Samshvilde is located in the mountainous region of Kvemo Kartli on the southern hillside of Karknali Mountain at around 925 meters in altitude (Mirtskhulava *et. al.* 2005, 6). It was excavated by Mirtskhulava in the 1970s. The cemetery was located around 600 meters to the north of a nearby settlement and dates to level II of the settlement (Palumbi 2008, 28). The cemetery included 35 tombs, some of which were cists and others which were rectangular stone-lined tombs. They were all collective, with the same disarticulated skeletons pushed aside as seen in cist tombs at other cemeteries. Grave goods included ceramic vessels, stone beads, copper spiral jewelry, bone rings, which were rare, obsidian arrowheads, and bone and stone spindle whorls (Palumbi 2008, 162). Figure 14 shows an image for a cist and two stone-lined graves.

4.1.3 The Samtskhe- Javakheti Province of Georgia

There have not been many archaeological investigations in the Samtskhe- Javakheti province of Georgia, which is located to the west of Shida Kartli and Kvemo Kartli. It borders Armenia and the northeastern tip of Turkey and is characterized by mountains, valleys, and volcanic reliefs (Kakhiani *et al*. 2013, 1; Gogochuri and Orjonikidze 2007, 7). The three cemeteries discussed below are shown in figure 15. The burials were commonly cist tombs or pit graves, with a wide range from individual to double to collective burials.

Figure 15: Kura Araxes cemeteries in the Samtskhe- Javakheti province of Georgia. 1= Amiranis Gora, 2= Chobareti, 3= Tiselis Seri (Corner Image: After Chavchavadze.si.edu; Main Image: Google Earth).

Amiranis Gora

Amiranis Gora is located on artificial terraces on the sides of a mountain, around 1000 meters in altitude, located close to a settlement and was dated to KA I. It was excavated by Chubinishvili in the 1950's (Palumbi 2008, 192; Kushnareva 1997, 75; Kakhiani *et al*. 2013, 1). The grave clusters were located in either abandoned or unoccupied areas of the settlement (Kushnareva 1997, 52, 55). They included 48 burials, the majority of which, according to Palumbi, were cist tombs. In the illustration provided by Palumbi that shows a plan of all the

graves, it seems that some were cist tombs and others were rectangular stone-lined tombs, as the stones were smaller and over three per side, as shown in figure 16 (Palumbi 2008, 142). Kushnareva also described two horseshoe tombs and that the number of individuals per grave ranged from individual to double to collective of up to four people (Kushnareva 1997, 55). Grave 16 was a horseshoe tomb with four individuals, whose bones were disarticulated among four levels (Poulmarc'h 2014, 92). The majority of the burials however, were single burials with the body in a flexed position lying on their left or right side. Grave goods included animal bones from bovines, most likely cows, ceramic vessels, metal (most likely copper) swords, rings, copper spiral jewelry and copper and carnelian beads (Palumbi 2008, 141-2).

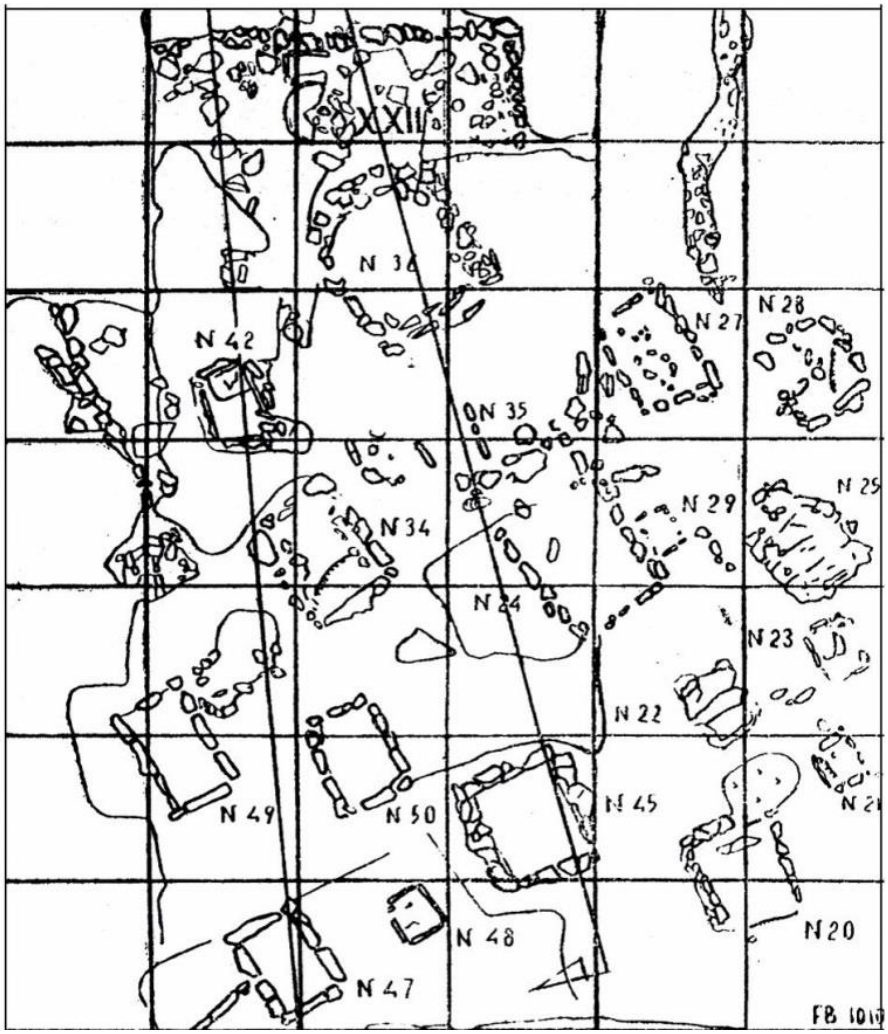


Figure 16: A plan of the Amiranis Gora cemetery with grave numbers (After Palumbi 2014, 142).

Chobareti

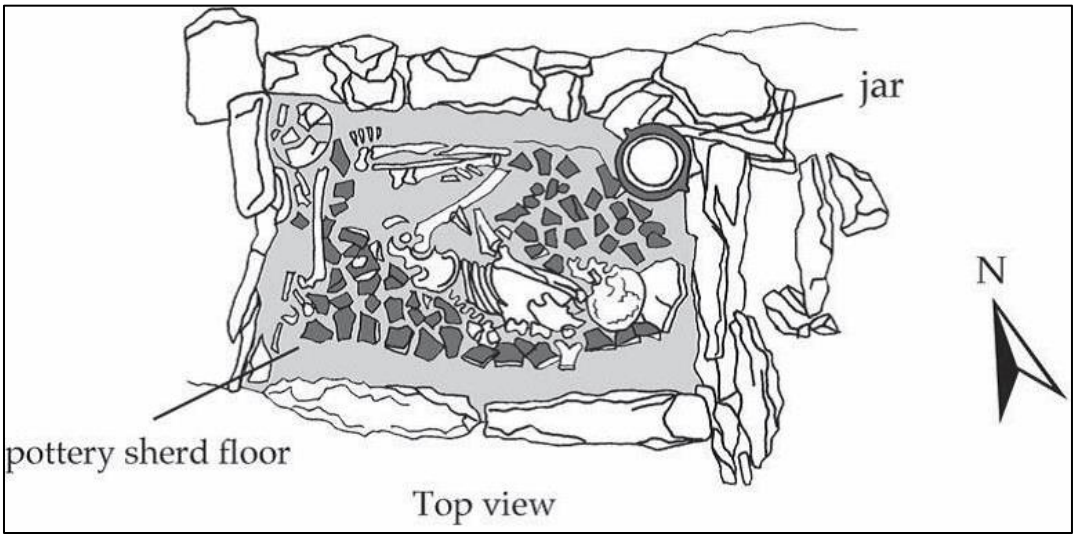


Figure 17: Grave 8 from Chobareti (After Kakhiani *et. al.* 2013, 74).

Chobareti was excavated from 2009- 2013 under the direction of the Georgian National Museum, the University of Nice and the University of Melbourne (Kakhiani *et al.* 2013, 1). The site is located on the peaks of the Chobareti mountains, around 1,610 meters above sea level. It includes the southern slopes of two small hills and the connection in between, the northern slopes overlooking the Kura Valley and artificial terraces (Kakhiani *et. al.* 2013, 7). Nine burials were found on the area connecting the two small hills. The nearby settlement was dated to around 3,300- 3,000 B.C.E. or KA I but it is possible the cemetery is later. The majority of the tombs were described as stone cist tombs, one of which had wooden beams, oriented E-W (1-4, 6-8), and one circular pit being re-used as a grave (5). The ninth burial was a child jar burial placed beneath a building and will not be included as it was located in the settlement and may have been from the Late Chalcolithic. Though the excavators call the tombs cist tombs, some were stone-lined tombs with smaller stones lining the tomb, as shown in figure 17. The tomb in figure 17 also demonstrates the use of ceramic sherds to line the bottom of the grave. The grave goods overall included ceramic vessels and bone spindle-whorls. The majority of the individual graves contained males flexed on their side or pushed aside. The collective burial of one grave (8) contained two females (Kakhiani *et. al.* 2013, 11, 14, 48-9). For a detailed information table see Appendix 1.10.

Tiselis Seri

Tiselis Seri is located on the western slope of a ridge between the Borjomi and Akhaltsikhe districts. It is located at an altitude of 1,607 meters near a contemporary settlement. The

cemetery includes ten burials, nine of which were pit graves and one which was a stone-lined rectangular grave with a timber beam roof. It has been dated to around the second quarter of the third millennium B.C.E., or KA III. The majority of the burials are individual except for two double graves which both contain two adult males. They were generally oriented NW to SE, with the deceased's head towards the south and contained very few grave goods mainly of ceramic vessels or animal bones. The richest grave (4), which was also the stone-lined grave, belonged to a female buried with a bone blade, stone beads and a sheep jaw (Gogochuri and Orjonikidze 2010, 119-20). For a detailed information table see Appendix 1.11.

4.2 Kura Araxes Cemeteries in Armenia

4.2.1 The Shirak Province

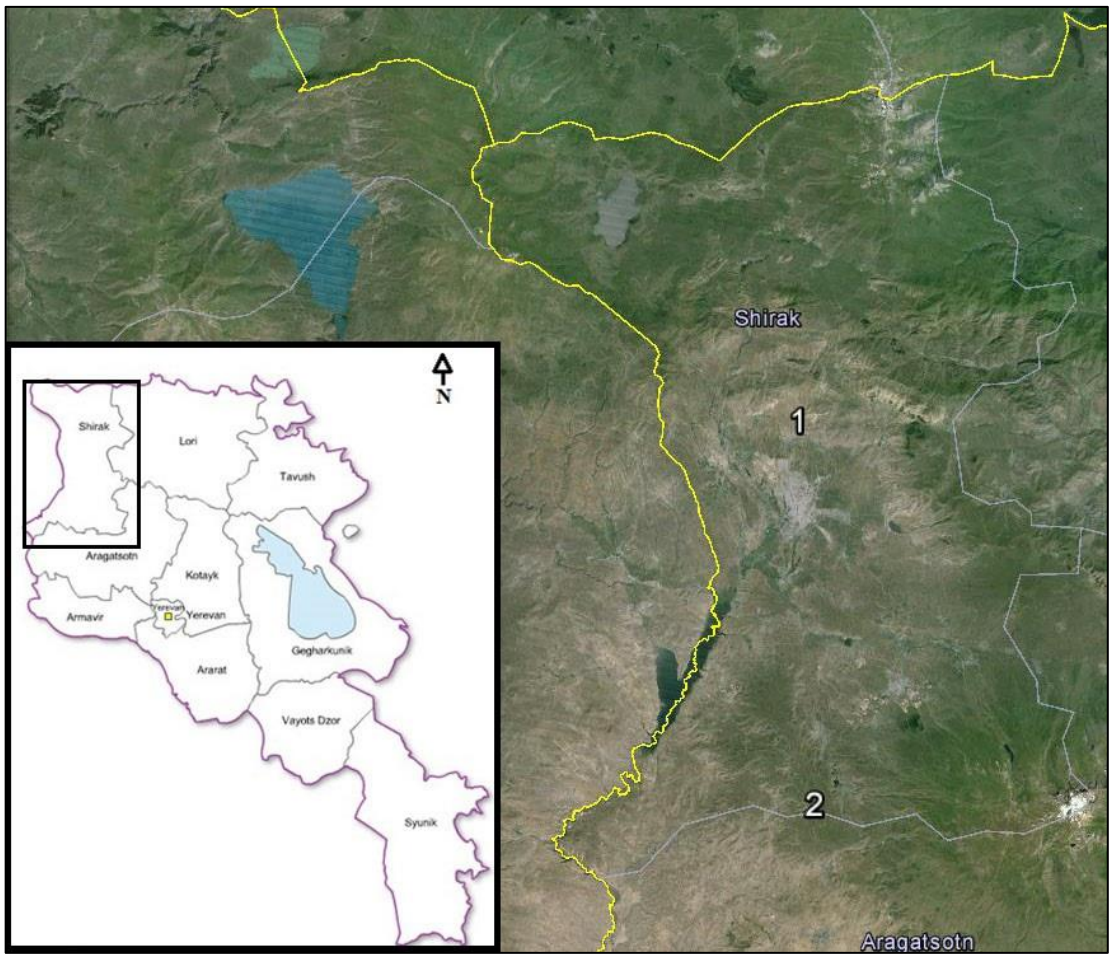


Figure 18: Map of Kura Araxes cemeteries in the Shirak province of Armenia. 1= Keti I, II, III, 2= Lanjik (Corner Image: After www.map.comersis.com; Main Image: Google Earth).

The Shirak Province, particularly the Shirak Plain, is home to many Early Bronze Age Kura Araxes sites, two of which are shown in figure 18 and discussed below. The Shirak Plain is a very fertile, flat area surrounded by mountains on the north, south and eastern sides and is very suitable to rain-fed agriculture. It also shares a border with Turkey delineated by the Akhurjan River. The entire Shirak province can be characterized by alternating steppe and mountain landscapes, with higher areas on the slopes of the nearby mountains such as Mt. Aragats to the south, the Shirak range to the north and the Pambaks range to the east. Many of the Shirak province settlements from the Early Bronze Age are located on these lower mountain slopes or on the bank of the Akhurjan River (Badaljan *et. al*. 1992, 31). The majority of information for the graves in this section and the rest of the chapter are from the

work *Bronze and Early Iron Age Archaeological Sites in Armenia: Mt. Aragats and Its Surrounding Region* by Badalyan and Avetsyan, which provides a catalogue of many Armenian sites. Generally the tombs of the Shirak province are cist graves or stone-lined rectangular graves with multiple courses of stone, including an entrance and in some cases a dromos or small hallway. All graves studied here are collective and only contain ceramic vessels, which is in contrast to the Shida Kartli province of Georgia with its majority individual graves and grave goods that include bone, beads and metal. All cemeteries are listed in alphabetical order.

Keti (I, II, III)

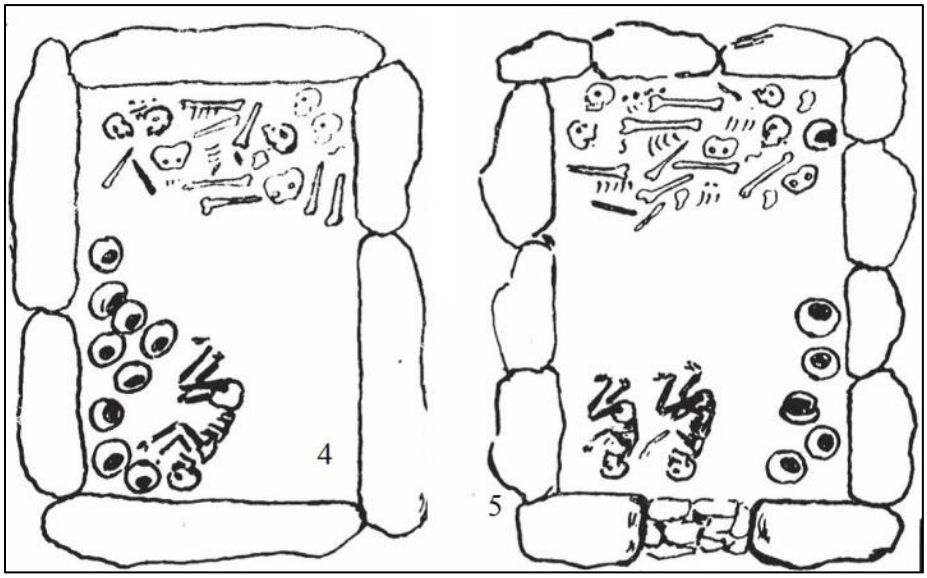


Figure 19: Graves 4 and 5 from Keti (After Palumbi 2008, 140).

The Early Bronze Age settlement and cemeteries of Keti were excavated by Petrosian in the 1980s. They are located on the south flank of the Shirak mountain range and on the northern edge of the Shirak Plain. The settlement itself was located on the lower part of the flank of a sixty meter high hill surrounded by ravines. It included a fortress on the crest of the hill (Badalyan and Avetsyan 2007, 157). The burials were scattered around the settlement to the east (Keti I: Graves 4, 5, 7, 8, 9), southwest (Keti II: Grave 6), and northeast (Keti III: Graves 1, 2, 3). Nine burials were excavated, the majority being dated to the first half of the third millennium or KA II, except for two graves (8 and 9), which were dated to the second half of the third millennium or KA III (Badalyan and Avetsyan 2007, 157-173). Palumbi, however, believes Graves 8 and 9 should be dated earlier (Palumbi 2008, 192).

Generally all graves are labeled as cist burials because they were built with large rectangular stone slabs (Palumbi 2008, 190). However, Poulmarc'h places them within her variable tombs category due to the fact that there are multiple courses of stones (Poulmarc'h 2014, 88). By studying the one image of Graves 4 and 5, shown in figure 19, I would label grave 4 as a cist as it has two stones lining each side, and 5 as a stone-lined grave as there are up to eight stones lining its outermost course. For the other graves however, I will label them as both since there are no images provided. The graves also included an entrance located on the south side covered by two to three large stone slabs and contained a dromos or hallway. They were all oriented N-S and were collective burials with up to seven individuals. All graves included one or two flexed individuals lying on their side with the disarticulated skeletal remains of the other inhabitants pushed to the side. The grave goods were quite poor in type, only including ceramic vessels (Badalyan and Avetsyan 2007 157-73; Palumbi 2008, 190). For a detailed information table see Appendix 2.1.

Lanjik

The Lanjik settlement and cemetery is located on the western foothills of the Aragats range on an outcrop on the southern edge of the modern day Lanjik village. The cemetery is located to the south of the settlement (Badalyan and Avetsyan 2007, 198). It includes one so-called cist grave with ten individuals, although as with Keti, Poulmarc'h called it a variable stone-lined grave (Badalyan and Avetsyan 2007, 199; Poulmarc'h 2014, 88). As I do not have access to a photo of the grave I will record it is either a cist or a stone-lined grave. It has been dated from the second half of the fourth millennium to the early third millennium, or KA I and contained two males, six females and two children who were flexed on their side or on their back. Grave goods included ten ceramic vessels. (Badalyan and Avetsyan 2007, 199). For a detailed information table see Appendix 2.2.

4.2.2 Other Armenian Provinces

Kura Araxes cemeteries have also been excavated in almost all of the other Armenian provinces. Those to be discussed below are located below the Shirak province, along the western border of Armenia (Talin, Tsaghkalanj) as well as within central Armenia (Elar) and central-eastern Armenia (Kalavan I). All cemetery locations are shown in figure 20. Northwestern and central eastern Armenia was characterized by mountain grasslands at higher elevations where some of these sites were located (Connor and Kvavadze 2014, 18). The majority of the cemeteries include pit graves, and kurgans but there are also examples of cists and stone-lined graves. The grave goods are richer than those from the Shirak province

as they include beads and metal, mostly bronze, objects. All cemeteries are listed in alphabetical order.

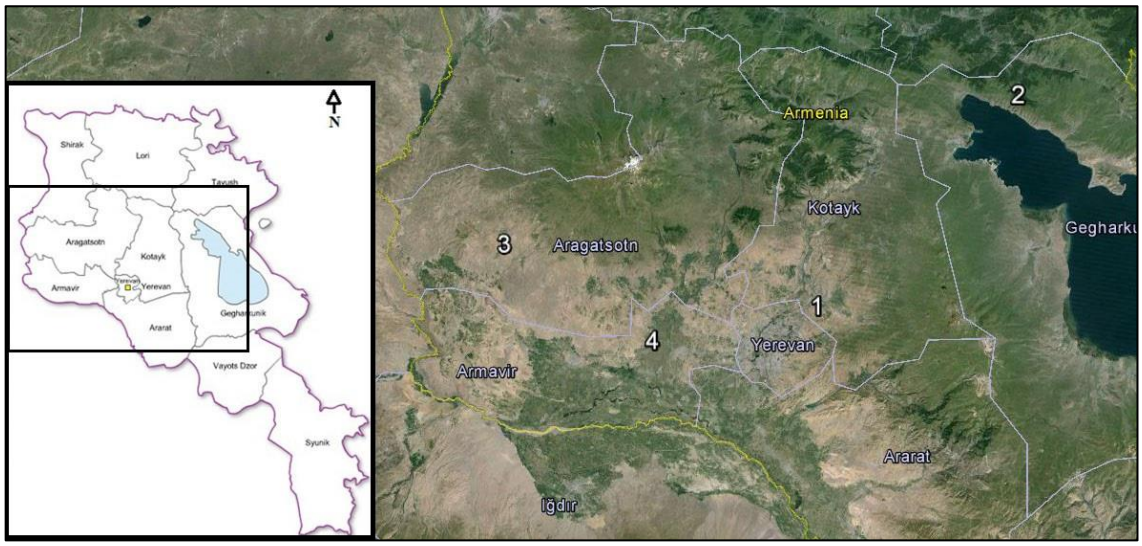


Figure 20: Map of Kura Araxes cemeteries in other provinces in Armenia. 1= Elar, 2= Kalavan I, 3= Talin, 4= Tsaghkalanj (Corner Image: After www.map.comersis.com; Main Image: Google Earth).

Elar

Elar is a settlement and cemetery that was excavated by Lalian, Bayburtan and Khanzadian in the 1970s. It is located on a high rocky outcrop where the settlement was also fortified (Sagona 1984, 56). It is located in the Kotayk province, around 60 km north of Yerevan the capital of Armenia at around 1,500 meters in altitude (Palumbi 2008, 194). Palumbi and Sagona state that the cemetery is made up of cists, horseshoe graves, and rectangular pits (Palumbi 2008, 194; Sagona 1984, 56). However, Sagona describes the cist graves as being constructed of 6 or more stone slabs which would place them in the category of stone-lined graves instead of cists (Sagona 1984, 56). By studying the images available it seems there was at least one cist grave, which was lined with one to two large stones per side, as shown in figure 21. From studying the ceramics Palumbi has stated that some burials can be dated to the end of the fourth millennium or KA I, while others can be dated to around KA II or KA III (Palumbi 2008, 194). Kushnareva on the other hand, placed the entire cemetery within the KA II period of 2,900- 2,600 B.C.E. (Kushanreva 1997, 54). There is a possibility that the cemetery may have been used throughout all of the Kura Araxes phases, but mostly in KA II which is the date used in this study. Generally, the grave contains individuals who are lying on their right side, however nowhere is it specified whether the graves are collective or individual. By studying the images from the excavation of Elar it seems the majority were individual. The majority of the grave goods include ceramic vessels, placed near the head or

arms, and other metal and stone objects, including multiple weapons (Sagona 1984- 56-7; Khanzadyan 1979, 36-49). For a more detailed information table see Appendix 2.3.

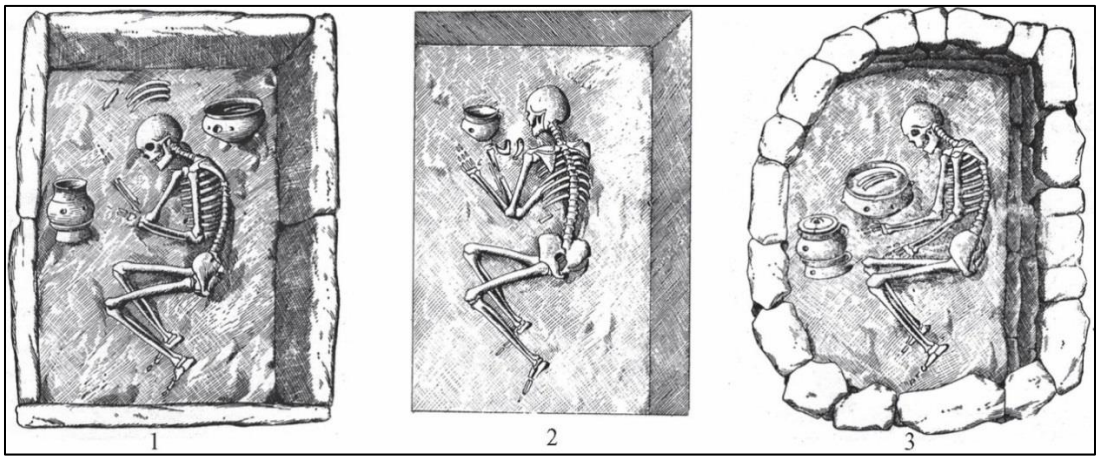


Figure 21: A cist, pit grave and horseshoe grave from Elar (After Palumbi 2008, 140).

Kalavan I

Kalavan is located in the Gegharkunik province within the Aregunyats mountain chain on the north shore of lake Sevan at around 1,600 m in altitude. This region connects to the Kura Valley and is very close to the border with Azerbaijan. It was excavated beginning in 2005 by Chataigner and Gasparyan, where in two field seasons they uncovered five graves. No nearby settlement has, as of now, been discovered. The graves were dated to the mid-third millennium, around 2,600 to 2,400 B.C., or KA III using radiocarbon dates from human and animal bones. All individuals are oriented E-W with their feet pointing west (Poulmarc'h 2014, 252-5). The majority of the graves are pits covered by a small pile of stones with individual skeletal remains, except for one collective grave (grave 5) with heavily disarticulated skeletal remains and potentially secondary deposition. The shape of the pits is unclear as their extent could not be calculated, however the stones covering them were in the shape of an oval. Grave goods included ceramic vessels, and two graves contained stone beads and bronze spiral jewelry (Poulmarc'h 2014, 256-84). For a detailed information table see Appendix 2.4.

Talin

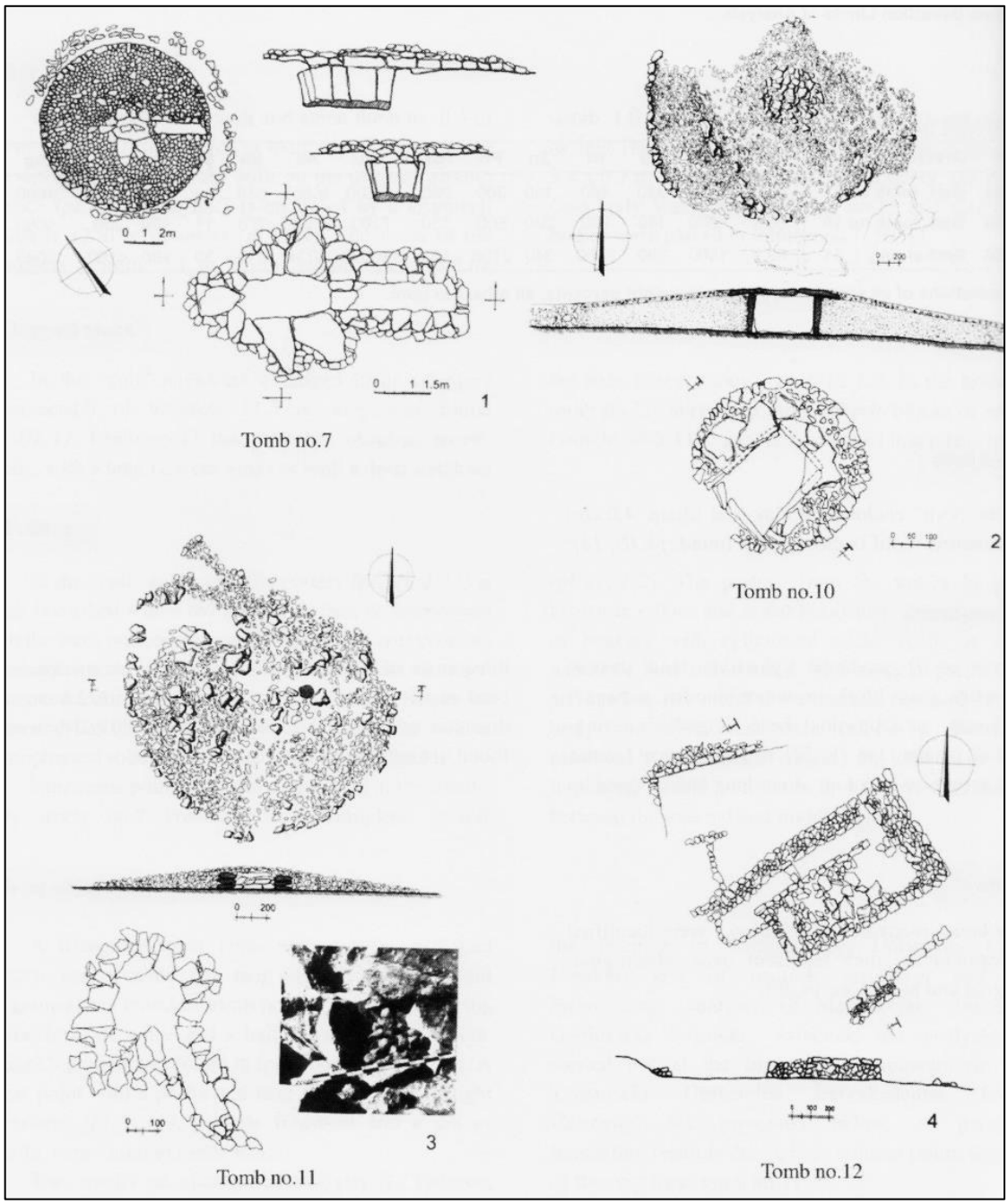


Figure 22: Kurgans 7, 10, 11 and 12 from Talin (Badalyan and Avetsyan 2007, 246).

Talin cemetery is located on the southwestern slopes of Mt. Aragats, at around 1,600 m in altitude on the Talin plateau of the Aragatsotn province. No nearby settlement has, as of yet, been discovered. It has been dated to the end of the fourth, beginning of the third millennium, or KA I (Kalantarian 2011, 124- 125; Badalyan and Avetsyan 2007, 242-4). Over 100 burials were excavated in this area, however only four (graves 7, 10, 11, 12) were dated to the

Early Bronze Age. These four burials are kurgans comprised of earth and stone tumuli around 1.4 to 1.6 meters in height. Within the center of each structure is the grave chamber itself, which can be of any construction. In this cemetery they included two stone-lined graves and one cist. Kurgan 12 contained a platform in the center, which was reached through a stone hallway, the only one of its kind in this study. The stone-lined graves were placed in a deeper pit, while the cist was placed on the ground surface directly. Some were encircled and enclosed by a cromlech, defined in chapter 3, which consisted of a wall comprised of one or more layers of vertical stones (graves 7, 10) while others were encircled only by soil and stone filling (graves 11, 12). The majority of the kurgans are oriented SE-NW and all are collective burials except for grave 12. The grave goods included ceramic vessels, stone beads and bronze weapons. Badalyan and Kalantarian both record different unique grave goods. Badalyan recorded a marble and shell pendant as well as a pile of obsidian slabs while Kalantarian recorded a bronze head adornment (Badalyan and Avetsyan 2007, 244; Kalantarian 2011, 124-5). It is unclear what the reason is for this difference, but I have included both in the table in Appendix 2.5. Figure 22 shows the construction of all four kurgans.

Tsaghkalanj

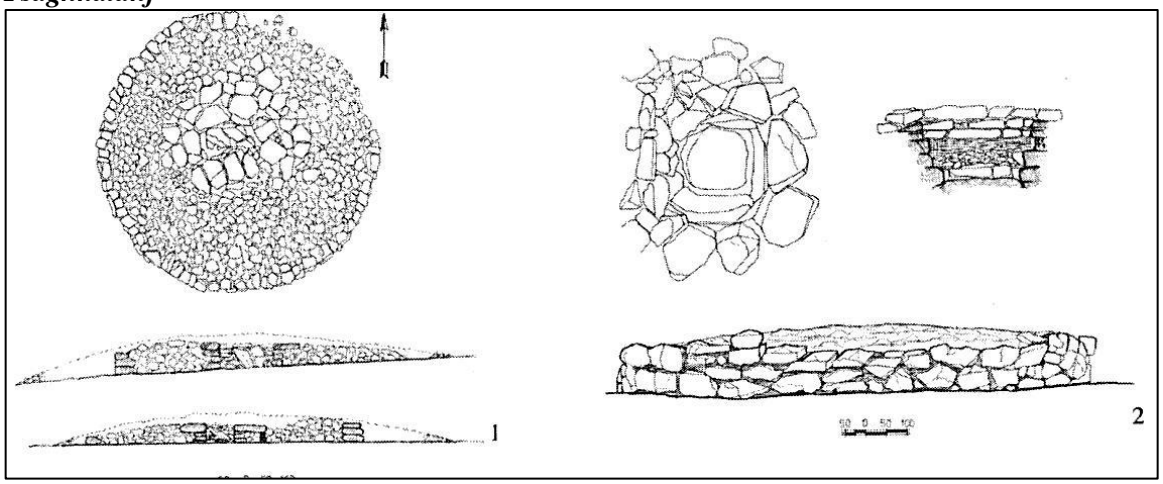


Figure 23: Kurgan 14 from Tsaghkalanj (After Badalyan and Avetsyan 2007, 274).

The settlement and cemetery of Tsaghkalanj is located in the Armavir province, in the contact zone between the northern edge of the Ararat Plain and the southern flank of Mt. Aragats. The area is characterized by undulating plains bordered by a range of hills. The cemetery is located around two kilometers from the settlement and contains three burials (1, 14, 36), but only the kurgans 14 and 36 are described. Grave 36 has been dated from the second half of the fourth millennium to the end of fourth, beginning of third millennium or

KA I. Both kurgans were constructed with a central grave enclosed by a stone cromlech. Kurgan 36 had a cist burial chamber separated by stone slabs, with 12 individuals inside. Kurgan 14 had zero individuals, and as shown in figure 23, included a cromlech surrounding a type of well structure. Grave goods included ceramic vessels and a bone spindle-whorl (Badalyan and Avetsyan 2007, 272-3). For a detailed information table see Appendix 2.6.

4.3 Cemeteries in Azerbaijan and Northwestern Iran; Anatolia and the Upper Euphrates; and the Southern Levant

4.3.1 Azerbaijan and Northwestern Iran

Figure 24: Map of Kura Araxes cemeteries in Azerbaijan. 1= Mentesh Tepe, 2= Uzun Rama (Google Earth).

Today the country of Azerbaijan borders Russia to the north, Armenia to the east and Iran to the south and the Caspian sea to the west. It includes the exclave of Nakhchivan, which borders Armenia to the east and north and Iran and Anatolia to the south and west. Nakhchivan has provided important evidence from sites such as Ovcular Tepesi, which has demonstrated the oldest evidence for Kura Araxes ceramics that co-existed with Late Chalcolithic wares (Marro *et. al.* 2014, 131). It was also an important area for the movement of people throughout Transcaucasia due to its strategic location and its wealth in natural resources. It is comprised of mountains and valleys of varying elevations with the east being the most mountainous, as well as plains that are part of the Araxes River basin (Ristvet *et. al.* 2011, 2-3; Bakhchaliyev *et. al.* 2009, 55). Within Azerbaijan more excavations have begun to take place recently, particularly in the realm of kurgan burials, demonstrating patterns such as destruction by fire in burial rituals. It has also demonstrated a general lack of permanent occupation settlements within the region (Lyonnet 2014, 119, 128).

Within much of the archaeological literature the countries of Azerbaijan and Northwestern Iran are combined due to the fact that their political borders have changed over the past 20 years and generally northwestern Iran is considered equivalent to western Azerbaijan or vice

versa (Omirani *et. al.* 2012, 1). In general Iran has been one of the least documented regions for the study of the Kura Araxes material culture, due not to a lack of sites but lack of attention paid to previous excavations (Summers 2014, 155-6). The majority of the sites that have Kura Araxes material culture in Iran are the sites surrounding the Urmia Lake basin. Some have also been documented as far as the Central Zagros and the Qazvin and Tehran plains in the northern areas of the central plateau and along the Caspian shore (Alizadeh *et. al.* 2015, 37; Omirani *et. al.* 2012, 1). However, unlike Azerbaijan, many of these sites are settlement sites or those with burials have not been published. A cemetery has been reported at the Kura Araxes settlement site of Kohne Shahar located in the Chaldran region, but has yet to be published in detail (Alizadeh 2015, 37-9). For the region of modern-day Azerbaijan two cemeteries from the Early Bronze Age will be discussed. Mentesh Tepe and Uzun Rama burials have been attributed to the Kura Araxes period specifically and are shown in figure 24.

Mentesh Tepe

Mentesh Tepe was first surveyed by I. Narimanov in the 1960's and was then excavated by Lyonnet as part of the Ancient Kura Project. It is located in western Azerbaijan in the Tovuz district, on the Mil Plain along a tributary of the Kura River, isolated from any nearby settlements (Lyonnet *et. al.* 2012, 86-7). It is around ten kilometers from Kalavan I, discussed in the previous chapter (Poulmarc'h 2014, 158). The cemetery includes a kurgan built into a mound of Neolithic and Chalcolithic material as well as two individual pit burials from a later period (Lyonnet *et. al.* 2012, 92-4). The kurgan is a collective burial in use from 3,500 to 2,900 BCE, or KA I (Pecqueur 2014, 240). The funerary chamber was oriented N-S, dug into the eastern side of the mound and included a dromos. According to Lyonnet, it was used for several centuries and was then set on fire. The burial chamber was built of wooden posts and a thin wall of perishable material. There were no remains of the roof, but it may have included a cover of large river pebbles. The kurgan, shown in figure 25, contained 36 individuals who were disarticulated and included ceramic vessels, bone-spindle whorls, stone beads, basalt grindstones and wooden baskets. The later burials were dated from 2,800 to 2,400 BCE or KA II-III and were located amongst contemporary storage pits and hearths (Lyonnet *et. al.* 2012, 92-6). Their shape and extent could not be determined (Poulmarc'h 2014, 152-8). According to Poulmarc'h, the skull within Grave 49 was incomplete due to a craniofacial block which may potentially represent a disturbed primary burial, a secondary burial or post-burial activity with re-opening the grave. She says the act of piling stones over

the grave may mirror the act of recovering the grave after opening it (Poulmarc'h 2014, 158). For a detailed information table see Appendix 3.1.

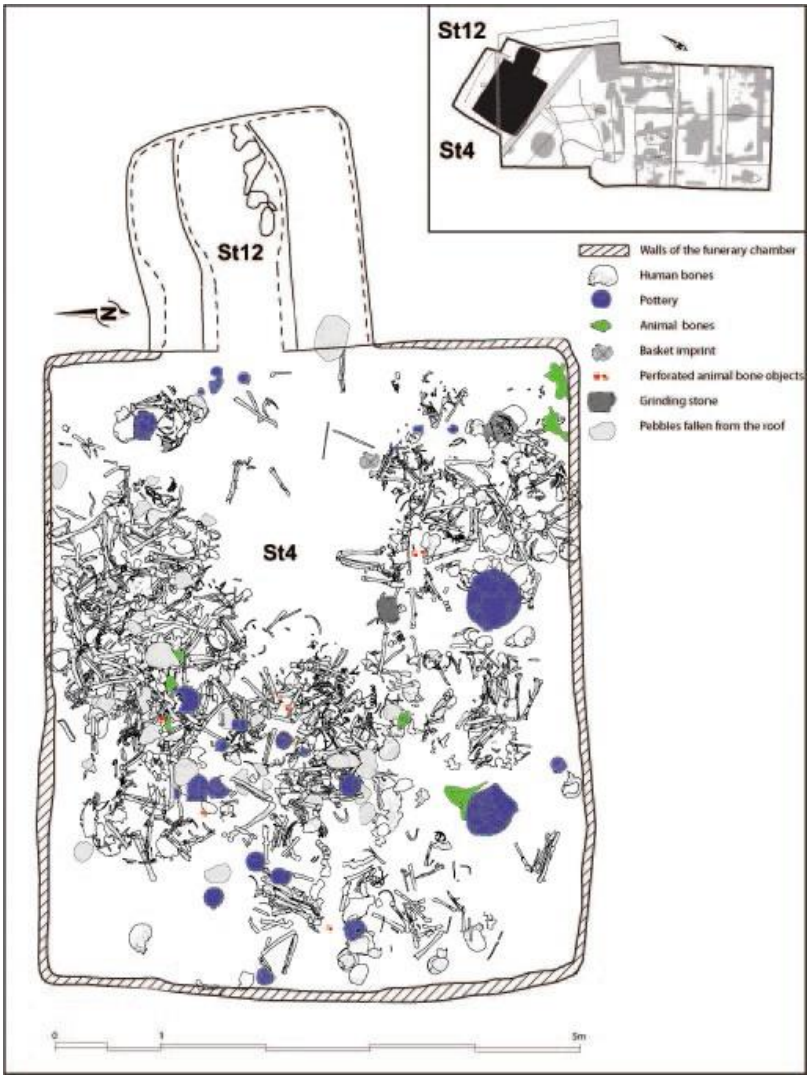


Figure 25: The kurgan from Mentesh Tepe (Lyonnet *et. al.* 2009, 93).

Uzun Rama

Uzun Rama is a kurgan burial located in the Goranboy district in a small arid plateau overlooking the Kura River alluvial plain and was excavated by Jalilov *et. al.* recently. It was isolated from any nearby settlements in the plain. The kurgan has been dated to the end of the fourth millennium or KA I. The kurgan was partially above ground, but mostly below the virgin soil. It included a surrounding cromlech wall of cobblestones and a mud brick rectangular chamber with curved corners. The chamber was covered by wooden beams and had four wood posts in each corner, as well as two wooden logs above the entrance. At one point the chamber was burnt, similarly to Mentesh Tepe, perhaps as part of a ritual. Many of

the skeletal remains and ceramic vessels were disturbed by the fire. There were up to 83 individuals of all ages, yet unidentified genders, inside and most of the bones were pushed aside to make room for the newly dead individuals. Grave goods included wooden vessels, stone beads, multiple bone spindle-whorls, caprine mandibles, cloth and a wooden bench with the remains of an individual (Poulmarc'h *et. al.* 2014, 242-4). For a detailed information table see Appendix 3.2.

4.3.2 Anatolia and the Upper Euphrates

Figure 26: Map of cemeteries with KKW Ware in Anatolia and the Upper Euphrates. 1=Arslantepe, 2= Carchemish, 3= Suyatağı (Google Earth).

Within the following two sections, the choice of cemeteries will be made based on the presence of at least one Red-Black-Burnished Ware (RBBW) or Khirbet Kerak (KKW) sherd or vessel due to the fact that once the archaeological evidence is from farther west, sites are

not attributed to the Kura Araxes culture directly. The Kura Araxes culture has been present in ceramic form within northeastern Anatolian settlements since the second half of the fourth millennium or KA I and extended into the Upper Euphrates Valley settlements of southeastern Anatolia and northeastern Iraq in the second phase of the material culture expansion, or KA II (Palumbi 2003, 81-3). According to Palumbi, the expansion of the culture can be seen not only in the spread of the ceramics but also in the construction of cist grave cemeteries throughout the Upper Euphrates Valley, which had not been seen previously (Palumbi 2007, 17). However, the amount of evidence for these ceramics particularly as grave goods within any grave types in this region is extremely low. Within the following three sites of Arslantepe, Carchemish and Suyatağı, whose locations are shown in figure 26, there are very few RBBW sherds, sometimes only one vessel in the entire excavated cemetery. This complicates the question of migration, however there is potential for further comparisons.

Arslantepe

The burial at Arslantepe was excavated by Frangipane in 1996. It is located on a mound site in the Upper Euphrates valley in southeastern Anatolia, along the left bank of the Euphrates River in the Malatya Plain. It is known as the "royal tomb" due to the rich funerary grave goods and the evidence for potential human sacrifice within the grave. It is dated to the end of the 4th millennium, around 3,000 to 2,900 B.C.E or KA I (Frangipane *et. al*. 2001, 106-8). It was discovered cutting into the Late Chalcolithic building levels at the site, on the western edge of the mound bordering the contemporary settlement nearby. The grave consisted of a cist (T1) lined with large stone slabs and two large capstones dug into the bottom of a larger rectangular pit (S150). It was a collective tomb oriented NE-SE with one male individual inside the cist grave, two individuals (male and female) located on top of the cist capstones and two females located on the western edge of the capstone. It is thought that the females may have died from blunt force trauma and that all four were probably part of a sacrifice. The Red-Black-Burnished Ware which was fond within the cist was of the Anatolian style, while the Red-Black Burnished Ware within the pit above was of the Transcaucasian style (Frangipane *et. al*. 2001, 108-29). Within the table in Appendix 3.3, I divided the grave into an upper and a lower section pertaining to the individuals above the capstone and the one individual within the cist.

Carchemish

Carchemish is located in the Euphrates Valley in Anatolia, close to the border of Syria. Carchemish was excavated by Leonard Woolley in the early 1900's, and his published material was re-studied so the Early Bronze Age archaeological levels could be identified (Marro 2007, 221). Twelve cist graves constructed of large limestone slabs were excavated on the northwest mound on an acropolis close to a settlement. Most were individual graves with the dead in a flexed position on their right or left side. The graves were quite rich compared to Transcaucasia. Many had personal ornaments such as necklaces and bracelets or spears and knives as well as ceramic vessels (Woolley and Barnett 1952, 218- 219). There was one ceramic vessel that I found to be described with many similarities to Khirbet Kerak or RBBW Ware in Grave 5. The exact quote within the report describing this sherd stated, "Fragments of a small pot of black ware (black-brown in section), very soft and shaling, with very good bone-and-rag-polished surface; shape uncertain" (Woolley and Barnett 1952, 220). Much of the rest of the pottery in this cemetery included the typical "champagne vases" of a Mesopotamian style. Generally, the graves were individual primary inhumations, yet most were not described in detail, and they were oriented on variations of N-S (Woolley and Barnett 1952, 218- 226). For a detailed information table see Appendix 3.4.

Suyatağı

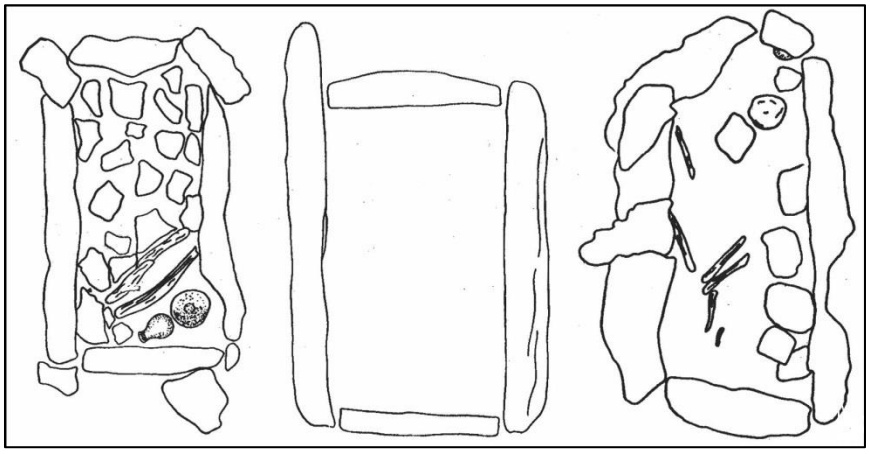


Figure 27: Three cist graves from Suyatağı (After Palumbi 2008, 138).

Suyatağı is located in the Upper Euphrates Valley Malatya and Elazig region, on the left side of the Karakaya Lake along the Euphrates River. It was excavated in 1988 by A. Muhibbe Darga and his team as a rescue excavation due to the flooding of the Karakaya Lake. Much of the site was already underwater upon beginning excavation (Darga 1989, 67-68). They excavated seven rectangular cist graves constructed of large limestone slabs and

covered by irregular large capstones. Some were oriented N-S while the rest were oriented E-W and many were disturbed by the flooding, leaving behind few skeletal and grave good remains. The majority of grave goods were ceramic vessels or ceramic sherds, which were probably included in the lining of the grave floors. Darga believes the ceramics can be considered a local imitation of RBBW, otherwise known as Karaz, in Anatolia. The tombs have been dated provisionally based on these ceramics to within the first half of the third millennium, or KA II (Darga 1989, 67-74). Figure 27 shows three cist graves. For a detailed information table see Appendix 3.5.

4.3.3 The Southern Levant

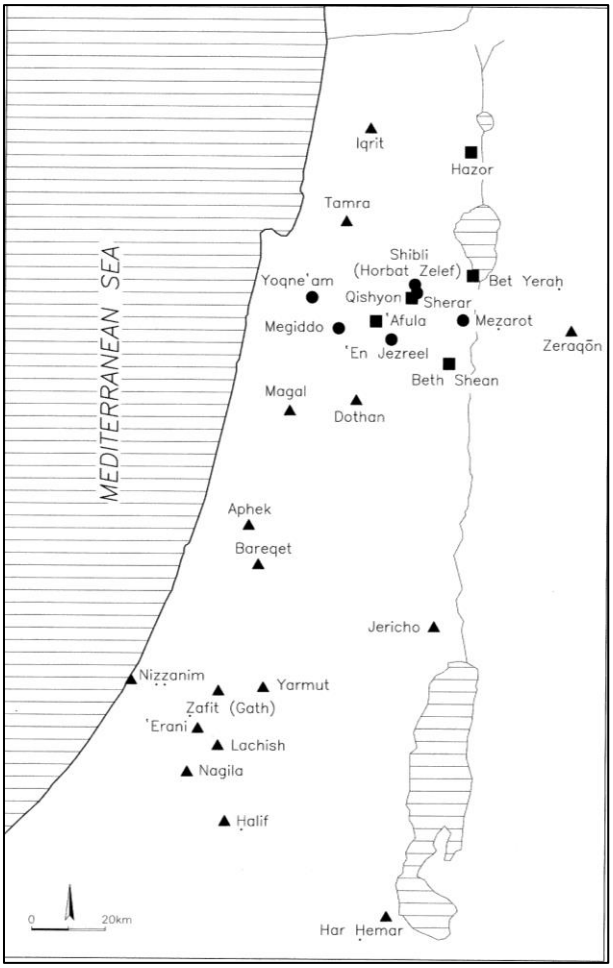


Figure 28: Map of KKW production sites in the Levant (After Zuckerman *et. al*. 2009, 140).

The Southern Levant in the end of the Early Bronze Age KAIII period produced a large amount of KKW locally in production centers in Israel and Jordan. The main producing sites of Israel included Bet Yerah, Bet Shean and Tel Hazor in the Jordan Valley, as well as others such as ‘Afula described below (Zuckerman *et. al*. 141-8). Figure 28 shows the location of

production sites for KKW in Israel. Though ceramic production was on a larger scale than in the Upper Euphrates Valley, this production does not extend to the mortuary evidence. There are few examples of Khirbet Kerak ware within burials in the region. Two examples were found in Israel, at ‘Afula and Jericho described below, as shown in figure 29, as well as within a few cave burials such as Horbat Zelef and Tel Mezarot, which have not yet been published (Zuckerman *et. al.* 149-51). As the case with the Upper Euphrates Valley, there is potential to find other forms of comparison within the cemeteries. The burials within this section represent the burials located farthest from those cemeteries in Transcaucasia discussed within the previous chapters.

Figure 29: Map of cemeteries with KKW Ware in the Southern Levant. 1= ‘Afula, 2= Jericho (Google Earth).

'Afula

Afula is located in the Jezreel Valley of Israel. It was excavated by Sukenik in the 1920's and 1930's, Ben-Dor in the 1950's and Dothan in 1993. Two burials with locally produced Khirbet Kerak Ware were discovered close to the Early Bronze Age settlement, which also had KKW. The tombs have been dated to the EBIV period, which corresponds to the end of the Early Bronze Age, or KA III (Zuckerman *et. al.* 2009, 148). The number of individuals per grave and the articulation of the skeletal remains were not described by the excavator. However, each grave contained almost exclusively KKW vessels. Some jars contained bone remains, yet it was unclear whether these were human or animal bones (Sukenik 1948, 11-2). For a detailed information table see Appendix 3.6.

Jericho

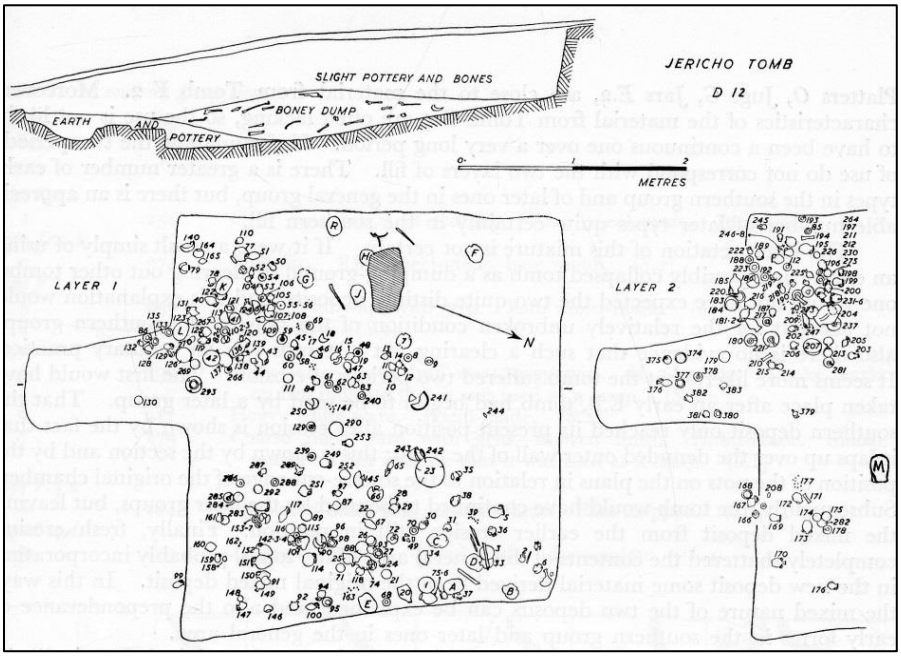


Figure 30: Tomb D12 from Jericho (After Kenyon 1960, 95)

The tombs at Jericho were excavated by Kathleen Kenyon in the 1950's. The cemetery is located to the north and northwest of the nearby Tell of Jericho, on a sloping limestone terrain that bounds the west side of the Jordan Valley (Kenyon 1960, 1-3). There were over 500 tombs at the site, but only around nine belong to the Early Bronze Age. They are described as vertical shaft tombs whose base would have had an entrance that would lead to the tomb chamber. The tombs were collective, containing from 50 up to 300 individuals, whose remains would be pushed aside to make room for the newly dead (Kenyon 1960, 52-3). Three graves, D12, F2 and F4 were dated by their ceramics to the Early Bronze Age III

(EBIII) period and contained a small amount of KKW. Grave D12, shown in figure 30, may have also been used in previous EBI-II periods and was disturbed by wadi activity (Kenyon 1960, 94-126). Graves F2 and 4 were located on the slope of the same wadi in a different area from D12, and were also disturbed. The grave goods were quite rich, including items such as metal jewelry, ceramic figurines, shell and stone beads and more (Kenyon 1960, 156). In general, as EBIII pertains to the end of the Early Bronze Age, it is most likely that EBIII corresponds to KAIII when KKW appears in the Levant. For a detailed information table see Appendix 3.7.

Chapter 5: Analysis

5.1 Introduction

Overall, 24 cemeteries were recorded and described in the previous chapters located in the Transcaucasian countries of Georgia, Armenia, Azerbaijan and Northwestern Iran. Cemeteries in Anatolia and the Southern Levant which contained the Red-Black-Burnished Ware otherwise known as Khirbet Kerak ware in the Levant and Karaz ware in Anatolia were recorded as well. All the relevant information gathered was placed into one table, located in the Appendix 4. This table included the sections per burial of a cemetery, date within the KA phases, grave number, grave Type, individual number, inhumation, position of skeletal remains, collective vs. individual, gender, age, location in relation to settlement, environment, country, province, grave goods (separated as ceramic vessels, ceramic sherds, spindle whorls, caprine skulls or horns, metal spirals of different varieties, metal beads, stone beads, arrowheads, animal bones), and a section on any unique characteristics per grave. With this information compiled, I began to look for patterns or divisions which could potentially provide interpretations as to whether or not differences and similarities within the Kura Araxes mortuary evidence were related to distinctions in economic practices.

Section 5.2 describes the analysis for burial types, section 5.3 describes cemetery and burial type locations, section 5.4 describes skeletal remains and inhumation types, section 5.5 describes grave goods and section 5.6 describes general changes over the three phase chronology of KA I, KA II and KA III.

5.2 Burial Types

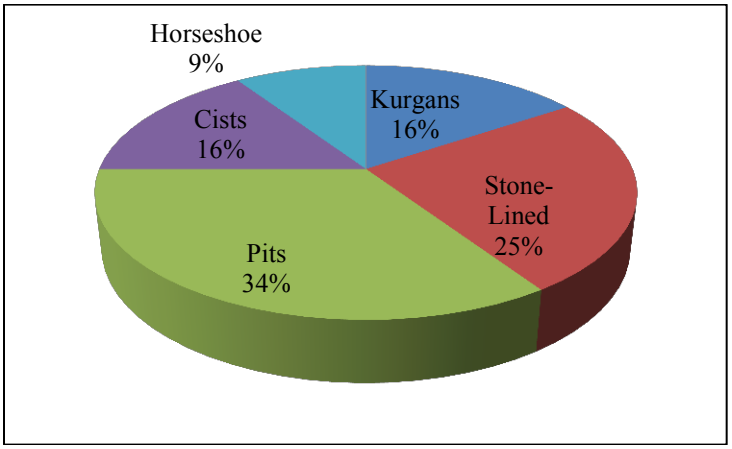


Figure 31: Percentage of cemeteries with at least one burial type.

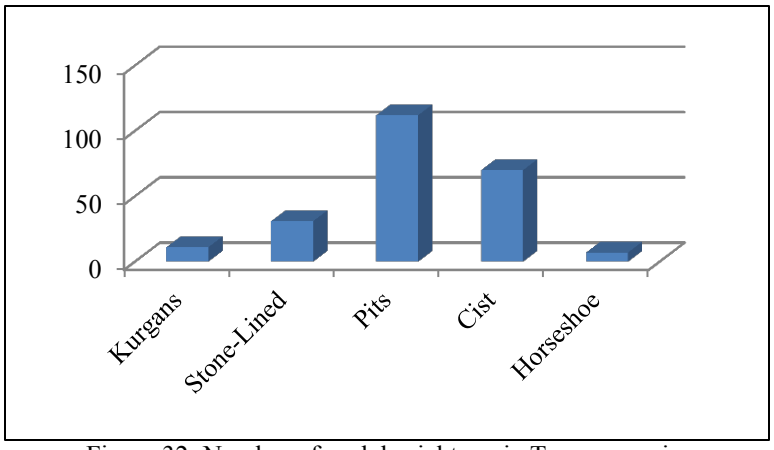


Figure 32: Number of each burial type in Transcaucasia.

In this section the cemeteries from the Upper Euphrates, Anatolia and the Levant will not be included so as to pinpoint specific Transcaucasian patterns before analyzing potential movement or migrations outside of Transcaucasia. Cemeteries that included at least one of the five burial types were analyzed in figure 31 throughout all KA phases. As demonstrated in figure 31, pits were in the majority of cemeteries at 34%. Stone-lined graves were the second most common, followed by cists, kurgans, and lastly horseshoe graves. In figure 32 the number of individual burial types in total was calculated for Transcaucasia. Again, pits are in the majority and are followed by cists, stone-lined graves, kurgans and horseshoe graves in that order. The cists from Samshvilde, Amiranis Gora and Keti were not included in the count as it was unclear whether they represent true cists with less than 3 courses of stone or stone-lined graves with over 3 courses of stone.

The fact of a majority of pit graves in the mortuary evidence has often been used to argue for a single Kura Araxes cultural group. As discussed in chapter 2, many scholars have stated that the mortuary evidence of the Kura Araxes are defined by cists and horseshoe graves in addition to pits (Sagona 2004, 480; Palumbi 2007, 21-5). As they consider stone-lined variety graves as cists as well, then I agree in naming cists and stone-lined graves as another majority. However, the evidence from the cemeteries in this study demonstrates that horseshoe graves are actually very uncommon, only occurring 8 times in total within three cemeteries. Therefore I would not argue that they are a particularly Kura Araxian tradition, but would best be included as another variety in shape within the typological group of stone-lined graves, as they include over three courses of stones.

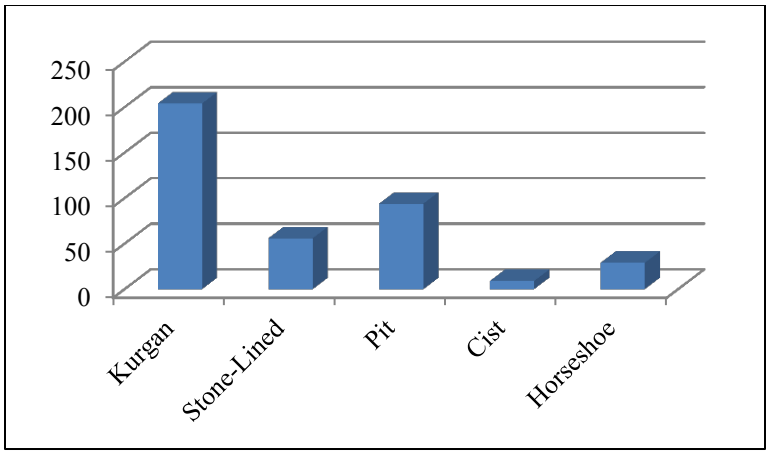


Figure 33: Number of individuals per burial type.

In previous figures 31 and 32, pits were shown to be the most common burial type in for the Kura Araxes in Transcaucasia. However, when the number of individuals per grave type is calculated, the results show a divergence with that conclusion. Figure 33 demonstrates that kurgans account for the majority of deceased individuals over the three KA phases, reaching a population of almost 200, followed by pits accounting for up to 90 individuals, then stone-lined graves, horseshoe graves and cists. Overall, what is demonstrated in figure 34 is that kurgans, due to their tradition for collective burials, account for a great deal of the Kura Araxes population.

It is essential to note that all of the kurgans in this study were dated to the first phase of the Kura Araxes and therefore their dominance is seen during the emergence of the culture, until they were replaced by an increase in pits, stone-lined and cist graves in KA I-II. Burial types in relation to the three Kura Araxes phases will be discussed in detail in section 5.6. In general, however, a major division is appearing in the analysis of burial construction types and population numbers. The act of burying multiple individuals in kurgans versus

individuals in pits demonstrates a separation within Kura Araxes mortuary traditions along the lines of grave typology. To extend this division between kurgans and pits towards other patterns such as collective versus individual burial traditions can highlight more clearly what societal factors these graves pertained to in the Kura Araxes culture.

5.3 Cemetery and Burial Type Locations

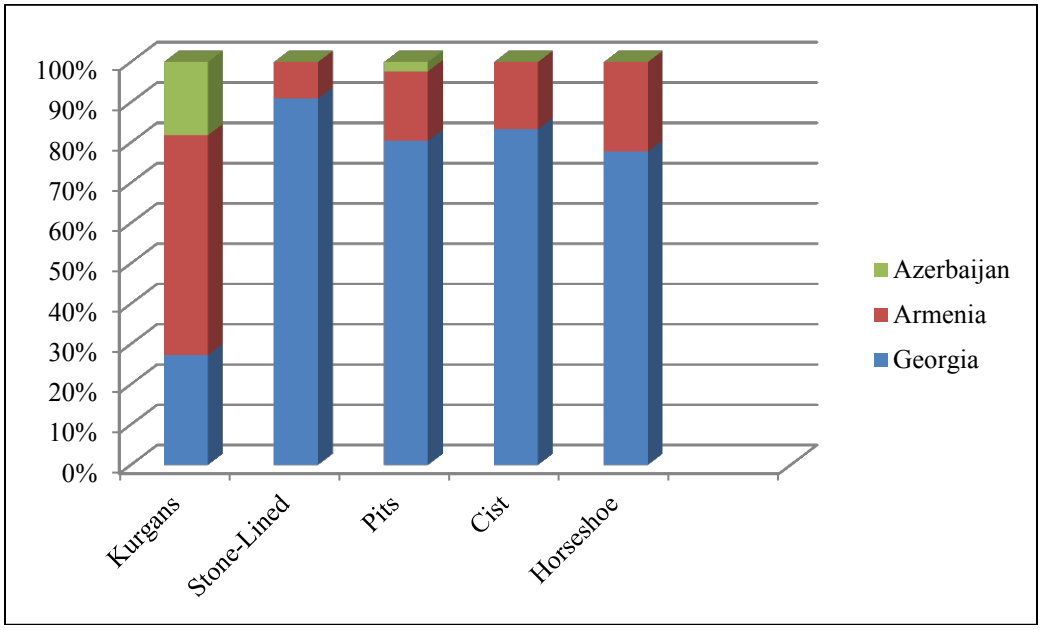


Figure 34: Percentage of burial types per country.

The percentages of burial types per modern country in Transcaucasia were calculated in figure 34, which demonstrates that certain burial constructions were concentrated in specific geographic locations. In Georgia, the majority of burial types are stone-lined graves and pits, dating generally to KA II or KA III. Though horseshoe graves are not a majority, they are almost exclusively encountered in Georgia as well, at Kiketi dated from KA I to KA II and Amiranis Gora, dated to KA I. The percentage of horseshoe graves in Armenia pertains to one grave from Elar dated to KA II. In general it seems that horseshoe graves were an earlier Georgian grave tradition that did not continue into the final KA phase. Within the different provinces of Georgia itself there are also variations, such as a complete lack of cists or horseshoe graves in the Shida Kartli province and many more in the Kvemo Kartli province. Georgia also had one site which included three kurgan constructions, one of which contained up to 42 individuals. However, in Georgia in general kurgans are rare. In Armenia the majority of burial constructions were kurgans dated to KA I and pits dated to KA II or III. In Azerbaijan the majority were kurgans dated to KA I, containing a large number of individuals,

as concluded previously. For both Armenia and Azerbaijan, therefore as with horseshoe graves, kurgans were an earlier burial construction.

Kurgans were extremely varied in construction types depending on their geographic locations as well. Overall, they tended to include a central burial chamber below the ground surface and a construction surrounding the chamber above the ground surface. The construction of both the chamber and the surrounding structure varied. In some cases the surrounding structure included a cromlech of stones, in others the chamber was covered by a mix of clay, dirt and rocks. Two kurgans in Armenia from Talin and Tsaghkalanj contained unique stone corridors or other separations built around the chamber. Two kurgans in Azerbaijan from Mentesh Tepe and Uzun Rama were built with wooden posts. The kurgans in Georgia were not described. Therefore, certain areas took part in specific kurgan construction traditions, which depended on both the phase of use and the geographic regions in question.

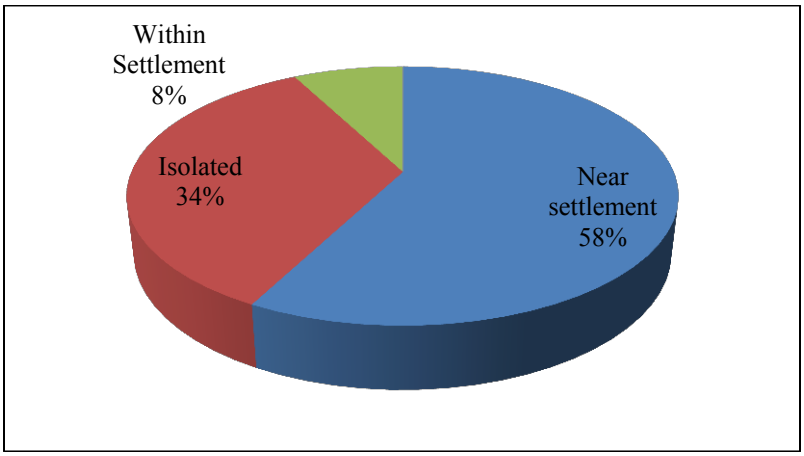


Figure 35: Percentage of cemeteries in relation to settlements.

It is not only through studying the location of burial types based on geographic locations that patterns are shown, but also through location of cemeteries in relation to nearby contemporary settlements. As shown in Figure 35, the percentage of cemeteries in Transcaucasia located close to a settlement was 58%. In contrast, around 34% of cemeteries were isolated from any nearby settlements. Cemeteries located within settlements are very rare at only 8%, which accounts for the cemeteries of Urbnisi and Amiranis Gora. It is important to note that in archaeology the lack of a settlement is never a certainty, however in most cases surveys of the nearby area were conducted. Overall, another division is shown, in this case between isolated cemeteries and cemeteries located near settlements.

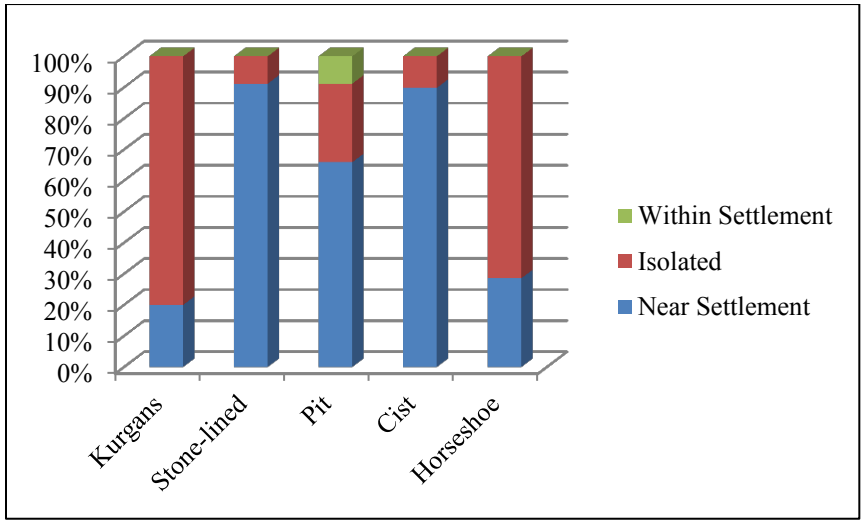


Figure 36: Percentage of burial types in relation to settlements.

Figure 36 demonstrates the percentage of each individual burial type throughout Transcaucasia in relation to nearby settlements. Kurgans and horseshoe graves were more commonly part of isolated cemeteries. Pits, stone-lined graves and cists were commonly included in cemeteries close to a settlement. Therefore the division between near-settlement cemeteries and isolated cemeteries extends to a division in burial construction types between kurgans and horseshoe graves versus pits, stone-lined graves and cists. It is also interesting to note that for the small number of pits located in isolated cemeteries, the majority were of a variety which included a covering of a small pile of stones that seems to highlight differentiation within the pit grave tradition solely linked to a lack of permanent settlements. So again burial variation is attributed to location in relation to settlement.

The lack of or presence of a Kura Araxes settlement close to a cemetery is significant in that it seems to highlight a variation in daily economic practices, based on mobility and sedentism. It has often been argued that a lack of a permanent settlement or evidence for temporary occupations in archaeology, as long as it is not simply based on scarcity of excavation or surveys, can indicate mobility often associated with nomadic pastoralism or the herding of animals. The presence of a permanent settlement on the other hand indicates sedentism, which is often associated with agricultural practices or the growing of crops and other plants. Therefore, the division in mortuary remains based on isolation or proximity to permanent settlements can be argued to represent differences in economic practices, which in turn can be argued to represent ethnic variations within some societies. Overall there is a potential that further patterns or divisions within the Kura Araxes mortuary repertoire follow along these economic lines as well.

5.4 Skeletal Remains and Inhumation Types

Primary vs. Secondary Inhumations

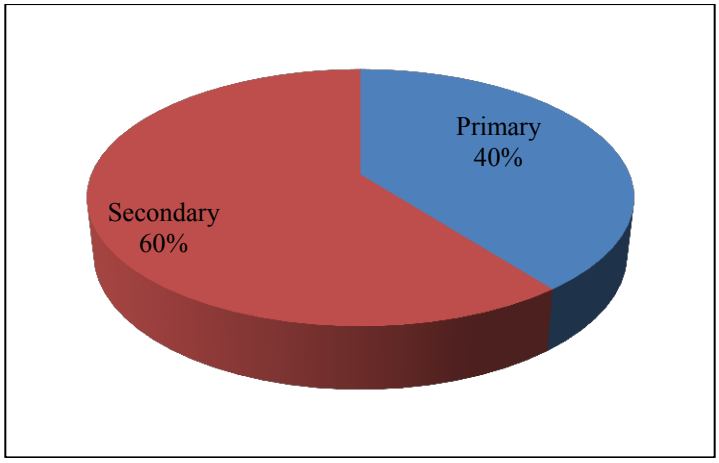


Figure 37: Percentage of primary vs. secondary inhumations in collective graves.

To see more divisive patterns that may follow along the line of separate subsistence strategies, skeletal inhumation types were analyzed. The study of the skeletal remains in this paper were separated into primary versus secondary, collective versus individual, and by gender and age, as seen in Appendix 4. Upon studying the number of primary and secondary burials it was clear from the beginning that primary inhumations corresponded to flexed, individual burials while secondary inhumations corresponded to disarticulated, collective burials. In many cases the secondary burials involved the pushing aside of the previous dead occupants to make room for the newly dead.

The main question for inhumation types was whether or not the act of secondary burial was a ritual activity or simply a practical activity? In the group of cemeteries analyzed in this study, all individual graves were primary inhumations without exception. However, figure 37 demonstrates that burials in collective graves did not follow a specific tradition, as they could be either secondary or primary at 60% versus 40%. It seems the decision for primary and secondary inhumations for Kura Araxes collective burials was not symbolic or ritual because collective burials followed both actions, sometimes within the same grave. I conclude that inhumation types were most likely decided based on the amount of space in the grave, therefore these characteristics are not helpful in deciphering patterns in the mortuary evidence.

Primary and secondary inhumations also correspond directly to the position of the deceased individual. Some were flexed lying on their left or right side while others were disarticulated. Since both of these positions also existed within collective cemeteries,

sometimes even within one collective grave, they too do not seem to have ritual significance. Instead, the relationships found between collective versus individual graves and burial types, discussed below, have provided more telling evidence.

Collective Vs. Individual Graves

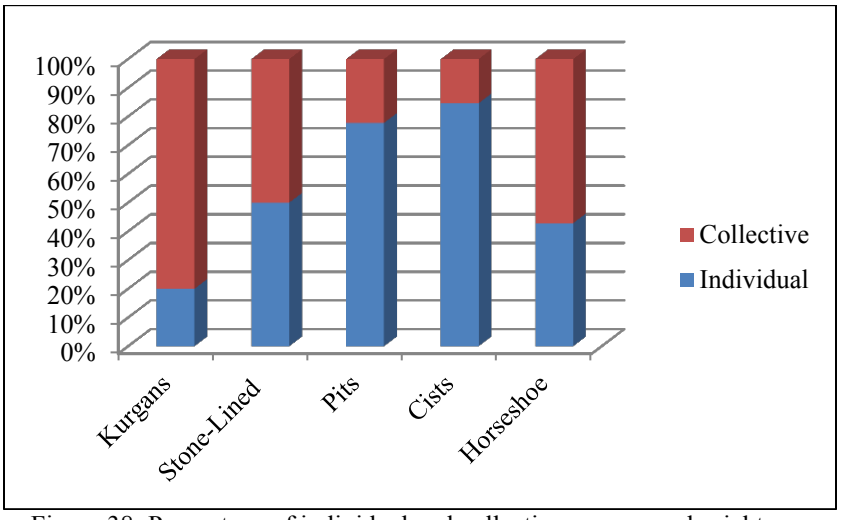


Figure 38: Percentage of individual and collective graves per burial type.

Figure 38 demonstrates that burial types do not only correspond to specific locations in relation to settlement but also to collective or individual inhumations. As mentioned earlier, a collective grave includes either two or more individuals, while an individual grave contains one individual. When calculating which burial types were used as collective or individual graves there were definitive patterns. Kurgans were almost exclusively collective while pits and cists were individual. Stone-lined graves and horseshoe graves were relatively equal for both inhumation types.

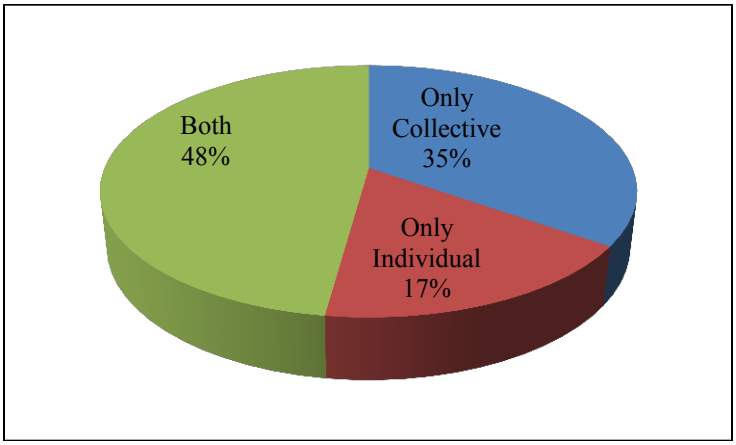


Figure 39: Percentage of cemeteries that are only collective vs. only individual vs. both.

In figure 39, the character of entire cemeteries defined as collective or individual was calculated as well. In general, cemeteries with both collective and individual graves are part of the majority, at 48%, whilst exclusively collective and exclusively individual cemeteries are within the minority. It is interesting to note that exclusively collective cemeteries are more common than individual cemeteries, perhaps demonstrating less mixing of burial traditions for people who follow the collective tradition.

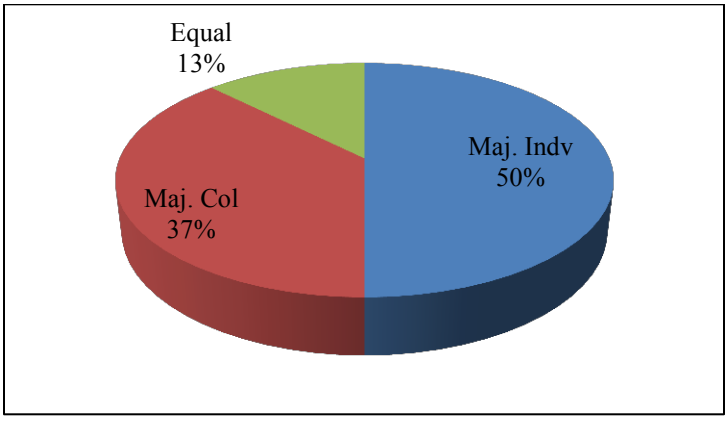


Figure 40: For cemeteries with both collective and individual graves: percentage of majority collective vs. majority individual vs. equal.

When analyzing the cemeteries with both inhumation types in more detail it was discovered that these cemeteries did not have equally distributed collective and individual graves, but rather demonstrated a majority of one or the other. For example, out of 26 graves at Khashuri Natsargora, only two were collective while the rest were individual. At Kiketi one of ten graves was individual while the rest were collective, and so on. The only cemetery with equally distributed inhumation types was Aradetis Orgora, which contained six collective and five individual graves of stone-lined rectangular or pit burial constructions. Therefore, despite the appearance of both collective and individual graves in one cemetery there is still a clear partiality towards one practice.

Figure 40, shows the compared percentages of majority-plus-exclusively individual cemeteries and majority-plus-exclusively collective cemeteries. The results demonstrated that there was only a 10% difference between the two types of cemeteries. Therefore, it can be concluded that overall there are two main groups defined by collective cemeteries and individual cemeteries with some variations. As already mentioned, further divisions within the mortuary remains may correspond to divisions in economic subsistence strategies related to nomadic pastoralism or agriculture. Since the main interpretation for either economic

strategy depends on the presence of or lack of a settlement, the relationship between collective and individual cemeteries and settlement location were calculated below.

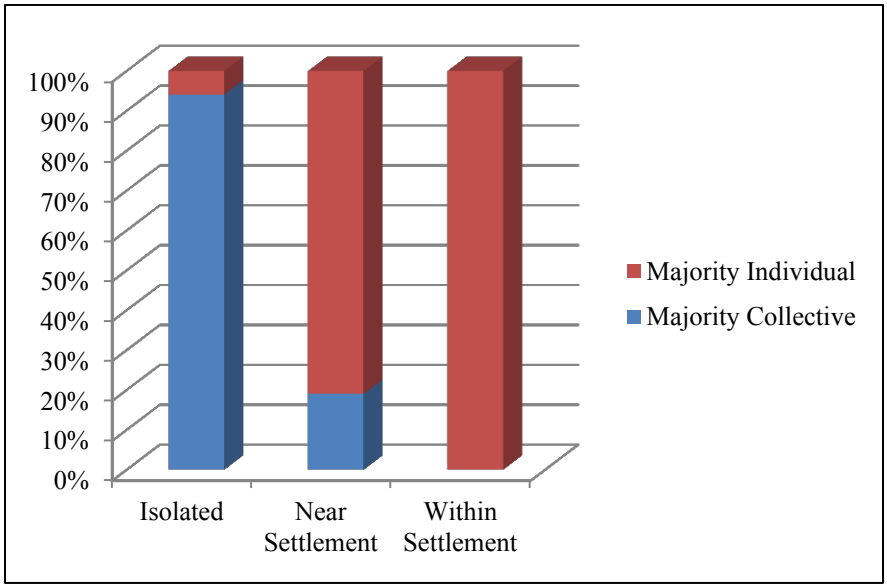


Figure 41: Percentage of majority collective vs. majority individual cemeteries in relation to settlement.

Figure 41 demonstrates that a correlation does indeed exist between collective versus individual cemeteries and their locations in relation to nearby settlements. It is demonstrated that, at around 90%, the majority-collective cemeteries are almost exclusively isolated while at around 80%, the majority-individual cemeteries are located near contemporary settlements. I conclude therefore, that isolated cemeteries and collective burial construction types such as kurgans also correspond to collective burial cemeteries and cemeteries near settlements while individual burial construction types such as pits correspond to individual burial cemeteries near settlements.

The exceptions to these conclusions correspond to the fact that of 24 cemeteries studied, four were majority collective and located near a settlement, while one individual cemetery was isolated. Tvlepias Tsqharo dated to KA II in Georgia and Keti, Tsaghkalanj and Lanjik dated to KA I in Armenia are majority collective grave cemeteries located near settlements. Kalavan I dated to KA III in Armenia represents the majority individual pit cemetery that was isolated. The significance of these exceptions rests in their chronological sequences discussed in the next chapter. Overall, however despite these exceptions there is a clear relation between number of individuals in burials and settlement location. It can be argued, therefore, that collective burials relate to mobile economic practices, while individual burials relate to sedentary economic practices.

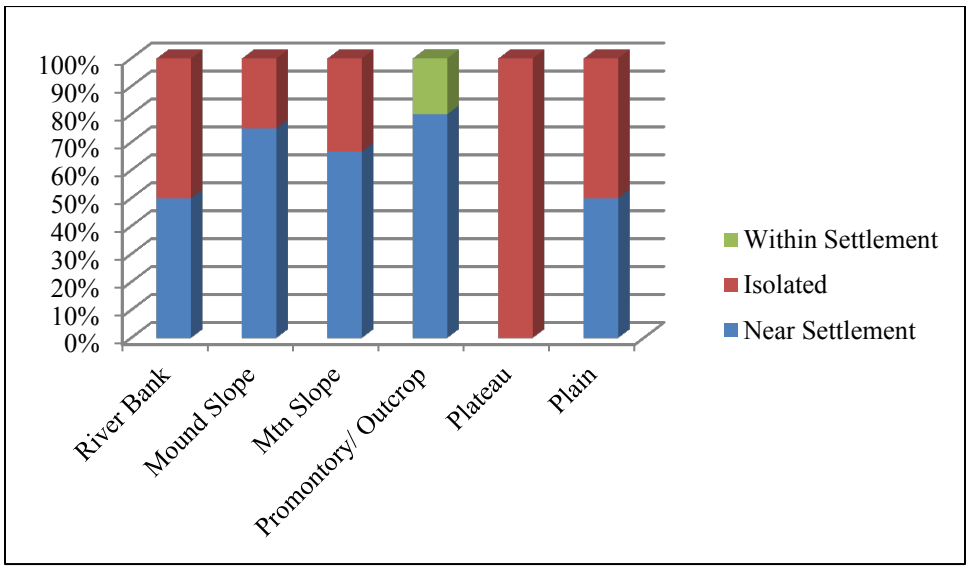


Figure 42: Percentage of cemetery-settlement types in relation to the environment

In figure 42, a relationship between environment types and cemetery locations in relation to settlement is demonstrated. Cemeteries located on mound slopes, mountain slopes and outcrops are mainly near settlements, while cemeteries in high altitude plateaus are exclusively isolated. River or lake banks and plains are generally equal for both settlement location types. As mentioned earlier, the difference between isolated versus near-settlement cemeteries, and by extension collective versus individual cemeteries, may be representing a difference in economic subsistence strategies. If correlations with environmental location are added to this interpretation then perhaps inhumation types can be linked more solidly with these specific subsistence strategies.

In figure 42, isolated cemeteries are located on plateaus at high altitudes, which are areas not particularly disposed to agricultural activities, but rather more pastoral activities, at least within the summer months. Settlements and their nearby cemeteries are located on artificial mounds or plains, often near a water source or tributary, perhaps representing agricultural societies. Examples of environmental locations will be discussed in the next chapter. As mentioned, there is a general divide within archaeological scholarship over whether or not the Kura Araxes people practiced agriculture or nomadic pastoralism or both. Therefore a division between the two existing economic lifestyles is proving to be mirrored more and more clearly within the mortuary remains in this study.

Overall, I conclude that there is a connection between collective or individual cemeteries and isolated or near to settlement locations, with few exceptions. This conclusion also extends to specific grave types, as shown previously. Kurgans correspond to collective

burials and by extension isolated, majority-collective cemeteries. Only two kurgans, one from Tqhviavi in Georgia and one from Talin in Armenia, were exceptions as they contained a single individual. Both of these kurgans were part of an isolated cemetery with a majority of other collective kurgans. Pits, on the other hand correspond to individual burials and therefore majority-individual cemeteries located near settlements. Stone-lined graves, horseshoe graves and cists are used for both inhumation types, depending on geographic locations and other factors. As mentioned previously, these divisions in the Kura Araxes mortuary traditions are argued to relate to the economic practices of two groups, the pastoral nomad and the agriculturalist.

Gender and Age

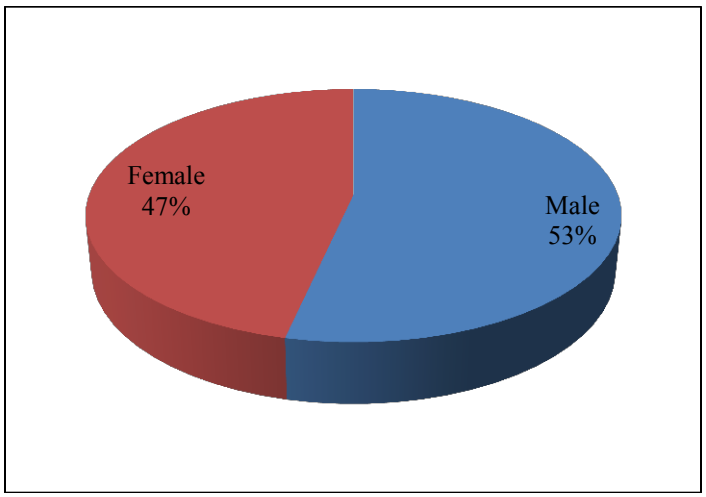


Figure 43: Percentage of gender in graves of a total of 43 individuals

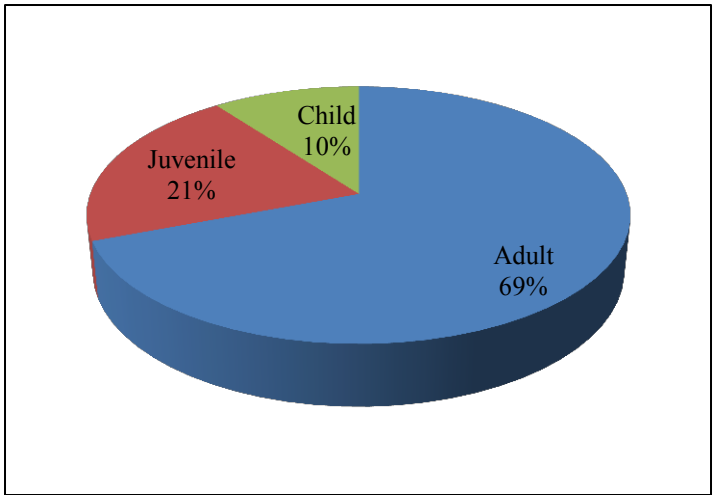


Figure 44: Percentage of age in graves of a total of 117 individuals.
Key: Child= 1-12; Juvenile= 12-18, Adult = 18 and older.

Within the data-set of 24 cemeteries, only eight reports analyzed the skeletal remains for gender, and 14 for age. In figure 43 there is a nearly equal separation demonstrated between male and female. Figure 44 demonstrates the separation in ages of the deceased from the majority of adults, to juveniles and then children at the lowest. Both the proportions of gender and age do not emphasize anything particularly out of the ordinary. However, despite the small sample size for gender, when relationships are analyzed between gender and economically significant collective or individual inhumation types, more interesting patterns are brought to light.

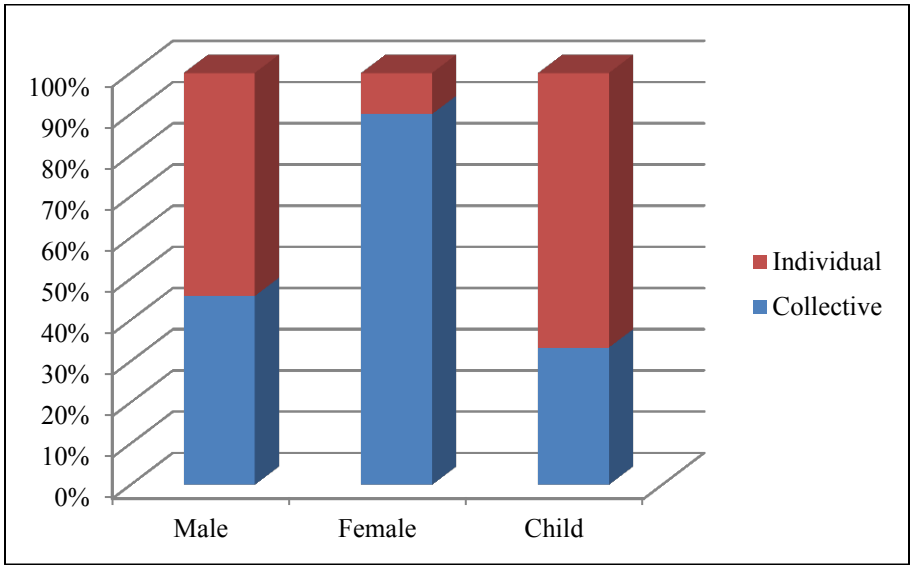


Figure 45: Percentage of gender groups in collective and individual graves.

Figure 45 shows the percentage of females, males, and gender-unidentified children found in collective versus individual graves. In general, males were buried at relatively equal levels within individual or collective graves, but had a majority of individual graves. Females, however, at 90%, were almost exclusively placed in collective graves. Overall, only two females were buried in individual graves, at Tiselis Seri in Georgia and Kalavan I in Armenia. Both of these individual burials were dated to KA III, the final phase of the Kura Araxes period, while the other collective graves with females were dated to KA I. A potential transition from collective to individual graves in general will be discussed in the next chapter.

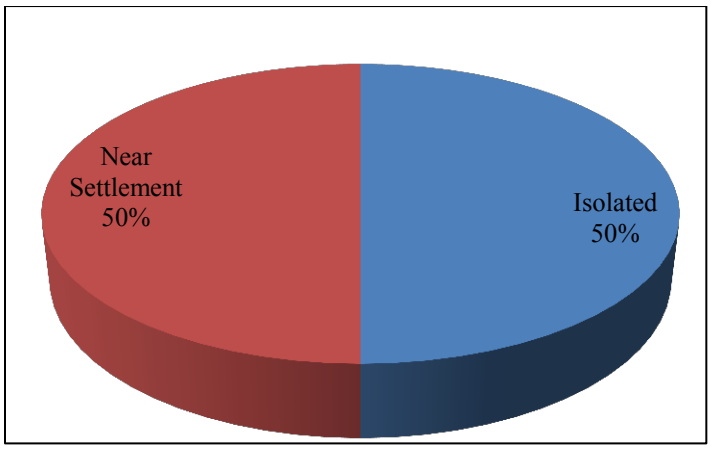


Figure 46: Percentage of cemeteries with females in collective graves in relation to settlement.

Figure 46 shows the location of the collective female burials in relation to nearby settlements. The results demonstrate that these collective graves are equally divided between isolated cemeteries and cemeteries near settlements. I would argue that this equal division represents a case in which all people who are part of the mobile, collective tradition, even those located in majority individual cemeteries close to settlements, followed similar patterns. Understanding the nature of the division in Kura Araxes mortuary evidence by extending it to economic practices, may provide potential answers as to why there was a correlation between inhumation type and gender, and no correlation between gender and settlement location, which will be discussed in the next chapter.

Unique Rituals of the dead

Amongst the generally homogenous evidence of ritual treatment of the skeletal remains there are a few examples throughout Transcaucasia which stand out as they do not follow the common flexed or disarticulated inhumations and other common traditions. The cemetery of Kalavan I, located in Armenia and dated to KA III, contained an individual seated in an upright position on a perishable seat within a pit grave covered by stones (Poulmarc'h 2014, 256-84). Another unique ritual was found in the kurgan of Tsaghkalanj in Armenia, dated to KA I. This kurgan included 12 individuals who were placed in piles between two earth layers and had apparently been buried after flesh removal (Avetsyan and Badalyan 2007, 272-3). The kurgans of Mentesh Tepe and Uzun Rama in Azerbaijan were also dated to KA I and they both showed evidence for being set on fire. The occurrence of burnt kurgans was widespread during this period, particularly in the piedmont of the Lesser Caucasus mountain range (Lyonnet 2014, 119). Uzun Rama, in addition to being burnt, also included an individual lying on a wooden bench within the grave (Poulmarc'h *et. al.* 2014, 242-4). The

other example of a burnt burial was located at the cemetery of Tvlepias Tsqharo, located in Georgia and dated to KA II. One grave contained the skeletal remains of young individuals inside a rectangular pit, and the covering stones were interpreted as burnt from a source of fire deeper within the grave (Jalabadze et. al. 2012, 66-7).

These examples of unique ritual add another layer to the comparison of Kura Araxes cemeteries that may represent even further differentiation between those who ascribe to the individual or collective burial traditions. The burnt burials that are part of collective kurgans dated to KA I or KA II, perhaps demonstrating an association in rituals between the collective, isolated mobile group. The individual grave with the seated individual from Kalavan I may represent a method for distinguishing an important individual, especially since it is dated to the KA III phase where individual cemeteries and potentially hierarchies increase. Also within collective grave societies there are examples of differentiating a single individual. At Talin there is a kurgan with one inhabitant and at Uzun Rama the collective kurgan contained an individual lying on a bench. Such variations may show that societies which followed collective or individual traditions both honored more prominent individuals.

5.5 Grave Goods

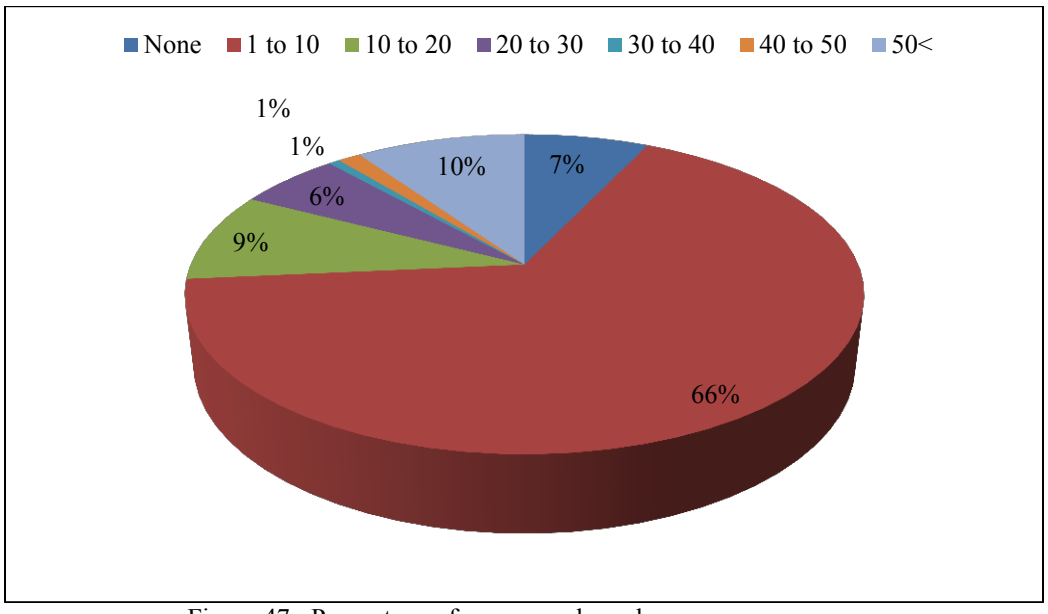


Figure 47: Percentage of grave good number ranges per grave.

The analysis of grave goods in Kura Araxes cemeteries at first shows very general similarities, but when more detailed patterns are studied much variation can be attributed to Kura Araxes mortuary practices. In the following analysis all 24 graves, including those outside of Transcaucasia, were studied. Figure 47 demonstrates the number of grave goods

per individual burial. The majority of burials, 66%, contained ten or less grave goods. The rest of the other number ranges are all below 10%. In general, the graves with over 50 grave goods correspond to Arslantepe and Carchemish in Anatolia or Jericho in the Levant. Therefore an overall characteristic for grave goods in burials is that there were very few.

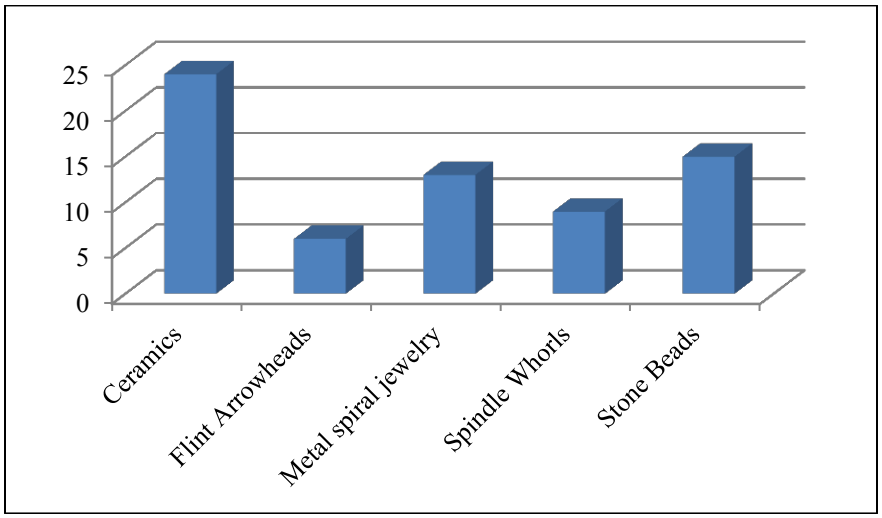


Figure 48: Number of most common grave good types per cemetery.

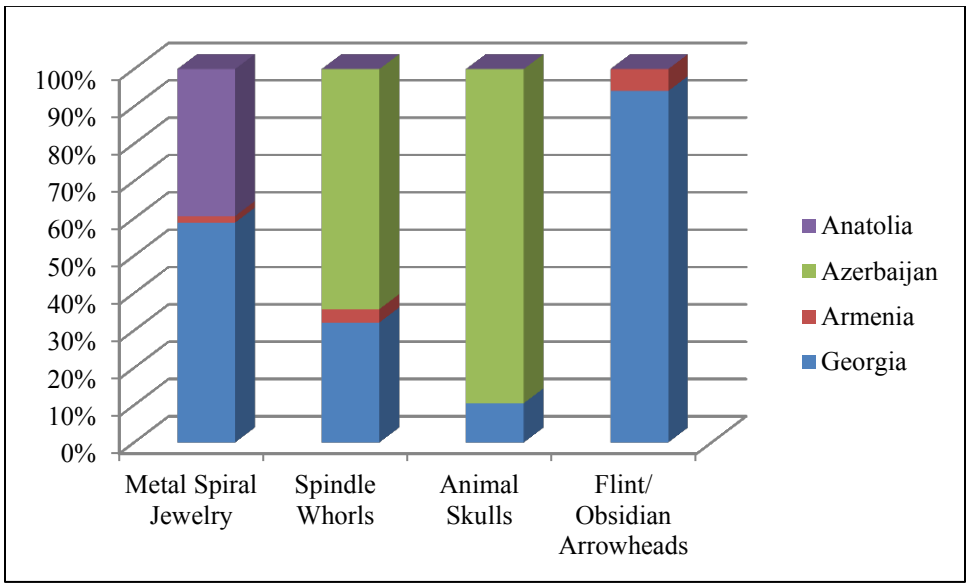


Figure 49: Percentage of different grave good types per country.

A general pattern is shown in types of common grave good objects, often characterized by scholars as including ceramics, bone spindle-whorls and metal spiral jewelry. Figure 48 demonstrates the number of the most common grave goods per cemetery throughout Transcaucasia and Anatolia, calculated as common if they were found within at least five cemeteries. Ceramics were the most common, followed by stone beads, metal spiral jewelry, spindle whorls and flint arrowheads.

However, such a description of characteristic Kura Araxes material culture is actually misleading due to regional variations. Though the number of cemeteries with these materials seems adequate to be considered characteristic, when the percentage of grave goods by country is examined, grave goods are shown as consolidated within one region, sometimes even one burial. Figure 49 shows the four most common individual grave good percentages in relation to modern countries, including Arslantepe in Anatolia, but not those in the Levant. I did not include stone beads within the dispersal as they represent a common prehistoric grave good throughout the Near East in general.

As shown in figure 49, metal spiral jewelry is almost exclusively found in KA II-III Georgia, and Anatolia in the royal graves at Arslantepe. Flint and obsidian arrowheads were also most common in KA II-III Georgia. The majority of the bone spindle-whorls were located within one or two KA I kurgans in Azerbaijan. Also interesting is the fact that caprine and bovine skulls were also an Azerbaijan KA I tradition, where fourteen were located at Uzun Rama and three at Mentesh Tepe. Another interesting unique grave good tradition only found within Armenian graves is the stacking of ceramic vessels on top of each other.

To add to the complexity in grave good distribution, there are more examples of variation and contact simultaneously occurring through the presence of grave goods within other cemeteries outside their main locale. Georgia included five cemeteries dated to KA I, II and III, which contained altogether eight spindle whorls, one of which was made of clay. There was a single spindle whorl also found in a KA I burial at Tsaghkalanj, Armenia and multiple found at Jericho in the Levant. There are also examples of the tradition of animal skulls in regions outside of Azerbaijan. Two burials within Georgia that contained animal skulls were dated to KA II and KA III. Armenian cemeteries in this study did not contain any animal skulls, yet one collective burial from Keti contained a ceramic vessel with sheep head handles. Such examples provide evidence for some form of shared value placed on sheep, goat and cows, perhaps related to nomadic herding subsistence strategies.

As mentioned earlier, the majority of the metal spiral jewelry was located in Georgia throughout KA II and KA III cemeteries. In Georgia the jewelry metal used was either copper or silver. The appearance of metal spiral jewelry in other areas is attested as well, but they were produced with different types of metal. Two cemeteries in Armenia, Kalavan I dated to KA III and Talin dated to KAI, were discovered to include altogether four metal spiral objects which were made exclusively of bronze. The lack of metal objects including jewelry in Azerbaijani kurgans has been noted by excavators. One theory for this is that

perhaps the metal was removed from the kurgan prior to the destructive fire ritual (Lyonnet 2014, 119). The royal graves at Arslantepe also demonstrated a very specifically "Shida Kartlian" Georgian style within the spiral jewelry discovered there, which adds more proof for the complexity in contacts between Transcaucasia and the Near East (Rova 2014, 63). Other grave goods worth mentioning include the four metal head adornments or diadems discovered in KA III Arslantepe, Anatolia, KA I Talin, Armenia and KA II Kvatskhela, Georgia. They were all extremely similar, decorated with a repousse technique of geometric and zoomorphic designs (Rova 2014, 60).

The appearance of metal jewelry, spindle whorls and bovine skulls in Georgia following the KA I period after their initial appearance in Armenia and Azerbaijan may represent an effect of multiple types of interactions between the geographic regions. A testament to even farther contacts than Arslantepe, can be demonstrated by the discovery of a gulf area shell ring found at Mentesh Tepe (Lyonnet 2014, 127). As mentioned earlier, the major divisions I have found in the mortuary evidence are between collective- isolated and individual- near settlement cemeteries. Therefore, I argue for the possibility that the collective isolated cemetery populations, or mobile groups, are the original producers of these grave goods and are moving throughout Transcaucasia within the three KA phases, interacting with the individual-cemetery groups. There is also the strong possibility that the material remains, which are already so few per grave, were rather a style choice which spread due to other kinds of interactions.

5.6 Chronological Kura Araxes Phases

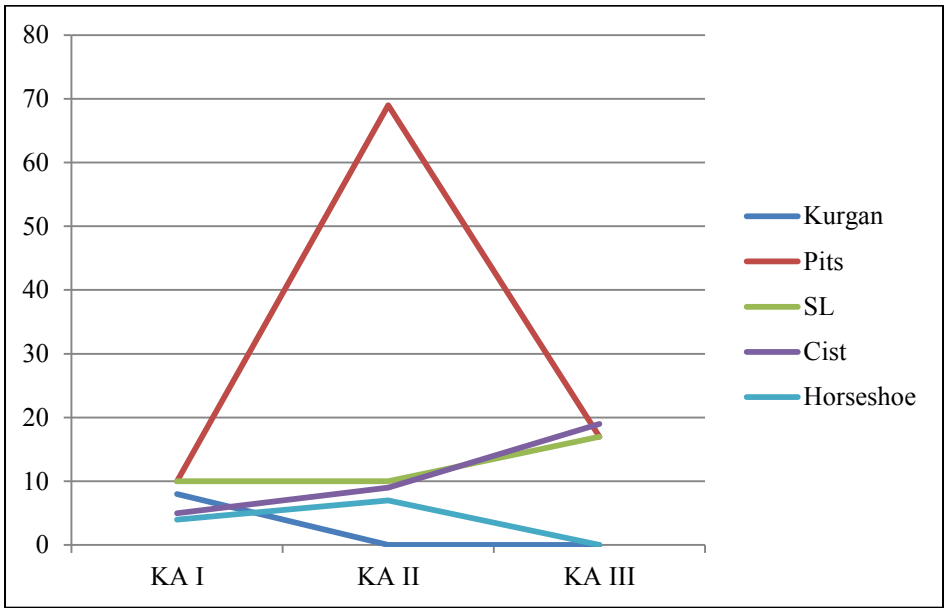


Figure 50: Number of burial types per Kura Araxes phase.

All the previous information gathered comparing collective versus individual graves and their location in relation to settlement must be placed within a chronological framework for the development and changes within these patterns to be truly understood. Figure 50 shows the trajectory of the number of burial types per KA phase. Pits increase dramatically throughout KA II and then decrease again dramatically in KA III. The decrease corresponds to the general lack of KA III cemetery evidence located in Transcaucasia that has been studied so far and therefore pits, with cists, are still in the majority by KA III. In Kalavan I in Armenia, two pit graves from Mentesh Tepe in Azerbaijan, Tiselis Seri, Aradetis Orgora and Dzaghina West in Georgia are the only cemeteries located within Transcaucasia that are dated to the KA III phase. The cemeteries that mainly define the third KA period within this data set are those in Central Anatolia, the Upper Euphrates Valley and the Southern Levant. Arslantepe, Carchemish and Suyatağı cemeteries contain a majority of individual cist graves, which accounts for the increase in cists in the graph. The increase in stone-lined graves from KA II to KA III represents a solely Transcaucasian phenomenon, while Kura Araxes kurgans and horseshoe graves disappear completely by the end of KA III in Transcaucasia.

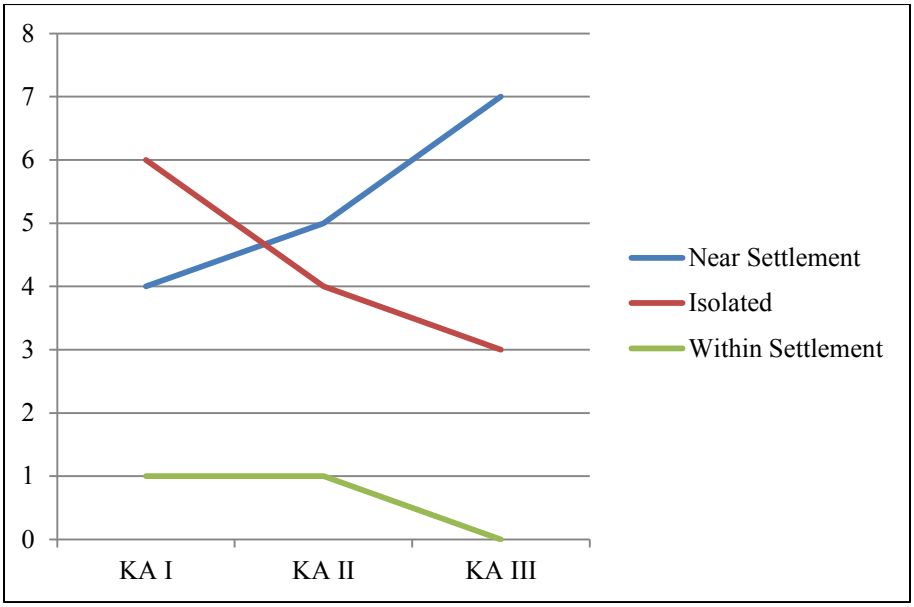


Figure 51: Number of cemeteries in relation to settlement per Kura Araxes phase.

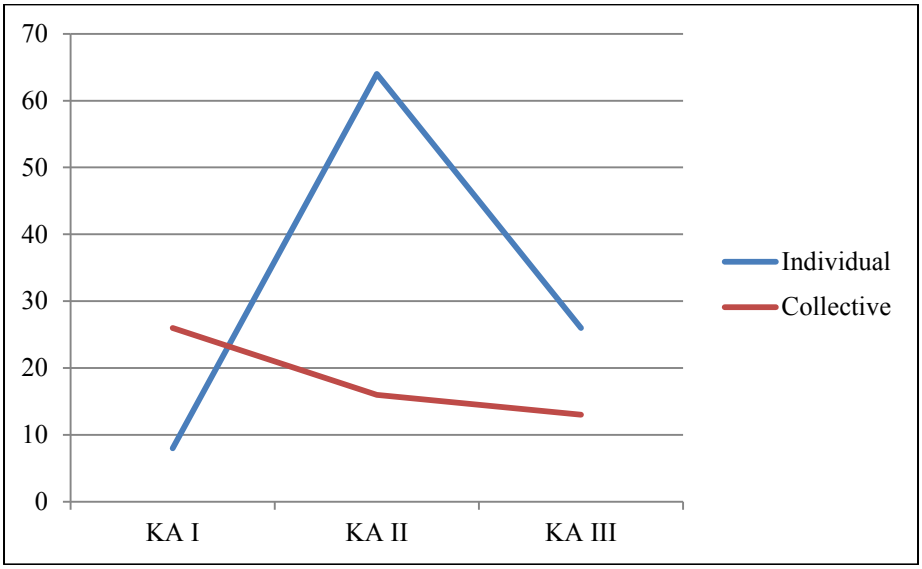


Figure 52: Number of collective vs. individual graves per Kura Araxes phase.

Figures 51 and 52 show an overall decrease in isolated cemeteries and collective burials, and an increase in near settlement cemeteries and individual burials between KA I and KA II. From KA II to KA III there is a continued increase in the number of near-settlement cemeteries, but there is also an abrupt decrease in individual burials. As mentioned, this is attributed more towards a general smaller archaeological data-set for KA III cemeteries in Transcaucasia. Of the five cemeteries in Transcaucasia dated to KA III, four are majority individual and one has an equal number of collective and individual. Overall, by KA II and KA III the number of individual graves is much higher than the number of collective graves in KA I. It seems that as Transcaucasia moved towards a mostly individual cemetery

tradition located close to nearby settlements, there was also an increase in individual cist graves in Anatolia in KA II and the Upper Euphrates cemeteries of Carchemish and Suyatağı in KA III.

As for the Levant, unfortunately there were not many published examples of cemeteries with Khirbet Kerak ware. The number of individuals included in the pit graves at Afula in Israel could not be calculated, but they did contain exclusive KKW ware. The graves at Jericho contained over 50 individuals in shaft graves. Unlike the use of individual graves along the Upper Euphrates, the use of collective graves at Jericho was not new. It was simply the presence of KKW ware which represented a change from earlier graves. However, in the Levant overall the number of Transcaucasian-like characteristics in mortuary evidence was very low. Therefore, specifically within the debate for the migration of Kura Araxes people in the Near East, this evidence is inconclusive. This is not to say that there were no migrations, it is mainly to state that the mortuary evidence alone does not add to the debate of whether the movement of a Transcaucasian related group occurred in KA III.

Overall throughout the KA I through III phases, there was a movement away from collective- isolated mortuary traditions related to the nomadic pastoralist group towards more individual-near settlement mortuary traditions related to the sedentary agricultural groups.

5.7 Conclusion of Analysis

In the analysis of Kura Araxes mortuary evidence within 24 cemeteries there is one major division within burial practices that is interwoven throughout many of the patterns and separations in burial characteristics. I believe these divisions mirror a separation between economic subsistence strategies in the past. Overall, it can be concluded that kurgans, which are collective in isolated cemeteries, correspond to nomadic pastoralist groups. They are particularly common in KA I Azerbaijan and Armenia and decrease in use within KA II onwards. Pits, which are individual and located in cemeteries close to a settlement, correspond to sedentary agricultural groups particularly within KA II and KA III Georgia and Armenia. Stone-lined graves and cists correspond to both individual and collective cemeteries and increase throughout KA II and KA III. Finally, horseshoe graves also correspond to both individual and collective cemeteries, but disappear by KA III. For horseshoe graves, due to the fact that they were not very common to begin with, I believe typologically they should be placed within the stone-lined burial variety. In Anatolia, cists were mainly used for individual burials in KA II-III. In the Southern Levant, KKW ware was discovered in massive collective graves and smaller pit graves with unknown individual

numbers in KA III. It can also be concluded that specific grave goods, grave constructions and rituals seem to have been based within specific geographic areas. They also seem to belong to either the collective or individual cemetery tradition, again perhaps representing a division in economic practices. Overall, I conclude that the Kura Araxes mortuary evidence reveals the existence of an economic division defined by mobile and sedentary lifestyles, which has the potential to reveal ethnic identity divisions as well, discussed in the next chapter.

Chapter 6: Discussion

6.1 Interactions Between Pastoralism and Agriculture

Ethnographic studies are full of examples which show alternating patterns of nomadism and sedentism within one community (Piro 2009, 270). For archaeology, the difficulties arise in trying to differentiate pastoral sites which in many cases have no designated domestic areas from agricultural sites, which do. However, according to Chang and Koster, the tendency for typological division between the two subsistence strategies archaeologically goes against the potential for investigating co-existence between agriculturalists and pastoralists. Instead of studying nomadic lifestyles under the idea of "pure pastoralism", a more realistic view is one of "multi-resource" and interactive pastoralism (Chang and Koster 1986, 98). Rowton provides a similar idea he calls "enclosed nomadism", which is distinct from completely specialized or "Bedouin nomadism". Enclosed nomadism can include either semi-nomadic groups who partake in both strategies or full-time nomadic groups that are politically autonomous, but integrated within sedentary society. He argues that this integration leads to economic symbiosis between the two subsistence strategies (Rowton 1974, 3).

Archaeologists and anthropologists have argued for the fact that interaction between nomadic pastoralists and agriculturalists is not only advantageous but often necessary for survival, particularly with specialized pastoralism (Barth 1961; Lee and Bates 1974; Cribb 1991). As Lee and Bates argue, even highly specialized nomadic pastoralists are not self-sustaining, as they need other resources provided by trade with sedentary agriculturalists to survive (Lee and Bates 1974, 191). Not only that, but in some societies there is constant emigration between the two subsistence strategies, where nomads become sedentary at quite a high frequency or vise-versa (Barth 1961, 114-7). Therefore, within many ethnographic examples specifically, societies are often observed as taking part in agropastoral economic systems with different levels of interaction between the two methods depending on the specific society in question and their environment.

For the Kura Araxes cultural horizon, archaeologists such as Batiuk have argued that the nomadic pastoral lifestyle was not the dominant economic practice compared to agriculture. However, he also states that there was potential for a smaller sub-set of people who were primarily pastoralists. He argues that, instead of pastoralism, the main economic strategy which particularly allowed for migratory success in new areas, was the production of wine (Batiuk 2013, 459, 462). On the other hand, Hovsepyan has argued, specifically within higher altitude locations, that there was an overall decrease in agricultural activities in the

fourth and third millenniums, which were replaced by specialized pastoralism. The replacement was due to the fact that within higher altitudes, animal breeding was an easier method for producing food than agriculture (Hovsepyan 2015, 79-80).

There are also some archaeologists who argue for a mobile economy based on the production and trade of metals, or the combination of pastoralism, nomadism and metallurgy (Rova 2014, 63; Wilkinson 206-7; Frangipane 2014, 171). In the case of Arslantepe of Central Anatolia, Frangipane has argued that the similarity between metal grave goods with those in Transcaucasia may represent a direct influence from the arrival of Transcaucasian pastoralist groups during KA II who were trading in metals sourced from Transcaucasian areas (Frangipane 2014, 171). This is a possibility, however there are also many archaeologists who argue for a lack of adequate evidence in metal production to be considered a major aspect of the economy (Sagona 2014, 26; Batiuk 2014, 454). As demonstrated in chapters one and two, the debate over which subsistence strategy was more common and which strategy lead to the other permeates much of the Kura Araxes literature. The only way to truly answer these questions is with more excavation research, faunal and botanical analysis in Transcaucasia. For the purpose of this study it can be concluded that the levels of interaction between the subsistence strategies was in constant fluctuation and reformulation based on a variety of factors which could stem from environmental to socio- political changes that have been cited by archaeologists studying this period.

6.2 Transitions in Kura Araxes Subsistence Strategies and Ethnic Identity

As mentioned in chapter two, with the question of ethnicity it is important to be aware that ethnic identity divisions between groups were probably perceived differently in the past. The definition of ethnicity in this study, provided by Barth, is that separations between groups are identified by those within the group themselves, and those who perceive the group from the outside. In other words the members of a group "choose to do (some) things in similar ways to each other, and in different ways from other people" which forms the basis for an ethnic division (Lucy 2005, 86). In the case of the mortuary evidence of the Kura Araxes cultural horizon, it is clear that one major separation did exist. This separation has the potential to extend to divisions in ethnic identity not based on characteristics such as genetics, race, or language, but rather based on culturally meaningful economic roles in society related to mobile herding or sedentary agricultural lifestyles. According to Wilkinson, economy can play a key role in defining culture. Instead of referring strictly to financial strategies it can

also refer to cultural priorities, ritual traditions and so on (Wilkinson 2014, 209). There are ethnographic examples of the formation of ethnic identities based on specialized economic occupations, specifically with pastoral nomadism in relation to agriculturalists (Emberling 1997, 305).

In the archaeological scholarship of the Kura Araxes, their communities have been described specifically as co-existing with other communities characterized by different "trajectories of social and cultural development" (Palumbi and Chataigner 2014a, 9). However, I am arguing that the main difference in trajectories, based on economic roles, took place within the Kura Araxes cultural horizon itself. The separation between the use of collective and individual graves and cemeteries, and the changes demonstrated throughout the three Kura Araxes phases seem to represent a deliberate act on the part of those within the communities to maintain this division, even when there was an overall movement towards almost exclusive individual, sedentary societies throughout the Kura Araxes groups of Transcaucasia.

Despite the multiple examples for interaction between the two subsistence strategies, within the realm of ethnic studies, it has often been concluded that there is indeed, what can be considered an ethnic division, between co-existing agriculturalists and nomadic pastoralists in recent history. In the 1960's Haaland observed that when an individual in the Sudan decreased their investment in the agricultural economy and invested instead in the nomadic pastoral economy, this was perceived by the society as a shift in ethnic identity (Lees and Bates 1974, 191). In addition, Barth studied nomads in Iran in the 1950's and found that nomads and agriculturalists, though they often did business together, were considered ethnically and culturally separate as well. Also interesting is the common practice for some within the community, normally those who were childless or families only with daughters, who were most prone to transitioning towards sedentism. Despite the constant movement back and forth, the newly sedentary people as well as people who used to be nomadic over four generations ago, considered themselves as still directly related to the nomad ethnicity (Barth 1961, 2, 98-9). Therefore, even with changes from one subsistence strategy to another, the Iranian nomadic groups ascribed themselves to their primary, sometimes perceived as ancestral, ethnic identity. The study of the Yoruk pastoralists within Northeastern Turkey by Bates showed that within the pastoral community itself, despite geographic separations, there was constant and heavy interaction through shared migration routes. Overall, despite complex heterogeneity they were bounded by ethnic lines, which worked against other the distinctions within the pastoral community, such as descent groups

or tribal divisions. The maintained ethnic boundaries created the sense of a unified cultural identity (Bates 1973, 6-7). In the case of ethnographic studies of groups in the Sudan, the Iranian pastoralists and the Yoruk Pastoralists, the differences in economic strategies were a main defining factor in their organization of ethnic identity.

The divisions demonstrated within the Kura Araxes mortuary evidence are argued here to be related to mobile and sedentary economic lifeways, which may also relate to a division in ethnic identities as based on the existence of such a phenomena in ethnographic examples. Here it is not being argued that the mortuary evidence represents the exact same organization observed in more recent agropastoral economies, but rather that such examples provide an interesting basis for which to interpret the mortuary remains. It is also not being argued that pastoralism or agriculture played a larger role in the economy nor are different types of sedentary or mobile economies being defined. Here the main argument is that overall there was a separation between the two economic strategies, represented in the mortuary evidence by the presence or lack thereof of nearby settlements near cemeteries which was mirrored in the relationship between collective and individual burials. And such separations in mortuary traditions could have been perceived in the past as maintaining or preserving ethnic boundaries as well. Therefore, the Kura Araxes were potentially not a single ethnically unified group, but were rather divided along economic lines.

In terms of the prevalence of females buried in collective graves, Barth provides interesting ethnographic cases. He mentions in his ethnographic studies that there was a tendency for families with majority female members to move towards sedentism as males were placed within the pastoral role. And despite the change towards a sedentary lifestyle, the women still maintained their ethnic ties to the nomadic groups (Barth 1961, 98-9). Another aspect that may be related to the burial of females in collective graves has to do with the maintenance of peace through marriage arrangements. There have been mortuary examples in the period following the collapse of the Roman Empire in Europe, which demonstrate the presence of Hunnic pastoral women from the Black Sea being buried in Western Europe with signs of their land of origin. It is argued that these burials represent a long-distance marriage exchange which was common in that period to maintain social cohesion between different groups (Hakenbeck 2009). There is the potential for marriage to have been part of interactions between the nomadic pastoralist groups and the sedentary groups as well in order to preserve economic balance between the two.

When observing the developments and changes in mortuary practices from KA I to KA III there is a movement towards more individual majority cemeteries close to settlements. More

specifically, there is an interesting transition from majority collective cemeteries, sometimes in association with nearby settlements and sometimes isolated in KA I, towards a separation between isolated and near-settlement cemeteries that mirrors collective and individual separations in KA II, and then finally almost exclusively majority individual near-settlement cemeteries in KA III.

KA I

There are ten cemeteries which correspond to KA I in the evidence in this study that illustrate the highest degree of integration in a sort of joint agropastoral economy. Armenia specifically contained the only examples for collective cemeteries located near permanent settlements. This is in contrast to the kurgans in Azerbaijan from the same period, which, according to Lyonnet, are the only visible signs of permanence in the Early Bronze Age of western Azerbaijan (Lyonnet 2014, 218). The Armenian cemeteries and settlements therefore may represent a fusion of agricultural and nomadic pastoral practices, while Azerbaijan may represent a more exclusively, perhaps specialized, mobile pastoral society.

Keti, Tsaghkalanj and Lanjik are the collective cemeteries in Armenia which were located close to nearby settlements. Keti included cists and stone-lined graves with up to seven individuals. Tsaghkalanj included three kurgans with over 30 individuals. Lanjik included a single cist or stone-lined grave with 10 individuals, 6 of which were female. Though they hadn't found the settlement yet, the excavators of Nachivchavebi in Georgia believe a settlement is located nearby as well. In this KA I stage it seems the differences in economic organization and ethnic identity argued to characterize the culture the Kura Araxes were not as strongly divisive as they appear later in the mortuary evidence. This may signal the existence of a more hybrid or integrated economy, defined by heavily interacting agriculturalists and nomads.

The rest of the cemeteries from this period were collective and isolated and therefore did not highlight integration. These included Kiketi in Georgia, Talin in Armenia, Mentesh Tepe and Uzun Rama in Azerbaijan and the one outlier of Chobareti, a majority-individual cemetery near a settlement in Georgia. The kurgans of Mentesh Tepe and Uzun Rama are part of some of the earliest Kura Araxes archaeological discoveries that also tended to be located in Azerbaijan, perhaps representing an area for the origin of one economic group (Lyonnet 2014, 115). Due to the isolated, collective nature of the kurgans, this group would have probably been heavily mobile. The excavators of Kiketi in Georgia also recorded a small amount of evidence for temporary occupation within the cemetery, again indicating a mobile lifestyle. Overall, collective graves within Armenia and Azerbaijan were the most

common during KA I, perhaps representing a general economic and ethnic cohesion amongst those who buried their dead in these cemeteries.

Chobareti, located in Georgia, may represent a separation based on the development of exclusively agricultural or specialized agricultural groups moving towards year-round sedentism. The cemetery contained only two collective burials, one which included three males and two females and the other which included two females. As I mentioned earlier, the appearance of more females in collective graves than males is an interesting characteristic of Transcaucasian burials, which may represent the phenomena spoken of by Barth where nomadic women, over men, were more likely to become part of sedentary societies (Barth 1961, 98-9).

In addition, multiple arguments that can be put forth for explaining the presence of collective graves within individual cemeteries. Overall, I would argue that at a general level these graves represent some kind of deliberate action towards the maintenance of an identity related to nomadism. It is interesting to note that the region of individual cemeteries located near settlements in Georgia and isolated collective cemeteries in Azerbaijan were separated by the country of Armenia, which contained a kind of mixed collective-near settlement cemetery configuration. It is almost as though two groups from different economic backgrounds were converging in Armenia and transforming along multiple trajectories of economic relations in KA II and KA III.

KA II

Within KA II, the separation between collective cemeteries and individual cemeteries grows more pronounced in the archaeological evidence. There were fewer collective cemeteries and more individual burials located near settlements. The cemeteries of Khashuri Natsargora and Urbnisi of Georgia, which were related to the same settlement of Khizanaant Gora, and the cemeteries of Elar in Armenia and Arslantepe in Anatolia were majority individual cemeteries located near a settlement. Dzaghina West was an isolated cemetery in Georgia whose skeletal remains could not be studied. The grave goods in some of these cemeteries may prove significant for further marking economic and ethnic difference. Dzaghina West contained the remains of a basalt quern, perhaps emphasizing an economic identity related to agriculture. Khashuri Natsargora contained one collective grave which was also the only grave with flint arrowheads at the cemetery. Perhaps this specific grave good, coupled with the collective grave tradition was part of to a deliberate act to maintain mobile economic and ethnic identities, regardless of whether or not these societies were still involved in pastoral activities.

The individual cemetery of Kvatskhela and the collective cemetery of Tvlepias Tsqharo represent an interesting example for a clear collective versus individual cemetery separation, as they were both dated to the same period and associated with the same settlement of Kvastkhelebi. In this case the separation in cemeteries can be directly interpreted as an economic and ethnic separation between pastoralists and agriculturalists at the cemetery level. Kavtskhela contained 3 collective graves with up to 3 individuals at the most. These burials could therefore represent people who identify with the nomads and who therefore place effort into the maintenance of these identities. Overall, the fact that there are very few individuals within the collective graves at Kvatskhela, and in the Shida Kartli region of Georgia compared to the collective graves of KA I, seems to demonstrate a decrease in the population of those who identify with the nomadic group.

The sister cemetery of Tvlepias Tsqharo on the other hand contained two kurgans with multiple individuals. These kurgans also contained flint arrowheads, perhaps demonstrating an association between flint arrowheads and mobile groups. One kurgan with a single individual was also discovered here. At first the presence of an individual in a kurgan can be interpreted as emphasizing a sedentary identity, however it is often the case with pastoral nomads that there are leaders or chiefs who hold a higher position (Barth 1961). Therefore, kurgans with a single individual most likely simply represent subdivisions within the nomadic group itself and are not based on economy or ethnicity.

Overall, a movement towards sedentism is clearer with the increase in individual cemeteries paired with settlements, whilst the appearance of smaller collective graves within these cemeteries continues. It is possible that the continual use of collective graves throughout Transcaucasia during this period may represent a reaction to the rise in more pronounced division between pastoral and agrarian labor. This change is cited as a common occurrence in the development of specialized pastoralism and agriculture in ethnographic examples as well (Chang and Koster 1986, 105). Therefore, KA II can be seen as a transitory period for nomadic and agricultural interactions, where economic organization and by extension ethnic identities were potentially being renegotiated and therefore emphasized in the burial remains of sedentary societies.

KA III

In KA III there are no longer any kurgans in this data-set which are attributed to the Kura Araxes. Instead there is a mix of mortuary remains belonging to collective mobile pastoralist groups and individual sedentary agricultural groups within the same cemeteries on a smaller scale. Tiselis Seri represents a majority-individual cemetery located near a settlement in

Georgia, with two collective graves containing two individuals each. Tiselis Seri is therefore not very different from the cemeteries in KA II, which also contained a small number of individuals that followed collective burial traditions. Kalavan I represents another majority - individual cemetery that was isolated from a settlement and included one collective grave of possibly over three people, including at least one female. The lack of a settlement here is perplexing, yet it can be argued that whatever economic activities were practiced at this site, the majority identified with the economic and ethnic identity related to sedentism.

In general in Transcaucasia during this period the increase in sedentism, as shown by the increase in cemeteries near settlements, can represent multiple transitions occurring in KA III. It is possible that most of Transcaucasia is taking part in sedentary and agricultural activities and the majority of pastoralist groups have moved to other regions or have been completely assimilated into sedentary life. Yet, as the presence of collective grave continues, the maintenance of nomadic ethnic identities seems to have still been a part of mortuary traditions.

As has been argued by post-processual theorists, the more dramatic the burial ritual or divisions, the more upheaval or change may be occurring in a society, which promotes the need for social balance (Chapman 2013, 52-3). Aradetis Orgora provides a unique example of a cemetery that is equally divided between individual and collective graves. It contained stone-lined or pit graves, five of which were individual graves and six of which were collective containing from two to six individuals. The equal division within a cemetery near a permanent settlement may represent a reaction to the decrease in or disappearance of one of these economically based identities. To know if complete assimilation towards sedentism had already taken place at this point at the expense of pastoralism or whether pastoralist populations migrated away from the region of Transcaucasia would best be answered by studying domestic remains. In the mortuary remains, however, it seems people at Aradetis Orgora were placing energy into continuing to differentiate between two economic and ethnic identities as a reaction to major transitions in economic lifestyles. Overall, the presence of permanent settlements indicates the existence of a sedentary, agricultural economic majority by the KA III period.

Migration

I want to briefly discuss migration within the context of the possible upheaval in economic organization and ethnic identities that may have been taking place in Transcaucasia in the Early Bronze Age. It has already been stated that the mortuary remains from Suyatağı, Carchemish, ʻAfula and Jericho were inconclusive for answering whether there was a

migration of a single group of Kura Araxes people throughout the Near East. This is particularly due to the lack of studies of burials that contain KKW ware, but also due to the fact that for those burials discovered the number of KKW sherds and other Transcaucasian characteristics were very small. At Jericho, in a grave with 500 ceramic vessels only 13 were KKW wares. In another grave with 300 ceramic vessels only 3 were KKW. The burials at ʻAfula have a stronger possibility for being related to Kura Araxes migrants because of their exclusive KKW ware, but unfortunately they were heavily disturbed.

It has been argued in this study that based on the mortuary remains in Transcaucasia, the Kura Araxes were not a single ethno-cultural group, but a group divided based on their different subsistence strategies. Since the developments of more dramatic divisions between agriculture and pastoralism have been observed in ethnographic examples, resulting in the migration of pastoralist groups, then the movement of one Kura Araxes economic group outside of Transcaucasia during the KA II and III phase is certainly a possibility.

According to Chang, Koster, Lee and Bates, when there was an increase in specialized pastoralists who only take part in mobile herding, and specialized agriculturalists who only took part in sedentary agriculture, despite continuing interactions between them, the group of pastoralists were often disenfranchised and pushed towards the periphery of society (Chang and Koster 1986, 105; Lee and Bates 1974, 189). In some cases this was caused by the movement of sedentary village locations to areas where irrigation or other agricultural techniques could occur, but were not prime areas for pasturing. In this way the pastoralists were often forced to move towards more distant pasturelands (Lee and Bates 1974, 189). Hovsepyan argued that in areas at higher elevations in Transcaucasia, pastoralism became more common while agriculture decreased. Therefore the opposite could be said for agriculturalists being unable to grow crops where pastoralists were located (Hovsepyan 2015, 78). Either way, for the Kura Araxes the use of land in itself was a potential separating factor between both subsistence strategies.

Rothman argues that there was indeed an increase in irrigation in the third millennium of Transcaucasia and that migration of the Kura Araxes group, which began with a series of small movements by small groups of various economic persuasions from place to place, was brought about by various push and pull factors, such as changes in social organization and access to resources (Rothman 2015, 9192-3). Therefore, changes in mortuary evidence interpreted as representing economic and ethnic transformations may provide further proof that at least some smaller groups constituting a complex blend of different specialized

pastoralist groups or other mobile groups, took part in movements outwards from Transcaucasia into the greater Near East.

Chapter 7: Conclusion

The analysis of mortuary remains can be extremely helpful in understanding past societies due to their role in maintaining identities or other divisions in societies in the past. The study of the patterns within the mortuary remains of the Kura Araxes culture has brought to light a separation that may have been related specifically to economic and ethnic divisions within this society in Early Bronze Age Transcaucasia. Burial construction types, location of cemeteries, inhumation practices based on collective and individual traditions, gender, rituals, grave goods, geographic dispersals and chronological transitions were examined. Many of these characteristics were found to correspond to one of two main groups described in this study as the collective-isolated-cemetery group and the individual-close-to-a-settlement-cemetery group.

As mentioned, the type of economic organization and subsistence strategies which defined the Kura Araxes have been a matter of debate among archaeologists, but in general there is an agreement that these people took part in both nomadic pastoralism and sedentary agriculture at varying levels. In this study, the patterns seen in the mortuary evidence that were related to the presence of nearby settlements was argued to follow along the lines of a division between economic subsistence strategies. Over the three Kura Araxes chronological phases the mortuary evidence demonstrated a trend towards the replacement of collective mobile burial traditions by individual sedentary burial traditions, perhaps representing an increase in economic specialization or an overall change in interactions between the groups over time. Migration of one group of people, potentially the mobile groups, outwards from Transcaucasia into the Near East may also have been an effect of the overall transition towards sedentism. However, the mortuary remains alone have not provided enough evidence to argue for such migration.

Ethnographic studies of nomadic pastoralists and agriculturalist relations in Western Asia provided interesting examples of the ways in which the two groups have co-existed in recent history. Such examples also highlighted an ethnic component, which demonstrated that in multiple cases the separations in economic strategies extended towards separations in ethnic identity for those within the two groups. Therefore, in addition to exhibiting a separation between economic practices, it was argued that in mortuary remains an ethnic separation important enough to emphasize in burial traditions may have been existing as well.

Overall, despite the spread of the Red-Black-Burnished Ware throughout the Near East, which was originally used by scholars to unite the Kura Araxes material culture into one group variety is emphasized in the mortuary evidence. It can be concluded that the material

remains attributed to the single Kura Araxes cultural horizon were most likely part of multiple interacting groups with divisions based on economic strategies, ethnicity and many other characteristics, traditions and practices. Continued archaeological research covering other aspects of the material culture in Transcaucasia in the Early Bronze Age has the potential to establish more examples of diversity within the Kura Araxes cultural horizon.

Abstract

The Kura Araxes represents an important albeit understudied cultural horizon dated to the Early Bronze Age, often defined as a single cultural group that originated in Transcaucasia and spread into the greater Near East. Many details about Kura Araxes society still remain much debated as most of the theories discussing the identity of the culture are based on the distribution of characteristic ceramics, which can mask the various levels of complexity. This study focuses on the mortuary evidence found in designated Kura Araxes cemeteries, which has the potential to highlight more cultural heterogeneity. Patterns within burial practices including burial construction types, location of cemeteries, inhumation practices, gender, rituals, grave goods, geographic dispersals and chronological transitions are examined. The divisions in mortuary traditions are interpreted as corresponding to separations in economic and ethnic identities based on mobile and sedentary lifestyle interactions, which undergo transformations throughout the Kura Araxes chronological phases.

Figures

Tables

Websites

C-Map, 2014. Excel and Word Map of Armenia Provinces. www.map.comersis.com/map.php?map=cmh151ft0cc. Accessed 4.24.2016.

Smithsonian Institution and National Parliamentary Library of Georgia, 2013. Chavchavadze Family. http://chavchavadze.si.edu/georgia.html. Accessed 4.24.2016.

Bibliography

Alizadeh, K., H. Eghbal and S. Samei, 2015. Approaches to Social Complexity in Kura Araxes Culture: A View from Kohne Shahar (Ravaz) in Chaldran, Iranian Azerbaijan. *Paléorient* 40(1), 37-54.

Areshian, G., 2006. Early Bronze Age Settlements in the Ararat Plain and its Vicinity. *Archäologische Mitteilungen aus Iran und Turan* 37, 71–88.

Badaljan, R.S., C. Edens, P.L. Kohl and A.V. Tonikijan, 1992. Preliminary Report on the 1992. Archaeological Investigations at Horom in the Shirak Plain of Northwestern Armenia. *Iran* 30, 31-48.

Badalyan, R.S., 2014. New Data on the Periodization and Chronology of the Kura-Araxes Culture in Armenia. *Paléorient* 40(2), 71-92.

Badalyan, R. and P. Avetisyan, 2007. *Bronze and Early Iron Age Archaeological Sites in Armenia: Mt. Aragats and Its Surrounding Region*. Oxford: Archaeopress (BAR International Series).

Bakhshaliyev, V., 1997. *The Archaeology of Nakhchivan*. Istanbul: Archeologie Sanat Yayinlari.

Barth, F., 1961. *Nomads of South Persia: The Basseri Tribe of the Khamseh Confederacy*. Boston: Little, Brown.

Bates, D.G., 1973. *Nomads and Farmers: A Study of the Yoruk of Southeastern Turkey*. Ann Arbor: University of Michigan Museum of Anthropology (Anthropological Papers 52).

Batiuk, S.D., 2013. Fruits of Migration: Understanding the 'Long Duree' and the Socioeconomic Relations of the Early Transcaucasian Culture. *Journal of Anthropological Archaeology* 32, 449-77.

Burney, C.A. and D.M. Lang, 1971. *The People of the Hills. Ancient Ararat and Caucasus*. London: Weidenfeld and Nicolson.

Chang, C. and H.A. Koster, 1986. Beyond Bones: Toward an Archaeology of Pastoralism. *Advances in Archaeological Method and Theory* 9, 97-148.

Chapman, R., 2013. Death, Burial and Social Representation, in L.N. Stutz and S. Tarlow (eds), *The Oxford Handbook of the Archaeology of Death and Burial*. Oxford: Oxford University Press, 47-55.

Chapman, R. and K. Randsborg, 1981. Approaches to the Archaeology of Death, in R. Chapman, I. Kinnes and K. Randsborg (eds), *The Archaeology of Death*. Cambridge: Cambridge University Press, 1-24.

Chikovani, G., A. Shatberashvili and G. Gogochuri, 2010. A New Site of the Eneolithic-Early Bronze Age from Tetritsqaro, in G. Gamkrelidze (ed), *Rescue Archaeology in Georgia: The Baku- Tbilisi- Ceyhan and South Caucasian Pipelines*. Tbilisi: Georgian National Museum, 91-105.

Chilashvili, L., M. Ketskhoveli, M. Jalabadze and I. Koridze, 2012. Urbnisi Cemetery, in M. Puturidze and E. Rova (eds), *Khashuri Natsargora: The Early Bronze Age Graves. Publications of the Georgian- Italian Shida Kartli Archaeological Project I*. Turnhout: Brepols, (Subartu 3), 70-4.

Cilingiroglu, A. and A. Sagona, 2004. Charles Burney in the Near Eastern Highlands, in A. Sagona (ed), *A View from the Highlands: Archaeological Studies in Honour of Charles Burney*. Louvain: Peeters (Ancient Near Eastern Studies Supplement 12), 3-11.

Connor, S.E. and E.V. Kvavadze, 2014. Environmental Context of the Kura-Araxes Culture. *Paléorient* 40(2), 11-22.

Cooper, L., 2007. Early Bronze Age Burial Types and Social-Cultural Identity within the Northern Euphrates Valley, in E. Peltenberg (ed), *Euphrates River Valley Settlement: The Carchemish Sector in the Third Millennium BC*. Oxford: Oxbow Books (Levant Supplementary Series 5), 55-70.

Cribb, R., 1991. *Nomads in Archaeology*. Cambridge: Cambridge University Press.

Darga, M., 1989. Les Tombes de Suyatağı-Mamaras a la Region de Karakaya, in K. Emre, M. Mellink, B. Hrouda and N. Ozguc (eds), *Anatolia and the Ancient Near East: Studies in Honor of Tahsin Ozguc*. Ankara: Turkish Historical Society, 67-74.

Edens, C., 1995. Transcaucasia at the end of the Early Bronze Age. *Bulletin of the American Schools of Oriental Research* 299 (300), 53-64.

Ekengren, F., 2013. Contextualizing Grave Goods: Theoretical Perspectives and Methodological Implications, in L.N. Stutz and S. Tarlow (eds), *The Oxford Handbook of the Archaeology of Death and Burial*. Oxford: Oxford University Press, 173-88.

Emberling, G., 1997. Ethnicity in Complex Societies: Archaeological Perspective. *Journal of Archaeological Research* 5(4), 295-341.

Frangipane, M., 2014. After Collapse: Continuity and Disruption in the Settlement by Kura-Araxes-Linked Pastoral Groups at Arslantepe-Malatya (Turkey). New Data. *Paléorient* 40(2), 169-82.

Frangipane, M., T. Schmidt-Schultz., M. Schultz, L. Sadori, A. Palmieri, P. Morbidelli, A. Hauptmann, and G.M. Di Nocera, 2001. New Symbols of a New Power in a "Royal" Tomb from 3 000 BC Arslantepe, Malatya (Turkey). *Paléorient* 27(2), 105-39.

Fowler, C., 2013. Identities in Transformation: Identities, Funerary Rites and the Mortuary Process, in L.N. Stutz and S. Tarlow (eds), *The Oxford Handbook of the Archaeology of Death and Burial*. Oxford: Oxford University Press, 513-23.

Gogochuri, G., and A. Orjonikidze, 2007. *Comprehensive Technical Report on Archaeological Investigations at Site IV-293 Tiselis Seri KP 203*. Tbilisi: Otar Lordkipanidze Centre for Archaeology of the Georgian National Museum.

Gogochuri, G. and A. Orjonikidze, 2010. The Kura Araxes Culture Settlement and Cemetery of Tiselis Seri, in G. Gamkrelidze (ed), *Rescue Archaeology in Georgia: The Baku- Tbilisi-Ceyhan and South Caucasian Pipelines*. Tbilisi: Georgian National Museum, 115-28.

Glonti, L., 2012. Cemeteries of Kvatskhelebi, in M. Puturidze and E. Rova (eds), *Khashuri Natsargora: The Early Bronze Age Graves*. *Publications of the Georgian- Italian Shida Kartli Archaeological Project I*. Turnhout: Brepols, (Subartu 3), 60-9.

Glonti, L., M. Ketskhoveli and G. Palumbi, 2008. The Cemetery at Kvatskhelebi, in A. Sagona and M.Abramishvili (eds), *Archaeology in Southern Caucasus: Perspectives from Georgia*. Belgium: Peeters (Ancient Near Eastern Studies Supplement 19), 153-84.

Greenberg, R., R. Shmelmitz and M. Iserlis, 2014. New Evidence for the Anatolian Origins of 'Khirbet Kerak Ware People' at Tel Bet Yerah (Israel), CA 2800 B.C. *Paléorient* 40(2), 183-201.

Hakenbeck, S., 2009. 'Hunnic' Modified Skulls: Physical Appearance, Identity and the Transformative Nature of Migrations, in D. Sayer and H. Williams (eds), *Mortuary Practices and Social Identities in the Middle Ages: Essays in Burial Archaeology in Honour of Heinrich Harke*. Liverpool: Liverpool University Press (64-80).

Janes, S., 2015. An Entangled Past: Island Interactions, Mortuary Practices and the Negotiation of Identities on Early Iron Age Cyprus, in A.B. Knapp and P.V. Dommelen (eds), *The Cambridge Prehistory of the Bronze and Iron Age Mediterranean*. New York: Cambridge University Press, 571-84.

Jones, S., 1997. *The Archaeology of Ethnicity: Constructing Identities in the Past and Present*. London: Routledge.

Kakhiani, K., A. Sagona, C. Sagona, E. Kvavadze, G. Bedianashvili, E. Massager, L. Martin, E. Herrscher, I. Martkoplishvili, J. Birkett-Rees and C. Longford, 2013. Archaeological Investigations at Chobareti in Southern Georgia, the Caucasus. *Journal of Ancient Near Eastern Studies* 50, 1-138.

Kalantarian, I., 2011. The Early Bronze Age Complexes of Talin Cemetery. *Irene Studii de Preistorie* 8, 123-38.

Kalantaryan, I., 2007. The Principal Forms and Characteristics of Burial Constructions in Early Bronze Age Armenia. *Armenian Journal of Near-Eastern Studies* 2: 7-39.

Kenyon, K., 1960. *Excavations at Jericho 1. The Tombs excavated in 1952-4*. Jerusalem: British School of Archaeology.

Ketskhoveli, M., I. Koridze, and M. Jalabadze, 2012. Dzaghina Cemetery, in M. Puturidze and E. Rova (eds), *Khashuri Natsargora: The Early Bronze Age Graves. Publications of the Georgian- Italian Shida Kartli Archaeological Project I*. Turnhout: Brepols, (Subartu 3), 11-27.

Ketskhoveli, M., I. Koridze and M. Jalabadze, 2012. Other Kura Araxes Burials from the Northern Part of the Shida Kartli Region, in M. Puturidze and E. Rova (eds), *Khashuri Natsargora: The Early Bronze Age Graves*. *Publications of the Georgian- Italian Shida Kartli Archaeological Project I*. Turnhout: Brepols, (Subartu 3), 90-4.

Khanzadyan, E.V., 1979. *Elar-Darani*. Yerevan: Haykakan SSH GA Hratarakch'ut'yun.

Kiguradze, T., and A. Sagona, 2003. On the Origins of the Kura-Araxes Cultural Complex, in, A.T. Smith and K.S. Rubinson (eds), *Archaeology in the Borderlands: Investigations in Caucasia and Beyond*. Los Angeles: University of California (Cotsen Institute of Archaeology Museum Monograph 47), 38-94.

Kohl, P., 2007. *The Making of Bronze Age Eurasia*. Cambridge: Cambridge University Press.

Kohl, P., 2009. Origins, Homelands and Migrations: Situating the Kura-Araxes Early Transcaucasian 'Culture' within the History of Bronze Age Eurasia. *Tel Aviv* 36, 241-65.

Koridze, I., 2012. Kura Araxes Burials from Aradetis Orgora in M. Puturidze and E. Rova (eds), *Khashuri Natsargora: The Early Bronze Age Graves*. *Publications of the Georgian-Italian Shida Kartli Archaeological Project I*. Turnhout: Brepols, (Subartu 3), 75-82.

Koridze, I. and G. Palumbi 2008. Kura Araxes Tombs at Aradetis Orgora, in Antonio Sagona and Mikheil Abramishvili (eds), *Archaeology in Southern Caucasus: Perspectives from Georgia*. Belgium: Peeters (Ancient Near Eastern Supplement 19), 125-52.

Kushnareva, K.Kh., 1997. *The Southern Caucasus in Prehistory: Stages of Cultural and Socioeconomic Development from the Eighth to the Second Millennium B.C*. Philadelphia: University of Pennsylvania Museum (University Museum Monograph 99).

Lees, S.H. and D.G. Bates, 1974. The Origins of Specialized Nomadic Pastoralism: A Systemic Model. *American Antiquity* 39(2), 187-93.

Lucy, S., 2005. Ethnic and Cultural Identities, in M. Diaz-Andreu, S. Lucy, S. Babic, and D.N. Edwards (eds), *The Archaeology of Identity: Approaches to Gender, Age, Status, Ethnicity and Religion*. New York, Routledge, 86-109.

Lyonnet, B., 2014. The Early Bronze Age in Azerbaijan in the Light of Recent Discoveries. *Paléorient* 115-30.

Lyonnet, B., F. Guliyev, B. Helwing, T. Aliyev, S. Hanson and G. Mirtskhulava, 2012. Ancient Kura 2010-2011: The First Two Seasons of Joint Field Work in the Southern Caucasus. *Archäologische Mitteilungen aus Iran und Turan* 44, 1-329.

Marro, C.V., 2007. The Carchemish Region in the Early Bronze Age, in E. Peltenberg (ed), *Euphrates River Valley Settlement: The Carchemish Sector in the Third Millennium BC*. Oxford: Oxbow Books (Levant Supplementary Series 5), 222-37.

Marro, C.V., V. Bakhshaliyev and A. Safar, 2011. Excavations at Ovcular Tepesi (Nakhchivan, Azerbaijan). Second Preliminary Report: The 2009- 2010 Seasons. *Anatolia Antiqua* 19, 53-100.

Marro, C., V. Bakhshaliyev and R. Berthon, 2014. On the Genesis of the Kura-Araxes Phenomenon: New Evidence From Nakhchivan. *Paléorient* 40(2), 131-54.

Maziar, S., 2015. Settlement Dynamics of the Kura-Araxes Culture: An overview of the Late Chalcolithic and Early Bronze Age in the Khoda Afarin Plain, North-Western Iran. *Paléorient* 41(1), 25-36.

Mirtskhulava, G., G. Kvirkvelia, G. Chikovani and C. Gambashidze, 2005. *Comprehensive Technical Report of Archaeological Investigations at Site IV-209 Samshvilde, KP 77+6*. Tbilisi: Otar Lordkipanidze Centre of Archaeology of the Georgia National Museum.

Omirani, B., H. Khatib Shahidi, and A. Abedi, 2012. Early Bronze Age, New Migrants and the Beginning of Township in Azerbaijan, NW Iran. *Iranica Antiqua* 47, 1-27.

Palumbi, G., 2007. From Collective Burials to Symbols of Power. The Translation of Role and Meanings of the Stone-lined Cist Burial Tradition from Southern Caucasus to the Euphrates Valley. *Scienze dell'Antichita* 14, 17-44.

Palumbi, G., 2008. *The Red and Black: Social and Cultural Interaction between the Upper Euphrates and the Southern Caucasus Communities in the Fourth and Third Millennium B.C*. Roma: Sapienza Università di Roma (Studi di Preistoria Orientale V 2).

Palumbi, G., 2003. Red-Black Pottery: Eastern Anatolian and Transcaucasian Relationships around the Mid-Fourth Millennium B.C. *Journal of Ancient Near Eastern Studies* 40, 80-134.

Palumbi, G., and C. Chataigner, 2014a. Introduction. *Paléorient* 40(2), 7-9.

Palumbi, G. and C. Chataigner, 2014b. The Kura Araxes Culture from the Caucasus to Iran, Anatolia and the Levant: Between Unity and Diversity. A Synthesis. *Paléorient* 40(2), 247-60.

Pestle, W.J., C. Torres-Rouff, and B. Daverman, 2014. Strange People and Exotic Things: Constructing Akkadian Identity at Kish, Iraq. *Remembering the Dead in the Ancient Near East: Recent Contributions from Bioarchaeology and Mortuary Archaeology*. Colorado: University Press of Colorado, 61-96.

Piro, J.J., 2009. *Pastoralism in the Early Transcaucasian Culture: the Faunal Remains from Sos Hoyuk*. (unpublished Ph.D. thesis New York University).

Porter, A., 2002. The Dynamics of Death: Ancestors, Pastoralism and the Origins of a Third-Millennium City in Syria. *Bulletin of the American Schools of Oriental Research* 325, 1-36.

Poulmarc'h, M., 2014. *Pratiques Funéraires et Identité Biologique des Populations du Sud Caucase du Néolithique à la Fin de la Culture Kura-Araxe (6e-3e Millénaire): Une Approach Archeo-Anthropologique*. (unpublished Ph.D. Lumiere Lyon 2 University).

Poulmarc'h, M., L. Pecqueur and B. Jalilov, 2014. An Overview of Kura-Araxes Funerary Practices in the Southern Caucasus. *Paléorient* 40(2), 231-46.

Puturidze, M. and E. Rova, 2012. Conclusions, in M. Puturidze and E. Rova (eds), *Khashuri Natsargora: The Early Bronze Age Graves. Publications of the Georgian- Italian Shida Kartli Archaeological Project I*. Turnhout: Brepols, (Subartu 3), 95-8.

Ramishvili, A. and E. Rova, 2012. Catalogue of EBA Graves, in M. Puturidze and E. Rova (eds), *Khashuri Natsargora: The Early Bronze Age Graves. Publications of the Georgian-Italian Shida Kartli Archaeological Project I*. Turnhout: Brepols, (Subartu 3), 11-27.

Ristvet, L., V. Bakhshaliyev and S. Ashurov, 2011. Settlement and Society in Naxcivan: 2006 Excavations and Survey of the Naxcivan Archaeological Project. *Iranica Antiqua* 46, 1-29.

Rothman, M.S., 2015. Early Bronze Age Migrants and Ethnicity in the Middle Eastern Mountain Zone. *PNAS* 112(30), 9190-95.

Rova, E., 2012. The Kura-Araxes Culture in the Shida Kartli Region of Georgia: An Overview. *Paléorient* 40(2), 47-69.

Rova, E., M. Puturidze and Z. Makharadze, 2011. The Georgian- Italian Shida Kartli Archaeological Project: A Report on the First Two Field Seasons 2009 and 2010. *Rivista Di Archeologia* 34, 5-30.

Rowton, M., 1974. Enclosed Nomadism. *Journal of the Economic and Social History of the Orient* 17(1), 1-30.

Sagona, A.G., 1984. *The Caucasian Region in the Early Bronze Age*. London: BAR (International Series 214).

Sagona, A.G., 2004. Social Boundaries and Ritual Landscapes in Late Prehistoric Transcaucasus and Highland Anatolia, in A.G. Sagona (ed), *A View from the Highlands: Archaeological Studies in Honour of Charles Burney*. Louvain: Peeters (Ancient Near Eastern Studies Supplement 12), 475-538.

Sagona, A., 2014. Rethinking the Kura Araxes Genesis. *Paléorient* 40(2), 23-46.

Smith, A.T., 2005. Prometheus Unbound: Southern Caucasia in Prehistory. *Journal of World Prehistory* 19, 229-79.

Smith, A.T. and R. Badalyan, 2009. *The Archaeology and Geography of Ancient Transcaucasian Societies I, The Foundations of Research and Regional Survey in the Tsaghkahovit Plain, Armenia*. Chicago: Oriental Institute Press.

Stout, A., 2013. Cultural History, Race, and Peoples, in L.N. Stutz and S. Tarlow (eds), *The Oxford Handbook of the Archaeology of Death and Burial*. Oxford: Oxford University Press, 17-25.

Stutz, L.N. and S. Tarlow, 2013. Beautiful Things and Bones of Desire: Emerging Issues in the Archaeology of Death and Burial, in L.N. Stutz and S. Tarlow (eds), *The Oxford Handbook of the Archaeology of Death and Burial*. Oxford: Oxford University Press, 1-12.

Sukenik, 1948. Archaeological Investigations at ‘Afula. *The Journal of the Palestinian Oriental Society* 21, 1-78.

Summers, G.D., 2014. The Early Trans-Caucasian Culture in Iran: Perspectives and Problems. *Paléorient* 40(2), 155-68.

Wilkinson, T.C., 2014. The Early Transcaucasian Phenomenon in Structural- Systemic Perspective: Cuisine, Craft and Economy. *Paléorient* 40(2), 203-29.

Woolley, L. and R. Barnett, 1952. *Carchemish, Part III*. *The Excavations in the Inner Town and the Hittite Inscriptions*. London: The Trustees of the British Museum.

Zuckerman, S., A. Ziv-Esudri and A. Cohen-Weinberger, 2009. Production Centres and Distribution Patterns of Khirbet Kerak Ware in the Southern Levant: A typological and Petrographic Perspective. *Tel Aviv* 36, 135-80.

Appendices

Appendices Continued….

Appendix 1: Mortuary Tables for Cemeteries from Georgia

Appendix 1.1: Aradetis Orgora

Aradetis Orgora (Koridze 2012, 75- 82; Koridze and Palumbi 2004, 125-152)

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
22	stone-lined rect	3	S1 flexed on right side in center; S2 flexed on right side at the foot of 1; 1 child at feet of S2	7 ceramic vessels: 2 whole, 6 broken; 1 copper spiral; 3 copper beads
23	stone-lined rect	1	lying on left side	2 ceramic vessels
24	stone-lined rect	1	poorly preserved	4 ceramic vessels; 1 carnelian bead; 1 metal spiral
25	stone-lined rect	6	disarticulated; a mandible sitting on vessel rim	4 ceramic vessels
26	stone-lined rect	1	X	3 ceramic vessels; 1 silver spiral; 2 copper spirals
27	oval pit covered by stones	0	X	1 ceramic vessel
28	stone-lined trapezoidal	1	fragmentary, in the middle	5 ceramic vessels; 1 bone spindle-whorl
29	stone-lined oval	5	5 Skulls	1 ceramic vessel; 26 copper spirals; 9 copper pendants; 6 copper beads; 102 white limestone beads; 7 stone discs; 1 flint arrowhead
30	stone-lined rect	1	lying on right side, skull separated	1 ceramic vessel; 1 copper spiral; 1 carnelian bead
31	oval pit covered by stones	1	disarticulated	2 ceramic vessels
32	oval pit covered by stones	2	flexed on right side	1 ceramic vessel
34	oval pit covered by stones	1	poorly preserved	1 ceramic vessel; 2 copper spirals; 1 bone spindle-whorl

35	stone-lined rect	2	S1 on right side, S2 at S1's feet	S1: 1 copper pin on chest, 11 copper beads between neck and chest; 1 metal awl near legs; 1 ceramic vessel near nape of neck

Appendix 1.2: Khashuri Natsargora

Khashuri Natsargora (Ramishvili and Rova 2012, 11-27)

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
145	pit	1	disarticulated	2 ceramic vessels
146	pit covered by stones; damaged	1	flexed on right side	2 ceramic vessels near breast and knees
147	pit, south side lined with stones	1	flexed on right side	3 ceramic vessels; ceramic sherds; goat bones, pair of goat horns
148	rectangular pit	1	flexed on right side	2 ceramic vessels in front of skull
149	rectangular pit; damaged	X	X	1 fragmentary ceramic vessel; sheep and goat bones
150	rectangular pit	1	flexed on left side	3 ceramic vessels: 1 near skull, 2 between the knees; 2 hearth fragments (potentially intrusive)
239	rectangular pit	1	flexed on right side	2 ceramic vessels in front of skull
240	rectangular pit, wood roof (?)	2	1 adult flexed on left side; 1 young child flexed on right side	1 ceramic vessel near child's head; wood fragments in front of adult
241	rectangular pit	1	flexed on left side	3 ceramic vessels in front of arms and knees
242	elongated rectangular pit	1	Juvenile flexed on right side	0
243	rectangular pit	1	flexed on left side	2 ceramic vessels: 1 in front of skull, other in front of chest

244	rectangular pit covered by stones	1	flexed on right side	3 ceramic vessels: 1 in front of skull, another on chest; 1 copper spiral: on left wrist; 4 white paste beads, 26 grey paste beads: near neck
245	heavily damaged	X	1 skull	X
246	rectangular pit	1	adult male, flexed on right side	2 ceramic vessels near skull
355	stone-lined rect covered by stones	7	1, 2: flexed on left side with hands beneath head next to eachother; 3: flexed on left side hands beneath head; 4: juvenile flexed on right side; 5: flexed on right side; 6: poorly preserved; 7: flexed on left side.	6 ceramic vessels; 1 copper spiral bracelet on wrist of juvenile (4); 1 copper pin; four flint arrowheads
363	rectangular pit covered by square stones, wooden poles	1	adult male, flexed on left side	2 ceramic vessels: 1 in front of skull, another behind neck
364	rectangular pit	1	adult flexed on right side	2 ceramic vessels in front of skull; 1 copper spiral bracelet on wrist; 1 copper spiral (hairpin?)
365	rectangular pit; skeleton directly covered by stones	1	flexed on right side	1 ceramic vessel behind neck
375	rectangular pit	1	flexed on right side	2 ceramic vessels in front of skull; 1 copper pin; 1 copper bracelet on right arm; 1 copper spiral; 24 barrel copper beads; 13 carnelian beads; 5 disk glass-like beads; 2 ring bone beads; 4 tubular yellow paste beads; 3 light blue paste beads; 2 ovoid beads; 7 grey beads: all beads on chest
382	rectangular pit	1	flexed on right side	2 ceramic vessels: 1 in front of skull

383	rectangular pit	0	X	2 ceramic vessels; 1 bone spindle whorl
389	rectangular pit	1	adult male damaged, disarticulated	2 broken ceramic vessels; sherds
391	rectangular pit	1	flexed on left side hands in front of skull	2 ceramic vessels: in front of skull and between arms and knees
392	rectangular pit	1	flexed on left side, right arm bent towards right shoulder	1 ceramic vessel near nape of neck
393	rectangular pit	1	1 skull	1 fragmentary ceramic vessel
492	damaged	X	X	2 ceramic vessels

Appendix 1.3: Dzaghina West

Dzaghina West (Ketskhoveli et al. 2012, 84- 85)

Grave #	Grave Type	Indv. #.	Skeletal Remains	Grave Goods
1	pit covered by stones	X	X	1 ceramic vessel; 1 clay spindle whorl; 1 flint flake; 1 obsidian flake
2	pit covered by stones	X	X	1 ceramic vessel; 1 copper pin
3	pit covered by stones	X	X	1 ceramic rim fragment
4	pit covered by stones	X	X	1 ceramic vessel; 1 flint blade; 1 basalt grinding stone fragment
5	pit covered by stones	X	X	3 ceramic vessels
6	pit covered by stones	X	X	1 ceramic vessel

Appendix 1.4: Kvatskhela

Kvatskhela (Glonti et. al. 2004, 155; Jalabadze et. al. 2012, 61-69)

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	stone-lined rect	1	flexed on right side, hand under chin	2 ceramic vessels
2	stone-lined rect covered by stones	2	1 was flexed on left side, 2 flexed on right side	3 ceramic vessels near the heads; copper diadem worn upside down on forehead of S1; copper bracelet on left arm; carnelian/stone/copper beads on chest and neck; 4 silver spirals behind the back
3	stone-lined rect with pebble floor	1	flexed on right side	ceramic fragments near the feet; copper knife blade in front of the face
4	disturbed	1	only lower part preserved	1 black stone bead
5	stone-lined rect covered by clay layer	1	lying on right side	2 ceramic vessels in front of head; 1 bone spindle-whorl in front of head, 78 limestone/carnelian beads, 2 copper beads, a copper spiral-headed pin between neck and chest, 3 silver spirals
6	stone-lined oval covered by stones and soil	3	1, 2 flexed young individuals on left side; 3 was in elongated	1 flint flake; 1 carnelian bead; S 1, S2: 3 ceramic vessels in front of the heads. S3: 3 ceramic vessels; 1 at the feet, 1 in front of chest.
7	rectangular pit, wooden roof(?)	1	a child flexed on right side	1 jade bead; 1 silver spiral
8	stone-lined rect	1	flexed on right side	3 ceramic vessels; 1 copper bracelet on left hand; 19 copper beads; 1 copper spiral pin close to neck
9	rectangular pit filled with large stones	1	flexed on left side	2 ceramic vessels near feet
10	rectangular pit covered by stones with a carved step near entrance	1	at bottom of grave, flexed on left side	2 ceramic vessels close to legs

11	quadrangular pit covered by stones	1	flexed on right side	4 ceramic vessels; 3 close to head; 1 close to the knees
12	stone-lined rect covered with stones	3	S1: flexed on right side S2, S3: mixed, disarticulated in eastern side	2 ceramic vessels near heads and 1 near feet of S2, S3; 1 bone awl on floor
13	rectangular pit	0	X	2 ceramic vessels
14	rectangular pit covered by stones	1	flexed on left side	2 ceramic vessels between head and knees
15	rectangular pit grave covered by stones, wooden roof remains	1	poorly preserved, flexed position	1 ceramic vessel; 1 bone spindle whorl

Appendix 1.5: Tvlepias Tsqharo

Tvlepias Tsqharo (Jalabadze et. al. 2012, 66- 67).

Grave #	Grave Type	Indv #	Skeleton Remains	Grave Goods
1	rectangular pit covered by burnt layer of stones mixed with ash, ceramics and burnt human bones, source of fire deeper in grave	X	teeth; other bones belonging to young individuals within stones	1 blue vitreous bead; ~60 tubular white limestone beads; ~80 beads of other colors; ~15 rock crystal beads; 2 triangle copper pendants; fragments of copper
2	pit with rectangular layer of stones	3	90 human teeth and mandible fragments	ceramic sherds; 4 flint arrowheads; 34 rock crystal beads; 11 stone (carnelian, limestone, paste) beads; 7 copper pendants
3	rectangular pit covered by stones	X	teeth and mandible fragments at different level within stones; 1 child skull in corner	ceramic vessel fragments; 1 copper spiral; 14 copper beads; 1 copper javelin head; 1 semi-circular copper pendant; 1 glass bead
4	rectangular pit filled with pebbles	1	X	ceramic sherds; 12 copper beads; 3 flint arrowheads

Appendix 1.6: Tqhviavi

Tqhviavi (Jalabadze et al. 2012, 90).

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	Kurgan	42	individuals in different positions at different levels.	3 individuals accompanied by grave goods: ceramic vessels; flint arrowheads; 1 copper knifeblade; 1 copper ring
2	Kurgan	1	X	1 ceramic vessel; 1 stone macehead; copper spirals
3	Kurgan	2	X	1 ceramic vessel; copper spirals

Appendix 1.7: Urbnisi

Urbnisi (Chilashvili *et*. *al* 2012, 70-74).

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	pit covered/ surrounded by stones	1	flexed on right side	7 ceramic vessels; 14 copper beads
5	pit	1	flexed on right side	2 ceramic vessels
16	disturbed pit	1	disturbed	4 ceramic vessels
17	disturbed pit	X	few bones	2 ceramic vessels
28	pit	X	few bones	3 ceramic vessels
29	pit	1	few bones	2 ceramic vessels
44	pit	1	flexed on right side, hands in front of face	3 ceramic vessels; 8 spiral copper beads; 1 silver spiral; 1 triple copper bead; 1 copper pin; 1 copper pendant, 2 paste beads
45	pit	1	flexed on right side	3 ceramic vessels

Appendix 1.8: Kiketi

Kiketi (Poulmarc'h 2014, 196- 215, 316).

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	rectangular pit covered by stones	4	2 on right side, 2 on left side	3 ceramic vessels
2	disturbed pit covered by stones	0	X	4 ceramic vessels
3	pit	4	all bones were mixed, disarticulated	3 ceramic vessels; white beads
4	pit covered by stones	4	S1: lying on back 3 adults, 1 juvenile of 7 yrs	4 ceramic vessels, white beads
5	pit covered by stones	X	multiple individuals	5 ceramic vessels; 10 cylindrical white beads
6	rectangular pit covered by rectangular stones	9	8 adults, 1 juvenile: some were flexed on right or left side, some disturbed	7 ceramic vessels
7	horseshoe with entrance to south	1	adult, flexed position on left side	1 ceramic vessel in front of face
8	horseshoe with entrance to south	3	X	5 ceramic vessels
9	horseshoe with entrance to south	6	6 skulls	8 ceramic vessels
10	pit covered by stones in rectangular shape	4	S1, S2: badly preserved; S3: flexed on right side S4: next to S3, flexed on left side	ceramic sherds; goat and sheep bones
11	oval pit covered by stones	3	S1, S2: flexed S3: badly preserved	1 ceramic vessel, 1 "bone object"
12	horseshoe	6	S1, S2: badly preserved S3: disarticulated S4: lying on back, legs contracted	12 ceramic vessels

			S5: flexed on left side S6: X	
13	oval pit covered by stones	4	S1: on left side	2 ceramic vessels
14	horseshoe	11	S1: flexed, on right side S2: flexed on back Rest: disarticulated, pushed aside	10 ceramic vessels

Appendix 1.9: Nachivchavebi

Nachivchavebi (Chikovani *et*. *al*. 2010, 97).

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	Stone-lined rect, southern step entrance, paved floor	5	2 males: 40-44 yrs, 30-34yrs 2 females: 50-54 yrs, 50-54 yrs 1 child: 12-14 yrs All flexed on side	8 ceramic vessels, 1 obsidian lamella, 1 sardonyx bead, 38 paste beads, 1 nucleus
2	Stone-lined oval	3	1 male 50-59 yrs in center, flexed on left 1 female 30-34 yrs flexed on right 1 female juvenile 16-18 yrs	4 ceramic vessels, 1 bone patella, 2 obsidian flakes
3	Pit with stone mound	1	1 child	2 ceramic vessels: a pot laying in a bowl in front of the face
5	Stone-lined, paved floor disturbed	X	X	2 ceramic vessels

Appendix 1.10: Chobareti

Chobareti (Kahiani et. al. 2013, 16-17)

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	Cist with basalt slab entrance	1	adult male on right side	1 ceramic vessel; bone spindle-whorl facing the dead
2	Cist with roof being supported by stones, wooden beams	4	S1: male 20-25 yrs, pushed aside S2: male 50-55 yrs, pushed aside S3: male 25 yrs, pushed aside before decomposition S4: female 40 -45 yrs, flexed on left side	ceramic sherds
3	Damaged cist	1	male juvenile on left side	0
4	Stone-lined assymetrical, southern entrance	1	male 30-40 yrs, flexed on right side	1 bone spindle-whorl behind back
5	Old, previously dug pit, re-used	1	male 30-35 yrs, flexed	ceramic sherds from older pit
6	destroyed	X	X	0
7	Cist with roof held up by wooden beams	1	5 year old child, flexed	0
8	Cist	2	S1: female 40-45 yrs, pushed into corner S2: female 30-40 yrs, lying on right side	purposefully broken ceramic vessels, 1 intact ceramic vessel

Appendix 1.11: Tiselis Seri

Tiselis Seri (Gogochuri and Orjonikidze 2010, 119-120)

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	pit	1	a child 8-9 yrs	2 ceramic vessels
2	rectangular pit	X	poorly preserved	1 ceramic vessel
3	rectangular pit lined with basalt, sandstone pieces along western, southern wall	1	a child 5-6 yrs, flexed on right side	skull, neck bones, ribs of cattle within southern stones
4	stone-lined rect with 5, 6 courses of sandstone, timber beam roof	1	female 30-35 yrs, flexed along SW wall	1 ceramic vessel, 1 bone blade near feet; 39 white, 28 blue glass paste beads at neck; sheep jaw, teeth, extremities
5	pit	1	child 6-7 yrs, flexed	0
6	pit covered by stones and earth	1	male 40-45 yrs, flexed on left side	1 ceramic vessel; sheep, lamb bones near head; basalt quern fragment (in the fill)
7	pit	2	2 males 40-45 yrs and 50-55 yrs, flexed on left sides	0
8	pit	1	male 18-20 yrs, flexed on left side	Cattle bones; sheep cranium near head; sheep metapodium bones near hip
9	pit	2	S1: male 40-45 yrs, flexed on left side S2: male 60-65 yrs, flexed on right side; are facing each other	X
10	pit	1	male 40-45 yrs flexed on left side	X

Appendix 2: Mortuary Charts for Cemeteries in Armenia

Appendix 2.1: Keti I II III

Keti (I, II, III) (Badalyan and Avetsyan 2007, 157-173)

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	Cist or Stone-lined	7	S1: flexed on left side. Rest: each individual placed on top of the other near the north wall.	8 ceramic vessels: placed on top of each other.
2	Cist or stone-lined rect	5	X	4 ceramic vessels
3	Cist or stone-lined rect	X	X	8 ceramic vessels
4	Stone-lined rect	6	S1, S2: flexed on left side in front of entrance Rest: disarticulated on north wall	X
5	Stone-lined rect, .5m long dromos	6	S1, S2: flexed on left side in front of entrance Rest: disarticulated on north wall	14 ceramic vessels
6	Cist or stone-lined rect	3	S1: flexed position, head lying on flagstone Rest: disarticulated near north wall	7 ceramic vessels
7	Cist or stone-lined rect	3	1 flexed, rest disarticulated	X
8	Cist or stone-lined rect	3	1 flexed, rest disarticulated	X ceramic vessels: 1 bowl with sheep head shaped handles
9	Cist or stone-lined rect	2	X	X

Appendix 2.2: Lanjik

Lanjik (Badalyan and Avetsyan 2007, 199)

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	Cist or stone-lined rect, with entrance	10	2 males, 6 females, 2 children placed successively. Majority are flexed on right or left side; some are lying on back	10 ceramic vessels

Appendix 2.3: Elar

Elar (Sagona 1984, 56- 57; Khanzadyan 1979, 36- 49)

Grave #	Grave Type	Skeletal Remains	Grave Goods
3	Stone-lined	flexed, lying on right side	ceramic vessels placed in front of arms, in front of skull or behind skull- included a pitcher with a cover placed on a ceramic stand, large bowl in front of or behind skull; bronze dagger in front of skull; bronze knives in front of skull; stone arrowheads in front of skull; stone blades in front of shoulder; obsidian knife
4	Horseshoe		
5	Damaged		
6	Horseshoe		
8	Rectangular pit		
9	Rectangular pit		
10	Cist		
11	Damaged		
14	Rectangular pit		
15	Rectangular pit		
16	Rectangular pit		
17	Rectangular pit		
18	Rectangular pit		

20	Rectangular pit		
22	Damaged		
24	Rectangular pit		
26	Damaged		
36	Stone-lined		
37	Rectangular pit		claw-shaped amulet
41	damaged		

Appendix 2.4: Kalavan I

Kalavan I (Poulmarc'h 2014, 256- 284).

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	pit covered by stones	1	female, 20-29 yrs: flexed, lying on right side	4 ceramic vessels, some sherds mixed with bones; empty space in front of body may have contained a perishable item
2	pit covered by stones	1	strongly flexed	5 ceramic vessels along the front of the body; 4 sherds near the leg
5	pit covered by larger pile of stones, potentially lined in some areas	3<	disarticulated throughout grave. S1: Female 20-29 yrs S2, S3: unknown potentially others	4 ceramic vessels (2 broken); numerous sherds; 3 goat bones with cut marks
8	pit	1	Child 5- 6 yrs flexed, on right side	1 crystal bead, 1 blue stone bead at the base of the skull; 2 dog molars next to the beads
9	pit covered by stones	1	sitting upright on a chair	3 ceramic vessels (2 on top of each other); one spiral bronze bracelet on right wrist; bronze spiral ring near face

Appendix 2.5: Talin

Talin (Badalyan and Avetsyan 2007, 244; Kalantarian 2011, 124- 125).

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
7	Kurgan: .8 m high, cromlech encloses area covered by stone shield and stone-soil filling. Center: stone-lined oval grave with dromos sealed with stones	8	earlier skeletal remains removed to make room for newly dead	2 ceramic vessels; ceramic sherds and obsidian flakes in dromos; 10 sheep and goat bones
10	Kurgan: 1.2 m high, cromlech of 2 rows of stones encircles clay mound covered by stone shield and stone-soil filling Center: Cist on ground surface within clay mound, encircled by a second chromlech	9	scattered inside burial chamber, different layers of burials separated by tile floor	Ceramic sherds; 1 bronze triangle spear point; white, grey, black, brown, blue frit, paste and stone (jasper, sardonyx, faience(?)) beads; 1 ring shaped shell pendant
11	Kurgan: 1.1 m high, no cromlech, shield of small stones underneath and stone-soil cover Center: oval stone-lined grave with dromos located directly on ground	5	S1, S2: flexed on left side S3: on back Rest: not well preserved	Ceramic sherds; 1 stone macehead; 1 bronze spiral ring; 34 large spherical blocks of obsidian in a pile; transparent, paste beads; marble pendant
12	Kurgan: .7 m high, comprised of rectangular stone-soil mound with labyrinthine corridors separated by 2-3 row stone-walls Center: platform	1	Skull and extremities on center platform	Ceramic sherds and obsidian flakes in fill; 2 groundstones; treated stones; 1 bone hair pin/ needle; 1 flint arrowhead (or spear point); 1 bronze handle with a hole; 1 dagger blade fragment; 1 bronze head adornment

Appendix 2.6: Tsaghkalanj

Tsaghkalanj (Badalyan and Avetsyan 2007, 272- 273)

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	X	X	X	
14	Disturbed Kurgan: encircled by cromlech of several rows of stones, no earth filling Center: a well structure covered with slabs	0	X	1 ceramic sherd
36	Kurgan: encircled by a cromlech Center: cist grave with tuf slabs, covered by two stone slabs, chamber separated into two parts by vertical stone slab	12	-Group 1: 5 individuals in NW part of tomb; placed after flesh removal, covered by earth layer. -Group 2: 6 disarticulated individuals, placed after flesh removal, on top of earth layer -S12: in SE, female 40-55yrs, flexed on left side.	1 ceramic vessel with group 1; 4 ceramic vessels with group 2; 1 bone spindle whorl

Appendix 3: Mortuary Charts for Cemeteries from Azerbaijan, Northwest Iran, Anatolia and the Southern Levant.

Appendix 3.1: Mentesh Tepe

Mentesh Tepe (Lyonnet 2012, 92- 96; Poulmarc'h 2014, 119- 159).

Grave#	Grave Type	Indv. #	Skeletal Remains	Grave Goods	Date
4	Kurgan: dromos leading to a stone entrance and a rectangular burial chamber with wooden posts that supported a thin wall, capstone of large river pebbles	39	Two Levels, primary burials: -12 juveniles, 27 adults -Majority disarticulated -Some flexed on left or right side -S1: Best preserved, last to be added, located near entrance	21 ceramic vessels; 10 bone spindle-whorls or buttons; 300 steatite black and white beads next to wrist of individual; obsidian blades; 1 broken basalt grindstone; 2 baskets; 2-3 animal skulls	KA I
28	Pit	1	Male, 40 yrs of age, flexed and lying on his back, lying on rocks mixed with ceramic sherds	2 ceramic sherds; 1 complete goat skull	KA II-III
49	Pit covered by pile of stones	1	Lying on rocks and ceramic sherds, disarticulated and incomplete	ceramic sherds	Ka II-III

Appendix 3.2: Uzun Rama

Uzun Rama (Jalilov 2014, 242-244).

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	Kurgan: 1.2 m high, surrounded by circular cobblestone cromlech, upper part of walls has earth and stone fill Center: A rectangular mudbrick chamber with a dromos, top covered with wooden	79- 83	-Most: Adults 15- 35 yrs -Some: Infants 2-3 yrs and elders. Disarticulated, pushed aside, some areas piled up to 50 cm., - S1 piled onto the	Some wooden vessels; 100s of black, white, grey paste beads; 8 bone spindle-whorls; clothing fragments; rolled cloth; 55 ceramic vessels; 1 wooden bench in the SW corner with human bones on it; Caprine mandibles and

	beams, 4 wooden posts in corners, 2 logs above entrance		wooden bench	skulls; 13 goat horns.

Appendix 3.3: Arslantepe

Arslantepe (Frangipane 2001 108-113; Di Nocera 2001, 120; Schultz and Schultz 2001; 124-129)

Grave #	Grave Type	Invd. #	Skeletal Remains	Grave Goods
T1	Cist grave at the bottom of a sub-rectangular pit covered by capstones and paved on the floor by three stone slabs	1	Adult Male placed on wooden board, 35- 45 yrs, flexed on right side, hands in front of chest	*GG behind the back:* Copper: 9 spearheads lined along the wall near head, 2 swords, 2 daggers, 4 axes, 2 chisels, 3 gouges, 1 knife, 2 vessels -Copper, Silver Alloy: 1 dagger *GG near head or torso as part of clothing or necklaces* -Silver: 2 spiral pins near shoulder, 1 hair spiral, 3 beads of one necklace, 65 beads of another necklace -Copper-Silver Alloy: 1 belt, 7 spirals, 4 rings and 15 arm-rings -Gold: 3 beads, 1 hair spiral -Stone: then 100 limestone beads, some carnelian beads, some rock crystal beads - Textiles: Perhaps shroud - 1 RBBW vessel *GG in the NE corner* 5 bracelets; 6 spirals; 2 copper-silver rings; 3 RBBW vessels *GG in the SE corner* 1 copper-silver ring; 2 RBBW vessels *GG at the feet* Ceramic vessels at the feet, including 1 RBBW vessel
S150	Rectangular pit above cist grave	4	-S1: Female juvenile 12- 14 yrs on cist capstones, lying on left side with arms flexed before face and legs strongly	*Worn by S1 and S2* -2 copper-silver hair spirals; 2 copper pins; 2 copper-silver diadems; Textile covering *Ceramic Vessels* -On top of cist capstones: 1 above head of S1; 1 near arm and 1 below torso of S2

			flexed to behind thighs -S2: Male juvenile 16- 18 yrs on cist capstones, missing lower half, lying on stomach, face down, right arm stretched out in front of chest, left arm folded behind back -S3: Female juvenile 16- 17 yrs, lying on right side, stomach towards the floor, perhaps fell forward -S4: Female 12- 14 yrs, missing lower half, lying on left side with flexed arms, hands in front of face	-Outside of cist capstones: 2 RBBW vessels above head of S3; 2 RBBW vessels in the north

Appendix 3.4: Carchemish

Carchemish (Woolley 1952, 218- 226)

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	Cist	1	A child, flexed on left side	6 ceramic vessels by the body; 2 bronze spearheads; 2 bronze pins with ball heads
2	Cist	1	A child, flexed on left side	8 ceramic vessels; crystal and carnelian beads by neck; other beads by the pelvis (perhaps from clothing); 1 bronze pin with goat head decorations in front of face; 4 decayed bronze pins with ball heads; 1 bronze cylinder object with two doves next to hands; small pieces of wood

3	Cist dug into mudbrick vault brickwork, 1 side made of stones	NA	No bone remains, plundered in antiquity.	24 ceramic vessels
4	Cist	NA	No bones, roof collapse	9 or more ceramic vessels in fragments
5	Cist	NA	No bones, roof collapse	6 ceramic vessels: 1 was “black ware”
6	Cist	1<	Disarticulated, scattered bones, 1 skull	Over 18 ceramic vessels; beads of white-green paste; 4 bronze pins; Square of stones in center
7	Cist	<3	(# not agreed upon)	40 ceramic vessels; White and red stone beads: 1 string of beads; other scattered beads; 1 bronze axe blade; 2 daggers; 3 pins; some nails
8	Cist	<2	2 skulls (not agreed upon)	16 ceramic vessels
9	Cist	1	1 skull laid on flat stone, disarticulated bones throughout	60 ceramic vessels; 2 bronze axes; 1 bronze chisel; 1 bronze dagger; a few bronze pins probably located near skull
10	Cist	1	NA	19 ceramic vessels; 2 bronze pins; 2 flint knife cores
11	Cist	1	1 skull on east side of tomb	3 ceramic vessels; 1 bronze pin near the head; many pottery and crystal beads near neck
12	Cist	1	NA	17 ceramic vessels; 1 bronze pin; 1 necklace of beads

Appendix 3.5: Suyatağı

Suyatağı (Darga 1989, 67- 74)

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
1	Cist	1	Disarticulated remains found on top of sherds	19 ceramic sherds lining the floor; 1 ceramic vessel in front of face
2	Cist	1	X	2 ceramic vessels
3	Disturbed Cist	X	X	1 ceramic sherd
4	Disturbed Cist	X	X	2 ceramic sherds
5	Cist	1	Disarticulated remains found on top of sherds	69 ceramic sherds lining the floor; 3 ceramic vessels
6	Cist	1	Disarticulated remains found on top of sherds	Some ceramic sherds lining the floor; 2 ceramic vessels
7	Cist	1	X	2 ceramic sherds

Appendix 3.6: 'Afula

Afula (Sukenik 1948, 11-12).

Grave #	Grave Type	Indv. #	Skeletal Remains	Grave Goods
15	Pit grave	NA	Disarticulated	All KKW ceramic vessels: 2 jar fragments contained bones; some animal bones
16	Pit grave	NA	Disarticulated	KKW ceramic vessels

Appendix 3.7: Jericho

Jericho (Kenyon 1960, 94- 172).

Grave #	Grave Type	Indv.#	Skeletal Remains	Grave Goods
TD 12	Rectangular tomb chamber with a dromos, probably included a roof	8<	8 skulls + disarticulated bones in dromos and chamber. Kenyon believes must have contained over 100 individuals, heavily disturbed	500< ceramic vessels/ sherds: ~13 are KKW; 1 ceramic donkey figurine; 1 stone bull head carving; 3 stone spindle-whorls; 1 bronze or copper ring; 1 carved bone cylinder; 27 pierced bone cult objects; Over 260 beads: stone, shell, bone, white, ink, carnelian, faience, dark, bronze or copper beads; 60 shell pendants; 1 crystal pendant
F2	Shaft grave	54<	Disarticulated, heavily disturbed	300< ceramic vessels/ sherds: ~3 are KKW; 1 stone macehead; 1 flat stone oval; 1 copper or bronze strip or bracelet; some bronze or copper beads; 1 animal shaped carnelian bead, 8 necklaces including alabaster, carnelian, stone, frit, bone, shell, white, green beads
F4	Shaft grave cut into the side of the wadi	89<	89 skulls and disarticulated bones, most recent along the east wall, rest are piled in different levels throughout, heavily disturbed	250< ceramic vessels/ sherds: ~4 KKW; 1 pierced cult bone object; 1 carved bone handle; 25 bone pendants in the shape of bird's head; 1 shell pendant; beads, undescribed.

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Cemetery	Date	G#	Grave Type	Indv. #	Inhum.	Position	Col/ Indv.	Gend.	Age	Location	Environ.	Country
Aradetis Orgora	KA III	22	SL rect	3	primary	flexed, side	collective	X	1 juv	near settlement	river bank	Georgia
Aradetis Orgora	KA III	23	SL rect	1	primary	flexed, side	individual	X	X	near settlement	river bank	Georgia
Aradetis Orgora	KA III	24	SL rect	1	primary	poor pres.	individual	X	X	near settlement	river bank	Georgia
Aradetis Orgora	KA III	25	SL rect	6	secondary	disarticulated	collective	X	X	near settlement	river bank	Georgia
Aradetis Orgora	KA III	26	SL rect	1	X	X	X	X	X	near settlement	river bank	Georgia
Aradetis Orgora	KA III	27	Pit oval cov.stones	0	X	X	X	X	X	near settlement	river bank	Georgia
Aradetis Orgora	KA III	28	SL trapezoid	1	primary	fragmentary.	individual	X	X	near settlement	river bank	Georgia
Aradetis Orgora	KA III	29	SL oval	5	secondary	5 skulls	collective	X	X	near settlement	river bank	Georgia
Aradetis Orgora	KA III	30	SL rect	1	primary	flexed, side	individual	X	X	near settlement	river bank	Georgia
Aradetis Orgora	KA III	31	Pit oval cov. stones	1	primary	disarticulated	collective	X	X	near settlement	river bank	Georgia
Aradetis Orgora	KA III	32	Pit oval cov. stones	2	primary	flexed, side	collective	X	X	near settlement	river bank	Georgia
Aradetis Orgora	KA III	34	Pit oval cov. stones	1	primary	poor pres.	individual	X	X	near settlement	river bank	Georgia
Aradetis Orgora	KA III	35	SL rect	2	primary	flexed, side	collective	X	X	near settlement	river bank	Georgia
Dzaghina West	KA II	1	Pit cov. Stones	X	X	X	X	X	X	isolated		Georgia
Dzaghina West	KA II	2	Pit cov. Stones	X	X	X	X	X	X	isolated		Georgia
Dzaghina West	KA II	3	Pit cov. Stones	X	X	X	X	X	X	isolated		Georgia
Dzaghina West	KA II	4	Pit cov. Stones	X	X	X	X	X	X	isolated		Georgia
Dzaghina West	KA II	5	Pit cov. Stones	X	X	X	X	X	X	isolated		Georgia
Dzaghina West	KA II	6	Pit cov. Stones	X	X	X	X	X	X	isolated		Georgia
Khashuri Natsargora	KA II	145	Pit	1	X	disarticulated	X	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	146	Pit cov. Stones	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	147	Pit, SL south side	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	148	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	149	Pit rect	X	X	X	X	X	X	near settlement	mound slope	Georgia

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Khashuri Natsargora	KA II	150	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	239	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	240	Pit rect, wood roof?	2	primary	flexed, side	collective	X	1 ad, 1 ju	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	241	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	242	Pit rect	1	primary	flexed, side	individual	X	1 juv	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	243	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	244	Pit rect cov. Stones	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	245	damaged	X	X	1 skull	X	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	246	Pit rect.	1	primary	flexed, side	individual	male	adult	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	355	SL rect cov. Stones	7	primary	flexed, side	collective	X	1 juv	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	363	Pit rect, cov. Stones, wood poles	1	primary	flexed, side	individual	male	adult	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	364	Pit rect.	1	primary	flexed, side	individual	X	adult	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	365	Pit rect. cov. stones	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	375	Pit rect.	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	382	Pit rect.	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	383	Pit rect.	0	X	X	X	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	389	Pit rect	1	primary	damaged	individual	male	adult	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	391	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	392	Pit rect.	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	393	Pit rect	1	X	1 skull	individual	X	X	near settlement	mound slope	Georgia
Khashuri Natsargora	KA II	492	damaged	X	X	X	X	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	1	SL rect	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	2	SL rect cov. stones	2	primary	flexed, side	collective	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	3	SL rect. pebble floor	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	4	disturbed	1	primary	poor pres	individual	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	5	SL rect, clay cover	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	6	SL oval, cov. Stones	3	primary	flexed, side, 1 back	collective	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	7	Pit rect, wood roof?	1	primary	flexed, side	individual	X	child	near settlement	mound slope	Georgia

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Kvatskhela	KA II	8	SL rect	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	9	Pit rect.	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	10	Pit rect.cov.stones.step	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	11	Pit quad.cov.stones	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	12	SL rect cov. stones	3	secondary	flexed, disarticulated	collective	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	13	Pit rect	0	X	X	X	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	14	Pit rect cov. Stones	1	primary	flexed, side	individual	X	X	near settlement	mound slope	Georgia
Kvatskhela	KA II	15	Pit rect, cov. Stones, wooden roof	1	primary	poor pres, flexed	individual	X	X	near settlement	mound slope	Georgia
Tvlepias Tsqharo	KA II	1	Pit rect, cov. Burnt ston	X	X	disarticulated	collective	X	all young	near settlement	promontory	Georgia
Tvlepias Tsqharo	KA II	2	Pit rect. cov.stone layer	3	X	disarticulated	collective	X		near settlement	promontory	Georgia
Tvlepias Tsqharo	KA II	3	Pit rect, cov.stones layer	X	X	disarticulated	collective	X	1 child	near settlement	promontory	Georgia
Tvlepias Tsqharo	KA II	4	Pit rect, filled with pebbles	1	X	X	X	X	X	near settlement	promontory	Georgia
Tqhviavi	X	1	Kurgan: pit	42	X	dif, positions, dif levels	collective	X	X	isolated	X	Georgia
Tqhviavi	X	2	Kurgan: pit	1	X	X	X	X	X	isolated	X	Georgia
Tqhviavi	X	3	Kurgan: pit	2	X	X	X	X	X	isolated	X	Georgia
Urbnisi	KA II	1	Pit cov. Stones	1	primary	flexed, side	individual	X	X	in settlement	X	Georgia
Urbnisi	KA II	5	Pit	1	primary	flexed, side	individual	X	X	in settlement	X	Georgia
Urbnisi	KA II	16	Pit	1	primary	disturbed	individual	X	X	in settlement	X	Georgia
Urbnisi	KA II	17	Pit	X	X	disturbed	X	X	X	in settlement	X	Georgia

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Urbnisi	KA II	28	Pit	X	X	X	X	X	X	in settlement	X	Georgia
Urbnisi	KA II	29	Pit	1	primary	few bones	individual	X	X	in settlement	X	Georgia
Urbnisi	KA II	44	Pit	1	primary	flexed, side	individual	X	X	in settlement	X	Georgia
Urbnisi	KA II	45	Pit	1	primary	flexed, side	individual	X	X	in settlement	X	Georgia
Kiketi	KA I-II	1	Pit rect cov. Stones	4	secondary	flexed, side	collective	X	X	isolated	river bank	Georgia
Kiketi	KA I-II	2	Pit rect cov. Stones	0	X	X	X	X	X	isolated	river bank	Georgia
Kiketi	KA I-II	3	Pit	X	4	disarticulated	X	X	X	isolated	river bank	Georgia
Kiketi	KA I-II	4	Pit cov. Stones	4	secondary	flexed, disarticulated	collective	X	3 ad, 1 child 7yrs	isolated	river bank	Georgia
Kiketi	KA I-II	5	Pit cov. stones	X	X	X	collective	X		isolated	river bank	Georgia
Kiketi	KA I-II	6	Pit rect cov. Stones	9	secondary	flexed, disarticulated	collective		8 ad, 1 juv	isolated	river bank	Georgia
Kiketi	KA I-II	7	Horseshoe	1	primary	flexed, side	individual		adult	isolated	river bank	Georgia
Kiketi	KA I-II	8	Horseshoe	3	X	X	X	X	X	isolated	river bank	Georgia
Kiketi	KA I-II	9	Horseshoe	6	X	6 skulls	collective	X	X	isolated	river bank	Georgia
Kiketi	KA I-II	10	Pit rect cov. Stones	4	primary	flexed, side	collective	X	X	isolated	river bank	Georgia
Kiketi	KA I-II	11	Pit oval cov. Stones	3	primary	flexed, side	collective	X	X	isolated	river bank	Georgia
Kiketi	KA I-II	12	Horseshoe	6	secondary	flexed, disarticulated	collective	X	X	isolated	river bank	Georgia
Kiketi	KA I-II	13	Pit oval cov. Stones	4	X	X	collective	X	X	isolated	river bank	Georgia
Kiketi	KA I-II	14	Horseshoe	11	secondary	flexed, disarticulated	collective	X	X	isolated	river bank	Georgia
Nachivchavebi	KA I	1	SL rect, paved floor, step	5	primary	flexed, side	collective	2m, 2f	4 ad, 1c	isolated	mtn slope	Georgia
Nachivchavebi	KA I	2	SL oval	3	primary	flexed, side	collective	1m, 2f	2ad, 1 juv	isolated	mtn slope	Georgia
Nachivchavebi	KA I	3	Pit with stone mound	1	primary	X	individual	X	child	isolated	mtn slope	Georgia
Nachivchavebi	KA I	5	SL disturbed	X	X	X	X	X	X	isolated	mtn slope	Georgia

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Samshvilde	KA II		35 Cists?	X	secondary	disarticulated	collective	X	X	near settlement	Mtn slope	Georgia
Amiranis Gora	KA I		48 Cists, stone-lined rect, 2 horseshoe	X	primary, secondary	flexed, side	individual, collective	X	X	within settlemer	Mtn terrace	
Chobareti	KA I	1	Cist	1	primary	flexed	individual	male	adult	near settlement	Mtn terrace	Georgia
Chobareti	KA I	2	Cist, wooden beams	4	secondary	flexed, disarticulated	collective	both: 3m, 2f	adult	near settlement	Mtn terrace	Georgia
Chobareti	KA I	3	Cist	1	primary	flexed, side	individual	male	juvenile	near settlement	Mtn terrace	Georgia
Chobareti	KA I	4	SL assymetrical	1	primary	flexed, side	individual	male	adult	near settlement	Mtn terrace	Georgia
Chobareti	KA I	5	Pit	1	primary	flexed, side	individual	male	adult	near settlement	Mtn terrace	Georgia
Chobareti	KA I	6	Destroyed	X	X	X	X	X	X	near settlement	Mtn terrace	Georgia
Chobareti	KA I	7	Cist, wooden beams	1	primary	flexed, side	individual	X	child	near settlement	Mtn terrace	Georgia
Chobareti	KA I	8	Cist	2	secondary	flexed, disarticulated	collective	female	adult	near settlement	Mtn terrace	Georgia
Tiselis Seri	KA III	1	Pit	1	primary	X	individual	X	child	near settlement	Mtn ridge slop	Georgia
Tiselis Seri	KA III	2	Pit rect	X	X	poor pres	X	X	X	near settlement	Mtn ridge slop	Georgia
Tiselis Seri	KA III	3	Pit rect, stone lined west	1	primary	flexed, side	individual	X	child	near settlement	Mtn ridge slop	Georgia
Tiselis Seri	KA III	4	SL rect, timber beam roof	1	primary	flexed, side	individual	female	adult	near settlement	Mtn ridge slop	Georgia
Tiselis Seri	KA III	5	Pit	1	primary	flexed, side	individual	X	child	near settlement	Mtn ridge slop	Georgia
Tiselis Seri	KA III	6	Pit cov. Stones	1	primary	flexed, side	individual	male	adult	near settlement	Mtn ridge slop	Georgia
Tiselis Seri	KA III	7	Pit	2	primary	flexed, side	collective	male	adult	near settlement	Mtn ridge slop	Georgia
Tiselis Seri	KA III	8	Pit	1	primary	flexed, side	individual	male	adult	near settlement	Mtn ridge slop	Georgia
Tiselis Seri	KA III	9	Pit	2	primary	flexed, side	collective	male	adult	near settlement	Mtn ridge slop	Georgia

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Tiselis Seri	KA III	10	Pit	1	primary	flexed, side	individual	male	adult	near settlement	Mtn ridge slop	Georgia
Keti I, II, III	KA I	1	Cist or SL rect	7	secondary	flexed, pushed	collective	X	X	near settlement	mound slope	Armenia
Keti I, II, III	KA I	2	Cist or SL rect	5	X	X	collective	X	X	near settlement	mound slope	Armenia
Keti I, II, III	KA I	3	Cist or SL rect	X	X	X	X	X	X	near settlement	mound slope	Armenia
Keti I, II, III	KA I	4	SL rect	6	secondary	flexed, disartic	collective	X	X	near settlement	mound slope	Armenia
Keti I, II, III	KA I	5	SL rect	6	secondary	flexed, disartic	collective	X	X	near settlement	mound slope	Armenia
Keti I, II, III	KA I	6	Cist or SL rect	3	secondary	flexed, disartic	collective	X	X	near settlement	mound slope	Armenia
Keti I, II, III	KA I	7	Cist or SL rect	3	secondary	flexed, disartic	collective	X	X	near settlement	mound slope	Armenia
Keti I, II, III	KA III	8	Cist or SL rect	3	secondary	flexed, disartic	collective	X	X	near settlement	mound slope	Armenia
Keti I, II, III	KA III	9	Cist or SL rect	2	X	X	X	X	X	near settlement	mound slope	Armenia
Lanjik	KA I	1	Cist or SL rect	10	primary	flexed, on back	collective	2m, 6f	8ad, 2c	near settlement	Mtn outcrop	Armenia
Elar	KA II	3	SL	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	4	Horseshoe	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	5	Damaged	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	6	Horseshoe	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	8	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	9	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	10	Cist	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	11	Damaged	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	14	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	15	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	16	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Elar	KA II	17	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	18	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	20	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	22	Damaged	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	24	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	26	Damaged	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	36	SL	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	37	Pit rect	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Elar	KA II	41	Damaged	1	primary	flexed, side	individual	X	X	near settlement	outcrop	Armenia
Kalavan I	KA III	1	Pit cov. Stones	1	primary	flexed, side	individual	female	adult	isolated	lake shore	Armenia
Kalavan I	KA III	2	Pit cov. Stones	1	primary	flexed	individual	X	X	isolated	lake shore	Armenia
Kalavan I	KA III	5	Pit cov. Stones	3<	secondary	disarticulated	collective	female, NA	adult	isolated	lake shore	Armenia
Kalavan I	KA III	8	Pit	1	primary	flexed, side	individual	X	child	isolated	lake shore	Armenia
Kalavan I	KA III	9	Pit cov. Stones	1	primary	sitting upright i	individual	X	X	isolated	lake shore	Armenia
Talin	KA I	7	Kurgan: cromlech, SL oval	8	secondary	disarticulated	collective	X	X	isolated	mtn plateau	Armenia
Talin	KA I	10	Kurgan: cromlech, Cist	9	secondary	disarticulated	collective	X	X	isolated	mtn plateau	Armenia
Talin	KA I	11	Kurgan: cromlech, SL oval	5	secondary	flexed, disartic	collective	X	X	isolated	mtn plateau	Armenia
Talin	KA I	12	Kurgan: stone corridors	1	primary	on platform	individual	X	X	isolated	mtn plateau	Armenia
Tasghkalanj	KA I	1	X	X	X	X	X	X	X	near settlement	plain	Armenia
Tsaghkalanj	KA I	14	Kurgan: cromlech, well structure	0	X	X	X	X	X	near settlement	plain	Armenia

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Tsaghkalanj	KA I	36	Kurgan: cromlech, cist	12	secondary	flexed, disarticulated	collective	1f	1 ad	near settlement	plain	Armenia
Mentesh Tepe	KA I	4	Kurgan: rect chamber, wooden posts	39	secondary	flexed, disarticu	collective	X	12 juv, 27 ad	isolated	plain	Azerbaijan
Mentesh Tepe	KA II-III	28	Pit	1	primary	flexed, back	individual	male	adult	isolated	plain	Azerbaijan
Mentesh Tepe	KA II-III	29	Pit cov. Stones	1	primary	disarticulated	individual	X	X	isolated	plain	Azerbaijan
Uzun Rama	KA I	1	Kurgan: cromlech, rect chamber, wooden beams/ posts	83	secondary	flexed, disarticu	collective	X	adult, child	isolated	plateau	Azerbaijan
Arslantepe	KA II	T1	Cist inside rect pit	1	primary	flexed, side	individual	male	adult	near settlement	river bank	Anatolia
Arslantepe	KA II	S150	Pit rect above cist	4	primary	flexed, side/bac	collective	3f, 1m	juvs	near settlement	river bank	Anatolia
Suyatagi	KA II-III	1	Cist	1	primary	disarticulated	individual	X	X	isolated	lake shore	Anatolia
Suyatagi	KA II-III	2	Cist	1	primary	X	X	X	X	isolated	lake shore	Anatolia
Suyatagi	KA II-III	3	Cist	X	X	X	X	X	X	isolated	lake shore	Anatolia
Suyatagi	KA II-III	4	Cist	X	X	X	X	X	X	isolated	lake shore	Anatolia
Suyatagi	KA II-III	5	Cist	1	primary	disarticulated	individual	X	X	isolated	lake shore	Anatolia
Suyatagi	KA II-III	6	Cist	1	primary	disarticulated	individual	X	X	isolated	lake shore	Anatolia
Suyatagi	KA II-III	7	Cist	1	primary	X	individual	X	X	isolated	lake shore	Anatolia
Carchemish	KA III	1	Cist	1	primary	flexed, side	individual	X	child	near settlement	river bank	Anatolia
Carchemish	KA III	2	Cist	1	primary	flexed, side	individual	X	child	near settlement	river bank	Anatolia
Carchemish	KA III	3	Cist	X	X	X	X	X	X	near settlement	river bank	Anatolia
Carchemish	KA III	4	Cist	X	X	X	X	X	X	near settlement	river bank	Anatolia

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Carchemish	KA III	5	Cist	X	X	X	X	X	X	near settlement	river bank	Anatolia
Carchemish	KA III	6	Cist	1<	X	disarticulated	X	X	X	near settlement	river bank	Anatolia
Carchemish	KA III	7	Cist	<3	X	X	X	X	X	near settlement	river bank	Anatolia
Carchemish	KA III	8	Cist	<2	X	X	X	X	X	near settlement	river bank	Anatolia
Carchemish	KA III	9	Cist	1	X	disarticulated	individual	X	X	near settlement	river bank	Anatolia
Carchemish	KA III	10	Cist	1	X	X	X	X	X	near settlement	river bank	Anatolia
Carchemish	KA III	11	Cist	1	X	1 skull	X	X	X	near settlement	river bank	Anatolia
Carchemish	KA III	12	Cist	1	X	X	X	X	X	near settlement	river bank	Anatolia
Afula	KA III	15	Pit	X	X	disarticulated	X	X	X	near settlement		Israel
Afula	KA III	16	Pit	X	X	disarticulated	X	X	X	near settlement		Israel
Jericho	KA III	TD12	Rect chamber	8<	secondary	disarticulated	collective	X	X	near settlement	mound slope	Israel
Jericho	KA III	F2	Shaft	54<	secondary	disarticulated	collective	X	X	near settlement	mound slope	Israel
Jericho	KA III	F4	Shaft	89<	secondary	disarticulated	collective	X	X	near settlement	mound slope	Israel

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Province	Cer. Ves.	Sherds	Spindle Whorls	Caprine skulls	metal spirals	metal hair spiral	met pendant	metal pin	metal spiral ring	metal spiral brac.	metal beads	stone beads	arrow heads	animal bones	unique
Shida Kartli	7				1						3				
Shida Kartli	2														
Shida Kartli	4				1							1			
Shida Kartli	4														mandible on vessel rim
Shida Kartli	3				*3										*1 silver spiral
Shida Kartli	1														
Shida Kartli	5		1												
Shida Kartli	1				26		9				6	102	1		7 stone discs
Shida Kartli	1				1							1			
Shida Kartli	2														
Shida Kartli	1														
Shida Kartli	1		1		2										
Shida Kartli	1							1			11				1 metal awl
Shida Kartli	1		*1												* clay, 1 flint and 1 obsidian flake
Shida Kartli	1							1							
Shida Kartli		1													
Shida Kartli	1														1 basalt grindstone, 1 flint blade
Shida Kartli	3														
Shida Kartli	1														
Shida Kartli	2														
Shida Kartli	2														
Shida Kartli	3	mul		1*										goat	*bovine
Shida Kartli	2														
Shida Kartli		1												sheep, goat	copper blade

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Shida Kartli	3														intrusive hearth frag
Shida Kartli	2														
Shida Kartli	1														wood in front of adult
Shida Kartli	3														
Shida Kartli															
Shida Kartli	2														
Shida Kartli	3									1		30			
Shida Kartli															
Shida Kartli	2														
Shida Kartli	6							1		1			*4		*flint
Shida Kartli	2														
Shida Kartli	2					1				1					
Shida Kartli	1														
Shida Kartli	2				1			1		1	24	30			glass like beads, ring bone beads
Shida Kartli	2														
Shida Kartli	2		1												
Shida Kartli	2	mul													
Shida Kartli	2														
Shida Kartli	1														
Shida Kartli	1														
Shida Kartli	2														
Shida Kartli	2														
Shida Kartli	3				*4					1		mul			*silver, 1 copper diadem
Shida Kartli		mul													
Shida Kartli												1			
Shida Kartli	2		1		*3			*1			2	78			*spiral pin, *silver
Shida Kartli	6											1			1 flint flake
Shida Kartli					*1							1			*silver

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Shida Kartli	3							*1		1	19				*spiral pin
Shida Kartli	2														
Shida Kartli	2														
Shida Kartli	4														
Shida Kartli	2														1 bone awl
Shida Kartli	2														
Shida Kartli	2														
Shida Kartli	1		1												
Shida Kartli							2					155			burnt, teeth/ other bones in stones; rock crystal beads, 1 blue
Shida Kartli		mul					7					11	*4		*4 flint arrw; teeth, mandible fragments, 74 rock crystal beads
Shida Kartli		mul			1		1				14				teeth, mandible fragments, child skull in corner, copper javelin head, glass bead
Shida Kartli		mul									12		*3		*3 flint arrw
Shida Kartli	mul								1				mul		1 copper knifeblade
Shida Kartli	1				mul										1 stone macehead
Shida Kartli	1				mul										
Shida Kartli	7										14				
Shida Kartli	2														
Shida Kartli	4														
Shida Kartli	2														

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Shida Kartli	3														
Shida Kartli	2														
Shida Kartli	3				1		1	*1			9	2			*silver pin
Shida Kartli	3														
Kvemo Kartl	3														
Kvemo Kartl	4														
Kvemo Kartl	3											mul			
Kvemo Kartl	4											mul			
Kvemo Kartl	5											10			
Kvemo Kartl	7														
Kvemo Kartl	1														
Kvemo Kartl	5														
Kvemo Kartl	8														
Kvemo Kartli		mul												mul	
Kvemo Kartl	1														1 bone object
Kvemo Kartl	12														
Kvemo Kartl	2														
Kvemo Kartl	10														
Kvemo Kartl	8											39			1 obsidian lamella
Kvemo Kartl	4													patella?	2 obsidian flakes
Kvemo Kartl	2														
Kvemo Kartl	2														

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Kvemo Kart	mul		mul			mul		*1	mul			mul	mul		*spiral pin, bone rings
Sam-Javkh	mul					mul			mul		mul	mul		mul	metal swords
Sam-Javakh	1		1												
Sam-Javakh		mul													
Sam-Javakh			1												
Sam-Javakh															
Sam-Javakh															
Sam-Javakh															
Sam-Javakh															
Sam-Javakh	1	mul													purposefully broken vessels
Sam-Javakh	2														
Sam-Javakh	1														
Sam-Javakh														cattle	in stones
Sam-Javakh	1											67		sheep	1 bone blade
Sam-Javakh															
Sam-Javakh	1													sheep, lamb	1 basalt quern fragment in fill
Sam-Javakh														cattle, sheep	
Sam-Javakh				*1											*sheep skull
Sam-Javakh															

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Sam-Javakh															
Shirak	*8														vessels placed on top of each other
Shirak	4														
Shirak	8														
Shirak															
Shirak	14														
Shirak	7														
Shirak															
Shirak	mul*														*1 vessel had sheep head handles
Shirak															
Shirak	10														
Kotayk															ceramic vessels, 1 bronze dagger, bronze knives, stone arrowheads, stone blades, obsidian knife, amulet
Kotayk															
Kotayk															
Kotayk															
Kotayk															
Kotayk															
Kotayk															
Kotayk															
Kotayk															
Kotayk															
Kotayk															

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Kotayk															
Kotayk															
Kotayk															
Kotayk															
Kotayk															
Kotayk															
Kotayk															
Kotayk															
Kotayk															
Gegharkunik	4	mul													
Gegharkunik	5	4													
Gegharkunik	4	mul												3	
Gegharkunik													1		1 crystal bead, 2 dog molars
Gegharkunik	3								*1	*1					vessels on top of eachother; *bronze
Aragatsotn	2	mul												sheep, goat	obsidian flakes
Aragatsotn		mul								mul					bronze spearpoint, ring shell pendant
Aragatsotn		mul							*1			mul			*bronze, 1 stone macehead, 34 sphere obsidian blocks, marble pendant
Aragatsotn													*1		*flint, 2 grindstones, 1 bone hair pin/needle, bronze handle, blade frag, bronze head adornment/ diadem
Armavir															
Armavir		1													

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

Armavir	5		1												bodies placed after flesh removal
Tovuz	21		10	2 or 3								300			obsidian blades, broken basalt grindstone, 2 baskets
Tovuz	2			1*											*goat
Tovuz		mul													
Goranboy	55		8	*13								100<		caprine	*goat horns **mandibles, clothing fragments, 1 wood bench with human bones, wooden vessels
	mul				*7	**2		***2	*7	*20	*71	100			*cop-silv, **gold,silver, ***silver, 23 copper weapons
	7					*2		2							*cop-silv, 2 cop-silv diadems, textile
	1	19													sherds line the floor
	2														
	1														
	2														
	3	69													
	2	mul													
		2													
	6							*2							*bronze ball headed, 2 bronze spearheads
	8							*4				mult			*bronze goathead decorated/ ball heads, 1 bronze cylinder with doves, wood
	24														
	9														

Appendix 4: Table with All Data.

Key: SL= Stone-Lined. Cov.=Covered Grave, M= Male, F= Female, C= Child, Juv= Juvenile, Ad= Adult, *= Specific material

	*6														*1 black burnished
	18								*4				mult		*bronze
	40								3				mult		1 bronze axe blade, 2 daggers, nails
	16														
	60								*mult						*bronze, 2 bronze axes, 1 bronze chisel, 1 bronze dagger,
	19								*2						*bronze, 2 flint cores
	3								*1						*bronze, crystal and ceramic beads
	17								*1				mult		*bronze
	*mult														*KKW
	*mult														*KKW
	*500<		**3									mult	mult		*13 KKW, **stone, 1 ceramic donkey fig, 1 stone bull head carving, bone objects, copper ring, shell pendants, bone beads, shell beads
	*300<											mult	mult		*3 KKW, 1 stone macehead, 1 stone oval, 1 metal bracelet, bone beads, shell beads
	*250<												mult		*4 KKW, carved bone objects, shell pendant